CA MICS® Resource Management

Analyzer Option for DB2 Guide

Release 12.9

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Chapter 1: OVERVIEW

As the number of I/S sites using IBM's DB2 relational database management system continues to grow, the need to systematically plan, control, and evaluate the DB2 environment is becoming increasingly important. With this in mind, IBM developed a DB2 interface with SMF (System Management Facility) to produce SMF records that contain, in varying degrees of detail, performance and utilization information for the DB2 environment.

The CA MICS Analyzer Option for DB2 processes DB2 SMF data, including information about

- system
- subsystem
- database
- user activity
- plans, packages, and database request modules
- data sharing

The DB2 Analyzer enables you to display information on selected users, user groupings, databases, and other criteria or categories of activity. It also tracks system problems and can perform an in-depth audit of users of various DB2 facilities. In addition, the DB2 Analyzer produces a series of management and operational reports that can be tailored for all management levels. It also offers online data access through the CA MICS Information Center Facility (MICF), a full-screen, menu-based processor that enables you to analyze data, create and execute inquiries, retrieve data, and run reports.

The DB2 Analyzer supports standard CA MICS processing of DB2 SMF system and accounting data. Like the other data integration applications, it processes raw data for analyzing and managing specific technologies. Because CA MICS stores data in a format that is common to all CA MICS products, you can use standard CA MICS facilities to integrate DB2 Analyzer data with any other data that CA MICS maintains.

Figure 1-1 illustrates the DB2 Analyzer data flow.

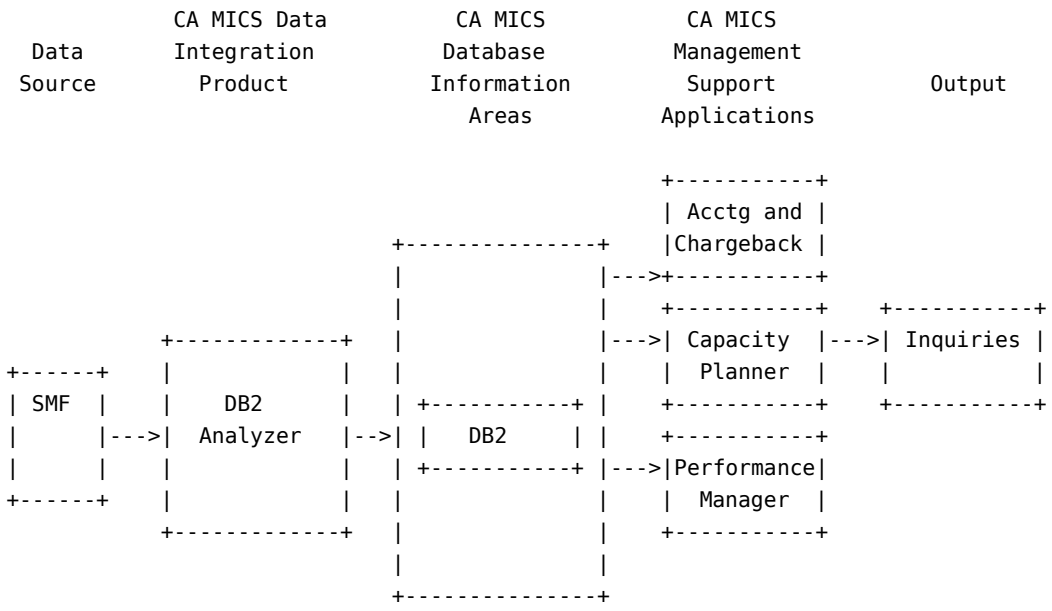


Figure 1-1. CA MICS Analyzer Option for DB2 Data Flow

The DB2 Analyzer integrates the DB2 activity and utilization data collected in SMF records into the CA MICS database. This process creates the DB2 information area, which interfaces with a number of other CA MICS products including:

- CA MICS Accounting and Chargeback - The data provided to CA MICS Accounting and Chargeback supports accounting for consumed resources (for example, CPU time), logical I/Os (for example, the number of Insert, Update, and Delete statements), or almost any other measure of resource utilization.

- CA MICS Capacity Planner - The CA MICS Analyzer Option for DB2 maintains a database of detail and summarized DB2 usage and performance data that the Capacity Planner can use to make historical growth/trend projections. These

projections can be made at all information levels, including the system level, a specific application plan grouping level, or the organizational structure level.

- CA MICS Performance Manager - The CA MICS Performance Manager uses data provided by the DB2 Analyzer as part of the system tuning effort. In addition, you can use the workload characterization tools and methodology provided in the CA MICS Performance Manager to perform DB2 workload analyses.

Because CA MICS database files are summarized in the same manner across all products, DB2 information can be easily combined with information from other data sources. Combining data from multiple data sources allows you to compare and correlate DB2 information with system and other application-specific information such as data from TSO, CICS, IMS, and Batch.

This section contains the following topics:

1.1 Primary Areas of Application (see page 14)
1.2 Reporting and Inquiry Facilities (see page 16)
1.3 Files Overview (see page 19)
1.4 Product Prerequisites (see page 24)

1.1 Primary Areas of Application

The CA MICS DB2 Analyzer helps you manage DB2 in the following areas:

- Capacity Planning - The DB2 Analyzer maintains a database of historical DB2 usage and performance data that enables you to develop system capacity projections based on actual workload and service data. Service and workload information are two of the three primary factors in a capacity planning effort. Data from the CA MICS DB2 Analyzer, used in conjunction with the third primary input, your own forecasts of changes and the growth of database use and services, provides a foundation for effective database capacity planning.

- Performance Management - The DB2 Analyzer allows you to examine and analyze specific DB2 workloads to identify system and user problems. Subsequent problem correction, as well as the ability to monitor user and DB2 plan resource consumption, can result in significant improvement in system performance.

- Service Levels - The DB2 Analyzer allows you to analyze and report the level of service provided by your site's database management facilities. This information can be significant in establishing and maintaining realistic service level goals and agreements. The DB2 Analyzer can combine transactions into site-specific groupings (for example, accounts payable) to provide consolidated reporting on SLA achievement. Data from the DB2 Analyzer can be valuable for assessing service degradation resulting from insufficient system capacity and accounting for the corresponding effect on end-user productivity.

- Management and Analytical Reporting - You can group and summarize information directly from the database to create useful management and analytical reporting measures. Concise, one-page summaries are also available that display key DB2 system trends as well as statistics describing CPU utilization, storage management, log management, and database activity. In addition to these standard reports, you can easily create custom reports and resummarize data when the summarized data in the database does not your address specific reporting needs.

- Standards Enforcement and Security - The DB2 Analyzer enables you to identify interactive plans that require extremely long execution times and to report which DB2

plans are being utilized by specific users. You can use this information to establish and enforce essential security and standards programs within the DB2 environment.

- Audit Reporting - The DB2 Analyzer allows you to monitor activity within DB2 indicating the type of activity being attempted and the authorization of the DB2 user requesting the action.

- Availability and Reliability - The DB2 Analyzer helps you report on availability by monitoring DB2 downtime. At a more detailed level, you can use plan termination information to measure database system reliability.

- Accounting and Chargeback - The Analyzer's user and plan activity files contain data that you can use for billing DB2 system resource use. The data includes CPU time, I/O counts, and DB2 statement counts by type (for example, create table, insert, and update). A standard interface to CA MICS Accounting and Chargeback permits accounting from SMF measures of DB2 activity. In addition, you can allocate the costs of database hardware, software, and personnel directly to users based on the resources consumed, which can be important both as a part of day-to-day information services billing and as an aid in assessing the fiscal impact and economic feasibility of new or existing applications.

1.2 Reporting and Inquiry Facilities

The DB2 Analyzer's standard reports and online inquiries provide concise, comprehensive information to help you manage the DB2 environment. CA MICS provides interactive capabilities that allow fast response to complex requests. These capabilities are provided by:

- The CA MICS Information Center Facility (MICF) - MICF is a panel-oriented productivity tool that allows you to access information in the CA MICS Data Base. When you define input, selection criteria, and report options, MICF dynamically builds an inquiry program that executes in either interactive or batch mode. Then, depending on your specific requirements, MICF either prints the inquiry report, displays the results at your terminal, or catalogs the results for later viewing.

- The standard SAS language interface - The CA MICS Workstation Facility (MWF) provides an online environment that supports the standard SAS language interface in both interactive and batch modes. SAS allows easy data manipulation and statistical analysis and provides coding facilities for programmers who are conducting extensive analysis efforts or designing new reports for I/S business applications. Because you can use the SAS System across different types of machines (mainframes, micros, and minis), it provides tremendous flexibility throughout the organization. CA MICS uses the SAS System as a data manager and as an advanced analysis language.

The DB2 Analyzer provides management and exception reports that you can either use as delivered or tailor to your specific requirements. In addition, you may use the MICF and standard SAS language interface to create ad hoc reports.

Each type of report is discussed in detail in the following subsections.

1 - Management Control Reports
2 - Exception Analyzer Reports

1.2.1 Management Control Reports

The management control reports that are distributed with the DB2 Analyzer summarize the activities of the I/S organization by providing status and trend information or a comparison of planned versus actual results. In addition, these reports can help you to track DB2 performance and service, and to estimate future resource requirements. The control reports are produced during daily, weekly, or monthly CA MICS processing and can be activated or deactivated for any given time-span (DAILY, WEEKLY, or MONTHLY).

The following management control reports are delivered with the DB2 Analyzer.

Report	Function
System Services	Provides an extract of the most pertinent information from the DB2 System Activity File (created from the SMF type 100 subtype 0 record) and details the activity of each active DB2 subsystem.
Data Base Services	Provides an extract of the most pertinent information from the DB2 Data Base Activity File (created from the SMF type 100 subtype 1 record) and details the data base activity of each active DB2 subsystem.
Accounting	Provides an extract of the most pertinent information from the DB2 User Activity File (created from the SMF type 101 record) and details the activity of active DB2 users.
Performance	Provides an extract of the most pertinent information from the DB2 PLAN Activity File (created from the SMF type 101 record) and details the activity of active DB2 PLANS.
Calendar	Provides an extract of key DB2 activity indicators from the DB2 System Activity and User Activity Files and presents this information in calendar form,

showing the activity indicators for each day of the month.

1.2.2 Exception Analyzer Reports

The CA MICS Platform provides an Exception Analyzer that works with CA MICS data integration applications to provide consolidated reporting of exception conditions across systems and data sources. An "exception" is any condition that deviates from the expected norm or any missed objective in system performance or service.

CA MICS data integration applications detect exceptions by testing daily data against user-defined thresholds. Each application has an exception value analyzer to help determine those thresholds. Each detected exception is assigned a severity level and is associated with a management area.

The DB2 Analyzer is delivered with several exceptions tests, and you can easily add your own tests (refer to Section 2.4 in the CA MICS Standard Reports Guide).

The exception reports produce increasing levels of detail to address the needs of different audiences and, when combined with exceptions from other CA MICS applications, make up a powerful diagnostic tool for your organization. The Exception Analyzer reports delivered with CA MICS are described in Section 2.2 of the CA MICS Standard Reports Guide.

1.3 Files Overview

The DB2 Analyzer builds the DB2 information area from DB2 SMF type 100 and 101 records. Once created, the DB2 information area maintains system and user measurement data on service, availability, load, and user activity within the DB2 environment.

The following files are contained in the DB2 information area of the CA MICS Data Base:

- DB2 System Activity File (DB2DSY)

  The DB2 System Activity File maintains DB2 system activity data, which includes information about address space, instrumentation, subsystem services, commands, latch manager, agent services, storage manager, trace data, and log manager data. It is derived from the SMF record type 100 subtype 0.

- DB2 System DDF Activity File (DB2DDY)

  The DB2 System DDF Activity File maintains DB2 system distributed database (DDF) activity data for each DB2 subsystem participating in distributed processing. This file contains DB2 network information such as bytes, rows, and SQL statements transmitted as well as the number of network conversations initiated. It is derived from the SMF record type 100 subtype 0 when DDF is active.

- DB2 Database Activity File (DB2DSD)

  The DB2 Database Activity File maintains DB2 database activity data--SQL statements, buffer manager, binds, and lock usage data. It is derived from the SMF record type 100 subtype 1.

- DB2 System IDAA Activity File (DB2DSI)

  The DB2 System IDAA Activity File maintains IBM DB2 Analytics Accelerator (IDAA) for resources consumed on the Netezza appliance. Metrics include CPU time, elapse time, requests processed, bytes sent and received, SQL rows sent and received. It is derived from the SMF record type 100 subtype 1.

- DB2 Aggregated Accounting Stats File (DB2DAS)

  The DB2 Aggregated Accounting Stats File maintains DB2 transaction accounting statistics that have been

aggregated to the DB2 interval level. Metrics include CPU time and wait statistics. It is derived from the SMF record type 100 subtype 5.

- DB2 User Activity File (DB2DSU)

  The DB2 User Activity File maintains DB2 accounting data--product, user, buffer manager instrumentation, SQL statements, and lock usage data by user. It is derived from the SMF record type 101.

- DB2 User DDF Activity File (DB2DDU)

  The DB2 User DDF Activity File maintains DB2 accounting data for distributed database activity (DDF) for each DB2 user. This file contains DB2 network information such as bytes, rows, and SQL statements transmitted and the number of network conversations initiated for each user. It is derived from the SMF record type 101 when DDF is active.

- DB2 Plan Activity File (DB2DSP)

  The DB2 Plan Activity File maintains the same accounting data as the DB2DSU file but organizes it by DB2 plan (application). It is derived from rename operations performed against the DB2DSU WORK file.

- DB2 Package/DBRM Activity File (DB2DPP)

  The DB2 Package/DBRM Activity File provides resource consumption and activity information for packages and data base request modules. It is derived from the SMF type 101 record.

- DB2 Plan DDF Activity File (DB2DDP)

  The DB2 Plan DDF Activity File maintains the same accounting data as the DB2DDU file but organizes it by DB2 plan (application). It is derived from rename operations performed against the DB2DDU WORK file.

- DB2 Address Space System Storage Usage File (DB2SSA)

  The DB2 Address Space System Storage Usage file maintains storage use information at the DB2 address space level. It is derived from section 1 of the SMF type 100 subtype 4 record.

- DB2 System Storage Usage File (DB2SSU)

  The DB2 System Storage Usage file maintains storage use information at the DB2 system level during an interval. The DB2SSU file is derived the SMF type 100 subtype 4 record.

The following files are contained in the DBP information area of the CA MICS Data Base:

- DB2 Buffer Pool Activity File (DBPDSB)

  The DB2 Buffer Pool Activity File maintains DB2 activity data for the buffer manager. It is derived from the SMF record type 100 subtype 1.

- DB2 User Buffer Pool Activity File (DBPDBU)

  The DB2 User Buffer Pool Activity File maintains DB2 buffer manager instrumentation usage data by user. It is derived from the SMF record type 101.

- DB2 Plan Buffer Pool Activity File (DBPDBP)

  The DB2 Plan Buffer Pool Activity File maintains the same accounting data as the DBPDBU file but organizes it by DB2 plan (application). It is derived from rename operations performed against the DBPDBU WORK file.

- DB2 Buffer Manager Group BP Attributes File (DBPBMG)

  The DB2 Buffer Manager Group BP Attributes file maintains configuration and status information for each DB2 Group Buffer Pool ID. It is derived from the SMF type 100, subtype 2 record.

- DB2 Buffer Manager Dynamic BP Attributes File (DBPBMD)

  The DB2 Buffer Manager Dynamic BP Attributes file maintains configuration and status information for each DB2 Buffer Pool Name. It is derived from the SMF type 100 subtype 3 record.

The following suspend files are used to maintain the last record added to its primary file, generally by DB2ID. This records are needed for the calculation of interval statistics in cases where DB2 executes continuously across more than one CA MICS daily update cycle.

- DB2 System Activity Suspend File (DB2_DS)

  The DB2 System Activity Suspend File maintains the last raw interval systems services record processed by CA MICS.

- DB2 System IDAA Suspend File (DB2_DI)

  The DB2 System IDAA Suspend File maintains the last raw interval systems services record processed by CA MICS.

- DB2 System DDF Activity Suspend File (DB2_SH)

  The DB2 System DDF Activity Suspend File maintains the distributed data portion of the last raw interval systems services record processed by CA MICS.

- DB2 Database Activity Suspend File (DB2_DD)

  The DB2 Database Activity Suspend File maintains the last raw interval data base services record processed by CA MICS.

- DB2 Buffer Pool Activity Suspend File (DB2_DB)

  The DB2 Buffer Pool Activity Suspend File maintains the last raw interval buffer pool services record processed by CA MICS.

- DB2 Buffer Manager Group Suspend (DBP_BP) File

  The DBP_BP DB2 Buffer Manager Group Suspend file maintains the last Buffer Manager Group interval record processed by CA MICS.

- DB2 Buffer Manager Suspend (DBP_BM) File

  The DBP_BM DB2 DB2 Buffer Manager Suspend file maintains the last Buffer Manager interval record processed by CA MICS.

- DB2 Sys Stor Usage by AS Suspend (DB2_SS) File

  The DB2_SS DB2 Sys Stor Usage by AS Suspend file maintains the last Address Space System Storage Usage interval record processed by CA MICS.

- DB2 System Storage Usage Suspend (DB2_SU) File

  The DB2_SU DB2 System Storage Usage Suspend file maintains

the last System Storage Usage interval record processed by CA MICS.

Figure 1-2 illustrates the DB2 information area data sources and files.

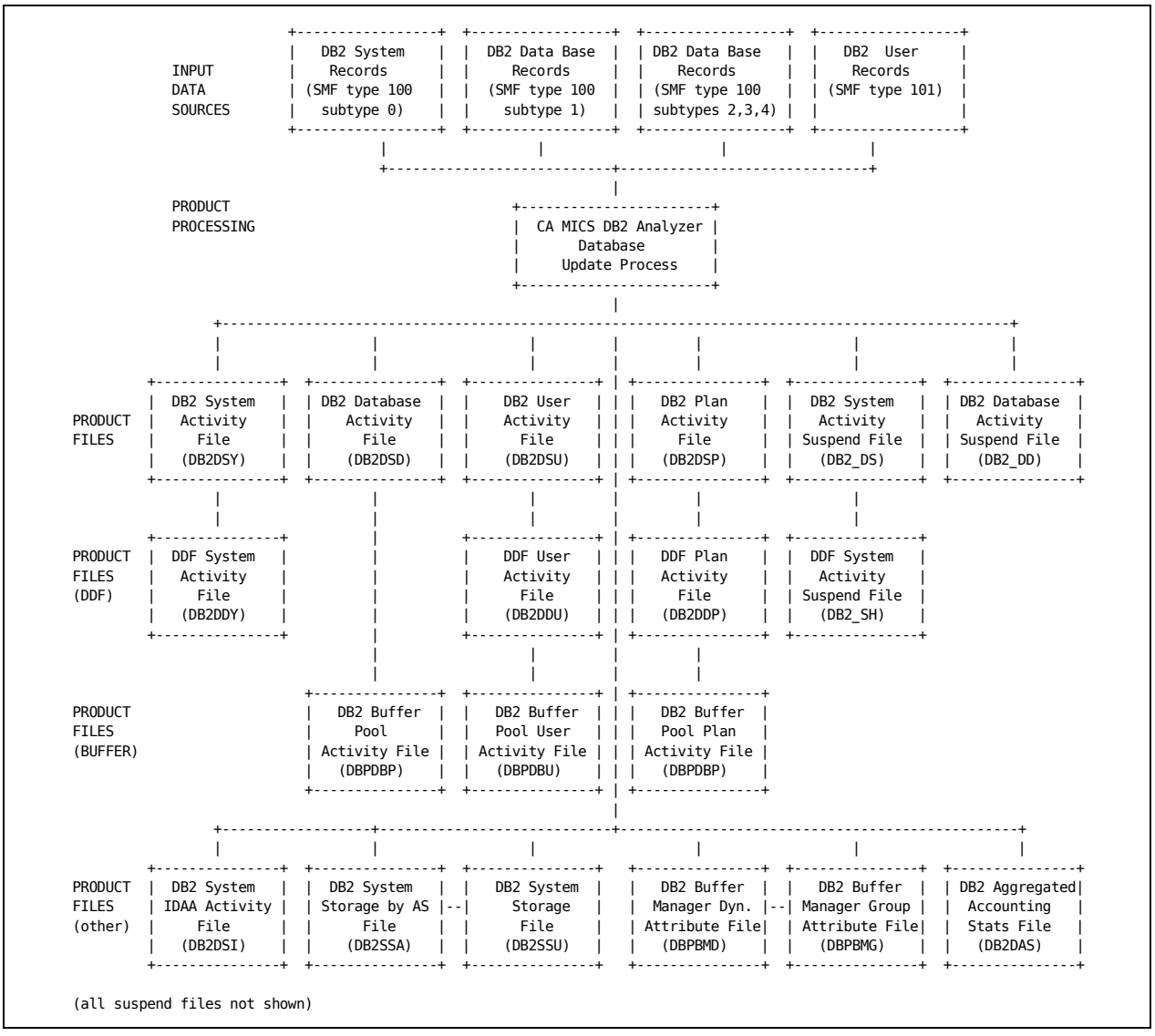


Figure 1-2. DB2 Information Area Structure

1.4 Product Prerequisites

The DB2 Analyzer runs in a CA MICS environment that operates under z/OS.

You must have IBM's DB2 program product active at your data center, collecting the following records:

o Statistics (SMF type 100) Class 1 trace

o Accounting (SMF type 101) Class 1 trace and optionally:

```
  Class  2 for more accurate chargeback
  Class  3 for suspension event reporting
  Class  5 for IFI requests timers
  Class  7 for package/DBRM "in DB2" timers
  Class  8 for package/DBRM "in DB2" wait times
  Class 10 for optional package/DBRM "in DB2" detail data
```

Chapter 2: USAGE GUIDELINES

The CA MICS DB2 Analyzer helps you

- establish service level goals and agreements
- account and charge for DB2 resources
- analyze trends, application system and program performance, and DB2 data base contention
- tune the DB2 subsystem
- create and modify DB2 application programs and DB2 Plans

The following sections describe methods for using CA MICS DB2 data and the interfaces between the CA MICS DB2 Analyzer and other CA MICS products.

This section contains the following topics:

2.1 Data Analysis (see page 26)
2.2 CA MICS Product Interfaces (see page 30)

2.1 Data Analysis

The CA MICS Analyzer Option for DB2 helps you do the following:

- Establish service level goals and agreements.
- Account and charge for DB2 resources.
- Analyze trends, application system and program performance, and DB2 database contention.
- Tune the DB2 subsystem.
- Create and modify DB2 application programs and DB2 plans.

These functions are described on the following pages.

Service Level Goals and Agreements

In establishing service level goals and agreements, use the following DB2 Analyzer data:

For these agreements ...	use data from these files:
performance	System Activity (DB2DSY)
throughput	Database Activity (DB2DSD) (especially DSDDSOPN)
availability	System Activity (DB2DSY) (especially DSYUNAVL)

Resource Accounting and Chargeback

The DB2 Analyzer helps you recover the cost of DB2 resources by providing input data to CA MICS Accounting and Chargeback, discussed in Section 2.2.1, or to user-developed accounting systems.

DB2 Analyzer accounting data is available from the following sources:

- SMF type 100 statistics records
  - Class 1 data includes system and database statistics, and is useful for regularly monitoring system-wide DB2 activity.
- SMF type 101 accounting records

- Class 1 data includes TCB attach and detach time, and is useful for tracking events from create thread through terminate.

- Class 2 data is "in DB2" time, a subset of class 1 data, and is useful for tracking work being done within DB2 address spaces.

- Class 3 data contains information about suspensions within DB2, such as I/O or lock/latch suspensions, and is not useful for chargeback.

Use DB2CONN (Connection Identifier) to identify the environment from which the data originates. Then use the chart below (Figure 2-1. Accounting for DB2 Activity) to decide what data to use to recover your DB2 processing costs.

To charge for DB2 resources used in this environment:	You can charge for:	Using data from:
APPC	TCB CPU time	SMF type 101, class 2 records
	I/O	DB2 GETPAGE requests (DSUSGPGR)
Batch	TCB CPU time	use the CA MICS Batch and Operations Analyzer
	I/O	DB2 GETPAGE requests (DSUSGPGR)
CICS	TCB CPU time	SMF type 101, class 2 records
	I/O	DB2 GETPAGE requests (DSUSGPGR)
DB2 in a distributed data-base environment	TCB CPU time	SMF type 101, class 2 records
	I/O	DB2 GETPAGE requests (DSUSGPGR)

IMS	TCB CPU time	use CA MICS Analyzer Option for IMS	
	I/O	DB2 GETPAGE requests (DSUSGPGR)	
TSO	TCB CPU time	use CA MICS Batch and Operations Analyzer	
	I/O	DB2 GETPAGE requests (DSUSGPGR)	

Figure 2-1. Accounting for DB2 Activity

Keep the following in mind when using resource accounting and chargeback:

- Attempt to recover only TCB (task control block) CPU time because SRB (service request block) time includes time for SRBs run in the user's address space. User processing, unrelated to DB2 processing, is included in SRB time. (This only applies to data centers running DB2 versions older than V6R1M0, because, starting with DB2 Version 6, Release 1, IBM no longer records SRB time related fields in the SMF Type 101 records.)

- DB2 does not provide a true measurement for disk I/O; it provides counts of I/O from buffer pools. If your site makes user modifications to support buffer pools 4 through 59, you should add those elements' values to your recovery algorithm. Use the DB2 Analyzer's DSUSGPGR (summarized buffer pool) element.

- In a distributed database environment, you must always add the CPU information from the remote (serving) DB2 subsystem to the calling environment's accounting information.

  For example, if an IMS transaction accesses DB2-A, which in turn accesses DB2-B, the CPU times for DB2-B are not included in the IMS transaction's CPU times. For a complete accounting picture, whenever DB2THDTY has a value of 1, you must add the accounting information at the remote DB2 subsystem to that of the calling environment. In other words, the SMF data from all DB2 subsystems needs to be input to the same DB2 Analyzer database unit. Although this

does not represent a change for the CICS accounting strategy, it does imply a significant change for IMS, TSO, and BATCH applications.

Trend Analysis and Standards Enforcement

To identify trends and enforce standards, compare measurements taken in the current month with similar measurements for the previous month.

If your area of concern is ...	then use information from these files ...
CPU time	DB2 System Activity (DB2DSY)
I/O counts	Database Activity (DB2DSD)
deadlock contention	Database Activity (DB2DSD)
application timeouts	Database Activity (DB2DSD)

Application Program and System Analyses

To analyze the performance of frequently used application programs and their impact on the total workload, follow these steps:

1. Identify the most frequently used application programs using the Plan Performance and Plan Performance Summary reports described in chapter 3 of this guide.

2. Analyze overall data center workload, looking for programs that use more than their share of resources.

3. Review the components of each program's run time using the Plan Performance reports and data from the CA MICS Batch and Operations and the CA MICS Analyzer Option for CICS, and look for ways to streamline the most resource-intensive tasks.

DB2 Database Contention Analysis

To identify programs that experience resource contention events such as deadlock, timeout, and DB2 resource manager locking, use the Database Services and Plan Performance reports described in chapter 3 of this guide.

You can use this information to help define new or existing DB2 structures, select DB2 resource allocation strategies, and identify problem SQL statements.

DB2 Subsystem Tuning

To optimize system storage and network workloads, monitor vital subsystem parameters including thread queuing activity, DB2 buffer pool activity, EDM pool usage, database activity, and network activity attributable to distributed conversations.

The DB2 System DDF Activity (DB2DDY), DB2 User DDF Activity (DB2DDU), and DB2 Plan DDF Activity (DB2DDP) files provide information about distributed database activity.

Application Program and DB2 Plan Development

When creating and modifying application programs and DB2 plans, use the DB2 Analyzer's files to quantify the number of plans executed for a development project, their buffer pool usage, and database access activity using information from the following files:

o DB2 Plan Activity (DB2DSP)

o DB2 Plan DDF Activity (DB2DDP)

2.2 CA MICS Product Interfaces

Data from the CA MICS DB2 Analyzer lends significant value to the use of other CA MICS products. These uses are described briefly in the following sections:

1 - Accounting and Chargeback Interface
2 - Capacity Planner Interface

2.2.1 Accounting and Chargeback Interface

The CA MICS DB2 Analyzer provides data elements that CA MICS Accounting and Chargeback can use to bill data center resource consumers. When CA MICS Accounting and Chargeback produces invoices for data center users, users of DB2 resources will be charged according to an algorithm that uses the data available from the elements described later in this section.

You should review the information in the following section if you plan to implement an accounting and chargeback scheme for recovering DB2 costs.

1 - CA MICS Accounting and Chargeback Elements

2.2.1.1 CA MICS Accounting and Chargeback Elements

The following data elements are available for CA MICS Accounting and Chargeback processing.

The list below describes the standard CA MICS Data Base and external file elements that are available for charging. These standard elements are distributed with CA MICS Accounting and Chargeback. However, the system can use any set of elements from the CA MICS Data Base, and you can add elements for your user-developed applications and external files.

Note: The asterisk (*) symbol preceding an element indicates a highly recommended charging element that is NOT part of the standard CA MICS Accounting and Chargeback interface as distributed. These elements should be given careful consideration because they are very useful indicators of resource utilization. Accounting class 2 elements are preferred over accounting class 1 elements because they represent IN-DB2 resource consumption.

```
 DB2 ACCOUNTING

 DB2 Resource Accounting

  DB2 CPU Charges
    DB2 Instructions Executed
    DB2 TCB CPU Time Consumed (Accounting Class 1)
   *DB2 TCB CPU Time Consumed (Accounting Class 2)
    DB2 CPU Time Consumed

  DB2 Time
    DB2 Elapsed Time (Accounting Class 1)
   *DB2 Elapsed Time (Accounting Class 2)

  DB2 Input/Output Charges
   *DB2 Getpages
    DB2 Synchronous Read IOs
    DB2 I/O Elapsed Time


  DB2 Logical I/O Charges
    DB2 Insert Statements
    DB2 Update Statements
    DB2 Delete Statements
    DB2 Describe Statements
    DB2 Prepare Statements
```

DB2 Open Statements
DB2 Close Statements
DB2 Create Table Statements
DB2 Create Index Statements
DB2 Create Tablespace Statements
DB2 Create Synonym Statements
DB2 Create Database Statements
DB2 Create Stogroup Statements
DB2 Create View Statements
DB2 Drop Index Statements
DB2 Drop Table Statements
DB2 Drop Tablespace Statements
DB2 Drop Database Statements
DB2 Drop Synonym Statements
DB2 Drop Stogroup Statements
DB2 Drop View Statements
DB2 Alter Stogroup Statements
DB2 Alter Tablespace Statements
DB2 Alter Table Statements
DB2 Alter Index Statements
DB2 Comment On Statements
DB2 Lock Table Statements
DB2 Grant Statements
DB2 Revoke Statements
DB2 Fetch Statements
DB2 Select Statements

2.2.2 Capacity Planner Interface

The CA MICS Capacity Planner can make extensive use of the DB2 Analyzer for studies to establish job classifications, analyze application performance trend, track the resource requirements for individual applications, and implement innumerable other analyses.

The CA MICS DB2 Analyzer provides a number of data elements from the DB2 files to the CA MICS Capacity Planner. The following section describes the data elements:

1 - Capacity Planning Elements

2.2.2.1 Capacity Planning Elements

The following data elements are available for capacity planning analysis.

A. Data elements common to all CA MICS Capacity Planner database files:

SYSID
ZONE or HOUR
YEAR
MONTH or WEEK
DATE

B. Data elements unique to the DB2 Planning Standard Application database file:

1. Numeric format data elements

ALLBFEXP - Total Get Page Caused Buffer Expansions
ALLGETPG - Total Get Page Requests
ALLPRFET - Total Prefetch Read Requests
ALLSYCIO - Total Synchronous Read I/Os
ALLWRKUP - Total Units of Work Updated
CPUOVRHD - Ratio of DB2 CPU Time to Attributable
DSDABBP0 - Active Buffers In Buffer Pool 0
DSDABBP1 - Active Buffers In Buffer Pool 1
DSDABBP2 - Active Buffers In Buffer Pool 2
DSDABBP3 - Active Buffers In Buffer Pool 3
DSDMNRPG - Min Free Pages in Free Chain
DSDMXCTU - Max Pages Used for Cursor Table
DSDMXDBD - Max Pages Used for DBD
DSDMXDSO - Max Data Sets Open Concurrently
DSDMXPGE - Max Pages in EDM Pool
DSDMXRPG - Max Free Pages in Free Chain
DSDMXSKC - Max Pages Used for SKCT Table
DSDPAGE - No. Pages in EDM Pool
DSDRFXS0 - Read Pagefixed W/O Real Storage BP0
DSDRFXS1 - Read Pagefixed W/O Real Storage BP1
DSDRFXS2 - Read Pagefixed W/O Real Storage BP2
DSDRFXS3 - Read Pagefixed W/O Real Storage BP3
DSDWFXS0 - Write Pagefixed W/O Real Storage BP0
DSDWFXS1 - Write Pagefixed W/O Real Storage BP1
DSDWFXS2 - Write Pagefixed W/O Real Storage BP2
DSDWFXS3 - Write Pagefixed W/O Real Storage BP3
DSULEEM - No. Lock Escalations to Exclusive Mode
DSULESM - No. Lock Escalations to Shared Mode
DSUMXPL - Max. No. Page Locks Held

```
DSUSUSP  - Suspend Count
DSUTIMO  - Timeout Count
DSUWATTR - NO. Wait Trace Events Processed
TOTSTMTS - Total Statements Executed
```

2. Time format data elements

```
CPUINDB2 - Total Attributable DB2 TCB
DSUALLTM - Lock & Latch Time
DSUCPUTM - Accumulated CPU Time
DSUELPTM - Elapsed Time
DSUET2TM - Class 2 Accum. Elapsed Time in DB2
DSUIOETM - DB2 I/O Time
DSUTCBTM - TCB Time
DSUTC2TM - Class 2 Accumulated TCB Time in DB2
DSYSRTM0 - Accumulated SRB Time Addr0
DSYSRTM1 - Accumulated SRB Time Addr1
DSYSRTM2 - Accumulated SRB Time Addr2
DSYTCTM0 - Accumulated TCB Time Addr0
DSYTCTM1 - Accumulated TCB Time Addr1
DSYTCTM2 - Accumulated TCB Time Addr2
TOTCPSTM - Total DB2 System CPU Time
TOTTCSTM - Total DB2 System TCB Time
TOTSRSTM - Total DB2 System SRB Time
```

Chapter 3: REPORTS

Standard data displays are provided with the DB2 Analyzer to aid the user in the rapid and effective usage of the data the Analyzer makes available.

The following section contains descriptions of the reports, sample report formats, and instructions for producing them:

This section contains the following topics:

3.1 Tabular Reports Overview (see page 38)

3.1 Tabular Reports Overview

The standard tabular reports display the numeric values of key data elements collected and recorded in the CA MICS Data Base by the CA MICS DB2 Analyzer. Tabular reports can be categorized as:

- Tracking Reports
- Analysis Reports

TRACKING REPORTS

Tracking reports present key data elements related to service, workload, capacity, and performance. Tracking reports are designed to indicate operating conditions or symptoms of problems; they do not pinpoint causes. In that respect they are overview reports despite their extensive level of detail.

There are two types of tracking reports:

- Profiles
- Trends

Profiles present data as groups of individual summary values (averages, minimums and maximums, etc.) over a given period of time (day, week, month, etc.). Profile reports give a snapshot of a specific area of operation and are employed when a specific value of a measured element indicates a desirable or undesirable condition. Thus, profiles are generally used in conjunction with a set of threshold values which may be either implicitly understood or explicitly stated on the report.

Trends present data as a series of measured values displayed together to show the nature of the change of a condition over a period of time. Profiles, by the very nature of their presentation, tend to show more measured values and fewer data elements than profiles. Trends are used when rate of change of a measure or the exact time at which a given measured value was reached is more important than the actual measure of the value itself.

ANALYSIS REPORTS

Analysis reports are designed to test hypotheses about the causes of specific symptoms observed in some area of operation. For instance, an analysis report might be designed to test the hypothesis that poor TSO end-user

response time is caused by contention for the data path to the TSO work packs. Thus, analysis reports tend to display the relationships between the values of two or more data elements, one or more of which is symptomatic and one or more of which is causal.

The symptomatic element may be an arbitrary limit, such as a response time objective; the specific time or period of time when other symptomatic measures passed a threshold value, such as the time when utilization exceeded the maximum allowable; or it may be the actual measured value of a data element, such as the value of the free buffer "high-water" mark.

Because they are highly specific both to an area of operation and a condition of operation, the formats of analysis reports tend to vary greatly with their intended use. The key to using an analysis report is the understanding of the usage for which it was developed.

Descriptions of the reports, sample report formats, and instructions on how to produce them are given in the following sections:

1 - Producing Tabular Reports
2 - System Services Report
3 - Data Base Services Report
4 - Accounting Report
5 - Calendar Report
6 - Plan Performance Summary Report
7 - Plan Performance Report

3.1.1 Producing Tabular Reports

Certain parameters allow the user to specify whether CA MICS should run some, all, or none of the reporting modules of the installed system. These parameters are specified by changing prefix.MICS.PARMS(EXECDEF). The parameters may be altered at any time without regenerating the CA MICS system.

The standard report options control the execution of the Daily, Weekly, and Monthly Analysis Reports. For the Daily reports these options are:

```
REPORT   MBODAILY    ALL  - Produce the Daily Analysis
                            Reports for all installed
                            analyzers.

REPORT   MBODAILY    NONE - Do not produce any Daily Analysis
                            Reports.

REPORT   MBODAILY    list - Produce the Daily Analysis
                            Reports for the analyzers listed
                            (SMF, RMF, DB2, etc.)
```

The options for Weekly and Monthly Analysis Reports are identical:

```
REPORT   MBOWEEKLY   ALL/NONE/list

REPORT   MBOMONTHLY  ALL/NONE/list
```

No facilities are provided to modify the report frequency or contents through modifications to operational JCL.

In addition to setting the time-span level options in EXECDEF you can also specify report level options in the member #DB2MOBJ of library prefix.MICS.USER.SOURCE. Default values for these options are in member #DB2MOBJ of library sharedprefix.MICS.SOURCE. With the macro variables contained in this member you can activate or deactivate each standard report within a given time-span. To activate a report, set its corresponding macro variable to the value Y.

The variables available and their associated standard reports are as follows:

```
   SYSREP - System Services reporting
   DDYREP - DDF reporting for the System Services report
   DBMREP - Data Base Services reporting
```

```
USRAREP - DB2 accounting level reporting
 DDUREP - DDF reporting for the DB2 accounting reports
PLANREP - Plan Performance reporting
 DDPREP - DDF reporting for the Plan performance reports
PLANSUM - Plan Summary reporting
 CALREP - CA MICS DB2 Calendar reporting
```

3.1.2 DB2 System Services Report

The DB2 System Services Report provides an extract of the most pertinent information from the DB2 System Activity File (DB2DSY) which is created from the SMF type 100 subtype 0 record. It details the system activity of each active DB2 subsystem.

The DB2 System Services Report is normally produced as a part of the DAILYRPT and MONTHRPT jobs, which are automatically submitted during the DAILY and MONTHLY runs, respectively.

DAILYRPT executes the SAS program found in sharedprefix.MICS.SOURCE(DYDB2MBO), while MONTHRPT executes sharedprefix.MICS.SOURCE(MNDB2MBO). Both of these programs prepare data and then execute the actual report generation program located in sharedprefix.MICS.SOURCE(DB2SYSPT).

To activate this report for use in DYDB2MBO or MNDB2MBO, you must set the macro variable SYSREP=Y in the #DB2MOBJ member of your unit library prefix.MICS.USER.SOURCE. The system default report macro variable values are in sharedprefix.MICS.SOURCE member #DB2MOBJ.

To create this report directly, ensure the macro variable SYSREP is set equal to Y in member #DB2MOBJ of your unit library prefix.MICS.USER.SOURCE. If you require the DDF reporting block for this report, you must also set the macro variable DDYREP=Y. Set all other macro variables to N to produce ONLY the System Services report. Finally, you must execute the program DYDB2MBO or MNDB2MBO as is done in the DAILYRPT and MONTHRPT jobs.

```
                                                    CA
                                                                                                                                                                PAGE:   1
CA MICS/DB2                                                DB2 SYSTEM SERVICES REPORT                                                                                   SUBPAGE:   1
RUN DATE:      Friday, December 2, yyyy
================================================================================================================================================================
                                        !                          !                          !
                                        !       SYSID: A1A1        !     DB2 SYSTEM: RA1A     !
                                        !                          !    DB2 RELEASE: 8.1      !
================================================================================================================================================================
                                                !                                                                                                               !
                    CPU TIME                    !              THREAD SUMMARY                                                                                   !       IFC CHECKPOINT DATA
                                                !                                                                                                               !
                                TCB             !     THREADS                  20,451                                                                           !     CHECKPOINTS                1
SYSTEM SERVICES             0:00:25.7           !                                                                                                               !
DATA BASE SERVICES          0:00:42.8           !                                                                                                               !
IMS RESOURCE LOCK MANAGER   0:00:00.0           !                                                                                                               !
DDF SERVICES                0:00:02.3           !                                                                                                               !
                                                !                                                                                                               !
----------------------------------------------------------------------------------------------------------------------------------------------------------------

                                                                                SUBSYSTEM SERVICES

CONNECT              621        COMMIT                   4        SSI CALLS              629        EXIT               494
CREATE THREAD     20,451        ABORT               19,382        RESOLVE                  0        END OF TASK          8
SIGNON                 0        INDOUBT THREADS          0        SYNCHRONIZE          8,897        END OF MEMORY        0
TERMINATE         21,072        PREPARE TO COMMIT        0        THREADS WAITED           0

----------------------------------------------------------------------------------------------------------------------------------------------------------------
                                                                                !
                        AGENT SERVICES                                          !                        STORAGE MANAGER
                                                                                !
            ALLOCATION FAILURES                                                 !             SHORT ON STORAGE
               UNAVAILABLE RESOURCE                0                            !                DETECTED                          0
               DEADLOCK                            0                            !                CONTRACTION                       0
               INVALID RESOURCE                    0                            !                ABEND                             0
                                                                                !
            PHYSICAL SUSPENDS                611,941                            !             GETMAIN/FREEMAIN ERRORS              0
                                                                                !
----------------------------------------------------------------------------------------------------------------------------------------------------------------

                                                                                LOG MANAGER

   LOG WRITE REQUESTS                CONTROL INTERVALS                LOG READ REQUESTS                    ARCHIVE LOG

WRITE ACTIVE      46,153          CREATED           50,494         SATISFIED FROM                     ALLOCATIONS
WAIT                   0          OFFLOADED        297,000            OUTPUT BUFFER        166           READ               0
NO WAIT          278,821                                              ACTIVE LOG             0           WRITE              1
FORCE             13,770                                              ARCHIVE LOG            0           READS DELAY        0
BUFFER WAITS           0
----------------------------------------------------------------------------------------------------------------------------------------------------------------
   REPORTING PERIOD      Friday, September 3, yyyy    6:02:23  TO    Friday, September 3, yyyy   17:53:23
----------------------------------------------------------------------------------------------------------------------------------------------------------------
                                                    CA
                                                                                                                                                                PAGE:   2
CA MICS/DB2                                                DB2 SYSTEM SERVICES REPORT                                                                                   SUBPAGE:   2
RUN DATE:      Friday, December 2, yyyy
================================================================================================================================================================
                                        !                          !                          !
                                        !       SYSID: A1A1        !     DB2 SYSTEM: RA1A     !
                                        !                          !    DB2 RELEASE: 8.1      !
================================================================================================================================================================

                                                                                COMMAND DATA

        DISPLAY                                 START                                   STOP                                MISCELLANEOUS

DATABASE                0           DB2                 0           DB2                 0       RECOVER BSDS            0
THREAD                  4           DATABASE            0           DATABASE            0       RECOVER INDOUBT         0
UTILITY                 0           TRACE               0           TRACE               0       TERM UTILITY            4
RLIMIT                  0           RLIMIT              0           RLIMIT              0       MODIFY TRACE            0
LOCATION                0           DDF                 0           DDF                 0       CANCEL DDF THREAD       0
                                                                                                ARCHIVE LOG             0
----------------------------------------------------------------------------------------------------------------------------------------------------------------
```

```
                                                IFC DESTINATION DATA

 DESTINATION     RECORDS ACCEPTED       BUFFER ERRORS        NOT ACCEPTED         NOT ACTIVE      WRITER FAILURE

 SMF                       82,158                   0                   0                  0                   0
 RES                            0                   0                   0                  0                   0
 GTF                            0                   0                   0                  0                   0
 OP1                       97,816                   0                   0                  0                   0
 OP2                            0                   0                   0                  0                   0
 OP3                            0                   0                   0                  0                   0
 OP4                            0                   0                   0                  0                   0
 OP5                            0                   0                   0                  0                   0
 OP6                            0                   0                   0                  0                   0
 OP7                            0                   0                   0                  0                   0
 OP8                            0                   0                   0                  0                   0
-------------------------------------------------------------------------------------------------------------------------------
                                    LATCH MANAGER                                                !           IFI COUNTERS
                                                                                                 !
 TEST SHARED/EXCLUSIVE                  0        LOG BSDS ACCESS                    297          !   ABENDS                          0
 SERVICE TASK CONTROLLER                0        BUFFER MANAGER EXCLUSIVE 2         117          !   UNRECOGNIZED FUNCTIONS          0
 SSSC ALLIED AGENT QUEUE                9        DATA MANAGER HASH TABLES             3          !   COMMAND REQUESTS                7
 SUBSYSTEM INTERFACE                    1        DATA MANAGER                         0          !   READA REQUEST              60,019
 DATABASE ALLOCATION CONTROL            5        ADDRESS SPACE ACTIVE                 1          !   READS REQUESTS                 47
 BUFFER MANAGER SHARED                  0        SERVICE QUEUE                        0          !   WRITE REQUESTS                  0
 BUFFER MANAGER EXCLUSIVE             192        SYSTEM ADDRESS SPACE                 0          !
 RECOVERY MANAGER STATUS                0        TRACE TABLE                          2          !
 SYNONYM CHAIN 1                        0        STORAGE MGR VECTOR TABLE         8,393          !
 SYNONYM CHAIN 2                        0        STORAGE MGR HEADER BLOCK         2,568          !
 LOG WRITE FUNCTION                    41                                                         !
                                                                                                  !
-------------------------------------------------------------------------------------------------------------------------------
    REPORTING PERIOD      Friday, September 3, yyyy    6:02:23  TO    Friday, September 3, yyyy   17:53:23
-------------------------------------------------------------------------------------------------------------------------------

                                                      CA
                                                                                                                    PAGE:   3
 CA MICS/DB2                                    DB2 SYSTEM SERVICES REPORT                                      SUBPAGE:   3
 RUN DATE:      Friday, December 2, yyyy
===============================================================================================================================
                                    !                        !                      !
                                    !       SYSID: A1A1      !     DB2 SYSTEM: RA1A     !
                                    !                        !    DB2 RELEASE: 8.1      !
===============================================================================================================================

                                          DDF SERVICES STATISTICS

                 ---------------------------------------------------------------------------------------------------------------
     REMOTE      !        !           !    TYPE TRANS      !          ! CONVERS.!          !    SQL   !    DATA   !  BYTES/1000
 LOCATION(S)     !   TYPE !    TRANS. !   ABORTS !  COMMITS! CONVERS. !  QUEUED ! MESSAGES !STATEMENTS!    ROWS   ! TRANSMITTED
-------------------------------------------------------------------------------------------------------------------------------
DRDA REMOTE LOCS !SENT TO:!          0          0         0          0         0     54,933          0         732        33,648
                 !    AVG !          0        0.0       0.0        1.0       0.0   54,933.0        0.0         732        33,648
  (STAT.RECORDS) !    MAX !          0          0         0          0         0      2,520          0         672         3,339
           71    !RECVD FR!        185          5     6,329        185  ------       54,944    122,247           0        34,244
                 !    AVG !          1        0.0      34.2        1.0  ------        297.0      660.8           0           185
                 !    MAX !         21          2       645         21  ------        2,531      6,742           0         2,019
                 !        !
                 +---------------------------------------------------------------------------------------------------------------

  @ - INDICATES REPORTED BYTE COUNT IS NOT DIVIDED BY 1000
  NOTE:  * DDF AVERAGES ARE BASED ON TRANSACTIONS SENT/RECEIVED
  NOTE:  * DDF MAXIMUMS ARE BASED ON DDF STATISTICS RECORD COUNT
-------------------------------------------------------------------------------------------------------------------------------
    REPORTING PERIOD      Friday, September 3, yyyy    6:02:23  TO    Friday, September 3, yyyy   17:53:23
-------------------------------------------------------------------------------------------------------------------------------
```

Figure 3-1. DB2 System Services Report Sample

3.1.2.1 DB2 System Services Report Format

The DB2 System Services Report contains the following sections:

- Identification
- CPU Time
- Thread Summary
- IFC Checkpoint Data
- Subsystem Services
- Agent Services (only when OPTION SERV is specified in sharedprefix.MICS.GENLIB(DB2GENIN))
- Storage Manager (only when OPTION SERV is specified in sharedprefix.MICS.GENLIB(DB2GENIN))
- Log Manager
- Command Data
- IFC Destination Data
- Latch Manager (only when OPTION SERV is specified in sharedprefix.MICS.GENLIB(DB2GENIN))
- IFI Counters
- DDF Services Statistics

Identification Section

RUN DATE	Date the report was created.
REPORTING PERIOD	Earliest and latest dates and times found within the data.
SYSID	Logical system identifier.
DB2 SYSTEM	DB2 subsystem identifier.
DB2 RELEASE	DB2 subsystem release identifier. (DB2RELN)

CPU Time Section

SYSTEM SERVICES TCB	Accumulated TCB time for the system address space. (DSYTCTM0)
SYSTEM SERVICES SRB	Accumulated SRB time for the system address space. (DSYSRTM0)
DATABASE SERVICES TCB	Accumulated TCB time for the database address space. (DSYTCTM1)
DATABASE SERVICES	Accumulated SRB time for the

SRB	database address space. (DSYSRTM1)
IMS RESOURCE LOCK MANAGER TCB	Accumulated TCB time for the IMS Resource Lock Manager address space. (DSYTCTM2)
IMS RESOURCE LOCK MANAGER SRB	Accumulated SRB time for the IMS Resource Lock Manager address space. (DSYSRTM2)
DDF SERVICES TCB	Accumulated TCB time for the DB2 DDF address space. (DSYTCTM3)
DDF SERVICES SRB	Accumulated SRB time for the DB2 DDF address space. (DSYSRTM3)

Thread Summary Section

THREADS	Number of threads created.

IFC Checkpoint Data Section

CHECKPOINT	Number of checkpoints taken.

Subsystem Services Section

CONNECT	Successful connects to DB2 by TSO, IMS, CICS, or DB2 utility.
CREATE THREAD	Number of threads created.
SIGNON	Number of times the user authorization was updated.
TERMINATE	Number of times a thread, signon, or identify was terminated. Because a signon can be performed without a terminate, this does not give an exact count of how many threads were terminated.
COMMIT	Number of successful requests for commit phase 2.
ABORT	Number of times that a unit of

	recovery was backed out. Possible reasons are an application program ABEND, application program roll back request, application program deadlocked on database records, thread ABEND caused by resource shortage, or application program canceled by operator.
INDOUBT THREADS	Number of application failures that occurred after a successful prepare but before a successful commit. The failure can occur in the address space of the application, the transaction manager, or DB2.
PREPARE TO COMMIT	Number of successful requests for commit phase 1.
SSI CALLS	Number of SSI calls. These include EOT, EOM, subsystem identify, commands from the system console, and HELP requests.
RESOLVE	Number of requests to process indoubt work that was successful.
SYNCHRONIZE	Number of synchronized commit requests. TSO applications use this facility.
THREADS WAITED	Number of create-thread requests that waited.
EXIT	Number of successful DSN3EXIT functions performed. This facility is used to establish or remove an exit.
END OF TASK	Number of non-DB2 tasks that abended while connected to DB2.
END OF MEMORY	Number of non-DB2 address spaces deleted by the operating system while connected to DB2.

Agent Services Section (only shown if OPTION SERV is specified in sharedprefix.MICS.GENLIB(DB2GENIN))

UNAVAILABLE RESOURCE	Number of plans that have become unavailable. For example, the plan has become invalidated and an unsuccessful automatic bind has occurred.
DEADLOCK	Number of allocation deadlocks. These occur when resources are limited and contention is high.
INVALID RESOURCE	Number of requests for a plan that was unknown to DB2.
PHYSICAL SUSPENDS	Number of suspends (waits) that occur due to latch contention, lock contention, I/O, and execution unit switching.

Storage Manager Section (only shown if OPTION SERV is specified in sharedprefix.MICS.GENLIB(DB2GENIN))

DETECTED	Number of short-on-storage situations detected.
CONTRACTION	Number of storage contractions due to a shortage of storage.
ABEND	Number of ABENDs issued due to a shortage of storage.
GETMAIN/FREEMAIN ERRORS	Number of non-zero returns from GETMAIN and FREEMAIN.

Log Manager Section

WRITE ACTIVE	Number of calls to write active log buffers.
WAIT	Number of log write requests, WAIT.
NO WAIT	Number of log write requests, NOWAIT.

FORCE	Number of log write requests, FORCE.
BUFFER WAITS	Number of waits because of an unavailable write buffer.
CREATED	Number of active log-output control intervals created.
OFFLOADED	Number of control intervals offloaded.
OUTPUT BUFFER	Number of reads satisfied from output buffers.
ACTIVE LOG	Number of reads satisfied from active log data set.
ARCHIVE LOG	Number of reads satisfied from archive log data set.
READ	Number of archive log-read allocations.
WRITE	Number of archive log-write allocations.
READS DELAY	Number of reads delayed because archive allocation limit reached.

Command Data Section

DISPLAY DATABASE	Number of DISPLAY DATABASE commands.
DISPLAY THREAD	Number of DISPLAY THREAD commands.
DISPLAY UTILITY	Number of DISPLAY UTILITY commands.
DISPLAY RLIMIT	Number of DISPLAY RLIMIT commands.
DISPLAY LOCATION	Number of DISPLAY LOCATION commands. Note: This will appear on the

	report only if DDF data is present.
START DB2	Number of START DB2 commands.
START DATABASE	Number of START DATABASE commands.
START TRACE	Number of START TRACE commands.
START RLIMIT	Number of START RLIMIT commands.
START DDF	Number of START DDF commands. Note: This will appear on the report only if DDF data is present.
STOP DB2	Number of STOP DB2 commands.
STOP DATABASE	Number of STOP DATABASE commands.
STOP TRACE	Number of STOP TRACE commands.
STOP RLIMIT	Number of STOP RLIMIT commands.
STOP DDF	Number of STOP DDF commands. Note: This will appear on the report only if DDF data is present.
RECOVER BSDS	Number of RECOVER BSDS commands.
RECOVER INDOUBT	Number of RECOVER INDOUBT commands.
TERM UTILITY	Number of TERM UTILITY commands.
MODIFY TRACE	Number of MODIFY TRACE commands.
CANCEL DDF THREAD	Number of CANCEL DDF THREAD. commands Note: This will appear on the report only if DDF data is present.
ARCHIVE LOG	Number of ARCHIVE LOG commands.

```
IFC Destination Data Section

   SMF RECORDS ACCEPTED     SMF records successfully written.

   SMF BUFFER ERRORS        SMF buffer errors.

   SMF NOT ACCEPTED         SMF record-not-accepted errors.

   SMF NOT ACTIVE           SMF not-active errors.

   SMF WRITER FAILURE       SMF writer failures.

   RES RECORDS ACCEPTED     RES records successfully written.

   RES BUFFER ERRORS        RES buffer errors.

   RES NOT ACCEPTED         RES record-not-accepted errors.

   RES NOT ACTIVE           RES not-active errors.

   RES WRITER FAILURE       RES writer failures.

   GTF RECORDS ACCEPTED     GTF records successfully written.

   GTF BUFFER ERRORS        GTF buffer errors.

   GTF NOT ACCEPTED         GTF record-not-accepted errors.

   GTF NOT ACTIVE           GTF not-active errors.

   GTF WRITER FAILURE       GTF writer failures.

   OP1 RECORDS ACCEPTED     OP1 records successfully written.

   OP1 BUFFER ERRORS        OP1 buffer errors.

   OP1 NOT ACCEPTED         OP1 record-not-accepted errors.

   OP1 NOT ACTIVE           OP1 not-active errors.

   OP1 WRITER FAILURE       OP1 writer failures.

   OP2 RECORDS ACCEPTED     OP2 records successfully written.

   OP2 BUFFER ERRORS        OP2 buffer errors.

   OP2 NOT ACCEPTED         OP2 record-not-accepted errors.

   OP2 NOT ACTIVE           OP2 not-active errors.
```

OP2 WRITER FAILURE	OP2 writer failures.
OP3 RECORDS ACCEPTED	OP3 records successfully written.
OP3 BUFFER ERRORS	OP3 buffer errors.
OP3 NOT ACCEPTED	OP3 record-not-accepted errors.
OP3 NOT ACTIVE	OP3 not-active errors.
OP3 WRITER FAILURE	OP3 writer failures.
OP4 RECORDS ACCEPTED	OP4 records successfully written.
OP4 BUFFER ERRORS	OP4 buffer errors.
OP4 NOT ACCEPTED	OP4 record-not-accepted errors.
OP4 NOT ACTIVE	OP4 not-active errors.
OP4 WRITER FAILURE	OP4 writer failures.
OP5 RECORDS ACCEPTED	OP5 records successfully written.
OP5 BUFFER ERRORS	OP5 buffer errors.
OP5 NOT ACCEPTED	OP5 record-not-accepted errors.
OP5 NOT ACTIVE	OP5 not-active errors.
OP5 WRITER FAILURE	OP5 writer failures.
OP6 RECORDS ACCEPTED	OP6 records successfully written.
OP6 BUFFER ERRORS	OP6 buffer errors.
OP6 NOT ACCEPTED	OP6 record-not-accepted errors.
OP6 NOT ACTIVE	OP6 not-active errors.
OP6 WRITER FAILURE	OP6 writer failures.
OP7 RECORDS ACCEPTED	OP7 records successfully written.
OP7 BUFFER ERRORS	OP7 buffer errors.
OP7 NOT ACCEPTED	OP7 record-not-accepted errors.

```
   OP7 NOT ACTIVE          OP7 not-active errors.

   OP7 WRITER FAILURE      OP7 writer failures.

   OP8 RECORDS ACCEPTED    OP8 records successfully written.

   OP8 BUFFER ERRORS       OP8 buffer errors.

   OP8 NOT ACCEPTED        OP8 record-not-accepted errors.

   OP8 NOT ACTIVE          OP8 not-active errors.

   OP8 WRITER FAILURE      OP8 writer failures.


DDF Services Statistics

   LOCATION          Location identifier for a remote DB2
                     subsystem. (DB2RLOCN)

   TYPE              Type of statistic being reported.
                     (Total, Average, Maximum)

   TRANS.            Count of transactions sent or received.
                     Sent-(DDYTRANS) Received-(DDYTRANR)

   ABORTS            Abort messages sent or received.
                     Sent-(DDYABRS) Received-(DDYABRR)

   COMMITS           COMMIT messages sent or received.
                     Sent-(DDYCOMS) Received-(DDYCOMR)

   CONVERS.          VTAM conversations sent or received.
                     Sent-(DDYCNVS) Received-(DDYCNVR)

   CONVERS. QUEUED   VTAM conversations queued (DDYCNVQ)
                     to be sent to remote site.

   MESSAGES          VTAM messages sent or received.
                     Sent-(DDYMSGS) Received-(DDYMSGR)

   SQL STATEMENTS    SQL statements sent or received.
                     Sent-(DDYSQLS) Received-(DDYSQLR)

   DATA ROWS         Data rows sent or received.
                     Sent-(DDYROWS) Received-(DDYROWR)

   BYTES/1000        Number of bytes sent (DDYROWS/1000)
    TRANSMITTED      or received (DDYROWR/1000).
```

```
Latch Manager Section (only shown if OPTION SERV is
specified in sharedprefix.MICS.GENLIB(DB2GENIN))

   TEST SHARED/EXCLUSIVE    (DSYTSELT) shared/exclusive latch
                            test

   SERVICE TASK CONTROLLER  (DSYSTCLT) services task
                            controller latch

   SSSC ALLIED AGENT QUEUE  (DSYAAQLT) allied agent queue
                            latch

   SUBSYSTEM INTERFACE      (DSYSSILT) subsystem interface
                            latch

   DB ALLOCATION CONTROL    (DSYDBALT) database allocation
                            latch

   BUFFER MANAGER SHARED    (DSYBMSLT) buffer manager latch -
                            shared

   BUFFER MANAGER EXCLUSIVE (DSYBMELT) buffer manager latch -
                            exclusive

   RECOVERY MANAGER STATUS  (DSYRMSLT) recover manager status
                            latch

   SYNONYM CHAIN 1          (DSYSCILT) synonym chain-1 latch

   SYNONYM CHAIN 2          (DSYSC2LT) synonym chain-2 latch

   LOG WRITE FUNCTION       (DSYLGWLT) log write function
                            latch

   LOG BSDS ACCESS          (DSYBALT) log BSDS latch

   BUFFER MGR EXCLUSIVE 2   (DSYBM2LT) buffer manager 2 latch
                            exclusive

   DATA MANAGER HASH TABLES (DSYMHLT) data manager hash
                            tables latch

   DATA MANAGER             (DSYDMLT) data manager latch

   ADDRESS SPACE ACTIVE     (DSYASALT) address space active
                            latch

   SERVICE QUEUE            (DSYBMSLT) service queue latch
```

```
   SYSTEM ADDRESS SPACE     (DSYLAT29) system address space
                            latch

   TRACE TABLE              (DSYTTLT) trace table latch

   STORAGE MGR VECTOR TABLE (DSYSMVLT) storage manager vector
                            table latch

   STORAGE MGR HEADER BLOCK (DSYSMHLT) storage manager header
                            block latch


IFI Counters Section

   ABENDS                   Count of instrumentation facility
                            ABENDs encountered.

   UNRECOGNIZED FUNCTIONS   Count of unrecognized
                            instrumentation facility
                            functions.

   COMMAND REQUESTS         Count of IFI command requests.

   READA REQUESTS           Count of IFI read A requests.

   READS REQUESTS           Count of IFI read S requests.

   WRITE REQUESTS           Count of IFI write requests.
```

3.1.3 DB2 Data Base Services Report

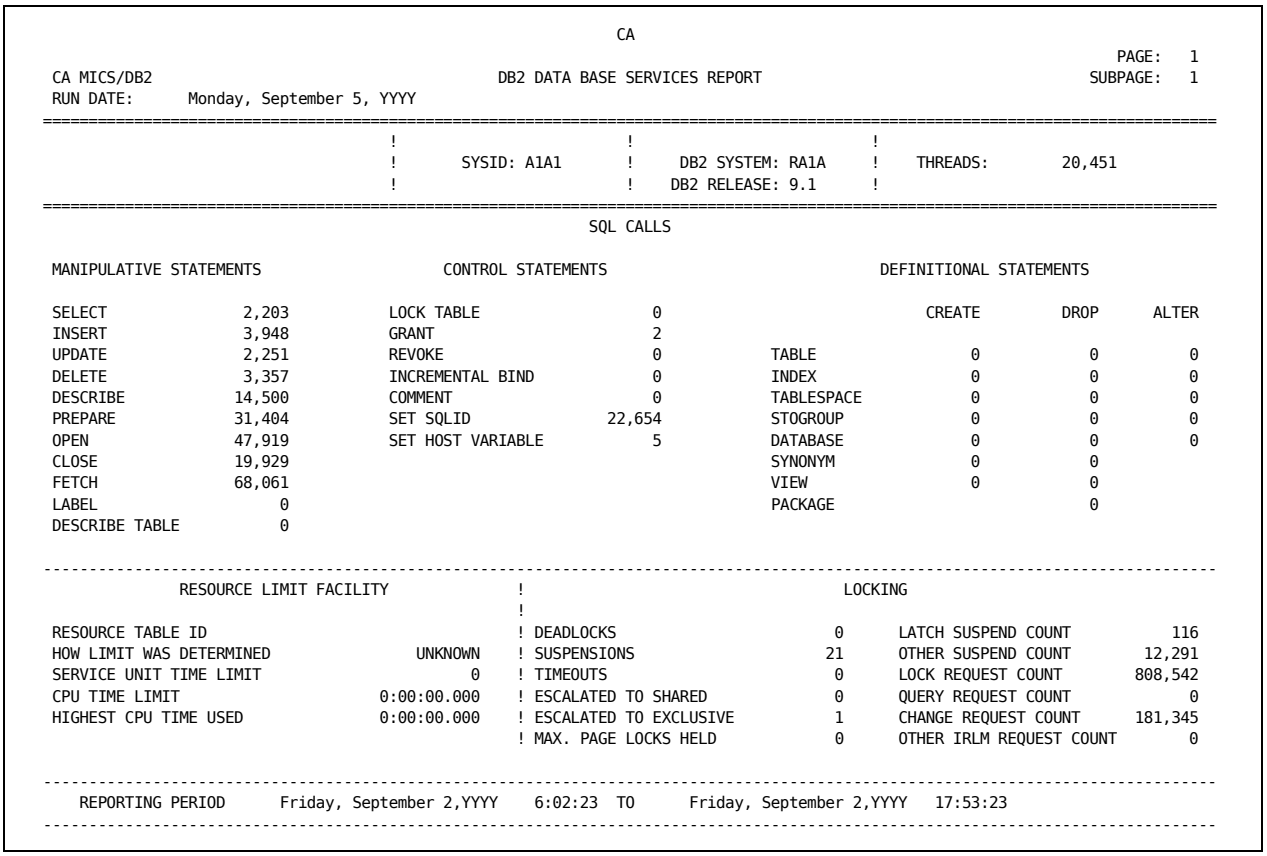
The DB2 Data Base Services Report provides an extract of the most pertinent information from the DB2 Data Base Activity File (DB2DSD) that is created from the SMF Type 100 Subtype 1 record. It details the data base activity of each active DB2 subsystem.

The DB2 Data Base Services Report is normally produced as a part of the DAILYRPT and MONTHRPT jobs, which are automatically submitted during the DAILY and MONTHLY runs, respectively.

DAILYRPT executes the SAS program found in sharedprefix.MICS.SOURCE(DYDB2MBO) while MONTHRPT executes sharedprefix.MICS.SOURCE(MNDB2MBO). Both of these programs prepare data and then execute the actual report generation program located in sharedprefix.MICS.SOURCE(DB2DBMPT), which produces the report.

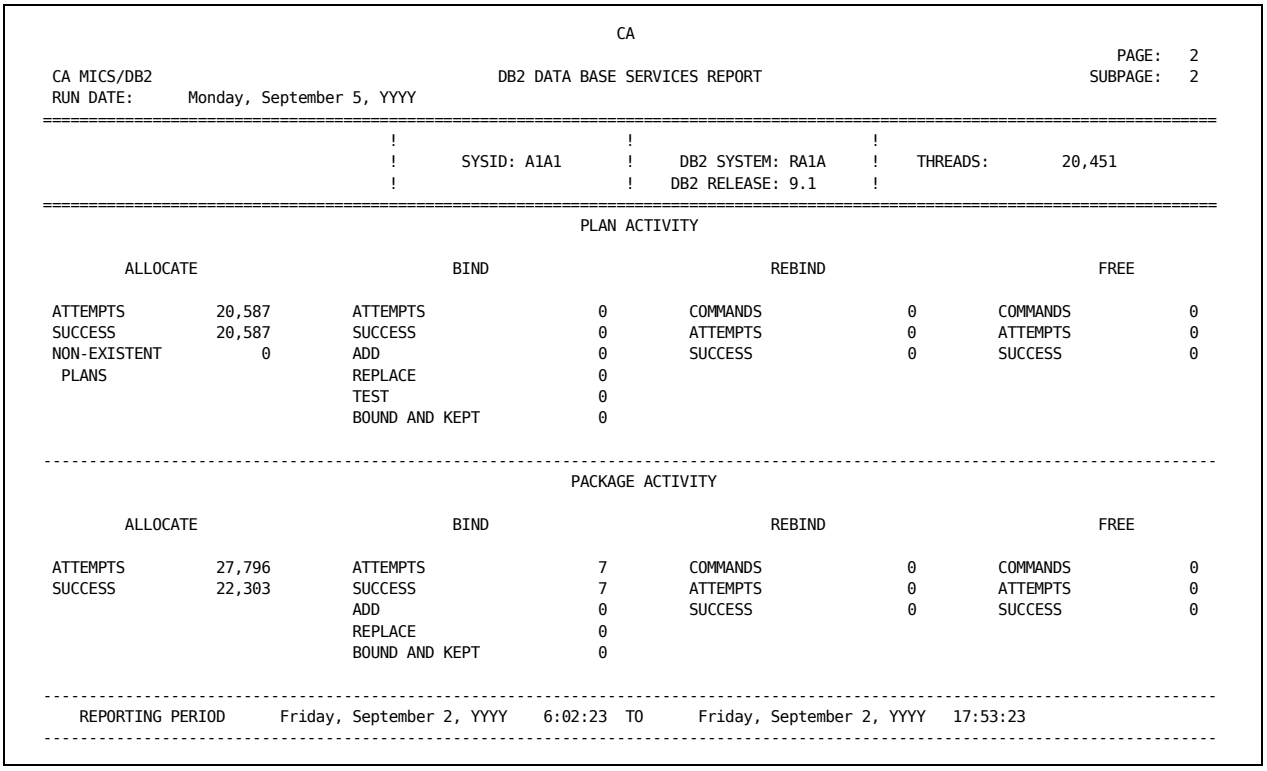
To activate this report for use in DYDB2MBO or MNDB2MBO you must set the macro variable DBMREP=Y in the #DB2MOBJ member of your unit library prefix.MICS.USER.SOURCE. The system default report macro variable values are in sharedprefix.MICS.SOURCE member #DB2MOBJ.

To create this report directly, ensure the macro variable DBMREP is set equal to Y in member #DB2MOBJ of your unit library prefix.MICS.USER.SOURCE. Set all other macro variables to N to produce ONLY the Data Base Services report. Finally, you must execute the program DYDB2MBO or MNDB2MBO as is done in the DAILYRPT and MONTHRPT jobs.



```
                                                    CA
                                                                                                                                PAGE:   1
CA MICS/DB2                                          DB2 DATA BASE SERVICES REPORT                                              SUBPAGE:   1
RUN DATE:      Monday, September 5, YYYY
=============================================================================================================================================
                                    !                        !                          !
                                    !       SYSID: A1A1      !     DB2 SYSTEM: RA1A     !    THREADS:        20,451
                                    !                        !    DB2 RELEASE: 9.1      !
=============================================================================================================================================
                                                          SQL CALLS

 MANIPULATIVE STATEMENTS                  CONTROL STATEMENTS                              DEFINITIONAL STATEMENTS

 SELECT               2,203          LOCK TABLE                  0                                    CREATE         DROP       ALTER
 INSERT               3,948          GRANT                       2
 UPDATE               2,251          REVOKE                      0          TABLE                        0            0          0
 DELETE               3,357          INCREMENTAL BIND            0          INDEX                        0            0          0
 DESCRIBE            14,500          COMMENT                     0          TABLESPACE                   0            0          0
 PREPARE             31,404          SET SQLID              22,654          STOGROUP                     0            0          0
 OPEN                47,919          SET HOST VARIABLE           5          DATABASE                     0            0          0
 CLOSE               19,929                                                 SYNONYM                      0            0
 FETCH               68,061                                                 VIEW                         0            0
 LABEL                    0                                                 PACKAGE                                   0
 DESCRIBE TABLE           0

---------------------------------------------------------------------------------------------------------------------------------------------
            RESOURCE LIMIT FACILITY              !                                LOCKING
                                                 !
 RESOURCE TABLE ID                               ! DEADLOCKS                      0      LATCH SUSPEND COUNT          116
 HOW LIMIT WAS DETERMINED              UNKNOWN   ! SUSPENSIONS                   21      OTHER SUSPEND COUNT       12,291
 SERVICE UNIT TIME LIMIT                    0    ! TIMEOUTS                       0      LOCK REQUEST COUNT       808,542
 CPU TIME LIMIT                  0:00:00.000     ! ESCALATED TO SHARED            0      QUERY REQUEST COUNT            0
 HIGHEST CPU TIME USED           0:00:00.000     ! ESCALATED TO EXCLUSIVE         1      CHANGE REQUEST COUNT     181,345
                                                 ! MAX. PAGE LOCKS HELD           0      OTHER IRLM REQUEST COUNT       0

---------------------------------------------------------------------------------------------------------------------------------------------
    REPORTING PERIOD      Friday, September 2,YYYY    6:02:23  TO      Friday, September 2,YYYY   17:53:23
---------------------------------------------------------------------------------------------------------------------------------------------
```

Figure 3-2. DB2 Data Base Services Report Sample (Part 1 of 4)



```
                                                    CA
                                                                                                                    PAGE:   2
CA MICS/DB2                                          DB2 DATA BASE SERVICES REPORT                                  SUBPAGE:   2
RUN DATE:      Monday, September 5, YYYY
=================================================================================================================================
                                    !                      !                      !
                                    !       SYSID: A1A1    !    DB2 SYSTEM: RA1A  !    THREADS:        20,451
                                    !                      !    DB2 RELEASE: 9.1  !
=================================================================================================================================
                                                    PLAN ACTIVITY

        ALLOCATE                            BIND                            REBIND                          FREE

ATTEMPTS          20,587        ATTEMPTS                  0        COMMANDS              0        COMMANDS             0
SUCCESS           20,587        SUCCESS                   0        ATTEMPTS              0        ATTEMPTS             0
NON-EXISTENT           0        ADD                       0        SUCCESS               0        SUCCESS              0
 PLANS                          REPLACE                   0
                                TEST                      0
                                BOUND AND KEPT            0

---------------------------------------------------------------------------------------------------------------------------------
                                                  PACKAGE ACTIVITY

        ALLOCATE                            BIND                            REBIND                          FREE

ATTEMPTS          27,796        ATTEMPTS                  7        COMMANDS              0        COMMANDS             0
SUCCESS           22,303        SUCCESS                   7        ATTEMPTS              0        ATTEMPTS             0
                                ADD                       0        SUCCESS               0        SUCCESS              0
                                REPLACE                   0
                                BOUND AND KEPT            0

---------------------------------------------------------------------------------------------------------------------------------
    REPORTING PERIOD      Friday, September 2, YYYY    6:02:23  TO      Friday, September 2, YYYY   17:53:23
---------------------------------------------------------------------------------------------------------------------------------
```

Figure 3-2. DB2 Data Base Services Report Sample (Part 2 of 4)

```
                                                  CA
                                                                                                                    PAGE:   3
CA MICS/DB2                                  DB2 DATA BASE SERVICES REPORT                                      SUBPAGE:   3
RUN DATE:      Monday, September 5, YYYY
================================================================================================================================
                                    !                      !                        !
                                    !       SYSID: A1A1    !     DB2 SYSTEM: RA1A   !    THREADS:        20,451
                                    !                      !    DB2 RELEASE: 9.1    !
================================================================================================================================
                                                BUFFER MANAGER SUMMARY

    PHYSICAL DATA BASE PAGE REQUESTS              2,186,996       MEDIA MANAGER READ REQUESTS                        8,793
    USABLE BUFFER NOT LOCATED BECAUSE VPOOL FULL          0       VIRTUAL STORAGE SHORTAGE EXPANSION FAILURES            0
    UPDATES OF DATA BASE SYSTEM PAGES               185,094       SYSTEM PAGES WRITTEN TO DASD                      28,546
    WRITE I/OS BY MEDIA MANAGER                       3,863       PAGES DEQUEUED FOR DESTRUCTIVE READ                2,499
    PAGES DESTRUCTIVELY READ                          2,499       ACTIVE BUFFERS IN POOL                             4,390
    READ PAGEFIXED WITHOUT REAL STORAGE                   2       WRITE PAGEFIXED WITHOUT REAL STORAGE                   0
    BUFFER POOL DATA SET OPENED                       1,478       MERGE PASSES FOR SORT                                477
    WORKFILES FOR MERGE PASSES                          954       IMMEDIATE WRITES SYSTEM PAGES                      3,372
    SEQUENTIAL PREFETCH REQUESTS                     12,450       LIST PREFETCH REQUESTS                             3,836
    PAGES READ DUE TO PREFETCH                      158,238       MAX. WORKFILES CONCURRENTLY USED FOR MERGE            152
    WORKFILES REJECTED DUE TO NO BUFFERS                  0       INEFFICIENT MERGE DUE TO NO BUFFERS                    0
    PREFETCH DISABLED DUE TO NO BUFFERS                   0       PREFETCH DISABLED DUE TO NO READ ENGINE                0
    WRITE ENGINE UNAVAILABLE                              0       DEFERRED WRITE THRESHOLD REACHED                       0
    DATA MANAGER THRESHOLD REACHED                        0       MIGRATED DATASET ENCOUNTERED                           0
    VERTICAL DEFERRED WRITE THRESHOLD REACHED         1,818       DATASET RECALL TIMEOUTS                                0
    PREFETCH ASYNC READ I/OS                          4,505       GETPAGE FAILURES DUE TO VPOOL FULL                     0
    GETPAGE FAILURES DUE TO VPOOL FULL                    0       DYNAMIC PREFETCH REQUESTED                        12,985
    SUCCESSFUL VPOOL EXPANSION/CONTRACTION                0       BUFFERS ALLOCATED FOR VPOOL                    3,358,300
    PAGES READ DYNAMIC PREFETCH                       2,221       PAGES READ LIST PREFETCH                              17
    DYNAMIC PREFETCH READ I/OS                          149       LIST PREFETCH READ I/OS                               10
    GETPAGES ISSUED BY SEQUENTIAL REQUEST           678,135       SYNC READ I/OS PERFORMED BY SEQUENTIAL REQ          1,633
    UNSUCCESSFUL GETPAGE CONDITIONAL REQUEST              0       HIGHEST PREFETCH I/O STREAMS ALLOCATED                 0
    PREFETCH I/O STREAMS DENIED SHORT ON STORAGE          0       TOTAL PARALLEL QUERIES                                 0
    I/O PARALLELISM DOWNGRADED SHORT ON STORAGE           0       PREFETCH QUANTITY REDUCED TO 50% NORMAL                0
    PREFETCH QUANTITY REDUCED TO 25% NORMAL               0       PAGES WRITTEN ASYNC VPOOL TO HPOOL VIA ADMF            0
    UNSUCCESSFUL VPOOL TO HPOOL WRITES VIA ADMF           0       HPOOL BUFFERS BACKED BY EXPANDED STORAGE               0

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    REPORTING PERIOD      Friday, September 2, YYYY    6:02:23  TO      Friday, September 2, YYYY   17:53:23
--------------------------------------------------------------------------------------------------------------------------------
```

Figure 3-2. DB2 Data Base Services Report Sample (Part 3 of 4)

```
                                                    CA
                                                                                                                    PAGE:   4
CA MICS/DB2                                    DB2 DATA BASE SERVICES REPORT                                    SUBPAGE:   4
RUN DATE:      Monday, September 5, YYYY
================================================================================================================================
                                    !                       !                       !
                                    !       SYSID: A1A1     !    DB2 SYSTEM: RA1A   !    THREADS:        20,451
                                    !                       !   DB2 RELEASE: 9.1    !
================================================================================================================================
                                                  ENVIRONMENTAL DESCRIPTOR MANAGEMENT POOL

                                                     AVERAGE       MAXIMUM

      NUMBER OF FAILURES DUE TO FULL EDM POOL            0             0
      NUMBER OF PAGES IN EDM POOL                    8,192         8,192
      NUMBER OF REQUESTS FOR CURSOR TABLE SECTIONS      530           574
      NUMBER OF LOADED CURSOR TABLE SECTIONS              1             5
      NUMBER OF PAGES USED FOR CURSOR TABLE               1             2
      NUMBER OF REQUESTS FOR PACKAGE TABLE SECTIONS     380         2,241
      NUMBER OF LOADED PACKAGE TABLE SECTIONS             1            20
      NUMBER OF PAGES USED FOR PACKAGE TABLE              1             5
      MINIMUM NUMBER OF PAGES IN FREE CHAIN             101         7,259
      NUMBER OF PAGES USED FOR DATA BASE DESCRIPTORS      0             0
      NUMBER OF PAGES USED FOR SKELETON CURSOR TABLE    118           130
      NUMBER OF PAGES USED FOR SKELETON PACKAGE TABLE   889           951
      NUMBER OF REQUESTS FOR DATA BASE DESCRIPTORS    1,136         2,689
      NUMBER OF LOADS OF DATA BASE DESCRIPTORS            2            46
--------------------------------------------------------------------------------------------------------------------------------

                                                  DATASET ACTIVITY

                                                     AVERAGE       MAXIMUM

      NUMBER OF DATASETS OPEN                       1,110         1,274
      NUMBER OF DATASETS AVAILABLE TO DRAIN           924         1,201
      NUMBER OF DATASETS CLOSED VIA DRAIN               0             0
      NUMBER OF SUCCESSFUL REOPENS                  2,447        23,984

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    REPORTING PERIOD      Friday, September 2, YYYY    6:02:23  TO      Friday, September 2, YYYY   17:53:23
--------------------------------------------------------------------------------------------------------------------------------
```

Figure 3-2. DB2 Data Base Services Report Sample (Part 4 of 4)

3.1.3.1 DB2 Database Services Report Format

The DB2 Database Services Report contains the following sections:

- Identification
- Thread Summary
- SQL Calls
- Resource Limit Facility
- Plan Activity
- Package Activity
- Locking
- Buffer Manager
- Environmental Descriptor Management Pool
- Data Set Activity

Identification Section

RUN DATE	Date the report was created.
REPORTING PERIOD	Earliest and latest dates and times found within the data.
SYSID	Logical system identifier.
DB2 SYSTEM	DB2 subsystem identifier.
DB2 RELEASE	DB2 subsystem release identifier. (DB2RELN)

Thread Summary Section

THREADS	Number of threads created.

SQL Calls Section

SELECT	Number of SELECT statements.
INSERT	Number of INSERT statements.
UPDATE	Number of UPDATE statements.
DELETE	Number of DELETE statements.
DESCRIBE	Number of DESCRIBE statements.
PREPARE	Number of PREPARE statements.

OPEN	Number of OPEN statements.
CLOSE	Number of CLOSE statements.
FETCH	Number of FETCH statements.
LABEL	Number of LABEL statements.
DESCRIBE TABLE	Number of DESCRIBE TABLE statements.
LOCK TABLE	Number of LOCK TABLE statements.
GRANT	Number of GRANT statements.
REVOKE	Number of REVOKE statements.
INCREMENTAL BIND	Number of incremental binds excluding prepares.
COMMENT	Number of COMMENT ON statements.
SET SQLID	Number of SET CURRENT SQLID statements.
SET HOST VARIABLE	Number of SET HOST VARIABLE statements.
CREATE TABLE	Number of CREATE TABLE statements.
CREATE INDEX	Number of CREATE INDEX statements.
CREATE TABLESPACE	Number of CREATE TABLESPACE statements.
CREATE STOGROUP	Number of CREATE STOGROUP statements.
CREATE DATABASE	Number of CREATE DATABASE statements.
CREATE SYNONYM	Number of CREATE SYNONYM statements.
CREATE VIEW	Number of CREATE VIEW statements.

DROP TABLE	Number of DROP TABLE statements.
DROP INDEX	Number of DROP INDEX statements.
DROP TABLESPACE	Number of DROP TABLESPACE statements.
DROP STOGROUP	Number of DROP STOGROUP statements.
DROP DATABASE	Number of DROP DATABASE statements.
DROP SYNONYM	Number of DROP SYNONYM statements.
DROP VIEW	Number of DROP VIEW statements.
DROP PACKAGE	Number of DROP PACKAGE statements.
ALTER TABLE	Number of ALTER TABLE statements.
ALTER INDEX	Number of ALTER INDEX statements.
ALTER TABLESPACE	Number of ALTER TABLESPACE statements.
ALTER STOGROUP	Number of ALTER STOGROUP statements.
ALTER DATABASE	Number of ALTER DATABASE statements.
ALTER SYNONYM	Number of ALTER SYNONYM statements.
ALTER VIEW	Number of ALTER VIEW statements.
ALTER PACKAGE	Number of ALTER PACKAGE statements

Resource Limit Facility Section

RESOURCE TABLE ID	Nature of resource limit in effect.

HOW LIMIT WAS DETERMINED	Method resource limit was determined.
SERVICE UNIT TIME LIMIT	Number of CPU services units allowed per dynamic SQL requests.
CPU TIME LIMIT	CPU time limit allowed per dynamic SQL requests.
HIGHEST CPU TIME USED	Highest CPU time used for a dynamic SQL statement.

Locking Section

DEADLOCKS	Deadlock count.
SUSPENSIONS	Suspension count.
TIMEOUTS	Timeout count.
ESCALATED TO SHARED	Number of escalations to shared mode.
ESCALATED TO EXCLUSIVE	Number of escalations to exclusive mode.
MAX. PAGE LOCKS HELD	Maximum number of page locks held by DB2.
LATCH SUSPEND COUNT	Number of suspends due to latch conflict.
OTHER SUSPEND COUNT	Number of suspends due to something other than latch conflict.
LOCK REQUEST COUNT	Total number of IRLM lock requests.
QUERY REQUEST COUNT	Total number of IRLM query requests.
CHANGE REQUEST COUNT	Total number of IRLM change requests.
OTHER IRLM REQUEST COUNT	Total number of other IRLM requests.

Plan Activity Section

ALLOCATE ATTEMPTS	Requests to allocate a bound plan for an agent. Represents the number of times DB2 was requested to create a thread by the attachment facility for the user. Does not include allocations for DB2 system agents.
ALLOCATE SUCCESS	Number of successful bound plan allocations. Represents the number of allocation attempts counted in ALLOCATE ATTEMPTS that completed successfully.
ALLOCATE NON-EXISTENT PLANS	Requests to allocate a non-existent plan ID. Represents the number of agent allocation attempts counted in ALLOCATE ATTEMPTS that did not complete successfully, because the plan did not exist.
BIND ATTEMPTS	Number of times an automatic bind was attempted. Occurs when the plan has been invalidated by modifications to the declarations of the data referenced by the programs bound as part of the plan.
BIND SUCCESS	Number of successful automatic binds.
BIND ADD	Number of BIND ACTION (ADD) subcommands issued.
BIND REPLACE	Number of BIND ACTION (REPLACE) subcommands issued.
BIND TEST	Number of bind subcommands issued without a plan ID.
BIND BOUND AND KEPT	Number of plans successfully bound and kept for future agent allocations. This count does not include the test binds.

REBIND COMMANDS	Number of REBIND subcommands issued.
REBIND ATTEMPTS	Number of attempts to rebind an individual plan.
REBIND SUCCESS	Number of times a plan was successfully rebound.
FREE COMMANDS	Number of FREE subcommands issued.
FREE ATTEMPTS	Number of attempts to free an individual plan.
FREE SUCCESS	Number of times a plan was successfully freed.

Package Activity Section

ALLOCATE ATTEMPTS	Requests to allocate a bound package for an agent. Represents the number of times DB2 was requested to create a thread by the attachment facility for the user. Does not include allocations for DB2 system agents.
ALLOCATE SUCCESS	Number of successful bound package allocations. Represents the number of allocation attempts counted in ALLOCATE ATTEMPTS that completed successfully.
BIND ATTEMPTS	Number of times an automatic bind was attempted. Occurs when the package has been invalidated by modifications to the declarations of the data referenced by the programs bound as part of the package.
BIND SUCCESS	Number of successful automatic binds.
BIND ADD	Number of BIND ACTION (ADD)

	subcommands issued.
BIND REPLACE	Number of BIND ACTION (REPLACE) subcommands issued.
BIND BOUND AND KEPT	Number of packages successfully bound and kept for future agent allocations. This count does not include the test binds.
REBIND COMMANDS	Number of REBIND subcommands issued.
REBIND ATTEMPTS	Number of attempts to rebind an individual package.
REBIND SUCCESS	Number of times a package was successfully rebound.
FREE COMMANDS	Number of FREE subcommands issued.
FREE ATTEMPTS	Number of attempts to free an individual package.
FREE SUCCESS	Number of times a package was successfully freed.

Buffer Manager Section (listed in alphabetical order)

ACTIVE BUFFERS IN POOL	Total number of active buffers, summarized across all active DB2 buffer pools. (DSDSABBP)
BUFFER POOL DATA SET OPENED	Total number of buffer pool data sets that were opened by the DB2 system for all active DB2 buffer pools. (DSDSBPSO)
BUFFERS ALLOCATED FOR HPOOL	Total number of buffers allocated for all active virtual buffer pools. (DSDSHPL)
BUFFERS ALLOCATED FOR VPOOL	Total number of buffers allocated for a virtual buffer pool, summarized across all active DB2 buffer pools. (DSDSVPL)

DATA MANAGER THRESHOLD REACHED	Total number of times the WPHFWT deferred write threshold was reached in the DB2 system during an interval for all active buffer pools. (DSDSDMCT)
DATASET RECALL TIMEOUTS	Total number of times a recall time out of a migrated data set was encountered by the DB2 system during the interval, summarized across all active DB2 buffer pools. (DSDSTRTO)
DEFERRED WRITE THRESHOLD REACHED	Total number of times the deferred write threshold was reached in the DB2 system during an interval for all active DB2 buffer pools. (DSDSDWRT)
DYNAMIC PREFETCH READ I/OS	Total number of asynchronous read I/Os due to dynamic prefetch for all active DB2 buffer pools. (DSDSDIO)
DYNAMIC PREFETCH REQUESTED	Total number of dynamic prefetch requests for all active DB2 buffer pools. Dynamic prefetch is the process that is triggered because of sequential detection. (DSDSDPF)
GETPAGE FAILURES DUE TO VPOOL FULL	Total number of times a usable buffer could not be located in the active virtual buffer pools. (DSDSXFL)
GETPAGES ISSUED BY SEQUENTIAL REQUEST	Total number of GETPAGE requests issued by sequential access requesters, summarized across all active DB2 buffer pools. (DSDSSGT)
HIGHEST PREFETCH I/O STREAMS ALLOCATED	Total number of concurrent prefetch I/O streams that were allocated for supporting queries processed in parallel for all active DB2 buffer pools. (DSDSXIS)

HPOOL BUFFERS BACKED BY EXPANDED STORAGE	Total number of hiperpool buffers currently backed by expanded storage for all active DB2 buffer pools. (DSDSHBE)
I/O PARALLELISM DOWNGRADED SHORT ON STORAGE	Total number of times that DB2 could not allocate the requested number of buffer pages to allow a parallel group to run to the planned degree, summarized across all active DB2 buffer pools. (DSDSPQF)
IMMEDIATE WRITES SYSTEM PAGES	Total number of immediate writes for system pages by the DB2 system during the interval for all active DB2 buffer pools. (DSDSIMWS)
INEFFICIENT MERGE DUE TO NO BUFFERS	Total number of times that the merge pass could not be efficiently performed, summarized for all active DB2 buffer pools, due to the shortage of buffer space. (DSDSWFF)
LIST PREFETCH READ I/OS	Total number of asynchronous read I/Os due to list prefetch for all active DB2 buffer pools. (DSDSLIO)
LIST PREFETCH REQUESTS	Total number of list prefetch requests for all active DB2 buffer pools. (DSDSLPF)
MAX. WORKFILES CONCURRENTLY USED FOR MERGE	Total number of work files (runs) that have ever been concurrently used during merge processing within this statistics period, summarized for all active DB2 buffer pools. (DSDSWFM)
MEDIA MANAGER READ REQUESTS	Total number of media manager read requests for all active DB2 buffer pools. (DSDSMMRR)
MERGE PASSES FOR	Total number of merge passes DB2

SORT	sort activities summarized for all active DB2 buffer pool. (DSDSWFR)
MIGRATED DATASET ENCOUNTERED	Total of the number of times migrated data sets were encountered, summarized across all active DB2 buffer pools. (DSDSTMIG)
PAGES DEQUEUED FOR DESTRUCTIVE READ	Total number of pages dequeued from VDWQ for destructive read, summarized across all active DB2 buffer pools. (DSDSWBVQ)
PAGES DESTRUCTIVELY READ	Total number of pages for which destructive read was requested, summarized across all active DB2 buffer pools. (DSDSWDRP)
PAGES READ ASYNC FROM HPOOL TO VPOOL	Total number of pages moved from all active hiperpools to all active virtual buffer pools asynchronously. (DSDSHRA)
PAGES READ ASYNC HPOOL TO VPOOL VIA ADMF	Total number of pages moved from a hiperpool to a virtual buffer pool via ADMF for all active DB2 buffer pools. (DSDSARA)
PAGES READ DUE TO PREFETCH	Number of pages read by DB2 after it anticipated the need to read ahead due to a large volume of sequential processing, which can be caused either by a utility or an SQL statement performing a large tablespace scan. (DSDSSPPF)
PAGES READ DYNAMIC PREFETCH	Total number of pages read asynchronously due to dynamic prefetch for all active DB2 buffer pools. (DSDSDPP)
PAGES READ LIST PREFETCH	Total number of pages read asynchronously due to list prefetch for all active DB2 buffer pools. (DSDSLPP)

PAGES READ SYNC FROM HPOOL TO VPOOL	Total number of successful synchronous requests to move pages from all active hiperpools to all active virtual buffer pools. (DSDSHRE)
PAGES WRITTEN ASYNC VPOOL TO HPOOL VIA ADMF	Total number of pages moved from a virtual buffer pool to a hiperpool via ADMF for all active DB2 buffer pools. (DSDSAWA)
PAGES WRITTEN SYNC FROM HPOOL TO VPOOL	Total number of pages moved from all active hiperpools to all active virtual buffer pool asynchronously. (DSDSHRA)
PHYSICAL DATABASE PAGE REQUESTS	Count of physical database page requests, summarized across all active DB2 buffer pools. (DSDSDBPR)
PREFETCH DISABLED DUE TO NO BUFFERS	Total number of sequential prefetch requests disabled due to an unavailable buffer resource in the DB2 system during an interval, summarized across all active DB2 buffer pools. (DSDSSPDF)
PREFETCH DISABLED DUE TO NO READ ENGINE	Total number of sequential prefetch requests disabled due to an unavailable read engine in the DB2 system during an interval, summarized across all active DB2 buffer pools. (DSDSREEP)
PREFETCH I/O STREAMS DENIED SHORT ON STORAGE	Total number of requested prefetch I/O streams that were denied due to a storage shortage for all active DB2 buffer pools. (DSDSJIS)
PREFETCH QUANTITY REDUCED TO 25% NORMAL	Total number of times that the prefetch quantity was reduced from normal to 1/4 normal, summarized across all active DB2 buffer pools. (DSDSPL2)
PREFETCH QUANTITY	Total number of times that the

REDUCED TO 50% NORMAL	prefetch quantity was reduced from normal to half normal, summarized across all active DB2 buffer pools. (DSDSPL1)
READ PAGEFIXED WITHOUT REAL STORAGE	Total number of times that a buffer being page-fixed for read operations did not have real storage frame backing, summarized across all active DB2 buffer pools. (DSDSRFXS)
SEQUENTIAL PREFETCH REQUESTS	Total number of sequential prefetch requests of the DB2 system that occurred during the interval, summarized across all active DB2 buffer pools. (DSDSSQPF)
SUCCESSFUL HPOOL EXPANSION/CONTRACTION	Total number of successful hiperpool expansions or contractions because of the ALTER BUFFERPOOL command for all active buffer pools. (DSDSHPA)
SUCCESSFUL VPOOL EXPANSION/CONTRACTION	Total number of successful virtual buffer pool expansions or contractions because of the ALTER BUFFERPOOL command, summarized across all active DB2 buffer pools. (DSDSVPA)
SYNC READ I/OS PERFORMED BY SEQUENTIAL REQ	Total number of synchronous read I/Os issued by sequential access requesters, summarized across all active DB2 buffer pools. (DSDSSIO)
SYSTEM PAGES WRITTEN TO DASD	Total number of system pages that were written to DASD, summarized across all active DB2 buffer pools. (DSDSSPWR)
TOTAL PARALLEL QUERIES	Total number of requests made for processing queries in parallel, summarized across all active DB2 buffer pools. (DSDSPQO)
UNSUCCESSFUL GETPAGE	Total number of times conditional

CONDITIONAL REQUEST	GETPAGE requests could not be satisfied for all active DB2 buffer pools. (DSDSNGT)
UNSUCCESSFUL HPOOL TO VPOOL READS	Total number of pages for which a synchronous or asynchronous read request failed because the backing-expanded storage page was stolen by the system, summarized for all active DB2 buffer pools. (DSDSHRF)
UNSUCCESSFUL HPOOL TO VPOOL READS VIA ADMF	Total number of pages for which a read request failed because the backing-expanded storage was stolen for active DB2 buffer pools. (DSDSARF)
UNSUCCESSFUL VPOOL TO HPOOL WRITES	Total number of pages for which a synchronous or asynchronous write request failed because of a shortage of expanded storage for all active DB2 buffer pools. (DSDSHWF)
UNSUCCESSFUL VPOOL TO HPOOL WRITES VIA ADMF	Total number of pages for which a write request failed because the backing-expanded storage was stolen for active DB2 buffer pools. (DSDSAWF)
UPDATES OF DATABASE SYSTEM PAGES	Total count (for all active buffer pools) of the updates that were performed against database system pages during the interval. (DSDSDBPU)
USABLE BUFFER NOT LOCATED BECAUSE VPOOL FULL	Total number of times a usable buffer could not be located in the active virtual buffer pools. (DSDSXFL)
VERTICAL DEFERRED WRITE THRESHOLD REACHED	Number of times the vertical deferred write threshold was reached for all active DB2 buffer pools. When the number of updated pages for a data set exceeds the vertical deferred write threshold, deferred writes

	are initiated for that data set. (DSDSDWV)
VIRTUAL STORAGE EXPANSION FAILURES	Total of buffer pool expansion failures caused by virtual storage shortage, summarized across all active DB2 buffer pools. (DSDSSSEF)
WORKFILES FOR MERGE PASSES	Total number of work files that have been requested for all of the merge passes, summarized across all active DB2 buffer pools. (DSDSWFT)
WORKFILES REJECTED DUE TO NO BUFFERS	Total number of work files (runs), summarized for all active DB2 buffer pools that were rejected during all merge passes due to insufficient buffer resources. (DSDSWFD)
WRITE ENGINE UNAVAILABLE	Number of times a write engine was unavailable for I/O in the DB2 system during an interval, summarized across all active DB2 buffer pools. (DSDSWREE)
WRITE I/OS BY MEDIA MANAGER	Total number of write I/Os performed by the DB2 Media Manager, summarized across all active DB2 buffer pools. (DSDSWRMM)
WRITE PAGEFIXED WITHOUT REAL STORAGE	Number of times the active DB2 buffer pools have been page-fixed to perform write I/O without real storage frame backing. The page-fix process must perform an I/O operation to retrieve the page's content from DASD storage to a new real page frame. (DSDSWFXS)

Environmental Descriptor Management Pool Section

NUMBER OF FAILURES DUE TO FULL EDM POOL	Number of DB2 transaction failures due to insufficient

	virtual storage for EDM pool.
NUMBER OF PAGES IN EDM POOL	Number of pages in the EDM pool used to contain the skeleton cursor tables and database descriptors for a DB2 system.
NUMBER OF REQUESTS FOR CURSOR TABLE SECTIONS	Number of requests for cursor table sections or number of times DB2 application programs requested execution time.
NUMBER OF LOADED CURSOR TABLE SECTIONS	Number of DB2 application programs that were loaded for execution.
NUMBER OF PAGES USED FOR CURSOR TABLE	Number of EDM pool pages used to load DB2 application programs.
NUMBER OF REQUESTS FOR PACKAGE TABLE SECTIONS	Number of requests for package table sections.
NUMBER OF LOADED PACKAGE TABLE SECTIONS	Number of DB2 packages that were loaded into the EDM pool.
NUMBER OF PAGES USED FOR PACKAGE TABLE	Number of EDM pool pages used to load packages.
NUMBER OF PAGES IN FREE CHAIN	Number of unused pages in the EDM pool.
NUMBER OF PAGES USED FOR DATABASE DESCRIPTORS	Number of EDM pool pages used for database descriptors (DBDs) in the DB2 system.
NUMBER OF PAGES USED SKELETON CURSOR TABLE	Number of pages used for skeleton cursor tables.
NUMBER OF PAGES USED SKELETON PACKAGE TABLE	Number of pages used for skeleton package tables.
NUMBER OF REQUESTS FOR DATABASE DESCRIPTORS	Number of active DBDs in the DB2 system.
NUMBER OF LOADS OF DATABASE DESCRIPTORS	Number of DBDs the EDM pool was able to actually process.

Data Set Activity Section

NUMBER OF DATASETS OPEN	Number of data sets currently open when SMF type 100 record is cut.
NUMBER OF DATASETS AVAILABLE TO DRAIN	Number of data sets not currently in use that were specified with CLOSE(YES), but have not been physically closed.
NUMBER OF DATASETS CLOSED VIA DRAIN	Number of data sets closed via the drain process.
NUMBER OF SUCCESSFUL REOPENS	Frequency that data sets that had not previously been used became used. The data set remained open even though no process was using it. This counter indicates that the data set was eventually used again. The larger the number in this field, the better your system is tuned for deferred close.

3.1.4 DB2 Accounting Report

The DB2 Accounting Report provides an extract of the most pertinent information from the DB2 User Activity File (DB2DSU), which is created from the SMF Type 101 record. It details the activity of active DB2 users.

The Accounting Report is normally produced as a part of the DAILYRPT and MONTHRPT jobs, which are automatically submitted during the DAILY and MONTHLY runs, respectively.

DAILYRPT executes the SAS program found in sharedprefix.MICS.SOURCE(DYDB2MBO), while MONTHRPT executes sharedprefix.MICS.SOURCE(MNDB2MBO). Both of these programs prepare data and then execute the actual report generation program located in sharedprefix.MICS.SOURCE(DB2ACTPT), which produces the Accounting report.

The program will produce a separate report for each DB2 subsystem.

To activate this report for use in DYDB2MBO or MNDB2MBO, you must set the macro variable USRAREP=Y in the #DB2MOBJ member of your unit library prefix.MICS.USER.SOURCE. The system default report macro variable values are in sharedprefix.MICS.SOURCE member #DB2MOBJ.

To create this report directly, ensure the macro variable USRAREP is set equal to Y in member #DB2MOBJ of your unit library prefix.MICS.USER.SOURCE. If you require the DDF reporting block for this report, you must also set the macro variable DDUREP=Y. Set all other macro variables to N to produce ONLY the DB2 Accounting report. Finally, you must execute the program DYDB2MBO or MNDB2MBO as is done in the DAILYRPT and MONTHRPT jobs.

```
                                                CA
                                                                                                                                PAGE:   1
CA MICS/DB2                                          DB2 ACCOUNTING REPORT                                                      SUBPAGE:   1
RUN DATE:      Monday, July 11, YYYY
================================================================================================================================================
                        !                        !                        !                        !
      SYSID:A1A1        !     DB2 SYSTEM: RA1A   !         USER: * ALL *  !      PLAN: * ALL *     !    THREADS:     40479
                        !        RELEASE: 9.1    !ORIGINAL USER: * ALL *  !  FACILITY: * ALL *     !
================================================================================================================================================
                                                CPU TIME

                      CLASS 1 TCB TIME           0:02:39.085          TOTAL I/O TIME              0:00:31.179
                      CLASS 1 zIIP TIME          0:00:34.173          TOTAL LOCK AND LATCH TIME   0:00:00.406
                      CLASS 1 ELAPSED TIME       8:07:39.445          OTHER READ TIME             0:00:45.111
                      CLASS 2 TCB TIME           0:02:07.258          OTHER WRITE TIME            0:00:12.373
                      CLASS 2 zIIP TIME          0:00:27.804          SERVICE TASK TIME           0:03:08.620
                      CLASS 2 ELAPSED TIME       0:13:22.783          ARCHIVE LOG TIME            0:00:00.000
                      zIIP ELIGIBLE TIME         0:00:00.000          NO. ENTRY/EXIT EVENTS           723,356
                                                                      NO. WAIT TRACE EVENTS            22,376
--------------------------------------------------------------------------------------------------------------------------------------------------

                                                THREAD STATUS

      NORMAL TERMINATION                          ABNORMAL TERMINATION                        WORK UNIT IN DOUBT

END OF TASK                   3                APPLICATION ABENDED           0             APPLICATION ABENDED         0
APPLICATION ENDED             0                END OF MEMORY                 0             END OF MEMORY               0
DEALLOCATION             20,673                RESOLVE INDOUBT               0             RESOLVE INDOUBT             0
NEW USER                      0                FORCE COMMAND                 0             FORCE COMMAND               0

--------------------------------------------------------------------------------------------------------------------------------------------------

                                                SQL CALLS

 MANIPULATIVE STATEMENTS                CONTROL STATEMENTS                          DEFINITIONAL STATEMENTS

SELECT               2,203          LOCK TABLE                   0                              CREATE         DROP       ALTER
INSERT               3,953          GRANT                        2
UPDATE               2,251          REVOKE                       0          TABLE                    0            0          0
DELETE               3,357          INCREMENTAL BIND             0          INDEX                    0            0          0
DESCRIBE            14,503          COMMENT                      0          TABLESPACE               0            0          0
PREPARE             31,420          SET SQLID               22,657          STOREGROUP               0            0          0
OPEN                48,168          SET HOST VARIABLE            5          DATA BASE                0            0          0
CLOSE               20,169                                                  SYNONYM                  0            0
FETCH               68,314                                                  VIEW                     0            0
LABEL                    0                                                  PACKAGE                               0
DESCRIBE TABLE           0

--------------------------------------------------------------------------------------------------------------------------------------------------

   COMMITS              50,689
   ABORT REQUESTS       19,723
--------------------------------------------------------------------------------------------------------------------------------------------------
   REPORTING PERIOD     Friday, July 08, YYYY    6:01:17  TO    Friday, July 08, YYYY   18:01:16
--------------------------------------------------------------------------------------------------------------------------------------------------
```

Figure 3-3. DB2 Accounting Report Sample (Part 1 of 3)

```
                                                    CA
                                                                                                                    PAGE:   2
CA MICS/DB2                                          DB2 ACCOUNTING REPORT                                          SUBPAGE:   2
RUN DATE:      Monday, July 11, YYYY
=============================================================================================================================
                      !                       !                       !                       !
      SYSID:A1A1      !    DB2 SYSTEM: RA1A   !        USER: * ALL *  !     PLAN: * ALL *     !   THREADS:     40479
                      !       RELEASE: 9.1    !ORIGINAL USER: * ALL *  ! FACILITY: * ALL *     !
=============================================================================================================================

                                                    LOCKING

  DEADLOCKS                          0        RESOURCE TABLE ID                  01        OTHER SUSPEND COUNT        10,149
  SUSPENSIONS                   10,237        HOW LIMIT WAS DETERMINED  INFINITE LIMIT     LOCK REQUEST COUNT        709,101
  TIMEOUTS                           0        SERVICE UNIT TIME LIMIT             0        QUERY REQUEST COUNT         3,156
  ESCALATED TO SHARED                0        CPU TIME LIMIT             0:00:00.000       CHANGE REQUEST COUNT      178,248
  ESCALATED TO EXCLUSIVE             1        HIGHEST CPU TIME USED      0:02:36.461       OTHER IRLM REQUEST COUNT        0
  MAX. PAGE LOCKS HELD          30,664        LATCH SUSPEND COUNT                79
-----------------------------------------------------------------------------------------------------------------------------

                                                BUFFER MANAGER SUMMARY

 GETPAGE REQUESTS                          2,179,916                          RECORD IN SYSTEM PAGE UPDATED         182,218
 SYNCHRONOUS READ I/O                          8,434                          SYNCHRONOUS WRITE I/O                   3,118
 SEQUENTIAL PREFETCH REQUESTS                 12,450                          LIST PREFETCH REQUESTS                  3,837
 DYNAMIC PREFETCH REQUESTS                    12,982                          UNSUCCESSFUL GET PAGE OPERATIONS            0
 ASYNC PAGES READ BY PREFETCH                159,369
-----------------------------------------------------------------------------------------------------------------------------
   REPORTING PERIOD      Friday, July 08, YYYY    6:01:17  TO    Friday, July 08, YYYY   18:01:16
-----------------------------------------------------------------------------------------------------------------------------
```

Figure 3-3. DB2 Accounting Report Sample (Part 2 of 3)

```
                                                    CA
                                                                                                                    PAGE:   3
CA MICS/DB2                                          DB2 ACCOUNTING REPORT                                          SUBPAGE:   3
RUN DATE:      Monday, July 11, YYYY
=============================================================================================================================
                     !                          !                       !                          !
      SYSID:A1A1     !     DB2 SYSTEM: RA1A     !         USER: OPCPROD !      PLAN: * ALL *       !    THREADS:     40479
                     !        RELEASE: 9.1      !ORIGINAL USER: * ALL *  !  FACILITY: * ALL *       !
=============================================================================================================================

                                          DDF ACCOUNTING STATISTICS


REMOTE REQUESTING!-----------------------------------------------------------------------------------------------------------
  LOCATION(S)    !  DDF  !    ABORT  !  COMMIT  ! CONVERS. !   SQL    !    ROWS    !------  MESSAGES  ------!-- BYTES/1000 ----
  (PROTOCOLS)    ! THRDS !  RECEIVED ! RECEIVED ! RECEIVED ! RECEIVED !    SENT    !     SENT  ! RECEIVED   !  SENT  ! RECEIVED
 ----------------------------------------------------------------------------------------------------------------------------
DEGNO50R_DSN8    !     11!          0          0          1      2,015         666       2,026       2,036      384        323
(DRDA & PRIVATE) !  AVG  !        0.0        0.0        0.1      183.2        60.5       184.2       185.1       34         29@
                 !  MAX  !          0          0          1        200          71         201         202       39         32
                 !       !
10.64.96.193     !  12623!          5        249          0     95,741           3      38,411      38,411   27,354     27,184
(DRDA & PRIVATE) !  AVG  !        0.0        0.0        0.0        7.6          0.0        3.0         3.0    2,167@        2@
                 !  MAX  !          1          1          0         67           1         61          61       58         20
                 !       !
10.64.98.1       !   7272!          0      5,977          0     24,534          65      14,042      14,042    5,854     6,673
(DRDA & PRIVATE) !  AVG  !        0.0        0.8        0.0        3.4          0.0        1.9         1.9      805@        1@
                 !  MAX  !          0          1          0         39           3         22          22       23      9,436@
                 !       !
10.96.139.43     !      3!          0          3          0          7           0         10          10    1,117@      786@
(DRDA & PRIVATE) !  AVG  !        0.0        1.0        0.0        2.3          0.0        3.3         3.3      372@      262@
                 !  MAX  !          0          1          0          3           0          4           4      478@      318@
                 !       !
10.96.139.93     !      5!          0          0          0          0           0          0           0        0@        0@
(DRDA & PRIVATE) !  AVG  !        0.0        0.0        0.0        0.0          0.0        0.0         0.0        0@        0@
                 !  MAX  !          0          0          0          0           0          0           0        0@        0@
                 !       !
                 +-----------------------------------------------------------------------------------------------------------

 @ - INDICATES THE REPORTED BYTE COUNT IS NOT DIVIDED BY 1000
 ----------------------------------------------------------------------------------------------------------------------------
   REPORTING PERIOD      Friday, July 08, YYYY    6:01:17  TO    Friday, July 08, YYYY   18:01:16
 ----------------------------------------------------------------------------------------------------------------------------
```

Figure 3-3. DB2 Accounting Report Sample (Part 3 of 3)

3.1.4.1 DB2 Accounting Report Format

The DB2 Accounting Report contains the following sections:

- Identification
- CPU Time Summary
- Thread Status
- SQL Calls
- Locking
- Miscellaneous
- Buffer Manager
- DDF Accounting

Identification Section

RUN DATE	Date the report was created.
REPORTING PERIOD	Earliest and latest dates and times found within the data.
SYSID	Logical system identifier.
DB2 SYSTEM	DB2 subsystem identifier. (DB2ID)
RELEASE	DB2 subsystem release level. (DB2RELN)
USER	DB2 users included in this report (possibly a group user ID). (DB2AUTH)
ORIGINAL USER	DB2 user ID of the original user associated with a group user ID. (DB2OPID)
PLAN	DB2 plans included in this report. (DB2PLAN)
FACILITY	Facility identifier of requesting environment (IMS, CICS, BATCH, and so on) (DB2CONN)
THREADS	The number of threads initiated, or, when query CP parallelism is in use, the number of parent tasks used to build this entry. (DSUNTHRD)

CPU Time Section

CLASS 1 TCB TIME	Total TCB time for the users/ plans/facilities included in this report. This time may include non-DB2 application TCB time for facilities other than CICS. (DSUTCBTM)
CLASS 1 zIIP TIME	Total CPU time executing on a z/OS Specialty Engine processor for the users/plans/facilities included in this report. (DSUCPUZ1)
CLASS 1 ELAPSED TIME	Total elapsed time for the users/ plans/facilities included in this report. (DSUELPTM)
CLASS 2 TCB TIME	Total IN-DB2 TCB time. This is the TCB time charged back to the user for work done in DB2. (DSUTC2TM)
CLASS 2 zIIP TIME	Total IN-DB2 CPU time executing on a z/OS Specialty Engine processor. (DSUCPUZ2)
CLASS 2 ELAPSED TIME	Total IN-DB2 elapsed time. This is the elapsed time spent waiting for DB2 to service this request. (DSUET2TM)
zIIP ELIGIBLE TIME	Total CPU time that executed on a standard CP for zIIP-eligible work. (DSUELGZP)
TOTAL I/O TIME	Total time the IMS, CICS, or TSO user's address space waited for I/O in DB2. (DSUIOETM)
TOTAL LOCK AND LATCH TIME	Total time the IMS, CICS, or TSO user's address space waited for locks and latches in DB2. (DSUALLTM)
OTHER READ TIME	Total time for read I/O done under another thread. (DSUAWRTM)

OTHER WRITE TIME	Total time for write I/O done under another thread. (DSUAWWTM)
SERVICE TASK TIME	Total wait time due to synchronous execution unit switch to DB2 services from a thread. (DSUAWETM)
ARCHIVE LOG TIME	Total wait time due to processing ARCHIVE LOG MODE(QUIESCE) commands. (DSUALGTM)
NO. ENTRY/EXIT EVENTS	Number of entry and exit events processed to calculate the elapsed times in DB2. (DSUENTEX)
NO. WAIT TRACE EVENTS	Number of entry and exit events processed to calculate the I/O, lock, and latch elapsed wait times. (DSUWATTR)

Thread Status Section

NORMAL END OF TASK	End of task, application program terminated.
NORMAL APPLICATION ENDED	End of task, application program termination.
NORMAL DEALLOCATION	Deallocation, normal program termination.
NORMAL NEW USER	New user, authorization ID changed.
ABNORMAL APPLICATION ABENDED	End of task, application program ABEND.
ABNORMAL END OF MEMORY	End of memory, abnormal termination.
ABNORMAL RESOLVE INDOUBT	Resolve indoubt.
ABNORMAL FORCE COMMAND	STOP DB2 MODE (FORCE) command issued.
WORK UNIT IN DOUBT APPLICATION ABENDED	End of task, application program ABEND.

```
   WORK UNIT IN DOUBT        End of memory, abnormal
    END OF MEMORY            termination.

   WORK UNIT IN DOUBT        Resolve indoubt.
    RESOLVE INDOUBT

   WORK UNIT IN DOUBT        STOP DB2 MODE (FORCE) command
    FORCE COMMAND            issued.

SQL Calls Section

   SELECT                    Number of SELECT statements.

   INSERT                    Number of INSERT statements.

   UPDATE                    Number of UPDATE statements.

   DELETE                    Number of DELETE statements.

   DESCRIBE                  Number of DESCRIBE statements.

   PREPARE:                  Number of PREPARE statements.

   OPEN:                     Number of OPEN statements.

   CLOSE                     Number of CLOSE statements.

   LOCK TABLE                Number of LOCK TABLE statements.

   GRANT                     Number of GRANT statements.

   REVOKE                    Number of REVOKE statements.

   INCREMENTAL BIND          Number of incremental binds
                             excluding prepares.

   COMMENT                   Number of COMMENT ON statements.

   SET SQLID                 Number of SET CURRENT SQLID
                             statements.

   SET HOST VARIABLE         Number of SET HOST VARIABLE
                             statements.

   CREATE TABLE              Number of CREATE TABLE
                             statements.

   CREATE INDEX:             Number of CREATE INDEX
```

	statements.
CREATE TABLESPACE	Number of CREATE TABLESPACE statements.
CREATE STOGROUP	Number of CREATE STOGROUP statements.
CREATE DATABASE	Number of CREATE DATABASE statements.
CREATE SYNONYM	Number of CREATE SYNONYM statements.
CREATE VIEW	Number of CREATE VIEW statements.
DROP TABLE	Number of DROP TABLE statements.
DROP INDEX	Number of DROP INDEX statements.
DROP TABLESPACE:	Number of DROP TABLESPACE statements.
DROP STOGROUP	Number of DROP STOGROUP statements.
DROP DATABASE	Number of DROP DATABASE statements.
DROP SYNONYM	Number of DROP SYNONYM statements.
DROP VIEW	Number of DROP VIEW statements.
DROP PACKAGE	Number of DROP PACKAGE statements.
ALTER TABLE	Number of ALTER TABLE statements.
ALTER INDEX	Number of ALTER INDEX statements.
ALTER TABLESPACE	Number of ALTER TABLESPACE statements.
ALTER STOREGROUP	Number of ALTER STOREGROUP statements.
ALTER DATABASE	Number of ALTER DATABASE statements.

FETCH	Number of FETCH statements.
LABEL	Number of LABEL statements.
DESCRIBE TABLE	Number of DESCRIBE TABLE statements.

Locking Section

DEADLOCKS	Deadlock count.
SUSPENSIONS	Suspension count.
TIMEOUTS	Timeout count.
ESCALATED TO SHARED	Number of lock escalations to shared mode.
ESCALATED TO EXCLUSIVE	Number of lock escalations to exclusive mode.
MAX. PAGE LOCKS HELD	Maximum number of page locks held by a DB2 user.
RESOURCE TABLE ID	Nature of resource limit in effect.
HOW LIMIT WAS DETERMINED	Method resource limit was determined.
SERVICE UNIT TIME LIMIT	Number of CPU services units allowed per dynamic SQL requests.
CPU TIME LIMIT	CPU time limit allowed per dynamic SQL requests.
HIGHEST CPU TIME USED	Highest CPU time used for a dynamic SQL statement.
LATCH SUSPEND COUNT	Number of suspends due to latch conflict.
OTHER SUSPEND COUNT	Number of suspends due to something other than latch conflict.
LOCK REQUEST COUNT	Total number of IRLM lock requests.

QUERY REQUEST COUNT	Total number of IRLM query requests.
CHANGE REQUEST COUNT	Total number of IRLM change requests.
OTHER IRLM REQUEST COUNT	Total number of other IRLM requests.

Miscellaneous Section

COMMIT PHASE TWO	Number of commit phase two invocations.
ABORT REQUESTS	Number of abort requests.

Buffer Manager Section

GETPAGE REQUESTS	Number of GETPAGE requests.
RECORD IN SYSTEM PAGE UPDATED	Number of records residing in a system page that were updated.
SYNCHRONOUS READ I/O	Number of synchronous read I/Os.
SYNCHRONOUS WRITE I/O	Number of synchronous write I/Os.
SEQUENTIAL PREFETCH REQUESTS	Number of sequential prefetch read requests by user application.
LIST PREFETCH REQUESTS	Number of list prefetch read requests by user application
DYNAMIC PREFETCH: REQUESTS	Total number of Dynamic Prefetch Requests for all active DB2 buffer pools. Dynamic prefetch is the process that is triggered because of sequential detection. (DSUDPFn)
UNSUCCESSFUL GETPAGE OPERATIONS	Total number of times conditional getpage requests could not be satisfied for all active DB2 buffer pools. (DSUSNGT)
ASYNC PAGES READ BY PREFETCH	Total number of synchronous read I/Os issued by sequential access

	requesters, summarized across all active DB2 buffer pools. (DSUSSIO)
DDF Accounting Section	
LOCATION	Location Identifier for a Remote DB2 Subsystem. (DB2RLOCN)
DDF THREADS	Count of SMF 101 DDF accounting segments included in this entry. The second and third lines of this column indicate average and maximum reporting for each location. (DDUNTHRD)
LOCAL ELAPSED	Total time spent waiting at the local DB2 for remote DB2 processing of a distributed request. (DDUELPL)
REMOTE ELAPSED	Total time spent processing distributed request as measured from the remote serving DB2 subsystem.(DDUELPR)
REMOTE CPU	Total CPU time (SRB at remote site spent processing SQL requests. (DDUCPUR)
CONVERS. (SENT/RECEIVED)	VTAM Conversations Sent or Received. Sent (DDUCNVS) Received (DDUCNVR)
CONVERS. QUEUED	VTAM Conversations Queued (DDUCNVQ) to be sent to remote site.
ABORTS (SENT/RECEIVED)	Abort Messages Sent or Received. Sent (DDUABRS) Received (DDUABRR)
COMMITS (SENT/RECEIVED)	COMMIT Messages Sent or Received. Sent (DDUCOMS) Received (DDUCOMR)
SQL SENT/RECEIVED	SQL Statements Sent or Received. Sent (DDUSQLS) Received (DDUSQLR)
DATA ROWS SENT	Data rows sent to the remote site. (DDUROWS)

DATA ROWS FROM	Data rows received from the remote site. (DDUROWR)
MESSAGES SENT TO	VTAM Messages sent to the remote site. (DDUMSGS)
MESSAGES RECEIVED FROM	VTAM Messages received from the remote site. (DDUMSGR)
BYTES/1000 SENT	Number of bytes sent to the remote site (DDUROWS) divided by 1000. If the total byte count is less than 10000, the division by 1000 is not performed and the report variable is flagged.
BYTES/1000 RECEIVED	Number of bytes received from remote (DDUROWR) divided by 1000. If the total byte count is less than 10000, the division by 1000 is not performed and the report variable is flagged.

3.1.5 DB2 Calendar Report

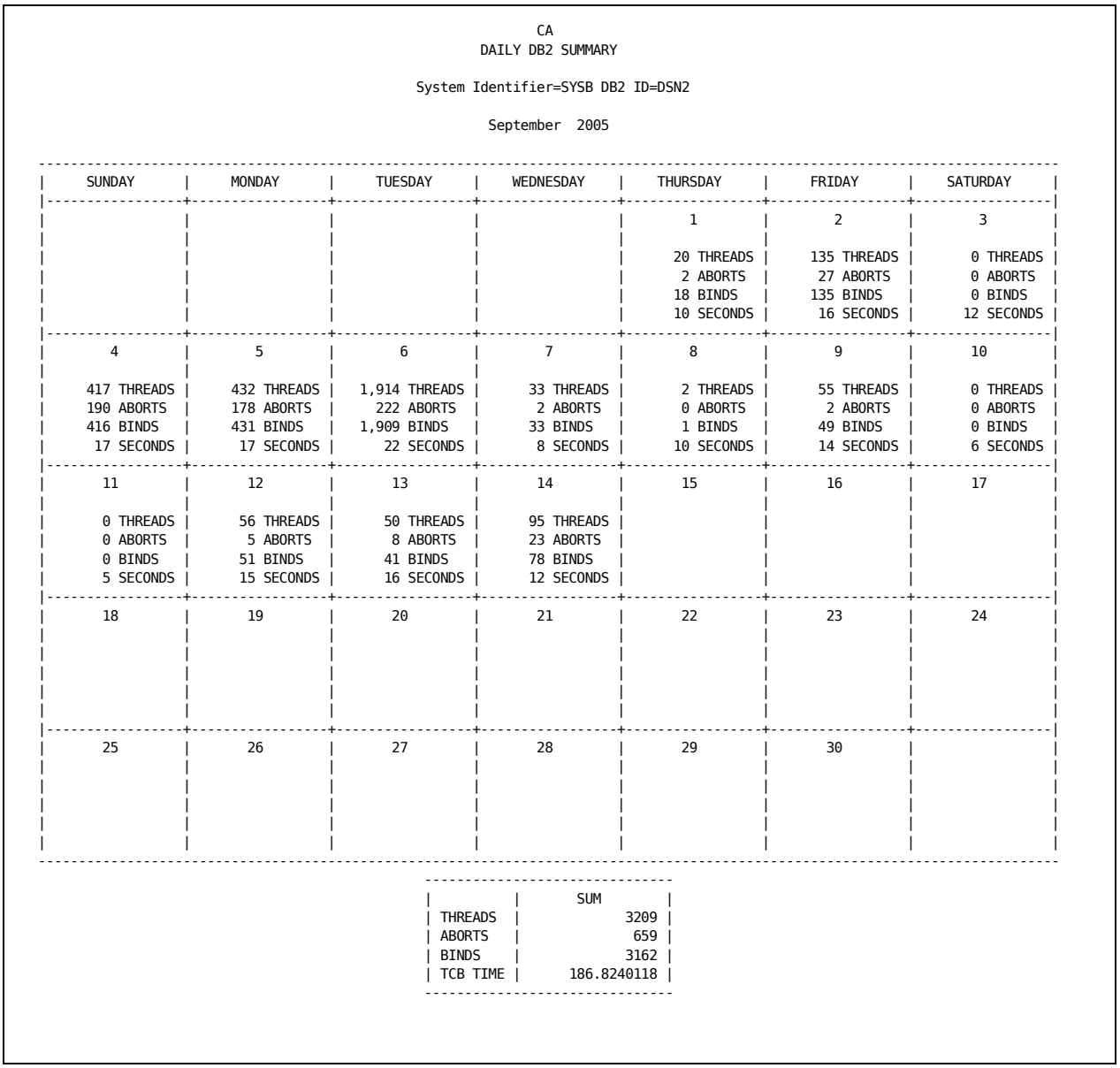
The DB2 Calendar Report provides an extract of key DB2 activity indicators from the DB2 System Activity and the DB2 Data Base Activity files. It presents this information in calendar form, showing the activity indicators for each day of the month.

The Calendar Report is normally produced as a part of the DAILYRPT and MONTHRPT jobs which are automatically submitted during the DAILY and MONTHLY runs, respectively.

DAILYRPT executes the SAS program found in sharedprefix.MICS.SOURCE(DYDB2MBO) while MONTHRPT executes sharedprefix.MICS.SOURCE(MNDB2MBO). Both of these programs prepare data and then execute the SAS CALENDAR procedure.

Because of their relative simplicity, the statements for PROC CALENDAR were not placed in a separate source library member. The user is free to develop additional reports using this SAS facility.

To activate this report for use in DYDB2MBO or MNDB2MBO, you must set the macro variable CALREP=Y in the #DB2MOBJ member of your unit library prefix.MICS.USER.SOURCE. The system default macro variable values are in sharedprefix.MICS.SOURCE member #DB2MOBJ.



CA
DAILY DB2 SUMMARY

System Identifier=SYSB DB2 ID=DSN2

September 2005

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1	2	3
				20 THREADS	135 THREADS	0 THREADS
				2 ABORTS	27 ABORTS	0 ABORTS
				18 BINDS	135 BINDS	0 BINDS
				10 SECONDS	16 SECONDS	12 SECONDS
4	5	6	7	8	9	10
417 THREADS	432 THREADS	1,914 THREADS	33 THREADS	2 THREADS	55 THREADS	0 THREADS
190 ABORTS	178 ABORTS	222 ABORTS	2 ABORTS	0 ABORTS	2 ABORTS	0 ABORTS
416 BINDS	431 BINDS	1,909 BINDS	33 BINDS	1 BINDS	49 BINDS	0 BINDS
17 SECONDS	17 SECONDS	22 SECONDS	8 SECONDS	10 SECONDS	14 SECONDS	6 SECONDS
11	12	13	14	15	16	17
0 THREADS	56 THREADS	50 THREADS	95 THREADS			
0 ABORTS	5 ABORTS	8 ABORTS	23 ABORTS			
0 BINDS	51 BINDS	41 BINDS	78 BINDS			
5 SECONDS	15 SECONDS	16 SECONDS	12 SECONDS			
18	19	20	21	22	23	24
25	26	27	28	29	30	

	SUM
THREADS	3209
ABORTS	659
BINDS	3162
TCB TIME	186.8240118

Figure 3-4 DB2 Calendar Report Sample

3.1.5.1 DB2 Calendar Report Format

The DB2 Calendar Report contains the following sections:

- Identification
- Daily Data Section
- Legend Section

Identification Section

RUN DATE	The date that the report was created.
SYSID	The logical system identifier.
DB2 SYSTEM	The DB2 subsystem identifier.
REPORTING PERIOD	The month of the year for this calendar.

Daily Data Section

THREADS	The number of threads created on this day.
ABORTS	The number of abort requests on this day.
BINDS	The number of successful bound plan allocations on this day.
SECONDS	The TCB time reported by the accounting system on this day.

Legend Section

THREADS	The total number of threads created this month.
ABORTS	The total number of abort requests this month.
BINDS	The total number of successful bound plan allocations this month.

SECONDS	The total TCB time reported by the accounting system this month.

3.1.6 DB2 Plan Performance Summary Report

The DB2 Plan Performance Summary Report provides an extract of the most pertinent summary information from the DB2 Plan Activity File (DB2DSP), which is created from the SMF type 101 record. It summarizes the activity of active DB2 plans.

The Plan Performance Summary Report is normally produced as a part of the DAILYRPT and MONTHRPT jobs, which are automatically submitted during the DAILY and MONTHLY runs, respectively.

DAILYRPT executes the SAS program found in sharedprefix.MICS.SOURCE(DYDB2MBO), while MONTHRPT executes sharedprefix.MICS.SOURCE(MNDB2MBO). Both of these programs prepare data and then execute the actual report generation program located in sharedprefix.MICS.SOURCE(DB2PLNSM), which produces the Plan Performance Summary Report.

The program will produce a separate report for each combination of SYSID and DB2 system.

To activate this report for use in DYDB2MBO or MNDB2MBO, you must set the macro variable PLANSUM=Y in the #DB2MOBJ member of your unit library prefix.MICS.USER.SOURCE. The system default report macro variable values are in sharedprefix.MICS.SOURCE member #DB2MOBJ.

To create this report directly, ensure the macro variable PLANSUM is set equal to Y in member #DB2MOBJ of your unit library prefix.MICS.USER.SOURCE. Set all other macro variables to N to produce ONLY the DB2 Plan Performance Summary Report. Finally, you must execute the program DYDB2MBO or MNDB2MBO, as is done in the DAILYRPT and MONTHRPT jobs.

CA

CA MICS/DB2 DB2 PLAN PERFORMANCE SUMMARY PAGE: 1
RUN DATE: Monday, December 5, 2005 SUBPAGE: 1

SYSID:A1A1 ! DB2 SYSTEM: RA1A ! SUMMARY REPORT
! RELEASE: 8.1 !

PLAN	CONNECT FACILITY	TOTAL COUNT	AVG TCB SEC	AVG TCB SEC	AVG ELAPSED	TOTAL GETPAGE	AVG GETPAGE	AVG SYNC. READ	AVG SEQ. PREFETCH	AVG MAX PG LOCKS	AVG UPDATE PAGE	TOTAL DEAD LOCK	TOTAL SUSP	TOTAL TIME-OUT	TOTAL ABORT
B2RHPIN	* ALL *	22	0.42796	0.01945	0:00:00.229	12377	562.591	3.63636	0.31818	0.7727	192.77	0	0	0	0
CSMHR01	* ALL *	11	0.81572	0.07416	0:00:00.417	21748	1977.09	2.27273	0.90909	2	0	0	0	0	0
CSQ5D531	* ALL *	1	0.00438	0.00438	0:00:00.141	20	20	7	2	2	5	0	0	0	0
CSQ5L531	* ALL *	17419	12.4022	0.00071	0:00:00.001	35053	2.01234	0.00034	0	0	0	0	0	0	17268
CSQ5R531	* ALL *	13	0.01062	0.00082	0:00:00.011	43	3.30769	0.53846	0	0.1538	0.0769	0	0	0	6
CSQ5S531	* ALL *	1440	1.00569	0.0007	0:00:00.001	2880	2	0	0	0	0	0	0	0	1440
CSQ5U532	* ALL *	1	0.00141	0.00141	0:00:00.054	3	3	0	0	1	1	0	0	0	0
CSQ5W531	* ALL *	1	0.00597	0.00597	0:00:00.214	32	32	16	0	2	6	0	0	0	0
DB2CPLAN	* ALL *	4	0.01076	0.00269	0:00:00.062	16	4	0	0	0	0	0	0	0	0
DISTSERV	* ALL *	19903	72.4451	0.00364	0:00:00.020	1017920	51.144	0.06944	0.31051	0.7304	1.663	0	67	0	122
DSNREXX	* ALL *	2	0.00159	0.00079	0:00:00.001	0	0	0	0	0	0	0	0	0	0
DSNTEP2	* ALL *	48	10.5186	0.21914	0:00:00.565	515878	10747.5	19.2708	15.5	51.271	295.25	0	0	0	0
DSNUTIL	* ALL *	29375	57.2005	0.00195	0:00:00.137	502021	17.0901	0.17185	0.14114	0.4609	4.0112	0	10149	0	3
RBPAPLAN	* ALL *	2	0.0097	0.00485	0:00:00.087	62	31	2	0	1	12	0	0	0	0
RDPCPLAN	* ALL *	39	0.74327	0.01906	0:00:03.237	8371	214.641	0.30769	0	0.1795	0	0	0	0	0
RDPPPLAN	* ALL *	77	0.15962	0.00207	0:00:03.381	1769	22.974	0.62338	0.36364	0.1688	2.8831	0	0	0	0
RDPSPLAN	* ALL *	672	1.27106	0.00189	0:00:00.727	18991	28.2604	0.95685	0.12054	0.0402	12.272	0	20	0	0
RQPAPLAN	* ALL *	216	0.49825	0.00231	0:00:00.050	23189	107.356	0.47685	2.07407	0.0324	4.7037	0	1	0	0
RUPUPLAN	* ALL *	1156	1.52063	0.00132	0:00:22.586	19249	16.6514	0.10813	0.69204	0.019	2.9014	0	0	0	884
SYDBSQL1	* ALL *	6	0.00916	0.00153	0:00:00.009	294	49	0.5	0.66667	0.5	0	0	0	0	0

REPORTING PERIOD Friday, September 3, 2004 6:01:17 TO Friday, September 3, 2004 18:01:16

Figure 3-5. DB2 Plan Performance Summary Report Sample

3.1.6.1 PLAN Performance Summary Report Format

The PLAN Performance Summary Report contains the following sections:

- Identification
- PLAN Summary
- Report Page End

Identification Section

RUN DATE	Date the report was created.
SYSID	Logical system identifier.
DB2 SYSTEM	DB2 subsystem identifier. (DB2ID)
RELEASE	DB2 subsystem release level. (DB2RELN)
REPORTING PERIOD	Earliest and latest dates and times found within the data.

PLAN Summary Section

PLAN	DB2 PLANs included in this report. (DB2PLAN)
FACILITY	Facility identifier of requesting environment (IMS, CICS, BATCH, and so on) (DB2CONN)
COUNT	Total number of PLAN executions used to generate this report line. This value is calculated as the greater of the number of threads initiated (or the number of parent tasks when query CP parallelism is in use) or sum of the commit phase 2 + aborts, i.e., DSPNTHRD or (DSPCOMM2 + DSPABORT)
TOTAL TCB SEC	Total TCB time for the users/ PLANs/facilities included in this report. This time may include non-DB2 application TCB time for facilities other than CICS.

	(DSPTCBTM)
AVG TCB SEC	Average TCB seconds per PLAN execution. (DSPTCBTM/COUNT)
AVG ELAPSED	Average elapsed time per PLAN execution. This number is computed using the following algorithm: - If COUNT is equal to DSPNTHRD and any of the PLAN executions used query CP parallelism: <AVG ELAPSED> = DSPELPTM/COUNT - Otherwise: <AVG ELAPSED> = DSPTELPT/COUNT
TOTAL GETPAGE	Total GETPAGE requests for all executions of this PLAN. (DSPSGPGR)
AVG GETPAGE	Average GETPAGE requests for each PLAN execution. (<TOTAL GETPAGE>/COUNT)
AVG SYNC. READ	Average synchronous reads per execution of this PLAN. This count does not include the asynchronous sequential prefetch reads. Total synchronous reads are calculated as follows: TOTAL SYNC READ = DSPSRIO Then the average is computed. (<TOTAL SYNC READ>/COUNT)
AVG SEQ. PREFETCH	Average Prefetch reads per execution of this PLAN. First the total prefetch reads are calculated as follows: TOTAL SEQ. PREF = DSPSPRFH Then the average prefetch read requests are calculated as follows: (<TOTAL SEQ. PREF>/COUNT)
AVG MAX PG LOCKS	The average maximum page locks

	per PLAN execution is derived by first summing all maximum page lock counts for this plan (DSPMXPL); then dividing that SUM by the PLAN execution count (COUNT). The result shows the maximum number of pages that are locked for each PLAN on average. (DSPMXPL/COUNT)
AVG UPDATE PAGE	The average number of unit-of-work pages updated per PLAN execution. First the total unit-of-work page updates are calculated as follows: Then the average is calculated. (<TOTAL UPD PAGE>/COUNT)
TOTAL DEADLOCK	Total deadlocks detected by DB2 for all executions of this PLAN. (DSPDEAD) The amount of time allowed before deadlock detection is determined at DB2 startup from the IRLM parameters. (DSPTIMO)
TOTAL SUSPEND	Total suspend requests for this PLAN. (DSPSUSP)
TOTAL TIMEOUT	Total timeouts detected by DB2 for all executions of this PLAN. A timeout occurs for PLAN waiting for resources that are unavailable. The amount of time allowed before timeout processing is initiated, is determined at DB2 startup from the IRLM parameters. (DSPTIMO)
TOTAL ABORT	Total PLAN aborts for all executions of this PLAN. (DSPABORT)

Report Page End

REPORTING PERIOD	Earliest and latest dates and times found within the data.

3.1.7 DB2 Plan Performance Report

The DB2 Plan Performance Report provides an extract of the most pertinent detail information from the DB2 Plan Activity File (DB2DSP), which is created from the SMF type 101 record. It details the activity of active DB2 plans.

The Plan Performance Report is normally produced as a part of the DAILYRPT and MONTHRPT jobs, which are automatically submitted during the DAILY and MONTHLY runs, respectively.

DAILYRPT executes the SAS program found in sharedprefix.MICS.SOURCE(DYDB2MBO) while MONTHRPT executes sharedprefix.MICS.SOURCE(MNDB2MBO). Both of these programs prepare data and then execute the actual report generation program located in sharedprefix.MICS.SOURCE(DB2PLNPT), which produces the Plan Performance Report. This module also invokes the Plan Performance Summary report (DB2PLNSM) if summary reporting has been requested.

The program will produce a separate report for each combination of SYSID, DB2 system, plan, user, jobname, and facility. The system default is to set the User, Jobname and Facility variables DB2AUTH, DB2CORR and DB2CONN to *ALL*. This results in a detail report by plan within a DB2 subsystem for all plans being monitored.

To activate this report for use in DYDB2MBO or MNDB2MBO, you must set the macro variable PLANREP=Y in the #DB2MOBJ member of your unit library prefix.MICS.USER.SOURCE. The system default report macro variable values are in sharedprefix.MICS.SOURCE member #DB2MOBJ.

To create this report directly, ensure the macro variable PLANREP is set equal to Y in member #DB2MOBJ of your unit library prefix.MICS.USER.SOURCE. If you require the DDF reporting block for this report you must also set the macro variable DDPREP=Y. Set all other macro variables to N to produce ONLY the DB2 Plan Performance Report. Finally, you must execute the program DYDB2MBO or MNDB2MBO, as is done in the DAILYRPT and MONTHRPT jobs.

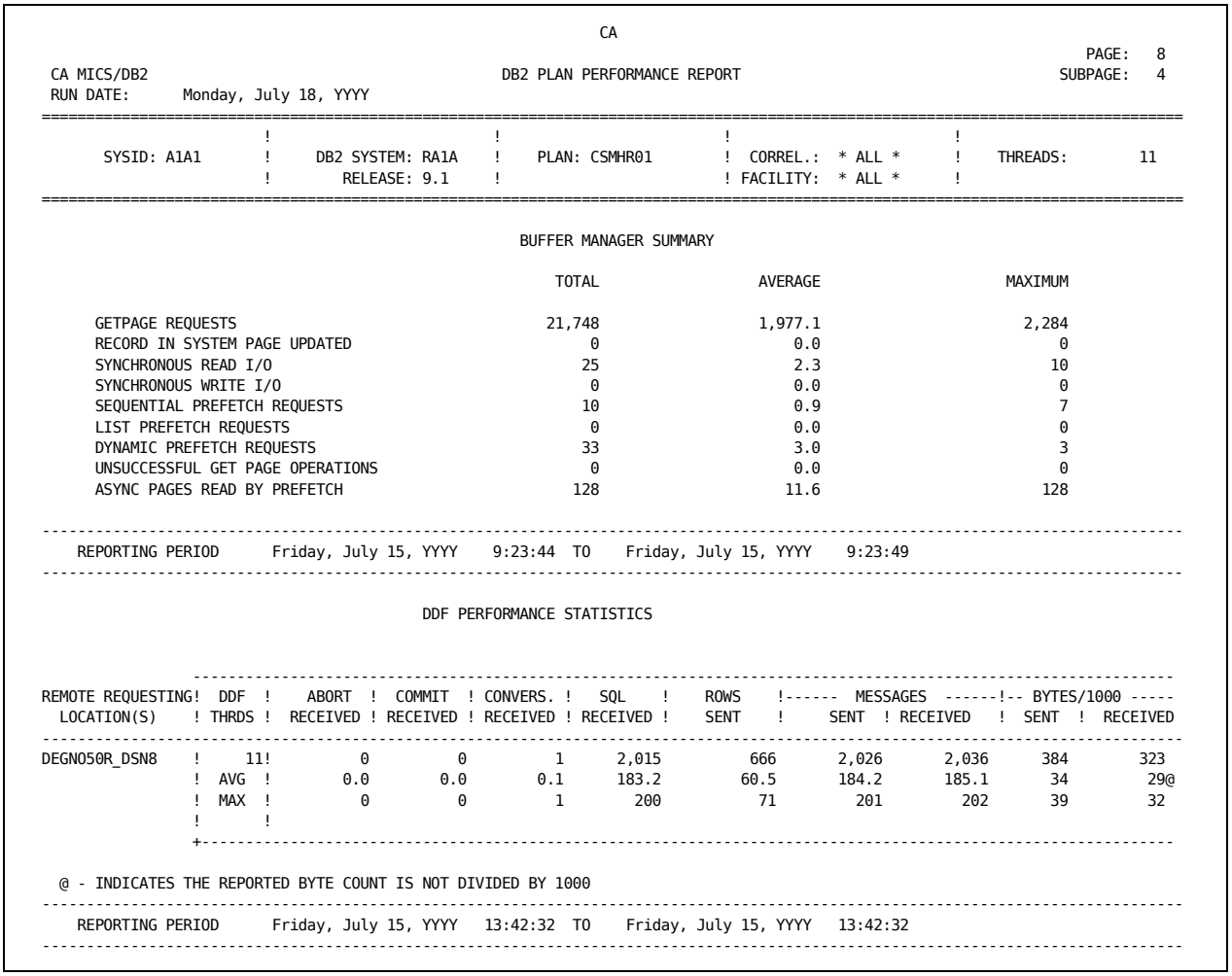
```
                                                
```

```
                                                CA
                                                                                                                  PAGE:   6
CA MICS/DB2                                  DB2 PLAN PERFORMANCE REPORT                                          SUBPAGE:   2
RUN DATE:      Monday, July 18, YYYY
=================================================================================================================================
                        !                       !                       !                       !
      SYSID: A1A1       !    DB2 SYSTEM: RA1A   !   PLAN: CSMHR01       ! CORREL.:  * ALL *     !   THREADS:        11
                        !       RELEASE: 9.1    !                       ! FACILITY:  * ALL *    !
=================================================================================================================================

                                                SQL CALLS

 MANIPULATIVE STATEMENTS                CONTROL STATEMENTS                          DEFINITIONAL STATEMENTS

SELECT                 666          LOCK TABLE                 0                              CREATE         DROP       ALTER
INSERT                   0          GRANT                      0
UPDATE                   0          REVOKE                     0          TABLE                    0            0           0
DELETE                 684          INCREMENTAL BIND           0          INDEX                    0            0           0
DESCRIBE                 0          COMMENT                    0          TABLESPACE               0            0           0
PREPARE                  0          SET SQLID                  0          STOREGROUP               0            0           0
OPEN                   665          SET HOST VARIABLE          0          DATA BASE                0            0           0
CLOSE                    0                                                 SYNONYM                  0            0
FETCH                  665                                                 VIEW                     0            0
LABEL                    0                                                 ALIAS                    0            0
DESCRIBE TABLE           0                                                 PACKAGE                               0

---------------------------------------------------------------------------------------------------------------------------------

                                          MULTIPLE INDEX ACTIVITY

                                            MIX INDEX NOT USED          MIX INDEX NOT USED
                    MIX INDEX USED          STORAGE LIMIT EXCEEDED      RID LIMIT EXCEEDED
                    ______________          ______________________      __________________
                                 0                               0                       0
---------------------------------------------------------------------------------------------------------------------------------
    REPORTING PERIOD      Friday, July 15, YYYY    9:23:44  TO    Friday, July 15, YYYY    9:23:49
---------------------------------------------------------------------------------------------------------------------------------
```

Figure 3-6. DB2 Plan Performance Report Sample (Part 2 of 4)

```
                                                CA
                                                                                                                  PAGE:   7
CA MICS/DB2                                  DB2 PLAN PERFORMANCE REPORT                                        SUBPAGE:   3
RUN DATE:      Monday, July 18, YYYY
================================================================================================================================
                        !                       !                       !                       !
      SYSID: A1A1       !     DB2 SYSTEM: RA1A  !    PLAN: CSMHR01      !  CORREL.:  * ALL *    !    THREADS:        11
                        !        RELEASE: 9.1   !                       ! FACILITY:  * ALL *    !
================================================================================================================================

                                              LOCKING

                                TOTAL                AVERAGE             MAXIMUM

   DEADLOCKS                       0                    0.0                   0
   SUSPENSIONS                     0                    0.0                   0
   TIMEOUTS                        0                    0.0                   0
   MAX. CONCUR. PAGELOCK          22                    2.0                   2

   LOCK/LATCH TIME                 0                    0.0                   0
   LATCH SUSPEND COUNT             0                    0.0                   0
   OTHER SUSPEND COUNT             0                    0.0                   0

   ESCALATE TO SHARED              0                    0.0                   0
   ESCALATE TO EXCLUSIVE           0                    0.0                   0

   LOCK REQUEST COUNT          1,369                    0.0                 145
   QUERY REQUEST COUNT             0                    0.0                   0
   CHANGE LOCK REQUESTS           16                    1.5                   2
   IRLM LOCK REQUEST (OTHER)       0                    0.0                   0
    RESOURCE TABLE ID
    HOW LIMIT WAS DETERMINED    UNKNOWN
    SERVICE UNIT TIME LIMIT             0
    CPU TIME LIMIT              0:00:00.000
    HIGHEST CPU TIME USED       0:00:00.000
--------------------------------------------------------------------------------------------------------------------------------
    REPORTING PERIOD      Friday, July 15, 2006    9:23:44  TO    Friday, July 15, 2006    9:23:49
--------------------------------------------------------------------------------------------------------------------------------
```

Figure 3-6. DB2 Plan Performance Report Sample (Part 3 of 4)



```
                                                    CA
                                                                                                                    PAGE:   8
CA MICS/DB2                                      DB2 PLAN PERFORMANCE REPORT                                       SUBPAGE:   4
RUN DATE:      Monday, July 18, YYYY
=============================================================================================================================
                        !                        !                        !                        !
       SYSID: A1A1      !     DB2 SYSTEM: RA1A   !    PLAN: CSMHR01       !  CORREL.:  * ALL *     !    THREADS:        11
                        !        RELEASE: 9.1    !                        ! FACILITY:  * ALL *     !
=============================================================================================================================

                                                BUFFER MANAGER SUMMARY

                                                    TOTAL                 AVERAGE                    MAXIMUM

      GETPAGE REQUESTS                             21,748                 1,977.1                      2,284
      RECORD IN SYSTEM PAGE UPDATED                     0                     0.0                          0
      SYNCHRONOUS READ I/O                             25                     2.3                         10
      SYNCHRONOUS WRITE I/O                             0                     0.0                          0
      SEQUENTIAL PREFETCH REQUESTS                     10                     0.9                          7
      LIST PREFETCH REQUESTS                            0                     0.0                          0
      DYNAMIC PREFETCH REQUESTS                        33                     3.0                          3
      UNSUCCESSFUL GET PAGE OPERATIONS                  0                     0.0                          0
      ASYNC PAGES READ BY PREFETCH                    128                    11.6                        128

-----------------------------------------------------------------------------------------------------------------------------
    REPORTING PERIOD      Friday, July 15, YYYY    9:23:44  TO    Friday, July 15, YYYY    9:23:49
-----------------------------------------------------------------------------------------------------------------------------

                                          DDF PERFORMANCE STATISTICS


                    ---------------------------------------------------------------------------------------------------------
REMOTE REQUESTING!  DDF  !    ABORT  !  COMMIT  ! CONVERS. !   SQL    !    ROWS    !------  MESSAGES  ------!-- BYTES/1000 -----
  LOCATION(S)     ! THRDS !  RECEIVED ! RECEIVED ! RECEIVED ! RECEIVED !    SENT    !     SENT  ! RECEIVED   !  SENT  !  RECEIVED
-----------------------------------------------------------------------------------------------------------------------------
DEGNO50R_DSN8     !     11!          0          0          1      2,015          666       2,026       2,036      384         323
                  !  AVG  !        0.0        0.0        0.1      183.2         60.5       184.2       185.1       34         29@
                  !  MAX  !          0          0          1        200           71         201         202       39         32
                  !       !
                  +---------------------------------------------------------------------------------------------------------

  @ - INDICATES THE REPORTED BYTE COUNT IS NOT DIVIDED BY 1000
-----------------------------------------------------------------------------------------------------------------------------
    REPORTING PERIOD      Friday, July 15, YYYY   13:42:32  TO    Friday, July 15, YYYY   13:42:32
-----------------------------------------------------------------------------------------------------------------------------
```

Figure 3-6. DB2 Plan Performance Report Sample (Part 4 of 4)

3.1.7.1 DB2 Plan Performance Report Format

The DB2 Plan Performance Report contains the following sections:

- Identification
- CPU Time
- Accounting Class 3 Events
- Thread Status
- SQL Calls
- Multiple Index Activity
- Locking
- Buffer Manager
- DDF Performance
- Page End

Identification Section

RUN DATE	Date the report was created.
SYSID	Logical system identifier.
DB2 SYSTEM	DB2 subsystem identifier. (DB2ID)
RELEASE	DB2 subsystem release level. (DB2RELN)
PLAN	DB2 plan(s) included in this report. (DB2PLAN)
CORREL	Job name of requesting environment. (DB2CORR)
FACILITY	Facility identifier of requesting environment. (IMS, CICS, BATCH, etc.) (DB2CONN)
THREADS	The number of threads initiated or the number of parent tasks used to build this entry, when query CP parallelism is in use. (DSPNTHRD) NOTE: In the calculation of averages, a calculated field DB2NTRAN is used. DB2NTRAN is the greater of DSPNTHRD or (DSPCOMM2 + DSPABORT).

```
CPU Time Section

   CLASS 1 ELAPSED TIME      Elapsed time for this plan.
                             (DSPELPTM)

           AVERAGE           Average elapsed time for this DB2
                             PLAN.  This average is calculated
                             as follows:

                             - If DB2NTRAN is equal to
                               DSPNTHRD and any of the PLAN
                               executions used query CP
                               parallelism:
                                <AVERAGE> = DSPELPTM/DB2NTRAN

                             - Otherwise:
                                <AVERAGE> = DSPTELPT/DB2NTRAN

           MAXIMUM           Maximum elapsed time for this DB2
                             PLAN.  (DSPMELPT)

   CLASS 2 ELAPSED TIME      Total elapsed time spent in DB2
                             for this PLAN.  (DSPET2TM)

           AVERAGE           Average elapsed time spent in DB2
                             for this DB2 PLAN.  This average
                             is calculated as follows:

                             - If DB2NTRAN is equal to
                               DSPNTHRD and any of the PLAN
                               executions used query CP
                               parallelism:
                                <AVERAGE> = DSPET2TM/DB2NTRAN

                             - Otherwise:
                                <AVERAGE> = DSPTET2T/DB2NTRAN

           MAXIMUM           Maximum elapsed time spent in DB2
                             for this DB2 PLAN.  (DSPMEL2T)

   CLASS 1 TCB TIME          Total TCB time for this PLAN.
                             This may include non-DB2 time for
                             facilities other than CICS.
                             (DSPTCBTM)

           AVERAGE           Average TCB time for this DB2
                             PLAN.  This average is calculated
                             as DSPTCBTM/DB2NTRAN.
```

	MAXIMUM	Maximum TCB time for this DB2 PLAN. This may include non-DB2 time for facilities other than CICS. (DSPMTCBT)
CLASS 2 TCB TIME		Total TCB time spent in DB2 for this PLAN. (DSPTC2TM)
	AVERAGE	Average TCB time spent in DB2 for this DB2 PLAN. This average is calculated as DSPTC2TM/ DB2NTRAN.
	MAXIMUM	Maximum TCB time spent in DB2 for this DB2 PLAN. (DSPMTC2T)
CLASS 1 zIIP TIME		Total CPU time executing on a zIIP processor for this DB2 PLAN. (DSPCPUZ1)
	AVERAGE	Average zIIP CPU time for this DB2 PLAN. This average is calculated as DSPCPUZ1/DB2NTRAN.
	MAXIMUM	Maximum zIIP CPU time for this DB2 PLAN. (DSPMXZP1)
CLASS 2 zIIP TIME		Total CPU time spent in DB2 executing on a zIIP processor for this DB2 PLAN. (DSPCPUZ2)
	AVERAGE	Average zIIP CPU time spent in DB2 for this DB2 PLAN. This average is calculated as DSPCPUZ2/DB2NTRAN.
	MAXIMUM	Maximum zIIP CPU time spent in DB2 for this DB2 PLAN. (DSPMXZP2)
zIIP ELIGIBLE TIME		Total CPU time that executed on a standard CP for zIIP-eligible work for this DB2 PLAN. (DSPELGZP)
	AVERAGE	Average CPU time that executed on a standard CP for zIIP-eligible

	work for this DB2 PLAN. This average is calculated as DSPELGZP/DB2NTRAN.
MAXIMUM	Maximum CPU time that executed on a standard CP for zIIP-eligible work for this DB2 PLAN. (DSPMXZET)
Accounting Class 3 Events	
TOTAL I/O TIME	Total time the IMS, CICS, or TSO user's address space waited for I/O in DB2. (DSPIOETM)
AVERAGE I/O TIME	Average time spent waiting on DB2 I/O for this PLAN. This average is calculated as DSPIOETM/ DB2NTRAN.
MAXIMUM I/O TIME	Maximum time this DB2 PLAN waited for I/O in DB2. (DSPMIOTM)
TOTAL LOCK AND LATCH TIME	Total time this DB2 PLAN waited for locks and latches in DB2. (DSPALLTM)
AVERAGE LOCK AND LATCH TIME	Average time this DB2 PLAN waited for locks and latches in DB2. This average is calculated as DSPALLTM/DB2NTRAN.
MAXIMUM LOCK AND LATCH TIME	Maximum time this DB2 PLAN waited for locks and latches in DB2. (DSPMLLTM)
TOTAL OTHER READ TIME	Total time this DB2 PLAN waited for read I/O under another thread. (DSPAWRTM)
AVERAGE OTHER READ TIME	Average time this DB2 PLAN waited for read I/O under another thread. (DSPAWRTM/DB2NTRAN)
MAXIMUM OTHER READ TIME	Maximum time this DB2 PLAN waited for read I/O under another thread. (DSPMWRTM)
TOTAL OTHER WRITE TIME	Total time this DB2 PLAN waited

	for write I/O under another thread. (DSPAWWTM)
AVERAGE OTHER WRITE TIME	Average time this DB2 PLAN waited for write I/O under another thread. (DSPAWWTM/DB2NTRAN)
MAXIMUM OTHER WRITE TIME	Maximum time this DB2 PLAN waited for write I/O under another thread. (DSPMWWTM)
TOTAL SERVICE TASK TIME	Total time this DB2 PLAN waited due to synchronous execution switch to DB2 services from a thread. (DSPAWETM)
AVERAGE SERVICE TASK TIME	Average time this DB2 PLAN waited due to synchronous execution switch to DB2 services from a thread. (DSPAWETM/DB2NTRAN)
MAXIMUM SERVICE TASK TIME	Maximum time this DB2 PLAN waited due to synchronous execution switch to DB2 services from a thread. (DSPMWETM)
TOTAL ARCHIVE LOG TIME	Total time this DB2 PLAN waited due to processing of ARCHIVE LOG MODE(QUIESCE) commands. (DSPALGTM)
AVERAGE ARCHIVE LOG TIME	Average time this DB2 PLAN waited due to processing of ARCHIVE LOG MODE(QUIESCE) commands. (DSPALGTM/DB2NTRAN)
MAXIMUM ARCHIVE LOG TIME	Maximum time this DB2 PLAN waited due to processing of ARCHIVE LOG MODE(QUIESCE) commands. (DSPMLGTM)
TOTAL ENTRY/EXIT EVENTS	Number of entry and exit events processed to calculate the accounting class 2 elapsed times in DB2. (DSPENTEX)
AVERAGE ENTRY/EXIT EVENTS	Average number of entry and exit events processed to calculate the accounting class 2 elapsed times

	in DB2. This average is calculated as DSPENTEX/DB2NTRAN.
MAXIMUM ENTRY/EXIT EVENTS	Maximum number of entry and exit events processed to calculate the accounting class 2 elapsed times in DB2. (DSPMENTX)
TOTAL WAIT TRACE EVENTS	Number of entry and exit events processed to calculate the I/O, lock, and latch elapsed wait times. (DSPWATTR)
AVERAGE WAIT TRACE EVENTS	Average number of entry and exit events processed to calculate the I/O, lock, and latch elapsed wait times. This average is calculated as DSPWATTR/DB2NTRAN.
MAXIMUM WAIT/TRACE EVENTS	Maximum number of entry and exit events processed to calculate the I/O, lock, and latch elapsed wait times. (DSPMWATR)

Thread Status Section

NORMAL END OF TASK	End of task, application program terminated. (DSPNTEOT)
NORMAL APPLICATION ENDED	End of task, application program termination. (DSPNTEND)
NORMAL DEALLOCATION	Deallocation, normal program termination. (DSPNTDEL)
NORMAL NEW USER	New user, authorization ID changed. (DSPNTNUS)
COMMIT PHASE 2	COMMIT phase 2 successful completion for IMS or CICS environments. (DSPCOMM2)
ABNORMAL APPLICATION ABENDED	End of task, application program ABEND. (DSPABABD)
ABNORMAL END OF MEMORY	End of memory, abnormal termination. (DSPWUEOM)
ABNORMAL RESOLVE INDOUBT	Resolve indoubt. (DSPABRIN)

```
   ABNORMAL                 STOP DB2 MODE (FORCE) command
    FORCE COMMAND           issued.  (DSPABFRC)

   ABORT REQUESTS           Abort Plan activity request
                            count.  (DSPABORT)


   WORK UNIT IN DOUBT       End of task, application program
    APPLICATION ABENDED     ABEND.  (DSPWUABD)

   WORK UNIT IN DOUBT       End of memory, abnormal
    END OF MEMORY           termination.  (DSPWUEOM)

   WORK UNIT IN DOUBT       Resolve indoubt.  (DSPWURIN)
    RESOLVE INDOUBT

   WORK UNIT IN DOUBT       STOP DB2 MODE (FORCE) command
    FORCE COMMAND           issued.  (DSPWUFRC)

SQL Calls Section

   SELECT                   Number of SELECT statements.
                            (DB2SELECT)

   INSERT                   Number of INSERT statements.
                            (DSPINSRT)

   UPDATE                   Number of UPDATE statements.
                            (DSPUPDTE)

   DELETE                   Number of DELETE statements.
                            (DSPDELET)

   DESCRIBE                 Number of DESCRIBE statements.
                            (DSPDESC)

   PREPARE                  Number of PREPARE statements.
                            (DSPPREP)

   OPEN                     Number of OPEN statements.
                            (DSPOPEN)

   CLOSE                    Number of CLOSE statements.
                            (DSPCLOSE)

   FETCH                    Number of FETCH statements.
                            (DSPFETCH)
```

LABEL	Number of LABEL statements. (DSPLABEL)
DESCRIBE TABLE	Number of DESCRIBE TABLE statements. (DSPDSCRT)
LOCK TABLE	Number of LOCK TABLE statements. (DSPLOCK)
GRANT	Number of GRANT statements. (DSPGRANT)
REVOKE	Number of REVOKE statements. (DSPREVOK)
INCREMENTAL BIND	Number of INCREMENTAL BINDs excluding prepares. (DSPINCRB)
COMMENT	Number of COMMENT ON statements. (DSPCMTON)
SET SQLID	Number of SET CURRENT SQLID statements. (DSPSQLID)
SET HOST VARIABLE	Number of SET HOST VARIABLE statements. (DSPSETHV)
CREATE TABLE	Number of CREATE TABLE statements. (DSPCRTAB)
CREATE INDEX	Number of CREATE INDEX statements. (DSPCRINX)
CREATE TABLESPACE	Number of CREATE TABLESPACE statements. (DSPCTABS)
CREATE STOGROUP	Number of CREATE STOGROUP statements. (DSPCRSTG)
CREATE DATABASE	Number of CREATE DATABASE statements. (DSPCRDAB)
CREATE SYNONYM	Number of CREATE SYNONYM statements. (DSPCRSYN)
CREATE VIEW	Number of CREATE VIEW statements. (DSPDEFVU)

CREATE ALIAS	Number of CREATE ALIAS statements. (DSPCRAL)
DROP TABLE	Number of DROP TABLE statements. (DSPDRPTA)
DROP INDEX	Number of DROP INDEX statements. (DSPDRPIX)
DROP TABLESPACE	Number of DROP TABLESPACE statements. (DSPDRPTS)
DROP STOGROUP	Number of DROP STOGROUP statements. (DSPDRPST)
DROP DATABASE	Number of DROP DATABASE statements. (DSPDRPDB)
DROP SYNONYM	Number of DROP SYNONYM statements. (DSPDRPSY)
DROP VIEW	Number of DROP VIEW statements. (DSPDRPVU)
DROP ALIAS	Number of DROP ALIAS statements. (DSPDRAL)
DROP PACKAGE	Number of DROP PACKAGE statements. (DSPDRPKG)
ALTER TABLE	Number of ALTER TABLE statements. (DSPALTTA)
ALTER INDEX	Number of ALTER INDEX statements. (DSPALTIX)
ALTER TABLESPACE	Number of ALTER TABLESPACE statements. (DSPALTTS)
ALTER STOGROUP	Number of ALTER STOGROUP statements. (DSPALTST)
ALTER DATABASE	Number of ALTER DATABASE statements. (DSPALDAB)

Multiple Index Activity Section

MIX INDEX USED	Number of times a multiple index access path was used. (DSPMIXU)

MIX INDEX NOT USED STORAGE LIMIT EXCEEDED	Number of times multiple index access was not used because there was not enough storage for RIDs. (DSPMIXNU)
MIX INDEX NOT USED RID LIMIT EXCEEDED	Number of times multiple index access was not used because the RID limit was exceeded. (DSPMIXNL)

Locking Section

DEADLOCKS	Total deadlock count for all PLANs included in this summation. (DSPDEAD)
AVERAGE	Average deadlock count. (AVGDEAD)
MAXIMUM	Maximum deadlock count for any PLAN in this summation. (DSPMDEAD)
SUSPENSIONS	Total suspension count for all PLANs included in this summation. (DSPSUSP)
AVERAGE	Average suspend count. (AVGSUSP)
MAXIMUM	Maximum suspend count for any PLAN in this summation. (DSPMSUSP)
TIMEOUTS	Total Timeout count for all PLANs included in this summation. (DSPTIMO)
AVERAGE	Average timeout count. (AVGTIMO)
MAXIMUM	Maximum timeout count for any PLAN in this summation. (DSPMTIMO)
MAX. CONCUR. PAGELOCK	Total maximum number of page locks held by a DB2 user for all PLANs included in this summation. (DSPMXPL)

AVERAGE	Average maximum-page-locks count. (AVGMXPL)
MAXIMUM	Maximum maximum-page-locks count for any PLAN in this summation. (DSPMMXPL)
LOCK/LATCH TIME	Total Time spent waiting on IRLM LOCKS or DB2 LATCHes for all PLANs included in this summation. (DSPALLTM)
AVERAGE	Average LOCK/LATCH time. (AVGLLTM)
MAXIMUM	Maximum LOCK/LATCH time for any PLAN in this summation. (DSPMLLTM)
LATCH SUSPEND COUNT	Total count of suspend requests due to DB2 latch contention for all PLANs included in this summation. (DSPASLAT)
AVERAGE	Average LATCH suspend request count. (AVGSLAT)
MAXIMUM	Maximum LATCH suspend requests for any PLAN in this summation. (DSPMSLAT)
OTHER SUSPEND COUNT	Total count of suspend requests for something other than LATCH contention for all PLANs included in this summation. (DSPASOTH)
AVERAGE	Average other suspend request count. (AVGASOTH)
MAXIMUM	Maximum other suspend requests for any PLAN in this summation. (DSPMSOTH)
ESCALATE TO SHARED	Total number of lock escalations to shared mode (DSPLESM) for all PLANs included in this summation. (DSPASOTH)

AVERAGE	Average other suspend request count. (AVGASOTH)
MAXIMUM	Maximum other suspend requests for any PLAN in this summation. (DSPMSOTH)
ESCALATE TO EXCLUSIVE	Total number of locks escalated to exclusive mode for all PLANs included in this summation. (DSPLEEM)
AVERAGE	Average count of locks escalated to exclusive mode. (AVGLEEM)
MAXIMUM	Maximum count of locks escalated to exclusive mode for any PLAN in this summation. (DSPMLEEM)
LOCK REQUEST COUNT	Total IRLM lock requests for all PLANs included in this summation. (DSPALOCK)
AVERAGE	Average lock requests count. (AVGLOCK)
MAXIMUM	Maximum count of lock requests for any PLAN in this summation. (DSPMLOCK)
QUERY REQUEST COUNT	Total IRLM query requests for lock status for all PLANs included in this summation. (DSPAQRY)
AVERAGE	Average IRLM query requests count. (AVGQRY)
MAXIMUM	Maximum count of IRLM query requests for any PLAN in this summation. (DSPMQRY)
CHANGE LOCK REQUESTS	Total IRLM change lock requests for all PLANs included in this summation. (DSPACHG)
AVERAGE	Average IRLM change lock requests count. (AVGACHG)

MAXIMUM	Maximum count of IRLM change lock requests for any PLAN in this summation. (DSPMCHG)
IRLM LOCK REQUEST (OTHER)	Total lock requests processed by IRLM other than the DB2 LOCKS already listed for all PLANs included in this summation. (DSPAIRLM)
AVERAGE	Average IRLM other lock requests count. (AVGAIRLM)
MAXIMUM	Maximum count of IRLM other lock requests for any PLAN in this summation. (DSPMIRLM)
RESOURCE TABLE ID	Table id of resource limit table used to determine CPU limits for dynamic PLAN execution. (DSPARLID)
HOW LIMIT WAS DETERMINED	Method resource limit was determined. (LIMITFLG)
SERVICE UNIT TIME LIMIT	Number of CPU services units allowed per dynamic SQL requests. (DSPASLMT)
CPU TIME LIMIT	CPU time limit allowed per dynamic SQL requests. (DSPACLMT)
HIGHEST CPU TIME USED	Highest CPU time used for a dynamic SQL statement. (DSPACHUS)
Buffer Manager Section	
GETPAGE REQUESTS	Total number of GETPAGE requests for all PLANs included in this
TOTAL	summation. (DSPSGPGR)
AVERAGE	Average GETPAGE requests count. (AVGSGPGR)
MAXIMUM	Maximum GETPAGE requests for any PLAN in this summation. (DSPMSGPG)

RECORD IN SYSTEM PAGE UPDATED	Total number of records residing in a system page that were updated for all PLANs included in this summation. (DSPSSPRU)
TOTAL	
AVERAGE	Average count of system page updates. (AVGSSPRU)
MAXIMUM	Maximum system page updates for any PLAN in this summation. (DSPMSSPU)
SYNCHRONOUS READ I/O	Total number of synchronous read I/Os for all PLANs included in this summation. (DSPSSRIO)
TOTAL	
AVERAGE	Average synchronous read I/O count. (AVGSSRIO)
MAXIMUM	Maximum synchronous read I/O count for any PLAN in this summation. (DSPMSSRD)
SYNCHRONOUS WRITE I/O	Number of synchronous write I/Os for all PLANs included in this summation. (DSPSCIMW)
TOTAL	
AVERAGE	Average synchronous write I/O count. (AVGSCIMW)
MAXIMUM	Maximum synchronous write I/O count for any PLAN in this summation. (DSPMSSWR)
SEQUENTIAL PREFETCH REQUESTS	Total number of sequential prefetch read requests for all PLANs included in this summation. (DSPSPRFH)
AVERAGE	Average sequential prefetch read request count. (AVGSPRFH)
MAXIMUM	Maximum sequential prefetch read request count for any PLAN in this summation. (DSPMSPFR)
LIST PREFETCH REQUESTS	Total number of list read requests for all PLANs included in this summation. (DSPSLPF)

AVERAGE	Average list prefetch read request count. (AVGSLPF)
MAXIMUM	Maximum list prefetch read request count for any PLAN in this summation. (DSPMSLPF)
DYNAMIC PREFETCH REQUESTS	Total number of Dynamic Prefetch Requests for all active DB2 buffer pools. Dynamic prefetch is the process that is triggered because of sequential detection. (DSPSDPF)
AVERAGE	Average number of Dynamic Prefetch Requests, summarized across all active DB2 buffer pools. (AVGSDPF)
MAXIMUM	Maximum number of Dynamic Prefetch Requests, summarized across all active DB2 buffer pools. (DSPMSDPF)
UNSUCCESSFUL GET PAGE OPERATIONS	Total number of times conditional getpage requests could not be satisfied for all active DB2 buffer pools. (DSPSNGT)
AVERAGE	Average number of times conditional getpage requests could not be satisfied for all active DB2 buffer pools. (AVGSNGT)
MAXIMUM	Maximum number of times conditional getpage requests could not be satisfied for all active DB2 buffer pools. (DSPMSNGT)
ASYNC PAGES READ BY PREFETCH	Total number of synchronous read I/Os issued by sequential access requesters, summarized across all active DB2 buffer pools. (DSPSSIO)
AVERAGE	Average number of synchronous

	read I/Os issued by sequential access requesters, summarized across all active DB2 buffer pools. (AVGSSIO)
MAXIMUM	Maximum number of synchronous read I/Os issued by sequential access requesters, summarized across all active DB2 buffer pools. (DSPMSSIO)

DDF Performance Section

LOCATION	Location Identifier for a Remote DB2 Subsystem. (DB2RLOCN)
DDF THREADS	Count of SMF 101 DDF Performance segments included in this entry. The second and third lines of this column indicate average and maximum reporting for each location. (DDPNTHRD)
LOCAL ELAPSED	Total time spent waiting at the local DB2 for remote DB2 processing of a distributed request. (DDPELPL)
REMOTE ELAPSED	Total time spent processing distributed request as measured from the remote serving DB2 subsystem. (DDPELPR)
REMOTE CPU	Total CPU time (SRB at remote site) spent processing SQL requests. (DDPCPUR)
CONV.	VTAM Conversations Sent or Received. Sent - (DDPCNVS), Received - (DDPCNVR)
CONVERS. QUEUED	VTAM Conversations Queued (DDPCNVQ) to be sent to remote site.
ABORTS (SENT/RECEIVED)	Abort Messages Sent or Received. Sent - (DDPABRS), Received - (DDPABRR)

COMMITS (SENT/RECEIVED)	COMMIT Messages Sent or Received. Sent - (DDPCOMS), Received - (DDPCOMR)
MESSAGES SENT TO	VTAM Messages sent to the remote site. (DDPMSGS)
MESSAGES RECEIVED FROM	VTAM Messages received from the remote site. (DDPMSGR)
SQL SENT/RECEIVED	SQL Statements Sent or Received. Sent - (DDPSQLS), Received - (DDPSQLR)
DATA ROWS SENT	Data rows sent to the remote site. (DDPROWS)
DATA ROWS FROM	Data rows received from the remote site. (DDPROWR)
BYTES/1000 SENT TO	Number of bytes sent to the remote site (DDPROWS) divided by 1000. If the total byte count is less than 10000 then the division by 1000 is not performed and the report variable is flagged.
BYTES/1000 RECEIVED FROM	Number of bytes received from remote (DDPROWR) divided by 1000. If the total byte count is less than 10000 then the division by 1000 is not performed and the report variable is flagged.

Page End Section

REPORTING PERIOD	Earliest and latest dates and times found within the data.

Chapter 4: EXCEPTIONS

The exception reports provide a concise, integrated, and itemized list of the problems affecting a data center's effectiveness in terms of availability, service, workload, standards, security, and performance for the different areas of responsibility (for example, TSO, Batch, DB2).

This chapter describes the specific exceptions related to the DB2 Analyzer. It lists the exceptions provided and explains the exception definition process.

Refer to the CA MICS Standard Reports Guide for a full description of the exception reporting process, including the philosophy and requirement of exception reporting, a general description of the process, the methodology for qualifying exceptions, an explanation of the operational flow, a description of the reports, and a plan for the use of the reports.

This chapter consists of the following sections:

1 - Introduction To Exception Reporting
2 - Standard Exceptions For The DB2 Analyzer
3 - Exception Descriptions

This section contains the following topics:

4.1 Introduction To Exception Reporting (see page 122)
4.2 Standard Exceptions For The DB2 Analyzer (see page 125)
4.3 Exception Descriptions (see page 127)

4.1 Introduction To Exception Reporting

The Exception Reporting process uses available monitoring sources (for example, RMF, SMF, CA TSO/MON PM) to compare an activity level against predefined thresholds and to provide an integrated exception list of potential problem areas.

Figure 4-1 illustrates the operation of the exception reports process. The database, Exception Test Routines, Standard Exception Reports, and the Online Exception Inquiry are standard parts of this process. User-defined values allow you to tailor and modify the exceptions in order to uniquely address your data center's requirements.

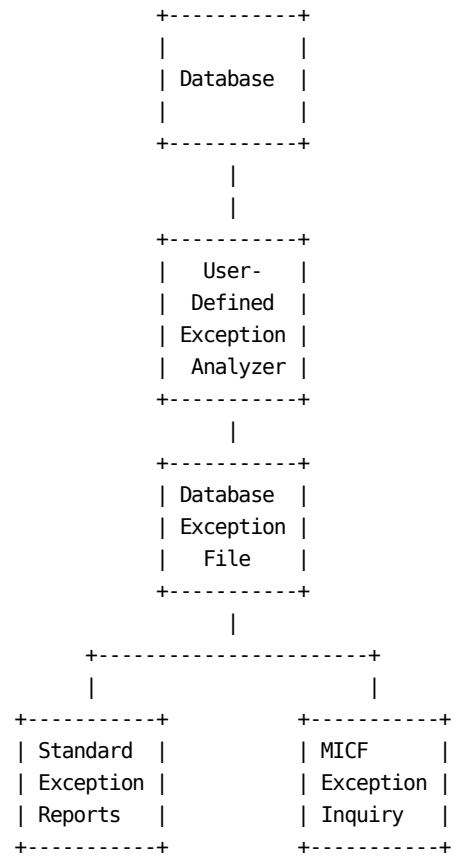


Figure 4-1. Exception Reporting Operational Flow

On a daily basis, the appropriate files contained in the database are processed to detect the defined exception conditions. The Exception Analyzer performs this task by using individual test routines to identify the exceptions. Each test routine requires the necessary user-defined values that tailor the exception test to your data center's requirements.

An exception test completely defines the tests made to determine the exception condition and the definitions that define and classify the exception for reporting. You can asily modify values or, in some cases, even add values to adjust the exception criteria to better meet your data center's requirements.

These tests are called Exception Test Routines, and they are stored in the source library prefix.MICS.USER.SOURCE in the member DYxxxEXC, where xxx represents the applicable Information Area, such as DB2 for the DB2 Analyzer. An exception group exists for each unique file that is to be processed by the Exception Analyzer, and it consists of the exceptions that are to be processed by using a specific file.

Figure 4-2 lists the range of DB2 Analyzer Exception Numbers that can be defined for each data group and file. The exception code is organized sequentially by exception number within the DYDB2EXC member, and it consists of standard identification definitions (for example, severity level), exception-dependent criteria (for example, amount of CPU time used), or standard selection facilities (for example, selection of prime-time hours only).

The exception to be modified may be located easily, since its name and number delineate the beginning of its definition. The value to be modified can then be located and changed directly within the SAS code.

Member Name	Descriptive Title
DYDB2EXC	Standard DB2 Exceptions
Exception Number Range	Database File Name
10000-10049	DETAIL.DB2DSY01
10050-10094	DETAIL.DB2DSD01
10095-10106	DETAIL.DB2DSY01

Figure 4-2. DB2 Exception Number Definition Table

4.2 Standard Exceptions For The DB2 Analyzer

The CA MICS DB2 Analyzer includes predefined exception routines that can alert the data center staff of situations affecting the operation of DB2. These routines can be modified or deleted as needed. In addition, other exceptions can be added.

This section lists the standard exceptions provided for the DB2 Information Area. The exceptions are listed by their exception number, and with their severity level, management area code, and descriptive title.

The DB2 exceptions are listed in Figure 4-3.

Number	Severity	Management Area	Exception Description
10000	Warning	Security	Instrumentation Buffer Error
10001	Warning	Security	Instrumentation Not Active Error
10002	Warning	Security	Instrumentation Record Not Accepted
10003	Warning	Security	Instrumentation Writer Failure
10004	Warning	Security	Instrumentation Record Unsuccessful
10005	Warning	Security	System IFCID Record Not Written
10006	Warning	Security	System IFCID Record Not Desired
10007	Warning	Security	System IFCID Buffer Not Available
10008	Warning	Security	System IFCID Collection Failure
10009	Warning	Security	Data Base IFCID Record Not Written
10010	Warning	Security	Data Base IFCID Record Not Desired
10011	Warning	Security	Data Base IFCID Buffer Not Available
10012	Warning	Security	Data Base IFCID Collection Failure
10013	Warning	Security	User IFCID Record Not Written
10014	Warning	Security	User IFCID Record Not Desired
10015	Warning	Security	User IFCID Buffer Not Available
10016	Warning	Security	User IFCID Collection Failure
10017	Warning	Productivity	Successful Abort
10018	Warning	Productivity	Indoubt Thread
10019	Warning	Productivity	End Of Task ABEND
10020	Warning	Productivity	End Of Memory
10021	Warning	Performance	Start Data Base Command
10022	Warning	Performance	Start Trace Command
10023	Warning	Performance	Start DB2 Command
10024	Warning	Performance	Stop Data Base Command
10025	Warning	Performance	Stop Trace Command
10026	Warning	Performance	Stop DB2 Command
10027	Warning	Performance	Unavailable Resource Failure
10028	Warning	Performance	Allocation Deadlock Failure
10029	Warning	Performance	Invalid Resource Failure
10030	Warning	Performance	Error Return From GETMAIN/FREEMAIN
10031	Warning	Performance	Short On Storage Contraction
10032	Warning	Performance	Short Of Storage
10033	Warning	Performance	Shortage Of Storage ABEND
10034	Warning	Performance	Resident Trace Turned On
10035	Warning	Performance	Resident Trace Turned Off
10036	Warning	Performance	GTF Trace Turned On
10037	Warning	Performance	GTF Trace Turned Off
10038	Warning	Performance	Local Trace Turned On
10039	Warning	Performance	Local Trace Turned Off
10040	Warning	Performance	Reads Delayed For Archive Allocation
10041	Warning	Performance	ICF Checkpoints Taken
10042	Warning	Security	Instrumentation Buffer Error
10043	Warning	Security	Instrumentation Buffer Error
10044	Warning	Security	Instrumentation Buffer Error
10045	Warning	Security	Instrumentation Buffer Error
10046	Warning	Security	Instrumentation Not Active Error
10047	Warning	Security	Instrumentation Not Active Error
10048	Warning	Security	Instrumentation Not Active Error
10049	Warning	Security	Instrumentation Not Active Error
10050	Warning	Performance	Create Tablespace Statement
10051	Warning	Performance	Create Data Base Statement
10052	Warning	Performance	Drop Tablespace Statement
10053	Warning	Performance	Drop Data Base Statement
10054	Warning	Performance	Allocate Requests Nonexistent Plan
10055	Warning	Performance	Binds Without Plan ID
10056	Warning	Performance	Maximum Size Expansion Failure Buffer 0
10057	Warning	Performance	Storage Shortage Expansion Failure Buf0
10058	Warning	Performance	Maximum Size Expansion Failure Buffer 1
10059	Warning	Performance	Storage Shortage Expansion Failure Buf1
10060	Warning	Performance	Maximum Size Expansion Failure Buffer 2
10061	Warning	Performance	Storage Shortage Expansion Failure Buf2
10062	Warning	Performance	Maximum Size Expansion Failure Buffer 3
10063	Warning	Performance	Storage Shortage Expansion Failure Buf3
10064	Warning	Performance	Read Pagefixed Without Real Storage B0
10065	Warning	Performance	Write Pagefixed Without Real Storage B0
10066	Warning	Performance	Read Pagefixed Without Real Storage B1
10067	Warning	Performance	Write Pagefixed Without Real Storage B1
10068	Warning	Performance	Read Pagefixed Without Real Storage B2
10069	Warning	Performance	Write Pagefixed Without Real Storage B2

10070	Warning	Performance	Read Pagefixed Without Real Storage B3
10071	Warning	Performance	Write Pagefixed Without Real Storage B3
10072	Warning	Performance	NO. Lock Escalations Exclusive Mode
10073	Warning	Performance	Maximum Page Locks Held
10074	Warning	Performance	Prefetch Request Disabled No Buffers 0
10075	Warning	Performance	Prefetch Disabled No Read Engine Buf 0
10076	Warning	Performance	NO. Times Write Engine Unavailable Buf 0
10077	Warning	Performance	NO. Times Deferred Write threshold Buf 0
10078	Warning	Performance	NO. Times WPHFWT Threshold Reached Buf 0
10079	Warning	Performance	Prefetch Request Disabled No Buffers 1
10080	Warning	Performance	Prefetch Disabled No Read Engine Buf 1
10081	Warning	Performance	NO. Times Write Engine Unavailable Buf 1
10082	Warning	Performance	NO. Times Deferred Write Threshold Buf 1
10083	Warning	Performance	NO. Times WPHFWT Threshold Reached Buf 0
10084	Warning	Performance	Prefetch Disabled Due to No Buffers 2
10085	Warning	Performance	Prefetch Disabled No Read Engine Buf 2
10086	Warning	Performance	NO. Times Write Engine Unavailable Buf 2
10087	Warning	Performance	NO. Times Deferred Write Threshold Buf 2
10088	Warning	Performance	NO. Times WPHFWT Threshold Reached Buf 2
10089	Warning	Performance	Prefetch Request Disabled No Buffers 3
10090	Warning	Performance	Prefetch Disabled No Read Engine Buf 3
10091	Warning	Performance	NO. Times Write Engine Unavailable Buf 3
10092	Warning	Performance	NO. Times Deferred Write Threshold Buf 3
10093	Warning	Performance	NO. Times WPHFWT Threshold Reached Buf 3
10094	Warning	Performance	NO. Failures Due to Full EDM Pool
10095	Warning	Security	Instrumentation Record Not Accepted
10096	Warning	Security	Instrumentation Record Not Accepted
10097	Warning	Security	Instrumentation Record Not Accepted
10098	Warning	Security	Instrumentation Record Not Accepted
10099	Warning	Security	Instrumentation Writer Failure
10100	Warning	Security	Instrumentation Writer Failure
10101	Warning	Security	Instrumentation Writer Failure
10102	Warning	Security	Instrumentation Writer Failure
10103	Warning	Security	Instrumentation Record Unsuccessful
10104	Warning	Security	Instrumentation Record Unsuccessful
10105	Warning	Security	Instrumentation Record Unsuccessful
10106	Warning	Security	Instrumentation Record Unsuccessful

Figure 4-3. DB2 Exception List

4.3 Exception Descriptions

This section provides an in-depth description of each DB2 Standard Exception available in the exception report process. The exceptions are organized by number, beginning with 10000.

The description format provides the title, number, and a statement on the purpose, rationale, and definition for each exception to give the user insight to the meaning and use of the information. Finally, the actual statements are listed.

10000 Instrumentation Buffer Error

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that a buffer error occurred
while DB2 was attempting to write an instrumentation record.

RATIONALE:   Buffer errors indicate that the file created by
SMF, RES, GTF, or SRV may be defective.

DEFINITION:  This exception is noted when the DSYBFER1 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10000               */
/* TITLE:  INSTRUMENTATION BUFFER ERROR   */
/* FILE:  DB2DSY01                        */
/* ************************************** */
IF DSYBFER1 GT 0 THEN DO;
 EXCCODE='10000';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION BUFFER ERROR';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES1,$4.)          ||
          '   '                       ||
          'RECORD COUNT = '           ||
           PUT(DSYBFER1,6.)
           ;
 LINK HIT;
 END;
```

10001 Instrumentation Not Active Error

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:   This exception warns that the instrumentation
facility specified was not active when DB2 attempted to write
a record.

RATIONALE:   When the specified instrumentation facility
destination is not active, DB2 system activity and billing
information is not captured.

DEFINITION:   This exception is noted when the DSYNAER1 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10001                */
/* TITLE:  INSTRUMENTATION NOT ACTIVE ERROR  */
/* FILE:  DB2DSY01                         */
/* ************************************** */
IF DSYNAER1 GT 0 THEN DO;
 EXCCODE='10001';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION NOT ACTIVE ERROR';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES1,$4.)          ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSYNAER1,6.)
           ;
 LINK HIT;
 END;
```

10002 Instrumentation Record Not Accepted

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that a record prepared by DB2
for the specified instrumentation facility destination was
not accepted.

RATIONALE:  This exception indicates an internal error in DB2
which prepared an SMF, RES, GTF, or SRV record with an
incorrect format.  The data are being lost.

DEFINITION:  This exception is noted when the DSYRCNA1 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ************************************** */
/* EXCEPTION NUMBER:  10002                */
/* TITLE:  INSTRUMENTATION RECORD NOT ACCEPTED*/
/* FILE:  DB2DSY01                         */
/* ************************************** */
IF DSYRCNA1 GT 0 THEN DO;
 EXCCODE='10002';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION RECORD NOT ACCEPTED';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES1,$4.)          ||
          '   '                       ||
          'RECORD COUNT = '           ||
           PUT(DSYRCNA1,6.)
           ;
 LINK HIT;
 END;
```

10003 Instrumentation Writer Failure

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:    This exception warns that the selected
instrumentation facility failed while processing a DB2
request.

RATIONALE:  Instrumentation facility failure results in loss
of DB2 system activity and accounting data.

DEFINITION:  This exception is noted when the DSYWFAI1 flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ************************************** */
/* EXCEPTION NUMBER:  10003                */
/* TITLE:  INSTRUMENTATION WRITER FAILURE  */
/* FILE:  DB2DSY01                         */
/* ************************************** */
IF DSYWFAI1 GT 0 THEN DO;
 EXCCODE='10003';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION WRITER FAILURE';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES1,$4.)          ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSYWFAI1,6.)
           ;
 LINK HIT;
 END;
```

10004 Record Unsuccessfully Written

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:    This exception warns that the specified
instrumentation facility specified to write a DB2 record.

RATIONALE:    Incorrect operation of the instrumentation
facility SMF, RES, GTF, or SRV causes the loss of DB2 system
activity and accounting data.

DEFINITION:  This exception is noted when the DSYRECN1 flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ************************************** */
/* EXCEPTION NUMBER:  10004                */
/* TITLE:  RECORD UNSUCCESSFULLY WRITTEN   */
/* FILE:  DB2DSY01                         */
/* ************************************** */
IF DSYRECN1 GT 0 THEN DO;
 EXCCODE='10004';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='RECORD UNSUCCESSFULLY WRITTEN';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES1,$4.)          ||
          '   '                       ||
          'RECORD COUNT = '           ||
           PUT(DSYRECN1,6.)
           ;
 LINK HIT;
 END;
```

10005 System IFCID Record Not Written

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that an IFCID record was not
written.

RATIONALE:

DEFINITION:   This exception is noted when the DSYIFCNS flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10005                */
/* TITLE:  IFCID RECORD NOT WRITTEN SYSTEM   */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYIFCNS GT 0 THEN DO;
  EXCCODE='10005';
  SEVERITY='W';
  MGMTAREA='SECURITY';
  EXCDESC1='IFCID RECORD NOT WRITTEN SYSTEM';
  EXCDESC2='DESTINATION = '            ||
           ' SYSTEM'                   ||
           '   '                       ||
           'RECORD COUNT = '           ||
            PUT(DSYIFCNS,6.)
            ;
  LINK HIT;
  END;
```

10006 System IFCID Record Not Desired

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  prefix.MICS.USER.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that the DB2 request to write
an IFCID record is not processable.

RATIONALE:

DEFINITION:   This exception is noted when the DSYRCNDS flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10006                */
/* TITLE:  IFCID RECORD NOT DESIRED SYSTEM   */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYRCNDS GT 0 THEN DO;
  EXCCODE='10006';
  SEVERITY='W';
  MGMTAREA='SECURITY';
  EXCDESC1='IFCID RECORD NOT DESIRED SYSTEM';
  EXCDESC2='DESTINATION = '            ||
           ' SYSTEM'                   ||
           '   '                       ||
           'RECORD COUNT = '           ||
            PUT(DSYRCNDS,6.)
            ;
  LINK HIT;
  END;
```

10007 System IFCID Buffer Not Available

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  prefix.MICS.USER.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that the DB2 request to write
an IFCID record is not processable due to a lack of buffers.

RATIONALE:

DEFINITION:  This exception is noted when the DSYBNAS flag is
non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10007                */
/* TITLE:  IFCID BUFFER NOT AVAILABLE SYSTEM */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYBNAS GT 0 THEN DO;
  EXCCODE='10007';
  SEVERITY='W';
  MGMTAREA='SECURITY';
  EXCDESC1='IFCID BUFFER NOT AVAILABLE SYSTEM';
  EXCDESC2='DESTINATION = '            ||
           ' SYSTEM'                   ||
           '   '                       ||
           'COUNT = '                  ||
            PUT(DSYBNAS,6.)
            ;
  LINK HIT;
  END;
```

10008 System IFCID Collection Failure

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  prefix.MICS.USER.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:   This exception warns that the DB2 request to write
an IFCID record is not processable due to a collection
failure.

RATIONALE:

DEFINITION:   This exception is noted when the DSYCOLFS flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10008                */
/* TITLE:  IFCID COLLECTION FAILURE SYSTEM  */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYCOLFS GT 0 THEN DO;
  EXCCODE='10008';
  SEVERITY='W';
  MGMTAREA='SECURITY';
  EXCDESC1='IFCID COLLECTION FAILURE SYSTEM';
  EXCDESC2='DESTINATION = '            ||
           ' SYSTEM'                   ||
           '   '                       ||
           'COUNT = '                  ||
            PUT(DSYCOLFS,6.)
            ;
  LINK HIT;
  END;
```

10009 Data Base IFCID Record Not Written

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.USER.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that the DB2 request to write
an IFCID record is not processable.

RATIONALE:

DEFINITION:   This exception is noted when the DSYIFCND flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10009                */
/* TITLE:  IFCID RECORD NOT WRITTEN DATA BASE */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYIFCND GT 0 THEN DO;
  EXCCODE='10009';
  SEVERITY='W';
  MGMTAREA='SECURITY';
  EXCDESC1='IFCID RECORD NOT WRITTEN DATA BASE';
  EXCDESC2='DESTINATION = '            ||
           ' DATA BASE'                ||
           '   '                       ||
           'RECORD COUNT = '           ||
            PUT(DSYIFCND,6.)
            ;
  LINK HIT;
  END;
```

10010 Data Base IFCID Record Not Desired

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that the DB2 request to write
an IFCID record is not processable because a record was not
desired.

RATIONALE:

DEFINITION:  This exception is noted when the DSYRCNDD flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10010                */
/* TITLE:  IFCID RECORD NOT DESIRED DATA BASE */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYRCNDD GT 0 THEN DO;
  EXCCODE='10010';
  SEVERITY='W';
  MGMTAREA='SECURITY';
  EXCDESC1='IFCID RECORD NOT DESIRED DATA BASE';
  EXCDESC2='DESTINATION = '            ||
           ' DATA BASE'                ||
           '   '                       ||
           'RECORD COUNT = '           ||
            PUT(DSYRCNDD,6.)
            ;
  LINK HIT;
  END;
```

10011 Data Base IFCID Buffer Not Available

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:   This exception warns that the DB2 request to write
an IFCID record is not processable because an output buffer
was not available.

RATIONALE:

DEFINITION:  This exception is noted when the DSYBNAD flag is
non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ****************************************** */
/* EXCEPTION NUMBER:  10011                   */
/* TITLE:  IFCID BUFFER NOT AVAILABLE DATA BASE*/
/* FILE:  DB2DSY01                            */
/* ****************************************** */

IF DSYBNAD GT 0 THEN DO;
  EXCCODE='10011';
  SEVERITY='W';
  MGMTAREA='SECURITY';
  EXCDESC1='IFCID BUFFER NOT AVAILABLE DATA BASE';
  EXCDESC2='DESTINATION = '            ||
           ' DATA BASE'                ||
           '   '                       ||
           'COUNT = '                  ||
            PUT(DSYBNAD,6.)
            ;
  LINK HIT;
  END;
```

10012 Data Base IFCID Collection Failure

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that the DB2 request to write
an IFCID record is not processable because of a collection
failure.

RATIONALE:

DEFINITION:  This exception is noted when the DSYCOLFD flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10012                */
/* TITLE:  IFCID COLLECTION FAILURE DATA BASE */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYCOLFD GT 0 THEN DO;
  EXCCODE='10012';
  SEVERITY='W';
  MGMTAREA='SECURITY';
  EXCDESC1='IFCID COLLECTION FAILURE DATA BASE';
  EXCDESC2='DESTINATION = '            ||
           ' DATA BASE'                ||
           '   '                       ||
           'COUNT = '                  ||
            PUT(DSYCOLFD,6.)
            ;
  LINK HIT;
  END;
```

10013 User IFCID Record Not Written

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:   This exception warns that the DB2 request to write
an IFCID record failed.

RATIONALE:

DEFINITION:  This exception is noted when the DSYIFCNU flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10013                */
/* TITLE:  IFCID RECORD NOT WRITTEN USER    */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYIFCNU GT 0 THEN DO;
  EXCCODE='10013';
  SEVERITY='W';
  MGMTAREA='SECURITY';
  EXCDESC1='IFCID RECORD NOT WRITTEN USER';
  EXCDESC2='DESTINATION = '            ||
           ' USER'                     ||
           '   '                       ||
           'RECORD COUNT = '           ||
            PUT(DSYIFCNU,6.)
            ;
  LINK HIT;
  END;
```

10014 User IFCID Record Not Desired

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:   This exception warns that the DB2 request to write
an IFCID record failed because the record was not desired.

RATIONALE:

DEFINITION:  This exception is noted when the DSYRCNDU flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10014                */
/* TITLE:  IFCID RECORD NOT DESIRED USER   */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYRCNDU GT 0 THEN DO;
  EXCCODE='10014';
  SEVERITY='W';
  MGMTAREA='SECURITY';
  EXCDESC1='IFCID RECORD NOT DESIRED USER';
  EXCDESC2='DESTINATION = '            ||
           ' USER'                     ||
           '   '                       ||
           'RECORD COUNT = '           ||
            PUT(DSYRCNDU,6.)
            ;
  LINK HIT;
  END;
```

10015 User IFCID Buffer Not Available

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:   This exception warns that the DB2 request to write
an IFCID record failed because an output buffer was not
available.

RATIONALE:

DEFINITION:  This exception is noted when the DSYBNAU flag is
non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10015                */
/* TITLE:  IFCID BUFFER NOT AVAILABLE USER   */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYBNAU GT 0 THEN DO;
  EXCCODE='10015';
  SEVERITY='W';
  MGMTAREA='SECURITY';
  EXCDESC1='IFCID BUFFER NOT AVAILABLE USER';
  EXCDESC2='DESTINATION = '            ||
           ' USER'                     ||
           '   '                       ||
           'COUNT = '                  ||
            PUT(DSYBNAU,6.)
            ;
  LINK HIT;
  END;
```

10016 User IFCID Collection Failure

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that the DB2 request to write
an IFCID record failed because an output buffer was not
available.

RATIONALE:

DEFINITION:  This exception is noted when the DSYCOLFU flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10016                */
/* TITLE:  IFCID COLLECTION FAILURE USER    */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYCOLFU GT 0 THEN DO;
  EXCCODE='10016';
  SEVERITY='W';
  MGMTAREA='SECURITY';
  EXCDESC1='IFCID COLLECTION FAILURE USER';
  EXCDESC2='DESTINATION = '            ||
           ' USER'                     ||
           '   '                       ||
           'COUNT = '                  ||
            PUT(DSYCOLFU,6.)
            ;
  LINK HIT;
  END;
```

10017 Successful Abort

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Productivity  (MGMTAREA='Productivity')

PURPOSE:   This exception warns that a unit of recovery was
backed out.  Possible reasons are an application program
abend, an application deadlocked on data base records, or the
application program was canceled by the operator.

RATIONALE:  It is important that application program failures
be noted because of the effect on application productivity.

DEFINITION:   This exception is noted when the DSYABORT flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10017                */
/* TITLE:  SUCCESSFUL ABORT                */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYABORT GT 0 THEN DO;
  EXCCODE='10017';
  SEVERITY='W';
  MGMTAREA='PRODUCTIVITY';
  EXCDESC1='SUCCESSFUL ABORT';
  EXCDESC2='COUNT = '                  ||
           PUT(DSYABORT,6.)
           ;
  LINK HIT;
  END;
```

10018 Indoubt Thread

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Productivity  (MGMTAREA='Productivity')

PURPOSE:  This exception warns that an application failure
has occurred after a successful prepare but before a
successful commit.  The failure can occur in the address
space of the application, the transaction manager, DB2, or
all of these.

RATIONALE:  It is important that application program failures
be noted because of the effect on application productivity.
It also may indicate an internal problem with DB2.

DEFINITION:  This exception is noted when the DSYINDBT flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10018               */
/* TITLE:  INDOUBT THREAD                 */
/* FILE:  DB2DSY01                        */
/* ************************************** */

IF DSYINDBT GT 0 THEN DO;
  EXCCODE='10018';
  SEVERITY='W';
  MGMTAREA='PRODUCTIVITY';
  EXCDESC1='INDOUBT THREAD';
  EXCDESC2='COUNT = '                  ||
           PUT(DSYINDBT,6.)
           ;
  LINK HIT;
  END;
```

10019 End Of Task Abend

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Productivity  (MGMTAREA='Productivity')

PURPOSE:   This exception warns that a non-DB2 task abended
while connected to DB2.

RATIONALE:  It is important that application program failures
be noted because of the effect on application productivity.

DEFINITION:   This exception is noted when the DSYEOTSK flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10019               */
/* TITLE:  END OF TASK ABEND              */
/* FILE:  DB2DSY01                        */
/* ************************************** */

IF DSYEOTSK GT 0 THEN DO;
  EXCCODE='10019';
  SEVERITY='W';
  MGMTAREA='PRODUCTIVITY';
  EXCDESC1='END OF TASK ABEND';
  EXCDESC2='COUNT = '                  ||
           PUT(DSYEOTSK,6.)
           ;
  LINK HIT;
  END;
```

10020 End Of Memory

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Productivity  (MGMTAREA='Productivity')

PURPOSE:  This exception warns that a non_DB2 address space
was deleted by the operating system while it was connected to
DB2.

RATIONALE:  It is important that application program failures
be noted because of the effect on application productivity.

DEFINITION:  This exception is noted when the DSYEOMEM flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10020               */
/* TITLE:  END OF MEMORY                  */
/* FILE:  DB2DSY01                        */
/* ************************************** */

IF DSYEOMEM GT 0 THEN DO;
  EXCCODE='10020';
  SEVERITY='W';
  MGMTAREA='PRODUCTIVITY';
  EXCDESC1='END OF MEMORY';
  EXCDESC2='COUNT = '                 ||
           PUT(DSYEOMEM,6.)
           ;
  LINK HIT;
  END;
```

10021 Start Data Base Command

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception notes that a Start Data Base Command
was issued.

RATIONALE:   Noting the user starting the data base is
important for security while the number of data bases active
may impact performance.

DEFINITION:  This exception is noted when the DSYSTDBA flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10021                */
/* TITLE:  START DATA BASE COMMAND         */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYSTDBA GT 0 THEN DO;
  EXCCODE='10021';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='START DATA BASE COMMAND';
  EXCDESC2='COUNT = '                  ||
           PUT(DSYSTDBA,6.)
           ;
  LINK HIT;
  END;
```

10022 Start Trace Command

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception notes that a Start Trace Command was
issued.

RATIONALE:   The trace function consumes extra machine
resources and impacts performance.  It is important to
control the use of this facility.

DEFINITION:  This exception is noted when the DSYSTTRC flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10022                */
/* TITLE:  START TRACE COMMAND             */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYSTTRC GT 0 THEN DO;
  EXCCODE='10022';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='START TRACE COMMAND';
  EXCDESC2='COUNT = '                  ||
           PUT(DSYSTTRC,6.)
           ;
  LINK HIT;
  END;
```

10023 Start DB2 Command

```
FILE:  DB2 System Activity File
SAS FILE NAME: DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning (Severity='W')
MANAGEMENT AREA:  Performance (MGMTAREA='Performance')

PURPOSE:   This exception notes that a Start DB2 command was
issued.

RATIONALE:  It is important to note when DB2 was started and
stopped for availability and performance purposes.

DEFINITION:   This exception is noted when the DSYSTDB2 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10023                */
/* TITLE:  START DB2 COMMAND               */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYSTDB2 GT 0 THEN DO;
  EXCCODE='10023';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='START DB2 COMMAND';
  EXCDESC2='COUNT = '                  ||
           PUT(DSYSTDB2,6.)
           ;
  LINK HIT;
  END;
```

10024 Stop Data Base Command

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception notes that a Stop Data Base command
was issued.

RATIONALE:   It is important to note a stop data base command
for availability and performance considerations.

DEFINITION:  This exception is noted when the DSYSPDBA flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10024               */
/* TITLE:  STOP DATA BASE COMMAND         */
/* FILE:  DB2DSY01                        */
/* ************************************** */

IF DSYSPDBA GT 0 THEN DO;
  EXCCODE='10024';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='STOP DATA BASE COMMAND';
  EXCDESC2='COUNT = '                  ||
           PUT(DSYSPDBA,6.)
           ;
  LINK HIT;
  END;
```

10025 Stop Trace Command

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:   This exception notes that a Stop Trace command was
issued.

RATIONALE:  The trace facility consumes system resources and
impacts response.  It is important to note which users are
activating this feature and for what period of time.

DEFINITION:  This exception is noted when the DSYSPTRC flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10025                */
/* TITLE:  STOP TRACE COMMAND              */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYSPTRC GT 0 THEN DO;
  EXCCODE='10025';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='STOP TRACE COMMAND';
  EXCDESC2='COUNT = '                  ||
           PUT(DSYSPTRC,6.)
           ;
  LINK HIT;
  END;
```

10026 Stop DB2 Command

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:   This exception notes that a Stop DB2 command was
issued.

RATIONALE:  It is important to availability and performance
to note when the DB2 subsystem is available.

DEFINITION:   This exception is noted when the DSYSPDB2 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10026               */
/* TITLE:  STOP DB2 COMMAND               */
/* FILE:  DB2DSY01                        */
/* ************************************** */

IF DSYSPDB2 GT 0 THEN DO;
  EXCCODE='10026';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='STOP DB2 COMMAND';
  EXCDESC2='COUNT = '                  ||
           PUT(DSYSPDB2,6.)
           ;
  LINK HIT;
  END;
```

10027 Unavailable Resource Failure

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception warns that a plan has been requested
but the plan is unavailable.  For example, it could have been
invalidated and an unsuccessful automatic bind has occurred.

RATIONALE:  An unavailable resource failure indicates a major
problem in accessing data.  Immediate steps should be taken
to determine why the bind could not complete successfully.

DEFINITION:   This exception is noted when the DSYUNAVL flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10027                */
/* TITLE:  UNAVAILABLE RESOURCE FAILURE    */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYUNAVL GT 0 THEN DO;
  EXCCODE='10027';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='UNAVAILABLE RESOURCE FAILURE';
  EXCDESC2='COUNT = '                  ||
           PUT(DSYUNAVL,6.)
           ;
  LINK HIT;
  END;
```

10028 Allocation Deadlock Failure

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception warns that an allocation deadlock
has occurred.  This can happen when resources are limited and
contention is high.  An example is a table space lock that
cannot be acquired because it is locked by another
application.

RATIONALE:  With this information it is possible to change
allocation, design, and other factors to minimize deadlocks.

DEFINITION:  This exception is noted when the DSYALOCD flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10028               */
/* TITLE:  ALLOCATION DEADLOCK FAILURE    */
/* FILE:  DB2DSY01                        */
/* ************************************** */

IF DSYALOCD GT 0 THEN DO;
  EXCCODE='10028';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='ALLOCATION DEADLOCK FAILURE';
  EXCDESC2='COUNT = '                  ||
           PUT(DSYALOCD,6.)
           ;
  LINK HIT;
  END;
```

10029 Invalid Resource Failure

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:   This exception warns that a request for allocation
of a plan that was unknown to DB2.

RATIONALE:  It is important to determine why the plan was not
available to DB2.

DEFINITION:   This exception is noted when the DSYINVAL flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10029                */
/* TITLE:  INVALID RESOURCE FAILURE        */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYINVAL GT 0 THEN DO;
  EXCCODE='10029';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='INVALID RESOURCE FAILURE';
  EXCDESC2='COUNT = '                  ||
           PUT(DSYINVAL,6.)
           ;
  LINK HIT;
  END;
```

10030 Error Return from GETMAIN/FREEMAIN

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception warns that a GETMAIN or FREEMAIN
request had a return code that was not 0.

RATIONALE:

DEFINITION:   This exception is noted when the DSYNZGFM flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10030                */
/* TITLE:  ERROR RETURN FROM GETMAIN/FREEMAIN */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYNZGFM GT 0 THEN DO;
  EXCCODE='10030';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='ERROR RETURN FROM GETMAIN/FREEMAIN';
  EXCDESC2='COUNT = '                  ||
           PUT(DSYNZGFM,6.)
           ;
  LINK HIT;
  END;
```

10031 Short On Storage Contractions

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception warns that a storage contraction
occurred because DB2 was short on storage.

RATIONALE:   Storage shortages impact the performance of DB2.

DEFINITION:  This exception is noted when the DSYCONTR flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10031                */
/* TITLE:  SHORT ON STORAGE CONTRACTIONS    */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYCONTR GT 0 THEN DO;
  EXCCODE='10031';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='SHORT ON STORAGE CONTRACTIONS';
  EXCDESC2='COUNT = '                  ||
           PUT(DSYCONTR,6.)
           ;
  LINK HIT;
  END;
```

10032 Short On Storage Detected

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:   This exception warns that a storage shortage
situation was detected.

RATIONALE:  Storage shortages impact the performance of DB2.

DEFINITION:   This exception is noted when the DSYSTOSH flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10032                */
/* TITLE:  SHORTAGE OF STORAGE             */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYSTOSH GT 0 THEN DO;
  EXCCODE='10032';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='SHORTAGE OF STORAGE';
  EXCDESC2='COUNT = '                  ||
           PUT(DSYSTOSH,6.)
           ;
  LINK HIT;
  END;
```

10033 Short On Storage Abend

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception warns that an abend due to a
shortage of storage was detected.

RATIONALE:   Storage shortages impact the performance of DB2.
Abends impact the productivity and availability of
applications systems.

DEFINITION:   This exception is noted when the DSYSTOSA flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10033                */
/* TITLE:  SHORTAGE OF STORAGE ABENDS      */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYSTOSA GT 0 THEN DO;
  EXCCODE='10033';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='SHORTAGE OF STORAGE ABENDS';
  EXCDESC2='COUNT = '                 ||
           PUT(DSYSTOSA,6.)
           ;
  LINK HIT;
  END;
```

10040 Reads Delayed Archive Allocation

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:   This exception warns that reads were delayed
because the archived allocation limit was reached.

RATIONALE:

DEFINITION:  This exception is noted when the DSYRDAA flag is
non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10040                */
/* TITLE:  READS DELAYED ARCHIVE ALLOCATION  */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYRDAA GT 0 THEN DO;
  EXCCODE='10040';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='READS DELAYED ARCHIVE ALLOCATION';
  EXCDESC2='COUNT = '                  ||
           PUT(DSYRDAA,6.)
           ;
  LINK HIT;
  END;
```

10041 ICF Checkpoints Taken

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Performance (MGMTAREA='Performance')

PURPOSE:  This exception tracks the number of checkpoints
taken by the DB2 system.

RATIONALE:  Because each checkpoint taken will correspond to
a system record write, it is important to keep track of the
number of checkpoints due to the resources required to write
system statistics.

DEFINITION:  This exception is noted when the DSYNCKPT flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements that identify the
exception situation and describe the condition are stored in
the source member named in SOURCE LOCATION and are described
below:


/* ************************************** */
/* EXCEPTION NUMBER:  10041                */
/* TITLE:  IFC CHECKPOINTS TAKEN           */
/* FILE:  DB2DSY01                         */
/* ************************************** */

IF DSYNCKPT GT 0 THEN DO;
 EXCCODE='10041';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='IFC CHECKPOINTS TAKEN';
 EXCDESC2='COUNT = '                  ||
          PUT(DSYNCKPT,6.)
          ;
 LINK HIT;
 END;
```

10042 Instrumentation Buffer Error

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that a buffer error occurred
while DB2 was attempting to write an instrumentation record.

RATIONALE:   Buffer errors indicate that the file created by
SMF, GTF, RES, or SRV may be defective.

DEFINITION:  This exception is noted when the DSYBFER2 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10042               */
/* TITLE:  INSTRUMENTATION BUFFER ERROR   */
/* FILE:  DB2DSY01                        */
/* ************************************** */
IF DSYBFER2 GT 0 THEN DO;
 EXCCODE='10042';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION BUFFER ERROR';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES2,$4.)          ||
          '   '                       ||
          'RECORD COUNT = '           ||
           PUT(DSYBFER2,6.)
           ;
 LINK HIT;
 END;
```

10043 Instrumentation Buffer Error

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that a buffer error occurred
while DB2 was attempting to write an instrumentation record.

RATIONALE:   Buffer errors indicate that the file created by
SMF, GTF, RES, or SRV may be defective.

DEFINITION:  This exception is noted when the DSYBFER3 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10043                */
/* TITLE:  INSTRUMENTATION BUFFER ERROR    */
/* FILE:  DB2DSY01                         */
/* ************************************** */
IF DSYBFER3 GT 0 THEN DO;
 EXCCODE='10043';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION BUFFER ERROR';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES3,$4.)          ||
          '   '                       ||
          'RECORD COUNT = '           ||
           PUT(DSYBFER3,6.)
           ;
 LINK HIT;
 END;
```

10044 Instrumentation Buffer Error

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that a buffer error occurred
while DB2 was attempting to write an instrumentation record.

RATIONALE:   Buffer errors indicate that the file created by
SMF, GTF, RES, or SRV may be defective.

DEFINITION:  This exception is noted when the DSYBFER4 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10044               */
/* TITLE:  INSTRUMENTATION BUFFER ERROR   */
/* FILE:  DB2DSY01                        */
/* ************************************** */
IF DSYBFER4 GT 0 THEN DO;
 EXCCODE='10044';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION BUFFER ERROR';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES4,$4.)          ||
          '   '                       ||
          'RECORD COUNT = '           ||
           PUT(DSYBFER4,6.)
           ;
 LINK HIT;
 END;
```

10045 Instrumentation Buffer Error

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that a buffer error occurred
while DB2 was attempting to write an instrumentation record.

RATIONALE:   Buffer errors indicate that the file created by
SMF, GTF, RES, or SRV may be defective.

DEFINITION:  This exception is noted when the DSYBFER5 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10045               */
/* TITLE:  INSTRUMENTATION BUFFER ERROR   */
/* FILE:  DB2DSY01                        */
/* ************************************** */
IF DSYBFER5 GT 0 THEN DO;
 EXCCODE='10045';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION BUFFER ERROR';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES5,$4.)          ||
          '   '                       ||
          'RECORD COUNT = '           ||
           PUT(DSYBFER5,6.)
           ;
 LINK HIT;
 END;
```

10046 Instrumentation Not Active Error

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:    This exception warns that the specified
instrumentation facility was not active when DB2 attempted to
write a record.

RATIONALE:   When the specified instrumentation facility
destination is not active, DB2 system activity and billing
information is not captured.

DEFINITION:   This exception is noted when the DSYNAER2 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10046               */
/* TITLE:  INSTRUMENTATION NOT ACTIVE ERROR  */
/* FILE:  DB2DSY01                        */
/* ************************************** */
IF DSYNAER2 GT 0 THEN DO;
 EXCCODE='10046';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION NOT ACTIVE ERROR';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES2,$4.)          ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSYNAER2,6.)
           ;
 LINK HIT;
 END;
```

10047 Instrumentation Not Active Error

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:    This exception warns that the specified
instrumentation facility was not active when DB2 attempted to
write a record.

RATIONALE:   When the specified instrumentation facility
destination is not active, DB2 system activity and billing
information is not captured.

DEFINITION:   This exception is noted when the DSYNAER3 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10047                */
/* TITLE:  INSTRUMENTATION NOT ACTIVE ERROR  */
/* FILE:  DB2DSY01                         */
/* ************************************** */
IF DSYNAER3 GT 0 THEN DO
 EXCCODE='10047';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION NOT ACTIVE ERROR';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES3,$4.)          ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSYNAER3,6.)
           ;
 LINK HIT;
 END;
```

10048 Instrumentation Not Active Error

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:    This exception warns that the specified
instrumentation facility was not active when DB2 attempted to
write a record.

RATIONALE:   When the specified instrumentation facility
destination is not active, DB2 system activity and billing
information is not captured.

DEFINITION:   This exception is noted when the DSYNAER4 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10048                */
/* TITLE:  INSTRUMENTATION NOT ACTIVE ERROR  */
/* FILE:  DB2DSY01                         */
/* ************************************** */
IF DSYNAER4 GT 0 THEN DO
 EXCCODE='10048';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION NOT ACTIVE ERROR';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES4,$4.)          ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSYNAER4,6.)
           ;
 LINK HIT;
 END;
```

10049 Instrumentation Not Active Error

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:    This exception warns that the specified
instrumentation facility was not active when DB2 attempted to
write a record.

RATIONALE:   When the specified instrumentation facility
destination is not active, DB2 system activity and billing
information is not captured.

DEFINITION:   This exception is noted when the DSYNAER5 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10049                */
/* TITLE:  INSTRUMENTATION NOT ACTIVE ERROR  */
/* FILE:  DB2DSY01                         */
/******************************************/
IF DSYNAER5 GT 0 THEN DO
 EXCCODE='10049';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION NOT ACTIVE ERROR';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES5,$4.)          ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSYNAER5,6.)
           ;
 LINK HIT;
 END;
```

10050 Create Tablespace Statement

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception notes that a Create Tablespace
statement was executed.

RATIONALE:   Creating a Tablespace may use large amounts of
DASD storage.

DEFINITION:  This exception is noted when the DSDCTABS flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10050                */
/* TITLE:  CREATE TABLESPACE STATEMENT     */
/* FILE:  DB2DSD01                         */
/* ************************************** */

IF DSDCTABS GT 0 THEN DO;
  EXCCODE='10050';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='CREATE TABLESPACE STATEMENT';
  EXCDESC2='COUNT = '                  ||
           PUT(DSDCTABS,6.)
           ;
  LINK HIT;
  END;
```

10051 Create Data Base Statement

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:   This exception notes that a Create Data Base
statement was executed.

RATIONALE:  Creating a Data Base may use large amounts of
DASD storage.

DEFINITION:   This exception is noted when the DSDCRDAB flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10051                */
/* TITLE:  CREATE DATA BASE STATEMENT      */
/* FILE:  DB2DSD01                         */
/* ************************************** */

IF DSDCRDAB GT 0 THEN DO;
  EXCCODE='10051';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='CREATE DATA BASE STATEMENT';
  EXCDESC2='COUNT = '                  ||
           PUT(DSDCRDAB,6.)
           ;
  LINK HIT;
  END;
```

10052 Drop Tablespace Statement

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:   This exception notes that a Drop Tablespace
statement was executed.

RATIONALE:   Dropping a Tablespace will delete all the tables
contained within the space.

DEFINITION:  This exception is noted when the DSDDRPTS flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10052                */
/* TITLE:  DROP TABLESPACE STATEMENT       */
/* FILE:  DB2DSD01                         */
/* ************************************** */

IF DSDDRPTS GT 0 THEN DO;
  EXCCODE='10052';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='DROP TABLESPACE STATEMENT';
  EXCDESC2='COUNT = '                  ||
           PUT(DSDDRPTS,6.)
           ;
  LINK HIT;
  END;
```

10053 Drop Data Base Statement

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:    This exception notes that a Drop Data Base
statement was executed.

RATIONALE:  Dropping a Data Base will delete all the tables
contained within the space.

DEFINITION:   This exception is noted when the DSDDRPDB flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10053                */
/* TITLE:  DROP DATA BASE STATEMENT        */
/* FILE:  DB2DSD01                         */
/* ************************************** */

IF DSDDRPDB GT 0 THEN DO;
  EXCCODE='10053';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='DROP DATA BASE STATEMENT';
  EXCDESC2='COUNT = '                  ||
           PUT(DSDDRPDB,6.)
           ;
  LINK HIT;
  END;
```

10054 Allocate Requests A Nonexistent Plan

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception notes that the allocation of a
nonexistent plan has been requested.

RATIONALE:   It is important to determine why the plan
requested did not exist.

DEFINITION:  This exception is noted when the DSDNVRID flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10054                */
/* TITLE:  ALLOCATE REQUESTS NONEXISTENT PLAN */
/* FILE:  DB2DSD01                         */
/* ************************************** */

IF DSDNVRID GT 0 THEN DO;
  EXCCODE='10054';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='ALLOCATE REQUESTS NONEXISTENT PLAN';
  EXCDESC2='COUNT = '                  ||
           PUT(DSDNVRID,6.)
           ;
  LINK HIT;
  END;
```

10055 Binds Without Plan ID

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception warns that a bind has been requested
but a plan ID was not supplied.

RATIONALE:  It is important to determine why the requested
plan ID was not supplied.  This is normal when testing a plan
with no intention of saving it.

DEFINITION:  This exception is noted when the DSDTESTB flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10055                */
/* TITLE:  BINDS WITHOUT PLAN ID           */
/* FILE:  DB2DSD01                         */
/* ************************************** */

IF DSDTESTB GT 0 THEN DO;
  EXCCODE='10055';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='BINDS WITHOUT PLAN ID';
  EXCDESC2='COUNT = '                  ||
           PUT(DSDTESTB,6.)
           ;
  LINK HIT;
  END;
```

10057 Storage Shortage Expansion Failure - Pool 0

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:   This exception warns that a buffer pool expansion
was necessary but the pool could not be expanded because of a
shortage of virtual storage.  To correct this, check data
base services virtual storage for areas that can be reduced,
i.e.  other buffer pools.

RATIONALE:   This information can help to determine the
appropriate allocation of virtual storage to DB2 buffers.

DEFINITION:  This exception is noted when the DSDSSEF0 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10057                */
/* TITLE:  STORAGE SHORTAGE EXPANSION FAILURE */
/* FILE:  DB2DSD01                         */
/* ************************************** */

IF DSDSSEF0 GT 0 THEN DO;
  EXCCODE='10057';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='STORAGE SHORTAGE EXPANSION FAILURE';
  EXCDESC2='BUFFER 0 '                 ||
           '   '                       ||
           'COUNT = '                  ||
            PUT(DSDSSEF0,6.)
            ;
  LINK HIT;
  END;
```

10059 Storage Shortage Expansion Failure – Pool 1

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:   This exception warns that a buffer pool expansion
was necessary but the pool could not be expanded because of a
shortage of virtual storage.  To correct this, check data
base services virtual storage for areas that can be reduced,
i.e.  other buffer pools.

RATIONALE:   This information can help to determine the
appropriate allocation of virtual storage to DB2 buffers.

DEFINITION:  This exception is noted when the DSDSSEF1 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10059                */
/* TITLE:  STORAGE SHORTAGE EXPANSION FAILURE */
/* FILE:  DB2DSD01                         */
/* ************************************** */

IF DSDSSEF1 GT 0 THEN DO;
  EXCCODE='10059';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='STORAGE SHORTAGE EXPANSION FAILURE';
  EXCDESC2='BUFFER 1 '                 ||
           '   '                       ||
           'COUNT = '                  ||
            PUT(DSDSSEF1,6.)
            ;
  LINK HIT;
  END;
```

10061 Storage Shortage Expansion Failure - Pool 2

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  sharedprefix.MICS.USER.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:   This exception warns that a buffer pool expansion
was necessary but the pool could not be expanded because of a
shortage of virtual storage.  To correct this, check data
base services virtual storage for areas that can be reduced,
i.e.  other buffer pools.

RATIONALE:   This information can help to determine the
appropriate allocation of virtual storage to DB2 buffers.

DEFINITION:  This exception is noted when the DSDSSEF2 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10061                */
/* TITLE:  STORAGE SHORTAGE EXPANSION FAILURE */
/* FILE:  DB2DSD01                         */
/* ************************************** */

IF DSDSSEF2 GT 0 THEN DO;
  EXCCODE='10061';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='STORAGE SHORTAGE EXPANSION FAILURE';
  EXCDESC2='BUFFER 2 '                 ||
           '   '                       ||
           'COUNT = '                  ||
            PUT(DSDSSEF2,6.)
            ;
  LINK HIT;
  END;
```

10063 Storage Shortage Expansion Failure - Pool 3

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:   This exception warns that a buffer pool expansion
was necessary but the pool could not be expanded because of a
shortage of virtual storage.  To correct this, check data
base services virtual storage for areas that can be reduced,
i.e.  other buffer pools.

RATIONALE:   This information can help to determine the
appropriate allocation of virtual storage to DB2 buffers.

DEFINITION:  This exception is noted when the DSDSSEF3 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10063                */
/* TITLE:  STORAGE SHORTAGE EXPANSION FAILURE */
/* FILE:  DB2DSD01                         */
/* ************************************** */

IF DSDSSEF3 GT 0 THEN DO;
  EXCCODE='10063';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='STORAGE SHORTAGE EXPANSION FAILURE';
  EXCDESC2='BUFFER 3 '                 ||
           '   '                       ||
           'COUNT = '                  ||
            PUT(DSDSSEF3,6.)
            ;
  LINK HIT;
  END;
```

10064 Read Pagefixed Without Real Storage -Pool 0

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:   This exception warns that a buffer being PAGEFIXed
for read I/O does not have real storage frame backing.

RATIONALE:  Read I/O into a buffer not residing in real
storage increases the overhead of DB2.

DEFINITION:   This exception is noted when the DSDRFXS0 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10064               */
/* TITLE:  READ PAGEFIXED W/O REAL STORAGE   */
/* FILE:  DB2DSD01                        */
/* ************************************** */

IF DSDRFXS0 GT 0 THEN DO;
  EXCCODE='10064';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='READ PAGEFIXED W/O REAL STORAGE';
  EXCDESC2='BUFFER 0 '                 ||
           '   '                       ||
           'COUNT = '                  ||
            PUT(DSDRFXS0,6.)
            ;
  LINK HIT;
  END;
```

10065 Write Pagefixed Without Real Storage - Pool 0

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception warns that a buffer being PAGEFIXed
for write I/O does not have real storage frame backing.

RATIONALE:   Write I/O into a buffer not residing in real
storage increases the overhead of DB2.

DEFINITION:  This exception is noted when the DSDWFXS0 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10065               */
/* TITLE:  WRITE PAGEFIXED W/O REAL STORAGE  */
/* FILE:  DB2DSD01                        */
/* ************************************** */

IF DSDWFXS0 GT 0 THEN DO;
  EXCCODE='10065';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='WRITE PAGEFIXED W/O REAL STORAGE';
  EXCDESC2='BUFFER 0 '                 ||
           '   '                       ||
           'COUNT = '                  ||
            PUT(DSDWFXS0,6.)
            ;
  LINK HIT;
  END;
```

10066 Read Pagefixed Without Real Storage - Pool 1

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:   This exception warns that a buffer being PAGEFIXed
for read I/O does not have real storage frame backing.

RATIONALE:  Read I/O into a buffer not residing in real
storage increases the overhead of DB2.

DEFINITION:   This exception is noted when the DSDRFXS1 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10066               */
/* TITLE:  READ PAGEFIXED W/O REAL STORAGE   */
/* FILE:  DB2DSD01                        */
/* ************************************** */

IF DSDRFXS1 GT 0 THEN DO;
  EXCCODE='10066';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='READ PAGEFIXED W/O REAL STORAGE';
  EXCDESC2='BUFFER 1 '                 ||
           '   '                       ||
           'COUNT = '                  ||
            PUT(DSDRFXS1,6.)
            ;
  LINK HIT;
  END;
```

10067 Write Pagefixed Without Real Storage - Pool 1

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception warns that a buffer being PAGEFIXed
for write I/O does not have real storage frame backing.

RATIONALE:   Write I/O into a buffer not residing in real
storage increases the overhead of DB2.

DEFINITION:  This exception is noted when the DSDWFXS1 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10067               */
/* TITLE:  WRITE PAGEFIXED W/O REAL STORAGE  */
/* FILE:  DB2DSD01                        */
/* ************************************** */

IF DSDWFXS1 GT 0 THEN DO;
  EXCCODE='10067';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='WRITE PAGEFIXED W/O REAL STORAGE';
  EXCDESC2='BUFFER 1 '                 ||
           '   '                       ||
           'COUNT = '                  ||
            PUT(DSDWFXS1,6.)
            ;
  LINK HIT;
  END;
```

10068 Read Pagefixed Without Real Storage - Pool 2

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:   This exception warns that a buffer being PAGEFIXed
for read I/O does not have real storage frame backing.

RATIONALE:  Read I/O into a buffer not residing in real
storage increases the overhead of DB2.

DEFINITION:   This exception is noted when the DSDRFXS2 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10068                */
/* TITLE:  READ PAGEFIXED W/O REAL STORAGE   */
/* FILE:  DB2DSD01                         */
/* ************************************** */

IF DSDRFXS2 GT 0 THEN DO;
  EXCCODE='10068';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='READ PAGEFIXED W/O REAL STORAGE';
  EXCDESC2='BUFFER 2 '                 ||
           '   '                       ||
           'COUNT = '                  ||
            PUT(DSDRFXS2,6.)
            ;
  LINK HIT;
  END;
```

10069 Write Pagefixed Without Real Storage - Pool 2

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception warns that a buffer being PAGEFIXed
for write I/O does not have real storage frame backing.

RATIONALE:   Write I/O into a buffer not residing in real
storage increases the overhead of DB2.

DEFINITION:  This exception is noted when the DSDWFXS2 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10069                */
/* TITLE:  WRITE PAGEFIXED W/O REAL STORAGE  */
/* FILE:  DB2DSD01                         */
/* ************************************** */

IF DSDWFXS2 GT 0 THEN DO;
  EXCCODE='10069';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='WRITE PAGEFIXED W/O REAL STORAGE';
  EXCDESC2='BUFFER 2 '                 ||
           '   '                       ||
           'COUNT = '                  ||
            PUT(DSDWFXS2,6.)
            ;
  LINK HIT;
  END;
```

10070 Read Pagefixed Without Real Storage - Pool 3

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:   This exception warns that a buffer being PAGEFIXed
for read I/O does not have real storage frame backing.

RATIONALE:  Read I/O into a buffer not residing in real
storage increases the overhead of DB2.

DEFINITION:   This exception is noted when the DSDRFXS3 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10070                */
/* TITLE:  READ PAGEFIXED W/O REAL STORAGE   */
/* FILE:  DB2DSD01                         */
/* ************************************** */

IF DSDRFXS3 GT 0 THEN DO;
  EXCCODE='10070';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='READ PAGEFIXED W/O REAL STORAGE';
  EXCDESC2='BUFFER 3 '                 ||
           '   '                       ||
           'COUNT = '                  ||
            PUT(DSDRFXS3,6.)
            ;
  LINK HIT;
  END;
```

10071 Write Pagefixed Without Real Storage - Pool 3

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception warns that a buffer being PAGEFIXed
for write I/O does not have real storage frame backing.

RATIONALE:   Write I/O into a buffer not residing in real
storage increases the overhead of DB2.

DEFINITION:  This exception is noted when the DSDWFXS3 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************** */
/* EXCEPTION NUMBER:  10071                */
/* TITLE:  WRITE PAGEFIXED W/O REAL STORAGE  */
/* FILE:  DB2DSD01                         */
/* ************************************** */

IF DSDWFXS3 GT 0 THEN DO;
  EXCCODE='10071';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='WRITE PAGEFIXED W/O REAL STORAGE';
  EXCDESC2='BUFFER 3 '                 ||
           '   '                       ||
           'COUNT = '                  ||
            PUT(DSDWFXS3,6.)
            ;
  LINK HIT;
  END;
```

10072 NO. Lock Escalations to Exclusive Mode

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning               (Severity='W')
MANAGEMENT AREA:  Performance    (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of times that
DB2 automatically changed from page locking to table space
locking.

RATIONALE:  Locking determines the level of concurrency which
can be maintained for a transaction.  Since DB2 can change
the locking level specified by an application developer, it
is important to know how DB2 controls this capability.

DEFINITION:  This exception is noted when the DSDLEEM flag is
non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ***********************************************/
/* EXCEPTION NUMBER:  10072                      */
/* TITLE:  NO. LOCK ESCALATIONS TO EXCLUSIVE MODE */
/* FILE:  DB2DSD01                               */
/* ***********************************************/

IF DSDLEEM GT 0 THEN DO;
 EXCCODE='10072';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='LOCKS ESCALATED TO EXCLUSIVE MODE ' ||
          'COUNT = '                   ||
           PUT(DSDLEEM,6.)
           ;
 LINK HIT;
 END;
```

10073 Maximum Number of Page Locks Held

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception provides the maximum number of page
locks held by an application for the system.

RATIONALE:  This exception tracks page locks held by the
system.

DEFINITION:  This exception is noted when the DSDMXPL flag is
non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ***********************************************/
/* EXCEPTION NUMBER:  10073                      */
/* TITLE:  MAXIMUM PAGE LOCKS HELD               */
/* FILE:  DB2DSD01                               */
/* ***********************************************/

IF DSDMXPL GT 0 THEN DO;
 EXCCODE='10073';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='MAXIMUM PAGE LOCKS HELD '  ||
          'COUNT = '                  ||
           PUT(DSDMXPL,6.)
           ;
 LINK HIT;
 END;
```

10074 Prefetch Disabled No Read Engine Buffer 0

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning               (Severity='W')
MANAGEMENT AREA:  Performance    (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of sequential
prefetch requests disabled because of an unavailable buffer
resource.  In this case, the buffer resource comes from
buffer pool 0.

RATIONALE:  This exception tracks the number of times buffer
pool 0 could not provide a buffer to perform a DB2 function.
It is very useful in determining number of buffers needed for
this pool.

DEFINITION:  This exception is noted when the DSDSPDF0 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ************************************************/
/* EXCEPTION NUMBER:  10074                       */
/* TITLE:  PREFETCH REQUEST DISABLED DUE TO NO BUFFERS*/
/* FILE:  DB2DSD01                                */
/* ************************************************/

IF DSDSPDF0 GT 0 THEN DO;
 EXCCODE='10074';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='PREFETCH REQUEST DISABLED NO BUFFERS';
 EXCDESC2='BUFFER 0 '                 ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSDSPDF0,6.)
           ;
 LINK HIT;
 END;
```

10075 Prefetch Disabled No Read Engine Buffer 0

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning               (Severity='W')
MANAGEMENT AREA:  Performance    (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of sequential
prefetch requests disabled because of an unavailable read
engine.  In this case, buffer pool 0 could not get a read
engine.

RATIONALE:  Because prefetch provides for improved
performance in situations requiring large amounts of
sequential processing, it is important to know when and why
this function could not be performed.

DEFINITION:  This exception is noted when the DSDREEP0 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ***************************************************/
/* EXCEPTION NUMBER:  10075                          */
/* TITLE:  PREFETCH REQUEST DISABLED DUE NO READ ENGINE */
/* FILE:  DB2DSD01                                   */
/* ***************************************************/

IF DSDREEP0 GT 0 THEN DO;
 EXCCODE='10075';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='PREFETCH REQUEST DISABLED NO READ ENGINES';
 EXCDESC2='BUFFER 0 '                 ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSDREEP0,6.)
           ;
 LINK HIT;
 END;
```

10076 NO. Times Write Engine Unavailable Buffer 0

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of times a write
engine was unavailable for I/O.  In this case, buffer pool 0
could not get a read engine.

RATIONALE:  This exception documents the situation when the
write function could not be performed due to no write engine
being available to the buffer pool.

DEFINITION:  This exception is noted when the DSDWREE0 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ************************************************/
/* EXCEPTION NUMBER:  10076                       */
/* TITLE:  NO. TIMES WRITE ENGINE UNAVAILABLE     */
/* FILE:  DB2DSD01                                */
/* ************************************************/

IF DSDWREE0 GT 0 THEN DO;
 EXCCODE='10076';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='NO.  TIMES WRITE ENGINE UNAVAILABLE';
 EXCDESC2='BUFFER 0 '                 ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSDWREE0,6.)
           ;
 LINK HIT;
 END;
```

10077 NO. Times Deferred Write Threshold Buffer 0

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning               (Severity='W')
MANAGEMENT AREA:  Performance    (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of times the
deferred write threshold was reached for buffer pool 0.

RATIONALE:  This exception tracks the deferred write
threshold reached for this buffer pool.

DEFINITION:  This exception is noted when the DSDDWRT0 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ********************************************************/
/* EXCEPTION NUMBER:  10077                               */
/* TITLE:  NO. TIMES DEFERRED WRITE THRESHOLD REACHED     */
/* FILE:  DB2DSD01                                        */
/* ********************************************************/

IF DSDDWRT0 GT 0 THEN DO;
 EXCCODE='10077';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='NO.  TIMES DEFERRED WRITE THRESHOLD REACHED';
 EXCDESC2='BUFFER 0 '                 ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSDDWRT0,6.)
           ;
 LINK HIT;
 END;
```

10078 NO. Times WPHFWT Threshold Reached Buffer 0

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning               (Severity='W')
MANAGEMENT AREA:  Performance    (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of times that a
WPHFWT threshold was reached for buffer pool 0.

RATIONALE:  This exception tracks the WPHFWT threshold for
buffer pool 0.

DEFINITION:  This exception is noted when the DSDDMCT0 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ********************************************************/
/* EXCEPTION NUMBER:  10078                               */
/* TITLE:  NO. TIMES WPHFWT THRESHOLD REACHED             */
/* FILE:  DB2DSD01                                        */
/* ********************************************************/

IF DSDDMCT0 GT 0 THEN DO;
 EXCCODE='10078';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='NO.  TIMES WPHFWT THRESHOLD REACHED';
 EXCDESC2='BUFFER 0 '                 ||
          '   '                       ||
          'COUNT = '                   ||
           PUT(DSDDMCT0,6.)
           ;
 LINK HIT;
 END;
```

10079 Prefetch Disabled No Read Engine Buffer 1

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of sequential
prefetch request disabled because of an unavailable buffer
resource.  In this case, the buffer resource comes from
buffer pool 1.

RATIONALE:  This exception tracks the number of times buffer
pool 1 could not provide a buffer to perform a DB2 function.
It will be very useful in determining number of buffers
needed for this pool.

DEFINITION:  This exception is noted when the DSDSPDF1 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:

/* ************************************************/
/* EXCEPTION NUMBER:  10079                       */
/* TITLE:  PREFETCH REQUEST DISABLED DUE TO NO BUFFERS*/
/* FILE:  DB2DSD01                                */
/* ************************************************/

IF DSDSPDF1 GT 0 THEN DO;
 EXCCODE='10079';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='PREFETCH REQUEST DISABLED NO BUFFERS';
 EXCDESC2='BUFFER 1 '                 ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSDSPDF1,6.)
           ;
 LINK HIT;
 END;
```

10080 Prefetch Disabled No Read Engine Buffer 1

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of sequential
prefetch requests disabled because of an unavailable read
engine.  In this case, buffer pool 1 could not get a read
engine.

RATIONALE:  Because prefetch provides for improved
performance in situations requiring large amounts of
sequential processing, it is important to know when and why
this function could not be performed.

DEFINITION:  This exception is noted when the DSDREEP1 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:

/* ************************************************/
/* EXCEPTION NUMBER:  10080                       */
/* TITLE:  PREFETCH REQUEST DISABLED DUE NO READ ENGINE*/
/* FILE:  DB2DSD01                                */
/* ************************************************/

IF DSDREEP1 GT 0 THEN DO;
 EXCCODE='10080';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='PREFETCH REQUEST DISABLED NO READ ENGINES';
 EXCDESC2='BUFFER 1 '                 ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSDREEP1,6.)
           ;
 LINK HIT;
 END;
```

10081 NO. Times Write Engine Unavailable Buffer 1

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of times a write
engine was unavailable for I/O, in this case, for buffer pool
1.

RATIONALE:  This exception documents the situation of when
the write function could not be performed due to no write
engine being available to the buffer pool.

DEFINITION:  This exception is noted when the DSDWREE1 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:

/* ************************************************/
/* EXCEPTION NUMBER:  10081                       */
/* TITLE:  NO. TIMES WRITE ENGINE UNAVAILABLE     */
/* FILE:  DB2DSD01                                */
/* ************************************************/

IF DSDWREE1 GT 0 THEN DO;
 EXCCODE='10081';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='NO.  TIMES WRITE ENGINE UNAVAILABLE';
 EXCDESC2='BUFFER 1 '                ||
          '   '                      ||
          'COUNT = '                 ||
           PUT(DSDWREE1,6.)
           ;
 LINK HIT;
 END;
```

10082 NO. Times Deferred Write Threshold Buffer 1

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of times the
deferred write threshold was reached for buffer pool 1.

RATIONALE:  This exception tracks the deferred write
threshold reached for this buffer pool.

DEFINITION:  This exception is noted when the DSDDWRT1 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:

/* ********************************************************/
/* EXCEPTION NUMBER:  10082                               */
/* TITLE:  NO. TIMES DEFERRED WRITE THRESHOLD REACHED     */
/* FILE:  DB2DSD01                                        */
/* ********************************************************/

IF DSDDWRT1 GT 0 THEN DO;
 EXCCODE='10082';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='NO.  TIMES DEFERRED WRITE THRESHOLD REACHED';
 EXCDESC2='BUFFER 1 '                 ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSDDWRT1,6.)
           ;
 LINK HIT;
 END;
```

10083 NO. Times WPHFWT Threshold Reached Buffer 1

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning               (Severity='W')
MANAGEMENT AREA:  Performance    (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of times that a
WPHFWT threshold was reached for buffer pool 1.

RATIONALE:  This exception tracks the WPHFWT threshold for
buffer pool 1.

DEFINITION:  This exception is noted when the DSDDMCT1 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:

/* ********************************************************/
/* EXCEPTION NUMBER:  10083                               */
/* TITLE:  NO. TIMES WPHFWT THRESHOLD REACHED             */
/* FILE:  DB2DSD01                                        */
/* ********************************************************/

IF DSDDMCT1 GT 0 THEN DO;
 EXCCODE='10083';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='NO.  TIMES WPHFWT THRESHOLD REACHED';
 EXCDESC2='BUFFER 1 '                 ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSDDMCT1,6.)
           ;
 LINK HIT;
 END;
```

10084 Prefetch Disabled No Read Engine Buffer 2

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning               (Severity='W')
MANAGEMENT AREA:  Performance    (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of sequential
prefetch requests disabled because of an unavailable buffer
resource.  In this case, the buffer resource comes from
buffer pool 2.

RATIONALE:  This exception tracks the number of times buffer
pool 2 could not provide a buffer to perform a DB2 function.
It is very useful in determining number of buffers needed for
this pool.

DEFINITION:  This exception is noted when the DSDSPDF2 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************************/
/* EXCEPTION NUMBER:  10084                       */
/* TITLE:  PREFETCH REQUEST DISABLED DUE TO NO BUFFERS*/
/* FILE:  DB2DSD01                                */
/* ************************************************/

IF DSDSPDF2 GT 0 THEN DO;
 EXCCODE='10084';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='PREFETCH REQUEST DISABLED NO BUFFERS';
 EXCDESC2='BUFFER 2 '                 ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSDSPDF2,6.)
           ;
 LINK HIT;
 END;
```

10085 Prefetch Disabled No Read Engine Buffer 2

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of sequential
prefetch requests disabled because of an unavailable read
engine.  In this case, buffer pool 2 could not get a read
engine.

RATIONALE:  Because prefetch provides for improved
performance in situations requiring large amounts of
sequential processing, it is important to know when and why
this function could not be performed.

DEFINITION:  This exception is noted when the DSDREEP2 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:

/* ************************************************/
/* EXCEPTION NUMBER:  10085                       */
/* TITLE:  PREFETCH REQUEST DISABLED DUE NO READ ENGINE*/
/* FILE:  DB2DSD01                                */
/* ************************************************/

IF DSDREEP2 GT 0 THEN DO;
 EXCCODE='10085';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='PREFETCH REQUEST DISABLED NO READ ENGINES';
 EXCDESC2='BUFFER 2 '                 ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSDREEP2,6.)
           ;
 LINK HIT;
 END;
```

10086 NO. Times Write Engine Unavailable Buffer 2

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning               (Severity='W')
MANAGEMENT AREA:  Performance    (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of times a write
engine was unavailable for I/O, in this case, for buffer pool
2.

RATIONALE:  This exception documents the situation of when
the write function could not be performed due to no write
engine being available to the buffer pool.

DEFINITION:  This exception is noted when the DSDWREE2 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:

/* ************************************************/
/* EXCEPTION NUMBER:  10086                       */
/* TITLE:  NO. TIMES WRITE ENGINE UNAVAILABLE     */
/* FILE:  DB2DSD01                                */
/* ************************************************/

IF DSDWREE2 GT 0 THEN DO;
 EXCCODE='10086';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='NO.  TIMES WRITE ENGINE UNAVAILABLE';
 EXCDESC2='BUFFER 2 '                 ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSDWREE2,6.)
           ;
 LINK HIT;
 END;
```

10087 NO. Times Deferred Write Threshold Buffer 2

```
FILE:  DB2 Database Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of times the
deferred write threshold was reached for buffer pool 2.

RATIONALE:  This exception tracks the deferred write
threshold reached for this buffer pool.

DEFINITION:  This exception is noted when the DSDDWRT2 flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements that identify the
exception situation and describe the condition are stored in
the source member named in SOURCE LOCATION and are described
below:

/* ********************************************************/
/* EXCEPTION NUMBER:  10087                               */
/* TITLE:  NO. TIMES DEFERRED WRITE THRESHOLD REACHED     */
/* FILE:  DB2DSD01                                        */
/* ********************************************************/

IF DSDDWRT2 GT 0 THEN DO;
 EXCCODE='10087';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='NO. TIMES DEFERRED WRITE THRESHOLD REACHED';
 EXCDESC2='BUFFER 2 '                ||
          '   '                      ||
          'COUNT = '                 ||
           PUT(DSDDWRT2,6.)
           ;
 LINK HIT;
 END;
```

10088 NO. Times WPHFWT Threshold Reached Buffer 2

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning               (Severity='W')
MANAGEMENT AREA:  Performance    (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of times that a
WPHFWT threshold was reached for buffer pool 2.

RATIONALE:  This exception tracks the WPHFWT threshold for
buffer pool 2.

DEFINITION:  This exception is noted when the DSDDMCT2 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:

/* ********************************************************/
/* EXCEPTION NUMBER:  10088                               */
/* TITLE:  NO. TIMES WPHFWT THRESHOLD REACHED             */
/* FILE:  DB2DSD01                                        */
/* ********************************************************/

IF DSDDMCT2 GT 0 THEN DO;
 EXCCODE='10088';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='NO.  TIMES WPHFWT THRESHOLD REACHED';
 EXCDESC2='BUFFER 2 '                 ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSDDMCT2,6.)
           ;
 LINK HIT;
 END;
```

10089 Prefetch Disabled No Read Engine Buffer 3

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning               (Severity='W')
MANAGEMENT AREA:  Performance    (MGMTAREA='Performance')

PURPOSE:  This exception provides the the number of
sequential prefetch request disabled because of an
unavailable buffer resource.  In this case, the buffer
resource comes from buffer pool 3.

RATIONALE:  This exception tracks the number of times buffer
pool 0 could not provide a buffer to perform a DB2 function.
It will be very useful in determining number of buffers
needed for this pool.

DEFINITION:  This exception is noted when the DSDSPDF3 flag
is non-zero.

EXCEPTION STATEMENTS:    The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:


/* ************************************************/
/* EXCEPTION NUMBER:  10089                       */
/* TITLE:  PREFETCH REQUEST DISABLED DUE TO NO BUFFERS*/
/* FILE:  DB2DSD01                                */
/* ************************************************/

IF DSDSPDF3 GT 0 THEN DO;
 EXCCODE='10089';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='PREFETCH REQUEST DISABLED NO BUFFERS';
 EXCDESC2='BUFFER 3 '                 ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSDSPDF3,6.)
           ;
 LINK HIT;
 END;
```

10090 Prefetch Disabled No Read Engine Buffer 3

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of sequential
prefetch requests disabled because of an unavailable read
engine.  In this case, buffer pool 3 could not get a read
engine.

RATIONALE:  Because prefetch provides for improved
performance for those situations requiring large amounts of
sequential processing, it is important to know when and why
this function could not be performed.

DEFINITION:  This exception is noted when the DSDREEP3 flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:

/* ************************************************/
/* EXCEPTION NUMBER:  10090                       */
/* TITLE:  PREFETCH REQUEST DISABLED DUE NO READ ENGINE*/
/* FILE:  DB2DSD01                                */
/* ************************************************/

IF DSDREEP3 GT 0 THEN DO;
 EXCCODE='10090';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='PREFETCH REQUEST DISABLED NO READ ENGINES';
 EXCDESC2='BUFFER 3 '                 ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSDREEP3,6.)
           ;
 LINK HIT;
 END;
```

10091 NO. Times Write Engine Unavailable Buffer 3

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning               (Severity='W')
MANAGEMENT AREA:  Performance    (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of times a write
engine was unavailable for I/O, in this case, for buffer pool
3.

RATIONALE:  This exception documents the situation when the
write function could not be performed due to not write engine
available to the buffer pool.

DEFINITION:  This exception is noted when the DSDWREE3 flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:

/* ************************************************/
/* EXCEPTION NUMBER:  10091                       */
/* TITLE:  NO. TIMES WRITE ENGINE UNAVAILABLE     */
/* FILE:  DB2DSD01                                */
/* ************************************************/

IF DSDWREE3 GT 0 THEN DO;
 EXCCODE='10091';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='NO.  TIMES WRITE ENGINE UNAVAILABLE';
 EXCDESC2='BUFFER 3 '                 ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSDWREE3,6.)
           ;
 LINK HIT;
 END;
```

10092 NO. Times Deferred Write Threshold Buffer 3

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of times
deferred write threshold was reached for buffer pool 3.

RATIONALE:  This exception tracks the deferred write
threshold reached for this buffer pool.

DEFINITION:  This exception is noted when the DSDDWRT3 flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:

/* ********************************************************/
/* EXCEPTION NUMBER:  10092                               */
/* TITLE:  NO. TIMES DEFERRED WRITE THRESHOLD REACHED     */
/* FILE:  DB2DSD01                                        */
/* ********************************************************/

IF DSDDWRT3 GT 0 THEN DO;
 EXCCODE='10092';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='NO.  TIMES DEFERRED WRITE THRESHOLD REACHED';
 EXCDESC2='BUFFER 3 '                ||
          '   '                      ||
          'COUNT = '                 ||
           PUT(DSDDWRT3,6.)
           ;
 LINK HIT;
 END;
```

10093 NO. Times WPHFWT Threshold Reached Buffer 3

```
FILE:  DB2 Database Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning              (Severity='W')
MANAGEMENT AREA:  Performance   (MGMTAREA='Performance')

PURPOSE:  This exception provides the number of times that a
WPHFWT threshold was reached for buffer pool 3.

RATIONALE:  This exception tracks the WPHFWT threshold for
buffer pool 3.

DEFINITION:  This exception is noted when the DSDDMCT3 flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements that identify the
exception situation and describe the condition are stored in
the source member named in SOURCE LOCATION and are described
below:

/* ********************************************************/
/* EXCEPTION NUMBER:  10093                               */
/* TITLE:  NO. TIMES WPHFWT THRESHOLD REACHED             */
/* FILE:  DB2DSD01                                        */
/* ********************************************************/

IF DSDDMCT3 GT 0 THEN DO;
 EXCCODE='10093';
 SEVERITY='W';
 MGMTAREA='PERFORMANCE';
 EXCDESC1='NO. TIMES WPHFWT THRESHOLD REACHED';
 EXCDESC2='BUFFER 3 '                 ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSDDMCT3,6.)
           ;
 LINK HIT;
 END;
```

10094 NO. Failures Due to Full EDM Pool

```
FILE:  DB2 Data Base Activity File
SAS FILE NAME:  DETAIL.DB2DSD01
SOURCE LOCATION:  prefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning               (Severity='W')
MANAGEMENT AREA:  Performance    (MGMTAREA='Performance')

PURPOSE:  This exception provides the transaction failures
due to the Environmental Descriptor Manager Pool being full.
There was not enough space in the pool to support the number
of transaction executions.

RATIONALE:   This exceptions helps to track the problem
caused by an EDM pool which is not large enough for the
amount of work to be performed on the DB2 system.

DEFINITION:  This exception is noted when the DSDEFAL flag is
non-zero.

EXCEPTION STATEMENTS:  The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ********************************************************/
/* EXCEPTION NUMBER:  10094                               */
/* TITLE:  NO. OF FAILURES DUE TO FULL EDM POOL           */
/* FILE:  DB2DSD01                                        */
/* ********************************************************/

IF DSDEFAL GT 0 THEN DO;
  EXCCODE='10094';
  SEVERITY='W';
  MGMTAREA='PERFORMANCE';
  EXCDESC1='NO.  OF FAILURES DUE TO FULL EDM POOL ' ||
          'COUNT = '                  ||
           PUT(DSDEFAL,6.)
           ;
  LINK HIT;
  END;
```

10095 Instrumentation Record Not Accepted

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that a record prepared by DB2
for a specified instrumentation facility destination was not
accepted.

RATIONALE:  This exception indicates an internal error in DB2
which prepared an SMF, GTF, RES, or SRV record with an
incorrect format.  The data are being lost.

DEFINITION:  This exception is noted when the DSYRCNA2 flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ************************************** */
/* EXCEPTION NUMBER:  10095                */
/* TITLE:  INSTRUMENTATION RECORD NOT ACCEPTED*/
/* FILE:  DB2DSY01                         */
/* ************************************** */
IF DSYRCNA2 GT 0 THEN DO;
 EXCCODE='10095';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION RECORD NOT ACCEPTED';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES2,$4.)          ||
          '   '                       ||
          'RECORD COUNT = '           ||
           PUT(DSYRCNA2,6.)
           ;
 LINK HIT;
 END;
```

10096 Instrumentation Record Not Accepted

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that a record prepared by DB2
for a specified instrumentation facility destination was not
accepted.

RATIONALE:  This exception indicates an internal error in DB2
which prepared an SMF, GTF, RES, or SRV record with an
incorrect format.  The data are being lost.

DEFINITION:  This exception is noted when the DSYRCNA3 flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ************************************** */
/* EXCEPTION NUMBER:  10096                */
/* TITLE:  INSTRUMENTATION RECORD NOT ACCEPTED*/
/* FILE:  DB2DSY01                         */
/* ************************************** */
IF DSYRCNA3 GT 0 THEN DO;
 EXCCODE='10096';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION RECORD NOT ACCEPTED';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES3,$4.)          ||
          '   '                       ||
          'RECORD COUNT = '           ||
           PUT(DSYRCNA3,6.)
           ;
 LINK HIT;
 END;
```

10097 Instrumentation Record Not Accepted

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that a record prepared by DB2
for a specified instrumentation facility destination was not
accepted.

RATIONALE:  This exception indicates an internal error in DB2
which prepared an SMF, GTF, RES, or SRV record with an
incorrect format.  The data are being lost.

DEFINITION:  This exception is noted when the DSYRCNA4 flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ************************************** */
/* EXCEPTION NUMBER:  10097                */
/* TITLE:  INSTRUMENTATION RECORD NOT ACCEPTED*/
/* FILE:  DB2DSY01                         */
/* ************************************** */
IF DSYRCNA4 GT 0 THEN DO;
 EXCCODE='10097';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION RECORD NOT ACCEPTED';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES4,$4.)          ||
          '   '                       ||
          'RECORD COUNT = '           ||
           PUT(DSYRCNA4,6.)
           ;
 LINK HIT;
 END;
```

10098 Instrumentation Record Not Accepted

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that a record prepared by DB2
for a specified instrumentation facility destination was not
accepted.

RATIONALE:  This exception indicates an internal error in DB2
which prepared an SMF, GTF, RES, or SRV record with an
incorrect format.  The data are being lost.

DEFINITION:  This exception is noted when the DSYRCNA5 flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ************************************** */
/* EXCEPTION NUMBER:  10098                */
/* TITLE:  INSTRUMENTATION RECORD NOT ACCEPTED*/
/* FILE:  DB2DSY01                         */
/* ************************************** */
IF DSYRCNA5 GT 0 THEN DO;
 EXCCODE='10098';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION RECORD NOT ACCEPTED';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES5,$4.)          ||
          '   '                       ||
          'RECORD COUNT = '           ||
           PUT(DSYRCNA5,6.)
           ;
 LINK HIT;
 END;
```

10099 Instrumentation Writer Failure

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:   This exception warns that the instrumentation
facility selected failed while processing a DB2 request.

RATIONALE:  Instrumentation facility failure results in the
loss of DB2 system activity and accounting data.

DEFINITION:  This exception is noted when the DSYWFAI2 flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ************************************** */
/* EXCEPTION NUMBER:  10099                */
/* TITLE:  INSTRUMENTATION WRITER FAILURE  */
/* FILE:  DB2DSY01                         */
/* ************************************** */
IF DSYWFAI2 GT 0 THEN DO;
 EXCCODE='10099';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION WRITER FAILURE';
 EXCDESC2='DESTINATION = '           ||
           PUT(DSYIDES2,$4.)         ||
          '   '                      ||
          'COUNT = '                 ||
           PUT(DSYWFAI2,6.)
           ;
 LINK HIT;
 END;
```

10100 Instrumentation Writer Failure

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that the selected
instrumentation facility failed while processing a DB2
request.

RATIONALE:  Instrumentation facility failure results in the
loss of DB2 system activity and accounting data.

DEFINITION:  This exception is noted when the DSYWFAI3 flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ************************************** */
/* EXCEPTION NUMBER:  10100                */
/* TITLE:  INSTRUMENTATION WRITER FAILURE  */
/* FILE:  DB2DSY01                         */
/* ************************************** */
IF DSYWFAI3 GT 0 THEN DO;
 EXCCODE='10100';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION WRITER FAILURE';
 EXCDESC2='DESTINATION = '            ||
          PUT(DSYIDES3,$4.)           ||
         '   '                        ||
         'COUNT = '                   ||
          PUT(DSYWFAI3,6.)
          ;
 LINK HIT;
 END;
```

10101 Instrumentation Writer Failure

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that the selected
instrumentation facility failed while processing a DB2
request.

RATIONALE:  Instrumentation facility failure results in the
loss of DB2 system activity and accounting data.

DEFINITION:  This exception is noted when the DSYWFAI4 flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ************************************** */
/* EXCEPTION NUMBER:  10101                */
/* TITLE:  INSTRUMENTATION WRITER FAILURE  */
/* FILE:  DB2DSY01                         */
/* ************************************** */
IF DSYWFAI4 GT 0 THEN DO;
 EXCCODE='10101';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION WRITER FAILURE';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES4,$4.)          ||
          '   '                       ||
          'COUNT = '                  ||
           PUT(DSYWFAI4,6.)
           ;
 LINK HIT;
 END;
```

10102 Instrumentation Writer Failure

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that the selected
instrumentation facility failed while processing a DB2
request.

RATIONALE:  Instrumentation facility failure results in the
loss of DB2 system activity and accounting data.

DEFINITION:  This exception is noted when the DSYWFAI5 flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ************************************** */
/* EXCEPTION NUMBER:  10102                */
/* TITLE:  INSTRUMENTATION WRITER FAILURE  */
/* FILE:  DB2DSY01                         */
/* ************************************** */
IF DSYWFAI5 GT 0 THEN DO;
 EXCCODE='10102';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='INSTRUMENTATION WRITER FAILURE';
 EXCDESC2='DESTINATION = '            ||
          PUT(DSYIDES5,$4.)           ||
         '   '                        ||
         'COUNT = '                   ||
          PUT(DSYWFAI5,6.)
          ;
 LINK HIT;
 END;
```

10103 Record Unsuccessfully Written

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that the specified
instrumentation facility failed to write a DB2 record.

RATIONALE:  Incorrect operation of the instrumentation
facility SMF, GTF, RES, or SRV causes the loss of DB2 system
activity and accounting data.

DEFINITION:  This exception is noted when the DSYRECN2 flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ************************************** */
/* EXCEPTION NUMBER:  10103                */
/* TITLE:  RECORD UNSUCCESSFULLY WRITTEN   */
/* FILE:  DB2DSY01                         */
/* ************************************** */
IF DSYRECN2 GT 0 THEN DO;
 EXCCODE='10103';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='RECORD UNSUCCESSFULLY WRITTEN';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES2,$4.)          ||
          '   '                       ||
          'RECORD COUNT = '           ||
           PUT(DSYRECN2,6.)
           ;
 LINK HIT;
 END;
```

10104 Record Unsuccessfully Written

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that the specified
instrumentation facility failed to write a DB2 record.

RATIONALE:  Incorrect operation of the instrumentation
facility SMF, GTF, RES, or SRV causes the loss of DB2 system
activity and accounting data.

DEFINITION:  This exception is noted when the DSYRECN3 flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ************************************** */
/* EXCEPTION NUMBER:  10104                */
/* TITLE:  RECORD UNSUCCESSFULLY WRITTEN   */
/* FILE:  DB2DSY01                         */
/* ************************************** */
IF DSYRECN3 GT 0 THEN DO;
 EXCCODE='10104';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='RECORD UNSUCCESSFULLY WRITTEN';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES3,$4.)          ||
          '   '                       ||
          'RECORD COUNT = '           ||
           PUT(DSYRECN3,6.)
           ;
 LINK HIT;
 END;
```

10105 Record Unsuccessfully Written

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that the specified
instrumentation facility failed to write a DB2 record.

RATIONALE:  Incorrect operation of the instrumentation
facility SMF, GTF, RES, or SRV causes the loss of DB2 system
activity and accounting data.

DEFINITION:  This exception is noted when the DSYRECN4 flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ************************************** */
/* EXCEPTION NUMBER:  10105                */
/* TITLE:  RECORD UNSUCCESSFULLY WRITTEN   */
/* FILE:  DB2DSY01                         */
/* ************************************** */
IF DSYRECN4 GT 0 THEN DO;
 EXCCODE='10105';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='RECORD UNSUCCESSFULLY WRITTEN';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES4,$4.)          ||
          '   '                       ||
          'RECORD COUNT = '           ||
           PUT(DSYRECN4,6.)
           ;
 LINK HIT;
 END;
```

10106 Record Unsuccessfully Written

```
FILE:  DB2 System Activity File
SAS FILE NAME:  DETAIL.DB2DSY01
SOURCE LOCATION:  sharedprefix.MICS.SOURCE(DB2DYEXC)

SEVERITY:  Warning            (Severity='W')
MANAGEMENT AREA:  Security    (MGMTAREA='Security')

PURPOSE:  This exception warns that the specified
instrumentation facility failed to write a DB2 record.

RATIONALE:  Incorrect operation of the instrumentation
facility SMF, GTF, RES, or SRV causes the loss of DB2 system
activity and accounting data.

DEFINITION:  This exception is noted when the DSYRECN5 flag
is non-zero.

EXCEPTION STATEMENTS:  The SAS statements identifying the
exception situation and describing the condition are stored
in the source member named in SOURCE LOCATION and are
described below:



/* ************************************** */
/* EXCEPTION NUMBER:  10106                */
/* TITLE:  RECORD UNSUCCESSFULLY WRITTEN    */
/* FILE:  DB2DSY01                         */
/* ************************************** */
IF DSYRECN5 GT 0 THEN DO;
 EXCCODE='10106';
 SEVERITY='W';
 MGMTAREA='SECURITY';
 EXCDESC1='RECORD UNSUCCESSFULLY WRITTEN';
 EXCDESC2='DESTINATION = '            ||
           PUT(DSYIDES5,$4.)          ||
          '   '                       ||
          'RECORD COUNT = '           ||
           PUT(DSYRECN5,6.)
           ;
 LINK HIT;
 END;
```

Chapter 5: FILES

The DB2 Analyzer divides its data logically into the following information areas:

- DB2 Information Area (DB2) - these files contain system and user level performance and activity information.

- DB2 Buffer Pool Information Area (DBP) - these files contain performance and activity by buffer pool ID.

Figure 5-1 lists the product's files and the timespans that are activated for each file. Figures 5-2 through 5-4 describe the files supported by the HAR, SCP, and WLM information areas and their data sources.

Figure 5-1 identifies the individual database files and categorizes them by the information area to which they belong. For each file in an information area, the following data is provided:

XDWMYT - This entry defines the timespans in which the file is supported.

- X - DETAIL
- D - DAYS
- W - WEEKS
- M - MONTHS
- Y - YEARS
- T - TABLES AREA
- . - File is not supported

File - The identifier used to access this file.

File Name - The description of the file.

Note: The timespans in which a file is supported are defined by each data center when CA MICS is installed. Therefore, this table has been generated as part of the installation process to accurately reflect the CA MICS system at your data center.

```
+--------------------------------------+------------------+
| DB2 Buffer Pool Area                 | Date Generated:  |
| Information Area                     |Fri, Dec 21, 2012 |
+--------------------------------------+------------------+
|                                                         |
| XDWMYT  File    File Name                               |
|                                                         |
| ......  DBP_BM  DB2 BUFFER MANAGER SUSPEND FILE         |
| X.....  DBP_BP  DB2 BUFFER MANAGER GROUP SUSPEND FILE   |
| X.....  DBP_DB  DB2 BUFFER POOL SUSPEND FILE            |
| X.....  DBPBMD  DB2 BUFFER MANAGER DYNAMIC BP ATTRIBUTES|
| X.....  DBPBMG  DB2 BUFFER MANAGER GROUP BP ATTRIBUTES  |
| ......  DBPDBP  DB2 PLAN BUFFER POOL ACTIVITY           |
| ......  DBPDBU  DB2 USER BUFFER POOL ACTIVITY           |
| ......  DBPDSB  DB2 BUFFER POOL ACTIVITY                |
+--------------------------------------+------------------+
| DB2                                  | Date Generated:  |
| Information Area                     |Fri, Dec 21, 2012 |
+--------------------------------------+------------------+
|                                                         |
| XDWMYT  File    File Name                               |
|                                                         |
| X.....  DB2_DD  DB2 DATA BASE ACTIVITY SUSPEND FILE     |
| ......  DB2_DP  DB2 PACKAGE/DBRM ACTIVITY SUSPEND FILE  |
| X.....  DB2_DS  DB2 SYSTEM ACTIVITY SUSPEND FILE        |
| X.....  DB2_SH  DB2 SYSTEM DDF SUSPEND FILE             |
| X.....  DB2_SS  DB2 SYS STOR USAGE BY AS SUSPEND FILE   |
| X.....  DB2_SU  DB2 SYSTEM STORAGE USAGE SUSPEND FILE   |
| .DWMY.  DB2DDP  DB2 PLAN DDF ACTIVITY FILE              |
| XDWMY.  DB2DDY  DB2 SYSTEM DDF STATISTICS FILE          |
| ......  DB2DPP  DB2 PACKAGE/DBRM ACTIVITY FILE          |
| XDWMY.  DB2DSD  DB2 DATA BASE ACTIVITY FILE             |
| .DWMY.  DB2DSP  DB2 PLAN ACTIVITY FILE                  |
| XDWMY.  DB2DSY  DB2 SYSTEM ACTIVITY FILE                |
| X.....  DB2SSA  DB2 ADDRESS SPACE SYSTEM STORAGE USAGE  |
| X.....  DB2SSU  DB2 SYSTEM STORAGE USAGE                |
| .DWMY.  DB2DDU  DB2 USER DDF ACTIVITY FILE              |
| .DWMY.  DB2DSU  DB2 USER ACTIVITY FILE                  |
|                                                         |
+---------------------------------------------------------+
```

Figure 5-1. DB2 and DBP Files

```
+---------+-------------------+----------------------------------+-------------------------------+
```

File	File Name	Description	Input Source
DB2DSY	DB2 System Activity	Includes system level data for address space, instrumentation, commands, storage manager, and more.	SMF type 100, subtype 0
DB2DSD	DB2 Data Base Activity	Contains data base activity about SQL statements, buffer manager, binds, and lock usage.	SMF type 100, subtype 1
DB2DSU	DB2 User Activity	Contains user transaction level data useful for accounting and chargeback and performance analysis.	SMF type 101, subtype 0
DB2DSP	DB2 Plan Activity	Contains the same information as the DB2 User Activity File, but organizes it by DB2 Plan.	SMF type 101, subtype 0
DB2DPP	DB2 Package/DBRM Activity	Provides resource consumption and activity for DB2 packages and data base request modules.	SMF type 101, subtype 1
DB2DDY	DB2 System DDF Activity	Maintains DB2 system distributed data base activity for each DB2 subsystem participating in distributed processing.	SMF type 100, subtype 0
DB2DDU	DB2 User DDF Activity	Contains DB2 accounting data for distributed data base activity for each DB2 user.	SMF type 101, subtype 0
DB2DDP	DB2 Plan DDF Activity	Contains the same information as the DB2DDU file, but organized by DB2 Plan name.	SMF type 101, subtype 0
DB2SSU	DB2 System Storage Usage	Contains system storage info by database ID.	SMF type 100, subtype 4
DB2SSA	DB2 System Address Space Storage Usage	Contains system storage info by address space for each database ID.	SMF type 100, subtype 4 (IFCID 225) (IFCID 225)

Figure 5-2. DB2 File Descriptions (Part 1 of 2)

File	File Name	Description	Input Source
DBPDBP	Db2 Plan Buffer Pool Activity	Provides resource information for each DB2 buffer pool used by DB2 transactions, by DB2 Plan name.	SMF type 101, subtype 0
DBPDBU	DB2 User Buffer Pool Activity	Identifies resource information at the user level for each DB2 buffer pool used by a DB2 user transaction.	SMF type 101, subtype 0
DBPDSB	DB2 System Buffer Pool Activity	Contains DB2 system level resource and activity information for individual DB2 buffer pools.	SMF type 100, subtype 0
DBPBMG	DB2 Buffer Manager Group BP Attributes	Contains DB2 buffer manager group buffer pool attributes for each buffer pool group.	SMF type 100, subtype 3
DBPBMD	DB2 Buffer Manager Dynamic BP Attributes	Contains DB2 buffer manager dynamic buffer pool attributes by buffer pool.	SMF type 100, subtype 2

Figure 5-3. DBP File Descriptions

This chapter presents the DB2 Analyzer data files as they are seen in the online database structure. The files might also be located offline in either audit or history archive files. The PIOM and the Database Structure and Content Guides discuss these other structures.

This chapter is divided into the following sections:

1 - Data Element Naming Conventions
2 - DB2 Information Area Files
3 - DBP Information Area Files
4 - Internal Suspend Files

This section contains the following topics:

5.1 - Data Element Naming Conventions (see page 229)
5.2 DB2 Information Area FILES (see page 230)
5.3 DBP Information Area FILES (see page 343)
5.4 DB2 Suspend FILES (see page 373)

5.1 - Data Element Naming Conventions

CA MICS data elements follow naming conventions that depend on whether they are standard or common data elements. Standard data elements use the first three characters of their name to identify the file in which they are defined. The following charts list the three-character prefixes with which the standard data element names begin and the files in which they are contained.

DB2 Information Area (DB2)

File Name	File	Names Begin With
DB2 System Activity	DB2DSY	DSY
DB2 Data Base Activity	DB2DSD	DSD
DB2 User Activity	DB2DSU	DSU
DB2 Plan Activity	DB2DSP	DSP
DB2 System DDF Statistics	DB2DDY	DDY
DB2 User DDF Activity	DB2DDU	DDU
DB2 Plan DDF Activity	DB2DDP	DDP
DB2 Package/DBRM Activity	DB2DPP	DPP
DB2 System Storage Usage	DB2SSU	SSU
DB2 Sys Addr Storage Usage	DB2SSA	SSA

DB2 Buffer Pool Information Area (DBP)

File Name	File	Names Begin With
DB2 Buffer Pool Activity	DBPDSB	DSB
DB2 User Buffer Pool Activity	DBPDBU	DBU
DB2 Plan Buffer Pool Activity	DBPDBP	DBP
DB2 Buffer Mgr Group BP Attr	DBPBMG	BMG
DB2 Buff Mgr Dynamic BP Attr	DBPBMD	BMD

Common data elements do not use a data element prefix. They have a common definition across database information areas or across files within an information area. Common data elements are listed under Sequence/Summary Data Elements and Common Data Elements in the Data Elements List sections that follow.

5.2 DB2 Information Area FILES

This section does the following:

- Identifies each file in the DB2 Information Area
- Defines the levels of summarization and data sequencing for each file
- Presents the list of available data elements for each file

The files maintained in the Hardware Information Area include:

- DB2 System Activity (DB2DSY) File
- DB2 Data Base Activity (DB2DSD) File
- DB2 User Activity (DB2DSU) File
- DB2 Plan Activity (DB2DSP) File
- DB2 System DDF Statistics (DB2DDY) File
- DB2 User DDF Activity (DB2DDU) File
- DB2 Plan DDF Activity (DB2DDP) File
- DB2 Package/DBRM Activity (DB2DPP) File
- DB2 System Storage Usage (DB2SSU) File
- DB2 System Address Space Storage Usage (DB2SSA) File

5.2.1 DB2 System Activity (DB2DSY) File

FILENAME=DB2DSYxx

The DB2 System Activity file maintains DB2 System Activity data, including address space, instrumentation, subsystem services, commands, latch manager, agent services, storage manager, trace data, and log manager data. This file is derived from the SMF DB2 record type 100 subtype 0. This file exists in the DETAIL, DAYS, WEEKS, MONTHS, and YEARS timespans.

The following three sections describe the file's organization, list the data elements maintained, and provide usage hints:

1 - File Organization
2 - Data Elements List
3 - Usage Considerations

5.2.1.1 File Organization

The table below identifies data elements by which the file is sequenced and summarized in each timespan. "N/A" indicates that the file is not supported in a timespan. At the DETAIL level, data is sequenced but not summarized.

NOTE: The timespans in which a file is supported are defined by each installation when CA MICS is installed. Therefore, this table has been generated as part of the installation process to accurately reflect the CA MICS system at your installation.

Timespan	Level of Data Granularity				
DETAIL	SYSID	DB2ID	YEAR	MONTH	DAY
	HOUR	ENDTS			
DAYS	SYSID	DB2ID	YEAR	MONTH	DAY
	HOUR				
WEEKS	SYSID	DB2ID	YEAR	WEEK	ZONE
	HOUR				
MONTHS	SYSID	DB2ID	YEAR	MONTH	ZONE
YEARS	SYSID	DB2ID	YEAR	ZONE	
TABLES	N/A				

Generation Date: Tue, May 12, 2009

NOTE: This file was generated with ESSENTIAL=ALL option in effect. All data elements defined in the file are generated.

NOTE: This file was generated with DERIVED=DEFault option in effect. Whether data elements are kept on the file on auxiliary storage or not is controlled by the complex definition of the DERIVED option.

Figure 5-1. DB2DSY Timespan Granularity Chart

5.2.1.2 Data Element List

The table below identifies data elements contained in this file. The entries for each data element are as follows:

TIMESPAN: Defines the timespans in which the data element is supported. A "." indicates that the data element is not supported. The timespans in which the data element is supported are indicated by the letters X,D,W,M,Y,T, as follows:

X - DETAIL
D - DAYS
W - WEEKS
M - MONTHS
Y - YEARS
T - TABLES AREA

DATA ELEMENT: The data element name.

DATA ELEMENT DESCRIPTION: The long name of the data element.

Note: The timespans in which a data element is supported are defined by each site when CA MICS is installed. Therefore, this table has been generated as part of the installation process to reflect the CA MICS system at your site.

GENERATION DATE: Tue, Sep 17, 2013

Note: Essential data elements are identified by an "E" under the Timespan asterisk (*) column.

Time-Span *	Data Element	Data Element Description (LABEL)

Sequence/Summary Data Elements

XD....E	DAY	- Day of Month
XDWMY.E	DB2ID	- DB2 ID
XDW...E	HOUR	- Hour of Day
XDWM..E	MONTH	- Month of Year
XDWMY.E	SYSID	- System Identifier
XDW...E	WEEK	- Week of Year
XDWMY.E	YEAR	- Year of Century
XDWMY.E	ZONE	- Time Zone

Common Data Elements

```
 XD....E  DAYNAME  - Name of Day of Week
 X.....   DB2ATNM  - Active Trace Number Mask
 XDWMY.E  DB2DSGN  - Data Sharing Group Name
 X.....E  DB2ISEQ  - Instrumentation Sequence Number
 XDWMY.E  DB2MEMN  - DB2 Member Name
 X.....E  DB2MLVL  - MICS DB2 Maintenance Level
 XDWMY.E  DB2REL   - DB2 Release
 XDWMY.E  DB2RELN  - DB2 Release Number
 XDWMY.E  DB2THDTY - DB2 Thread Type
 XDWMY.E  DURATION - Recording Interval Time
 XDWMY.E  ENDTS    - End Time Stamp
 XDWMY.E  INTERVLS - Number of Recording Intervals
 XDWMY.E  STARTTS  - Start Time Stamp

Retained Data Elements

 XDWMY.   DSYASP0  - Start Address Space Procedure 0
 XDWMY.   DSYASP1  - Start Address Space Procedure 1
 XDWMY.   DSYASP2  - Start Address Space Procedure 2
 XDWMY.   DSYASP3  - Start Address Space Procedure 3
 XDWMY.   DSYASP4  - Start Address Space Procedure 4
 XDWMY.   DSYASP5  - Start Address Space Procedure 5
 X.....   DSYDSTSN - Destination Sequence Number
 X.....E  DSYHRBA  - High Used Log RBA
 X.....E  DSYHRBAG - High Used RBA of Log
 X.....E  DSYIDESA - Instrumentation Destination 10
 X.....E  DSYIDESB - Instrumentation Destination 11
 X.....E  DSYIDESC - Instrumentation Destination 12
 X.....E  DSYIDESD - Instrumentation Destination 13
 X.....E  DSYIDESE - Instrumentation Destination 14
 X.....   DSYIDESF - Instrumentation Destination 15
 X.....E  DSYIDES1 - Instrumentation Destination 1
 X.....E  DSYIDES2 - Instrumentation Destination 2
 X.....E  DSYIDES3 - Instrumentation Destination 3
 X.....E  DSYIDES4 - Instrumentation Destination 4
 X.....E  DSYIDES5 - Instrumentation Destination 5
 X.....E  DSYIDES6 - Instrumentation Destination 6
 X.....E  DSYIDES7 - Instrumentation Destination 7
 X.....E  DSYIDES8 - Instrumentation Destination 8
 X.....E  DSYIDES9 - Instrumentation Destination 9
 X.....   DSYIFCSD - IFCID Sequence Number Data Base
 X.....   DSYIFCSS - IFCID Sequence Number System
 X.....   DSYIFCSU - IFCID Sequence Number User
 X.....   DSYIFCSX - IFC sequence number Other
 X.....E  DSYISEQ  - Instrumentation Sequence Number
 XDWMY.   DSYRMID  - DB2 Resource Manager Identifier

Accumulated Data Elements
```

```
XDWMY.E  DSYAAQLT - SSSC Allied Agent Queue Latch
XDWMY.E  DSYABORT - Successful Aborts
XDWMY.E  DSYACFTQ - ACCUMACC Count: Failure to Qualify
XDWMY.E  DSYACSTL - ACCUMACC Count: Staleness
XDWMY.E  DSYACSTR - ACCUMACC Count: Storage Exceeded
XDWMY.E  DSYACUTR - ACCUMACC Count: Threshold Exceeded
XDWMY.   DSYAD0NI - Address Space 0 Instructions
XDWMY.   DSYAD1NI - Address Space 1 Instructions
XDWMY.   DSYAD2NI - Address Space 2 Instructions
XDWMY.   DSYAD3NI - Address Space 3 Instructions
XDWMY.   DSYAD4NI - Address Space 4 Instructions
XDWMY.   DSYAD5NI - Address Space 5 Instructions
XDWMY.E  DSYALGCI - Active Log Control Intervals
XDWMY.E  DSYALOCD - Allocation Deadlock
XDWMY.E  DSYARLOG - Archive Log Count
XDWMY.E  DSYARLRA - Archive Log Read Allocations
XDWMY.E  DSYARLWA - Archive Log Write Allocations
XDWMY.E  DSYASALT - Address Space Active Latch
XDWMY.E  DSYASSLT - Service Queue Latch
XDWMY.E  DSYAUSRS - Async Unrelated SRBs Scheduled
XDWMY.E  DSYAUTCS - Async Unrelated TCBs Scheduled
XDWMY.E  DSYBFERA - Count of Buffer errors 10
XDWMY.E  DSYBFERB - Count of Buffer errors 11
XDWMY.E  DSYBFERC - Count of Buffer errors 12
XDWMY.E  DSYBFERD - Count of Buffer errors 13
XDWMY.E  DSYBFERE - Count of Buffer errors 14
XDWMY.   DSYBFERF - Count of Buffer Errors 15
XDWMY.E  DSYBFER1 - Count of Buffer errors 1
XDWMY.E  DSYBFER2 - Count of Buffer errors 2
XDWMY.E  DSYBFER3 - Count of Buffer errors 3
XDWMY.E  DSYBFER4 - Count of Buffer errors 4
XDWMY.E  DSYBFER5 - Count of Buffer errors 5
XDWMY.E  DSYBFER6 - Count of Buffer errors 6
XDWMY.E  DSYBFER7 - Count of Buffer errors 7
XDWMY.E  DSYBFER8 - Count of Buffer errors 8
XDWMY.E  DSYBFER9 - Count of Buffer errors 9
XDWMY.E  DSYBMELT - Buffer Manager Exclusive Latch
XDWMY.E  DSYBMSLT - Buffer Manager Shared Latch
XDWMY.E  DSYBM2LT - Buffer Mgr Exclusive 2 Latch
XDWMY.   DSYBNASA - Buffer Not Available Audit 140
XDWMY.   DSYBNASB - Buffer Not Available Audit 141
XDWMY.   DSYBNASC - Buffer Not Available Audit 142
XDWMY.   DSYBNASD - Buffer Not Available Data Base
XDWMY.   DSYBNASE - Buffer Not Available End Trace
XDWMY.   DSYBNASF - Buffer Not Available Audit 145
XDWMY.   DSYBNASG - Buffer Not Available Audit 146
XDWMY.   DSYBNASH - Buffer Not Available Audit 143
XDWMY.   DSYBNASI - Buffer Not Available Audit 144
```

```
XDWMY.   DSYBNASP - Buffer Not Available System 106
XDWMY.   DSYBNASS - Buffer Not Available System
XDWMY.   DSYBNAST - Buffer Not Available Start Trace
XDWMY.   DSYBNASU - Buffer Not Available User
XDWMY.   DSYBNASX - Buffer Not Available - all perf
XDWMY.E  DSYBSDSA - BSDS Accesses
XDWMY.E  DSYCIN2  - Current Inactive Connections
XDWMY.E  DSYCNAT  - Current Active DBATs
XDWMY.E  DSYCNINO - Control Intervals Offloaded
XDWMY.   DSYCOLFA - Collection Failures Audit 140
XDWMY.   DSYCOLFB - Collection Failures Audit 141
XDWMY.   DSYCOLFC - Collection Failures Audit 142
XDWMY.   DSYCOLFD - Collection Failures Data Base
XDWMY.   DSYCOLFE - Collection Failures End Trace
XDWMY.   DSYCOLFF - Collection Failures Audit 145
XDWMY.   DSYCOLFG - Collection Failures Audit 146
XDWMY.   DSYCOLFH - Collection Failures Audit 143
XDWMY.   DSYCOLFI - Collection Failures Audit 144
XDWMY.   DSYCOLFP - Collection Failures System 106
XDWMY.   DSYCOLFS - Collection Failures System
XDWMY.   DSYCOLFT - Collection Failures Start Trace
XDWMY.   DSYCOLFU - Collection Failures User
XDWMY.   DSYCOLFX - Collection Failures - all perf
XDWMY.E  DSYCOMM  - Successful Commits
XDWMY.E  DSYCONEC - Successful Connects To DB2
XDWMY.E  DSYCONTR - Contractions Due To Storage
XDWMY.E  DSYCOST  - Processing Cost
XDWMY.E  DSYCPTM0 - Accumulated CPU Time Addr0
XDWMY.E  DSYCPTM1 - Accumulated CPU Time Addr1
XDWMY.E  DSYCPTM2 - Accumulated CPU Time Addr 2
XDWMY.E  DSYCPTM3 - Accumulated CPU Time Addr 3
XDWMY.E  DSYCPTM4 - Accumulated CPU Time Addr 4
XDWMY.E  DSYCPTM5 - Accumulated CPU Time Addr 5
XDWMY.E  DSYCPUTM - Accumulated CPU Time All ASIDs
XDWMY.E  DSYCSTR  - Cold Start Connections
XDWMY.E  DSYCTHDW - Create Thread Requests Waited
XDWMY.E  DSYCTHRD - Successful Create Threads
XDWMY.E  DSYCWRAL - Calls To Write Active Log
XDWMY.E  DSYDBALT - Data Base Alloc Control Latch
XDWMY.E  DSYDDFCN - CANCEL DDF    Commands
XDWMY.E  DSYDDFSP - STOP   DDF    Commands
XDWMY.E  DSYDDFST - START  DDF    Commands
XDWMY.   DSYDISPT - DISPLAY TRACE Commands
XDWMY.E  DSYDMLT  - Data Manager Latch
XDWMY.E  DSYDSCA  - Count of IFI Abends
XDWMY.E  DSYDSCCO - Count of IFI Command Requests
XDWMY.E  DSYDSCRA - Count of IFI Reada Requests
XDWMY.E  DSYDSCRS - Count of IFI Reads Requests
XDWMY.E  DSYDSCU  - Count of IFI Unrecognized Functions
```

```
XDWMY.E  DSYDSCWR - Count of IFI Write Requests
XDWMY.E  DSYDSPDB - Display Database Commands
XDWMY.E  DSYDSPLC - DISP LOCATION Commands
XDWMY.E  DSYDSPTH - Display Thread Commands
XDWMY.E  DSYDSPUT - Display Utility Commands
XDWMY.E  DSYEOMEM - End of Memory
XDWMY.E  DSYEOTSK - End Of Task
XDWMY.E  DSYEXIT  - Successful DSN3EXITs
XDWMY.E  DSYFPCRT - Fixed Pools Created
XDWMY.E  DSYFPDEL - Fixed Pools Deallocated
XDWMY.E  DSYFPSGC - Fixed Pool Segments Contracted
XDWMY.E  DSYFPSGE - Fixed Pool Segments Expanded
XDWMY.E  DSYFPSGF - Fixed Pool Segments Freed
XDWMY.E  DSYFREMN - FREEMAIN Requests
XDWMY.E  DSYGETMN - GETMAIN Requests
XDWMY.E  DSYHUHCM - Unrecognized Commands
XDWMY.   DSYIFCNA - IFC Records Not Written Audit 140
XDWMY.   DSYIFCNB - IFC Records Not Written Audit 141
XDWMY.   DSYIFCNC - IFC Records Not Written Audit 142
XDWMY.   DSYIFCND - IFC Records Not Written Data
XDWMY.   DSYIFCNE - IFC Records Not Written End Trace
XDWMY.   DSYIFCNF - IFC Records Not Written Audit 145
XDWMY.   DSYIFCNG - IFC Records Not Written Audit 146
XDWMY.   DSYIFCNH - IFC Records Not Written Audit 143
XDWMY.   DSYIFCNI - IFC Records Not Written Audit 144
XDWMY.   DSYIFCNP - IFC Records Not Written System 106
XDWMY.   DSYIFCNS - IFC Records Not Written System
XDWMY.   DSYIFCNT - IFC Records Not Written Start Trace
XDWMY.   DSYIFCNU - IFC Records Not Written User
XDWMY.   DSYIFCNX - IFC Records Not Written
XDWMY.   DSYIFCWA - IFC Rec Success Written Audit 140
XDWMY.   DSYIFCWB - IFC Rec Success Written Audit 141
XDWMY.   DSYIFCWC - IFC Rec Success Written Audit 142
XDWMY.   DSYIFCWD - IFC Rec Success Written Data Base
XDWMY.   DSYIFCWE - IFC Rec Success Written End Trace
XDWMY.   DSYIFCWF - IFC Rec Success Written Audit 145
XDWMY.   DSYIFCWG - IFC Rec Success Written Audit 146
XDWMY.   DSYIFCWH - IFC Rec Success Written Audit 143
XDWMY.   DSYIFCWI - IFC Rec Success Written Audit 144
XDWMY.   DSYIFCWP - IFC Rec Success Written 106 Record
XDWMY.   DSYIFCWS - IFC Rec Success Written System
XDWMY.   DSYIFCWT - IFC Rec Success Written Start Trace
XDWMY.   DSYIFCWU - IFC Rec Success Written User
XDWMY.   DSYIFCWX - IFC Records Written
XDWMY.E  DSYINDBT - Number Of Indoubt Threads
X.....   DSYINSEA - Instrumentation Sequence Count 10
X.....   DSYINSEB - Instrumentation Sequence Count 11
X.....   DSYINSEC - Instrumentation Sequence Count 12
X.....   DSYINSED - Instrumentation Sequence Count 13
```

```
X.....   DSYINSEE - Instrumentation Sequence Count 14
X.....   DSYINSEF - Instrumentation Sequence Count 15
X.....   DSYINSE1 - Instrumentation Sequence Count 1
X.....   DSYINSE2 - Instrumentation Sequence Count 2
X.....   DSYINSE3 - Instrumentation Sequence Count 3
X.....   DSYINSE4 - Instrumentation Sequence Count 4
X.....   DSYINSE5 - Instrumentation Sequence Count 5
X.....   DSYINSE6 - Instrumentation Sequence Count 6
X.....   DSYINSE7 - Instrumentation Sequence Count 7
X.....   DSYINSE8 - Instrumentation Sequence Count 8
X.....   DSYINSE9 - Instrumentation Sequence Count 9
XDWMY.E  DSYINVAL - Invalid Resource
XDWMY.E  DSYITLC  - Index Tree Latch Contentions
XDWMY.   DSYLAT02 - Contentions Latch Class 2
XDWMY.   DSYLAT03 - Contentions Latch Class 3
XDWMY.   DSYLAT04 - Contentions Latch Class 4
XDWMY.   DSYLAT06 - Contentions Latch Class 6
XDWMY.   DSYLAT07 - Contentions Latch Class 7
XDWMY.   DSYLAT08 - Contentions Latch Class 8
XDWMY.   DSYLAT09 - Contentions Latch Class 9
XDWMY.   DSYLAT18 - Contentions Latch Class 18
XDWMY.   DSYLAT20 - Contentions Latch Class 20
XDWMY.   DSYLAT22 - Contentions Latch Class 22
XDWMY.   DSYLAT24 - Contentions Latch Class 24
XDWMY.E  DSYLAT29 - Address Space (System) Latch
XDWMY.E  DSYLBALT - Log BSDS Access Latch
XDWMY.E  DSYLGWLT - Log Write Function Latch
XDWMY.E  DSYLWRF  - Log Write Requests Force
XDWMY.E  DSYLWRNW - Log Write Requests Nowait
XDWMY.E  DSYLWRW  - Log Write Requests Wait
XDWMY.E  DSYMARD  - Max Currently Active DBAT Pkgs Bound
XDWMY.E  DSYMHLT  - Data Manager Hash Tables Latch
XDWMY.E  DSYNADS  - Current DBATs Not In Use
XDWMY.E  DSYNAERA - Count of Not Active errors 10
XDWMY.E  DSYNAERB - Count of Not Active errors 11
XDWMY.E  DSYNAERC - Count of Not Active errors 12
XDWMY.E  DSYNAERD - Count of Not Active errors 13
XDWMY.E  DSYNAERE - Count of Not Active errors 14
XDWMY.   DSYNAERF - Count of Not-Active Errors 15
XDWMY.E  DSYNAER1 - Count of Not Active errors 1
XDWMY.E  DSYNAER2 - Count of Not Active errors 2
XDWMY.E  DSYNAER3 - Count of Not Active errors 3
XDWMY.E  DSYNAER4 - Count of Not Active errors 4
XDWMY.E  DSYNAER5 - Count of Not Active errors 5
XDWMY.E  DSYNAER6 - Count of Not Active errors 6
XDWMY.E  DSYNAER7 - Count of Not Active errors 7
XDWMY.E  DSYNAER8 - Count of Not Active errors 8
XDWMY.E  DSYNAER9 - Count of Not Active errors 9
XDWMY.E  DSYNARD  - Currently Active DBAT Pkgs Bound
```

```
XDWMY.E  DSYNCCW  - Client Conn Closed Max Time for DBAT
XDWMY.E  DSYNCKPT - Count of DB2 Checkpoints
XDWMY.E  DSYNCQC  - Client Conn Closed MAXDBAT Reached
XDWMY.E  DSYNDBA  - DBATs Created
XDWMY.E  DSYNITC  - Connections Terminated - Max Inactive
XDWMY.E  DSYNQAVS - Sum of Avg Inactive Connection Qd Time
XDWMY.E  DSYNQR2  - Current Inactive Connections Queued
XDWMY.E  DSYNREC  - Count of Type 100 Subtype 0 Recs
XDWMY.E  DSYNZGFM - Nonzero Returns From GET/FREE
XDWMY.E  DSYPOOL  - Pool DBATs Reused
XDWMY.E  DSYPREPR - Successful Prepare To Commits
XDWMY.E  DSYQCIT  - Current Inactive DBATs
XDWMY.E  DSYQCRT  - Conversations Deallocated - Max Remote
XDWMY.E  DSYQDBT  - DBATs Queued - Max Remote Active
XDWMY.E  DSYQIN2  - Inactive Connections Queued Requests
XDWMY.E  DSYRCNAA - Count of Records not accepted 10
XDWMY.E  DSYRCNAB - Count of Records not accepted 11
XDWMY.E  DSYRCNAC - Count of Records not accepted 12
XDWMY.E  DSYRCNAD - Count of Records not accepted 13
XDWMY.E  DSYRCNAE - Count of Records not accepted 14
XDWMY.   DSYRCNAF - Count of Records Not Accepted 15
XDWMY.E  DSYRCNA1 - Count of Records not accepted 1
XDWMY.E  DSYRCNA2 - Count of Records not accepted 2
XDWMY.E  DSYRCNA3 - Count of Records not accepted 3
XDWMY.E  DSYRCNA4 - Count of Records not accepted 4
XDWMY.E  DSYRCNA5 - Count of Records not accepted 5
XDWMY.E  DSYRCNA6 - Count of Records not accepted 6
XDWMY.E  DSYRCNA7 - Count of Records not accepted 7
XDWMY.E  DSYRCNA8 - Count of Records not accepted 8
XDWMY.E  DSYRCNA9 - Count of Records not accepted 9
XDWMY.E  DSYRCNDA - Records Not Desired Audit 140
XDWMY.E  DSYRCNDB - Records Not Desired Audit 141
XDWMY.E  DSYRCNDC - Records Not Desired Audit 142
XDWMY.E  DSYRCNDD - Records Not Desired Data Base
XDWMY.E  DSYRCNDE - Records Not Desired End Trace
XDWMY.E  DSYRCNDF - Records Not Desired Audit 145
XDWMY.E  DSYRCNDG - Records Not Desired Audit 146
XDWMY.E  DSYRCNDH - Records Not Desired Audit 143
XDWMY.E  DSYRCNDI - Records Not Desired Audit 144
XDWMY.E  DSYRCNDP - Records Not Desired System 106
XDWMY.E  DSYRCNDS - Records Not Desired System
XDWMY.E  DSYRCNDT - Records Not Desired Start Trace
XDWMY.E  DSYRCNDU - Records Not Desired User
XDWMY.   DSYRCNDX - Records Not Desired - all perf
XDWMY.E  DSYRDAA  - Reads Delayed Tape Volume Contention
XDWMY.E  DSYRDON  - Number of Read Only Commits
XDWMY.E  DSYRECBS - Recover BSDS Commands
XDWMY.E  DSYRECIN - Recover Indoubt Commands
XDWMY.E  DSYRECNA - Records Unsuccessfully Written 10
```

```
XDWMY.E  DSYRECNB - Records Unsuccessfully Written 11
XDWMY.E  DSYRECNC - Records Unsuccessfully Written 12
XDWMY.E  DSYRECND - Records Unsuccessfully Written 13
XDWMY.E  DSYRECNE - Records Unsuccessfully Written 14
XDWMY.   DSYRECNF - Records Unsuccessfully Written 15
XDWMY.E  DSYRECN1 - Records Unsuccessfully Written 1
XDWMY.E  DSYRECN2 - Records Unsuccessfully Written 2
XDWMY.E  DSYRECN3 - Records Unsuccessfully Written 3
XDWMY.E  DSYRECN4 - Records Unsuccessfully Written 4
XDWMY.E  DSYRECN5 - Records Unsuccessfully Written 5
XDWMY.E  DSYRECN6 - Records Unsuccessfully Written 6
XDWMY.E  DSYRECN7 - Records Unsuccessfully Written 7
XDWMY.E  DSYRECN8 - Records Unsuccessfully Written 8
XDWMY.E  DSYRECN9 - Records Unsuccessfully Written 9
XDWMY.E  DSYRECWA - Records Successfully Written 10
XDWMY.E  DSYRECWB - Records Successfully Written 11
XDWMY.E  DSYRECWC - Records Successfully Written 12
XDWMY.E  DSYRECWD - Records Successfully Written 13
XDWMY.E  DSYRECWE - Records Successfully Written 14
XDWMY.   DSYRECWF - Records Successfully Written 15
XDWMY.E  DSYRECW1 - Records Successfully Written 1
XDWMY.E  DSYRECW2 - Records Successfully Written 2
XDWMY.E  DSYRECW3 - Records Successfully Written 3
XDWMY.E  DSYRECW4 - Records Successfully Written 4
XDWMY.E  DSYRECW5 - Records Successfully Written 5
XDWMY.E  DSYRECW6 - Records Successfully Written 6
XDWMY.E  DSYRECW7 - Records Successfully Written 7
XDWMY.E  DSYRECW8 - Records Successfully Written 8
XDWMY.E  DSYRECW9 - Records Successfully Written 9
XDWMY.E  DSYRESLV - Successful Resolve Indoubts
XDWMY.E  DSYRMSLT - Recovery Manager Status Latch
XDWMY.E  DSYRSACL - Reads Satisfied Active Log
XDWMY.E  DSYRSARL - Reads Satisfied Archive Log
XDWMY.E  DSYRSAT  - Resynchronizations Attempted
XDWMY.   DSYRSINV - Reason Statistics were taken
XDWMY.E  DSYRSOB  - Reads Satisfied Output Buffers
XDWMY.E  DSYRSSU  - Resynchronizations Succeeded
XDWMY.E  DSYSC1LT - Synonym Chain 1 Latch
XDWMY.E  DSYSC2LT - Synonym Chain 2 Latch
XDWMY.E  DSYSIGN  - Successful Signons
XDWMY.E  DSYSMHLT - Storage Mgr Header Block Latch
XDWMY.E  DSYSMVLT - Storage Mgr Vector Table Latch
XDWMY.E  DSYSPDBA - Stop Database Commands
XDWMY.E  DSYSPDB2 - Stop DB2 Commands
XDWMY.E  DSYSPTRC - Stop Trace Commands
XDWMY.E  DSYSRBTM - Accumulated SRB Time All ASIDs
XDWMY.E  DSYSRSRS - Sync Related SRBs Scheduled
XDWMY.E  DSYSRTCS - Sync Related TCBs Scheduled
XDWMY.E  DSYSRTM0 - Accumulated SRB Time Addr0
```

```
XDWMY.E  DSYSRTM1 - Accumulated SRB Time Addr1
XDWMY.E  DSYSRTM2 - Accumulated SRB Time Addr 2
XDWMY.E  DSYSRTM3 - Accumulated SRB Time Addr 3
XDWMY.E  DSYSRTM4 - Accumulated SRB Time Addr 4
XDWMY.E  DSYSRTM5 - Accumulated SRB Time Addr 5
XDWMY.E  DSYSSICL - Number of SSI Calls
XDWMY.E  DSYSSILT - Subsystem Interface Latch
XDWMY.E  DSYSTCLT - Service Task Controller Latch
XDWMY.E  DSYSTDBA - Start Database Commands
XDWMY.E  DSYSTDB2 - Start DB2 Commands
XDWMY.E  DSYSTOSA - Storage Shortage ABENDs
XDWMY.E  DSYSTOSH - Storage Shortage
XDWMY.E  DSYSTTRC - Start Trace Commands
XDWMY.E  DSYSUSCT - DSY Suspend Count
XDWMY.E  DSYSUSP  - Physical Suspends
XDWMY.E  DSYSUSRS - Sync Unrelated SRBs Scheduled
XDWMY.E  DSYSUTCS - Sync Unrelated TCBs Scheduled
XDWMY.E  DSYSYNC  - Successful Synchronizes
XDWMY.E  DSYTCBTM - Accumulated TCB Time All ASIDs
XDWMY.E  DSYTCTAD - Access Database Commands
XDWMY.E  DSYTCTM0 - Accumulated TCB Time Addr0
XDWMY.E  DSYTCTM1 - Accumulated TCB Time Addr1
XDWMY.E  DSYTCTM2 - Accumulated TCB Time Addr 2
XDWMY.E  DSYTCTM3 - Accumulated TCB Time Addr 3
XDWMY.E  DSYTCTM4 - Accumulated TCB Time Addr 4
XDWMY.E  DSYTCTM5 - Accumulated TCB Time Addr 5
XDWMY.E  DSYTCTRE - Start Rlimit Count
XDWMY.E  DSYTCTRF - Stop Rlimit Count
XDWMY.E  DSYTCTRG - Display Rlimit Count
XDWMY.E  DSYTCTRH - Modify Trace Count
XDWMY.E  DSYTCTRN - Alter Bufferpool Count
XDWMY.E  DSYTCTRO - Display Bufferpool Count
XDWMY.E  DSYTCTRP - Set Archive Count
XDWMY.E  DSYTCTRQ - Display Archive Count
XDWMY.E  DSYTCTRR - Reset Indoubt Count
XDWMY.E  DSYTCTRS - Alter Group Buffer Pool Count
XDWMY.E  DSYTCTRT - Display Group Buffer Pool Count
XDWMY.E  DSYTCTRX - Display Group Count
XDWMY.E  DSYTCTSD - Display Profile Commands
XDWMY.E  DSYTCTSS - Start Profile Commands
XDWMY.E  DSYTCTST - Stop Profile Commands
XDWMY.E  DSYTCTX5 - DISPLAY DDF Commands
XDWMY.E  DSYTERM  - Successful Terminates
XDWMY.E  DSYTERMU - Term Utility Commands
XDWMY.E  DSYTSELT - Test Shared/Exclusive Latch
XDWMY.E  DSYTTLT  - Trace Table Latch
XDWMY.E  DSYUNAVL - Unavailable Resource
XDWMY.E  DSYVPCRT - Variable Pools Created
XDWMY.E  DSYVPDEL - Variable Pools Deallocated
```

```
 XDWMY.E  DSYVPSGC - Variable Pool Segments Contract
 XDWMY.E  DSYVPSGE - Variable Pool Segments Expanded
 XDWMY.E  DSYVPSGF - Variable Pool Segments Freed
 XDWMY.E  DSYWFAIA - Count of Write failures 10
 XDWMY.E  DSYWFAIB - Count of Write failures 11
 XDWMY.E  DSYWFAIC - Count of Write failures 12
 XDWMY.E  DSYWFAID - Count of Write failures 13
 XDWMY.E  DSYWFAIE - Count of Write failures 14
 XDWMY.   DSYWFAIF - Count of Write Failures 15
 XDWMY.E  DSYWFAI1 - Count of Write failures 1
 XDWMY.E  DSYWFAI2 - Count of Write failures 2
 XDWMY.E  DSYWFAI3 - Count of Write failures 3
 XDWMY.E  DSYWFAI4 - Count of Write failures 4
 XDWMY.E  DSYWFAI5 - Count of Write failures 5
 XDWMY.E  DSYWFAI6 - Count of Write failures 6
 XDWMY.E  DSYWFAI7 - Count of Write failures 7
 XDWMY.E  DSYWFAI8 - Count of Write failures 8
 XDWMY.E  DSYWFAI9 - Count of Write failures 9
 XDWMY.E  DSYWSTR  - Warm Start Connections
 XDWMY.E  DSYWUWB  - Wait Unavailable Write Buffer

Minimum Data Elements

 XDWMY.E  DSYNQMN  - Min Time Inactive Connections Queued

Maximum Data Elements

 XDWMY.E  DSYHWCT  - High Water Mark for CTHREAD Threads
 XDWMY.E  DSYHWIB  - High Water Mark for IDBACK Threads
 XDWMY.E  DSYHWIF  - High Water Mark for IDFORE Threads
 XDWMY.E  DSYMHWAT - Active DBATs High-Water Mark
 XDWMY.E  DSYMHWDT - Remote Connections High-Water Mark
 XDWMY.E  DSYMMADS - DBATs Not In Use High-Water Mark
 XDWMY.E  DSYMMIN2 - Inactive Connections High-Water Mark
 XDWMY.E  DSYMMQR2 - Inactive Connections Queued HWM
 XDWMY.E  DSYMQMIT - Inactive DBATs High-Water Mark
 XDWMY.E  DSYNQMX  - Max Time Inactive Connections Queued

Derived Data Elements

 XDWMY.E  DSYNQAV  - Avg Time Inactive Connections Queued
```

5.2.1.3 Usage Considerations

This section identifies the special considerations or techniques related to using the DB2DSY file. Additionally, several retrieval examples are provided to facilitate the use of this file.

In the examples, we use a SAS macro to specify the DD name part of the CA MICS file name. These macros are a standard part of CA MICS and are available for all files. The macro name has the form _iiit, where "iii" is the Information Area name and "t" is the timespan. In addition, many of the examples use the _fffSUM macro, where "fff" is the file identifier, to summarize the data as indicated by the _BY and _BREAK macro definitions.

Special Considerations/Techniques

- The following data elements only have meaning when using the DB2DSYnn file in the DETAIL timespan, in that they lose significance once summarization has been performed. These data elements should only be referenced when using the DB2DSYnn file in the DETAIL timespan.

  DSYISEQ - Instrumentation Sequence Number
  DSYDSTSN - Destination Sequence Number
  DSYINSEQ - Instrumentation Sequence Number
  DSYIFCSD - IFCID Sequence Number Data Base
  DSYIFCSS - IFCID Sequence Number System
  DSYIFCSU - IFCID Sequence Number User

- Exercise care when using the special date and time data elements contained in each CA MICS file. As the file's granularity increases in higher timespans, certain fields lose significance and should not be referenced.

  o HOUR should not be used in MONTHS and YEARS.
  o DAY and DAYNAME should not be used in WEEKS, MONTHS, or YEARS.
  o WEEK should not be used in MONTHS or YEARS.
  o MONTH should not be used in YEARS.

- The data elements STARTTS and ENDTS have different meanings when used in the DETAIL timespan as opposed to their meaning in the DAYS, WEEKS, MONTHS, and YEARS timespans. The ENDTS and STARTTS, when appearing in the DAYS, WEEKS, MONTHS, and YEARS timespans, indicate the span of time over which the data has been summarized with STARTTS indicating the lowest date and time and

ENDTS indicating the greatest date and time for the summarized data.

Retrieval Examples

- Example 1: Plot the accumulated TCB time used by DB2 over the last 8 weeks by week.

```
DATA TEST1;
SET _DB2W.DB2DSY01
    _DB2W.DB2DSY02
    _DB2W.DB2DSY03
    _DB2W.DB2DSY04
    ;
DATE=DATEPART(STARTTS);
FORMAT DATE DATE7.;
MACRO _BY WEEK %
MACRO _BREAK WEEK %
PROC SORT DATA=TEST1 OUT=TEST1;  BY _BY;
DATA TEST1;
SET TEST1;
_DSYSUM;
PROC PLOT DATA=TEST1;
PLOT DSYTCBTM*DATE;
TITLE DB2 SYSTEM TCB TIME;
```

- Example 2: Print the number of START DB2, START DATABASE, and DISPLAY DATABASE commands issued last week in Zone 1.

```
DATA TEST2;
SET _DB2W.DB2DSY01;
IF ZONE=1;
PROC PRINT DATA=TEST2;
VAR DSYSTDB2 DSYSTDBA DSYSPDB;
TITLE  NUMBER  OF  START  DB2, START DATABASE, AND START
DATABASE COMMANDS;
TITLE2 LAST WEEK IN ZONE 1;
```

5.2.2 DB2 Data Base Activity (DB2DSD) File

```
FILENAME=DB2DSDxx

 The DB2 Data Base Activity file maintains DB2 database
 Activity data, that is, SQL Statements, Binds, Buffer
 Manager, and Lock Usage data.  This file is derived from the
 SMF DB2 record type 100 subtype 1.  This file exists in the
 DETAIL, DAYS, WEEKS, MONTHS, and YEARS timespans.

 The following three sections describe the file's
 organization, list the data elements maintained, and provide
 usage hints:

    1 - File Organization
    2 - Data Elements List
    3 - Usage Considerations
```

5.2.2.1 File Organization

The table below identifies data elements by which the file is sequenced and summarized in each timespan. "N/A" indicates that the file is not supported in a timespan. At the DETAIL level, data is sequenced but not summarized.

NOTE: The timespans in which a file is supported are defined by each installation when CA MICS is installed. Therefore, this table has been generated as part of the installation process to reflect the CA MICS system at your installation.

Timespan	Level of Data Granularity					
DETAIL	SYSID	DB2ID	YEAR	MONTH	DAY	
	HOUR	ENDTS				
DAYS	SYSID	DB2ID	YEAR	MONTH	DAY	
	HOUR					
WEEKS	SYSID	DB2ID	YEAR	WEEK	ZONE	
	HOUR					
MONTHS	SYSID	DB2ID	YEAR	MONTH	ZONE	
YEARS	SYSID	DB2ID	YEAR	ZONE		
TABLES	N/A					

Generation Date: Thu, Oct 25, 2012

NOTE: This file was generated with ESSENTIAL=ALL option in effect. All data elements defined in the file are generated.

NOTE: This file was generated with DERIVED=DEFault option in effect. Whether data elements are kept on the file on auxiliary storage or not is controlled by the complex definition of the DERIVED option.

Figure 5-2. DB2DSD Timespan Granularity Chart

5.2.2.2 Data Element List

The table below identifies data elements contained in this file. The entries for each data element are as follows:

TIMESPAN: Defines the timespans in which the data element is supported. A "." indicates that the data element is not supported. The timespans in which the data element is supported are indicated by the letters "XDWMYT," which represent the timespans as follows:

X - DETAIL
D - DAYS
W - WEEKS
M - MONTHS
Y - YEARS
T - TABLES AREA

DATA ELEMENT: The data element name.

DATA ELEMENT DESCRIPTION: The long name of the data element.

Note: The timespans in which a data element is supported are defined by each site when CA MICS is installed. Therefore, this table has been generated as part of the installation process to reflect the CA MICS system at your site.

GENERATION DATE: Tue, Sep 17, 2013

Note: Essential data elements are identified by an "E" under the Timespan asterisk (*) column.

Time-Span *	Data Element	Data Element Description (LABEL)

Sequence/Summary Data Elements

XD....E	DAY	- Day of Month
XDWMY.E	DB2ID	- DB2 ID
XDW...E	HOUR	- Hour of Day
XDWM..E	MONTH	- Month of Year
XDWMY.E	SYSID	- System Identifier
XDW...E	WEEK	- Week of Year
XDWMY.E	YEAR	- Year of Century
XDWMY.E	ZONE	- Time Zone

```
Common Data Elements

 XD....E  DAYNAME  - Name of Day of Week
 XDWMY.E  DB2DSGN  - Data Sharing Group Name
 XDWMY.E  DB2ISEQ  - Instrumentation Sequence Number
 XDWMY.E  DB2MEMN  - DB2 Member Name
 X.....E  DB2MLVL  - MICS DB2 Maintenance Level
 XDWMY.E  DB2REL   - DB2 Release
 XDWMY.E  DB2RELN  - DB2 Release Number
 XDWMY.E  DURATION - Recording Interval Time
 XDWMY.E  ENDTS    - End Time Stamp
 XDWMY.E  INTERVLS - Number of Recording Intervals
 XDWMY.E  STARTTS  - Start Time Stamp

Retained Data Elements

 XDWMY.E  DSDAFLG  - Flag Byte
 XDWMY.E  DSDARLID - Resource Limit Table ID
 XDWMY.E  DSDASTH  - WFDB Space Usage Thresh PCT - Agent
 X.....   DSDATNM  - Active Trace Number Mask
 X.....E  DSDDSTSN - Destination Sequence Number
 XD....E  DSDIMAC  - Curr Active DM In-Memory Workfiles
 XD....E  DSDIMSC  - Total Used Space DM In-Mem Workfiles KB
 X.....E  DSDISEQ  - Instrumentation Sequence Number
 XD....E  DSDI2AC  - Curr Active Non-Sort In-mem Workfiles
 XDWMY.   DSDRMID  - DB2 Resource Manager Identifier
 XD....E  DSDSIAC  - Count of Curr Active Sort In-Mem WFs
 XD....E  DSDSISC  - Tot Space Used Curr Active Sort In-Mem
 XDWMY.E  DSDSSTH  - WFDB Space Usage Thresh PCT - System
 XDWMY.E  DSDTCTO  - Curr Storage Used DGTT (KB)
 XDWMY.E  DSDTSTG  - Preferred Storage Config in DGTT (KB)
 XD....E  DSDWCTO  - Curr Total Workfile Storage Used KB
 XD....E  DSDWFCTO - Curr Storage Config WFDB (KB)
 XD....E  DSDWFRCU - Curr RID Blocks Residing in Workfile
 XDWMY.E  DSDWFSTG - Preferred Storage Config WFDB (KB)
 XDWMY.E  DSDWSTG  - Curr Storage Config in WFDB (KB)
 XD....E  DSDW32K  - Curr 32KB Tablespace Storage Used KB
 XD....E  DSDW4K   - Curr 4KB Tablespace Storage Used KB

Accumulated Data Elements

 XDWMY.E  DSDABBP0 - Active Buffers In Buffer Pool 0
 XDWMY.E  DSDABBP1 - Active Buffers In Buffer Pool 1
 XDWMY.E  DSDABBP2 - Active Buffers In Buffer Pool 2
 XDWMY.E  DSDABBP3 - Active Buffers In Buffer Pool 3
 XDWMY.E  DSDACHG  - Change Request Count
 XDWMY.E  DSDACHUS - Highest CPU 16 Microseconds Used
 XDWMY.E  DSDACLMT - Limit In CPU 16 Microseconds
 XDWMY.E  DSDAIRLM - Other IRLM Request Count
```

```
XDWMY.E  DSDALDAB - NO. of ALTER DATABASE Stmts
XDWMY.E  DSDALLOC - Successful Bound Plan Allocation
XDWMY.E  DSDALOCA - Requests To Allocate Bound Plan
XDWMY.E  DSDALOCK - Lock Request Count
XDWMY.E  DSDALSEQ - Alter Sequence Statements
XDWMY.E  DSDALTIX - Alter Index Statements
XDWMY.E  DSDALTJR - Alter JAR Statements
XDWMY.E  DSDALTMP - Alter Mask / Permission Statements
XDWMY.E  DSDALTST - Alter Stogroup Statements
XDWMY.E  DSDALTTA - Alter Table Statements
XDWMY.E  DSDALTTS - Alter Tablespace Statements
XDWMY.E  DSDALTTX - Alter Trusted Context Statements
XDWMY.E  DSDALTVW - Alter View Statements
XDWMY.E  DSDAQRY  - Query Request Count
XDWMY.E  DSDARREX - No. Array Var Expanded Beyond 32K
XDWMY.E  DSDASLAT - Suspend Count - Latch Conflict
XDWMY.E  DSDASLMT - Limit In SUs - ASUTIME
XDWMY.E  DSDASOTH - Suspend Count - Other Conflict
XDWMY.   DSDAUCC  - AUTH Checks Using Cache
XDWMY.E  DSDAUCHK - Authorization Checks
XDWMY.E  DSDAUNLK - Unlock Request Count
XDWMY.   DSDAUPUB - AUTH Checks Based PUBLIC Auth
XDWMY.E  DSDAUTOB - Attempts To AUTOBIND a Pkg
XDWMY.E  DSDBIND  - Successful Automatic Binds
XDWMY.E  DSDBINDA - Automatic Bind Attempts
XDWMY.E  DSDBNDAA - Bind Action Add Subcommands
XDWMY.E  DSDBNDAR - Bind Action Replace Subcommands
XDWMY.E  DSDBNDPA - BIND (ADD) PACKAGE Sub-Cmnds
XDWMY.E  DSDBNDPR - BIND (REP) PACKAGE Sub-Cmnds
XDWMY.E  DSDBPSO0 - Buffer Pool Data Set Opened 0
XDWMY.E  DSDBPSO1 - Buffer Pool Data Set Opened 1
XDWMY.E  DSDBPSO2 - Buffer Pool Data Set Opened 2
XDWMY.E  DSDBPSO3 - Buffer Pool Data Set Opened 3
XDWMY.E  DSDCHNP  - Change Requests
XDWMY.E  DSDCLOSE - Close Statements
XDWMY.E  DSDCMTON - Comment On Statements
XD....E  DSDCOLS  - Invalid Select Procedure Encountered
XDWMY.E  DSDCOST  - Processing Cost
XDWMY.E  DSDCPLK  - Change Requests for Physical Locks
XDWMY.E  DSDCRAL  - CREATE ALIAS
XDWMY.E  DSDCRCTX - Create Trusted Context Statements
XDWMY.E  DSDCRDAB - Create Database Statements
XDWMY.E  DSDCREMP - Create Mask / Permission Statements
XDWMY.E  DSDCRINX - Create Index Statements
XDWMY.E  DSDCRROL - Create Role Statements
XDWMY.E  DSDCRSEQ - Create Sequence Statements
XDWMY.E  DSDCRSTG - Create Stogroup Statements
XDWMY.E  DSDCRSYN - Create Synonym Statements
XDWMY.E  DSDCRTAB - Create Table Statements
```

```
XDWMY.E  DSDCRTSV - Create Variable Statements
XDWMY.E  DSDCSLM  - Change Requests Propagated to XES
XDWMY.E  DSDCTABS - Create Tablespace Statements
XDWMY.E  DSDCWLD  - Times Duplicate Concentrate Dyna Stmnts
XDWMY.E  DSDCWLM  - Times Matched Concentrate Dyna Stmnts
XDWMY.E  DSDCWLP  - Times Parsed Concentrate Dyna Stmnts
XDWMY.E  DSDCWLR  - Times Replaced Concentrate Dyna Stmnts
XDWMY.E  DSDDBDG  - Requests for Database Descriptors
XDWMY.E  DSDDBDL  - Number of Loads: Database Descriptors
XDWMY.E  DSDDBPR0 - Physical Data Base Page Requests 0
XDWMY.E  DSDDBPR1 - Physical Data Base Page Requests 1
XDWMY.E  DSDDBPR2 - Physical Data Base Page Requests 2
XDWMY.E  DSDDBPR3 - Physical Data Base Page Requests 3
XDWMY.E  DSDDBPU0 - Data Base Page Updates 0
XDWMY.E  DSDDBPU1 - Data Base Page Updates 1
XDWMY.E  DSDDBPU2 - Data Base Page Updates 2
XDWMY.E  DSDDBPU3 - Data Base Page Updates 3
XDWMY.E  DSDDEAD  - Deadlock Count
XDWMY.E  DSDDEFVU - Create View Statements
XDWMY.E  DSDDEGAT - No. Parallel Grps Back to Seq Mode
XDWMY.E  DSDDELET - Delete Statements
XDWMY.E  DSDDESC  - Describe Statements
XDWMY.E  DSDDEXP  - PREPARE Discarded
XDWMY.E  DSDDGNGP - No. Parallel Grp Degenerated Sys Stress
XDWMY.E  DSDDINV  - PREPARE Purged
XDWMY.   DSDDLRU  - Number of Stealable DB Descriptors
XDWMY.E  DSDDMCT0 - No. Times DM Critical WPHFWT reached 0
XDWMY.E  DSDDMCT1 - No. Times DM Critical WPHFWT Reached 1
XDWMY.E  DSDDMCT2 - No. Times DM Critical WPHFWT Reached 2
XDWMY.E  DSDDMCT3 - No. Times DM Critical WPHFWT Reached 3
XDWMY.E  DSDDRAL  - DROP ALIAS
XDWMY.E  DSDDRPDB - Drop Database Statements
XDWMY.E  DSDDRPIX - Drop Index Statements
XDWMY.E  DSDDRPKG - NO. of DROP PACKAGE Stmts
XDWMY.E  DSDDRPMP - Drop Mask / Permission Statements
XDWMY.E  DSDDRPRO - Drop Role Statements
XDWMY.E  DSDDRPST - Drop Stogroup Statements
XDWMY.E  DSDDRPSV - Drop Variable Statements
XDWMY.E  DSDDRPSY - Drop Synonym Statements
XDWMY.E  DSDDRPTA - Drop Table Statements
XDWMY.E  DSDDRPTS - Drop Tablespace Statements
XDWMY.E  DSDDRPTX - Drop Trusted Context Statements
XDWMY.E  DSDDRPVU - Drop View Statements
XDWMY.E  DSDDRSEQ - Drop Sequence Statements
XDWMY.E  DSDDRTA  - Global Requests Denied
XDWMY.E  DSDDSCRT - NO. of DESCRIBE TABLE Stmts
XDWMY.E  DSDDSDRN - DDs That Drain Has Produced
XDWMY.E  DSDDSOPN - Data Sets Currently Open
XDWMY.E  DSDDSPBD - Plans Bound And Kept
```

```
XDWMY.E  DSDDWRT0 - No. Times Deferred Write Threshold 0
XDWMY.E  DSDDWRT1 - No. Times Deferred Write Threshold 1
XDWMY.E  DSDDWRT2 - No. Times Deferred Write Threshold 2
XDWMY.E  DSDDWRT3 - No. Times Deferred Write Threshold 3
XDWMY.   DSDECFAL - No. of Failures: Full Statement Pool
XDWMY.   DSDECFRE - No. of Free Pages in Statement Pool
XDWMY.   DSDECPGE - No. of Pages in Statement Pool
XDWMY.   DSDECTA  - Pages Used for Cursor Tables Above 2GB
XDWMY.E  DSDECTG  - NO. Requests for Cursor Table Section
XDWMY.E  DSDECTL  - NO. Loaded Cursor Table Sections
XDWMY.E  DSDECTU  - Pages Used for Cursor Tables Below 2GB
XDWMY.E  DSDEDBD  - Number of Pages used for DBD
XDWMY.E  DSDEDSG  - Number of Requests for Dynamic Cache
XDWMY.E  DSDEDSI  - Number of Inserts for Dynamic Cache
XDWMY.   DSDEDYNP - No. of Pages Used in Statement Pool
XDWMY.E  DSDEFAL  - Number of Failures Due to Full EDM Pool
XDWMY.   DSDEKFAL - No. of Failures: Full Skeleton Pool
XDWMY.   DSDEKFRE - No. of Free Pages in Skeleton Pool
XDWMY.   DSDEKNFA - NOT FOUND Records Added to EDM Cache
XDWMY.   DSDEKNFM - NOT FOUND Records in EDM Cache
XDWMY.   DSDEKNFR - NOT FOUND Recs. Removed from EDM Cache
XDWMY.   DSDEKPGE - No. of Pages in Skeleton Pool
XDWMY.   DSDEPTA  - Pages Used for Package Tables Above 2GB
XDWMY.E  DSDEPTG  - No. Req for Package Table Sections
XDWMY.E  DSDEPTL  - No. Loaded Package Table Sections
XDWMY.   DSDEPTU  - Pages Used for Package Tables Below 2GB
XDWMY.   DSDESFAL - No. of Failures: Full Stmt (>2GB) Pool
XDWMY.   DSDESFRE - No. of Free Pages in Stmt (>2GB) Pool
XDWMY.E  DSDESKC  - No. Free Pages Used for SKCT Table
XDWMY.E  DSDESKP  - No. Free Pages Used for SKPT Table
XDWMY.   DSDESPGE - No. of Pages in Statement (>2GB) Pool
XDWMY.   DSDESTMT - Number of Statements in EDM Pool
XDWMY.E  DSDFETCH - Fetch Statements
XDWMY.E  DSDFLSE  - No. of False Contentions
XDWMY.E  DSDFND   - PREPARE Request Satisfied
XDWMY.E  DSDFREAP - Attempts To FREE a Package
XDWMY.E  DSDFREE  - Free Subcommands
XDWMY.E  DSDFREEA - Attempts To Free Plan
XDWMY.E  DSDFREEP - Plan Successfully Freed
XDWMY.E  DSDFREPK - FREE PACKAGE Sub-Cmnds
XDWMY.E  DSDFRIDS - Times RID List Overflowed RID Storage
XDWMY.E  DSDFRIDT - Times RID List Overflowed RID Exceeded
XDWMY.E  DSDFRPG  - Number of Free Pages in Free Chain
XDWMY.E  DSDGRANT - Grant Statements
XDWMY.E  DSDIGLO  - Suspends Due to IRLM Global Contention
XDWMY.E  DSDIMNC  - Times WF not Created Due To Storage
XDWMY.E  DSDIMWS0 - Count of Immediate Writes Sys Pages 0
XDWMY.E  DSDIMWS1 - Count of Immediate Writes Sys Pages 1
XDWMY.E  DSDIMWS2 - Count of Immediate Writes Sys Pages 2
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XDWMY.E  DSDIMWS3 - Count of Immediate Writes Sys Pages 3
XDWMY.E  DSDINCRB - Incremental Binds
XDWMY.E  DSDINSRT - Insert Statements
XDWMY.E  DSDIPRP  - Implicit PREPARE Performed
XDWMY.E  DSDISTOR - No. Sparse Index Disabled Insuf Stg
XDWMY.E  DSDIWF   - No. Sparse Index Built Phys WF Probe
XDWMY.E  DSDI2OF  - No. Type2 In-Mem Workfile Overflows
XDWMY.E  DSDJINCS - Times RID List Append RID Storage
XDWMY.E  DSDJINCT - Times RID List Append RID Exceeded
XDWMY.E  DSDKIDS  - Locks Propagated By IRLM to XES SYNC
XDWMY.   DSDKLRU  - Number of Stealable Skeleton Pkg Table
XDWMY.   DSDKSPA  - Number of Pages Alloc for Exec Procs
XDWMY.   DSDKSPG  - Number of xPROC Requests
XDWMY.E  DSDLABEL - Label Statements
XDWMY.E  DSDLEEM  - Count of Escalations to Exclusive Mode
XDWMY.E  DSDLESM  - Count of Escalations to Shared Mode
XDWMY.E  DSDLOCK  - Lock Table Statements
XDWMY.E  DSDLPF0  - No. List Prefetch Requested BP0
XDWMY.E  DSDLPF1  - No. List Prefetch Requested BP1
XDWMY.E  DSDLPF2  - No. List Prefetch Requested BP2
XDWMY.E  DSDLPF3  - No. List Prefetch Requested BP3
XDWMY.E  DSDLPLK  - Lock Requests for Physical Locks
XDWMY.E  DSDLSLM  - Lock Requests Propagated to XES
XDWMY.   DSDMAX0  - BP Not Supp Concur WK File 0
XDWMY.   DSDMAX1  - BP Not Supp Concur WK File 1
XDWMY.   DSDMAX2  - BP Not Supp Concur WK File 2
XDWMY.   DSDMAX3  - BP Not Supp Concur WK File 3
XDWMY.E  DSDMERGE - Merge Statements
XDWMY.   DSDMIXNL - Mult INDX Not Used - RID Limit
XDWMY.   DSDMIXNU - Mult INDX Not Used - No Storage
XDWMY.   DSDMIXU  - Multiple Index Path Used
XDWMY.E  DSDMMRR0 - Media Manager Read Requests 0
XDWMY.E  DSDMMRR1 - Media Manager Read Requests 1
XDWMY.E  DSDMMRR2 - Media Manager Read Requests 2
XDWMY.E  DSDMMRR3 - Media Manager Read Requests 3
XDWMY.E  DSDMXCUR - Max PB Count On Free PB
XDWMY.E  DSDMXPL  - Max. no. of Page locks held
XDWMY.E  DSDNFND  - PREPARE Request - No Match
XDWMY.E  DSDNPRP  - PREPARE Avoided
XDWMY.E  DSDNREC  - Count of Type 100 Subtype 1 Recs
XDWMY.E  DSDNTFR  - Notify Messages Received
XDWMY.E  DSDNTFY  - Notify Messages Sent
XDWMY.E  DSDNVRID - Allocate Requests Nonexist Plan
XDWMY.E  DSDOPEN  - Open Statements
XDWMY.E  DSDOTPE  - Negotiate Other Physical Lock
XDWMY.E  DSDPAGE  - No. Pages in EDM Pool
XDWMY.E  DSDPEMX  - Engines Available For Exit Requests
XDWMY.E  DSDPEQW  - Times Engine Not Available For Exit
XDWMY.E  DSDPGPE  - Negotiate Page Physical Lock
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XDWMY.E  DSDPKABN - Packages Autobound
XDWMY.E  DSDPKALC - Attempts To Allocate a Pkg
XDWMY.E  DSDPKALL - Packages Allocated
XDWMY.E  DSDPKGBD - Packages Bound
XDWMY.E  DSDPKGFR - Packages Freed
XDWMY.E  DSDPKGRB - Packages Rebound
XDWMY.E  DSDPPPE  - Negotiate Pageset/Partition Phys Lock
XDWMY.E  DSDPREP  - Prepare Statements
XDWMY.E  DSDPREPI - Prepare Statements Restricted
XDWMY.E  DSDRBND  - Successful Rebind Plan
XDWMY.E  DSDRBNDA - Rebind Plan Attempts
XDWMY.E  DSDRBNDP - REBIND PACKAGE Sub-Cmnds
XDWMY.E  DSDRBNPA - Attempts To REBIND a Package
XDWMY.E  DSDRCCD  - Committed Delete Read - Rows Accessed
XDWMY.E  DSDRCCI  - Committed Insert Read - Rows Skipped
XDWMY.E  DSDRCCU  - Committed Update Read - Rows Accessed
XDWMY.   DSDRCUR  - Int BLKS Currently Alloc
XDWMY.E  DSDRDLTD - Deleted Rows
XDWMY.E  DSDREBND - Rebind Subcommands
XDWMY.E  DSDREDGP - No. Parallel Grp Reduced Sys Stress
XDWMY.E  DSDREEP0 - Prefetch Request Disabled no Read 0
XDWMY.E  DSDREEP1 - Prefetch Request Disabled no Read 1
XDWMY.E  DSDREEP2 - Prefetch Request Disabled no Read 2
XDWMY.E  DSDREEP3 - Prefetch Request Disabled no Read 3
XDWMY.E  DSDREOPN - PB Found On Free Q During Open
XDWMY.E  DSDREVOK - Revoke Statements
XDWMY.E  DSDRFCHD - Fetched Rows
XDWMY.E  DSDRFXS0 - Read Pagefixed W/O Real Storage 0
XDWMY.E  DSDRFXS1 - Read Pagefixed W/O Real Storage 1
XDWMY.E  DSDRFXS2 - Read Pagefixed W/O Real Storage 2
XDWMY.E  DSDRFXS3 - Read Pagefixed W/O Real Storage 3
XDWMY.   DSDRHIG  - Highest # Int BLKS Concur Alloc
XDWMY.   DSDRLLM  - RLP Stop: RID Limit Exceeded
XDWMY.E  DSDRMAX  - RLP Stop: Concur. Proc Lim Exceeded
XDWMY.   DSDRNIX  - Rename Index Statements
XDWMY.E  DSDRNSTD - Inserted Rows
XDWMY.   DSDRPLM  - RLP Stop: DM Limit Exceeded
XDWMY.E  DSDRSTG  - RLP Stop: Insufficient Storage
XDWMY.E  DSDRUDTD - Updated Rows
XDWMY.E  DSDSABBP - Total Active Buffers in Buffer Pools
XDWMY.E  DSDSAC   - Total CF Writes Clean Pages
XDWMY.E  DSDSAW   - Total CF Writes Changed Pages
XDWMY.E  DSDSAX   - Total RPL Request Done by Prefetch
XDWMY.E  DSDSAY   - Total GBP Reads Prefetch Changed Page
XDWMY.E  DSDSBPSO - Total Buffer Pool Data Sets Opened
XDWMY.E  DSDSCC   - Total IXLCACHE Read-Castout-Class Req
XDWMY.   DSDSCIO  - Total Castout I/O Operations
XDWMY.E  DSDSCK   - Total GBP Checkpoints Triggered
XDWMY.E  DSDSCM   - Total Read for Castout Multiple Reqs
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XDWMY.E  DSDSCR   - Total Read for Castout Requests
XDWMY.E  DSDSCS   - Total IXLCACHE Read-Castout-Stats Req
XDWMY.E  DSDSCT   - Total Castout Class Threshold Detected
XDWMY.E  DSDSDBPR - Total Physical Data Base Page Requests
XDWMY.E  DSDSDBPU - Total Data Base Page Updates
XDWMY.E  DSDSDG   - Total Unregistered Page Requests
XDWMY.E  DSDSDIO  - Total Async Read I/Os Dynamic Prefetch
XDWMY.E  DSDSDMCT - Total Times WPHFWT Threshold Reached
XDWMY.E  DSDSDN   - Total IXLCACHE Delete-Name Requests
XDWMY.E  DSDSDPF  - Total Times Dynamic Prefetch Requested
XDWMY.E  DSDSDPP  - Total Async Page Reads Dynamic Prefetch
XDWMY.E  DSDSDWRT - Total Times Deferred Write Threshold
XDWMY.E  DSDSDWV  - Total Times Vert. Defer Write Thresh
XDWMY.E  DSDSELCT - Select Statements
XDWMY.E  DSDSETHV - NO. of SET HOST-VAR Stmts
XDWMY.E  DSDSEX   - Total Explicit XIs
XDWMY.E  DSDSGG   - Total GETPAGEs for GBP-Dep Pagesets
XDWMY.E  DSDSGLO  - Suspends Due to XES Global Contention
XDWMY.E  DSDSGT   - Total Group BP Castout Threshold Det.
XDWMY.E  DSDSHS   - Total Asynch IXLCACHE for Prim GBP
XDWMY.E  DSDSHST  - Total Times SLRU Len eq VPSEQT
XDWMY.E  DSDSIMWS - Total Immediate Writes System Pages
XDWMY.E  DSDSIO0  - Sync Read I/Os Seq Access Req BP0
XDWMY.E  DSDSIO1  - Sync Read I/Os Seq Access Req BP1
XDWMY.E  DSDSIO2  - Sync Read I/Os Seq Access Req BP2
XDWMY.E  DSDSIO3  - Sync Read I/Os Seq Access Req BP3
XDWMY.E  DSDSJIS  - Total Req. Prefetch I/O Streams Denied
XDWMY.E  DSDSLIO  - Total Async Read I/Os List Prefetch
XDWMY.E  DSDSLPF  - Total List Prefetch Requested
XDWMY.E  DSDSLPL  - Total LPL Inserts
XDWMY.E  DSDSLPP  - Total Async Page Reads List Prefetch
XDWMY.E  DSDSLWDD - DDs Used for Slow Close TS
XDWMY.E  DSDSMAX  - Total BP Not Supp Concur WK File
XDWMY.E  DSDSMD   - Total CF Reads Data Returned
XDWMY.E  DSDSMIAP - Times RID List Retrieval Skipped
XDWMY.E  DSDSMMRR - Total Media Manager Read Requests
XDWMY.E  DSDSMR   - Total CF Reads Data Not Returned Entry
XDWMY.E  DSDSMRPR - Total Media Mgr Read Req Phys Req Buf
XDWMY.E  DSDSNGT  - Total Times Cond GETPAGE Not Satisfied
XDWMY.E  DSDSNSG  - Total Seq GETPAGE Failures
XDWMY.E  DSDSN1   - Total Page P-lock Negt Space Map Pages
XDWMY.E  DSDSN2   - Total Page P-lock Negt Data Pages
XDWMY.E  DSDSN3   - Total Page P-lock Negt Index Leaf Pages
XDWMY.E  DSDSOS   - Total Other CF Requests
XDWMY.   DSDSPCO  - Total Pages Written for Castout I/Os
XDWMY.E  DSDSPDF0 - Prefetch Request Disabled no Buffer 0
XDWMY.E  DSDSPDF1 - Prefetch Request Disabled no Buffer 1
XDWMY.E  DSDSPDF2 - Prefetch Request Disabled no Buffer 2
XDWMY.E  DSDSPDF3 - Prefetch Request Disabled no Buffer 3
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XDWMY.E  DSDSPL1  - Total Times Pref Quantity 1/2 Normal
XDWMY.E  DSDSPL2  - Total Times Pref Quantity 1/4 Normal
XDWMY.E  DSDSPPF0 - Count Records Read Prefetch Requests 0
XDWMY.E  DSDSPPF1 - Count Records Read Prefetch Requests 1
XDWMY.E  DSDSPPF2 - Count Records Read Prefetch Requests 2
XDWMY.E  DSDSPPF3 - Count Records Read Prefetch Requests 3
XDWMY.E  DSDSPQF  - Total Times Parallel Buffer Not Alloc
XDWMY.E  DSDSPQO  - Total Req. Process Queries in Parallel
XDWMY.E  DSDSPWPU - Total Page Write per Page Updt Buffer
XDWMY.E  DSDSPWR0 - System Pages Written To DASD 0
XDWMY.E  DSDSPWR1 - System Pages Written To DASD 1
XDWMY.E  DSDSPWR2 - System Pages Written To DASD 2
XDWMY.E  DSDSPWR3 - System Pages Written To DASD 3
XDWMY.E  DSDSP1   - Total Page P-lock Req Space Map Pages
XDWMY.E  DSDSP2   - Total Page P-lock Req Data Pages
XDWMY.E  DSDSP3   - Total Page P-lock Req Index Leaf Pages
XDWMY.   DSDSQCA  - Storage Allocated for Plans (>2GB) Bar
XDWMY.   DSDSQCB  - Storage Allocated for Plans (<2GB) Bar
XDWMY.   DSDSQKA  - Storage Allocated for Pkgs (>2GB) Bar
XDWMY.   DSDSQKB  - Storage Allocated for Pkgs (<2GB) Bar
XDWMY.E  DSDSQLID - SET Current SQLID Request Count
XDWMY.E  DSDSQPF0 - Count Sequential Prefetch requests 0
XDWMY.E  DSDSQPF1 - Count Sequential Prefetch requests 1
XDWMY.E  DSDSQPF2 - Count Sequential Prefetch requests 2
XDWMY.E  DSDSQPF3 - Count Sequential Prefetch requests 3
XDWMY.E  DSDSRC   - Total Pages Castout to DASD
XDWMY.E  DSDSRD   - Total IXLCACHE Read-DIRINFO Requests
XDWMY.E  DSDSREEP - Total Prefetch Disabled No Read Engine
XDWMY.E  DSDSRFRI - Total Read Frames per Read Req Buffer
XDWMY.E  DSDSRFXS - Total Read Pagefixed W/O Real Storage
XDWMY.E  DSDSRG   - Total Registered Page Requests
XDWMY.E  DSDSRHS  - Total Times Random Getpage Hit on SLRU
XDWMY.E  DSDSSEF0 - Storage Shortage Expansion Fails 0
XDWMY.E  DSDSSEF1 - Storage Shortage Expansion Fails 1
XDWMY.E  DSDSSEF2 - Storage Shortage Expansion Fails 2
XDWMY.E  DSDSSEF3 - Storage Shortage Expansion Fails 3
XDWMY.E  DSDSSGT  - Total GETPAGE Requests Seq Access Req
XDWMY.E  DSDSSIO  - Total Sync Read I/Os Seq Access Req
XDWMY.E  DSDSSPDF - Total Seq. Prefetch Disabled No Buffer
XDWMY.E  DSDSSPPF - Total Records Read Prefetch Request
XDWMY.E  DSDSSPWR - Total System Pages Written to DASD
XDWMY.E  DSDSSQPF - Total Sequential Prefetch Requests
XDWMY.E  DSDSSSEF - Total Storage Shortage Expansion Fails
XDWMY.E  DSDSSW   - Total CF Writes For Changed Pages
XDWMY.E  DSDSS1   - Total Page P-lock Susp Space Map Pages
XDWMY.E  DSDSS2   - Total Page P-lock Susp Data Pages
XDWMY.E  DSDSS3   - Total Page P-lock Susp Index Leaf Pages
XDWMY.   DSDSTAC  - Sync to Async Heuristic Convs LOCK Reqs
XDWMY.E  DSDSTMIG - Total Migrated Datasets Encountered
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XDWMY.E  DSDSTPF0 - Total WK PF Abort - 0 PF QTY
XDWMY.E  DSDSTPIO - Total Prefetch Async Read I/Os
XDWMY.E  DSDSTRTO - Total Recall Timeouts
XDWMY.E  DSDSUN   - Total IXLCACHE Unlock-Castout Req
XDWMY.E  DSDSUSP  - Suspend Count
XDWMY.E  DSDSU1   - Total Page P-lock Unlock Requests
XDWMY.E  DSDSVPA  - Total Successful VPOOL Expand/Contract
XDWMY.E  DSDSVPL  - Total Buffers Allocated for VPOOL
XDWMY.E  DSDSWA   - Total Pages in Write Around
XDWMY.E  DSDSWBVQ - Total Pages Deq VDWQ Destr Read Req
XDWMY.E  DSDSWC   - Total CF Writes For Clean Pages
XDWMY.E  DSDSWDRP - Total Pages Destruct Read Request
XDWMY.E  DSDSWF   - Total CF Write Requests No Storage
XDWMY.E  DSDSWFD  - Total Work Files Denied Sort Merge
XDWMY.E  DSDSWFF  - Total Poor Sort Merge - Buffer Short
XDWMY.E  DSDSWFM  - Total Max WK File Alloc Sort Merge
XDWMY.E  DSDSWFR  - Total Req Query WK File Sort Merge
XDWMY.E  DSDSWFT  - Total Work Files Req Sort Merge
XDWMY.E  DSDSWFXS - Total Write Pagefixed W/O Real Storage
XDWMY.E  DSDSWM   - Total Write and Register Multiple Reqs
XDWMY.E  DSDSWP   - Total Pages Written via WARM
XDWMY.E  DSDSWREE - Total Times Write Engine Unavailable
XDWMY.E  DSDSWRMM - Total Write I/Os By Media Manager
XDWMY.E  DSDSWS   - Total Write and Register Requests
XDWMY.E  DSDSXD   - Total CF Reads Buffer XI
XDWMY.E  DSDSXFL  - Total Buffer Not Located -- VPOOL Full
XDWMY.E  DSDSXIS  - Total Max # Concur Pref Streams Alloc
XDWMY.E  DSDSXR   - Total CF Reads Entry Created
XDWMY.E  DSDS2D   - Total IXLCACHE Delete-Name-List 2nd GBP
XDWMY.E  DSDS2F   - Total Write Chg Pgs to 2nd GBP Fail Stg
XDWMY.E  DSDS2H   - Total Asynch IXLCACHE for 2nd GBP
XDWMY.E  DSDS2N   - Total IXLCACHE Delete-Name 2nd GBP
XDWMY.E  DSDS2R   - Total IXLCACHE Read-Castout-St 2nd GBP
XDWMY.E  DSDS2S   - Total Comp Write 2nd GBP Suspended
XDWMY.E  DSDTESTB - Binds Without Plan ID
XDWMY.E  DSDTIMO  - Timeout Count
XDWMY.E  DSDTMIG0 - NO. Migrated Dataset Encounter Buffer 0
XDWMY.E  DSDTMIG1 - NO. Migrated Dataset Encounter Buffer 1
XDWMY.E  DSDTMIG2 - NO. Migrated Dataset Encounter Buffer 2
XDWMY.E  DSDTMIG3 - NO. Migrated Dataset Encounter Buffer 3
XDWMY.   DSDTPF00 - WK PF Abort - 0 PF QTY 0
XDWMY.   DSDTPF01 - WK PF Abort - 0 PF QTY 1
XDWMY.   DSDTPF02 - WK PF Abort - 0 PF QTY 2
XDWMY.   DSDTPF03 - WK PF Abort - 0 PF QTY 3
XDWMY.E  DSDTPIO0 - NO. Prefetch Async Read I/Os Buffer 0
XDWMY.E  DSDTPIO1 - NO. Prefetch Async Read I/Os Buffer 1
XDWMY.E  DSDTPIO2 - NO. Prefetch Async Read I/Os Buffer 2
XDWMY.E  DSDTPIO3 - NO. Prefetch Async Read I/Os Buffer 3
XDWMY.E  DSDTRTBL - Truncate Table Statements
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XDWMY.E  DSDTRTO0 - NO. Recall Timeouts Buffer 0
XDWMY.E  DSDTRTO1 - NO. Recall Timeouts Buffer 1
XDWMY.E  DSDTRTO2 - NO. Recall Timeouts Buffer 2
XDWMY.E  DSDTRTO3 - NO. Recall Timeouts Buffer 3
XDWMY.E  DSDUPDTE - Update Statements
XDWMY.E  DSDUPLK  - Unlock Requests for Physical Locks
XDWMY.E  DSDUSLM  - Unlock Requests Propagated to XES
XDWMY.E  DSDUSUC  - Checks Actually Authorized
XDWMY.E  DSDWBVQ0 - Pages Deq VDWQ Destr Read Rq 0
XDWMY.E  DSDWBVQ1 - Pages Deq VDWQ Destr Read Rq 1
XDWMY.E  DSDWBVQ2 - Pages Deq VDWQ Destr Read Rq 2
XDWMY.E  DSDWBVQ3 - Pages Deq VDWQ Destr Read Rq 3
XDWMY.E  DSDWDRP0 - Pages Destruct Read Req 0
XDWMY.E  DSDWDRP1 - Pages Destruct Read Req 1
XDWMY.E  DSDWDRP2 - Pages Destruct Read Req 2
XDWMY.E  DSDWDRP3 - Pages Destruct Read Req 3
XDWMY.E  DSDWFD0  - Work Files Denied Sort Merge 0
XDWMY.E  DSDWFD1  - Work Files Denied Sort Merge 1
XDWMY.E  DSDWFD2  - Work Files Denied Sort Merge 2
XDWMY.E  DSDWFD3  - Work Files Denied Sort Merge 3
XDWMY.E  DSDWFF0  - Poor Sort Merge - Buf Short 0
XDWMY.E  DSDWFF1  - Poor Sort Merge - Buf Short 1
XDWMY.E  DSDWFF2  - Poor Sort Merge - Buf Short 2
XDWMY.E  DSDWFF3  - Poor Sort Merge - Buf Short 3
XDWMY.E  DSDWFM0  - Max WK File Alloc Sort Merge 0
XDWMY.E  DSDWFM1  - Max WK File Alloc Sort Merge 1
XDWMY.E  DSDWFM2  - Max WK File Alloc Sort Merge 2
XDWMY.E  DSDWFM3  - Max WK File Alloc Sort Merge 3
XDWMY.E  DSDWFNE  - Times Max Allow Storage Limit Exceeded
XDWMY.E  DSDWFP1  - Times 32KB Page TS Used Instead of 4KB
XDWMY.E  DSDWFP2  - Times 4KB Page TS Used Instead of 32KB
XDWMY.E  DSDWFR0  - Req Query WK File Sort Merge 0
XDWMY.E  DSDWFR1  - Req Query WK File Sort Merge 1
XDWMY.E  DSDWFR2  - Req Query WK File Sort Merge 2
XDWMY.E  DSDWFR3  - Req Query WK File Sort Merge 3
XDWMY.E  DSDWFT0  - Work Files Req Sort Merge 0
XDWMY.E  DSDWFT1  - Work Files Req Sort Merge 1
XDWMY.E  DSDWFT2  - Work Files Req Sort Merge 2
XDWMY.E  DSDWFT3  - Work Files Req Sort Merge 3
XDWMY.E  DSDWFXS0 - Write Pagefixed W/O Real Storage 0
XDWMY.E  DSDWFXS1 - Write Pagefixed W/O Real Storage 1
XDWMY.E  DSDWFXS2 - Write Pagefixed W/O Real Storage 2
XDWMY.E  DSDWFXS3 - Write Pagefixed W/O Real Storage 3
XDWMY.E  DSDWREE0 - No. Times Write Engine Unavailable 0
XDWMY.E  DSDWREE1 - No. Times Write Engine Unavailable 1
XDWMY.E  DSDWREE2 - No. Times Write Engine Unavailable 2
XDWMY.E  DSDWREE3 - No. Times Write Engine Unavailable 3
XDWMY.E  DSDWRMM0 - Write I/Os By Media Manager 0
XDWMY.E  DSDWRMM1 - Write I/Os By Media Manager 1
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 XDWMY.E  DSDWRMM2 - Write I/Os By Media Manager 2
 XDWMY.E  DSDWRMM3 - Write I/Os By Media Manager 3

Minimum Data Elements

 XDWMY.   DSDMNCFR - Min Free Pages in Statement Pool
 XDWMY.   DSDMNDRU - Min Stealable DB Descriptors
 XDWMY.   DSDMNKFR - Min Free Pages in Skeleton Pool
 XDWMY.   DSDMNKRU - Min Stealable Skeleton Pkg Table
 XDWMY.   DSDMNQCA - Min Storage Alloc for Plans (>2GB) Bar
 XDWMY.   DSDMNQCB - Min Storage Alloc for Plans (<2GB) Bar
 XDWMY.   DSDMNQKA - Min Storage Alloc for Pkgs (>2GB) Bar
 XDWMY.   DSDMNQKB - Min Storage Alloc for Pkgs (<2GB) Bar
 XDWMY.E  DSDMNRPG - Min Free Pages in Free Chain
 XDWMY.   DSDMNSFR - Min Free Pages in Statement (>2GB) Pool
 XDWMY.   DSDMNSPA - Min Pgs Alloc for Exec Procs
 XDWMY.E  DSDSMIN  - Min Buffers on SLRU

Maximum Data Elements

 XDWMY.E  DSDAMXU  - Highest WFDB Storage Used (KB)
 XDWMY.E  DSDAPREC - How Limit Was Determined
 XDWMY.E  DSDIMAH  - Hi-Watermark Cnt Max DM In-Mem WFs
 XDWMY.E  DSDIMSH  - Hi-Watermark Cnt Max Space DM In-Mem WFs
 XDWMY.E  DSDI2AH  - Max Active Non-sort In-Mem Workfiles
 XDWMY.E  DSDMXBDG - Max Requests for DBD
 XDWMY.E  DSDMXBDL - Max Loads of DBD
 XDWMY.   DSDMXCFA - Max Failures: Full Statement Pool
 XDWMY.   DSDMXCFR - Max Free Pages in Statement Pool
 XDWMY.   DSDMXCPG - Max Pages in Statement Pool
 XDWMY.   DSDMXCTA - Max Pages Used for Cursor Tables (>2GB)
 XDWMY.E  DSDMXCTG - Max Requests for Cursor Table Sections
 XDWMY.E  DSDMXCTL - Max Loaded Cursor Table Sections
 XDWMY.E  DSDMXCTU - Max Pages Used for Cursor Tables (<2GB)
 XDWMY.E  DSDMXDBD - Max Pages Used for DBD
 XDWMY.E  DSDMXDRS - Max DDs That Drain Has Produced
 XDWMY.   DSDMXDRU - Max Stealable Database Descriptors
 XDWMY.E  DSDMXDSO - Max Data Sets Open Concurrently
 XDWMY.   DSDMXDYN - Max Pages Used in Statement Pool
 XDWMY.E  DSDMXEST - Max Parallel Grp Estimated Degree
 XDWMY.E  DSDMXFAL - Max. No. Failures Due To Full EDM Pool
 XDWMY.   DSDMXKFA - Max Failures: Full Skeleton Pool
 XDWMY.   DSDMXKFR - Max Free Pages in Skeleton Pool
 XDWMY.   DSDMXKPG - Max Pages in Skeleton Pool
 XDWMY.   DSDMXKRU - Max Stealable Skeleton Pkg Table
 XDWMY.E  DSDMXPGE - Max Pages in EDM Pool
 XDWMY.E  DSDMXPLN - Max Parallel Grp Planned Degree
 XDWMY.   DSDMXPTA - Max Pages Used for Pkg Tables (>2GB)
 XDWMY.E  DSDMXPTG - Max Requests for Package Table Section
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XDWMY.E  DSDMXPTL - Max Loaded Package Table Sections
XDWMY.   DSDMXPTU - Max Pages Used for Pkg Tables (<2GB)
XDWMY.   DSDMXQCA - Max Storage Alloc for Plans (>2GB) Bar
XDWMY.   DSDMXQCB - Max Storage Alloc for Plans (<2GB) Bar
XDWMY.   DSDMXQKA - Max Storage Alloc for Pkgs (>2GB) Bar
XDWMY.   DSDMXQKB - Max Storage Alloc for Pkgs (<2GB) Bar
XDWMY.E  DSDMXROP - Max PB Found on Free Q During Open
XDWMY.E  DSDMXRPG - Max Free Pages in Free Chain
XDWMY.   DSDMXSFA - Max Failures: Full Stmt (>2GB) Pool
XDWMY.   DSDMXSFR - Max Free Pages in Statement (>2GB) Pool
XDWMY.E  DSDMXSKC - Max Pages Used for SKCT Table
XDWMY.E  DSDMXSKP - Max Pages Used for SKPT Table
XDWMY.E  DSDMXSLW - Max DDs Used for Slow Close TS
XDWMY.   DSDMXSPA - Max Pgs Alloc for Exec Procs
XDWMY.   DSDMXSPG - Max Pages in Statement (>2GB) Pool
XDWMY.   DSDMXSTM - Max Number of Statements in EDM Pool
XDWMY.E  DSDMXWF  - Max Agent Workfile Space Allowed (KB)
XDWMY.E  DSDMXXML - MAX Storage Used for XML Values
XDWMY.E  DSDPROPT - Max Parallel Grp Degenerated Opt
XDWMY.E  DSDSIAH  - Hi-Watermark Cnt Max Sort In-Mem WFs
XDWMY.E  DSDSISH  - Hi-Watermark Cnt Max Space Sort In-Mem
XDWMY.E  DSDSMAXX - MAX Buffers on SLRU
XDWMY.E  DSDTMXU  - Highest DGTT Storage Used (KB)
XDWMY.E  DSDWFMU  - Max Total Workfile Storage Ever Used KB
XDWMY.E  DSDWFMXU - Highest Workfile Storage Used (KB)
XDWMY.E  DSDWFRHG - Max RID Blocks Stored to Workfile

Derived Data Elements

XDWMY.   DSDMRPR0 - Media Read Req Per Phys Req Buffer 0
XDWMY.   DSDMRPR1 - Media Read Req Per Phys Req Buffer 1
XDWMY.   DSDMRPR2 - Media Read Req Per Phys Req Buffer 2
XDWMY.   DSDMRPR3 - Media Read Req Per Phys Req Buffer 3
XDWMY.   DSDPCWDP - Duplicate Per Parsed Dyna Stmnts
XDWMY.   DSDPCWMP - Matched Per Parsed Dyna Stmnts
XDWMY.   DSDPCWRP - Replaced Per Parsed Dyna Stmnts
XDWMY.   DSDPWPU0 - Page Write Per Page Update Buffer 0
XDWMY.   DSDPWPU1 - Page Write Per Page Update Buffer 1
XDWMY.   DSDPWPU2 - Page Write Per Page Update Buffer 2
XDWMY.   DSDPWPU3 - Page Write Per Page Update Buffer 3
XDWMY.   DSDRFRI0 - Read Frames Per Read Req Buffer 0
XDWMY.   DSDRFRI1 - Read Frames Per Read Req Buffer 1
XDWMY.   DSDRFRI2 - Read Frames Per Read Req Buffer 2
XDWMY.   DSDRFRI3 - Read Frames Per Read Req Buffer 3
```

5.2.2.3 Usage Considerations

This section identifies any special considerations or techniques related to using the DB2DSD file. Additionally, we provide several sample retrieval examples to facilitate the use of this file.

In the examples, we use a SAS macro to specify the DD name part of the CA MICS file name. These macros are a standard part of CA MICS and are available for all files. The macro name has the form _iiit, where "iii" is the Information Area name and "t" is the Timespan. In addition, many of the examples use the _fffSUM macro, where "fff" is the file identifier, to summarize the data as indicated by the _BY and _BREAK macro definitions.

Special Considerations/Techniques

- The following data elements only have meaning when using the DB2DSDnn file in the DETAIL timespan, they lose significance once summarization has been performed. These data elements should only be referenced when using the DB2DSDnn file in the DETAIL timespan.

  DSDISEQ - Instrumentation Sequence Number
  DSDDSTSN - Destination Sequence Number
  DSDATNM - Active Trace Number Mask

- Exercise care when using the special date and time data elements contained in each CA MICS file. As the file's granularity increases in higher Timespans, certain fields lose significance and should not be referenced.

  o HOUR should not be used in MONTHS and YEARS.
  o DAY and DAYNAME should not be used in WEEKS, MONTHS, or YEARS.
  o WEEK should not be used in MONTHS or YEARS.
  o MONTH should not be used in YEARS.

- The data elements STARTTS and ENDTS have different meanings when used in the DETAIL timespan versus their meaning in the DAYS, WEEKS, MONTHS, and YEARS timespans. The ENDTS and STARTTS, when appearing in the DAYS, WEEKS, MONTHS, and YEARS timespans, indicate the span of time over which the data has been summarized with STARTTS indicating the lowest date and time and ENDTS indicating the greatest date and time for the summarized data.

Retrieval Examples

- Example 1: Plot the number of data sets concurrently open throughout the day yesterday.

```
DATA TEST1;
SET _DB2D.DB2DSD01;
TIME=TIMEPART(ENDTS);
FORMAT TIME TIME8.;
PROC PLOT DATA=TEST1;
PLOT DSDDSOPN*TIME;
TITLE DB2 DATA SETS OPEN;
```

- Example 2: Print the number of automatic bind requests which failed yesterday during Zone 1.

```
DATA TEST2;
SET _DB2D.DB2DSD01;
IF ZONE=1;
PROC PRINT DATA=TEST2;
MACRO _BY DAY %
MACRO _BREAK DAY %
PROC SORT DATA=TEST2 OUT=TEST2; BY _BY;
DATA TEST2;
SET TEST2;
_DSDSUM;
DATA _NULL_;
SET TEST2;
FILE PRINT;
FAILED=DSDBINDA-DSDBIND;
PUT @51 'NUMBER OF FAILED BIND ATTEMPTS';
PUT @62 'IN ZONE 1';
PUT @63 FAILED;
STOP;
```

5.2.3 DB2 User Activity (DB2DSU) File

FILENAME=DB2DSUxx

The DB2 User Activity file maintains DB2 accounting data, including product, user, instrumentation, SQL statements, buffer manager, and lock usage data by user. This file is derived from the SMF DB2 record type 101 and by default, exists in the DAYS, WEEKS, MONTHS, and YEARS timespans. If your site is planning to charge users for DB2 activity, the DB2DSU file is useful for computing charges.

The following three sections describe the file's organization, list the data elements maintained, and provide usage hints:

1 - File Organization
2 - Data Elements List
3 - Usage Considerations

5.2.3.1 File Organization

The table below identifies data elements by which the file is sequenced and summarized in each timespan. "N/A" indicates that the file is not supported in a timespan.

NOTE: The timespans in which a file is supported are defined by each installation when CA MICS is installed. Therefore, this table has been generated as part of the installation process to accurately reflect the CA MICS system at your installation.

Timespan	Level of Data Granularity				
DETAIL	SYSID	DB2ID	DB2ACT1	DB2ACT2	DB2ACT3
	DB2ACT4	YEAR	MONTH	DAY	HOUR
	ENDTS				
DAYS	SYSID	DB2ID	DB2ACT1	DB2ACT2	DB2ACT3
	DB2ACT4	YEAR	MONTH	DAY	HOUR
WEEKS	SYSID	DB2ID	DB2ACT1	DB2ACT2	DB2ACT3
	DB2ACT4	YEAR	WEEK	ZONE	HOUR
MONTHS	SYSID	DB2ID	DB2ACT1	DB2ACT2	DB2ACT3
	DB2ACT4	YEAR	MONTH	ZONE	
YEARS	SYSID	DB2ID	DB2ACT1	DB2ACT2	DB2ACT3
	DB2ACT4	YEAR	ZONE		
TABLES	N/A				

Generation Date: Thu, Oct 25, 2012

NOTE: This file was generated with ESSENTIAL=ALL option in effect. All data elements defined in the file are generated.

NOTE: This file was generated with DERIVED=DEFault option in effect. Whether data elements are kept on the file on auxiliary storage or not is controlled by the complex definition of the DERIVED option.

Figure 5-3. DB2DSU Timespan Granularity Chart

5.2.3.2 Data Element List

The table below identifies data elements contained in this file. The entries for each data element are as follows:

TIMESPAN: Defines the timespans in which the data element is supported. A "." indicates that the data element is not supported. The timespans in which the data element is supported are indicated by the letters "XDWMYT," which represent the timespans as follows:

X - DETAIL
D - DAYS
W - WEEKS
M - MONTHS
Y - YEARS
T - TABLES AREA

DATA ELEMENT: The data element name.

DATA ELEMENT DESCRIPTION: The long name of the data element.

Note: The timespans in which a data element is supported are defined by each site when CA MICS is installed. Therefore, this table has been generated as part of the installation process to reflect the CA MICS system at your site.

```
GENERATION DATE: Tue, Sep 17, 2013

Note:  Essential data elements are identified by an "E"
       under the Timespan asterisk (*) column.

  Time-    Data      Data Element
  Span *  Element    Description (LABEL)
 -------  --------   ----------------------------------------


Sequence/Summary Data Elements

 .D....E  DAY      - Day of Month
 .DWMY.E  DB2ACT1  - AUTHORIZATION ID
 .DWMY.E  DB2ACT2  - CORRELATION ID
 .DWMY.E  DB2ACT3  - CONNECTION ID
 .DWMY.E  DB2ACT4  - DISTRIBUTED THREAD TYPE
 .DWMY.E  DB2ID    - DB2 ID
 .DW...E  HOUR     - Hour of Day
 .DWM..E  MONTH    - Month of Year
 .DWMY.E  SYSID    - System Identifier
 .DW...E  WEEK     - Week of Year
 .DWMY.E  YEAR     - Year of Century
 .DWMY.E  ZONE     - Time Zone

Common Data Elements

 .D....E  DAYNAME  - Name of Day of Week
 ......   DB2ACE   - DB2 Agent Control Element
 .DWMY.   DB2ATNM  - Active Trace Number Mask
 .DWMY.E  DB2AUTH  - Authorization Identifier
 .DWMY.E  DB2CONN  - Connection Identifier
 .DWMY.E  DB2CORR  - Correlation Identifier
 ......E  DB2CPU   - DB2 CPU Time
 ......E  DB2CRDLU - CICS/RRSAF/DB Access LU Name
 ......E  DB2CRDNT - CICS/RRSAF/DB Access Network Name
 ......E  DB2CRDUV - CICS/RRSAF/DB Access Uniqueness Value
 .DWMY.E  DB2DDFCT - DDF DB2 Commits Received from Remote
 .DWMY.E  DB2DSGN  - Data Sharing Group Name
 .DWMY.   DB2DSTSN - Destination Sequence Number
 .DWMY.   DB2ISEQ  - Instrumentation Sequence Number
 ......E  DB2LOCN  - DB2 Local Location ID
 .DWMY.   DB2LUNAM - Logical Unit NAME
 .DWMY.E  DB2MEMN  - DB2 Member Name
 ......E  DB2MLVL  - MICS DB2 Maintenance Level
 .DWMY.   DB2NETID - Network ID
 .DWMY.E  DB2OPID  - Original Operator ID
 ......E  DB2PLAN  - Plan Name
```

```
 ......E  DB2PTASK - Special Transaction Type Identifier
 .DWMY.   DB2REL   - DB2 Release
 .DWMY.E  DB2RELN  - DB2 Release Number
 .DWMY.E  DB2REQID - DB2 Requestor Location ID
 .DWMY.E  DB2STCK  - DB2 Store Clock At End Event
 .DWMY.E  DB2THDTY - DB2 Thread Type
 ......   DB2UNIQ  - DB2 Instance Number
 .DWMY.E  ENDTS    - End Time Stamp
 .DWMY.E  STARTTS  - Start Time Stamp
 ......E  TRANETS  - Transaction End Time Stamp
 ......E  TRANSTS  - Transaction Start Time Stamp
 ......E  UOWID    - Unit of Work Id
 ......E  UOWIDSEQ - Unit of Work Id Sequence Number

Retained Data Elements

 .DWMY.E  DSUAFLG  - Flag Byte
 .DWMY.E  DSUARLID - Resource Limit Table ID
 .DWMY.E  DSUASLMT - Limit In SUs - ASUTIME
 ......   DSUBEGSC - Beginning Store Clock
 ......E  DSUBGTCB - Beginning TCB Timer
 ......   DSUCATYP - Connecting System Type Code
 ......   DSUDSTSN - Destination Sequence Number
 ......   DSUENDSC - Ending Store Clock
 ......E  DSUENTCB - Ending TCB Timer
 ......   DSUISEQ  - Instrumentation Sequence Number
 .DWMY.E  DSUNETID - DB2 Network Identifier
 ......E  DSUOPID  - Original Operator ID
 ......E  DSUPLAN  - Plan Name
 ......E  DSUREASN - Reason For Accounting Record
 .DWMY.E  DSURMID  - DB2 Resource Manager Identifier

Accumulated Data Elements

 .DWMY.E  DSUAACC  - No. Wait Trace Events Req to IDAA
 .DWMY.E  DSUAACW  - Wait Time for Requests to IDAA
 .DWMY.E  DSUABABD - Abnormal Application Abend
 .DWMY.E  DSUABEOM - Abnormal End of Memory
 .DWMY.E  DSUABFRC - Abnormal Force Command
 .DWMY.E  DSUABORT - Abort Requests
 .DWMY.E  DSUABRIN - Abnormal Resolve Indoubt
 .DWMY.E  DSUACHG  - Change Request Count
 .DWMY.E  DSUACHUS - Highest CPU 16 Microseconds Used
 .DWMY.E  DSUACLMT - Limit In CPU 16 Microseconds
 .DWMY.E  DSUACNT  - No. ACCUMACC Records Encountered
 .DWMY.E  DSUACSTL - ACCUMACC Count: Staleness
 .DWMY.E  DSUACSTR - ACCUMACC Count: Storage Exceeded
 .DWMY.E  DSUACUTR - ACCUMACC Count: Threshold Exceeded
 .DWMY.E  DSUAIRLM - Other IRLM Request Count
```

```
.DWMY.E  DSUALDAB - NO. ALTER DATABASE Statements
.DWMY.E  DSUALGTM - Class 3 Accum Wait Archive Log Time
.DWMY.E  DSUALLTM - Lock & Latch time
.DWMY.E  DSUALOCK - Lock Request Count
.DWMY.E  DSUALTIX - Alter Index Statements
.DWMY.E  DSUALTJR - Alter JAR Statements
.DWMY.E  DSUALTMP - Alter Mask / Permission Statements
.DWMY.E  DSUALTST - Alter Stogroup Statements
.DWMY.E  DSUALTTA - Alter Table Statements
.DWMY.E  DSUALTTS - Alter Tablespace Statements
.DWMY.E  DSUALTTX - Alter Trusted Context Statements
.DWMY.E  DSUALTVW - Alter View Statements
.DWMY.E  DSUAQRY  - Query Request Count
.DWMY.E  DSUARLCT - NO. Archive Log Suspensions
.DWMY.E  DSUARLH  - Wait Trace Events Latch Contention
.DWMY.E  DSUARREX - No. Array Var Expanded Beyond 32K
.DWMY.E  DSUASLAT - Suspend Count - Latch Conflict
.DWMY.E  DSUASOTH - Suspend Count - Other Conflict
.DWMY.E  DSUATCNT - No. Autonomous Procedures Executed
.DWMY.E  DSUATWAT - Autonomous Procedure Wait Time
.DWMY.E  DSUAUNLK - Unlock Request Count
.DWMY.E  DSUAWBTM - Wait Time - TCP/IP LOB Material
.DWMY.E  DSUAWETM - Class 3 Accum Wait Service Task Time
.DWMY.E  DSUAWGTM - Accum Wait Time Data Sharing Messages
.DWMY.E  DSUAWJTM - Accum Wait Time Global Locks
.DWMY.E  DSUAWLTM - Accum Wait Time - Latch Contention
.DWMY.E  DSUAWRTM - Class 3 Accum Wait Read Other Time
.DWMY.E  DSUAWWTM - Class 3 Accum Wait Write Other Time
.DWMY.E  DSUBPNX  - Parallel Groups Run Cross Data Share
.DWMY.E  DSUCIMW0 - No. of Immed. Sync Write I/O Buffer BP0
.DWMY.E  DSUCIMW1 - No. of Immed. Sync Write I/O Buffer BP1
.DWMY.E  DSUCIMW2 - No. of Immed. Sync Write I/O Buffer BP2
.DWMY.E  DSUCIMW3 - No. of Immed. Sync Write I/O Buffer BP3
.DWMY.E  DSUCLOSE - Close Statements
.DWMY.E  DSUCLRAB - NO. Log Record Bytes Written
.DWMY.E  DSUCLRN  - NO. Log Records Written
.DWMY.E  DSUCMTON - Comment On Statements
.DWMY.E  DSUCOMM2 - Commit Phase Two Invocations
.DWMY.E  DSUCOST  - Processing Cost
.DWMY.E  DSUCPLK  - Change Requests For Physical Locks
.DWMY.E  DSUCPODB - CPU Time Only on a DB2 TCB
.DWMY.E  DSUCPUNI - User Instructions
.DWMY.E  DSUCPUTM - Accumulated CPU Time
.DWMY.E  DSUCPUZ1 - Accum CPU Tm Used on z/OS Spec Eng
.DWMY.E  DSUCPUZ2 - CPU Tm Used in DB2 on z/OS Spec Eng
.DWMY.E  DSUCP1TM - Total CP Class 1 CPU Time
.DWMY.E  DSUCP2TM - Total CP Class 2 CPU Time
.DWMY.E  DSUCRAL  - CREATE ALIAS
.DWMY.E  DSUCRCTX - Create Trusted Context Statements
```

```
.DWMY.E  DSUCRDAB - Create Database Statements
.DWMY.E  DSUCREMP - Create Mask / Permission Statements
.DWMY.E  DSUCRINX - Create Index Statements
.DWMY.E  DSUCRROL - Create Role Statements
.DWMY.E  DSUCRSTG - Create Stogroup Statements
.DWMY.E  DSUCRSYN - Create Synonym Statements
.DWMY.E  DSUCRTAB - Create Table Statements
.DWMY.E  DSUCRTSV - Create Variable Statements
.DWMY.E  DSUCSLM  - Change Requests Propagated to XES
.DWMY.E  DSUCTABS - Create Tablespace Statements
.DWMY.E  DSUCWLD  - Times Duplicate Concentrate Dyna Stmnts
.DWMY.E  DSUCWLM  - Times Matched Concentrate Dyna Stmnts
.DWMY.E  DSUCWLP  - Times Parsed Concentrate Dyna Stmnts
.DWMY.E  DSUCWLR  - Times Replaced Concentrate Dyna Stmnts
.DWMY.E  DSUDEAD  - Deadlock Count
.DWMY.E  DSUDEFVU - Create View Statements
.DWMY.E  DSUDEGAT - No. Parallel Grps Back to Seq Mode
.DWMY.E  DSUDELET - Delete Statements
.DWMY.E  DSUDESC  - Describe Statements
.DWMY.E  DSUDGBUF - Parallel Groups to Seq Storage Short
.DWMY.E  DSUDGCUR - Parallel Groups to Seq Cursor Update
.DWMY.E  DSUDGESA - Parallel Groups to Seq No ESA Sort
.DWMY.E  DSUDGNGP - No. Parallel Grp Degenerated Sys Stress
.DWMY.E  DSUDRAL  - DROP ALIAS
.DWMY.E  DSUDRPDB - Drop Database Statements
.DWMY.E  DSUDRPIX - Drop Index Statements
.DWMY.E  DSUDRPKG - NO. DROP PACKAGE Statements
.DWMY.E  DSUDRPMP - Drop Mask / Permission Statements
.DWMY.E  DSUDRPRO - Drop Role Statements
.DWMY.E  DSUDRPST - Drop Stogroup Statements
.DWMY.E  DSUDRPSV - Drop Variable Statements
.DWMY.E  DSUDRPSY - Drop Synonym Statements
.DWMY.E  DSUDRPTA - Drop Table Statements
.DWMY.E  DSUDRPTS - Drop Tablespace Statements
.DWMY.E  DSUDRPTX - Drop Trusted Context Statements
.DWMY.E  DSUDRPVU - Drop View Statements
.DWMY.E  DSUDRTA  - Global requests Denied
.DWMY.E  DSUDSCRT - NO. DESCRIBE TABLE Statements
.DWMY.E  DSUEGENC - Parallel Groups Executed Sequential
.DWMY.E  DSUELGZP - Accumulated CPU Time zIIP-Eligible Work
.DWMY.E  DSUELPTM - Elapsed Time
.DWMY.E  DSUENTEX - NO. Entry/Exit events processed
.DWMY.E  DSUET2TM - Elapsed Time in DB2
.DWMY.E  DSUFETCH - Fetch Statements rel 2
.DWMY.E  DSUFLSE  - No. of False Contentions
.DWMY.E  DSUFRIDS - Times RID List Overflowed RID Storage
.DWMY.E  DSUFRIDT - Times RID List Overflowed RID Exceeded
.DWMY.E  DSUGPGR0 - GETPAGE Requests BP0
.DWMY.E  DSUGPGR1 - GETPAGE Requests BP1
```

```
.DWMY.E  DSUGPGR2 - GETPAGE Requests BP2
.DWMY.E  DSUGPGR3 - GETPAGE Requests BP3
.DWMY.E  DSUGRANT - Grant Statements
.DWMY.E  DSUIGLO  - Suspends Due to IRLM Global Contention
.DWMY.E  DSUINCRB - Incremental Binds
.DWMY.E  DSUINSRT - Insert Statements
.DWMY.E  DSUIOETM - DB2 Accumulated I/O Elapsed Wait Time
.DWMY.E  DSUISTOR - No. Sparse Index Disabled Insuf Stg
.DWMY.E  DSUIWF   - No. Sparse Index Built Phys WF Probe
.DWMY.E  DSUJINCS - Times RID List Append RID Storage
.DWMY.E  DSUJINCT - Times RID List Append RID Exceeded
.DWMY.E  DSULABEL - Label Statements rel 2
.DWMY.E  DSULEEM  - NO. Lock Escalations to Exclusive mode
.DWMY.E  DSULESM  - NO. Lock Escalations to shared mode
.DWMY.E  DSULOCK  - Lock Table Statements
.DWMY.E  DSULPF0  - No. List Prefetch Requested BP0
.DWMY.E  DSULPF1  - No. List Prefetch Requested BP1
.DWMY.E  DSULPF2  - No. List Prefetch Requested BP2
.DWMY.E  DSULPF3  - No. List Prefetch Requested BP3
.DWMY.E  DSULPLK  - Lock Requests For Physical Locks
.DWMY.E  DSULSLM  - Lock Requests Propagated to XES
.DWMY.E  DSUMERGE - Merge Statements
.DWMY.E  DSUMIXNL - Mult Indx Not Used - RID Limit
.DWMY.E  DSUMIXNU - Mult Indx Not Used - No Storage
.DWMY.E  DSUMIXU  - Multiple Index Path Used
.DWMY.E  DSUMXPL  - Max. no. Page locks held
.DWMY.E  DSUNATHD - Count of ACCUMACC Roll-up Threads
.DWMY.E  DSUNOGRP - Parallel Groups Exec Planned Degree
.DWMY.E  DSUNTDEL - Normal Deallocation
.DWMY.E  DSUNTEND - Normal Application Ended
.DWMY.E  DSUNTEOT - Normal End of Task
.DWMY.E  DSUNTFY  - Notify Messages Sent
.DWMY.E  DSUNTHRD - Count Of Threads Initiated
.DWMY.E  DSUNTIFI - Normal IFI READS Request
.DWMY.E  DSUNTNUS - Normal New User
.DWMY.E  DSUNTSUS - Normal Same User Partial Signon
.DWMY.E  DSUOPEN  - Open Statements
.DWMY.E  DSUORNO  - Parallel Groups Executed Coordination
.DWMY.E  DSUORR   - Parallel Groups Executed Repeat-read
.DWMY.E  DSUPARQR - No. Parallel Query Rollup Records
.DWMY.E  DSUPCAGT - No. Parallel Child Agent Tasks Rolled
.DWMY.E  DSUPELPT - Parallel Subtasks Elapsed Time
.DWMY.E  DSUPET2T - Parallel Subtasks Elapsed Time in DB2
.DWMY.E  DSUPGDTT - Parallel GPS Using UDF - Ex. Single DB2
.DWMY.E  DSUPQSCT - No. Parallel Query WT Prnt/Chld Sync
.DWMY.E  DSUPQSWT - Parent Child Task Sync Wait Time
.DWMY.E  DSUPREP  - Prepare Statements
.DWMY.E  DSUPRFH0 - Prefetch Read Requests Buffer BP0
.DWMY.E  DSUPRFH1 - Prefetch Read Requests Buffer BP1
```

```
.DWMY.E  DSUPRFH2 - Prefetch Read Requests Buffer BP2
.DWMY.E  DSUPRFH3 - Prefetch Read Requests Buffer BP3
.DWMY.E  DSUPSTCT - Parallel Subtasks Count
.DWMY.E  DSUQUERY - Fetch and Select Statements
.DWMY.E  DSURBSV  - NO. SQL Rollback to Savepoint Stmts
.DWMY.E  DSURDGRP - Parallel Groups Reduced Storage Short
.DWMY.E  DSURDLTD - Deleted Rows
.DWMY.E  DSUREDGP - No. Parallel Grp Reduced Sys Stress
.DWMY.E  DSUREVOK - Revoke Statements
.DWMY.E  DSURFCHD - Fetched Rows
.DWMY.E  DSURLFDP - Query Parallelism Disabled by RLF
.DWMY.   DSURNIX  - Rename Index Statements
.DWMY.E  DSURNKCL - No. Wait Trace Glbl Cont. Child LLock
.DWMY.E  DSURNMOL - No. Wait Trace Glbl Cont. Other LLock
.DWMY.E  DSURNNPL - No. Wait Trace Glbl Cont. PP PLock
.DWMY.E  DSURNOPL - No. Wait Trace Glbl Cont. PG PLock
.DWMY.E  DSURNQOL - No. Wait Trace Glbl Cont. Other PLock
.DWMY.E  DSURNSTD - Inserted Rows
.DWMY.E  DSURPOP1 - Parallel GPS Reformatted - Sysplx Conf
.DWMY.E  DSURPOP2 - Parallel GPS Reformatted - Buffer Resrc
.DWMY.E  DSURRAIC - Commit Specified for RRSAF Thread
.DWMY.E  DSURUDTD - Updated Rows
.DWMY.E  DSUSCIMW - Total Immed. Sync Write I/Os Count
.DWMY.E  DSUSDG   - Total Unregister Pages Requests
.DWMY.E  DSUSDPF  - Total Dynamic Prefetch Requests
.DWMY.E  DSUSELCT - Select Statements rel 2
.DWMY.E  DSUSETHV - NO. SET HOST-VAR Statements
.DWMY.E  DSUSEX   - Total Explicit XIs
.DWMY.E  DSUSGG   - Total GETPAGEs for GBP-Dep Pagesets
.DWMY.E  DSUSGLO  - Suspends Due to XES Global Contention
.DWMY.E  DSUSGPGR - Total GETPAGE Requests
.DWMY.E  DSUSHS   - Total Asynch IXLCACHE for Prim GBP
.DWMY.E  DSUSKIP  - Parallel Coordination Bypass DB2
.DWMY.E  DSUSLPF  - Total Times List Prefetch Requested
.DWMY.E  DSUSMD   - Total CF Reads Data Returned
.DWMY.E  DSUSMIAP - Times RID List Retrieval Skipped
.DWMY.E  DSUSMN   - Total CF Reads Data Not Ret No Entry
.DWMY.E  DSUSMR   - Total CF Reads Data Not Returned Entry
.DWMY.E  DSUSNGT  - Total Times GETPAGE Req Not Satisfied
.DWMY.E  DSUSPCTM - Accum CPU Time SQL Procedures Main Unit
.DWMY.E  DSUSPRFH - Total Times List Prefetch Requested
.DWMY.E  DSUSPRU0 - System Page Record Update BP0
.DWMY.E  DSUSPRU1 - System Page Record Update BP1
.DWMY.E  DSUSPRU2 - System Page Record Update BP2
.DWMY.E  DSUSPRU3 - System Page Record Update BP3
.DWMY.E  DSUSPZET - zIIP Stored Procedures Total Elapsed Tm
.DWMY.E  DSUSPZTM - CPU Tm Exec Strd Proc on z/OS Spec Eng
.DWMY.E  DSUSP1   - P-Lock Lock Requests - Space Map Pages1
.DWMY.E  DSUSP2   - P-Lock Lock Requests - Data Pages2
```

```
.DWMY.E  DSUSP3   - P-Lock Lock Requests - Indx Leaf Pages3
.DWMY.E  DSUSQLID - NO. Of Set Current SQLID
.DWMY.E  DSUSRIO0 - Synchronous Read I/Os BP0
.DWMY.E  DSUSRIO1 - Synchronous Read I/Os BP1
.DWMY.E  DSUSRIO2 - Synchronous Read I/Os BP2
.DWMY.E  DSUSRIO3 - Synchronous Read I/Os BP3
.DWMY.E  DSUSSIO  - Total Async Pages Read by Prefetch
.DWMY.E  DSUSSPRU - Total System Page Record Update
.DWMY.E  DSUSSRIO - Total Synchronous Read I/Os
.DWMY.E  DSUSSW   - Total CF Writes For Changed Pages
.DWMY.E  DSUSS1   - P-Lock Lock Susp. - Space Map Pages 1
.DWMY.E  DSUSS2   - P-Lock Lock Suspensions - Data Pages 2
.DWMY.E  DSUSS3   - P-Lock Lock Susp. - Index Leaf Pages 3
.DWMY.E  DSUSUSP  - Suspend Count
.DWMY.E  DSUSU1   - P-Lock Unlock Requests1
.DWMY.E  DSUSWC   - Total CF Writes For Clean Pages
.DWMY.E  DSUSWM   - Total Write and Register Multiple Reqs
.DWMY.E  DSUSWS   - Total Write and Register Requests
.DWMY.E  DSUSXD   - Total CF Reads Buffer XI
.DWMY.E  DSUSXR   - Total CF Reads Entry Created
.DWMY.E  DSUS2H   - Total Asynch IXLCACHE for 2nd GBP
.DWMY.E  DSUS2S   - Total Comp Chks 4 Wrts 2nd GBP Suspend
.DWMY.E  DSUTCBTM - TCB Time
.DWMY.E  DSUTC2TM - Class 2 Accumulated TCB Time in DB2
.DWMY.E  DSUTELPT - Comprehensive Elapsed Time
.DWMY.E  DSUTET2T - Comprehensive Elapsed Time in DB2
.DWMY.E  DSUTHINA - DDF Thread Becomes Inactive
.DWMY.E  DSUTHIN2 - Type 2 Inactive Thread Becomes Inactive
.DWMY.E  DSUTIMO  - Timeout Count
.DWMY.E  DSUTOGRP - Parallel Groups Executed
.DWMY.E  DSUTRTBL - Truncate Table Statements
.DWMY.E  DSUTRTZP - CPU Tm Exec Triggers on z/OS Spec Eng
.DWMY.E  DSUTSQLE - Number of SQL Statements Executed
.DWMY.E  DSUUDMTM - CPU Time in DB2 Exec Userdef
.DWMY.E  DSUUDZET - Elapsed Time in DB2 for Userdef
.DWMY.E  DSUUDZTM - UDF Spec Eng Time
.DWMY.E  DSUUPDTE - Update Statements
.DWMY.E  DSUUPLK  - Unlock Requests For Physical Locks
.DWMY.E  DSUUSLM  - Unlock Requests Propagated to XES
.DWMY.E  DSUWATRB - Wt Trace for TCP/IP LOB Material
.DWMY.E  DSUWATRG - NO. Wait Trace Events for Glbl. Lock
.DWMY.E  DSUWATRL - NO. Wait Trace Events for Lock/Latch
.DWMY.E  DSUWATRM - NO. Wait Trace Events for Data Shr Msgs
.DWMY.E  DSUWATRR - NO. Wait Trace Events for Read Other
.DWMY.E  DSUWATRW - NO. Wait Trace Events for Write Other
.DWMY.E  DSUWATSE - NO. Wait Trace Events for Sync. Exec.
.DWMY.E  DSUWATTR - NO. Wait Trace events processed
.DWMY.E  DSUWGLTM - Glbl Contention PG P-Lock Wait Time
.DWMY.E  DSUWLCTM - Glbl Contention Child L-Lock Wait Time
```

```
 .DWMY.E  DSUWLLTM - Glbl Contention Other L-Locks Wait Time
 .DWMY.E  DSUWLPTM - Glbl Contention PP P-Lock Wait Time
 .DWMY.E  DSUWTOTM - Glbl Contention Other P-Locks Wait Time
 .DWMY.E  DSUWUABD - Work In Doubt Abend
 .DWMY.E  DSUWUEOM - Work In Doubt End of Memory
 .DWMY.E  DSUWUFRC - Work In Doubt Force Command
 .DWMY.E  DSUWURIN - Work In Doubt Resolve Indoubt
 .DWMY.E  DSUXSODB - DB2 Only and Non zIIP-Eligible CPU Time
 .DWMY.E  DSUXSPTM - CPU Time Excluding Special CPU Time

Maximum Data Elements

 .DWMY.E  DSUAPREC - How Limit Was Determined
 .DWMY.E  DSUMMXPL - Max Max. no. Page locks held
 .DWMY.E  DSUMXDEG - Max Degree of Parallelism
 .DWMY.E  DSUMXEST - Max Parallel Grp Estimated Degree
 .DWMY.E  DSUMXPLN - Max Parallel Grp Planned Degree
 .DWMY.E  DSUPROPT - Max Parallel Grp Degenerated Opt

Derived Data Elements

 .DWMY.E  DSUPCWDP - Duplicate Per Parsed Dyna Stmnts
 .DWMY.E  DSUPCWMP - Matched Per Parsed Dyna Stmnts
 .DWMY.E  DSUPCWRP - Replaced Per Parsed Dyna Stmnts
```

5.2.3.3 Usage Considerations

This section identifies any special considerations and/or techniques related to using the DB2DSU file. Additionally, we provide several sample retrieval examples to facilitate the use of this file.

In the examples, we use a SAS macro to specify the DD name part of the CA MICS file name. These macros are a standard part of CA MICS and are available for all files. The macro name has the form _iiit, where "iii" is the Information Area name and "t" is the timespan. In addition, many of the examples use the _fffSUM macro, where "fff" is the file identifier, to summarize the data as indicated by the _BY and _BREAK macro definitions.

Special Considerations/Techniques

- Exercise care when using the special date and time data elements contained in each CA MICS file. As a file's granularity increases in higher timespans, certain fields lose significance and should not be referenced.

  - HOUR should not be used in MONTHS and YEARS.
  - DAY and DAYNAME should not be used in WEEKS, MONTHS, or YEARS.
  - WEEK should not be used in MONTHS or YEARS.
  - MONTH should not be used in YEARS.

- Data elements STARTTS and ENDTS have different meanings when used in the DETAIL timespan as opposed to their meaning in the DAYS, WEEKS, MONTHS, and YEARS timespans. The ENDTS and STARTTS, when appearing in the DAYS, WEEKS, MONTHS, and YEARS timespans, indicate the span of time over which the data has been summarized with STARTTS indicating the lowest date and time and ENDTS indicating the greatest date and time for the summarized data.

Retrieval Examples

These examples assume that element DB2AUTH is a sort/sequence element on the DSU file. If it is stored as a DB2ACTn element, substitute the correct DB2ACTn element name where appropriate.

- Example 1: List all users who issued a CREATE TABLE statement yesterday and the number of statements issued listed in order from highest to lowest.

```
DATA TEST1;
SET _DB2D.DB2DSU01;
IF DSUCRTAB>0;
MACRO _BY DB2AUTH %      /*
MACRO _BREAK DB2AUTH %
PROC SORT DATA=TEST1 OUT=TEST1; BY _BY;
DATA TEST1;
SET TEST1;
_DSUSUM;
PROC SORT DATA=TEST1 OUT=TEST1; BY DESCENDING DSUCRTAB;
PROC PRINT DATA=TEST1;
VAR DB2AUTH DSUCRTAB;
TITLE USERS EXECUTING CREATE TABLE STATEMENTS;
```

o Example 2: Show the distribution of DB2 various statements by user over the last four weeks.

```
DATA TEST2;
SET _DB2W.DB2DSU01
    _DB2W.DB2DSU02
    _DB2W.DB2DSU03
    _DB2W.DB2DSU04
    ;
MACRO _BY DB2AUTH %
MACRO _BREAK DB2AUTH %
PROC SORT DATA=TEST2 OUT=TEST2; BY _BY;
DATA TEST2;
SET TEST2;
_DSUSUM;
PROC FREQ DATA=STUFF; BY DB2AUTH;
TABLES
  DSUQUERY DSUINSRT DSUUPDTE DSUDELET
  DSUDESC DSUCTABS DSUCRSYN DSUCRDAB
  DSUCRSTG DSUDEFVU DSUDRPIX DSUDRPTA
  DSUDRPTS DSUDRPDB DSUDRPSY DSUDRPST
  DSUDRPVU DSUALTST DSUALTTS DSUALTTA
  DSUALTIX DSUCMTON DSULOCK DSUGRANT
  DSUREVOK
  ;
```

5.2.4 DB2 Plan Activity (DB2DSP) File

FILENAME=DB2DSPxx

The DB2 Plan Activity file maintains the same DB2 Accounting data as the DB2DSU file but organizes it by DB2 Plan (application). This file is derived from the SMF DB2 record type 101. This file exists in the DAYS, WEEKS, MONTHS, and YEARS timespans.

The following three sections describe the file's organization, list the data elements maintained, and provide usage hints:

1 - File Organization
2 - Data Elements List
3 - Usage Considerations

5.2.4.1 File Organization

The table below identifies data elements by which the file is sequenced and summarized in each timespan. "N/A" indicates that the file is not supported in a timespan.

NOTE: The timespans in which a file is supported are defined by each installation when CA MICS is installed. Therefore, this table has been generated as part of the installation process to accurately reflect the CA MICS system at your installation.

Timespan	Level of Data Granularity				
DETAIL	SYSID	DB2ID	DB2PLAN	DB2CONN	YEAR
	MONTH	DAY	HOUR	ENDTS	
DAYS	SYSID	DB2ID	DB2PLAN	DB2CONN	YEAR
	MONTH	DAY	HOUR		
WEEKS	SYSID	DB2ID	DB2PLAN	DB2CONN	YEAR
	WEEK	HOUR	ZONE		
MONTHS	SYSID	DB2ID	DB2PLAN	DB2CONN	YEAR
	MONTH	ZONE			
YEARS	SYSID	DB2ID	DB2PLAN	DB2CONN	YEAR
	ZONE				
TABLES	N/A				

Generation Date: Thu, Oct 25, 2012

NOTE: This file was generated with ESSENTIAL=ALL option in effect. All data elements defined in the file are generated.

NOTE: This file was generated with DERIVED=DEFault option in effect. Whether data elements are kept on the file on auxiliary storage or not is controlled by the complex definition of the DERIVED option.

Figure 5-4. DB2DSP Timespan Granularity Chart

5.2.4.2 Data Element List

The table below identifies data elements contained in this file. The entries for each data element are as follows:

TIMESPAN: Defines the timespans in which the data element is supported. A "." indicates that the data element is not supported. The timespans in which the data element is supported are indicated by the letters "XDWMYT," which represent the timespans as follows:

X - DETAIL
D - DAYS
W - WEEKS
M - MONTHS
Y - YEARS
T - TABLES AREA

DATA ELEMENT: The data element name.

DATA ELEMENT DESCRIPTION: The long name of the data element.

Note: The timespans in which a data element is supported are defined by each site when CA MICS is installed. Therefore, this table has been generated as part of the installation process to reflect the CA MICS system at your site.

GENERATION DATE: Tue, Sep 17, 2013

Note: Essential data elements are identified by an "E" under the Timespan asterisk (*) column.

Time-Span *	Data Element	Data Element Description (LABEL)

Sequence/Summary Data Elements

.D....E	DAY	- Day of Month
.DWMY.E	DB2CONN	- Connection Identifier
.DWMY.E	DB2ID	- DB2 ID
.DWMY.E	DB2PLAN	- Plan Name
.DW...E	HOUR	- Hour of Day
.DWM..E	MONTH	- Month of Year
.DWMY.E	SYSID	- System Identifier
.DW...E	WEEK	- Week of Year
.DWMY.E	YEAR	- Year of Century
.DWMY.E	ZONE	- Time Zone

```
Common Data Elements

 .D....   DAYNAME  - Name of Day of Week
 ......   DB2ACE   - DB2 Agent Control Element
 ......   DB2ATNM  - Active Trace Number Mask
 ......   DB2AUTH  - Authorization Identifier
 ......   DB2CORR  - Correlation Identifier
 ......   DB2CPU   - DB2 CPU Time
 .DWMY.   DB2DDFCT - DDF DB2 Commits Received from Remote
 .DWMY.E  DB2DSGN  - Data Sharing Group Name
 ......   DB2DSTSN - Destination Sequence Number
 ......   DB2ISEQ  - Instrumentation Sequence Number
 ......E  DB2LOCN  - DB2 Local Location ID
 ......   DB2LUNAM - Logical Unit NAME
 .DWMY.E  DB2MEMN  - DB2 Member Name
 ......E  DB2MLVL  - MICS DB2 Maintenance Level
 ......   DB2NETID - Network ID
 ......   DB2OPID  - Original Operator ID
 ......E  DB2PTASK - Special Transaction Type Identifier
 .DWMY.   DB2REL   - DB2 Release
 .DWMY.E  DB2RELN  - DB2 Release Number
 ......   DB2REQID - DB2 Requestor Location ID
 ......   DB2STCK  - DB2 Store Clock At End Event
 .DWMY.E  DB2THDTY - DB2 Thread Type
 ......   DB2UNIQ  - DB2 Instance Number
 .DWMY.E  ENDTS    - End Time Stamp
 .DWMY.E  STARTTS  - Start Time Stamp
 ......E  TRANETS  - Transaction End Time Stamp
 ......E  TRANSTS  - Transaction Start Time Stamp
 ......E  UOWID    - Unit of Work Id
 ......E  UOWIDSEQ - Unit of Work Id Sequence Number

Retained Data Elements

 .DWMY.E  DSPAFLG  - Flag Byte
 .DWMY.E  DSPARLID - Resource Limit Table ID
 ......   DSPBEGSC - Beginning Store Clock
 ......   DSPBGTCB - Beginning TCB Timer
 ......   DSPCATYP - Connecting System Type Code
 ......   DSPDSTSN - Destination Sequence Number
 ......   DSPENDSC - Ending Store Clock
 ......   DSPENTCB - Ending TCB Timer
 ......   DSPISEQ  - Instrumentation Sequence Number
 .DWMY.   DSPNETID - Network Identifier
 ......   DSPOPID  - Original Operator ID
 .DWMY.   DSPPLAN  - Plan Name
 ......   DSPREASN - Reason For Accounting Record
 .DWMY.   DSPRMID  - DB2 Resource Manager Identifier
```

```
Accumulated Data Elements

 .DWMY.E  DSPAACC  - No. Wait Trace Events Req to IDAA
 .DWMY.E  DSPAACW  - Wait Time for Requests to IDAA
 .DWMY.E  DSPABABD - Abnormal Application Abend
 .DWMY.E  DSPABEOM - Abnormal End of Memory
 .DWMY.E  DSPABFRC - Abnormal Force Command
 .DWMY.E  DSPABORT - Abort Requests
 .DWMY.E  DSPABRIN - Abnormal Resolve Indoubt
 .DWMY.E  DSPACHG  - Change Request Count
 .DWMY.E  DSPACHUS - Highest CPU 16 Microseconds Used
 .DWMY.E  DSPACLMT - Limit In CPU 16 Microseconds
 .DWMY.E  DSPACNT  - No. ACCUMACC Records Encountered
 .DWMY.E  DSPACSTL - ACCUMACC Count: Staleness
 .DWMY.E  DSPACSTR - ACCUMACC Count: Storage Exceeded
 .DWMY.E  DSPACUTR - ACCUMACC Count: Threshold Exceeded
 .DWMY.E  DSPAIRLM - Other IRLM Request Count
 .DWMY.E  DSPALDAB - NO. ALTER DATABASE Statements
 .DWMY.E  DSPALGTM - Class 3 Accum Wait Archive Log Time
 .DWMY.E  DSPALLTM - DB2 Lock & Latch Time
 .DWMY.E  DSPALOCK - Lock Request Count
 .DWMY.E  DSPALTIX - Alter Index Statements
 .DWMY.E  DSPALTJR - Alter JAR Statements
 .DWMY.E  DSPALTMP - Alter Mask / Permission Statements
 .DWMY.E  DSPALTST - Alter Stogroup Statements
 .DWMY.E  DSPALTTA - Alter Table Statements
 .DWMY.E  DSPALTTS - Alter Tablespace Statements
 .DWMY.E  DSPALTTX - Alter Trusted Context Statements
 .DWMY.E  DSPALTVW - Alter View Statements
 .DWMY.E  DSPAQRY  - Query Request Count
 .DWMY.E  DSPARLCT - NO. Archive Log Suspensions
 .DWMY.E  DSPARLH  - Wait Trace Events Latch Contention
 .DWMY.E  DSPARREX - No. Array Var Expanded Beyond 32K
 .DWMY.E  DSPASLAT - Suspend Count - Latch Conflict
 .DWMY.E  DSPASLMT - Limit In SUs - ASUTIME
 .DWMY.E  DSPASOTH - Suspend Count - Other Conflict
 .DWMY.E  DSPATCNT - No. Autonomous Procedures Executed
 .DWMY.E  DSPATWAT - Autonomous Procedure Wait Time
 .DWMY.E  DSPAUNLK - Unlock Request Count
 .DWMY.E  DSPAWBTM - Wait Time - TCP/IP LOB Material
 .DWMY.E  DSPAWETM - Class 3 Accum Wait Service Task Time
 .DWMY.E  DSPAWGTM - Accum Wait Time Data Sharing Messages
 .DWMY.E  DSPAWJTM - Accum Wait Time Global Locks
 .DWMY.E  DSPAWLTM - Accum Wait Time - Latch Contention
 .DWMY.E  DSPAWRTM - Class 3 Accum Wait Read Other Time
 .DWMY.E  DSPAWWTM - Class 3 Accum Wait Write Other Time
 .DWMY.E  DSPBPNX  - Parallel Groups Run Cross Data Share
 .DWMY.E  DSPCIMW0 - No. of Immed. Sync Write I/O Buffer BP0
```

```
.DWMY.E  DSPCIMW1 - No. of Immed. Sync Write I/O Buffer BP1
.DWMY.E  DSPCIMW2 - No. of Immed. Sync Write I/O Buffer BP2
.DWMY.E  DSPCIMW3 - No. of Immed. Sync Write I/O Buffer BP3
.DWMY.E  DSPCLOSE - Close Statements
.DWMY.E  DSPCLRAB - NO. Log Record Bytes Written
.DWMY.E  DSPCLRN  - NO. Log Records Written
.DWMY.E  DSPCMTON - Comment On Statements
.DWMY.E  DSPCOMM2 - Commit Phase Two Invocations
.DWMY.   DSPCOST  - Processing Cost
.DWMY.E  DSPCPLK  - Change Requests For Physical Locks
.DWMY.E  DSPCPODB - CPU Time Only on a DB2 TCB
.DWMY.E  DSPCPUNI - Plan Instructions
.DWMY.   DSPCPUTM - Accumulated CPU Time
.DWMY.E  DSPCPUZ1 - Accum CPU Tm Used on z/OS Spec Eng
.DWMY.E  DSPCPUZ2 - CPU Tm Used in DB2 on z/OS Spec Eng
.DWMY.E  DSPCP1TM - Total CP Class 1 CPU Time
.DWMY.E  DSPCP2TM - Total CP Class 2 CPU Time
.DWMY.E  DSPCRAL  - CREATE ALIAS
.DWMY.E  DSPCRCTX - Create Trusted Context Statements
.DWMY.E  DSPCRDAB - Create Database Statements
.DWMY.E  DSPCREMP - Create Mask / Permission Statements
.DWMY.E  DSPCRINX - Create Index Statements
.DWMY.E  DSPCRROL - Create Role Statements
.DWMY.E  DSPCRSTG - Create Stogroup Statements
.DWMY.E  DSPCRSYN - Create Synonym Statements
.DWMY.E  DSPCRTAB - Create Table Statements
.DWMY.E  DSPCRTSV - Create Variable Statements
.DWMY.E  DSPCSLM  - Change Requests Propagated to XES
.DWMY.E  DSPCTABS - Create Tablespace Statements
.DWMY.E  DSPCWLD  - Times Duplicate Concentrate Dyna Stmnts
.DWMY.E  DSPCWLM  - Times Matched Concentrate Dyna Stmnts
.DWMY.E  DSPCWLP  - Times Parsed Concentrate Dyna Stmnts
.DWMY.E  DSPCWLR  - Times Replaced Concentrate Dyna Stmnts
.DWMY.E  DSPDEAD  - Deadlock Count
.DWMY.E  DSPDEFVU - Create View Statements
.DWMY.E  DSPDEGAT - No. Parallel Grps Back to Seq Mode
.DWMY.E  DSPDELET - Delete Statements
.DWMY.E  DSPDESC  - Describe Statements
.DWMY.E  DSPDGBUF - Parallel Groups to Seq Storage Short
.DWMY.E  DSPDGCUR - Parallel Groups to Seq Cursor Update
.DWMY.E  DSPDGESA - Parallel Groups to Seq No ESA Sort
.DWMY.E  DSPDGNGP - No. Parallel Grp Degenerated Sys Stress
.DWMY.E  DSPDRAL  - DROP ALIAS
.DWMY.E  DSPDRPDB - Drop Database Statements
.DWMY.E  DSPDRPIX - Drop Index Statements
.DWMY.E  DSPDRPKG - NO. DROP PACKAGE Statements
.DWMY.E  DSPDRPMP - Drop Mask / Permission Statements
.DWMY.E  DSPDRPRO - Drop Role Statements
.DWMY.E  DSPDRPST - Drop Stogroup Statements
```

```
.DWMY.E  DSPDRPSV - Drop Variable Statements
.DWMY.E  DSPDRPSY - Drop Synonym Statements
.DWMY.E  DSPDRPTA - Drop Table Statements
.DWMY.E  DSPDRPTS - Drop Tablespace Statements
.DWMY.E  DSPDRPTX - Drop Trusted Context Statements
.DWMY.E  DSPDRPVU - Drop View Statements
.DWMY.E  DSPDRTA  - Global requests Denied
.DWMY.E  DSPDSCRT - NO. DESCRIBE TABLE Statements
.DWMY.E  DSPEGENC - Parallel Groups Executed Sequential
.DWMY.E  DSPELGZP - Accumulated CPU Time zIIP-Eligible Work
.DWMY.E  DSPELPTM - Elapsed Time
.DWMY.E  DSPENTEX - NO. Entry/Exit events processed
.DWMY.E  DSPET2TM - Elapsed Time in DB2
.DWMY.E  DSPFETCH - Fetch Statements rel 2
.DWMY.E  DSPFLSE  - No. of False Contentions
.DWMY.E  DSPFRIDS - Times RID List Overflowed RID Storage
.DWMY.E  DSPFRIDT - Times RID List Overflowed RID Exceeded
.DWMY.E  DSPGPGR0 - GETPAGE Requests BP0
.DWMY.E  DSPGPGR1 - GETPAGE Requests BP1
.DWMY.E  DSPGPGR2 - GETPAGE Requests BP2
.DWMY.E  DSPGPGR3 - GETPAGE Requests BP3
.DWMY.E  DSPGRANT - Grant Statements
.DWMY.E  DSPIGLO  - Suspends Due to IRLM Global Contention
.DWMY.E  DSPINCRB - Incremental Binds
.DWMY.E  DSPINSRT - Insert Statements
.DWMY.E  DSPIOETM - DB2 Accumulated I/O Elapsed Wait Time
.DWMY.E  DSPISTOR - No. Sparse Index Disabled Insuf Stg
.DWMY.E  DSPIWF   - No. Sparse Index Built Phys WF Probe
.DWMY.E  DSPJINCS - Times RID List Append RID Storage
.DWMY.E  DSPJINCT - Times RID List Append RID Exceeded
.DWMY.E  DSPLABEL - Label Statements Rel 2
.DWMY.E  DSPLEEM  - NO. Lock Escalations to Exclusive mode
.DWMY.E  DSPLESM  - NO. Lock Escalations to shared mode
.DWMY.E  DSPLOCK  - Lock Table Statements
.DWMY.E  DSPLPF0  - No. List Prefetch Requested BP0
.DWMY.E  DSPLPF1  - No. List Prefetch Requested BP1
.DWMY.E  DSPLPF2  - No. List Prefetch Requested BP2
.DWMY.E  DSPLPF3  - No. List Prefetch Requested BP3
.DWMY.E  DSPLPLK  - Lock Requests For Physical Locks
.DWMY.E  DSPLSLM  - Lock Requests Propagated to XES
.DWMY.E  DSPMERGE - Merge Statements
.DWMY.E  DSPMIXNL - Mult Indx Not Used - RID Limit
.DWMY.E  DSPMIXNU - Mult Indx Not Used - No Storage
.DWMY.E  DSPMIXU  - Multiple Index Path Used
.DWMY.E  DSPMXPL  - Max. no. Page locks held
.DWMY.E  DSPNATHD - Count of ACCUMACC Roll-up Threads
.DWMY.E  DSPNOGRP - Parallel Groups Exec Planned Degree
.DWMY.E  DSPNTDEL - Normal Deallocation
.DWMY.E  DSPNTEND - Normal Application Ended
```

```
.DWMY.E  DSPNTEOT - Normal End of Task
.DWMY.E  DSPNTFY  - Notify Messages Sent
.DWMY.E  DSPNTHRD - Count Of Threads Initiated
.DWMY.E  DSPNTIFI - Normal IFI READS Request
.DWMY.E  DSPNTNUS - Normal New User
.DWMY.E  DSPNTSUS - Normal Same User Partial Signon
.DWMY.E  DSPOPEN  - Open Statements
.DWMY.E  DSPORNO  - Parallel Groups Executed Coordination
.DWMY.E  DSPORR   - Parallel Groups Executed Repeat-read
.DWMY.E  DSPPARQR - No. Parallel Query Rollup Records
.DWMY.E  DSPPCAGT - No. Parallel Child Agent Tasks Rolled
.DWMY.E  DSPPELPT - Parallel Subtasks Elapsed Time
.DWMY.E  DSPPET2T - Parallel Subtasks Elapsed Time in DB2
.DWMY.E  DSPPGDTT - Parallel GPS Using UDF - Ex. Single DB2
.DWMY.E  DSPPQSCT - No. Parallel Query WT Prnt/Chld Sync
.DWMY.E  DSPPQSWT - Parent Child Task Sync Wait Time
.DWMY.E  DSPPREP  - Prepare Statements
.DWMY.E  DSPPRFH0 - Prefetch Read Requests Buffer BP0
.DWMY.E  DSPPRFH1 - Prefetch Read Requests Buffer BP1
.DWMY.E  DSPPRFH2 - Prefetch Read Requests Buffer BP2
.DWMY.E  DSPPRFH3 - Prefetch Read Requests Buffer BP3
.DWMY.E  DSPPSTCT - Parallel Subtasks Count
.DWMY.E  DSPQUERY - Fetch and Select Statements
.DWMY.E  DSPRDGRP - Parallel Groups Reduced Storage Short
.DWMY.E  DSPRDLTD - Deleted Rows
.DWMY.E  DSPREDGP - No. Parallel Grp Reduced Sys Stress
.DWMY.E  DSPREVOK - Revoke Statements
.DWMY.E  DSPRFCHD - Fetched Rows
.DWMY.E  DSPRLFDP - Query Parallelism Disabled by RLF
.DWMY.   DSPRNIX  - Rename Index Statements
.DWMY.E  DSPRNKCL - No. Wait Trace Glbl Cont. Child LLock
.DWMY.E  DSPRNMOL - No. Wait Trace Glbl Cont. Other LLock
.DWMY.E  DSPRNNPL - No. Wait Trace Glbl Cont. PP PLock
.DWMY.E  DSPRNOPL - No. Wait Trace Glbl Cont. PG PLock
.DWMY.E  DSPRNQOL - No. Wait Trace Glbl Cont. Other PLock
.DWMY.E  DSPRNSTD - Inserted Rows
.DWMY.E  DSPRPOP1 - Parallel GPS Reformatted - Sysplx Conf
.DWMY.E  DSPRPOP2 - Parallel GPS Reformatted - Buffer Resrc
.DWMY.E  DSPRRAIC - Commit Specified for RRSAF Thread
.DWMY.E  DSPRUDTD - Updated Rows
.DWMY.E  DSPSCIMW - Total Immed. Sync Write I/Os Count
.DWMY.E  DSPSDG   - Total Unregister Pages Requests
.DWMY.E  DSPSDPF  - Total Dynamic Prefetch Requests
.DWMY.E  DSPSELCT - Select Statements Rel 2
.DWMY.E  DSPSETHV - NO. SET HOST-VAR Statements
.DWMY.E  DSPSEX   - Total Explicit XIs
.DWMY.E  DSPSGG   - Total GETPAGEs for GBP-Dep Pagesets
.DWMY.E  DSPSGLO  - Suspends Due to XES Global Contention
.DWMY.E  DSPSGPGR - Total GETPAGE Requests
```

```
.DWMY.E  DSPSHS   - Total Asynch IXLCACHE for Prim GBP
.DWMY.E  DSPSKIP  - Parallel Coordination Bypass DB2
.DWMY.E  DSPSLPF  - Total Times List Prefetch Requested
.DWMY.E  DSPSMD   - Total CF Reads Data Returned
.DWMY.E  DSPSMIAP - Times RID List Retrieval Skipped
.DWMY.E  DSPSMN   - Total CF Reads Data Not Ret No Entry
.DWMY.E  DSPSMR   - Total CF Reads Data Not Returned Entry
.DWMY.E  DSPSNGT  - Total Times GETPAGE Req Not Satisfied
.DWMY.E  DSPSPCTM - Accum CPU Time SQL Procedures Main Unit
.DWMY.E  DSPSPRFH - Total Times List Prefetch Requested
.DWMY.E  DSPSPRU0 - System Page Record Update BP0
.DWMY.E  DSPSPRU1 - System Page Record Update BP1
.DWMY.E  DSPSPRU2 - System Page Record Update BP2
.DWMY.E  DSPSPRU3 - System Page Record Update BP3
.DWMY.E  DSPSPZET - zIIP Stored Procedures Total Elapsed Tm
.DWMY.E  DSPSPZTM - CPU Tm Exec Strd Proc on z/OS Spec Eng
.DWMY.E  DSPSP1   - P-Lock Lock Requests-Space Map Pages1
.DWMY.E  DSPSP2   - P-Lock Lock Requests-Data Pages2
.DWMY.E  DSPSP3   - P-Lock Lock Requests-Index Leaf Pages3
.DWMY.E  DSPSQLID - NO. Of Set Current SQLID
.DWMY.E  DSPSRIO0 - Synchronous Read I/Os BP0
.DWMY.E  DSPSRIO1 - Synchronous Read I/Os BP1
.DWMY.E  DSPSRIO2 - Synchronous Read I/Os BP2
.DWMY.E  DSPSRIO3 - Synchronous Read I/Os BP3
.DWMY.E  DSPSSIO  - Total Async Pages Read by Prefetch
.DWMY.E  DSPSSPRU - Total System Page Record Update
.DWMY.E  DSPSSRIO - Total Synchronous Read I/Os
.DWMY.E  DSPSSW   - Total CF Writes For Changed Pages
.DWMY.E  DSPSS1   - P-Lock Lock Susp. - Space Map Pages 1
.DWMY.E  DSPSS2   - P-Lock Lock Suspensions - Data Pages 2
.DWMY.E  DSPSS3   - P-Lock Lock Susp. - Index Leaf Pages 3
.DWMY.E  DSPSUSP  - Suspend Count
.DWMY.E  DSPSU1   - P-Lock Unlock Requests1
.DWMY.E  DSPSWC   - Total CF Writes For Clean Pages
.DWMY.E  DSPSWM   - Total Write and Register Multiple Reqs
.DWMY.E  DSPSWS   - Total Write and Register Requests
.DWMY.E  DSPSXD   - Total CF Reads Buffer XI
.DWMY.E  DSPSXR   - Total CF Reads Entry Created
.DWMY.E  DSPS2H   - Total Asynch IXLCACHE for 2nd GBP
.DWMY.E  DSPS2S   - Total Comp Chks 4 Wrts 2nd GBP Suspend
.DWMY.E  DSPTCBTM - TCB Time
.DWMY.E  DSPTC2TM - Class 2 Accumulated TCB Time in DB2
.DWMY.E  DSPTELPT - Comprehensive Elapsed Time
.DWMY.E  DSPTET2T - Comprehensive Elapsed Time in DB2
.DWMY.E  DSPTHINA - DDF Thread Becomes Inactive
.DWMY.E  DSPTHIN2 - Type 2 Inactive Thread Becomes Inactive
.DWMY.E  DSPTIMO  - Timeout Count
.DWMY.E  DSPTOGRP - Parallel Groups Executed
.DWMY.E  DSPTRTBL - Truncate Table Statements
```

```
 .DWMY.E  DSPTRTZP - CPU Tm Exec Triggers on z/OS Spec Eng
 .DWMY.E  DSPTSQLE - Number of SQL Statements Executed
 .DWMY.E  DSPUDZTM - UDF Spec Eng Time
 .DWMY.E  DSPUPDTE - Update Statements
 .DWMY.E  DSPUPLK  - Unlock Requests For Physical Locks
 .DWMY.E  DSPUSLM  - Unlock Requests Propagated to XES
 .DWMY.E  DSPWATRB - Wt Trace for TCP/IP LOB Material
 .DWMY.E  DSPWATRG - NO. Wait Trace Events for Glbl. Lock
 .DWMY.E  DSPWATRL - NO. Wait Trace Events for Lock/Latch
 .DWMY.E  DSPWATRM - NO. Wait Trace Events for Data Shr Msgs
 .DWMY.E  DSPWATRR - NO. Wait Trace Events for Read Other
 .DWMY.E  DSPWATRW - NO. Wait Trace Events for Write Other
 .DWMY.E  DSPWATSE - NO. Wait Trace Events for Sync. Exec.
 .DWMY.E  DSPWATTR - NO. Wait Trace events processed
 .DWMY.E  DSPWGLTM - Glbl Contention PG P-Lock Wait Time
 .DWMY.E  DSPWLCTM - Glbl Contention Child L-Lock Wait Time
 .DWMY.E  DSPWLLTM - Glbl Contention Other L-Locks Wait Time
 .DWMY.E  DSPWLPTM - Glbl Contention PP P-Lock Wait Time
 .DWMY.E  DSPWTOTM - Glbl Contention Other P-Locks Wait Time
 .DWMY.E  DSPWUABD - Work In Doubt Abend
 .DWMY.E  DSPWUEOM - Work In Doubt End of Memory
 .DWMY.E  DSPWUFRC - Work In Doubt Force Command
 .DWMY.E  DSPWURIN - Work In Doubt Resolve Indoubt
 .DWMY.E  DSPXSODB - DB2 Only and Non zIIP-Eligible CPU Time
 .DWMY.E  DSPXSPTM - CPU Time Excluding Special CPU Time

Maximum Data Elements

 .DWMY.E  DSPAPREC - How Limit Was Determined
 .DWMY.E  DSPMALCT - Max Archive Log Suspensions
 .DWMY.E  DSPMCHG  - Max Change Lock Requests
 .DWMY.E  DSPMDEAD - Max Deadlocks
 .DWMY.E  DSPMELPT - Max Elapsed Time Acct. Class 1
 .DWMY.E  DSPMEL2T - Max Elapsed Time Acct. Class 2
 .DWMY.E  DSPMENTX - Max Entry/Exits
 .DWMY.E  DSPMGPG0 - Max BP0 GETPAGE Requests 0
 .DWMY.E  DSPMGPG1 - Max BP1 GETPAGE Requests 1
 .DWMY.E  DSPMGPG2 - Max BP2 GETPAGE Requests 2
 .DWMY.E  DSPMGPG3 - Max BP3 GETPAGE Requests 3
 .DWMY.E  DSPMIOTM - Max I/O Elapsed Wait Time in DB2
 .DWMY.E  DSPMIRLM - Max IRLM Lock Requests
 .DWMY.E  DSPMLEEM - Max Escalate to Exclusive Lock
 .DWMY.E  DSPMLESM - Max Escalate to Shared Lock
 .DWMY.E  DSPMLGTM - Max Class 3 Accum Wait Archive Log Time
 .DWMY.E  DSPMLLTM - Max Lock Latch Time Class 3
 .DWMY.E  DSPMLOCK - Max Lock Requests
 .DWMY.E  DSPMLPF0 - Max BP0 List Prefetch Read Requests 0
 .DWMY.E  DSPMLPF1 - Max BP1 List Prefetch Read Requests 1
 .DWMY.E  DSPMLPF2 - Max BP2 List Prefetch Read Requests 2
```

```
.DWMY.E  DSPMLPF3 - Max BP3 List Prefetch Read Requests 3
.DWMY.E  DSPMMXPL - Max Max Concur. Page Locks/Plan
.DWMY.E  DSPMPFR0 - Max BP0 Seq. Prefetch Read Requests 0
.DWMY.E  DSPMPFR1 - Max BP1 Seq. Prefetch Read Requests 1
.DWMY.E  DSPMPFR2 - Max BP2 Seq. Prefetch Read Requests 2
.DWMY.E  DSPMPFR3 - Max BP3 Seq. Prefetch Read Requests 3
.DWMY.E  DSPMQRY  - Max Query Requests
.DWMY.E  DSPMSDPF - Max Times Dynamic Prefetch Requested
.DWMY.E  DSPMSGPG - Max GETPAGE Requests
.DWMY.E  DSPMSLAT - Max Latch Suspends
.DWMY.E  DSPMSLPF - Max Times List Prefetch Requested
.DWMY.E  DSPMSNGT - Max Times GETPAGE Req Not Satisfied
.DWMY.E  DSPMSOTH - Max Other Suspends
.DWMY.E  DSPMSPFR - Max Prefetch Read Requests
.DWMY.E  DSPMSPU0 - Max BP0 System Pages Updated 0
.DWMY.E  DSPMSPU1 - Max BP1 System Pages Updated 1
.DWMY.E  DSPMSPU2 - Max BP2 System Pages Updated 2
.DWMY.E  DSPMSPU3 - Max BP3 System Pages Updated 3
.DWMY.E  DSPMSRD0 - Max BP0 Sync. Read I/O Requests 0
.DWMY.E  DSPMSRD1 - Max BP1 Sync. Read I/O Requests 1
.DWMY.E  DSPMSRD2 - Max BP2 Sync. Read I/O Requests 2
.DWMY.E  DSPMSRD3 - Max BP3 Sync. Read I/O Requests 3
.DWMY.E  DSPMSSIO - Max Async Pages Read by Prefetch
.DWMY.E  DSPMSSPU - Max System Page Record Update
.DWMY.E  DSPMSSRD - Max Synchronous Read I/Os
.DWMY.E  DSPMSSWR - Max Immediate Sync Write I/O
.DWMY.E  DSPMSUSP - Max Suspensions
.DWMY.E  DSPMSWR0 - Max BP0 Sync. Write I/O Requests 0
.DWMY.E  DSPMSWR1 - Max BP1 Sync. Write I/O Requests 1
.DWMY.E  DSPMSWR2 - Max BP2 Sync. Write I/O Requests 2
.DWMY.E  DSPMSWR3 - Max BP3 Sync. Write I/O Requests 3
.DWMY.E  DSPMTCBT - Max TCB Time Acct. Class 1
.DWMY.E  DSPMTC2T - Max TCB Time Acct. Class 2
.DWMY.E  DSPMTIMO - Max Timeouts
.DWMY.E  DSPMWATR - Max Wait Trace Events / Plan
.DWMY.E  DSPMWETM - Max Class 3 Accum Wait Serv. Task Time
.DWMY.E  DSPMWRTM - Max Class 3 Accum Wait Read Other Time
.DWMY.   DSPMWTRL - Max Wait Trace Events for Lock/Latch
.DWMY.   DSPMWTRR - Max Wait Trace Events for Read Other
.DWMY.   DSPMWTRW - Max Wait Trace Events for Write Other
.DWMY.   DSPMWTSE - Max Wait Trace Events for Sync. Exec.
.DWMY.E  DSPMWWTM - Max Class 3 Accum Wait Write Other Time
.DWMY.E  DSPMXDEG - Max Degree of Parallelism
.DWMY.E  DSPMXEST - Max Parallel Grp Estimated Degree
.DWMY.E  DSPMXPLN - Max Parallel Grp Planned Degree
.DWMY.E  DSPMXXST - Max CPU Time Excluding Special CPU Time
.DWMY.E  DSPMXZET - Max CPU Time zIIP-Eligible Work
.DWMY.E  DSPMXZP1 - Max CPU Tm Used on z/OS Spec Eng
.DWMY.E  DSPMXZP2 - Max CPU Tm Used in DB2 on z/OS Spec Eng
```

```
 .DWMY.E  DSPMXZTT - Max CPU Tm Exec Trgrs on z/OS Spec Eng
 .DWMY.E  DSPPROPT - Max Parallel Grp Degenerated Opt

Derived Data Elements

 .DWMY.E  DSPPCWDP - Duplicate Per Parsed Dyna Stmnts
 .DWMY.E  DSPPCWMP - Matched Per Parsed Dyna Stmnts
 .DWMY.E  DSPPCWRP - Replaced Per Parsed Dyna Stmnts
```

5.2.4.3 Usage Considerations

This section identifies any special considerations or techniques related to using the DB2DSP file. Additionally, several retrieval examples are provided to facilitate the use of this file.

The examples use a SAS macro to specify the DD name part of the CA MICS file name. These macros are a standard part of CA MICS and are available for all files. The macro name has the form _iiit, where "iii" is the information area name and "t" is the timespan. In addition, many of the examples use the _fffSUM macro, where "fff" is the file identifier, to summarize the data as indicated by the _BY and _BREAK macro definitions.

Special Considerations/Techniques

- Be careful when using the special date and time data elements contained in each CA MICS file. As the file's granularity increases in higher timespans, certain fields lose significance and should not be referenced.

  - HOUR should not be used in MONTHS and YEARS.
  - DAY and DAYNAME should not be used in WEEKS, MONTHS, or YEARS.
  - WEEK should not be used in MONTHS or YEARS.
  - MONTH should not be used in YEARS.

- The data elements STARTTS and ENDTS have different meanings when used in the DETAIL timespan versus their meaning in the DAYS, WEEKS, MONTHS, and YEARS timespans. The ENDTS and STARTTS, when appearing in the DAYS, WEEKS, MONTHS, and YEARS timespans, indicate the span of time over which the data has been summarized. STARTTS indicates the lowest date and time, and ENDTS indicates the greatest date and time for the summarized data.

Retrieval Examples

- Example 1: List all PLANs used yesterday and give the user ID that invoked it.

```
DATA TEST1;
SET _DB2D.DB2DSP01
    ;
YESTRDY=DATE()-1;
IF DATEPART(ENDTS)=YESTRDY;
MACRO _BY DSPPLAN DB2AUTH %
MACRO _BREAK DB2AUTH %
```

```
PROC SORT DATA=TEST1 OUT=TEST1; BY _BY;
DATA TEST1;
SET TEST1;
_DSPSUM;
PROC PRINT DATA=TEST1; BY DSPPLAN;
VAR PLNAUTH;
TITLE YESTERDAYS USERS BY DB2 PLAN;
```

o Example 2: Print the TCB time for each plan used last month.

```
DATA TEST2;
SET _DB2M.DB2DSP01;
IF DSPTCBTM>0 ;
MACRO _BY DSPPLAN %
MACRO _BREAK DSPPLAN %
PROC SORT DATA=TEST2 OUT=TEST2; BY _BY;
DATA TEST2;
SET TEST2;
_DSPSUM;
PROC PRINT DATA=TEST2;
VAR PLNPLAN DSPTCBTM ;
TITLE TCB TIME BY PLAN;
```

5.2.5 DB2 System DDF Statistics (DB2DDY) File

FILENAME=DB2DDYxx

The DB2 System DDF Statistics file maintains DB2 system DDF activity data including location, transactions, commits, bytes sent and SQL statements sent. This file is derived from the SMF DB2 record type 100 subtype 0. This file exists in the DETAIL, DAYS, WEEKS, MONTHS, and YEARS timespans.

The following three sections describe the file's organization, list the data elements maintained, and provide usage hints:

1 - File Organization
2 - Data Element List
3 - Usage Considerations

5.2.5.1 File Organization

The table below identifies data elements by which the file is sequenced and summarized in each timespan. "N/A" indicates that the file is not supported in a timespan. At the DETAIL level, data is sequenced but not summarized.

NOTE: The timespans in which a file is supported are defined by each installation when CA MICS is installed. Therefore, this table has been generated as part of the installation process to accurately reflect the CA MICS system at your installation.

Timespan	Level of Data Granularity				
DETAIL	SYSID	DB2ID	DB2THDTY	DB2RLOCN	YEAR
	MONTH	DAY	HOUR	ENDTS	
DAYS	SYSID	DB2ID	DB2THDTY	DB2RLOCN	YEAR
	MONTH	DAY	HOUR		
WEEKS	SYSID	DB2ID	DB2THDTY	DB2RLOCN	YEAR
	WEEK	HOUR	ZONE		
MONTHS	SYSID	DB2ID	DB2THDTY	DB2RLOCN	YEAR
	MONTH	ZONE			
YEARS	SYSID	DB2ID	DB2THDTY	DB2RLOCN	YEAR
	ZONE				
TABLES	N/A				

Generation Date: Tue, May 12, 2009

NOTE: This file was generated with ESSENTIAL=ALL option in effect. All data elements defined in the file are generated.

NOTE: This file was generated with DERIVED=DEFault option in effect. Whether data elements are kept on the file on auxiliary storage or not is controlled by the complex definition of the DERIVED option.

Figure 5-5. DB2DDY Timespan Granularity Chart

5.2.5.2 Data Element List

The table below identifies data elements contained in this file. The entries for each data element are as follows:

TIMESPAN: Defines the timespans in which the data element is supported. A "." indicates that the data element is not supported. The timespans in which the data element is supported are indicated by the letters "XDWMYT," which represent the timespans as follows:

X - DETAIL
D - DAYS
W - WEEKS
M - MONTHS
Y - YEARS
T - TABLES AREA

DATA ELEMENT: The data element name.

DATA ELEMENT DESCRIPTION: The long name of the data element.

Note: The timespans in which a data element is supported are defined by each site when CA MICS is installed. Therefore, this table has been generated as part of the installation process to reflect the CA MICS system at your site.

GENERATION DATE: Tue, May 12, 2009

Note: Essential data elements are identified by an "E" under the Timespan asterisk (*) column.

Time-Span *	Data Element	Data Element Description (LABEL)

Sequence/Summary Data Elements

XD....E	DAY	- Day of Month
XDWMY.E	DB2ID	- DB2 ID
XDWMY.E	DB2RLOCN	- DDF Remote Location ID
XDWMY.E	DB2THDTY	- DB2 Thread Type
XDW...E	HOUR	- Hour of Day
XDWM..E	MONTH	- Month of Year
XDWMY.E	SYSID	- System Identifier
XDW...E	WEEK	- Week of Year
XDWMY.E	YEAR	- Year of Century
XDWMY.E	ZONE	- Time Zone

```
Common Data Elements

 XD....E  DAYNAME  - Name of Day of Week
 X.....   DB2ACE   - DB2 Agent Control Element
 X.....   DB2ATNM  - Active Trace Number Mask
 XDWMY.E  DB2DSGN  - Data Sharing Group Name
 X.....   DB2DSTSN - Destination Sequence Number
 X.....E  DB2ISEQ  - Instrumentation Sequence Number
 XDWMY.E  DB2LOCN  - DB2 Local Location ID
 XDWMY.E  DB2MEMN  - DB2 Member Name
 XDWMY.E  DB2MLVL  - MICS DB2 Maintenance Level
 X.....E  DB2RELN  - DB2 Release Number
 X.....   DB2STCK  - DB2 Store Clock At End Event
 XDWMY.E  DURATION - Recording Interval Time
 XDWMY.E  ENDTS    - End Time Stamp
 XDWMY.E  MICSVER  - CA MICS Version Number
 XDWMY.E  STARTTS  - Start Time Stamp

Accumulated Data Elements

 XDWMY.E  DDYABRR  - DDF Abort Reqs Recvd From Remote
 XDWMY.E  DDYABRS  - DDF Abort Reqs Sent To Remote
 XDWMY.E  DDYBRBF  - DDF Blk Recv Using Blk Fetch
 XDWMY.E  DDYBROW  - DDF Rows In Buf for Blk Fetch
 XDWMY.E  DDYBTBF  - DDF Blk Sent Using Blk Fetch
 XDWMY.E  DDYBYTR  - DDF Bytes Recvd From Remote
 XDWMY.E  DDYBYTS  - DDF Bytes Sent To Remote
 XDWMY.E  DDYCBLB  - DDF Switch Cont To Limited
 XDWMY.E  DDYCNVQ  - DDF Conv Req Queued Waiting Alloc
 XDWMY.E  DDYCNVR  - DDF Convs Recvd From Remote
 XDWMY.E  DDYCNVS  - DDF Convs Sent To Remote
 XDWMY.E  DDYCOMR  - DDF COMMIT Reqs Recvd From Remote
 XDWMY.E  DDYCOMS  - DDF COMMIT Reqs Sent To Remote
 XDWMY.E  DDYMSGR  - DDF Messages Recvd From Remote
 XDWMY.E  DDYMSGS  - DDF Messages Sent To Remote
 XDWMY.E  DDYNTHRD - DDF SMF 100 QLST Segment Count
 XDWMY.E  DDYRBND  - DDF SQL Bound for Remote
 XDWMY.E  DDYROWR  - DDF Rows  Recvd From Remote
 XDWMY.E  DDYROWS  - DDF Rows  Sent To Remote
 XDWMY.E  DDYSQLR  - DDF SQL Stmts Recvd From Remote
 XDWMY.E  DDYSQLS  - DDF SQL Stmts Sent To Remote
 XDWMY.E  DDYTRNR  - DDF Trans Recvd From Remote
 XDWMY.E  DDYTRNS  - DDF Trans Sent To Remote

Maximum Data Elements

 XDWMY.E  DDYMABRR - Max DDF Abort Req Recvd From Remote
 XDWMY.E  DDYMABRS - Max DDF Abort Req Sent To Remote
```

```
XDWMY.E  DDYMBRBF - Max DDF Blk Recv Using Blk Fetch
XDWMY.E  DDYMBROW - Max DDF Rows In Buf for Blk Fetch
XDWMY.E  DDYMBTBF - Max DDF Blk Sent Using Blk Fetch
XDWMY.E  DDYMBYTR - Max DDF Bytes Recvd From Remote
XDWMY.E  DDYMBYTS - Max DDF Bytes Sent To Remote
XDWMY.E  DDYMCBLB - Max DDF Switch Cont To Limited
XDWMY.E  DDYMCNVQ - Max DDF Conversations Queued
XDWMY.E  DDYMCNVR - Max DDF Convers Recvd From Remote
XDWMY.E  DDYMCNVS - Max DDF Convers Sent to Remote
XDWMY.E  DDYMCOMR - Max DDF Commit Req Recvd From Remote
XDWMY.E  DDYMCOMS - Max DDF Commit Req Sent To Remote
XDWMY.E  DDYMMSGR - Max DDF Messages Recvd From Remote
XDWMY.E  DDYMMSGS - Max DDF Messages Sent To Remote
XDWMY.E  DDYMRBND - Max DDF SQL Bound for Remote
XDWMY.E  DDYMROWR - Max DDF Data Rows Recvd From Remote
XDWMY.E  DDYMROWS - Max DDF Data Rows Sent to Remote
XDWMY.E  DDYMSQLR - Max DDF SQL Stmts Recvd From Remote
XDWMY.E  DDYMSQLS - Max DDF SQL Stmts Sent to Remote
XDWMY.E  DDYMTRNR - Max DDF Trans Recvd From Remote
XDWMY.E  DDYMTRNS - Max DDF Trans Sent To Remote
```

5.2.5.3 Usage Considerations

This section identifies any special considerations or techniques related to using the DB2DDY file. Additionally, we provide several retrieval examples to facilitate the use of this file.

In the examples, we use a SAS macro to specify the DD name part of the CA MICS file name. These macros are a standard part of CA MICS and are available for all files. The macro name has the form _iiit, where "iii" is the information area name and "t" is the timespan. In addition, many of the examples use the _fffSUM macro, where "fff" is the file identifier, to summarize the data as indicated by the &BY and &BREAK macro variables.

Special Considerations/Techniques

- Exercise care when using the special date and time data elements contained in each CA MICS file. As the file's granularity increases in higher timespans, certain fields lose significance and should not be referenced.

  - HOUR should not be used in MONTHS and YEARS.
  - DAY and DAYNAME should not be used in WEEKS, MONTHS, or YEARS.
  - WEEK should not be used in MONTHS or YEARS.
  - MONTH should not be used in YEARS.

- The data elements STARTTS and ENDTS have different meanings when used in the DETAIL timespan as opposed to their meaning in the DAYS, WEEKS, MONTHS, and YEARS timespans. The ENDTS and STARTTS, when appearing in the DAYS, WEEKS, MONTHS, and YEARS timespans, indicate the span of time over which the data has been summarized with STARTTS indicating the lowest date and time and ENDTS indicating the greatest date and time for the summarized data.

Retrieval Examples

- Example 1: List DDF activity for yesterday by DB2 subsystem id.

```
DATA TEST1;
SET &DB2D.DB2DDY01
    ;
YESTRDY=DATE()-1;
IF DATEPART(ENDTS)=YESTRDY;
```

```
RUN;

%LET BY = SYSID DB2ID;
%LET BREAK = DB2ID ;
PROC SORT DATA=TEST1 OUT=TEST1; BY &BY; RUN;

DATA TEST1;
SET TEST1;
%DDYSUM;

PROC PRINT DATA=TEST1; BY DB2ID;
VAR DB2 ID DDYBYTS DDYBYTR DDYCNVS DDYCNVR;
TITLE YESTERDAYS DDF ACTIVITY BY DB2 SUBSYSTEM ID; RUN;
```

o Example 2: Print the maximum bytes transmitted for any DB2 system processing a DDF request for last month.

```
DATA TEST2;
SET &DB2M.DB2DDY01;
IF DDYMBYTS>0 OR DDYMBYTR>0;

%LET BY = SYSID DB2ID;
%LET BREAK =  DB2ID;

PROC SORT DATA=TEST2 OUT=TEST2; BY _BY;

DATA TEST2;
SET TEST2;
%DDYSUM;

PROC PRINT DATA=TEST2;
VAR DB2ID DDYMBYTS DDYMBYTR;
TITLE MAXIMUM BYTES SENT/RECEIVED BY DB2 DDF SUBSYSTEM;
```

5.2.6 DB2 User DDF Activity (DB2DDU) File

FILENAME=DB2DDUxx

The DB2 User DDF Activity file maintains DB2 DDF Accounting data, including remote location, SQL statements sent/received, and bytes sent/received. This file is derived from the SMF DB2 record type 101. This file exists in the DAYS, WEEKS, MONTHS, and YEARS timespans.

The following three sections describe the file's organization, list the data elements maintained, and provide usage hints:

1 - File Organization
2 - Data Element List
3 - Usage Considerations

5.2.6.1 File Organization

The table below identifies data elements by which the file is sequenced and summarized in each timespan. "N/A" indicates that the file is not supported in a timespan.

NOTE: The timespans in which a file is supported are defined by each installation when CA MICS is installed. Therefore, this table has been generated as part of the installation process to accurately reflect the CA MICS system at your installation.

Timespan	Level of Data Granularity				
DETAIL	SYSID	DB2ID	DB2ACT1	DB2ACT2	DB2ACT3
	DB2ACT4	YEAR	MONTH	DAY	HOUR
	ENDTS				
DAYS	SYSID	DB2ID	DB2ACT1	DB2ACT2	DB2ACT3
	DB2ACT4	YEAR	MONTH	DAY	HOUR
WEEKS	SYSID	DB2ID	DB2ACT1	DB2ACT2	DB2ACT3
	DB2ACT4	YEAR	WEEK	ZONE	HOUR
MONTHS	SYSID	DB2ID	DB2ACT1	DB2ACT2	DB2ACT3
	DB2ACT4	YEAR	MONTH	ZONE	
YEARS	SYSID	DB2ID	DB2ACT1	DB2ACT2	DB2ACT3
	DB2ACT4	YEAR	ZONE		
TABLES	N/A				

Generation Date: Thu, Oct 25, 2012

NOTE: This file was generated with ESSENTIAL=ALL option in effect. All data elements defined in the file are generated.

NOTE: This file was generated with DERIVED=DEFault option in effect. Whether data elements are kept on the file on auxiliary storage or not is controlled by the complex definition of the DERIVED option.

Figure 5-6. DB2DDU Timespan Granularity Chart

5.2.6.2 Data Element List

The table below identifies data elements contained in this file. The entries for each data element are as follows:

TIMESPAN: Defines the timespans in which the data element is supported. A "." indicates that the data element is not supported. The timespans in which the data element is supported are indicated by the letters "XDWMYT," which represent the timespans as follows:

X - DETAIL
D - DAYS
W - WEEKS
M - MONTHS
Y - YEARS
T - TABLES AREA

DATA ELEMENT: The data element name.

DATA ELEMENT DESCRIPTION: The long name of the data element.

Note: The timespans in which a data element is supported are defined by each site when CA MICS is installed. Therefore, this table has been generated as part of the installation process to reflect the CA MICS system at your site.

Note: Essential data elements are identified by an "E" under the Timespan asterisk (*) column.

Time-Span *	Data Element	Data Element Description (LABEL)

Sequence/Summary Data Elements

.D....E	DAY	- Day of Month
.DWMY.E	DB2ACT1	- AUTHORIZATION ID
......E	DB2ACT2	- CORRELATION ID
.DWMY.E	DB2ACT3	- CONNECTION ID
.DWMY.E	DB2ACT4	- DISTRIBUTED THREAD TYPE
.DWMY.E	DB2ID	- DB2 ID
.DWMY.E	DB2RLOCN	- DDF Remote Location ID
.DWMY.E	DB2THDTY	- DB2 Thread Type
.DW...E	HOUR	- Hour of Day
.DWM..E	MONTH	- Month of Year
.DWMY.E	SYSID	- System Identifier
.DW...E	WEEK	- Week of Year
.DWMY.E	YEAR	- Year of Century

```
 .DWMY.E  ZONE     - Time Zone

Common Data Elements

 .D....E  DAYNAME  - Name of Day of Week
 ......E  DB2ACE   - DB2 Agent Control Element
 ......E  DB2ATNM  - Active Trace Number Mask
 .DWMY.E  DB2AUTH  - Authorization Identifier
 .DWMY.E  DB2CONN  - Connection Identifier
 .DWMY.E  DB2CORR  - Correlation Identifier
 .DWMY.E  DB2DDFCT - DDF DB2 Commits Received from Remote
 .DWMY.E  DB2DSGN  - Data Sharing Group Name
 ......E  DB2DSTSN - Destination Sequence Number
 ......E  DB2ISEQ  - Instrumentation Sequence Number
 .DWMY.E  DB2LOCN  - DB2 Local Location ID
 .DWMY.   DB2LUNAM - Logical Unit NAME
 .DWMY.E  DB2MEMN  - DB2 Member Name
 .DWMY.E  DB2MLVL  - MICS DB2 Maintenance Level
 .DWMY.   DB2NETID - Network ID
 ......E  DB2OPID  - Original Operator ID
 ......E  DB2PLAN  - Plan Name
 ......E  DB2RELN  - DB2 Release Number
 .DWMY.E  DB2REQID - DB2 Requestor Location ID
 ......E  DB2STCK  - DB2 Store Clock At End Event
 ......   DB2UNIQ  - DB2 Instance Number
 .DWMY.E  ENDTS    - End Time Stamp
 .DWMY.E  MICSVER  - CA MICS Version Number
 .DWMY.E  STARTTS  - Start Time Stamp

Retained Data Elements

 .DWMY.E  DDUFLGS  - DDF Type of Protocol
 .DWM..E  DDUPRID  - DDF Product ID of Remote Location
 .DWM..E  DDUPRIDR - DDF Product ID of Remote Location
 .DWMY.E  DDURUQL  - DDF Roll Up Flag
 .DWMY.E  DDUSRQL  - DDF Summary Roll Up Flag
Accumulated Data Elements

 .DWMY.E  DDUABRR  - DDF Abort Reqs Recvd From Remote
 .DWMY.E  DDUABRS  - DDF Abort Reqs Sent To Remote
 .DWMY.E  DDUBRBF  - DDF Received Blocks - Block Fetch
 .DWMY.E  DDUBROW  - DDF Rows in Buffer - Block Fetch
 .DWMY.E  DDUBTBF  - DDF Transmit Blocks - Block Fetch
 .DWMY.E  DDUBYTR  - DDF Bytes Recvd From Remote
 .DWMY.E  DDUBYTS  - DDF Bytes Sent To Remote
 .DWMY.E  DDUCBLB  - DDF Switch Continuous to Limited
 .DWMY.E  DDUCIEL  - DDF Max. Conversations Open
 .DWMY.E  DDUCNVA  - DDF Successful Conversations
 .DWMY.E  DDUCNVQ  - DDF Conv Req Queued Waiting Alloc
```

```
.DWMY.E  DDUCNVR  - DDF Convs Recvd From Remote
.DWMY.E  DDUCNVS  - DDF Convs Sent To Remote
.DWMY.E  DDUCNVT  - DDF Conversations Terminated
.DWMY.E  DDUCOMR  - DDF COMMIT Reqs Recvd From Remote
.DWMY.E  DDUCOMS  - DDF COMMIT Reqs Sent To Remote
.DWMY.E  DDUCPUR  - DDF DBAT CPU Reported To Requestor
.DWMY.E  DDUELPL  - DDF Local Elapsed Time
.DWMY.E  DDUELPR  - DDF Remote Elapsed Time
.DWMY.E  DDUMDWTM - DDF Wat Tm DB Agent Due Max DBATs
.DWMY.E  DDUMSGR  - DDF Messages Recvd From Remote
.DWMY.E  DDUMSGS  - DDF Messages Sent To Remote
.DWMY.E  DDUNTHRD - DDF SMF 101 QLAC Segment Count
.DWMY.E  DDURBND  - DDF Bound SQL for Remote
.DWMY.E  DDUROWR  - DDF Rows  Recvd From Remote
.DWMY.E  DDUROWS  - DDF Rows  Sent To Remote
.DWMY.E  DDUSQLR  - DDF SQL Stmts Recvd From Remote
.DWMY.E  DDUSQLS  - DDF SQL Stmts Sent To Remote
.DWMY.E  DDUTRNR  - DDF Trans Recvd From Remote
.DWMY.E  DDUTRNS  - DDF Trans Sent To Remote

Maximum Data Elements

.DWMY.E  DDUMABRR - Max DDF Aborts Received
.DWMY.E  DDUMABRS - Max DDF Aborts Sent
.DWMY.E  DDUMBRBF - Max DDF Received Blocks - Block Fetch
.DWMY.E  DDUMBROW - Max DDF Rows in Buffer - Block Fetch
.DWMY.E  DDUMBTBF - Max DDF Transmit Blocks - Block Fetch
.DWMY.E  DDUMBYTR - Max DDF Bytes Received
.DWMY.E  DDUMBYTS - Max DDF Bytes Sent
.DWMY.E  DDUMCBLB - Max DDF Switch Continuous to Limited
.DWMY.E  DDUMCIEL - Max DDF Conversations Open
.DWMY.E  DDUMCNVA - Max DDF Successful Conversations
.DWMY.E  DDUMCNVQ - Max DDF Conversations Queued
.DWMY.E  DDUMCNVR - Max DDF Conversations Received
.DWMY.E  DDUMCNVS - Max DDF Requestor Conversations
.DWMY.E  DDUMCNVT - Max DDF Conversations Terminated
.DWMY.E  DDUMCOMR - Max DDF Commits Received
.DWMY.E  DDUMCOMS - Max DDF Commits Sent
.DWMY.E  DDUMCPUR - Max DDF DBAT CPU Reported To Requestor
.DWMY.E  DDUMELPL - Max DDF Local Elapsed Time
.DWMY.E  DDUMELPR - Max DDF Remote Elapsed Time
.DWMY.E  DDUMMSGR - Max DDF Messages Received
.DWMY.E  DDUMMSGS - Max DDF Messages Sent
.DWMY.E  DDUMRBND - Max DDF Bound SQL for Remote
.DWMY.E  DDUMROWR - Max DDF Rows Received
.DWMY.E  DDUMROWS - Max DDF Rows Sent
.DWMY.E  DDUMSQLR - Max DDF SQL Stmts Received

.DWMY.E  DDUMSQLS - Max DDF SQL Stmts Sent
```

5.2.6.3 Usage Considerations

This section identifies any special considerations or techniques related to using the DB2DDU file. Additionally, we provide several retrieval examples to facilitate the use of this file.

In the examples, we use a SAS macro to specify the DD name part of the CA MICS file name. These macros are a standard part of CA MICS and are available for all files. The macro name has the form _iiit, where "iii" is the information area name and "t" is the timespan. In addition, many of the examples use the _fffSUM macro, where "fff" is the file identifier, to summarize the data as indicated by the &BY and &BREAK macro variables.

Special Considerations/Techniques

- Exercise care when using the special date and time data elements contained in each CA MICS file. As the file's granularity increases in higher timespans, certain fields lose significance and should not be referenced.

  - HOUR should not be used in MONTHS and YEARS.
  - DAY and DAYNAME should not be used in WEEKS, MONTHS, or YEARS.
  - WEEK should not be used in MONTHS or YEARS.
  - MONTH should not be used in YEARS.

- The data elements STARTTS and ENDTS have different meanings when used in the DETAIL timespan versus their meaning in the DAYS, WEEKS, MONTHS, and YEARS timespans. The ENDTS and STARTTS, when appearing in the DAYS, WEEKS, MONTHS, and YEARS timespans, indicate the span of time over which the data has been summarized with STARTTS indicating the lowest date and time and ENDTS indicating the greatest date and time for the summarized data.

Retrieval Examples

- Example 1: List DDF activity for yesterday by DB2 user.

```
DATA TEST1;
SET &DB2D.DB2DDU01
    ;
YESTRDY=DATE()-1;
IF DATEPART(ENDTS)=YESTRDY;
RUN;
```

```
%LET BY = DB2AUTH;
%LET BREAK = DB2AUTH;
PROC SORT DATA=TEST1 OUT=TEST1; BY &BY; RUN;

DATA TEST1;
SET TEST1;
%DDUSUM;

PROC PRINT DATA=TEST1; BY DB2ID;
VAR DB2AUTH DDUBYTS DDUBYTR DDUCNVS DDUCNVR;
TITLE YESTERDAYS DDF ACTIVITY BY DB2 USER; RUN;
```

o Example 2: Print the maximum bytes transmitted for any DB2 user requesting DDF access.

```
DATA TEST2;
SET &DB2M.DB2DDU01;
IF DDUMBYTS>0 OR DDUMBYTR>0;

%LET BY = DB2AUTH;
%LET BREAK =  DB2AUTH;

PROC SORT DATA=TEST2 OUT=TEST2; BY _BY;

DATA TEST2;
SET TEST2;
%DDUSUM;

PROC PRINT DATA=TEST2;
VAR DB2AUTH DDUMBYTS DDUMBYTR;
TITLE MAXIMUM BYTES SENT/RECEIVED BY DB2 USER;
```

5.2.7 DB2 Plan DDF Activity (DB2DDP) File

FILENAME=DB2DDPxx

The DB2 Plan DDF Activity file maintains the same DB2 Accounting data as the DB2DDU file but organizes it by DB2 Plan (application). This file is derived from the SMF DB2 record type 101. This file exists in the DAYS, WEEKS, MONTHS, and YEARS timespans.

The following three sections describe the file's organization, list the data elements maintained, and provide usage hints:

1 - File Organization
2 - Data Element List
3 - Usage Considerations

5.2.7.1 File Organization

The table below identifies data elements by which the file is sequenced and summarized in each timespan. "N/A" indicates that the file is not supported in a timespan.

NOTE: The timespans in which a file is supported are defined by each installation when CA MICS is installed. Therefore, this table has been generated as part of the installation process to accurately reflect the CA MICS system at your installation.

Timespan	Level of Data Granularity				
DETAIL	N/A				
DAYS	SYSID	DB2ID	DB2PLAN	DB2CONN	DB2THDTY
	DB2RLOCN	YEAR	MONTH	DAY	HOUR
WEEKS	SYSID	DB2ID	DB2PLAN	DB2CONN	DB2THDTY
	DB2RLOCN	YEAR	WEEK	HOUR	ZONE
MONTHS	SYSID	DB2ID	DB2PLAN	DB2CONN	DB2THDTY
	DB2RLOCN	YEAR	MONTH	ZONE	
YEARS	SYSID	DB2ID	DB2PLAN	DB2CONN	DB2THDTY
	DB2RLOCN	YEAR	ZONE		
TABLES	N/A				

Generation Date: Tue, May 12, 2009

NOTE: This file was generated with ESSENTIAL=ALL option in effect. All data elements defined in the file are generated.

NOTE: This file was generated with DERIVED=DEFault option in effect. Whether data elements are kept on the file on auxiliary storage or not is controlled by the complex definition of the DERIVED option.

Figure 5-7. DB2DDP Timespan Granularity Chart

5.2.7.2 Data Element List

The table below identifies data elements contained in this file. The entries for each data element are as follows:

TIMESPAN: Defines the timespans in which the data element is supported. A "." indicates that the data element is not supported. The timespans in which the data element is supported are indicated by the letters "XDWMYT," which represent the timespans as follows:

X - DETAIL
D - DAYS
W - WEEKS
M - MONTHS
Y - YEARS
T - TABLES AREA

DATA ELEMENT: The data element name.

DATA ELEMENT DESCRIPTION: The long name of the data element.

Note: The timespans in which a data element is supported are defined by each site when CA MICS is installed. Therefore, this table has been generated as part of the installation process to reflect the CA MICS system at your site.

Note: Essential data elements are identified by an "E" under the Timespan asterisk (*) column.

Time-Span *	Data Element	Data Element Description (LABEL)

Sequence/Summary Data Elements

.D....E	DAY	- Day of Month
.DWMY.E	DB2CONN	- Connection Identifier
.DWMY.E	DB2ID	- DB2 ID
.DWMY.E	DB2PLAN	- Plan Name
.DWMY.E	DB2RLOCN	- DDF Remote Location ID
.DWMY.E	DB2THDTY	- DB2 Thread Type
.DW...E	HOUR	- Hour of Day
.DWM..E	MONTH	- Month of Year
.DWMY.E	SYSID	- System Identifier
.DW...E	WEEK	- Week of Year
.DWMY.E	YEAR	- Year of Century
.DWMY.E	ZONE	- Time Zone

```
Common Data Elements

 .D....E  DAYNAME  - Name of Day of Week
 ......   DB2ACE   - DB2 Agent Control Element
 ......   DB2ATNM  - Active Trace Number Mask
 ......   DB2AUTH  - Authorization Identifier
 ......   DB2CORR  - Correlation Identifier
 .DWMY.E  DB2DDFCT - DDF DB2 Commits Received from Remote
 .DWMY.E  DB2DSGN  - Data Sharing Group Name
 ......   DB2DSTSN - Destination Sequence Number
 ......   DB2ISEQ  - Instrumentation Sequence Number
 .DWMY.   DB2LOCN  - DB2 Local Location ID
 .DWMY.   DB2LUNAM - Logical Unit NAME
 .DWMY.E  DB2MEMN  - DB2 Member Name
 .DWMY.E  DB2MLVL  - MICS DB2 Maintenance Level
 .DWMY.   DB2NETID - Network ID
 ......   DB2OPID  - Original Operator ID
 ......E  DB2RELN  - DB2 Release Number
 .DWMY.   DB2REQID - DB2 Requestor Location ID
 ......   DB2STCK  - DB2 Store Clock At End Event
 ......   DB2UNIQ  - DB2 Instance Number
 .DWMY.E  ENDTS    - End Time Stamp
 .DWMY.E  MICSVER  - CA MICS Version Number
 .DWMY.E  STARTTS  - Start Time Stamp

Retained Data Elements

 .DWM..E  DDPPRID  - DDF Product ID of Remote Location
 .DWM..E  DDPPRIDR - DDF Product ID of Remote Location
 .DWMY.E  DDPRUQL  - DDF Roll Up Flag
 .DWMY.E  DDPSRQL  - DDF Summary Roll Up Flag

Accumulated Data Elements

 .DWMY.E  DDPABRR  - DDF Abort Reqs Recvd From Remote
 .DWMY.E  DDPABRS  - DDF Abort Reqs Sent To Remote
 .DWMY.E  DDPBRBF  - DDF Received Blocks - Block Fetch
 .DWMY.E  DDPBROW  - DDF Rows in Buffer - Block Fetch
 .DWMY.E  DDPBTBF  - DDF Transmit Blocks - Block Fetch
 .DWMY.E  DDPBYTR  - DDF Bytes Recvd From Remote
 .DWMY.E  DDPBYTS  - DDF Bytes Sent To Remote
 .DWMY.E  DDPCBLB  - DDF Switch Continuous to Limited
 .DWMY.E  DDPCIEL  - DDF Max. Conversations Open
 .DWMY.E  DDPCNVA  - DDF Successful Conversations
 .DWMY.E  DDPCNVQ  - DDF Conv Req Queued Waiting Alloc
 .DWMY.E  DDPCNVR  - DDF Convs Recvd From Remote
 .DWMY.E  DDPCNVS  - DDF Convs Sent To Remote
 .DWMY.E  DDPCNVT  - DDF Conversations Terminated
```

```
.DWMY.E  DDPCOMR  - DDF COMMIT Reqs Recvd From Remote
.DWMY.E  DDPCOMS  - DDF COMMIT Reqs Sent To Remote
.DWMY.E  DDPCPUR  - DDF DBAT CPU Reported To Requestor
.DWMY.E  DDPELPL  - DDF Local Elapsed Time
.DWMY.E  DDPELPR  - DDF Remote Elapsed Time
.DWMY.E  DDPMSGR  - DDF Messages Recvd From Remote
.DWMY.E  DDPMSGS  - DDF Messages Sent To Remote
.DWMY.E  DDPNTHRD - DDF SMF 101 QLAC Segment Count
.DWMY.E  DDPRBND  - DDF Bound SQL for Remote
.DWMY.E  DDPROWR  - DDF Rows  Recvd From Remote
.DWMY.E  DDPROWS  - DDF Rows  Sent To Remote
.DWMY.E  DDPSQLR  - DDF SQL Stmts Recvd From Remote
.DWMY.E  DDPSQLS  - DDF SQL Stmts Sent To Remote
.DWMY.   DDPTRNR  - DDF Trans Recvd From Remote
.DWMY.   DDPTRNS  - DDF Trans Sent To Remote

Maximum Data Elements

.DWMY.E  DDPMABRR - Max DDF Aborts Received
.DWMY.E  DDPMABRS - Max DDF Aborts Sent
.DWMY.E  DDPMBRBF - Max DDF Received Blocks - Block Fetch
.DWMY.E  DDPMBROW - Max DDF Rows in Buffer - Block Fetch
.DWMY.E  DDPMBTBF - Max DDF Transmit Blocks - Block Fetch
.DWMY.E  DDPMBYTR - Max DDF Bytes Received
.DWMY.E  DDPMBYTS - Max DDF Bytes Sent To Remote
.DWMY.E  DDPMCBLB - Max DDF Switch Continuous to Limited
.DWMY.E  DDPMCIEL - Max DDF Conversations Open
.DWMY.E  DDPMCNVA - Max DDF Successful Conversations
.DWMY.E  DDPMCNVQ - Max DDF Conversations Queued
.DWMY.E  DDPMCNVR - Max DDF Conversations Received
.DWMY.E  DDPMCNVS - Max DDF Conversations Sent
.DWMY.E  DDPMCNVT - Max DDF Conversations Terminated
.DWMY.E  DDPMCOMR - Max DDF Commits Received
.DWMY.E  DDPMCOMS - Max DDF Commits Sent
.DWMY.E  DDPMCPUR - Max DDF DBAT CPU Reported To Requestor
.DWMY.E  DDPMELPL - Max DDF Local Elapsed Time
.DWMY.E  DDPMELPR - Max DDF Remote Elapsed Time
.DWMY.E  DDPMMSGR - Max DDF Messages Received
.DWMY.E  DDPMMSGS - Max DDF Messages Sent
.DWMY.E  DDPMRBND - Max DDF Bound SQL for Remote
.DWMY.E  DDPMROWR - Max DDF Rows Received
.DWMY.E  DDPMROWS - Max DDF Rows Sent To Remote
.DWMY.E  DDPMSQLR - Max DDF SQL Stmts Received
.DWMY.E  DDPMSQLS - Max DDF SQL Stmts Sent
```

5.2.7.3 Usage Considerations

This section identifies any special considerations or techniques related to using the DB2DDP file. Additionally, we provide several retrieval examples facilitate the use of this file.

In the examples, we use a SAS macro to specify the DD name part of the CA MICS file name. These macros are a standard part of CA MICS and are available for all files. The macro name has the form _iiit, where "iii" is the information area name and "t" is the timespan. In addition, many of the examples use the _fffSUM macro, where "fff" is the file identifier, to summarize the data as indicated by the &BY and &BREAK macro variables.

Special Considerations/Techniques

- Exercise care when using the special date and time data elements contained in each CA MICS file. As the file's granularity increases in higher timespans, certain fields lose significance and should not be referenced.

  - HOUR should not be used in MONTHS and YEARS.
  - DAY and DAYNAME should not be used in WEEKS, MONTHS, or YEARS.
  - WEEK should not be used in MONTHS or YEARS.
  - MONTH should not be used in YEARS.

- The data elements STARTTS and ENDTS have different meanings when used in the DETAIL timespan versus their meaning in the DAYS, WEEKS, MONTHS, and YEARS timespans. The ENDTS and STARTTS, when appearing in the DAYS, WEEKS, MONTHS, and YEARS timespans, indicate the span of time over which the data has been summarized with STARTTS indicating the lowest date and time and ENDTS indicating the greatest date and time for the summarized data.

Retrieval Examples

- Example 1: List DDF activity for yesterday by DB2 PLAN.

```
DATA TEST1;
SET &DB2D.DB2DDP01
    ;
YESTRDY=DATE()-1;
IF DATEPART(ENDTS)=YESTRDY;
RUN;
```

```
%LET BY = DB2ID DB2PLAN;
%LET BREAK = DB2PLAN;
PROC SORT DATA=TEST1 OUT=TEST1; BY &BY; RUN;

DATA TEST1;
SET TEST1;
%DDPSUM;

PROC PRINT DATA=TEST1; BY DB2ID;
VAR DB2ID DB2PLAN DDPBYTS DDPBYTR DDPCNVS DDPCNVR;
TITLE YESTERDAYS DDF ACTIVITY BY DB2 PLAN; RUN;
```

o Example 2: Print the maximum bytes transmitted for any DB2 PLAN requesting DDF access.

```
DATA TEST2;
SET &DB2M.DB2DDP01;
IF DDPMBYTS>0 OR DDPMBYTR>0;

%LET BY = DB2PLAN;
%LET BREAK =  DB2PLAN;

PROC SORT DATA=TEST2 OUT=TEST2; BY _BY;

DATA TEST2;
SET TEST2;
%DDPSUM;

PROC PRINT DATA=TEST2;
VAR DB2PLAN DDPMBYTS DDPMBYTR;
TITLE MAXIMUM BYTES SENT/RECEIVED BY DB2 PLAN;
```

5.2.8 DB2 Package/DBRM Activity (DB2DPP) File

FILENAME=DB2DPPxx

The DB2 Package/DBRM Activity file provides resource consumption and activity information for packages and database request modules.

DB2 plans are composed of packages, DBRMs, or a combination of both. You can use the DB2DPP file to learn more about the information provided in the DB2DSP (DB2 Plan) file.

The DB2DPP file is populated with data from the SMF type 101 record.

The following three sections describe the file's organization, list the data elements maintained, and provide usage hints:

1 - File Organization
2 - Data Elements List
3 - Usage Considerations

5.2.8.1 File Organization

The table below identifies data elements by which the file is sequenced and summarized in each timespan. N/A indicates that the file is not supported in a timespan. At the DETAIL level, data is sequenced but not summarized.

NOTE: The timespans in which a file is supported are defined by each installation when CA MICS is installed. Therefore, this table has been generated as part of the installation process to accurately reflect the CA MICS system at your installation.

Timespan	Level of Data Granularity				
DETAIL	SYSID	DB2ID	DB2PKNM	DB2CONN	YEAR
	MONTH	DAY	HOUR	ENDTS	
DAYS	SYSID	DB2ID	DB2PKNM	DB2CONN	YEAR
	MONTH	DAY	HOUR		
WEEKS	SYSID	DB2ID	DB2PKNM	DB2CONN	YEAR
	WEEK	HOUR	ZONE		
MONTHS	SYSID	DB2ID	DB2PKNM	DB2CONN	YEAR
	MONTH	ZONE			
YEARS	SYSID	DB2ID	DB2PKNM	DB2CONN	YEAR
	ZONE				
TABLES	N/A				

Generation Date: Mon, Oct 8, 2012

NOTE: This file was generated with ESSENTIAL=ALL option in effect. All data elements defined in the file are generated.

NOTE: This file was generated with DERIVED=DEFault option in effect. Whether data elements are kept on the file on auxiliary storage or not is controlled by the complex definition of the DERIVED option.

Figure 5-8. DB2DPP Time-Span Granularity Chart

5.2.8.2 DB2DPP Data Elements List

The table below identifies data elements contained in this file. The entries for each data element are:

TIMESPAN: Defines the timespans in which the data element is supported. The timespans are indicated by the letters "XDWMYT" as follows:

X - DETAIL
D - DAYS
W - WEEKS
M - MONTHS
Y - YEARS
T - TABLES AREA
. - File is not supported

The timespan field also indicates Essential Elements with the letter E, if applicable.

DATA ELEMENT: The data element name.

DATA ELEMENT DESCRIPTION: The data element's long name.

The timespans in which a data element is supported are defined by each installation when CA MICS is installed. Therefore, this table has been generated as part of the installation process to accurately reflect the CA MICS system at your installation.

GENERATION DATE: Tue, Sep 17, 2013

Note: Essential data elements are identified by an "E" under the Timespan asterisk (*) column.

Time-Span *	Data Element	Data Element Description (LABEL)

Sequence/Summary Data Elements

.D....E	DAY	- Day of Month
.DWMY.E	DB2CONN	- Connection Identifier
.DWMY.E	DB2ID	- DB2 ID
.DWMY.E	DB2PKNM	- Package/DBRM Name
.DW...E	HOUR	- Hour of Day
.DWM..E	MONTH	- Month of Year
.DWMY.E	SYSID	- System Identifier

```
 .DW...E  WEEK     - Week of Year
 .DWMY.E  YEAR     - Year of Century
 .DWMY.E  ZONE     - Time Zone

Common Data Elements

 .D....   DAYNAME  - Name of Day of Week
 ......   DB2ACE   - DB2 Agent Control Element
 ......   DB2ATNM  - Active Trace Number Mask
 ......   DB2AUTH  - Authorization Identifier
 ......   DB2CORR  - Correlation Identifier
 ......   DB2CPU   - DB2 CPU Time
 ......E  DB2CRDLU - CICS/RRSAF/DB Access LU Name
 ......E  DB2CRDNT - CICS/RRSAF/DB Access Network Name
 ......E  DB2CRDUV - CICS/RRSAF/DB Access Uniqueness Value
 ......   DB2DSTSN - Destination Sequence Number
 ......E  DB2ISEQ  - Instrumentation Sequence Number
 ......E  DB2LOCN  - DB2 Local Location ID
 ......   DB2LUNAM - Logical Unit NAME
 ......E  DB2MLVL  - MICS DB2 Maintenance Level
 ......   DB2NETID - Network ID
 ......   DB2OPID  - Original Operator ID
 ......E  DB2PLAN  - Plan Name
 ......E  DB2PTASK - Special Transaction Type Identifier
 .DWMY.   DB2REL   - DB2 Release
 .DWMY.E  DB2RELN  - DB2 Release Number
 ......   DB2REQID - DB2 Requestor Location ID
 ......   DB2STCK  - DB2 Store Clock At End Event
 .DWMY.E  DB2THDTY - DB2 Thread Type
 ......   DB2UNIQ  - DB2 Instance Number
 .DWMY.E  ENDTS    - End Time Stamp
 .DWMY.E  STARTTS  - Start Time Stamp
 ......E  TRANETS  - Transaction End Time Stamp
 ......E  TRANSTS  - Transaction Start Time Stamp
 ......E  UOWID    - Unit of Work Id
 ......E  UOWIDSEQ - Unit of Work Id Sequence Number

Retained Data Elements

 ......E  DPPACLMT - Limit In CPU 16 Microseconds
 ......E  DPPAPREC - How Limit Was Determined
 ......E  DPPARLID - Resource Limit Table ID
 ......E  DPPASLMT - Limit In SUs - ASUTIME
 ......   DPPELRTM - Elapsed Time for Most Recent Execution
 ......E  DPPFLGS  - Program Type Execution Flags
 .DWMY.E  DPPROLL  - Package Roll Up Flag
 .DWMY.E  DPPRUSM  - Package Summary Roll Up Flag
 ......   DPPTCRTM - TCB Time for Most Recent Execution
```

```
Accumulated Data Elements

 .DWMY.E  DPPAACC  - No. Wt Trce Events for IDAA Requests
 .DWMY.E  DPPAACW  - Wait Time for Requests to IDAA
 .DWMY.E  DPPACHG  - Change Request Count
 .DWMY.E  DPPAIRLM - Other IRLM Request Count
 .DWMY.E  DPPALOCK - Lock Request Count
 .DWMY.E  DPPALWTM - Accum Wait Time - Latch Suspension
 .DWMY.E  DPPAQRY  - Query Request Count
 .DWMY.E  DPPASLAT - Suspend Count - Latch Conflict
 .DWMY.E  DPPASLOC - Suspend Count - Lock Conflict
 .DWMY.E  DPPASOTH - Suspend Count - Other Conflict
 .DWMY.E  DPPAUNLK - Unlock Request Count
 .DWMY.   DPPAWBTM - Wait Time - TCP/IP LOB Material
 .DWMY.E  DPPAWITM - Accum I/O Elapsed Time This Thread
 .DWMY.E  DPPCALL  - SQL CALL Statement Count
 .DWMY.E  DPPCIMW  - No. Of Immed. Sync Write I/O Buffer
 .DWMY.E  DPPCLOSE - CLOSES Count
 .DWMY.   DPPCLS7  - No. Packages/DBRMs With Class 7 Data
 .DWMY.E  DPPCLS8  - No. Packages/DBRMs With Class 8 Data
 .DWMY.E  DPPCL10  - Accounting Trace Class 10 Data
 ......E  DPPCRNT  - Most Current Package Executed
 .DWMY.E  DPPDBRM  - Number of DBRMs
 .DWMY.E  DPPDEAD  - Deadlock Count
 .DWMY.E  DPPDELET - DELETES Count
 .DWMY.E  DPPDESC  - DESCRIBES Count
 .DWMY.E  DPPDPF   - No. Times Dynamic Prefetch Req
 .DWMY.E  DPPELPTM - Elapsed Time All Executions
 .DWMY.E  DPPFETCH - FETCHES Count
 .DWMY.E  DPPGPGR  - GETPAGE Requests
 .DWMY.E  DPPINCP  - No. Packages w/Incompatible Functions
 .DWMY.E  DPPINSP  - Packages Loaded by Stored Procedures
 .DWMY.E  DPPINSRT - INSERTS Count
 .DWMY.E  DPPLEEM  - Lock Escalations to Exclusive Count
 .DWMY.E  DPPLESM  - Lock Escalations to Shared Count
 .DWMY.E  DPPLOCK  - LOCK TABLE Count
 .DWMY.E  DPPLPF   - No. Times LIST PREFETCH req.
 .DWMY.E  DPPNFLMT - Infinite Resource Limit Count
 .DWMY.E  DPPNGT   - No. Time GETPAGE Req Not Satisfied
 .DWMY.E  DPPNIUDF - Non-Inline User Defined Function
 .DWMY.E  DPPNPACK - Number of Packages/DBRMs
 .DWMY.E  DPPNSTP  - Number of Native SQL Procedures
 .DWMY.E  DPPOPEN  - OPENS Count
 .DWMY.E  DPPPACK  - Number of Packages
 .DWMY.E  DPPPELPT - Parallel Subtasks Elapsed Time
 .DWMY.E  DPPPQSCT - No. Parallel Qry Susp Wt Prnt/Chld Syn
 .DWMY.E  DPPPQSWT - Parallel Qry Prnt/Chld Sync Wait Time
 .DWMY.E  DPPPREP  - PREPARES Count
 .DWMY.E  DPPPRFH  - PREFETCH Read Requests Buffer
```

```
 .DWMY.E  DPPRLNU  - No. Threads Roll Data to Pkg Section
 .DWMY.E  DPPRNKCL - No. Wait Trace Glbl Cont. Child LLock
 .DWMY.E  DPPRNMOL - No. Wait Trace Glbl Cont. Other LLock
 .DWMY.E  DPPRNNPL - No. Wait Trace Glbl Cont. PP PLock
 .DWMY.E  DPPRNOPL - No. Wait Trace Glbl Cont. PG PLock
 .DWMY.E  DPPRNQOL - No. Wait Trace Glbl Cont. Other PLock
 .DWMY.E  DPPSELCT - SELECTS Count
 .DWMY.E  DPPSIO   - No. Async Pages Read by PREFETCH
 .DWMY.E  DPPSPRU  - System Page Record Update
 .DWMY.E  DPPSRIO  - Synchronous Read IOs
 .DWMY.E  DPPSTPR  - Number of External Stored Procedures
 .DWMY.E  DPPSUAC  - No. Successful Authorization Checks
 .DWMY.E  DPPSUSP  - Suspend Count - Total
 .DWMY.   DPPSWTCH - Number of Package Switches
 .DWMY.E  DPPTCBTM - Total TCB Time All Executions
 .DWMY.E  DPPTELPT - Comprehensive Elapsed Time
 .DWMY.E  DPPTIMO  - Timeout Count
 .DWMY.E  DPPTREX  - Number of Trigger Executions
 .DWMY.E  DPPUDFN  - Number of User Defined Functions
 .DWMY.E  DPPUPDTE - UPDATES Count
 .DWMY.   DPPWATRB - Wt Trace for TCP/IP LOB Material
 .DWMY.E  DPPWLCTM - Glbl Contention Child L-Lock Wait Time
 .DWMY.E  DPPWLGTM - Glbl Contention PG P-Lock Wait Time
 .DWMY.E  DPPWLLTM - Glbl Contention Other L-Locks Wait Time
 .DWMY.E  DPPWLPTM - Glbl Contention PP P-Lock Wait Time
 .DWMY.E  DPPWTEPL - Wait Trace Events - Waits on Latches
 .DWMY.E  DPPWTOTM - Glbl Contention Other P-Locks Wait Time
 .DWMY.E  DPPZRLMT - Zero Resource Limit Count
 .DWMY.E  DPPZTCBT - Total TCB Time All Executions on zIIP

Maximum Data Elements

 .DWMY.E  DPPACHUS - Highest CPU 16 Microseconds Used
 .DWMY.E  DPPMXPL  - Max Page Locks Held
```

5.2.8.3 DB2DPP Usage Considerations

This section identifies any special considerations or techniques related to using the DB2DPP file.

Special Considerations/Techniques

- Exercise care when using the special date and time data elements contained in each CA MICS file. As the file's granularity increases in higher timespans, certain fields lose significance and should not be referenced.

  - HOUR should not be used in MONTHS and YEARS.
  - DAY and DAYNAME should not be used in WEEKS, MONTHS, or YEARS.
  - WEEK should not be used in MONTHS or YEARS.
  - MONTH should not be used in YEARS.

- The data elements STARTTS and ENDTS have different meanings when used in the DETAIL timespan as opposed to their meaning in the DAYS, WEEKS, MONTHS, and YEARS timespans. The ENDTS and STARTTS, when appearing in the DAYS, WEEKS, MONTHS, and YEARS timespans, indicate the span of time over which the data has been summarized with STARTTS indicating the lowest date and time and ENDTS indicating the greatest date and time for the summarized data.

5.2.9 DB2 System Storage Usage (DB2SSU) File

FILENAME=DB2SSUxx

The DB2 System Storage Usage file provides storage use information at the DB2 system level during an interval.

The DB2SSU file is populated with data from the SMF type 100 subtype 4 record.

The following three sections describe the file's organization, list the data elements maintained, and provide usage hints:

1 - File Organization
2 - Data Element List
3 - Usage Considerations

5.2.9.1 File Organization

The table below identifies data elements by which the file is sequenced and summarized in each timespan. "N/A" indicates that the file is not supported in a timespan. At the DETAIL level, data is sequenced but not summarized.

Note: The timespans in which a file is supported are defined by each data center when CA MICS is installed. Therefore, this table has been generated as part of the installation process to accurately reflect the CA MICS system at your data center.

Timespan	Level of Data Granularity				
DETAIL	SYSID	DB2ID	YEAR	MONTH	DAY
	HOUR	ENDTS			
DAYS	N/A				
WEEKS	N/A				
MONTHS	N/A				
YEARS	N/A				
TABLES	N/A				

Generation Date: Fri, Dec 21, 2012

NOTE: This file was generated with ESSENTIAL=ALL option in effect. All data elements defined in the file are generated.

NOTE: This file was generated with DERIVED=DEFault option in effect. Whether data elements are kept on the file on auxiliary storage or not is controlled by the complex definition of the DERIVED option.

Figure 5-11. DB2SSU Timespan Granularity Chart

5.2.9.2 Data Element List

The table below identifies data elements contained in this file. The entries for each data element are as follows:

TIMESPAN: Defines the timespans in which the data element is supported. A "." indicates that the data element is not supported. The timespans in which the data element is supported are indicated by the letters "XDWMYT," which represent the timespans as follows:

X - DETAIL
D - DAYS
W - WEEKS
M - MONTHS
Y - YEARS
T - TABLES AREA

DATA ELEMENT: The data element name.

DATA ELEMENT DESCRIPTION: The long name of the data element.

Note: The timespans in which a data element is supported are defined by each site when CA MICS is installed. Therefore, this table has been generated as part of the installation process to reflect the CA MICS system at your site.

GENERATION DATE: Tue, Sep 17, 2013

Note: Essential data elements are identified by an "E" under the Timespan asterisk (*) column.

Time-Span *	Data Element	Data Element Description (LABEL)

Sequence/Summary Data Elements

X.....E	DAY	- Day of Month
X.....E	DB2ID	- DB2 ID
X.....E	HOUR	- Hour of Day
X.....E	MONTH	- Month of Year
X.....E	SYSID	- System Identifier
X.....E	WEEK	- Week of Year
X.....E	YEAR	- Year of Century
X.....E	ZONE	- Time Zone

```
Common Data Elements

 X.....E  DAYNAME  - Name of Day of Week
 X.....E  DB2ACE   - DB2 Agent Control Element
 X.....E  DB2ATNM  - Active Trace Number Mask
 X.....E  DB2DSTSN - Destination Sequence Number
 X.....E  DB2ISEQ  - Instrumentation Sequence Number
 X.....E  DB2MLVL  - MICS DB2 Maintenance Level
 X.....E  DB2RELN  - DB2 Release Number
 X.....E  DB2RMID  - DB2 Resource Manager Identifier
 X.....E  DB2STCK  - DB2 Store Clock At End Event
 X.....E  DURATION - Recording Interval Time
 X.....E  ENDTS    - End Time Stamp
 X.....E  STARTTS  - Start Time Stamp

Retained Data Elements

 X.....E  SSUABCSA - 64-bit Common ILRM Pools Curr Used (MB)
 X.....E  SSUABPVT - 64-bit Curr Used IRLM Private Pools (MB)
 X.....E  SSUACTTH - Active Threads
 X.....E  SSUADBAT - Active and Disconnected DBATs
 X.....E  SSUALPLC - Statements in 64-bit Agent Local Pools
 X.....E  SSUALPL2 - Allocated 64-bit AL Pool Stmt Cache (MB)
 X.....E  SSUALSST - 64-bit Shared Agent Local Storage (MB)
 X.....E  SSUALSTR - Agent Local Storage (MB)
 X.....E  SSUAPCTH - Active Parallel Child Threads
 X.....E  SSUAPMAX - 64-BIT Threshold IRLM Private Stg (MB)
 X.....E  SSUARSTR - Total Array Variable Storage (MB)
 X.....E  SSUBBPVT - 31-bit Curr Used IRLM Private Pools (MB)
 X.....E  SSUBDITS - BM/DM Internal Trace Table Storage (MB)
 X.....E  SSUBECSA - 31-bit Curr Used ECSA IRLM Pools (MB)
 X.....E  SSUBMSBK - Buffer Manager Storage Blocks
 X.....E  SSUBPMAX - 31-BIT Threshold IRLM Private Stg (MB)
 X.....E  SSUCDSTR - Compression Dictionary Storage (MB)
 X.....E  SSUCOENT - Castout Engines
 X.....E  SSUDEFWE - Deferred Write Engines
 X.....E  SSUECSA  - MVS Extended CSA Size (MB)
 X.....E  SSUECSAL - Service Field QW0225_ECSA_Alloc
 X.....E  SSUECSCV - Service Field QW0225_ECSA_Conv
 X.....E  SSUECSHW - Service Field QW0225_ECSA_HWM
 X.....E  SSUERGSZ - MVS Extended Region Size (MB)
 X.....E  SSUESQAL - Service Field QW0225_ESQA_Alloc
 X.....E  SSUESQAS - Service Field QW0225_ESQAS
 X.....E  SSUESQHW - Service Field QW0225_ESQA_HWM
 X.....E  SSUGDBWE - GBP Write Engines
 X.....E  SSUHTHTS - HWM Alloc 64-bit AL Pool Timestamp
 X.....E  SSULMCAX - Log Mgr Control Frames in Aux Stg
 X.....E  SSULMCRL - Log Mgr Control Frames in Real Stg
 X.....E  SSULMWAX - Log Mgr Write Frames in Aux Stg
```

```
X.....E  SSULMWRL - Log Mgr Write Frames in Real Stg
X.....E  SSUPMSS  - Pipe Manager Subpool Storage (MB)
X.....E  SSUPNEXE - P-lock/notify Exit Engines
X.....E  SSUPREFE - Prefetch Engines
X.....E  SSURAVL  - Service Field QW0225_REALAVAIL
X.....E  SSURAVLO - Service Field QW0225_REALAVAILLO
X.....E  SSURAVOK - Service Field QW0225_REALAVAILOK
X.....E  SSURIDPS - RID Pool Storage (MB)
X.....E  SSUROPS  - RDS Operations Pool Storage (MB)
X.....E  SSURS    - Service Field QW0225_RS
X.....E  SSUSASST - 64-bit Shared System Agent Storage (MB)
X.....E  SSUSASTR - System Agent Storage (MB)
X.....E  SSUSCBS  - Statement Cache Block Storage (MB)
X.....E  SSUSCWRN - Storage Cushion Warning to Contract (MB)
X.....E  SSUSFLAG - Shared/Common Storage Summary Flag
X.....E  SSUSMOA  - Shared Memory Objects Allocated
X.....E  SSUSRVSJ - Service Field QW0225SJ
X.....E  SSUSTCS2 - 2G Block 64-bit Statement Cache (MB)
X.....E  SSUSVCF1 - Service Field QW0225F1
X.....E  SSUSVCF2 - Service Field QW0225F2
X.....E  SSUWARN  - Service Field QW0225_WARN
X.....E  SSUXPSLS - Total Alloc Dynamic SQL Storage (MB)
X.....E  SSUXPSSC - Total Sharable Storage Dynamic SQL (MB)
X.....E  SSUXPSSX - Total Static SQL Storage (MB)
X.....E  SSU24HP  - MVS 24-bit High Private Storage (MB)
X.....E  SSU24LP  - MVS 24-bit Low Private Storage (MB)
X.....E  SSU31AVL - Available 31-bit Storage (MB)
X.....E  SSU31CFP - 31-bit Common Fixed Pool Storage (MB)
X.....E  SSU31CGM - 31-bit Common Getmained Storage (MB)
X.....E  SSU31CVP - 31-bit Common Variable Pool Storage (MB)
X.....E  SSU31EHP - MVS 31-bit Extended High Priv Stor (MB)
X.....E  SSU31ELP - MVS 31-bit Extended Low Priv Stor (MB)
X.....E  SSU31FPS - Total 31-bit Fixed Pool Storage (MB)
X.....E  SSU31GM  - Total 31-bit Getmained Storage (MB)
X.....E  SSU31GMS - Total 31-bit Getmained Stack (MB)
X.....E  SSU31MC  - 31-bit Stor Resvd for Must Complete (MB)
X.....E  SSU31MVS - 31-bit Storage Reserved for MVS (MB)
X.....E  SSU31STU - Total 31-bit Stack in Use (MB)
X.....E  SSU31VPS - Total 31-bit Variable Pool Storage (MB)
X.....E  SSU4KAUX - 4K Aux Slots for 31 & 64-bit Private
X.....E  SSU4KFRM - Real 4K Frames for 31 & 64-bit Private
X.....E  SSU64ACS - 64-bit Common Storage Aux Slots
X.....E  SSU64ASH - 4K 64-bit Shared Storage Aux Slots
X.....E  SSU64ASL - Aux Slots - 64-bit Shared Storage
X.....E  SSU64CFP - 64-bit Common Fixed Pool Storage (MB)
X.....E  SSU64CGM - 64-bit Common Getmained Storage (MB)
X.....E  SSU64CSM - 64-bit Common Storage for SMCS (MB)
X.....E  SSU64CST - Real 4K 64-bit Common Storage Frames
X.....E  SSU64CVP - 64-bit Common Variable Pool Storage (MB)
```

```
 X.....E  SSU64FSS - Real 4K 64-bit Shared Storage Frames
 X.....E  SSU64PFP - 64-bit Private Fixed Pool Stor (MB)
 X.....E  SSU64PGM - 64-bit Private Getmain Stor (MB)
 X.....E  SSU64PVP - 64-bit Private Variable Pool Stor (MB)
 X.....E  SSU64SFP - 64-bit Shared Fixed Pool Storage (MB)
 X.....E  SSU64SGM - 64-bit Shared Getmained Storage (MB)
 X.....E  SSU64SMA - 64-bit Shared Memory Pages Allocated
 X.....E  SSU64SNA - 64-bit Shared Non-sys Agent Stack (MB)
 X.....E  SSU64SNU - 64-bit Shared Non-sys Agent Stk Use (MB)
 X.....E  SSU64SPB - 64-bit Shared Pages Backed in Real Stor
 X.....E  SSU64SPI - 64-bit AUX Stor Shared Pages Paged In
 X.....E  SSU64SPO - 64-bit AUX Stor Shared Pages Paged Out
 X.....E  SSU64SSA - 64-bit Shared System Agent Stack (MB)
 X.....E  SSU64SSM - 64-bit Shared Storage for SMCS (MB)
 X.....E  SSU64SSS - Real 4K 64-bit Shared Stack Stor Frames
 X.....E  SSU64SST - 4K 64-bit Shared Stack Aux Slots
 X.....E  SSU64SSU - 64-bit Shared Sys Agent Stk in Use (MB)
 X.....E  SSU64SVP - 64-bit Shared Variable Pool Storage (MB)

Maximum Data Elements

 X.....E  SSUABCSH - HWM for 64-bit Common IRLM Pools (MB)
 X.....E  SSUABPVH - HWM for 64-bit IRLM Private Pools (MB)
 X.....E  SSUBBPVH - HWM for 31-bit IRLM Private Pools (MB)
 X.....E  SSUBECSH - HWM for 31-bit ECSA IRLM Pools (MB)
 X.....E  SSUHCHWM - HWM # of Stmts in 64-bit Agent LPs
 X.....E  SSUHSHWM - HWM for Dynamic SQL Storage (MB)
 X.....E  SSUH2HWM - HWM Alloc 64-bit ALV Pool Stmt Cache(MB)
 X.....E  SSU64SHW - HWM for Number of 64-bit Shr Bytes (MB)
```

5.2.9.3 Usage Considerations

This section identifies any special considerations or techniques related to using the DB2SSU file. Additionally, we provide a retrieval example to facilitate the use of this file.

In the example, we use a SAS macro to specify the DD name part of the CA MICS file name. These macros are a standard part of CA MICS and are available for all files. The macro name has the form _iiit, where "iii" is the information area name and "t" is the timespan. In addition, many of the examples use the _fffSUM macro, where "fff" is the file identifier to summarize the data as indicated by the _BY and _BREAK macro definitions.

Special Considerations/Techniques

- Exercise care when using the special date and time data elements contained in each CA MICS file. As the file's granularity increases in higher timespans, certain fields lose significance and should not be referenced.

  - HOUR should not be used in MONTHS and YEARS.
  - DAY and DAYNAME should not be used in WEEKS, MONTHS, or YEARS.
  - WEEK should not be used in MONTHS or YEARS.
  - MONTH should not be used in YEARS.

- The data elements STARTTS and ENDTS have different meanings when used in the DETAIL timespan versus their meaning in the DAYS, WEEKS, MONTHS, and YEARS timespans. The ENDTS and STARTTS, when appearing in the DAYS, WEEKS, MONTHS, and YEARS timespans, indicate the span of time over which the data has been summarized with STARTTS indicating the lowest date and time and ENDTS indicating the greatest date and time for the summarized data.

Retrieval Example

```
DATA TEST1;
SET _DB2X.DB2SSU01
    ;
YESTRDY=DATE()-1;
IF DATEPART(ENDTS)=YESTRDY;
HOUR=HOUR(ENDTS);
MACRO _BY SYSID DB2ID HOUR %
MACRO _BREAK HOUR %
```

```
PROC SUMMARY DATA=TEST1 NWAY;
  CLASS SYSID DB2ID HOUR;
  OUTPUT OUT=STATS
      MAX(SSUECSA SSUACTTH SSUALPLC SSUBMSBK SSUCOENT SSUDEFWE
          SSUGDBWE SSUPNEXE SSUPREFE)=;
PROC SORT DATA=STATS; BY SYSID DB2ID HOUR;
PROC PRINT DATA=STATS UNIFORM NOOBS ;
  BY SYSID DB2ID;
  VAR DB2ID HOUR SSUECSA SSUACTTH SSUALPLC SSUBMSBK
      SSUCOENT SSUDEFWE SSUGDBWE SSUPNEXE SSUPREFE;
TITLE YESTERDAYS HOURLY SYSTEM STATUS BY DATA BASE ID;
```

5.2.10 DB2 Address Space System Storage Usage (DB2SSA) File

FILENAME=DBPSSAxx

The DB2 Address Space System Storage Usage file provides storage use information at the DB2 address space level during an interval.

The DB2SSA file is populated with data from section 1 of the SMF type 100 subtype 4 record. The information in section 1 was first introduced in DB2 Version 10, Release 1.

The following three sections describe the file's organization, list the data elements maintained, and provide usage hints:

1 - File Organization
2 - Data Element List
3 - Usage Considerations

5.2.10.1 File Organization

The following table identifies data elements that are used to sequence and summarize the file in each timespan. "N/A" indicates that the file is not supported in a timespan. At the DETAIL level, data is sequenced but not summarized.

Note: The timespans in which a file is supported are defined by each data center when CA MICS is installed. Therefore, this table has been generated as part of the installation process to accurately reflect the CA MICS system at your data center.

Timespan	Level of Data Granularity				
DETAIL	SYSID	DB2ID	SSAADSNM	YEAR	MONTH
	DAY	HOUR	ENDTS		
DAYS	N/A				
WEEKS	N/A				
MONTHS	N/A				
YEARS	N/A				
TABLES	N/A				

Generation Date: Fri, Dec 21, 2012

NOTE: This file was generated with ESSENTIAL=ALL option in effect. All data elements defined in the file are generated.

NOTE: This file was generated with DERIVED=DEFault option in effect. Whether data elements are kept on the file on auxiliary storage or not is controlled by the complex definition of the DERIVED option.

Figure 5-11. DB2SSA Timespan Granularity Chart

5.2.10.2 Data Element List

The following table identifies data elements contained in
this file. The entries for each data element are as follows:

TIMESPAN: Defines the timespans in which the data element
is supported. A "." indicates that the data
element is not supported. The timespans in
which the data element is supported are indicated
by the letters X,D,W,M,Y,T, as follows:

X - DETAIL
D - DAYS
W - WEEKS
M - MONTHS
Y - YEARS
T - TABLES AREA

DATA ELEMENT: The data element name.

DATA ELEMENT DESCRIPTION: The long name of the data element.

Note: The timespans in which a data element is supported are
defined by each site when CA MICS is installed. Therefore,
this table has been generated as part of the installation
process to reflect the CA MICS system at your site.

GENERATION DATE: Fri, Dec 21, 2012

Note: Essential data elements are identified by an "E"
under the Timespan asterisk (*) column.

Time-Span *	Data Element	Data Element Description (LABEL)

Sequence/Summary Data Elements

X.....E	DAY	- Day of Month
X.....E	DB2ID	- DB2 ID
X.....E	HOUR	- Hour of Day
X.....E	MONTH	- Month of Year
X.....E	SSAADSNM	- Address Space Name
X.....E	SYSID	- System Identifier
X.....E	WEEK	- Week of Year
X.....E	YEAR	- Year of Century
X.....E	ZONE	- Time Zone

Common Data Elements

```
 X.....E  DAYNAME  - Name of Day of Week
 X.....E  DB2ACE   - DB2 Agent Control Element
 X.....E  DB2ATNM  - Active Trace Number Mask
 X.....E  DB2DSTSN - Destination Sequence Number
 X.....E  DB2ISEQ  - Instrumentation Sequence Number
 X.....E  DB2MLVL  - MICS DB2 Maintenance Level
 X.....E  DB2RELN  - DB2 Release Number
 X.....E  DB2RMID  - DB2 Resource Manager Identifier
 X.....E  DB2STCK  - DB2 Store Clock At End Event
 X.....E  DURATION - Recording Interval Time
 X.....E  ENDTS    - End Time Stamp
 X.....E  STARTTS  - Start Time Stamp

Retained Data Elements

 X.....E  SSAASFLG - Address Space Summary Flags
 X.....E  SSAERGSZ - MVS Extended Region Size (MB)
 X.....E  SSASCWRN - Storage Cushion Warning to Contract (MB)
 X.....E  SSA24HAD - High Address of 24-bit Priv Region (MB)
 X.....E  SSA24HP  - MVS 24-bit High Private (MB)
 X.....E  SSA24LP  - MVS 24-bit Low Private (MB)
 X.....E  SSA31AVL - Available 31-bit Storage (MB)
 X.....E  SSA31EHP - MVS 31-bit Extended High Private (MB)
 X.....E  SSA31ELP - MVS 31-bit Extended Low Private (MB)
 X.....E  SSA31FPS - 31-bit Fixed Pool Storage (MB)
 X.....E  SSA31GM  - 31-bit Getmained Storage (MB)
 X.....E  SSA31GMS - 31-bit Getmained Stack (MB)
 X.....E  SSA31HAD - High Address of 31-bit Priv Region (MB)
 X.....E  SSA31MC  - 31-bit Storage Reservd Must Complete(MB)
 X.....E  SSA31MVS - 31-bit Storage Reserved for MVS (MB)
 X.....E  SSA31SSA - 31-bit Stack in Use for Sys Agents (MB)
 X.....E  SSA31STU - 31-bit Stack in Use (MB)
 X.....E  SSA31VPS - 31-bit Variable Pool Storage (MB)
 X.....E  SSA4KAUX - 4K Aux Slots for 31 & 64-bit Private
 X.....E  SSA4KFRM - Real 4K Frames for 31 & 64-bit Private
 X.....E  SSA4K64A - 4K Aux Slots for 64-bit Private
 X.....E  SSA4K64N - Real 4K 64-bit Private Frames - NOBP
 X.....E  SSA4K64O - 4K Aux 64-bit Private Slots - NOBP
 X.....E  SSA4K64P - Real 4K frames for 64-bit Private
 X.....E  SSA64PFP - 64-bit Private Fixed Pool Storage (MB)
 X.....E  SSA64PGM - 64-bit Private Getmained Storage (MB)
 X.....E  SSA64PSM - 64-bit Private Storage for SMCS (MB)
 X.....E  SSA64PVP - 64-bit Private Variable Pool Stor (MB)

Maximum Data Elements

 X.....E  SSA64PAX - HWM for 4K 64-bit Private Aux Slots
 X.....E  SSA64PFH - HWM for Real 4K 64-bit Private Frames
```

5.2.10.3 Usage Considerations

This section identifies any special considerations or techniques related to using the DBPSSA file. Additionally, a retrieval example is provided to facilitate the use of this file.

In the example, we use a SAS macro to specify the DD name part of the CA MICS file name. These macros are a standard part of CA MICS and are available for all files. The macro name has the form _iiit, where "iii" is the information area name and "t" is the timespan. In addition, many of the examples use the _fffSUM macro, where "fff" is the file identifier to summarize the data as indicated by the _BY and _BREAK macro definitions.

Special Considerations/Techniques

- Exercise care when using the special date and time data elements contained in each CA MICS file. As the file's granularity increases in higher timespans, certain fields lose significance and should not be referenced.

  - HOUR should not be used in MONTHS and YEARS.
  - DAY and DAYNAME should not be used in WEEKS, MONTHS, or YEARS.
  - WEEK should not be used in MONTHS or YEARS.
  - MONTH should not be used in YEARS.

- The data elements STARTTS and ENDTS have different meanings when used in the DETAIL timespan versus their meaning in the DAYS, WEEKS, MONTHS, and YEARS timespans. The ENDTS and STARTTS, when appearing in the DAYS, WEEKS, MONTHS, and YEARS timespans, indicate the span of time over which the data has been summarized with STARTTS indicating the lowest date and time and ENDTS indicating the greatest date and time for the summarized data.

Retrieval Example

- Hourly 31-Bit Storage Usage by Address Space

```
YESTRDY=DATE()-1;
IF DATEPART(ENDTS)=YESTRDY;
HOUR=HOUR(ENDTS);
MACRO _BY SYSID DB2ID SSAADSNM HOUR %
MACRO _BREAK HOUR %
PROC SUMMARY DATA=TEST1 NWAY;
```

```
  CLASS SYSID DB2ID SSAADSNM HOUR;
  OUTPUT OUT=STATS
      MAX(SSA31MC SSA31MVS SSASCWRN SSA31GMS SSA31STU SSA31VPS
          SSA31FPS SSA31GM SSA31SSA)=
      MIN(SSA31AVL)=;
PROC SORT DATA=STATS; BY SYSID DB2ID SSAADSNM HOUR;
PROC PRINT DATA=STATS UNIFORM NOOBS ;
  BY SYSID DB2ID SSAADSNM;
  VAR DB2ID SSAADSNM HOUR SSA31MC SSA31MVS SSASCWRN SSA31GMS
      SSA31STU SSA31VPS SSA31FPS SSA31GM SSA31SSA SSA31AVL;
TITLE YESTERDAYS HOURLY 31-BIT STORAGE USAGE BY ADDRESS SPACE;
```

5.2.11 DB2 System IDAA Activity (DB2DSI) File

```
FILENAME=DB2DSIxx

 The DB2 System IDAA Activity file contains the IBM DB2
 Analytics Accelerator (IDAA) data for resources used and
 activity on the Netezza appliance.  This file is derived from
 the SMF DB2 record type 100 subtype 1.  This file exists in
 the DETAIL, DAYS, WEEKS, MONTHS, and YEARS timespans.

 The following three sections describe the file's
 organization, list the data elements maintained, and provide
 usage hints:

    1 - File Organization
    2 - Data Elements List
    3 - Usage Considerations
```

5.2.11.1 File Organization

The table below identifies data elements by which the file is sequenced and summarized in each timespan. "N/A" indicates that the file is not supported in a timespan. At the DETAIL level, data is sequenced but not summarized.

Note: The timespans in which a file is supported are defined by each installation when CA MICS is installed. Therefore, this table has been generated as part of the installation process to accurately reflect the CA MICS system at your installation.

Timespan	Level of Data Granularity				
DETAIL	SYSID	DB2ID	DB2XSVNM	YEAR	MONTH
	DAY	HOUR	ENDTS		
DAYS	SYSID	DB2ID	DB2XSVNM	YEAR	MONTH
	DAY	HOUR			
WEEKS	SYSID	DB2ID	DB2XSVNM	YEAR	WEEK
	ZONE	HOUR			
MONTHS	SYSID	DB2ID	DB2XSVNM	YEAR	MONTH
	ZONE				
YEARS	SYSID	DB2ID	DB2XSVNM	YEAR	ZONE
TABLES	N/A				

Generation Date: Tue, Apr 16, 2013

NOTE: This file was generated with ESSENTIAL=ALL option in effect. All data elements defined in the file are generated.

NOTE: This file was generated with DERIVED=DEFault option in effect. Whether data elements are kept on the file on auxiliary storage or not is controlled by the complex definition of the DERIVED option.

Figure 5-11. DB2DSI Timespan Granularity Chart

5.2.11.2 Data Element List

The table that follows identifies data elements contained in this file. The entries for each data element are as follows:

TIMESPAN: Defines the timespans in which the data element is supported. A "." indicates that the data element is not supported. The timespans in which the data element is supported are indicated by the letters X,D,W,M,Y,T, as follows:

X - DETAIL
D - DAYS
W - WEEKS
M - MONTHS
Y - YEARS
T - TABLES AREA

DATA ELEMENT: The data element name.

DATA ELEMENT DESCRIPTION: The long name of the data element.

Note: The timespans in which a data element is supported are defined by each site when CA MICS is installed. Therefore, this table has been generated as part of the installation process to reflect the CA MICS system at your site.

GENERATION DATE: Tue, Apr 16, 2013

Note: Essential data elements are identified by an "E" under the Timespan asterisk (*) column.

Time-Span *	Data Element	Data Element Description (LABEL)

Sequence/Summary Data Elements

XD....E	DAY	- Day of Month
XDWMY.E	DB2ID	- DB2 ID
XDWMY.E	DB2XSVNM	- IDAA Server Name
XDW...E	HOUR	- Hour of Day
XDWM..E	MONTH	- Month of Year
XDWMY.E	SYSID	- System Identifier
XDW...E	WEEK	- Week of Year
XDWMY.E	YEAR	- Year of Century
XDWMY.E	ZONE	- Time Zone

Common Data Elements

```
 XD....E  DAYNAME  - Name of Day of Week
 XDWMY.E  DB2DSGN  - Data Sharing Group Name
 XDWMY.E  DB2ISEQ  - Instrumentation Sequence Number
 XDWMY.E  DB2MEMN  - DB2 Member Name
 X.....E  DB2MLVL  - MICS DB2 Maintenance Level
 XDWMY.E  DB2REL   - DB2 Release
 XDWMY.E  DB2RELN  - DB2 Release Number
 XDWMY.E  DURATION - Recording Interval Time
 XDWMY.E  ENDTS    - End Time Stamp
 XDWMY.E  INTERVLS - Number of Recording Intervals
 XDWMY.E  STARTTS  - Start Time Stamp

Retained Data Elements

 X.....E  DSIXACTV - IDAA Current Active Requests
 X.....E  DSIXAVQ3 - IDAA Avg Query Queue Len Last 3 hours
 X.....E  DSIXAV24 - IDAA Avg Query Queue Len Last 24 hours
 X.....E  DSIXPRID - IDAA Product ID
 X.....E  DSIXST   - IDAA State

Accumulated Data Elements

 XDWMY.E  DSIXACPU - IDAA CPU Time
 XDWMY.E  DSIXAELA - IDAA Elapsed Time
 XDWMY.E  DSIXAWAT - IDAA Wait Time
 XDWMY.E  DSIXBLKR - IDAA Blocks Returned Count
 XDWMY.E  DSIXBLKS - IDAA Blocks Sent Count
 XDWMY.E  DSIXBYTR - IDAA Bytes Returned Count
 XDWMY.E  DSIXBYTS - IDAA Bytes Sent Count
 XDWMY.E  DSIXCCPU - Sum Avg Pct CPU Util IDAA Coordinator
 XDWMY.E  DSIXCONN - IDAA Connects Count
 XDWMY.E  DSIXCPMU - Sum Phys Mem Avg Use Coordinator Node
 XDWMY.E  DSIXFAIL - IDAA Failed Connection Requests Count
 XDWMY.E  DSIXFINV - IDAA Failed Reqs Due to Invalid State
 XDWMY.E  DSIXFREQ - IDAA Failed Query Requests Count
 XDWMY.E  DSIXMSGR - IDAA Messages Returned Count
 XDWMY.E  DSIXMSGS - IDAA Messages Sent Count
 XDWMY.E  DSIXQUEW - Sum of IDAA Avg Queue Wait Elapsed Time
 XDWMY.E  DSIXREQ  - IDAA DRDA Requests Count
 XDWMY.E  DSIXROWR - IDAA Rows Returned Count
 XDWMY.E  DSIXROWS - IDAA Rows Sent Count
 XDWMY.E  DSIXSREQ - IDAA Successful Query Requests Count
 XDWMY.E  DSIXTCPU - IDAA TCP/IP CPU Time
 XDWMY.E  DSIXTELA - IDAA TCP/IP Elapsed Time
 XDWMY.E  DSIXTOUT - IDAA Timed Out Connection Requests
 XDWMY.E  DSIXWCPU - Sum Avg Pct CPU Util IDAA Worker Nodes
 XDWMY.E  DSIXWNOD - IDAA Active Worker Nodes Count
 XDWMY.E  DSIXWPMU - Sum Physical Mem Avg Use Worker Nodes
```

```
 XDWMY.E  DSIXWSMU - Sum Shared Mem Data Avg Use Worker

Maximum Data Elements

 XDWMY.E  DSIMXCOR - Total Amount of Processors within IDAA
 XDWMY.E  DSIMXDKA - IDAA Max Disk Storage (MB) Available
 XDWMY.E  DSIMXDKB - IDAA Disk Storage In Use for Database
 XDWMY.E  DSIMXDKU - IDAA Max Percent Disk Storage In Use
 XDWMY.E  DSIMXMIP - IDAA Max Processing Capacity
 XDWMY.E  DSIMXMXA - IDAA Maximum Active Requests Count
 XDWMY.E  DSIMXMXQ - IDAA Query Queue Length High Watermark
 XDWMY.E  DSIMXNDS - IDAA V2 Max Number of Data Slices
 XDWMY.E  DSIMXQUE - IDAA Maximum Queue Wait Elapsed Time
 XDWMY.E  DSIMXSKW - IDAA Maximum Data Skew
 XDWMY.E  DSIMXWMA - Max Shared Mem Data Avail Worker Node
 XDWMY.E  DSIMXWSM - Max Shared Mem Data Use IWA Worker Node

Derived Data Elements

 XDWMY.E  DSIAVCCP - Avg Pct CPU Util IDAA Coordinator Node
 XDWMY.E  DSIAVCPM - Phys Mem (MB) Avg Use Coordinator Node
 XDWMY.E  DSIAVQWT - IDAA Avg Queue Wait Elapsed Time
 XDWMY.E  DSIAVWCP - Avg Pct CPU Util IDAA Worker Nodes
 XDWMY.E  DSIAVWPM - Physical Mem (MB) Avg Use Worker Nodes
 XDWMY.E  DSIAVWSU - Shared Mem Data Avg Use Worker
```

5.2.11.3 Usage Considerations

This section identifies any special considerations or techniques related to using the DB2DSI file. Additionally, we provide several sample retrieval examples to facilitate the use of this file.

In the examples, we use a SAS macro to specify the DD name part of the CA MICS file name. These macros are a standard part of CA MICS and are available for all files. The macro name has the form &iiit, where "iii" is the Information Area name and "t" is the Timespan. In addition, many of the examples use the %fffSUM macro, where "fff" is the file identifier, to summarize the data as indicated by the &BY and &BREAK macro definitions.

Special Considerations/Techniques

- The following data elements only have meaning when using the DB2DSInn file in the DETAIL timespan, they lose significance once summarization has been performed. These data elements should only be referenced when using the DB2DSInn file in the DETAIL timespan.

  DB2ISEQ - Instrumentation Sequence Number

- Exercise care when using the special date and time data elements contained in each CA MICS file. As the file's granularity increases in higher Timespans, certain fields lose significance and should not be referenced.

  - HOUR should not be used in MONTHS and YEARS.
  - DAY and DAYNAME should not be used in WEEKS, MONTHS, or YEARS.
  - WEEK should not be used in MONTHS or YEARS.
  - MONTH should not be used in YEARS.

- The data elements STARTTS and ENDTS have different meanings when used in the DETAIL timespan versus their meaning in the DAYS, WEEKS, MONTHS, and YEARS timespans. The ENDTS and STARTTS, when appearing in the DAYS, WEEKS, MONTHS, and YEARS timespans, indicate the span of time over which the data has been summarized with STARTTS indicating the lowest date and time and ENDTS indicating the greatest date and time for the summarized data.

Retrieval Examples

- Example 1: Plot four charts per page containing various IDAA resource activity per hour.

```
DATA TEST1;
SET &DB2D..DB2DSI01;
DATE=DATEPART(ENDTS);
FORMAT DATE DATE8.;
PROC SORT DATA=TEST1;
  BY SYSID DB2ID DB2XSVNM DATE HOUR;
PROC PLOT DATA=TEST1 VPERCENT=50 HPERCENT=50;
  BY SYSID DB2ID DB2XSVNM DATE;
PLOT DSIXACPU*HOUR='*' / BOX;
PLOT DSIXAELA*HOUR='*' / BOX;
PLOT DSIXREQ*HOUR='*' / BOX;
PLOT DSIXROWS*HOUR='S' DSIXROWR*HOUR='R' / OVERLAY BOX;
TITLE DB2 IDAA Activity;
```

- Example 2: Print a report containing the number of IDAA requests, CPU time and Elapse time for both IDAA and TCP/IP for zone 1, yesterday.

```
DATA TEST2;
SET &DB2D..DB2DSI01;
DATE=DATEPART(ENDTS);
FORMAT DATE DATE8.;
IF ZONE=1;
PROC PRINT DATA=TEST2;
%LET BY= SYSID DB2ID DB2XSVNM DATE HOUR ;
%LET BREAK= HOUR ;
PROC SORT DATA=TEST2 OUT=TEST2; BY &BY;
DATA TEST2;
SET TEST2;
BY &BY;
%DSISUM;
PROC PRINT DATA=TEST2 NOOBS LABEL UNIFORM;
BY SYSID DB2ID DB2XSVNM;
ID DATE HOUR;
VAR DSIXRREQ DSIXROWS DSIXROWR DSIXACPU DSIXAELA
    DSIXTCPU DSIXTELA;
TITLE 'IDAA ACTIVITY IN PRIME SHIFT';
```

5.2.12 DB2 Aggregated Accounting Stats (DB2DAS) File

FILENAME=DB2DASxx

The DB2 Aggregated Accounting Stats file contains transaction accounting statistics aggregated to the DB2 interval level when statistics class 9 is active. This file is derived from the SMF DB2 record type 100 subtype 5. This file exists in the DETAIL, DAYS, WEEKS, MONTHS, and YEARS timespans.

The following three sections describe the file's organization, list the data elements maintained, and provide usage hints:

1 - File Organization
2 - Data Elements List
3 - Usage Considerations

5.2.12.2 Data Element List

The table that follows identifies data elements contained in this file. The entries for each data element are as follows:

TIMESPAN: Defines the timespans in which the data element is supported. A "." indicates that the data element is not supported. The timespans in which the data element is supported are indicated by the letters X,D,W,M,Y,T, as follows:

X - DETAIL
D - DAYS
W - WEEKS
M - MONTHS
Y - YEARS
T - TABLES AREA

DATA ELEMENT: The data element name.

DATA ELEMENT DESCRIPTION: The long name of the data element.

Note: The timespans in which a data element is supported are defined by each site when CA MICS is installed. Therefore, this table has been generated as part of the installation process to reflect the CA MICS system at your site.

GENERATION DATE: Tue, Sep 17, 2013

Note: Essential data elements are identified by an "E" under the Timespan asterisk (*) column.

Time-Span *	Data Element	Data Element Description (LABEL)

Sequence/Summary Data Elements

XD....E	DAY	- Day of Month
XDWMY.E	DB2CONN	- Connection Identifier
XDWMY.E	DB2ID	- DB2 ID
XDW...E	HOUR	- Hour of Day
XDWM..E	MONTH	- Month of Year
XDWMY.E	SYSID	- System Identifier
XDW...E	WEEK	- Week of Year
XDWMY.E	YEAR	- Year of Century
XDWMY.E	ZONE	- Time Zone

```
Common Data Elements

 XD....E  DAYNAME  - Name of Day of Week
 XDWMY.E  DB2ISEQ  - Instrumentation Sequence Number
 X.....E  DB2MLVL  - MICS DB2 Maintenance Level
 XDWMY.E  DB2REL   - DB2 Release
 XDWMY.E  DB2RELN  - DB2 Release Number
 XDWMY.E  DURATION - Recording Interval Time
 XDWMY.E  ENDTS    - End Time Stamp
 XDWMY.E  INTERVLS - Number of Recording Intervals
 XDWMY.E  STARTTS  - Start Time Stamp

Accumulated Data Elements

 XDWMY.E  DASAACC  - No. Wait Trace Events Req to IDAA
 XDWMY.E  DASAACW  - Wait Time for Requests to IDAA
 XDWMY.E  DASABORT - Abort Requests
 XDWMY.E  DASALGTM - Class 3 Accum Wait Archive Log Time
 XDWMY.E  DASALLTM - Lock & Latch time
 XDWMY.E  DASARLCT - NO. Archive Log Suspensions
 XDWMY.E  DASARLH  - Wait Trace Events Latch Contention
 XDWMY.E  DASATCNT - No. Autonomous Procedures Executed
 XDWMY.E  DASATWAT - Autonomous Procedure Wait Time
 XDWMY.E  DASAWATM - Class 3 Accum Wait Log Reads Time
 XDWMY.E  DASAWBTM - Wait Time - TCP/IP LOB Material
 XDWMY.E  DASAWCTM - Class 3 Accum Wait Drain Wait Time
 XDWMY.E  DASAWDTM - Class 3 Accum Wait Drain Lock Time
 XDWMY.E  DASAWETM - Class 3 Accum Wait Service Task Time
 XDWMY.E  DASAWGTM - Accum Wait Time Data Sharing Messages
 XDWMY.E  DASAWJTM - Accum Wait Time Global Locks
 XDWMY.E  DASAWLTM - Accum Wait Time - Latch Contention
 XDWMY.E  DASAWPTM - Class 3 Accum Wait Page Latch
 XDWMY.E  DASAWRTM - Class 3 Accum Wait Read Other Time
 XDWMY.E  DASAWWTM - Class 3 Accum Wait Write Other Time
 XDWMY.E  DASCANM  - NO. Times SQL Call Wait for TCB
 XDWMY.E  DASCLRAB - NO. Log Record Bytes Written
 XDWMY.E  DASCLRN  - NO. Log Records Written
 XDWMY.E  DASCOMM2 - Commit Phase Two Invocations
 XDWMY.E  DASCPUTM - Accumulated CPU Time
 XDWMY.E  DASCPUZ1 - Accum CPU Tm Used on z/OS Spec Eng
 XDWMY.E  DASCPUZ2 - CPU Tm Used in DB2 on z/OS Spec Eng
 XDWMY.E  DASCP1TM - Total CP Class 1 CPU Time
 XDWMY.E  DASCP2TM - Total CP Class 2 CPU Time
 XDWMY.E  DASCUDNE - NO. SQL Entry/exit UDF Events
 XDWMY.E  DASDSNS  - No. Wait Trace Events - Dataspace Mgr
 XDWMY.E  DASDSSTM - Accum Wait Time Dataspace Manager
 XDWMY.E  DASELGZP - Accumulated CPU Time zIIP-Eligible Work
 XDWMY.E  DASENTEX - NO. Entry/Exit events processed
 XDWMY.E  DASET2TM - Elapsed Time in DB2
```

```
XDWMY.E  DASFCCT  - NO. Wait Trace Events - Force-At-Commit
XDWMY.E  DASIOETM - DB2 Accumulated I/O Elapsed Wait Time
XDWMY.E  DASIXLE  - NO. Wait Trace Events - Async IXLCACHE
XDWMY.E  DASIXLTM - Total Wait Time IXLCACHE/FCOMP Asynch
XDWMY.E  DASOCNS  - NO. Wait Trace Events - Open/Close/HSM
XDWMY.E  DASOCSTM - Accum Wait Time Open/Close/HSM
XDWMY.E  DASOTNS  - No. Wait Trace Events - Other Services
XDWMY.E  DASOTSTM - Accum Wait Time Other DB2 Services
XDWMY.E  DASPARQR - No. Parallel Query Rollup Records
XDWMY.E  DASPCAGT - No. Parallel Child Agent Tasks Rolled
XDWMY.E  DASPCNT  - NO. Parallel Tasks Created
XDWMY.E  DASPKGN  - NO. Packages/DBRM's Traces Active
XDWMY.E  DASPQSCT - No. Parallel Query WT Prnt/Chld Sync
XDWMY.E  DASPQSWT - Parent Child Task Sync Wait Time
XDWMY.E  DASRBSV  - NO. SQL Rollback to Savepoint Stmts
XDWMY.E  DASRLSV  - NO. SQL Release Savepoint Statements
XDWMY.E  DASRNKCL - No. Wait Trace Glbl Cont. Child LLock
XDWMY.E  DASRNMOL - No. Wait Trace Glbl Cont. Other LLock
XDWMY.E  DASRNNPL - No. Wait Trace Glbl Cont. PP PLock
XDWMY.E  DASRNOPL - No. Wait Trace Glbl Cont. PG PLock
XDWMY.E  DASRNQOL - No. Wait Trace Glbl Cont. Other PLock
XDWMY.E  DASSLNS  - NO. Wait Trace Events - SYSLGRNG
XDWMY.E  DASSLSTM - Accum Wait Time SYSLGRNG
XDWMY.E  DASSPATM - Total Elapsed Time Stored Procedures
XDWMY.E  DASSPBTM - DB2 Stored Procedures Total Elapsed Tm
XDWMY.E  DASSPCTM - Accum CPU Time SQL Procedures Main Unit
XDWMY.E  DASSPETM - Total Elapsed Time Wait for TCB
XDWMY.E  DASSPNE  - SQL Events by Stored Procedures
XDWMY.E  DASSPPTM - CPU Time Stored Procedure Address Space
XDWMY.E  DASSPSE1 - Accum CPU Tm Exec SP on z/OS Spec Eng
XDWMY.E  DASSPSE2 - CPU Tm in DB2 Exec SP on z/OS Spec Eng
XDWMY.E  DASSPZET - zIIP Stored Procedures Total Elapsed Tm
XDWMY.E  DASSPZTM - CPU Tm Exec Strd Proc on z/OS Spec Eng
XDWMY.E  DASSP2TM - Accum CPU Time in DB2 Stored Procedures
XDWMY.E  DASSVPT  - NO. SQL Savepoint Statements
XDWMY.E  DASTCBTM - TCB Time
XDWMY.E  DASTC2TM - Class 2 Accumulated TCB Time in DB2
XDWMY.E  DASTEETM - Total Elps Tm Exec Trigger Undr Enclave
XDWMY.E  DASTRETM - Accum Elapsed Time Exec Cntl Triggers
XDWMY.E  DASTRTSE - Accum CPU Tm Exe Trgrs on z/OS Spec Eng
XDWMY.E  DASTRTTM - Accum TCB Time Under Cntl Trigger
XDWMY.E  DASTRTZP - CPU Tm Exec Triggers on z/OS Spec Eng
XDWMY.E  DASTTETM - Total TCB Tm Exec Trigger Undr Enclave
XDWMY.E  DASUDATM - Total Elapsed Time UDF
XDWMY.E  DASUDBTM - Total Elapsed Time in DB2 UDF
XDWMY.E  DASUDCTM - Accum CPU Time UDF
XDWMY.E  DASUDMTM - CPU Time in DB2 Exec Userdef
XDWMY.E  DASUDSE1 - Accum CPU Tm Exec UDF on z/OS Spec Eng
XDWMY.E  DASUDSE2 - CPU Tm in DB2 Exec UDF on z/OS Spec Eng
```

```
XDWMY.E  DASUDSTM - Total Elapsed Time UDF Wait for TCB
XDWMY.E  DASUDTTM - Accum CPU Time in DB2 UDF
XDWMY.E  DASUDZET - Elapsed Time in DB2 for Userdef
XDWMY.E  DASUDZTM - UDF Spec Eng Time
XDWMY.E  DASWATRA - No. Wait Trace Events for Log Reads
XDWMY.E  DASWATRB - Wt Trace for TCP/IP LOB Material
XDWMY.E  DASWATRC - NO. Wait Trace Events for Claims
XDWMY.E  DASWATRD - NO. Wait Trace Events for Drain Lock
XDWMY.E  DASWATRG - NO. Wait Trace Events for Glbl. Lock
XDWMY.E  DASWATRL - NO. Wait Trace Events for Lock/Latch
XDWMY.E  DASWATRM - NO. Wait Trace Events for Data Shr Msgs
XDWMY.E  DASWATRP - NO. Wait Trace Events for Page Latch
XDWMY.E  DASWATRR - NO. Wait Trace Events for Read Other
XDWMY.E  DASWATRW - NO. Wait Trace Events for Write Other
XDWMY.E  DASWATSE - NO. Wait Trace Events for Sync. Exec.
XDWMY.E  DASWATTR - NO. Wait Trace events processed
XDWMY.E  DASWFCTM - Total Wait Time for Force-At-Commit
XDWMY.E  DASWGLTM - Glbl Contention PG P-Lock Wait Time
XDWMY.E  DASWLCTM - Glbl Contention Child L-Lock Wait Time
XDWMY.E  DASWLGCT - NO. Wait Trace Events - Log Write IO
XDWMY.E  DASWLGTM - Accum Wait Time for Log Write IO
XDWMY.E  DASWLLTM - Glbl Contention Other L-Locks Wait Time
XDWMY.E  DASWLPTM - Glbl Contention PP P-Lock Wait Time
XDWMY.E  DASWTOTM - Glbl Contention Other P-Locks Wait Time
XDWMY.E  DASXSPTM - CPU Time Excluding Special CPU Time
```

5.2.12.3 Usage Considerations

This section identifies any special considerations or techniques related to using the DB2DAS file. Additionally, we provide several sample retrieval examples to facilitate the use of this file.

In the examples, we use a SAS macro to specify the DD name part of the CA MICS file name. These macros are a standard part of CA MICS and are available for all files. The macro name has the form &iiit, where "iii" is the Information Area name and "t" is the Timespan. In addition, many of the examples use the %fffSUM macro, where "fff" is the file identifier, to summarize the data as indicated by the &BY and &BREAK macro definitions.

Special Considerations/Techniques

- The following data elements only have meaning when using the DB2DASnn file in the DETAIL timespan, they lose significance once summarization has been performed. These data elements should only be referenced when using the DB2DASnn file in the DETAIL timespan.

  DB2ISEQ - Instrumentation Sequence Number

- Exercise care when using the special date and time data elements contained in each CA MICS file. As the file's granularity increases in higher Timespans, certain fields lose significance and should not be referenced.

  - HOUR should not be used in MONTHS and YEARS.
  - DAY and DAYNAME should not be used in WEEKS, MONTHS, or YEARS.
  - WEEK should not be used in MONTHS or YEARS.
  - MONTH should not be used in YEARS.

- The data elements STARTTS and ENDTS have different meanings when used in the DETAIL timespan versus their meaning in the DAYS, WEEKS, MONTHS, and YEARS timespans. The ENDTS and STARTTS, when appearing in the DAYS, WEEKS, MONTHS, and YEARS timespans, indicate the span of time over which the data has been summarized with STARTTS indicating the lowest date and time and ENDTS indicating the greatest date and time for the summarized data.

Retrieval Examples

- Example 1: Plot four charts per page containing various CPU and wait times per hour.

```
DATA TEST1;
SET &DB2D..DB2DAS01;
DATE=DATEPART(ENDTS);
FORMAT DATE DATE8.;
PROC SORT DATA=TEST1;
  BY SYSID DB2ID DB2CONN DATE HOUR;
PROC PLOT DATA=TEST1 VPERCENT=50 HPERCENT=50;
  BY SYSID DB2ID DB2CONN DATE;
PLOT DASCPUTM*HOUR='*' / BOX;
PLOT DASCPUZ1*HOUR='*' / BOX;
PLOT DASIOETM*HOUR='*' / BOX;
PLOT DASTCBTM*HOUR='C' DASCPUZ1*HOUR='Z' / OVERLAY BOX;
TITLE 'DB2 CPU TIME Activity';
```

- Example 2: Print a report containing a number of event wait statistics for hour 10 from yesterday.

```
DATA TEMP2;
SET &DB2X..DB2DAS01;
DATE=DATEPART(ENDTS);
FORMAT DATE DATE8.;
IF HOUR=10;
RUN;
PROC SORT DATA=TEMP2; BY SYSID DB2ID DB2CONN DATE HOUR;
RUN;
PROC PRINT DATA=TEMP2 NOOBS LABEL UNIFORM;
BY SYSID DB2ID DB2CONN;
ID ENDTS;
VAR DASWATRA DASWATRC DASWATRD DASOCNS DASOTNS DASFCCT
    DASIXLE DASDSNS;
TITLE 'DB2 EVENT WAIT STATISTICS';
```

5.2.12.1 File Organization

The table that follows identifies data elements by which the file is sequenced and summarized in each timespan. "N/A" indicates that the file is not supported in a timespan. At the DETAIL level, data is sequenced but not summarized.

Note: The timespans in which a file is supported are defined by each installation when CA MICS is installed. Therefore, this table has been generated as part of the installation process to accurately reflect the CA MICS system at your installation.

Timespan	Level of Data Granularity				
DETAIL	SYSID	DB2ID	DB2CONN	YEAR	MONTH
	DAY	HOUR	ENDTS		
DAYS	SYSID	DB2ID	DB2CONN	YEAR	MONTH
	DAY	HOUR			
WEEKS	SYSID	DB2ID	DB2CONN	YEAR	WEEK
	ZONE	HOUR			
MONTHS	SYSID	DB2ID	DB2CONN	YEAR	MONTH
	ZONE				
YEARS	SYSID	DB2ID	DB2CONN	YEAR	ZONE
TABLES	N/A				

Generation Date: Fri, Jun 28, 2013

NOTE: This file was generated with ESSENTIAL=ALL option in effect. All data elements defined in the file are generated.

NOTE: This file was generated with DERIVED=DEFault option in effect. Whether data elements are kept on the file on auxiliary storage or not is controlled by the complex definition of the DERIVED option.

Figure 5-12. DB2DAS Timespan Granularity Chart

5.3 DBP Information Area FILES

This section identifies each file in the DB2 Buffer Pool Information Area and defines its levels of summarization and data sequencing. Also, it presents the list of available data elements for each file.

The files maintained in the Hardware Information Area include:

- DB2 Buffer Pool Activity (DBPDSB) File
- DB2 User Buffer Pool Activity (DBPDBU) File
- DB2 Plan Buffer Pool Activity (DBPDBP) File
- DB2 Buffer Manager Group BP Attributes (DBPBMG) File
- DB2 Buffer Manager Dynamic BP Attributes (DBPBMD) File

5.3.1 DB2 Buffer Pool Activity (DBPDSB) File

FILENAME=DBPDSBxx

The DB2 Buffer Pool Activity file provides resource and activity information for individual DB2 buffer pools.

The DBPDSB file is populated with data from the SMF type 100 record.

The following three sections describe the file's organization, list the data elements maintained, and provide usage hints:

1 - File Organization
2 - Data Element List
3 - Usage Considerations

5.3.1.1 File Organization

The table below identifies data elements by which the file is sequenced and summarized in each timespan. "N/A" indicates that the file is not supported in a timespan. At the DETAIL level, data is sequenced but not summarized.

Note: The timespans in which a file is supported are defined by each data center when CA MICS is installed. Therefore, this table has been generated as part of the installation process to accurately reflect the CA MICS system at your data center.

Timespan	Level of Data Granularity
DETAIL	SYSID DB2ID DB2PID YEAR MONTH DAY HOUR ENDTS
DAYS	N/A
WEEKS	N/A
MONTHS	N/A
YEARS	N/A
TABLES	N/A

Generation Date: Tue, May 12, 2009

NOTE: This file was generated with ESSENTIAL=ALL option in effect. All data elements defined in the file are generated.

NOTE: This file was generated with DERIVED=DEFault option in effect. Whether data elements are kept on the file on auxiliary storage or not is controlled by the complex definition of the DERIVED option.

Figure 5-31. DBPDSB Timespan Granularity Chart

5.3.1.2 Data Element List

The table below identifies data elements contained in this file. The entries for each data element are as follows:

TIMESPAN: Defines the timespans in which the data element is supported. A "." indicates that the data element is not supported. The timespans in which the data element is supported are indicated by the letters "XDWMYT," which represent the timespans as follows:

X - DETAIL
D - DAYS
W - WEEKS
M - MONTHS
Y - YEARS
T - TABLES AREA

DATA ELEMENT: The data element name.

DATA ELEMENT DESCRIPTION: The long name of the data element.

Note: The timespans in which a data element is supported are defined by each site when CA MICS is installed. Therefore, this table has been generated as part of the installation process to reflect the CA MICS system at your site.

GENERATION DATE: Tue, Sep 17, 2013

Note: Essential data elements are identified by an "E" under the Timespan asterisk (*) column.

Time-Span *	Data Element	Data Element Description (LABEL)

Sequence/Summary Data Elements

XD....E	DAY	- Day of Month
XDWMY.E	DB2ID	- DB2 ID
XDWMY.E	DB2PID	- DB2 BUFFER POOL ID
XDW...E	HOUR	- Hour of Day
XDWM..E	MONTH	- Month of Year
XDWMY.E	SYSID	- System Identifier
XDW...E	WEEK	- Week of Year
XDWMY.E	YEAR	- Year of Century
XDWMY.E	ZONE	- Time Zone

```
Common Data Elements

 XD....E  DAYNAME  - Name of Day of Week
 XDWMY.E  DB2DSGN  - Data Sharing Group Name
 XDWMY.E  DB2ISEQ  - Instrumentation Sequence Number
 XDWMY.E  DB2MEMN  - DB2 Member Name
 X.....E  DB2MLVL  - MICS DB2 Maintenance Level
 XDWMY.E  DB2REL   - DB2 Release
 XDWMY.E  DB2RELN  - DB2 Release Number
 XDWMY.E  DURATION - Recording Interval Time
 XDWMY.E  ENDTS    - End Time Stamp
 XDWMY.E  STARTTS  - Start Time Stamp

Accumulated Data Elements

 XDWMY.E  DSBABBP  - Active Buffers In Buffer Pool
 XDWMY.E  DSBACZ   - CF Writes Clean Pages
 XDWMY.E  DSBAWZ   - CF Writes Changed Pages
 XDWMY.E  DSBAXZ   - RPL Request Done by Prefetch
 XDWMY.E  DSBAYZ   - GBP Reads Prefetch Changed Page
 XDWMY.E  DSBBPSO  - Buffer Pool Data Set Opened
 XDWMY.E  DSBCCZ   - IXLCACHE Read-Castout-Class Req
 XDWMY.E  DSBCIO   - Castout I/O Operations
 XDWMY.E  DSBCKZ   - GBP Checkpoints Triggered
 XDWMY.E  DSBCMZ   - Read for Castout Multiple Requests
 XDWMY.E  DSBCRZ   - Read for Castout Requests
 XDWMY.E  DSBCSZ   - IXLCACHE Read-Castout-Stats Req
 XDWMY.E  DSBCTZ   - Castout Class Threshold Detected
 XDWMY.E  DSBDBPR  - Physical Data Base Page Requests
 XDWMY.E  DSBDBPU  - Data Base Page Updates
 XDWMY.E  DSBDGZ   - Unregistered Page Requests
 XDWMY.E  DSBDIO   - Async Read I/Os via Dynamic Prefetch
 XDWMY.E  DSBDMCT  - No. Times DM Critical WPHFWT Reached
 XDWMY.E  DSBDNZ   - IXLCACHE Delete-Name Requests
 XDWMY.E  DSBDPF   - No. Times Dynamic Prefetch Req.
 XDWMY.E  DSBDPP   - No. Async Page Reads via Dynamic Pref.
 XDWMY.E  DSBDWRT  - No. Times Deferred Write Threshold
 XDWMY.E  DSBDWV   - Times Vert. Defer. Write Thresh
 XDWMY.E  DSBEXZ   - Explicit XIs
 XDWMY.E  DSBGGZ   - GETPAGEs for GBP-Dependent Pagesets
 XDWMY.E  DSBGTZ   - Group BP Castout Threshold Detected
 XDWMY.E  DSBHST   - No. Times Len SLRU eq VPSEQT
 XDWMY.E  DSBHSZ   - Asynch IXLCACHE for Prim GBP
 XDWMY.E  DSBIMWS  - Count of Immediate Writes System Pages
 XDWMY.E  DSBJIS   - Total No. Pref. I/O Streams Denied
 XDWMY.E  DSBLIO   - Async Read I/Os via List Prefetch
 XDWMY.E  DSBLPF   - List Prefetch Requested
 XDWMY.E  DSBLPL   - No. LPL Inserts
```

```
XDWMY.E  DSBLPP   - Async Page Reads via List Prefetch
XDWMY.E  DSBMAX   - BP Not Supp Concur WK File
XDWMY.E  DSBMDZ   - CF Reads Data Returned
XDWMY.E  DSBMMRR  - Media Manager Read Requests
XDWMY.E  DSBMRZ   - CF Reads Data Not Returned Entry
XDWMY.E  DSBNGT   - No. GETPAGE Requests Not Satisfied
XDWMY.E  DSBNREC  - Count of Type 100 Subtype 1 Records
XDWMY.E  DSBNSG   - No. Seq GETPAGE Failures
XDWMY.E  DSBN1Z   - Page P-lock Negt Space Map Pages
XDWMY.E  DSBN2Z   - Page P-lock Negt Data Pages
XDWMY.E  DSBN3Z   - Page P-lock Negt Index Leaf Pages
XDWMY.E  DSBOSZ   - Other CF Requests
XDWMY.E  DSBPCO   - Pages Written for Castout I/Os
XDWMY.E  DSBPL1   - Total Times Pref. Qty 1/2 Normal
XDWMY.E  DSBPL2   - Total Times Pref. Qty 1/4 Normal
XDWMY.E  DSBPQF   - Total Times Parallel Buf. Not Alloc
XDWMY.E  DSBPQO   - Total No. Parallel Queries
XDWMY.E  DSBP1Z   - Page P-lock Req Space Map Pages
XDWMY.E  DSBP2Z   - Page P-lock Req Data Pages
XDWMY.E  DSBP3Z   - Page P-lock Req Index Leaf Pages
XDWMY.E  DSBRCZ   - Pages Castout to DASD
XDWMY.E  DSBRDZ   - IXLCACHE Read-DIRINFO Requests
XDWMY.E  DSBREEP  - Prefetch Request Disabled No Read
XDWMY.E  DSBRFXS  - Read Pagefixed W/O Real Storage
XDWMY.E  DSBRGZ   - Registered Page Requests
XDWMY.E  DSBRHS   - No. Random Getpage Buff Hit on SLRU
XDWMY.E  DSBSGT   - GETPAGE Req. by Seq. Access Req.
XDWMY.E  DSBSIO   - Sync Read I/Os Seq Access Req
XDWMY.E  DSBSPDF  - Prefetch Request Disabled No Buffer
XDWMY.E  DSBSPPF  - Count Records Read Prefetch Requests
XDWMY.E  DSBSPWR  - System Pages Written to DASD
XDWMY.E  DSBSQPF  - Count Sequential Prefetch Requests
XDWMY.E  DSBSSEF  - Storage Shortage Expansion Fails
XDWMY.E  DSBSWZ   - CF Writes For Changed Pages
XDWMY.E  DSBS1Z   - Page P-lock Unlock Requests
XDWMY.E  DSBS2Z   - Page P-lock Susp Space Map Pages
XDWMY.E  DSBS3Z   - Page P-lock Susp Data Pages
XDWMY.E  DSBTMIG  - No. Migrated Datasets Encountered
XDWMY.E  DSBTPF0  - WK PF Abort - 0 PF QTY
XDWMY.E  DSBTPIO  - No. Prefetch Async Read I/Os
XDWMY.E  DSBTRTO  - No. Recall Timeouts
XDWMY.E  DSBUNZ   - IXLCACHE Unlock-Castout Req
XDWMY.E  DSBU1Z   - Page P-lock Unlock Requests
XDWMY.E  DSBVPA   - Successful VPOOL Expand/Contract
XDWMY.E  DSBVPL   - No. Buffers Allocated for a VPOOL
XDWMY.E  DSBWAZ   - Pages in Write Around
XDWMY.E  DSBWBVQ  - Pages Deq VDWQ Destr Read Req
XDWMY.E  DSBWCZ   - CF Writes For Clean Pages
XDWMY.E  DSBWDRP  - Pages Destruct Read Req
```

```
 XDWMY.E  DSBWFD   - Work Files Denied Sort Merge
 XDWMY.E  DSBWFF   - Poor Sort Merge - Buf Short
 XDWMY.E  DSBWFM   - Max WK File Alloc Sort Merge
 XDWMY.E  DSBWFR   - Req Query WK File Sort Merge
 XDWMY.E  DSBWFT   - Work Files Req Sort Merge
 XDWMY.E  DSBWFXS  - Write Pagefixed W/O Real Storage
 XDWMY.E  DSBWFZ   - CF Write Requests No Storage
 XDWMY.E  DSBWMZ   - Write and Register Multiple Requests
 XDWMY.E  DSBWPZ   - Pages Written via WARM
 XDWMY.E  DSBWREE  - No. Times Write Engine Unavailable
 XDWMY.E  DSBWRMM  - Write I/Os By Media Manager
 XDWMY.E  DSBWSZ   - Write and Register Requests
 XDWMY.E  DSBXDZ   - CF Reads Buffer XI
 XDWMY.E  DSBXFL   - Buffer Not Located -- VPOOL Full
 XDWMY.E  DSBXIS   - Max No. Concurrent Pref. Streams
 XDWMY.E  DSBXRZ   - CF Reads Entry Created
 XDWMY.E  DSB2DZ   - IXLCACHE Delete-Name-List 2nd GBP
 XDWMY.E  DSB2FZ   - Write Chg Pgs to 2nd GBP Fail Stg
 XDWMY.E  DSB2HZ   - Asynch IXLCACHE for 2nd GBP
 XDWMY.E  DSB2NZ   - IXLCACHE Delete-Name 2nd GBP
 XDWMY.E  DSB2RZ   - IXLCACHE Read-Castout-St 2nd GBP
 XDWMY.E  DSB2SZ   - Comp Write 2nd GBP Suspended

Minimum Data Elements

 XDWMY.E  DSBSMIN  - Min Buffers on SLRU

Maximum Data Elements

 XDWMY.E  DSBSMAX  - Max Buffers on SLRU

Derived Data Elements

 XDWMY.   DSBMRPR  - Media Read Req Per Phys Req
 XDWMY.   DSBPWPU  - Page Write Per Page Update
 XDWMY.   DSBRFRI  - Read Frames Per Read Req
```

5.3.1.3 Usage Considerations

This section identifies the special considerations or techniques related to using the DBPDSB file. Additionally, we provide several retrieval examples to facilitate the use of this file.

In the examples, we use a SAS macro to specify the DD name part of the CA MICS file name. These macros are a standard part of CA MICS and are available for all files. The macro name has the form _iiit, where "iii" is the Information Area name and "t" is the timespan. In addition, many of the examples use the _fffSUM macro, where "fff" is the file identifier, to summarize the data as indicated by the _BY and _BREAK macro definitions.

Special Considerations/Techniques

- The following data elements only have meaning when using the DBPDSBnn file in the DETAIL timespan, in that they lose significance once summarization has been performed. These data elements should only be referenced when using the DBPDSBnn file in the DETAIL timespan.

  DB2ISEQ - Instrumentation Sequence Number

- Exercise care when using the special date and time data elements contained in each CA MICS file. As the file's granularity increases in higher timespans, certain fields lose significance and should not be referenced.

  - HOUR should not be used in MONTHS and YEARS.
  - DAY and DAYNAME should not be used in WEEKS, MONTHS, or YEARS.
  - WEEK should not be used in MONTHS or YEARS.
  - MONTH should not be used in YEARS.

- The data elements STARTTS and ENDTS have different meanings when used in the DETAIL timespan versus their meaning in the DAYS, WEEKS, MONTHS, and YEARS timespans. The ENDTS and STARTTS, when appearing in the DAYS, WEEKS, MONTHS, and YEARS timespans, indicate the span of time over which the data has been summarized with STARTTS indicating the lowest date and time and ENDTS indicating the greatest date and time for the summarized data.

Retrieval Examples

- Example 1: Plot the Get Pages used by DB2 Buffer Pool over the last 4 weeks by week.

```
DATA TEST1;
SET &DBPW..DBPDSB01
    &DBPW..DBPDSB02
    &DBPW..DBPDSB03
    &DBPW..DBPDSB04
    ;
DATE=DATEPART(STARTTS);
FORMAT DATE DATE7.;
%LET BY = DB2ID DB2PID WEEK ;
%LET BREAK = WEEK ;
PROC SORT DATA=TEST1 OUT=TEST1;  BY &BY;
DATA TEST1;
SET TEST1;
%DSBSUM;
PROC PLOT DATA=TEST1;
BY DB2ID DB2PID;
PLOT DSBDBPU*WEEK;
TITLE
 'DB2 Database Page Updates By Buffer Pool By Week';
```

- Example 2: Print the several indicators of buffer pool activity for last week, zone 1 (prime shift). Number of Buffer Pool Expansions, Buffer Pool Data Sets Opened, Number of Active Buffers In Buffer Pool, System Pages Written to DASD, and Prefetch Request Disabled due to unavailable buffer resource.

```
DATA TEST2;
SET _DB2W.DBPDSB01;
IF ZONE=1;
PROC PRINT DATA=TEST2;
VAR SYSID DB2ID DB2PID DSBSBPE DSBBPSO DSBABBP DSBSPWR
    DSBSPDF;
TITLE  'DB2 BUFFER POOL PERFORMANCE INDICATORS FOR';
TITLE2 'LAST WEEK IN ZONE 1 (PRIME SHIFT)';
```

5.3.2 DB2 User Buffer Pool Activity (DBPDBU) File

FILENAME=DBPDBUxx

The DB2 User Buffer Pool Activity file provides resource information for each DB2 buffer pool used by DB2 transactions. This file is sorted by the DB2 account codes.

The DBPDBU file is populated with data from the SMF type 101 record.

The following three sections describe the file's organization, list the data elements maintained, and provide usage hints:

1 - File Organization
2 - Data Element List
3 - Usage Considerations

5.3.2.1 File Organization

The table below identifies data elements by which the file is sequenced and summarized in each timespan. "N/A" indicates that the file is not supported in a timespan. At the DETAIL level, data is sequenced but not summarized.

Note: The timespans in which a file is supported are defined by each data center when CA MICS is installed. Therefore, this table has been generated as part of the installation process to accurately reflect the CA MICS system at your data center.

Timespan	Level of Data Granularity
DETAIL	N/A
DAYS	N/A
WEEKS	N/A
MONTHS	N/A
YEARS	N/A
TABLES	N/A

Generation Date: Tue, May 12, 2009

NOTE: This file was generated with ESSENTIAL=ALL option in effect. All data elements defined in the file are generated.
NOTE: This file was generated with DERIVED=DEFault option in effect. Whether data elements are kept on the file on auxiliary storage or not is controlled by the complex definition of the DERIVED option.

Figure 5-32. DBPDBU Timespan Granularity Chart

5.3.2.2 Data Element List

The table below identifies data elements contained in this file. The entries for each data element are as follows:

TIMESPAN: Defines the timespans in which the data element is supported. A "." indicates that the data element is not supported. The timespans in which the data element is supported are indicated by the letters "XDWMYT," which represent the timespans as follows:

X - DETAIL
D - DAYS
W - WEEKS
M - MONTHS
Y - YEARS
T - TABLES AREA

DATA ELEMENT: The data element name.

DATA ELEMENT DESCRIPTION: The long name of the data element.

Note: The timespans in which a data element is supported are defined by each site when CA MICS is installed. Therefore, this table has been generated as part of the installation process to reflect the CA MICS system at your site.

Note: Essential data elements are identified by an "E" under the Timespan asterisk (*) column.

Time-Span *	Data Element	Data Element Description (LABEL)

Sequence/Summary Data Elements

.....E	DAY	- Day of Month
.....E	DB2ACT1	- AUTHORIZATION ID
.....E	DB2ACT2	- CORRELATION ID
.....E	DB2ACT3	- CONNECTION ID
.....E	DB2ACT4	- DISTRIBUTED THREAD TYPE
.....E	DB2ID	- DB2 ID
.....E	DB2PID	- DB2 BUFFER POOL ID
.....E	HOUR	- Hour of Day
.....E	MONTH	- Month of Year
.....E	SYSID	- System Identifier
.....E	WEEK	- Week of Year
.....E	YEAR	- Year of Century

```
 ......E  ZONE     - Time Zone

Common Data Elements

 ......E  DAYNAME  - Name of Day of Week
 ......   DB2ACE   - DB2 Agent Control Element
 ......   DB2ATNM  - Active Trace Number Mask
 ......E  DB2AUTH  - Authorization Identifier
 ......E  DB2CONN  - Connection Identifier
 ......E  DB2CORR  - Correlation Identifier
 ......E  DB2CPU   - DB2 CPU Time
 ......E  DB2DDFCT - DDF DB2 Commits Received from Remote
 ......   DB2DSTSN - Destination Sequence Number
 ......   DB2ISEQ  - Instrumentation Sequence Number
 ......E  DB2LOCN  - DB2 Local Location ID
 ......   DB2LUNAM - Logical Unit NAME
 ......E  DB2MLVL  - MICS DB2 Maintenance Level
 ......   DB2NETID - Network ID
 ......E  DB2OPID  - Original Operator ID
 ......E  DB2PLAN  - Plan Name
 ......E  DB2PTASK - Special Transaction Type Identifier
 ......   DB2REL   - DB2 Release
 ......E  DB2RELN  - DB2 Release Number
 ......E  DB2REQID - DB2 Requestor Location ID
 ......E  DB2STCK  - DB2 Store Clock At End Event
 ......E  DB2THDTY - DB2 Thread Type
 ......   DB2UNIQ  - DB2 Instance Number
 ......E  ENDTS    - End Time Stamp
 ......E  MICSVER  - CA MICS Version Number
 ......E  STARTTS  - Start Time Stamp

Accumulated Data Elements

 ......E  DBUCIMW  - No. Of Immed. Sync Write I/O Buffer
 ......E  DBUGPGR  - GETPAGE Requests
 ......E  DBULPF   - No. Times LIST PREFETCH req.
 ......E  DBUPRFH  - PREFETCH Read Requests Buffer
 ......E  DBUSPRU  - System Page Record Update
 ......E  DBUSRIO  - Synchronous Read IOs
```

5.3.2.3 Usage Considerations

This section identifies any special considerations and/or techniques related to using the DB2DSU file. Additionally, we provide a retrieval example to facilitate the use of this file.

In the example, we use a SAS macro to specify the DD name part of the CA MICS file name. These macros are a standard part of CA MICS and are available for all files. The macro name has the form _iiit, where "iii" is the Information Area name and "t" is the Time span. In addition, many of the examples use the _fffSUM macro, where "fff" is the file identifier, to summarize the data as indicated by the _BY and _BREAK macro definitions.

Special Considerations/Techniques

- Exercise care when using the special date and time data elements contained in each CA MICS file. As a file's granularity increases in higher time spans, certain fields lose significance and should not be referenced.

  - HOUR should not be used in MONTHS and YEARS.
  - DAY and DAYNAME should not be used in WEEKS, MONTHS, or YEARS.
  - WEEK should not be used in MONTHS or YEARS.
  - MONTH should not be used in YEARS.

- Data elements STARTTS and ENDTS have different meanings when used in the DETAIL time span versus their meaning in the DAYS, WEEKS, MONTHS, and YEARS timespans. The ENDTS and STARTTS, when appearing in the DAYS, WEEKS, MONTHS, and YEARS time spans, indicate the span of time over which the data has been summarized with STARTTS indicating the lowest date and time and ENDTS indicating the greatest date and time for the summarized data.

Retrieval Example

This example assumes that element DB2AUTH is a sort/sequence element on the DSU file. If it is stored as a DB2ACTn element, substitute the correct DB2ACTn element name where appropriate.

- Example: list all users who submitted transactions that issued enough GET PAGE requests to cause a buffer pool expansion. This helps to identify those users which

```
might function more efficiently if a larger buffer pool
were provided.  The report is ordered from highest to
lowest.

DATA TEST1;
SET _DB2D.DBPDBU01;
IF DBUGPBE>0;
MACRO _BY SYSID DB2ID DB2PID DB2AUTH %
MACRO _BREAK DB2AUTH %
PROC SORT DATA=TEST1 OUT=TEST1; BY _BY;
DATA TEST1;
SET TEST1;
_DSUSUM;
PROC SORT DATA=TEST1 OUT=TEST1; BY DESCENDING DBUGPBE;
PROC PRINT DATA=TEST1;
VAR DB2AUTH DBUGPBE;
TITLE USERS NEEDING LARGER BUFFER POOLS;
```

5.3.3 DB2 Plan Buffer Pool Activity (DBPDBP) File

```
FILENAME=DBPDBPxx

The DB2 Plan Buffer Pool Activity file provides resource
information for each DB2 buffer pool used by DB2
transactions, sorted by DB2 plan name.

The DBPDBP file is populated with data from the SMF type 101
record.

The following three sections describe the file's
organization, list the data elements maintained, and provide
usage hints:

   1 - File Organization
   2 - Data Element List
   3 - Usage Considerations
```

5.3.3.1 File Organization

The table below identifies data elements by which the file is sequenced and summarized in each timespan. "N/A" indicates that the file is not supported in a timespan. At the DETAIL level, data is sequenced but not summarized.

Note: The timespans in which a file is supported are defined by each data center when CA MICS is installed. Therefore, this table has been generated as part of the installation process to accurately reflect the CA MICS system at your data center.

Timespan	Level of Data Granularity
DETAIL	N/A
DAYS	N/A
WEEKS	N/A
MONTHS	N/A
YEARS	N/A
TABLES	N/A

Generation Date: Tue, May 12, 2009

NOTE: This file was generated with ESSENTIAL=ALL option in effect. All data elements defined in the file are generated.

NOTE: This file was generated with DERIVED=DEFault option in effect. Whether data elements are kept on the file on auxiliary storage or not is controlled by the complex definition of the DERIVED option.

Figure 5-33. DBPDBP Timespan Granularity Chart

5.3.3.2 Data Element List

The table below identifies data elements contained in this file. The entries for each data element are as follows:

TIMESPAN: Defines the timespans in which the data element is supported. A "." indicates that the data element is not supported. The timespans in which the data element is supported are indicated by the letters "XDWMYT," which represent the timespans as follows:

X - DETAIL
D - DAYS
W - WEEKS
M - MONTHS
Y - YEARS
T - TABLES AREA

DATA ELEMENT: The data element name.

DATA ELEMENT DESCRIPTION: The long name of the data element.

Note: The timespans in which a data element is supported are defined by each site when CA MICS is installed. Therefore, this table has been generated as part of the installation process to reflect the CA MICS system at your site.

GENERATION DATE: Tue, May 12, 2009

Note: Essential data elements are identified by an "E" under the Timespan asterisk (*) column.

Time-Span *	Data Element	Data Element Description (LABEL)

Sequence/Summary Data Elements

.....E	DAY	- Day of Month
.....E	DB2ID	- DB2 ID
.....E	DB2PID	- DB2 BUFFER POOL ID
.....E	DB2PLAN	- Plan Name
.....E	HOUR	- Hour of Day
.....E	MONTH	- Month of Year
.....E	SYSID	- System Identifier
.....E	WEEK	- Week of Year
.....E	YEAR	- Year of Century
.....E	ZONE	- Time Zone

```
Common Data Elements

 ......E  DAYNAME  - Name of Day of Week
 ......   DB2ACE   - DB2 Agent Control Element
 ......   DB2ATNM  - Active Trace Number Mask
 ......E  DB2AUTH  - Authorization Identifier
 ......E  DB2CONN  - Connection Identifier
 ......E  DB2CORR  - Correlation Identifier
 ......E  DB2CPU   - DB2 CPU Time
 ......E  DB2DDFCT - DDF DB2 Commits Received from Remote
 ......   DB2DSTSN - Destination Sequence Number
 ......   DB2ISEQ  - Instrumentation Sequence Number
 ......E  DB2LOCN  - DB2 Local Location ID
 ......   DB2LUNAM - Logical Unit NAME
 ......E  DB2MLVL  - MICS DB2 Maintenance Level
 ......   DB2NETID - Network ID
 ......E  DB2OPID  - Original Operator ID
 ......E  DB2PTASK - Special Transaction Type Identifier
 ......   DB2REL   - DB2 Release
 ......E  DB2RELN  - DB2 Release Number
 ......E  DB2REQID - DB2 Requestor Location ID
 ......E  DB2STCK  - DB2 Store Clock At End Event
 ......E  DB2THDTY - DB2 Thread Type
 ......   DB2UNIQ  - DB2 Instance Number
 ......E  ENDTS    - End Time Stamp
 ......E  MICSVER  - CA MICS Version Number
 ......E  STARTTS  - Start Time Stamp

Accumulated Data Elements

 ......E  DBPCIMW  - NO. Of Immed. Sync Write I/O
 ......E  DBPGPGR  - Get Page Requests
 ......E  DBPLPF   - NO. Times LIST PREFETCH req.
 ......E  DBPPRFH  - Prefetch Read Requests
 ......E  DBPSPRU  - System Page Record Update
 ......E  DBPSRIO  - Synchronous Read IOs
```

5.3.3.3 Usage Considerations

```
This section identifies any special considerations or
 techniques related to using the DBPDBP file.  Additionally,
 we  provide a retrieval example to facilitate the use of
 this file.

 In the example, we use a SAS macro to specify the DD name
 part of the CA MICS file name.  These macros are a standard
 part of CA MICS and are available for all files.  The macro
 name has the form  _iiit, where "iii" is the information area
 name and "t" is the timespan.  In addition, many of the
 examples use the  _fffSUM macro, where "fff" is the file
 identifier to summarize the data as indicated by the _BY and
 _BREAK macro definitions.

 Special Considerations/Techniques

  o   Exercise care when using the special date and time
      data elements contained in each CA MICS file.  As
      the file's granularity increases in higher timespans,
      certain fields lose significance and should not be
      referenced.

      o HOUR should not be used in MONTHS and YEARS.
      o DAY and DAYNAME should not be used in WEEKS, MONTHS,
        or YEARS.
      o WEEK should not be used in MONTHS or YEARS.
      o MONTH should not be used in YEARS.

  o   The data elements STARTTS and ENDTS have different
      meanings when used in the DETAIL timespan versus their
      meaning in the DAYS, WEEKS, MONTHS, and YEARS timespans.
      The ENDTS and STARTTS, when appearing in the DAYS,
      WEEKS, MONTHS, and YEARS timespans, indicate the span of
      time over which the data has been summarized with
      STARTTS indicating the lowest date and time and ENDTS
      indicating the greatest date and time for the summarized
      data.

 Retrieval Example

  o   Buffer Pool Activity by DB2 PLAN.

      DATA TEST1;
      SET _DB2D.DBPDBP01
          ;
      YESTRDY=DATE()-1;
      IF DATEPART(ENDTS)=YESTRDY;
      MACRO _BY DB2PLAN DB2AUTH %
```

```
MACRO _BREAK DB2AUTH %
PROC SUMMARY DATA=TEST1 NWAY;
  CLASS SYSID DB2ID DB2PLAN DB2PID;
  VAR DBPCIMW DBPGPGR DBPLPF DBPPRFH DBPSRIO DBPUUOW;
```

5.3.4 DB2 Buffer Manager Group BP Attributes (DBPBMG) File

FILENAME=DBPBMGxx

The DB2 Buffer Manager Group BP Attributes file provides configuration and status information for each DB2 Group Buffer Pool ID.

The DBPBMG file is populated with data from the SMF type 100 subtype 2 record.

The following three sections describe the file's organization, list the data elements maintained, and provide usage hints:

1 - File Organization
2 - Data Element List
3 - Usage Considerations

5.3.4.1 File Organizations

The table below identifies data elements by which the file is sequenced and summarized in each timespan. "N/A" indicates that the file is not supported in a timespan. At the DETAIL level, data is sequenced but not summarized.

Note: The timespans in which a file is supported are defined by each data center when CA MICS is installed. Therefore, this table has been generated as part of the installation process to accurately reflect the CA MICS system at your data center.

Timespan	Level of Data Granularity
DETAIL	SYSID DB2ID BMGBPID YEAR MONTH DAY HOUR ENDTS
DAYS	N/A
WEEKS	N/A
MONTHS	N/A
YEARS	N/A
TABLES	N/A

Generation Date: Fri, Dec 21, 2012

NOTE: This file was generated with ESSENTIAL=ALL option in effect. All data elements defined in the file are generated.

NOTE: This file was generated with DERIVED=DEFault option in effect. Whether data elements are kept on the file on auxiliary storage or not is controlled by the complex definition of the DERIVED option.

Figure 5-34. DBPBMG Timespan Granularity Chart

5.3.4.2 Data Element List

The table below identifies data elements contained in this file. The entries for each data element are as follows:

TIMESPAN: Defines the timespans in which the data element is supported. A "." indicates that the data element is not supported. The timespans in which the data element is supported are indicated by the letters "XDWMYT," which represent the timespans as follows:

X - DETAIL
D - DAYS
W - WEEKS
M - MONTHS
Y - YEARS
T - TABLES AREA

DATA ELEMENT: The data element name.

DATA ELEMENT DESCRIPTION: The long name of the data element.

Note: The timespans in which a data element is supported are defined by each site when CA MICS is installed. Therefore, this table has been generated as part of the installation process to reflect the CA MICS system at your site.

GENERATION DATE: Tue, Sep 17, 2013

Note: Essential data elements are identified by an "E" under the Timespan asterisk (*) column.

Time-Span *	Data Element	Data Element Description (LABEL)

Sequence/Summary Data Elements

X.....E	BMGBPID	- Group Buffer Pool ID
X.....E	DAY	- Day of Month
X.....E	DB2ID	- DB2 ID
X.....E	HOUR	- Hour of Day
X.....E	MONTH	- Month of Year
X.....E	SYSID	- System Identifier
X.....E	WEEK	- Week of Year
X.....E	YEAR	- Year of Century
X.....E	ZONE	- Time Zone

```
Common Data Elements

 X.....E  DAYNAME  - Name of Day of Week
 X.....E  DB2ACE   - DB2 Agent Control Element
 X.....E  DB2ATNM  - Active Trace Number Mask
 X.....E  DB2DSTSN - Destination Sequence Number
 X.....E  DB2ISEQ  - Instrumentation Sequence Number
 X.....E  DB2MLVL  - MICS DB2 Maintenance Level
 X.....E  DB2RELN  - DB2 Release Number
 X.....E  DB2RMID  - DB2 Resource Manager Identifier
 X.....E  DB2STCK  - DB2 Store Clock At End Event
 X.....E  DURATION - Recording Interval Time
 X.....E  ENDTS    - End Time Stamp
 X.....E  STARTTS  - Start Time Stamp

Retained Data Elements

 X.....E  BMGBDUP  - Duplex or Simplex Indicator
 X.....E  BMGBERC  - Group Buffer Pool Return Code
 X.....E  BMGBERS  - Group Buffer Pool Reason Code
 X.....E  BMGBFLGS - Group Buffer Pool Error Flag
 X.....E  BMGBGAS  - Current AUTOREC Setting
 X.....E  BMGBGCK  - Group Buffer Pool Checkpoint Interval
 X.....E  BMGBGCS  - Current GBPCACHE Setting
 X.....E  BMGBGCT  - Castout Class Level Threshold
 X.....E  BMGBGCTN - Class Level Castout Threshold
 X.....E  BMGBGDR  - Number of Allocated Directory Entries
 X.....E  BMGBGDR2 - Allocated Dir. Entries in Secondary GBP
 X.....E  BMGBGDT  - Number of Allocated Data Entries
 X.....E  BMGBGDT2 - Allocated Data Entries in Secondary GBP
 X.....E  BMGBGGT  - Group Buffer Pool Level Threshold
 X.....E  BMGBGR1  - Current Dir Entry/Data Entry Ratio
 X.....E  BMGBGR2  - Pending Dir Entry/Data Entry Ratio
 X.....E  BMGBGSZ  - Allocated Size of the Group Buffer Pool
 X.....E  BMGBSZ2  - Allocated Size of Secondary GBP
 X.....E  BMGBTCC  - Total-Changed Counter

Accumulated Data Elements

 X.....E  BMGBDRR  - Directory-Entry-Reclaim Counter
 X.....E  BMGBDTR  - Data-Entry-Reclaim Counter
 X.....E  BMGBRXI  - XI-Directory-Entry-Reclaim Counter
```

5.3.4.3 Usage Considerations

This section identifies any special considerations or techniques related to using the DBPBMG file. Additionally, we provide an example to facilitate the use of this file.

In the example, we use a SAS macro to specify the DD name part of the CA MICS file name. These macros are a standard part of CA MICS and are available for all files. The macro name has the form _iiit, where "iii" is the information area name and "t" is the timespan. In addition, many of the examples use the _fffSUM macro, where "fff" is the file identifier to summarize the data as indicated by the _BY and _BREAK macro definitions.

Special Considerations/Techniques

0 Exercise care when using the special date and time data elements contained in each CA MICS file. As the file's granularity increases in higher timespans, certain fields lose significance and should not be referenced.

  - o HOUR should not be used in MONTHS and YEARS.
  - o DAY and DAYNAME should not be used in WEEKS, MONTHS, or YEARS.
  - o WEEK should not be used in MONTHS or YEARS.
  - o MONTH should not be used in YEARS.

o The data elements STARTTS and ENDTS have different meanings when used in the DETAIL timespan versus their meaning in the DAYS, WEEKS, MONTHS, and YEARS timespans. The ENDTS and STARTTS, when appearing in the DAYS, WEEKS, MONTHS, and YEARS timespans, indicate the span of time over which the data has been summarized with STARTTS indicating the lowest date and time and ENDTS indicating the greatest date and time for the summarized data.

Retrieval Example

o Yesterdays Group Buffer Pool Status by Hour

```
DATA TEST1;
SET _DB2X.DBPBMG01
    ;
YESTRDY=DATE()-1;
IF DATEPART(ENDTS)=YESTRDY;
HOUR=HOUR(ENDTS);
MACRO _BY SYSID DB2ID HOUR %
```

```
MACRO _BREAK HOUR %
PROC SUMMARY DATA=TEST1 NWAY;
  CLASS SYSID DB2ID BMGBPID HOUR;
  OUTPUT OUT=STATS
      MAX(BMGBGSZ BMGBGDR BMGBGDT BMGBTCC BMGBSZ2 BMGBGDR2
          BMGBGDT2)=
      SUM(BMGBDRR BMGBDTR BMGBRXI)=;
PROC SORT DATA=STATS; BY SYSID DB2ID BMGBPID HOUR;
PROC PRINT DATA=STATS UNIFORM NOOBS ;
  BY SYSID DB2ID BMGBPID;
  VAR DB2ID BMGBPID HOUR BMGBGSZ BMGBGDR BMGBGDT BMGBTCC
      BMGBSZ2 BMGBGDR2 BMGBGDT2 BMGBDRR BMGBDTR BMGBRXI;
TITLE YESTERDAYS GROUP BUFFER POOL STATUS BY HOUR;
//
```

5.3.5 DB2 Buffer Manager Dynamic BP Attributes (DBPBMD) File

FILENAME=DBPBMDxx

The DB2 Buffer Manager Dynamic BP Attributes file provides configuration and status information for each DB2 Buffer Pool Name.

The DBPBMD file is populated with data from the SMF type 100 subtype 3 record.

The following three sections describe the file's organization, list the data elements maintained, and provide usage hints:

1 - File Organization
2 - Data Element List
3 - Usage Considerations

5.3.5.1 File Organization

The table below identifies data elements by which the file is sequenced and summarized in each timespan. "N/A" indicates that the file is not supported in a timespan. At the DETAIL level, data is sequenced but not summarized.

Note: The timespans in which a file is supported are defined by each data center when CA MICS is installed. Therefore, this table has been generated as part of the installation process to accurately reflect the CA MICS system at your data center.

Timespan	Level of Data Granularity					
DETAIL	SYSID	DB2ID	BMDBPNM	YEAR	MONTH	
	DAY	HOUR	ENDTS			
DAYS	N/A					
WEEKS	N/A					
MONTHS	N/A					
YEARS	N/A					
TABLES	N/A					

Generation Date: Fri, Dec 21, 2012

NOTE: This file was generated with ESSENTIAL=ALL option in effect. All data elements defined in the file are generated.

NOTE: This file was generated with DERIVED=DEFault option in effect. Whether data elements are kept on the file on auxiliary storage or not is controlled by the complex definition of the DERIVED option.

Figure 5-35. DBPBMD Timespan Granularity Chart

5.3.5.2 Data Element List

The table below identifies data elements contained in this file. The entries for each data element are as follows:

TIMESPAN: Defines the timespans in which the data element is supported. A "." indicates that the data element is not supported. The timespans in which the data element is supported are indicated by the letters "XDWMYT," which represent the timespans as follows:

X - DETAIL
D - DAYS
W - WEEKS
M - MONTHS
Y - YEARS
T - TABLES AREA

DATA ELEMENT: The data element name.

DATA ELEMENT DESCRIPTION: The long name of the data element.

Note: The timespans in which a data element is supported are defined by each site when CA MICS is installed. Therefore, this table has been generated as part of the installation process to reflect the CA MICS system at your site.

GENERATION DATE: Tue, Sep 17, 2013

Note: Essential data elements are identified by an "E" under the Timespan asterisk (*) column.

Time-Span *	Data Element	Data Element Description (LABEL)

Sequence/Summary Data Elements

X.....E	BMDBPNM	- Buffer Pool Name
X.....E	DAY	- Day of Month
X.....E	DB2ID	- DB2 ID
X.....E	HOUR	- Hour of Day
X.....E	MONTH	- Month of Year
X.....E	SYSID	- System Identifier
X.....E	WEEK	- Week of Year
X.....E	YEAR	- Year of Century
X.....E	ZONE	- Time Zone

Common Data Elements

```
 X.....E  DAYNAME  - Name of Day of Week
 X.....E  DB2ACE   - DB2 Agent Control Element
 X.....E  DB2ATNM  - Active Trace Number Mask
 X.....E  DB2DSTSN - Destination Sequence Number
 X.....E  DB2ISEQ  - Instrumentation Sequence Number
 X.....E  DB2MLVL  - MICS DB2 Maintenance Level
 X.....E  DB2RELN  - DB2 Release Number
 X.....E  DB2RMID  - DB2 Resource Manager Identifier
 X.....E  DB2STCK  - DB2 Store Clock At End Event
 X.....E  DURATION - Recording Interval Time
```

X.....E ENDTS - End Time Stamp

X.....E STARTTS - Start Time Stamp

Retained Data Elements

X.....E BMDPASIZ - AUTOSIZE Attribute

X.....E BMDPDWQT - Pool Deferred Write Threshold

X.....E BMDPFRAM - Virtual Pool FRAMESIZE Attribute

X.....E BMDPPFIX - PGFIX Attribute

X.....E BMDPPGST - PGSTEAL Attribute

X.....E BMDPPSQT - Parallel Sequential Threshold (1-100)

X.....E BMDPSLA - Data Space Lookaside Buffer Pages

X.....E BMDPVDQB - Pool Vertical Write Threshold Buffers

X.....E BMDPVDQT - Pool Vertical Write Threshold (1-100)

X.....E BMDPVPMA - Virtual Pool Max Size Attribute

X.....E BMDPVPMI - Virtual Pool Min Size Attribute

X.....E BMDPVPSH - Virtual Pool Seq Threshold (1-100)

X.....E BMDPVPSZ - Virtual Pool Size

X.....E BMDPXSQT - Assisting Parallel Sequential Threshold

5.3.5.3 Usage Considerations

This section identifies any special considerations or techniques related to using the DBPBMD file. Additionally, we provide a retrieval example o facilitate the use of this file.

In the examples, we use a SAS macro to specify the DD name part of the CA MICS file name. These macros are a standard part of CA MICS and are available for all files. The macro name has the form _iiit, where "iii" is the information area name and "t" is the timespan. In addition, many of the examples use the _fffSUM macro, where "fff" is the file identifier to summarize the data as indicated by the _BY and _BREAK macro definitions.

Special Considerations/Techniques

- Exercise care when using the special date and time data elements contained in each CA MICS file. As the file's granularity increases in higher timespans, certain fields lose significance and should not be referenced.

  - HOUR should not be used in MONTHS and YEARS.
  - DAY and DAYNAME should not be used in WEEKS, MONTHS, or YEARS.
  - WEEK should not be used in MONTHS or YEARS.
  - MONTH should not be used in YEARS.

- The data elements STARTTS and ENDTS have different meanings when used in the DETAIL timespan as opposed to their meaning in the DAYS, WEEKS, MONTHS, and YEARS timespans. The ENDTS and STARTTS, when appearing in the DAYS, WEEKS, MONTHS, and YEARS timespans, indicate the span of time over which the data has been summarized with STARTTS indicating the lowest date and time and ENDTS indicating the greatest date and time for the summarized data.

Retrieval Example

- Yesterdays Hourly Buffer Pool Status by Buffer Pool Name

```
DATA TEST1;
SET _DBPX.DBPBMD01
    ;
YESTRDY=DATE()-1;
IF DATEPART(ENDTS)=YESTRDY;
HOUR=HOUR(ENDTS);
```

```
MACRO _BY SYSID DB2ID HOUR %
MACRO _BREAK HOUR %
PROC SUMMARY DATA=TEST1 NWAY;
  CLASS SYSID DB2ID BMDBPNM HOUR;
  OUTPUT OUT=STATS
      MAX(BMDPVPSZ BMDPVDQB BMDPSLA BMDPVPSH BMDPDWQT
          BMDPVDQT BMDPPSQT BMDPXSQT)=;
PROC SORT DATA=STATS; BY SYSID DB2ID BMDBPNM HOUR;
PROC PRINT DATA=STATS UNIFORM NOOBS ;
  BY SYSID DB2ID BMDBPNM;
  VAR DB2ID BMDBPNM HOUR BMDPVPSZ BMDPVDQB BMDPSLA
      BMDPVPSH BMDPDWQT BMDPVDQT BMDPPSQT BMDPXSQT;
TITLE YESTERDAYS HOURLY BUFFER POOL STATUS BY BUFFER
      POOL NAME;
```

5.4 DB2 Suspend FILES

```
This section identifies the internal suspend files used by
 the DB2 Analyzer.  Many of the system level metrics in the
 raw data are accumulating values from interval to interval.
 To obtain the actual values pertaining to each interval,
 the DB2 Analyzer contains a sophisticated delta processing
 routine to perform the computations.  In order to maintain
 the delta accuracy for each run of the daily operational
 jobs, the final values are stored in various suspend files.
 These suspend files are then read in at the start of the next
 daily operational job so accurate deltas can be computed.

 These suspend files have no reporting value and should not
 be removed or deleted from the data base.

 Should you create a test complex/unit to run parallel testing,
 these files should be copied to the target complex/unit to
 produce comparable results.

 Each suspend file is described below:

 o DB2 System Activity Suspend (DB2_DS) File

 FILENAME=DB2_DS01

 The DB2_DS System Activity Suspend file maintains the last
 Systems Services interval record produced by a DB2 system.
 Suspend file records are used to obtain the true observation
 values of the first record processed during the next daily
 execution of CA MICS only when the first record processed is
 not the first record produced by a DB2 system.

 The DB2_DS File is a permanent file of the CA MICS DB2
 Analyzer.  It is strictly for internal use and exists only
 at the DETAIL timespan.

 ---------------------------------------------------------------

 o DB2 Data Base Activity Suspend (DB2_DD) File

 FILENAME=DB2_DD01

 The DB2_DD Data Base Activity Suspend file maintains the last
 Data Base Services interval record produced by a DB2 system.
 Suspend file records are used to obtain the true observation
 values of the first record processed during the next daily
 execution of CA MICS only when the first record processed is
 not the first record produced by a DB2 system.
```

```
The DB2_DD File is a permanent file of the CA MICS DB2
Analyzer.  It is strictly for internal use and exists only
at the DETAIL timespan.

---------------------------------------------------------------

o DB2 Buffer Pool Suspend (DBP_DB) File

FILENAME=DBP_DB01

The DBP_DB DB2 Buffer Pool Suspend file maintains the
last Systems Services interval record produced by a DB2
system.  Suspend file records are used to obtain the true
observation values of the first record processed during the
next daily execution of CA MICS only when the first record
processed is not the first record produced by a DB2 system.

The DBP_DB File is a permanent file of the CA MICS DB2
Analyzer.  It is strictly for internal use and exists only
at the DETAIL timespan.

---------------------------------------------------------------

o DB2 Buffer Manager Suspend (DBP_BM) File

FILENAME=DBP_BM01

The DBP_BM DB2 DB2 Buffer Manager Suspend file maintains the
last Buffer Manager interval record produced by a DB2
system.  Suspend file records are used to obtain the true
observation values of the first record processed during the
next daily execution of CA MICS only when the first record
processed is not the first record produced by a DB2 system.

The DBP_BM File is a permanent file of the CA MICS DB2
Analyzer.  It is strictly for internal use and exists only
at the DETAIL timespan.

---------------------------------------------------------------

o DB2 Buffer Manager Group Suspend (DBP_BP) File

FILENAME=DBP_BP01

The DBP_BP DB2 Buffer Manager Group Suspend file maintains
the last Buffer Manager Group interval record produced by a
DB2 system.  Suspend file records are used to obtain the true
observation values of the first record processed during the
next daily execution of CA MICS only when the first record
```

```
processed is not the first record produced by a DB2 system.

The DBP_BP File is a permanent file of the CA MICS DB2
Analyzer.  It is strictly for internal use and exists only
at the DETAIL timespan.

---------------------------------------------------------------

o DB2 Sys Stor Usage by AS Suspend (DB2_SS) File

FILENAME=DB2_SS01

The DB2_SS DB2 Sys Stor Usage by AS Suspend file maintains
the last Address Space System Storage Usage interval record
produced by a DB2 System.  Suspend file records are used to
obtain the true observation values of the first record
processed during the next daily execution of CA MICS only
when the first record processed is not the first record
produced by a DB2 system.

The DB2_SS File is a permanent file of the CA MICS DB2
Analyzer.  It is strictly for internal use and exists only
at the DETAIL timespan.

---------------------------------------------------------------

o DB2 System Storage Usage Suspend (DB2_SU) File

FILENAME=DB2_SU01

The DB2_SU DB2 System Storage Usage Suspend file maintains
the last System Storage Usage interval record produced by a
DB2 system.  Suspend file records are used to obtain the true
observation values of the first record processed during the
next daily execution of CA MICS only when the first record
processed is not the first record produced by a DB2 system.

The DB2_SU File is a permanent file of the CA MICS DB2
Analyzer.  It is strictly for internal use and exists only
at the DETAIL timespan.
```

Chapter 6: DATA SOURCES

This chapter discusses data collection considerations and the data source used by the CA MICS DB2 Analyzer.

This section contains the following topics:

6.1 Data Collection Considerations (see page 378)
6.2 Data Sources Supported (see page 379)
6.3 Data Element/Data Source Cross-Reference (see page 380)
6.4 Query CP Parallelism Considerations (see page 428)
6.5 ACCUMACC Roll-up Records (see page 450)
6.6 CA MICS and CA SMF Director Interface (see page 456)

6.1 Data Collection Considerations

Before installing the CA MICS Analyzer Option for DB2, you must address the following data collection considerations:

Space Considerations

- The DB2 Analyzer collects information about buffer pool usage and summarizes it across all active buffer pools to minimize space considerations.

- IBM classifies some fields as serviceability fields, meaning that they are used by IBM to solve problems. Because IBM reserves the right to define fields as serviceability fields, the analyzer provides a cluster code for elements that are in the database but are now derived from fields classified as serviceability fields.

  To deactivate these elements in your CA MICS database, use the OPTION statement keyword and cluster code documented in Chapter 7 of this guide.

Accounting Data Collection

- The DB2 Analyzer contains information from SMF type 101 Accounting records (IFCID 0003 and IFCID 239). Those records are further broken into types of traces, including:

Trace Class	Type of Data Collected
1	Accounting data
2	"In DB2" time
3	Wait times for I/O, locks, latches, drains, and claims
4	User-defined accounting
5	Time spent processing IFI requests
7	Package-level accounting "in DB2" time
8	Package-level accounting wait time "in DB2"
10	Package-level lock, buffer pool, and SQL statement related metrics

  The DB2 Analyzer records data from classes 1, 2, 3, 5, 7, 8, and 10.

6.2 Data Sources Supported

The CA MICS DB2 Analyzer uses data from SMF type 100 (statistics trace) and SMF type 101 (accounting trace) records.

To obtain the maximum benefit from the DB2 Analyzer, ensure that your site collects both record types. Because these records are optional, coordinate with your site's DB2 administrator to be sure that data will be collected each day.

SMF Type 100 Statistics Trace Records

Statistics trace information reports DB2 system and database services usage. The statistics trace information used in the CA MICS DB2 Analyzer includes the following:

This information...	is captured in this CA MICS file
Agent services manager	DB2DSY
Instrumentation facility	DB2DSY
Latch manager	DB2DSY
Log manager	DB2DSY
Storage manager	DB2DSY
Subsystem support	DB2DSY
Buffer manager	DB2DSD
Lock manager	DB2DSD
SQL	DB2DSD
Distributed processing	DB2DDY
Data sharing	DB2DSD, DB2DSY
System storage -addrspace	DB2SSA
System storage -DBID	DB2SSU
Buffer manager	DBPBMD
Buffer manager group	DBPBMG

Statistics trace data is written on a user-controlled interval basis.

SMF Type 101 Accounting Trace Records

Accounting trace records provide application program information. The accounting trace information used in the CA MICS DB2 Analyzer includes the following:

This information...	is captured in this CA MICS file

Number of uses of SQL statements	DB2DSU, DB2DSP, DB2DPP
Number of buffer manager requests	DB2DSU, DB2DSP
CPU times	DB2DSU, DB2DSP, DB2DPP, DB2DDU, DB2DDP
Wait times	DB2DSU, DB2DSP, DB2DPP
Distributed processing	DB2DDU, DB2DDP, DB2DPP
Data sharing	DB2DSP, DB2DSU
Client-server accounting	DB2DSU

Accounting trace data is collected from the successful allocation of a thread to the termination of that thread or when the authorization ID changes.

6.3 Data Element/Data Source Cross-Reference

The following tables provide cross-references from the data elements in the DB2 Information Area files to their corresponding input data field names. This information is useful when you are familiar with an input data source and want to identify the data element that contains the data field. It also helps to identify the data elements that are unique to a data source and lets you locate comparable fields when you are converting from one DB2 monitor to another.

Note: Not all DB2 data elements are listed below. Elements that are not listed include those that are computed from other elements and might not be directly assigned from a single raw input element.

The cross-reference listing is a useful tool when tailoring a database by identifying data elements pertaining to the DB2 versions being input. As new DB2 versions are installed, database tailoring is necessary to activate new elements and deactivate elements that might no longer be available in the input DB2 data.

The DB2BMD (DB2 Buffer Manager Dynamic BP Attributes) File

ELEMENT	ELEMENT DESCRIPTION	DICTIONARY MEMBER	RAW ELEMENT	AVAILABLE IN DB2 VERSIONS 8.1	9.1	10.1	11.1
BMDBPNM	Buffer Pool Name	BMDBPNM	QDBPNM	X	X	X	X
BMDPASIZ	AUTOSIZE Attribute	BMDPASIZ	QDBPASIZ	X	X	X	X
BMDPDWQT	Pool Deferred Write Threshold	BMDPDWQT	QDBPDWQT	X	X	X	X
BMDPFRAM	Virtual Pool FRAMESIZE Attribute	BMDPFRAM	QDBPFRAM				X
BMDPPFIX	PGFIX Attribute	BMDPPFIX	QDBPPFIX	X	X	X	X
BMDPPGST	PGSTEAL Attribute	BMDPPGST	QDBPPGST	X	X	X	X
BMDPPSQT	Parallel Sequential Threshold (1-100)	BMDPPSQT	QDBPPSQT	X	X	X	X
BMDPSLA	Data Space Lookaside Buffer Pages	BMDPSLA	QDBPSLA	X	X	X	X
BMDPVDQB	Pool Vertical Write Threshold Buffers	BMDPVDQB	QDBPVDQB	X	X	X	X
BMDPVDQT	Pool Vertical Write Threshold (1-100)	BMDPVDQT	QDBPVDQT	X	X	X	X
BMDPVPMA	Virtual Pool Max Size Attribute	BMDPVPMA	QDBPVPMA				X
BMDPVPMI	Virtual Pool Min Size Attribute	BMDPVPMI	QDBPVPMI				X
BMDPVPSH	Virtual Pool Seq Threshold (1-100)	BMDPVPSH	QDBPVPSH	X	X	X	X
BMDPVPSZ	Virtual Pool Size	BMDPVPSZ	QDBPVPSZ	X	X	X	X
BMDPXSQT	Assisting Parallel Sequential Threshold	BMDPXSQT	QDBPXSQT	X	X	X	X

The DB2BMG (DB2 Buffer Manager Group BP Attribute) File

ELEMENT	ELEMENT DESCRIPTION	DICTIONARY MEMBER	RAW ELEMENT	AVAILABLE IN DB2 VERSIONS 8.1	9.1	10.1	11.1
BMGBGCTN	Class Level Castout Threshold	BMGBGCTN	QBGBGCTN				X
BMGBDRR	Directory-Entry-Reclaim Counter	BMGBDRR	QBGBDRR	X	X	X	X
BMGBDTR	Data-Entry-Reclaim Counter	BMGBDTR	QBGBDTR	X	X	X	X
BMGBDUP	Duplex or Simplex Indicator	BMGBDUP	QBGBDUP	X	X	X	X
BMGBERC	Group Buffer Pool Return Code	BMGBERC	QBGBERC	X	X	X	X
BMGBERS	Group Buffer Pool Reason Code	BMGBERS	QBGBERS	X	X	X	X
BMGBFLGS	Group Buffer Pool Error Flag	BMGBFLGS	QBGBFLGS	X	X	X	X
BMGBGAS	Current AUTOREC Setting	BMGBGAS	QBGBGAS	X	X	X	X
BMGBGCK	Group Buffer Pool Checkpoint Interval	BMGBGCK	QBGBGCK	X	X	X	X
BMGBGCS	Current GBPCACHE Setting	BMGBGCS	QBGBGCS	X	X	X	X
BMGBGCT	Castout Class Level Threshold	BMGBGCT	QBGBGCT	X	X	X	X
BMGBGDR	Number of Allocated Directory Entries	BMGBGDR	QBGBGDR	X	X	X	X
BMGBGDR2	Allocated Dir. Entries in Secondary GBP	BMGBGDR2	QBGBGDR2	X	X	X	X
BMGBGDT	Number of Allocated Data Entries	BMGBGDT	QBGBGDT	X	X	X	X
BMGBGDT2	Allocated Data Entries in Secondary GBP	BMGBGDT2	QBGBGDT2	X	X	X	X
BMGBGGT	Group Buffer Pool Level Threshold	BMGBGGT	QBGBGGT	X	X	X	X
BMGBGR1	Current Dir Entry/Data Entry Ratio	BMGBGR1	QBGBGR1	X	X	X	X
BMGBGR2	Pending Dir Entry/Data Entry Ratio	BMGBGR2	QBGBGR2	X	X	X	X
BMGBGSZ	Allocated Size of the Group Buffer Pool	BMGBGSZ	QBGBGSZ	X	X	X	X
BMGBPID	Group Buffer Pool ID	BMGBPID	QBGBGN	X	X	X	X
BMGBRXI	XI-Directory-Entry-Reclaim Counter	BMGBRXI	QBGBRXI	X	X	X	X
BMGBSZ2	Allocated Size of Secondary GBP	BMGBSZ2	QBGBSZ2	X	X	X	X
BMGBTCC	Total-Changed Counter	BMGBTCC	QBGBTCC	X	X	X	X

The DBPDBP (DB2 Plan Buffer Pool Activity) File

ELEMENT	ELEMENT DESCRIPTION	DICTIONARY MEMBER	RAW ELEMENT	AVAILABLE IN DB2 VERSIONS 8.1	9.1	10.1	11.1
DBPCIMW	No. of Immed. Sync Write I/Os	DB2CIMW	QBACIMW	X	X	X	X
DBPDPF	No. Times Dynamic Prefetch Req	DB2DPF	QBACDPF	X	X	X	X
DBPGPGR	GETPAGE Requests	DB2GPGR	QBACGET	X	X	X	X
DBPLPF	No. Times LIST PREFETCH req.	DB2LPF	QBACLPF	X	X	X	X
DBPNGT	No. Time GETPAGE Req Not Satisfied	DB2NGT	QBACNGT	X	X	X	X
DBPPRFH	PREFETCH Read Requests	DB2PRFH	QBACSEQ	X	X	X	X
DBPSIO	No. Async Pages Read by Prefetch	DB2SIO	QBSTSIO	X	X	X	X
DBPSPRU	System Page Record Update	DB2SPRU	QBACSWS	X	X	X	X
DBPSRIO	Synchronous Read I/Os	DB2SRIO	QBACRIO	X	X	X	X
DB2ACE	DB2 Agent Control Element	DB2ACE	QWHSACE	X	X	X	X
DB2ATNM	Active Trace Number Mask	DB2ATNM	QWHSMTN	X	X	X	X
DB2AUTH	Authorization Identifier	DB2AUTH	QWHCAID	X	X	X	X
DB2CONN	Connection Identifier	DB2CONN	QWHCCN	X	X	X	X
DB2CORR	Correlation Identifier	DB2CORR	QWHCCV	X	X	X	X
DB2CPU	DB2 CPU Time	DB2CPU	QWHUCPU	X	X	X	X
DB2DDFCT	DDF COMMIT Count	DB2DDFCT	QWHSLUCC	X	X	X	X
DB2DSGN	Data Sharing Group Name	DB2DSGN	QWHADSGN	X	X	X	X
DB2DSTSN	Destination Sequence Number	DB2DSTSN	QWHSWSEQ	X	X	X	X
DB2ISEQ	Instrumentation Sequence Number	DB2ISEQ	QWHSISEQ	X	X	X	X
DB2LOCN	DDF Local Location ID	DB2LOCN	QWHSLOCN	X	X	X	X
DB2LUNAM	DB2 Logical Unit Name	DB2LUNAM	QWHSLUNM	X	X	X	X
DB2MEMN	DB2 Member Name	DB2MEMN	QWHAMEMN	X	X	X	X
DB2NETID	Network Identifier	DB2NETID	QWACNID	X	X	X	X
DB2OPID	Original Operator ID	DB2OPID	QWHCOPID	X	X	X	X
DB2PID	DB2 Buffer Pool Identifier	DB2PID	QBSTPID	X	X	X	X
DB2PLAN	Plan Name	DB2PLAN	QWHCPLAN	X	X	X	X
DB2RELN	DB2 Release Identifier	DB2RELN	QWHSRELN	X	X	X	X
DB2REQID	DDF Requester Location ID	DB2REQID	QWHDRQNM	X	X	X	X
DB2STCK	DB2 Store Clock At End Event	DB2STCK	QWHSSTCK	X	X	X	X
DB2UNIQ	DDF Instance Number Identifier	DB2UNIQ	QWHSLUUV	X	X	X	X

The DBPDBU (DB2 User Buffer Pool Activity) File

ELEMENT	ELEMENT DESCRIPTION	DICTIONARY MEMBER	RAW ELEMENT	AVAILABLE IN DB2 VERSIONS 8.1	9.1	10.1	11.1
DBUCIMW	No. of Immed. Sync Write I/Os	DB2CIMW	QBACIMW	X	X	X	X
DBUDPF	No. Times Dynamic Prefetch Req	DB2DPF	QBACDPF	X	X	X	X
DBUGPGR	GETPAGE Requests	DB2GPGR	QBACGET	X	X	X	X
DBULPF	No. Times LIST PREFETCH req.	DB2LPF	QBACLPF	X	X	X	X
DBUNGT	No. Time GETPAGE Req Not Satisfied	DB2NGT	QBACNGT	X	X	X	X
DBUPRFH	PREFETCH Read Requests	DB2PRFH	QBACSEQ	X	X	X	X
DBUSIO	No. Async Pages Read by Prefetch	DB2SIO	QBSTSIO	X	X	X	X
DBUSPRU	System Page Record Update	DB2SPRU	QBACSWS	X	X	X	X
DBUSRIO	Synchronous Read I/Os	DB2SRIO	QBACRIO	X	X	X	X
DB2ACE	DB2 Agent Control Element	DB2ACE	QWHSACE	X	X	X	X
DB2ATNM	Active Trace Number Mask	DB2ATNM	QWHSMTN	X	X	X	X
DB2AUTH	Authorization Identifier	DB2AUTH	QWHCAID	X	X	X	X
DB2CONN	Connection Identifier	DB2CONN	QWHCCN	X	X	X	X
DB2CORR	Correlation Identifier	DB2CORR	QWHCCV	X	X	X	X
DB2CPU	DB2 CPU Time	DB2CPU	QWHUCPU	X	X	X	X
DB2DDFCT	DDF COMMIT Count	DB2DDFCT	QWHSLUCC	X	X	X	X
DB2DSGN	Data Sharing Group Name	DB2DSGN	QWHADSGN	X	X	X	X
DB2DSTSN	Destination Sequence Number	DB2DSTSN	QWHSWSEQ	X	X	X	X
DB2ISEQ	Instrumentation Sequence Number	DB2ISEQ	QWHSISEQ	X	X	X	X
DB2LOCN	DDF Local Location ID	DB2LOCN	QWHSLOCN	X	X	X	X
DB2LUNAM	DB2 Logical Unit Name	DB2LUNAM	QWHSLUNM	X	X	X	X
DB2MEMN	DB2 Member Name	DB2MEMN	QWHAMEMN	X	X	X	X
DB2NETID	Network Identifier	DB2NETID	QWACNID	X	X	X	X
DB2OPID	Original Operator ID	DB2OPID	QWHCOPID	X	X	X	X
DB2PID	DB2 Buffer Pool Identifier	DB2PID	QBSTPID	X	X	X	X
DB2PLAN	Plan Name	DB2PLAN	QWHCPLAN	X	X	X	X
DB2RELN	DB2 Release Identifier	DB2RELN	QWHSRELN	X	X	X	X
DB2REQID	DDF Requester Location ID	DB2REQID	QWHDRQNM	X	X	X	X
DB2STCK	DB2 Store Clock At End Event	DB2STCK	QWHSSTCK	X	X	X	X
DB2UNIQ	DDF Instance Number Identifier	DB2UNIQ	QWHSLUUV	X	X	X	X

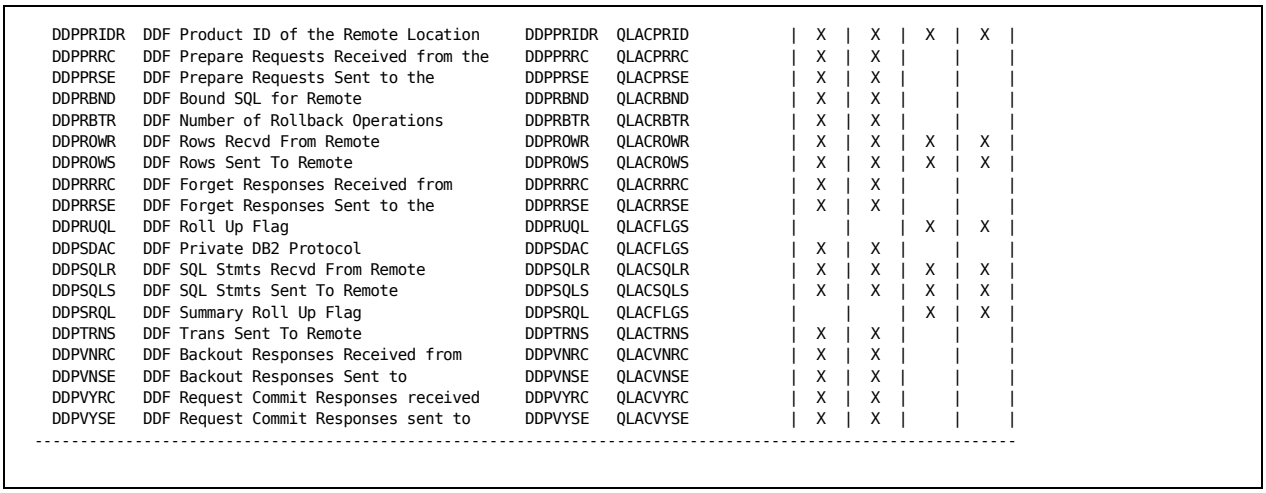
The DB2DAS (DB2 System Aggregated Stats) File

ELEMENT	ELEMENT DESCRIPTION	DICTIONARY MEMBER	RAW ELEMENT	AVAILABLE IN DB2 VERSIONS 8.1	9.1	10.1	11.1
DASABORT	ABORT Requests	DB2ABORT	QWACABRT			X	X
DASALGTM	Class 3 Accum Wait Archive Log Time	DB2ALGTM	QWAXALOG			X	X
DASALLTM	DB2 Lock & Latch Time	DB2ALLTM	QWACAWTL			X	X
DASARLCT	No. Archive Log Suspensions	DB2ARLCT	QWAXALCT			X	X
DASARLH	Wait Trace Events Latch Contention	DB2ARLH	QWACARLH			X	X
DASATCNT	No. Autonomous Procedures Executed	DB2ATCNT	QWAC_AT_COUNT				X
DASATWAT	Autonomous Procedure Wait Time	DB2ATWAT	QWAC_AT_WAIT				X
DASAWATM	Class 3 Accum Wait Log Reads Time	DB2AWATM	QWAXAWAR			X	X
DASAWBTM	Wait Time - TCP/IP LOB Material	DB2AWBTM	QWACALBW			X	X
DASAWCTM	Class 3 Accum Wait Drain Wait Time	DB2AWCTM	QWAXAWCL			X	X
DASAWDTM	Class 3 Accum Wait Drain Lock Time	DB2AWDTM	QWAXAWDR			X	X
DASAWETM	Class 3 Accum Wait Service Task Time	DB2AWETM	QWACAWTE			X	X
DASAWGTM	Accum Wait Time Data Sharing Messages	DB2AWGTM	QWACAWTG			X	X
DASAWJTM	Accum Wait Time Global Locks	DB2AWJTM	QWACAWTJ			X	X
DASAWLTM	Accum Wait Time - Latch Contention	DB2AWLTM	QWACAWLH			X	X
DASAWPTM	Class 3 Accum Wait Latch Contention	DB2AWPTM	QWACAWTP			X	X
DASAWRTM	Class 3 Accum Wait Read Other Time	DB2AWRTM	QWACAWTR			X	X
DASAWWTM	Class 3 Accum Wait Write Other Time	DB2AWRTM	QWACAWTW			X	X
DASAACC	No. Wait Trace Events Req to IDAA	DB2AACC	QWACAACC				X
DASAACW	Wait Time for Requests to IDAA	DB2AACW	QWACAACW				X
DASCANM	No. Times SQL Call Wait for TCB	DB2CANM	QWACCANM			X	X
DASCLRAB	No. Log Record Bytes Written	DB2CLRAB	QWACLRAB			X	X
DASCLRN	No. Log Records Written	DB2CLRN	QWACLRN			X	X
DASCOMM2	Commit Phase Two Invocations	DB2COMM2	QWACCOMM			X	X
DASCPUZ1	Accum CPU Tm Used on z/OS Spec Eng	DB2CPUZ1	QWACCLS1_ZIIP			X	X
DASCPUZ2	CPU Tm Used in DB2 on z/OS Spec Eng	DB2CPUZ2	QWACCLS2_ZIIP			X	X
DASCUDNE	No. SQL Entry/exit UDF Events	DB2CUDNE	QWACUDNE			X	X
DASDSNS	No. Wait Trace Events - Dataspace Mgr	DB2DSNS	QWAXDSNS			X	X
DASDSSTM	Accum Wait Time Dataspace Manager	DB2DSSTM	QWAXDSSE			X	X
DASELGZP	Accumulated CPU Time zIIP-Eligible Work	DB2ELGZP	QWACZIIP_ELIGIBLE			X	X
DASENTEX	Number of Entry/Exit Events Processed	DB2ENTEX	QWACARNA			X	X
DASET2TM	Elapsed Time in DB2	DB2ET2TM	QWACASC			X	X
DASFCCT	No. Wait Trace Events - Force-At-Commit	DB2FCCT	QWAXFCCT			X	X
DASIOETM	No. Wait Trace Events - Async IXLCACHE	DB2IOETM	QWACAWTI			X	X
DASIXLE	No. Wait Trace Events - Async IXLCACHE	DB2IXLE	QWAXIXLE			X	X
DASIXLTM	Total Wait Time IXLCACHE/FCOMP Asynch	DB2IXLTM	QWAXIXLT			X	X
DASOCNS	No. Wait Trace Events - Open/Close/HSM	DB2OCNS	QWAXOCNS			X	X
DASOCSTM	Accum Wait Time Open/Close/HSM	DB2OCSTM	QWAXOCSE			X	X
DASOTNS	No. Wait Trace Events - Other Services	DB2OTNS	QWAXOTNS			X	X
DASOTSTM	Accum Wait Time Other DB2 Services	DB2OTSTM	QWAXOTSE			X	X
DASPARQR	No. Parallel Query Rollup Records	DB2PARQR	QWACFLGS2			X	X
DASPCAGT	No. Parallel Child Agent Tasks Rolled	DB2PCAGT	QWAC_PT_COUNT			X	X
DASPCNT	No. Parallel Tasks Created	DB2PCNT	QWACPCNT			X	X
DASPKGN	No. Packages or DBRMs	DB2PKGN	QWACPKGN			X	X
DASPQSCT	No. Parallel Query WT Prnt/Chld Sync	DB2PQSCT	QWAC_PQS_COUNT				X
DASPQSWT	Parent Child Task Sync Wait Time	DB2PQSWT	QWAC_PQS_WAIT				X
DASRBSV	No. SQL Rollback to Savepoint Stmts	DB2RBSV	QWACRBSV			X	X
DASRLSV	No. SQL Release Savepoint Statements	DB2RLSV	QWACRLSV			x	x
DASRNKCL	No. Wait Trace Glbl Cont. Child LLock	DB2RNKCL	QWACARNK			X	X
DASRNMOL	No. Wait Trace Glbl Cont. Other LLock	DB2RNMOL	QWACARNM			X	X
DASRNNPL	No. Wait Trace Glbl Cont. PP PLock	DB2RNNPL	QWACARNN			X	X
DASRNOPL	No. Wait Trace Glbl Cont. PG PLock	DB2RNOPL	QWACARNO			X	X
DASRNQOL	No. Wait Trace Glbl Cont. Other PLock	DB2RNQOL	QWACARNQ			X	X
DASSLNS	No. Wait Trace Events - SYSLGRNG	DB2SLNS	QWAXSLNS			X	X
DASSLSTM	Accum Wait Time SYSLGRNG	DB2SLSTM	QWAXSLSE			X	X
DASSPATM	Total Elapsed Time Stored Procedures	DB2SPATM	QWACSPEA			X	X
DASSPBTM	Total Elapsed Time in DB2 Stored Proc.	DB2SPBTM	QWACSPEB			X	X
DASSPCTM	Accum CPU Time SQL Procedures Main Unit	DB2SPCTM	QWACSPNF_CP			X	X
DASSPETM	Total Elapsed Time Wait for TCB	DB2SPETM	QWACCAST			X	X
DASSPNE	SQL Events by Stored Procs	DB2SPNE	QWACSPNE			X	X

DASSPPTM	CPU Time Stored Proc Address Space	DB2SPPTM	QWACSPCP			X	X
DASSPSE1	Accum CPU Tm Exec SP on z/OS Spec Eng	DB2SPSE1	QWACSP_CLS1se			X	X
DASSPSE2	CPU Tm in DB2 Exec SP on z/OS Spec Eng	DB2SPSE2	QWACSP_CLS2se			X	X
DASSPZET	Total Elapsed Time on zIIP Stored Proc.	DB2SPZET	QWACSPNF_ELAP			X	X
DASSPZTM	CPU Tm Exec Strd Proc on z/OS Spec Eng	DB2SPZTM	QWACSPNF_CP			X	X
DASSP2TM	Accum CPU Time in DB2 Stored Procedures	DB2SPZTM	QWACSPTT			X	X
DASSVPT	No. SQL Savepoint Statements	DB2SVPT	QWACSVPT			X	X
DASTCBTM	TCB Time	DB2TCBTM	QWACEJST			X	X
DASTC2TM	Class 2 Accumulated TCB Time in DB2	DB2TC2TM	QWACAJST			X	X
DASTEETM	Total Elps Tm Exec Trigger Undr Enclave	DB2TEETM	QWACTREE			X	X
DASTRETM	Elapsed Time Executing Control Triggers	DB2TRETM	QWACTRET			X	X
DASTRTSE	Accum CPU Tm Exe Trgrs on z/OS Spec Eng	DB2TRTSE	QWACTRTE_se			X	X
DASTRTTM	Accum TCB Time Under Cntl Trigger	DB2TRTTM	QWACTRTT			X	X
DASTRTZP	CPU Tm Exec Triggers on z/OS Spec Eng	DB2TRTZP	QWACTRTT_ZIIP			X	X
DASTTETM	Total TCB Tm Exec Trigger Undr Enclave	DB2TTETM	QWACTRTE			X	X
DASUDATM	Total Elapsed Time UDF	DB2UDATM	QWACUDEA			X	X
DASUDBTM	Total Elapsed Time in DB2 UDF	DB2UDBTM	QWACUDEB			X	X
DASUDCTM	Accum CPU Time UDF	DB2UDCTM	QWACUDCP			X	X
DASUDMTM	CPU Time in DB2 Exec Userdef	DB2UDMTM	QWACUDFNF_CP			X	X
DASUDSE1	Accum CPU Tm Exec UDF on z/OS Spec Eng	DB2UDSE1	QWACUDF_CLS1se			X	X
DASUDSE2	CPU Tm in DB2 Exec UDF on z/OS Spec Eng	DB2UDSE2	QWACUDF_CLS2se			X	X
DASUDSTM	Total Elapsed Time UDF Wait for TCB	DB2UDSTM	QWACUDST			X	X
DASUDTTM	Accum CPU Time in DB2 UDF	DB2UDTTM	QWACUDTT			X	X
DASUDZET	Accum CPU Time in DB2 UDF	DB2UDZET	QWACUDFNF_ELAP			X	X
DASUDZTM	UDF Spec Eng Time	DB2UDZTM	QWACUDFNF_zIIP			X	X
DASWATRA	No. Wait Trace Events for Log Reads	DB2WATRB	QWACANAC			X	X
DASWATRB	Wt Trace for TCP/IP LOB Material	DB2WATRB	QWACALBC			X	X
DASWATRC	Wait Trace for Claims	DB2WATRC	QWAXARNC			X	X
DASWATRD	Wait Trace for Drain Lock	DB2WATRD	QWAXARND			X	X
DASWATRG	No. Wait Trace for Global Lock	DB2WATRG	QWACARNJ			X	X
DASWATRL	No. Wait Trace Events for Lock/Latch	DB2WATRL	QWACARNL			X	X
DASWATRM	No. Wait Trace Events for Data Shr Msgs	DB2WATRM	QWACARNG			X	X
DASWATRP	Wait Trace for Latch Contention	DB2WATRP	QWACARNH			X	X
DASWATRR	No. Wait Trace Events for Read Other	DB2WATRR	QWACARNR			X	X
DASWATRW	No. Wait Trace Events for Write Other	DB2WATRW	QWACARNW			X	X
DASWATSE	No. Wait Trace Events for Sync. Exec.	DB2WATSE	QWACARNS			X	X
DASWATTR	Number of Wait Trace Events Processed	DB2WATTR	QWACARNE			X	X
DASWFCTM	Total Wait Time for Force-At-Commit	DB2WFCTM	QWAXAWFC			X	X
DASWGLTM	Glbl Contention PG P-Lock Wait Time	DB2WGLTM	QWACAWTO			X	X
DASWLCTM	Glbl Contention Child L-Lock Wait Time	DB2WLCTM	QWACAWTK			X	X
DASWLGCT	No. Wait Trace Events - Log Write IO	DB2WLGCT	QWACARLG			X	X
DASWLGTM	Accum Wait Time for Log Write IO	DB2WLGTM	QWACAWLG			X	X
DASWLLTM	Glbl Contention Other L-Locks Wait Time	DB2WLLTM	QWACAWTM			X	X
DASWLPTM	Glbl Contention PP P-Lock Wait Time	DB2WLPTM	QWACAWTN			X	X
DASWTOTM	Glbl Contention Other P-Locks Wait Time	DB2WTOTM	QWACAWTQ			X	X

The DB2DDP (DB2 Plan DDF Activity) File

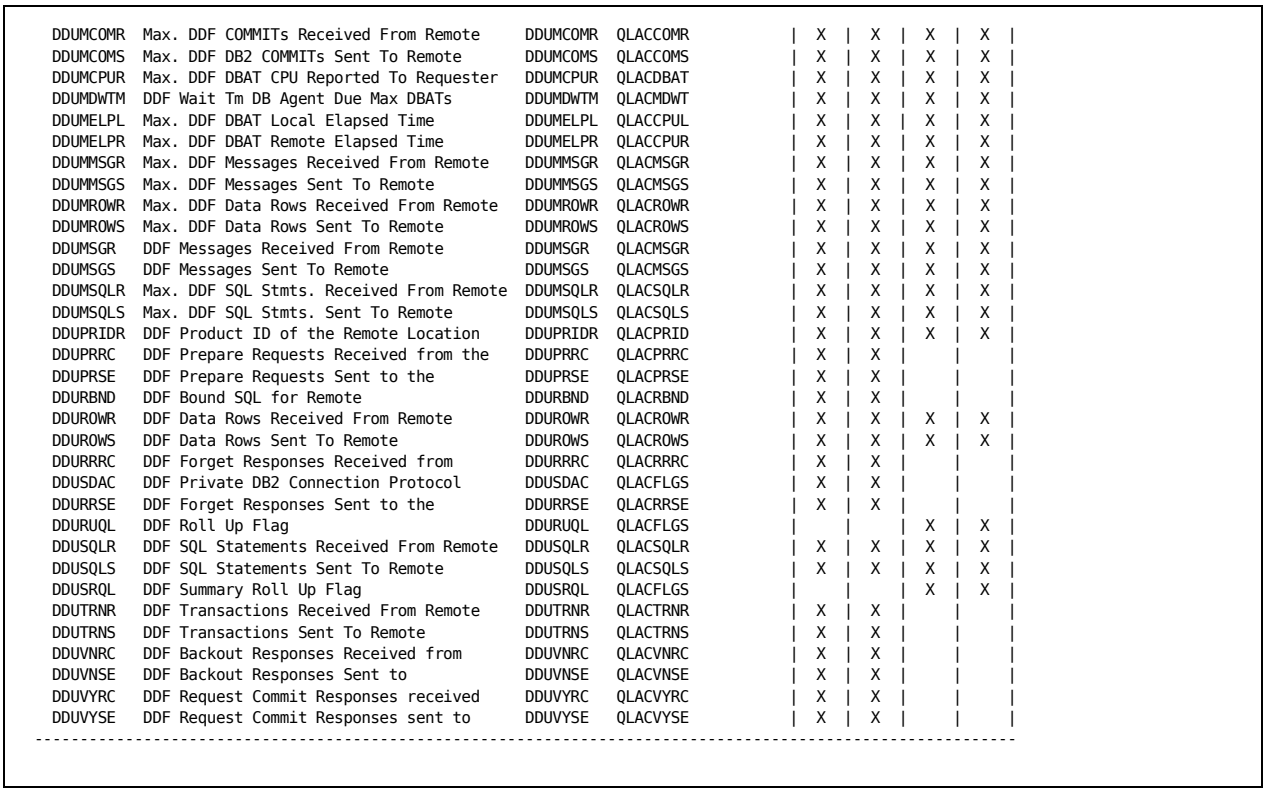
ELEMENT	ELEMENT DESCRIPTION	DICTIONARY MEMBER	RAW ELEMENT	AVAILABLE IN DB2 VERSIONS 8.1	9.1	10.1	11.1
DB2ACE	DB2 Agent Control Element	DB2ACE	QWHSACE	X	X	X	X
DB2ATNM	Active Trace Number Mask	DB2ATNM	QWHSMTN	X	X	X	X
DB2AUTH	Authorization Identifier	DB2AUTH	QWHCAID	X	X	X	X
DB2CONN	Connection Identifier	DB2CONN	QWHCCN	X	X	X	X
DB2CORR	Correlation Identifier	DB2CORR	QWHCCV	X	X	X	X
DB2DDFCT	DDF COMMIT Count	DB2DDFCT	QWHSLUCC	X	X	X	X
DB2DSGN	Data Sharing Group Name	DB2DSGN	QWHADSGN	X	X	X	X
DB2DSTSN	Destination Sequence Number	DB2DSTSN	QWHSWSEQ	X	X	X	X
DB2ISEQ	Instrumentation Sequence Number	DB2ISEQ	QWHSISEQ	X	X	X	X
DB2LOCN	DDF Local Location ID	DB2LOCN	QWHSLOCN	X	X	X	X
DB2LUNAM	DB2 Logical Unit Name	DB2LUNAM	QWHSLUNM	X	X	X	X
DB2MEMN	DB2 Member Name	DB2MEMN	QWHAMEMN	X	X	X	X
DB2NETID	Network Identifier	DB2NETID	QWACNID	X	X	X	X
DB2OPID	Original Operator ID	DB2OPID	QWHCOPID	X	X	X	X
DB2PLAN	Plan Name	DB2PLAN	QWHCPLAN	X	X	X	X
DB2RELN	DB2 Release Identifier	DB2RELN	QWHSRELN	X	X	X	X
DB2REQID	DDF Requester Location ID	DB2REQID	QWHDRQNM	X	X	X	X
DB2RLOCN	DDF Remote Location ID	DB2RLOCN	QLSTLOCN	X	X	X	X
DB2STCK	DB2 Store Clock At End Event	DB2STCK	QWHSSTCK	X	X	X	X
DB2UNIQ	DDF Instance Number Identifier	DB2UNIQ	QWHSLUUV	X	X	X	X
DDPABRR	DDF Abort Reqs Recvd From Remote	DDPABRR	QLACABRR	X	X	X	X
DDPABRS	DDF Abort Reqs Sent To Remote	DDPABRS	QLACABRS	X	X	X	X
DDPADAC	DDF DRDA DB2 Protocol	DDPADAC	QLACFLGS	X	X		
DDPBKRC	DDF Backout Requests Received from the	DDPBKRC	QLACBKRC	X	X		
DDPBKSE	DDF Backout Requests Sent to the	DDPBKSE	QLACBKSE	X	X		
DDPBRBF	DDF Received Blocks - Block Fetch	DDPBRBF	QLACBRBF	X	X	X	X
DDPBROW	DDF Rows in Buffer - Block Fetch	DDPBROW	QLACBROW	X	X		
DDPBTBF	DDF Transmit Blocks - Block Fetch	DDPBTBF	QLACBTBF	X	X	X	X
DDPBYTR	DDF Bytes Recvd From Remote	DDPBYTR	QLACBYTR	X	X	X	X
DDPBYTS	DDF Bytes Sent To Remote	DDPBYTS	QLACBYTS	X	X	X	X
DDPCBLB	DDF Switch Continuous to Limited	DDPCBLB	QLACCBLB	X	X		
DDPCIEL	DDF Max. Conversations Open	DDPCIEL	QLACCIEL	X	X		
DDPCNVA	DDF Successful Conversations	DDPCNVA	QLACCNVA	X	X		
DDPCNVQ	DDF Conv Req Queued Waiting Alloc	DDPCNVQ	QLACCNVQ	X	X	X	X
DDPCNVR	DDF Convs Recvd From Remote	DDPCNVR	QLACCNVR	X	X	X	X
DDPCNVS	DDF Convs Sent To Remote	DDPCNVS	QLACCNVS	X	X	X	X
DDPCNVT	DDF Conversations Terminated	DDPCNVT	QLACCNVT	X	X	X	X
DDPCOMR	DDF COMMIT Reqs Recvd From Remote	DDPCOMR	QLACCOMR	X	X	X	X
DDPCOMS	DDF COMMIT Reqs Sent To Remote	DDPCOMS	QLACCOMS	X	X	X	X
DDPCPTR	DDF Number of Commit Operations	DDPCPTR	QLACCPTR	X	X		
DDPCPUR	DDF DBAT CPU Reported To Requestor	DDPCPUR	QLACCPUR	X	X		
DDPCRSE	DDF Commit Requests Sent to the	DDPCRSE	QLACCRSE	X	X		
DDPELPL	DDF Local Elapsed Time	DDPELPL	QLACCPUL	X	X	X	X
DDPELPR	DDF Remote Elapsed Time	DDPELPR	QLACCPUR	X	X		
DDPINDT	DDF Number of Threads That Became	DDPINDT	QLACINDT	X	X	X	X
DDPLARC	DDF Last Agent Requests Received from	DDPLARC	QLACLARC	X	X		
DDPLASE	DDF Last Agent Requests Sent to the	DDPLASE	QLACLASE	X	X		
DDPMBRBF	Max DDF Received Blocks - Block Fetch	DDPMBRBF	QLACBRBF	X	X	X	X
DDPMBROW	Max DDF Rows in Buffer - Block Fetch	DDPMBROW	QLACBROW	X	X	X	X
DDPMBTBF	Max DDF Transmit Blocks - Block Fetch	DDPMBTBF	QLACBTBF	X	X	X	X
DDPMCBLB	Max DDF Switch Continuous to Limited	DDPMCBLB	QLACCBLB	X	X	X	X
DDPMCIEL	Max DDF Conversations Open	DDPMCIEL	QLACCIEL	X	X	X	X
DDPMCNVA	Max DDF Successful Conversations	DDPMCNVA	QLACCNVA	X	X	X	X
DDPMCNVQ	Max DDF Convs. Queued Waiting Alloc.	DDPMCNVQ	QLACCNVQ	X	X	X	X
DDPMCNVT	Max DDF Conversations Terminated	DDPMCNVT	QLACCNVT	X	X	X	X
DDPMELPL	Max DDF DBAT Local Elapsed Time	DDPMELPL	QLACCPUL	X	X	X	X
DDPMELPR	Max DDF DBAT Remote Elapsed Time	DDPMELPR	QLACCPUR	X	X	X	X
DDPMRBND	Max DDF Bound SQL for Remote	DDPMRBND	QLACRBND	X	X	X	X
DDPMSGR	DDF Messages Recvd From Remote	DDPMSGR	QLACMSGR	X	X	X	X
DDPMSGS	DDF Messages Sent To Remote	DDPMSGS	QLACMSGS	X	X	X	X



DDPPRIDR	DDF Product ID of the Remote Location	DDPPRIDR	QLACPRID	X	X	X	X
DDPPRRC	DDF Prepare Requests Received from the	DDPPRRC	QLACPRRC	X	X		
DDPPRSE	DDF Prepare Requests Sent to the	DDPPRSE	QLACPRSE	X	X		
DDPRBND	DDF Bound SQL for Remote	DDPRBND	QLACRBND	X	X		
DDPRBTR	DDF Number of Rollback Operations	DDPRBTR	QLACRBTR	X	X		
DDPROWR	DDF Rows Recvd From Remote	DDPROWR	QLACROWR	X	X	X	X
DDPROWS	DDF Rows Sent To Remote	DDPROWS	QLACROWS	X	X	X	X
DDPRRRC	DDF Forget Responses Received from	DDPRRRC	QLACRRRC	X	X		
DDPRRSE	DDF Forget Responses Sent to the	DDPRRSE	QLACRRSE	X	X		
DDPRUQL	DDF Roll Up Flag	DDPRUQL	QLACFLGS			X	X
DDPSDAC	DDF Private DB2 Protocol	DDPSDAC	QLACFLGS	X	X		
DDPSQLR	DDF SQL Stmts Recvd From Remote	DDPSQLR	QLACSQLR	X	X	X	X
DDPSQLS	DDF SQL Stmts Sent To Remote	DDPSQLS	QLACSQLS	X	X	X	X
DDPSRQL	DDF Summary Roll Up Flag	DDPSRQL	QLACFLGS			X	X
DDPTRNS	DDF Trans Sent To Remote	DDPTRNS	QLACTRNS	X	X		
DDPVNRC	DDF Backout Responses Received from	DDPVNRC	QLACVNRC	X	X		
DDPVNSE	DDF Backout Responses Sent to	DDPVNSE	QLACVNSE	X	X		
DDPVYRC	DDF Request Commit Responses received	DDPVYRC	QLACVYRC	X	X		
DDPVYSE	DDF Request Commit Responses sent to	DDPVYSE	QLACVYSE	X	X		

The DB2DDU (DB2 User DDF Activity) File

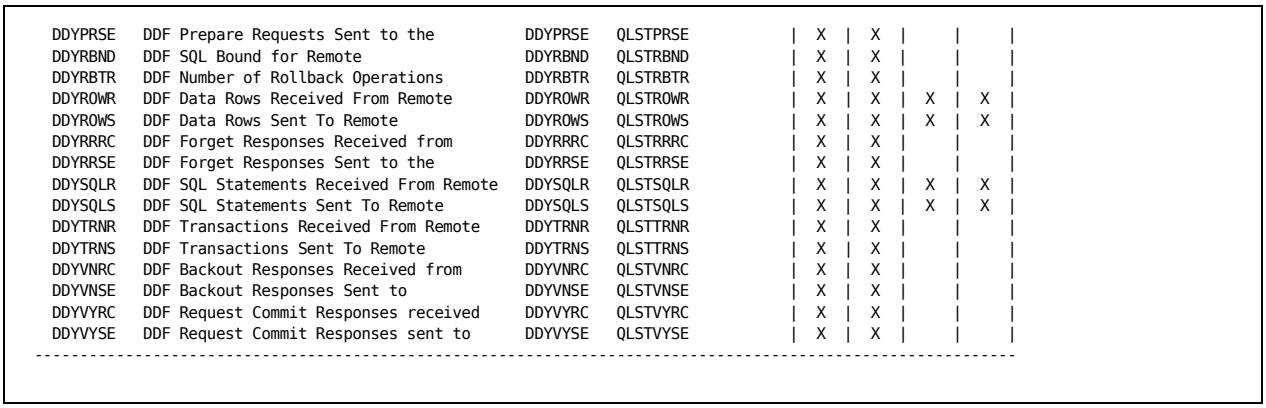
ELEMENT	ELEMENT DESCRIPTION	DICTIONARY MEMBER	RAW ELEMENT	AVAILABLE IN DB2 VERSIONS 8.1	9.1	10.1	11.1
DB2ACE	DB2 Agent Control Element	DB2ACE	QWHSACE	X	X	X	X
DB2ATNM	Active Trace Number Mask	DB2ATNM	QWHSMTN	X	X	X	X
DB2AUTH	Authorization Identifier	DB2AUTH	QWHCAID	X	X	X	X
DB2CONN	Connection Identifier	DB2CONN	QWHCCN	X	X	X	X
DB2CORR	Correlation Identifier	DB2CORR	QWHCCV	X	X	X	X
DB2DDFCT	DDF COMMIT Count	DB2DDFCT	QWHSLUCC	X	X	X	X
DB2DSGN	Data Sharing Group Name	DB2DSGN	QWHADSGN	X	X	X	X
DB2DSTSN	Destination Sequence Number	DB2DSTSN	QWHSWSEQ	X	X	X	X
DB2ISEQ	Instrumentation Sequence Number	DB2ISEQ	QWHSISEQ	X	X	X	X
DB2LOCN	DDF Local Location ID	DB2LOCN	QWHSLOCN	X	X	X	X
DB2LUNAM	DB2 Logical Unit Name	DB2LUNAM	QWHSLUNM	X	X	X	X
DB2MEMN	DB2 Member Name	DB2MEMN	QWHAMEMN	X	X	X	X
DB2NETID	Network Identifier	DB2NETID	QWACNID	X	X	X	X
DB2OPID	Original Operator ID	DB2OPID	QWHCOPID	X	X	X	X
DB2PLAN	Plan Name	DB2PLAN	QWHCPLAN	X	X	X	X
DB2RELN	DB2 Release Identifier	DB2RELN	QWHSRELN	X	X	X	X
DB2REQID	DDF Requester Location ID	DB2REQID	QWHDRQNM	X	X	X	X
DB2RLOCN	DDF Remote Location ID	DB2RLOCN	QLSTLOCN	X	X	X	X
DB2STCK	DB2 Store Clock At End Event	DB2STCK	QWHSSTCK	X	X	X	X
DB2UNIQ	DDF Instance Number Identifier	DB2UNIQ	QWHSLUUV	X	X	X	X
DDUABRR	DDF Abort Requests Received From Remote	DDUABRR	QLACABRR	X	X	X	X
DDUABRS	DDF Abort Requests Sent To Remote	DDUABRS	QLACABRS	X	X	X	X
DDUADAC	DDF DRDA Connection Protocol	DDUADAC	QLACFLGS	X	X		
DDUBKRC	DDF Backout Requests Received from the	DDUBKRC	QLACBKRC	X	X		
DDUBKSE	DDF Backout Requests Sent to the	DDUBKSE	QLACBKSE	X	X	X	X
DDUBRBF	DDF Received Blocks - Block Fetch	DDUBRBF	QLACBRBF	X	X	X	X
DDUBROW	DDF Rows in Buffer - Block Fetch	DDUBROW	QLACBROW	X	X		
DDUBTBF	DDF Transmit Blocks - Block Fetch	DDUBTBF	QLACBTBF	X	X	X	X
DDUBYTR	DDF Data Bytes Received From Remote	DDUBYTR	QLACBYTR	X	X	X	X
DDUBYTS	DDF Data Bytes Sent To Remote	DDUBYTS	QLACBYTS	X	X	X	X
DDUCBLB	DDF Switch Continuous to Limited	DDUCBLB	QLACCBLB	X	X		
DDUCIEL	DDF Max. Conversations Open	DDUCIEL	QLACCIEL	X	X		
DDUCNVA	DDF Successful Conversations	DDUCNVA	QLACCNVA	X	X		
DDUCNVQ	DDF Conv Req Queued Waiting Alloc	DDUCNVQ	QLACCNVQ	X	X	X	X
DDUCNVR	DDF VTAM Convers. Received From Remote	DDUCNVR	QLACCNVR	X	X	X	X
DDUCNVS	DDF VTAM Conversations Sent To Remote	DDUCNVS	QLACCNVS	X	X	X	X
DDUCNVT	DDF Conversations Terminated	DDUCNVT	QLACCNVT	X	X	X	X
DDUCOMR	DDF DB2 COMMITs Received From Remote	DDUCOMR	QLACCOMR	X	X	X	X
DDUCOMS	DDF DB2 COMMITs Sent To Remote	DDUCOMS	QLACCOMS	X	X	X	X
DDUCPTR	DDF Number of Commit Operations	DDUCPTR	QLACCPTR	X	X		
DDUCPUR	DDF DBAT CPU Reported To Requester	DDUCPUR	QLACDBAT	X	X		
DDUCRSE	DDF Commit Requests Sent to the	DDUCRSE	QLACCRSE	X	X		
DDUELPL	DDF Local Elapsed Time	DDUELPL	QLACCPUL	X	X	X	X
DDUELPR	DDF Remote Elapsed Time	DDUELPR	QLACCPUR	X	X		
DDUFLGS	DDF Type of Protocol	DDUFLGS	QLACFLGS	X	X	X	X
DDUINDT	DDF Number of Threads That Became	DDUINDT	QLACINDT	X	X	X	X
DDULARC	DDF Last Agent Requests Received from	DDULARC	QLACLARC	X	X		
DDULASE	DDF Last Agent Requests Sent to the	DDULASE	QLACLASE	X	X		
DDUMABRR	Max DDF Abort Req. Received From Remote	DDUMABRR	QLACABRR	X	X	X	X
DDUMABRS	Max DDF Abort Requests Sent To Remote	DDUMABRS	QLACABRS	X	X	X	X
DDUMBYTR	Max. DDF Data Bytes Received From Remote	DDUMBYTR	QLACBYTR	X	X	X	X
DDUMBYTS	Max. DDF Data Bytes Sent To Remote	DDUMBYTS	QLACBYTS	X	X	X	X
DDUMCNVQ	Max. DDF Convs. Queued Waiting Alloc.	DDUMCNVQ	QLACCNVQ	X	X	X	X
DDUMCNVR	Max. DDF Convs. Received From Remote	DDUMCNVR	QLACCNVR	X	X	X	X
DDUMCNVS	Max. DDF Conversations Sent To Remote	DDUMCNVS	QLACCNVS	X	X	X	X



DDUMCOMR	Max. DDF COMMITs Received From Remote	DDUMCOMR	QLACCOMR	X	X	X	X
DDUMCOMS	Max. DDF DB2 COMMITs Sent To Remote	DDUMCOMS	QLACCOMS	X	X	X	X
DDUMCPUR	Max. DDF DBAT CPU Reported To Requester	DDUMCPUR	QLACDBAT	X	X	X	X
DDUMDWTM	DDF Wait Tm DB Agent Due Max DBATs	DDUMDWTM	QLACMDWT	X	X	X	X
DDUMELPL	Max. DDF DBAT Local Elapsed Time	DDUMELPL	QLACCPUL	X	X	X	X
DDUMELPR	Max. DDF DBAT Remote Elapsed Time	DDUMELPR	QLACCPUR	X	X	X	X
DDUMMSGR	Max. DDF Messages Received From Remote	DDUMMSGR	QLACMSGR	X	X	X	X
DDUMMSGS	Max. DDF Messages Sent To Remote	DDUMMSGS	QLACMSGS	X	X	X	X
DDUMROWR	Max. DDF Data Rows Received From Remote	DDUMROWR	QLACROWR	X	X	X	X
DDUMROWS	Max. DDF Data Rows Sent To Remote	DDUMROWS	QLACROWS	X	X	X	X
DDUMSGR	DDF Messages Received From Remote	DDUMSGR	QLACMSGR	X	X	X	X
DDUMSGS	DDF Messages Sent To Remote	DDUMSGS	QLACMSGS	X	X	X	X
DDUMSQLR	Max. DDF SQL Stmts. Received From Remote	DDUMSQLR	QLACSQLR	X	X	X	X
DDUMSQLS	Max. DDF SQL Stmts. Sent To Remote	DDUMSQLS	QLACSQLS	X	X	X	X
DDUPRIDR	DDF Product ID of the Remote Location	DDUPRIDR	QLACPRID	X	X	X	X
DDUPRRC	DDF Prepare Requests Received from the	DDUPRRC	QLACPRRC	X	X		
DDUPRSE	DDF Prepare Requests Sent to the	DDUPRSE	QLACPRSE	X	X		
DDURBND	DDF Bound SQL for Remote	DDURBND	QLACRBND	X	X		
DDUROWR	DDF Data Rows Received From Remote	DDUROWR	QLACROWR	X	X	X	X
DDUROWS	DDF Data Rows Sent To Remote	DDUROWS	QLACROWS	X	X	X	X
DDURRRC	DDF Forget Responses Received from	DDURRRC	QLACRRRC	X	X		
DDUSDAC	DDF Private DB2 Connection Protocol	DDUSDAC	QLACFLGS	X	X		
DDURRSE	DDF Forget Responses Sent to the	DDURRSE	QLACRRSE	X	X		
DDURUQL	DDF Roll Up Flag	DDURUQL	QLACFLGS			X	X
DDUSQLR	DDF SQL Statements Received From Remote	DDUSQLR	QLACSQLR	X	X	X	X
DDUSQLS	DDF SQL Statements Sent To Remote	DDUSQLS	QLACSQLS	X	X	X	X
DDUSRQL	DDF Summary Roll Up Flag	DDUSRQL	QLACFLGS			X	X
DDUTRNR	DDF Transactions Received From Remote	DDUTRNR	QLACTRNR	X	X		
DDUTRNS	DDF Transactions Sent To Remote	DDUTRNS	QLACTRNS	X	X		
DDUVNRC	DDF Backout Responses Received from	DDUVNRC	QLACVNRC	X	X		
DDUVNSE	DDF Backout Responses Sent to	DDUVNSE	QLACVNSE	X	X		
DDUVYRC	DDF Request Commit Responses received	DDUVYRC	QLACVYRC	X	X		
DDUVYSE	DDF Request Commit Responses sent to	DDUVYSE	QLACVYSE	X	X		

The DB2DDY (DB2 System DDF Statistics) File

ELEMENT	ELEMENT DESCRIPTION	DICTIONARY MEMBER	RAW ELEMENT	AVAILABLE IN DB2 VERSIONS 8.1	9.1	10.1	11.1
DB2ACE	DB2 Agent Control Element	DB2ACE	QWHSACE	X	X	X	X
DB2ATNM	Active Trace Number Mask	DB2ATNM	QWHSMTN	X	X	X	X
DB2DSGN	Data Sharing Group Name	DB2DSGN	QWHADSGN	X	X	X	X
DB2DSTSN	Destination Sequence Number	DB2DSTSN	QWHSWSEQ	X	X	X	X
DB2ISEQ	Instrumentation Sequence Number	DB2ISEQ	QWHSISEQ	X	X	X	X
DB2LOCN	DDF Local Location ID	DB2LOCN	QWHSLOCN	X	X	X	X
DB2MEMN	DB2 Member Name	DB2MEMN	QWHAMEMN	X	X	X	X
DB2RELN	DB2 Release Identifier	DB2RELN	QWHSRELN	X	X	X	X
DB2RLOCN	DDF Remote Location ID	DB2RLOCN	QLACLOCN	X	X	X	X
DB2STCK	DB2 Store Clock At End Event	DB2STCK	QWHSSTCK	X	X	X	X
DDYABRR	DDF Abort Requests Received From Remote	DDYABRR	QLSTABRR	X	X	X	X
DDYABRS	DDF Abort Requests Sent To Remote	DDYABRS	QLSTABRS	X	X	X	X
DDYBKRC	DDF Backout Requests Received from the	DDYBKRC	QLSTBKRC	X	X		
DDYBKSE	DDF Backout Requests Sent to the	DDYBKSE	QLSTBKSE	X	X		
DDYBRBF	DDF Blk Recv Using Blk Fetch	DDYBRBF	QLSTBRBF	X	X	X	X
DDYBROW	DDF Rows In Buf for Blk Fetch	DDYBROW	QLSTBROW	X	X		
DDYBTBF	DDF Blk Sent Using Blk Fetch	DDYBTBF	QLSTBTBF	X	X	X	X
DDYBYTR	DDF Data Bytes Received From Remote	DDYBYTR	QLSTBYTR	X	X	X	X
DDYBYTS	DDF Data Bytes Sent To Remote	DDYBYTS	QLSTBYTS	X	X	X	X
DDYCBLB	DDF Switch Cont To Limited	DDYCBLB	QLSTCBLB	X	X		
DDYCNVQ	DDF Conv Req Queued Waiting Alloc	DDYCNVQ	QLSTCNVQ	X	X	X	X
DDYCNVR	DDF VTAM Conversations Received From	DDYCNVR	QLSTCNVR	X	X	X	X
DDYCNVS	DDF VTAM Conversations Sent To Remote	DDYCNVS	QLSTCNVS	X	X	X	X
DDYCOMR	DDF DB2 COMMITs Received From Remote	DDYCOMR	QLSTCOMR	X	X	X	X
DDYCOMS	DDF DB2 COMMITs Sent To Remote	DDYCOMS	QLSTCOMS	X	X	X	X
DDYCPTR	DDF Number of Commit Operations	DDYCPTR	QLSTCPTR	X	X		
DDYCRRC	DDF Commit Requests Received from the	DDYCRRC	QLSTCRRC	X	X		
DDYCRSE	DDF Commit Requests Sent to the	DDYCRSE	QLSTCRSE	X	X		
DDYINDT	DDF Number of Threads That Became	DDYINDT	QLSTINDT	X	X	X	X
DDYLARC	DDF Last Agent Requests Received from	DDYLARC	QLSTLARC	X	X		
DDYLASE	DDF Last Agent Requests Sent to the	DDYLASE	QLSTLASE	X	X		
DDYMABRR	Max. DDF Abort Req. Received From Remote	DDYMABRR	QLSTABRR	X	X	X	X
DDYMABRS	Max. DDF Abort Requests Sent To Remote	DDYMABRS	QLSTABRS	X	X	X	X
DDYMBRBF	Max DDF Blk Recv Using Blk Fetch	DDYMBRBF	QLSTBRBF	X	X	X	X
DDYMBROW	Max DDF Rows In Buf for Blk Fetch	DDYMBROW	QLSTBROW	X	X		
DDYMBTBF	Max DDF Blk Sent Using Blk Fetch	DDYMBTBF	QLSTBTBF	X	X	X	X
DDYMBYTR	Max. DDF Data Bytes Received From Remote	DDYMBYTR	QLSTBYTR	X	X	X	X
DDYMBYTS	Max. DDF Data Bytes Sent To Remote	DDYMBYTS	QLSTBYTS	X	X	X	X
DDYMCBLB	Max DDF Switch Cont To Limited	DDYMCBLB	QLSTCBLB	X	X		
DDYMCNVQ	Max DDF Conversations Queued	DDYMCNVQ	QLSTCNVQ	X	X	X	X
DDYMCNVR	Max. DDF Convs. Received From Remote	DDYMCNVR	QLSTCNVR	X	X	X	X
DDYMCOMR	Max. DDF COMMITs Received From Remote	DDYMCOMR	QLSTCOMR	X	X	X	X
DDYMCOMS	Max. DDF DB2 COMMITs Sent To Remote	DDYMCOMS	QLSTCOMS	X	X	X	X
DDYMMSGR	Max. DDF Messages Received From Remote	DDYMMSGR	QLSTMSGR	X	X	X	X
DDYMMSGS	Max. DDF Messages Sent To Remote	DDYMMSGS	QLSTMSGS	X	X	X	X
DDYMRBND	Max DDF SQL Bound for Remote	DDYMRBND	QLSTRBND	X	X		
DDYMROWR	Max. DDF Data Rows Received From Remote	DDYMROWR	QLSTROWR	X	X	X	X
DDYMROWS	Max. DDF Data Rows Sent To Remote	DDYMROWS	QLSTROWS	X	X	X	X
DDYMSGR	DDF Messages Received From Remote	DDYMSGR	QLSTMSGR	X	X	X	X
DDYMSGS	DDF Messages Sent To Remote	DDYMSGS	QLSTMSGS	X	X	X	X
DDYMSQLR	Max. DDF SQL Stmts. Received From Remote	DDYMSQLR	QLSTSQLR	X	X	X	X
DDYMSQLS	Max. DDF SQL Stmts. Sent To Remote	DDYMSQLS	QLSTSQLS	X	X	X	X
DDYMTRNR	Max. DDF Trans. Received From Remote	DDYMTRNR	QLSTTRNR	X	X		
DDYMTRNS	Max. DDF Trans. Sent To Remote	DDYMTRNS	QLSTTRNS	X	X		
DDYPRRC	DDF Prepare Requests Received from the	DDYPRRC	QLSTPRRC	X	X		



DDYPRSE	DDF Prepare Requests Sent to the	DDYPRSE	QLSTPRSE	X	X			
DDYRBND	DDF SQL Bound for Remote	DDYRBND	QLSTRBND	X	X			
DDYRBTR	DDF Number of Rollback Operations	DDYRBTR	QLSTRBTR	X	X			
DDYROWR	DDF Data Rows Received From Remote	DDYROWR	QLSTROWR	X	X	X	X	
DDYROWS	DDF Data Rows Sent To Remote	DDYROWS	QLSTROWS	X	X	X	X	
DDYRRRC	DDF Forget Responses Received from	DDYRRRC	QLSTRRRC	X	X			
DDYRRSE	DDF Forget Responses Sent to the	DDYRRSE	QLSTRRSE	X	X			
DDYSQLR	DDF SQL Statements Received From Remote	DDYSQLR	QLSTSQLR	X	X	X	X	
DDYSQLS	DDF SQL Statements Sent To Remote	DDYSQLS	QLSTSQLS	X	X	X	X	
DDYTRNR	DDF Transactions Received From Remote	DDYTRNR	QLSTTRNR	X	X			
DDYTRNS	DDF Transactions Sent To Remote	DDYTRNS	QLSTTRNS	X	X			
DDYVNRC	DDF Backout Responses Received from	DDYVNRC	QLSTVNRC	X	X			
DDYVNSE	DDF Backout Responses Sent to	DDYVNSE	QLSTVNSE	X	X			
DDYVYRC	DDF Request Commit Responses received	DDYVYRC	QLSTVYRC	X	X			
DDYVYSE	DDF Request Commit Responses sent to	DDYVYSE	QLSTVYSE	X	X			

The DB2DPP (DB2 Package/DBRM Activity) File

ELEMENT	ELEMENT DESCRIPTION	DICTIONARY MEMBER	RAW ELEMENT	AVAILABLE IN DB2 VERSIONS 8.1	9.1	10.1	11.1
DB2ACE	DB2 Agent Control Element	DB2ACE	QWHSACE	X	X	X	X
DB2ATNM	Active Trace Number Mask	DB2ATNM	QWHSMTN	X	X	X	X
DB2AUTH	Authorization Identifier	DB2AUTH	QWHCAID	X	X	X	X
DB2CONN	Connection Identifier	DB2CONN	QWHCCN	X	X	X	X
DB2CORR	Correlation Identifier	DB2CORR	QWHCCV	X	X	X	X
DB2CPU	DB2 CPU Time	DB2CPU	QWHUCPU	X	X	X	X
DB2CRDLU	CICS/RRSAF/DB Access LU Name	DB2CRDLU	QWHCTOKN				
DB2CRDNT	CICS/RRSAF/DB Access Network Name	DB2CRDNT	QWHCTOKN				
DB2CRDUV	CICS/RRSAF/DB Access Uniqueness Value	DB2CRDUV	QWHCTOKN				
DB2DSTSN	Destination Sequence Number	DB2DSTSN	QWHSWSEQ	X	X	X	X
DB2ISEQ	Instrumentation Sequence Number	DB2ISEQ	QWHSISEQ	X	X	X	X
DB2LOCN	DDF Local Location ID	DB2LOCN	QWHSLOCN	X	X	X	X
DB2LUNAM	DB2 Logical Unit Name	DB2LUNAM	QWHSLUNM	X	X	X	X
DB2NETID	Network Identifier	DB2NETID	QWACNID	X	X	X	X
DB2OPID	Original Operator ID	DB2OPID	QWHCOPID	X	X	X	X
DB2PKNM	Package/DBRM Name	DB2PKNM	QPACCOLN	X	X	X	X
DB2PKNM	Package/DBRM Name	DB2PKNM	QPACCONT	X	X	X	X
DB2PKNM	Package/DBRM Name	DB2PKNM	QPACLOCN	X	X	X	X
DB2PKNM	Package/DBRM Name	DB2PKNM	QPACPKID	X	X	X	X
DB2PKNM	Package/DBRM Name	DB2PKNM	QPACPKNM	X	X	X	X
DB2PLAN	Plan Name	DB2PLAN	QWHCPLAN	X	X	X	X
DB2RELN	DB2 Release Identifier	DB2RELN	QWHSRELN	X	X	X	X
DB2REQID	DDF Requester Location ID	DB2REQID	QWHDRQNM	X	X	X	X
DB2STCK	DB2 Store Clock At End Event	DB2STCK	QWHSSTCK	X	X	X	X
DB2UNIQ	DDF Instance Number Identifier	DB2UNIQ	QWHSLUUV	X	X	X	X
DPPAACC	No. Wt Trce Events for IDAA Requests	DPPAACC	QPACAACC				X
DPPAACW	Wait Time for Requests to IDAA	DPPAACW	QPACAACW				X
DPPAAFG	Activity Flag	DPPAAFG	QPACAAFG	X	X	X	X
DPPAANM	Name of Activity	DPPAANM	QPACAANM	X	X	X	X
DPPACHG	Change Request Count	DPPACHG	QTXACHG	X	X	X	X
DPPACHUS	Highest CPU 16 Microseconds Used	DPPACHUS	QTXACHUS	X	X	X	X
DPPACLMT	Limit In CPU 16 Microseconds	DPPACLMT	QTXACLMT	X	X	X	X
DPPAIRLM	Other IRLM Request Count	DPPAIRLM	QTXAIRLM	X	X	X	X
DPPALGTM	Accum Wait Archive Log	DPPALGTM	QPACALOG	X	X	X	X
DPPALLTM	Accum Lock/Latch Time	DPPALLTM	QPACAWTL	X	X	X	X
DPPALOCK	Lock Request Count	DPPALOCK	QTXALOCK	X	X	X	X
DPPALWTM	Accum Wait Time - Latch Suspension	DPPALWTM	QPACAWLH			X	X
DPPAPREC	How Limit Was Determined	DPPAPREC	QTXAPREC	X	X	X	X
DPPAQRY	Query Request Count	DPPAQRY	QTXAQRY	X	X	X	X
DPPARLCT	Archive Log Suspensions	DPPARLCT	QPACALCT	X	X	X	X
DPPARLID	Resource Limit Table ID	DPPARLID	QTXARLID	X	X	X	X
DPPASCH	Nested Activity Schema Name	DPPASCH	QPACASCH	X	X	X	X
DPPASLAT	Suspend Count - Latch Conflict	DPPASLAT	QTXASLAT	X	X	X	X
DPPASLMT	Limit In SUs - ASUTIME	DPPASLMT	QTXASLMT	X	X	X	X
DPPASLOC	Suspend Count - Lock Conflict	DPPASLOC	QTXASLOC	X	X	X	X
DPPASOTH	Suspend Count - Other Conflict	DPPASOTH	QTXASOTH	X	X	X	X
DPPAUNLK	Unlock Request Count	DPPAUNLK	QTXAUNLK	X	X	X	X
DPPAWATM	Accum Wt Time - Log Reads	DPPAWATM	QPACAWAR	X	X	X	X
DPPAWBTM	Accum Wt Time - TCP/IP LOB Material.	DPPAWBTM	QPACALBW		X	X	X
DPPAWCTM	Accum Wt Time - Drain Wait	DPPAWCTM	QPACAWCL	X	X	X	X
DPPAWDTM	Accum Wait Time - Drain Lock	DPPAWDTM	QPACAWDR	X	X	X	X
DPPAWETM	Accum Wait Sync Exec Unit Switch	DPPAWETM	QPACAWTE	X	X	X	X
DPPAWGTM	Accum Wait Time - Sending Messages	DPPAWGTM	QPACAWTG	X	X	X	X
DPPAWITM	Accum I/O Elapsed Time This Thread	DPPAWITM	QPACAWTI	X	X	X	X
DPPAWJTM	Accum Wait Time - Global Lock Contention	DPPAWJTM	QPACAWTJ	X	X	X	X
DPPAWPTM	Accum Wait Time - Latch Contention	DPPAWPTM	QPACAWTP	X	X	X	X

DPPAWRTM	Accum Wait Read Other Time	DPPAWRTM	QPACAWTR	X	X	X	X
DPPAWWTM	Accum Wait Write Other Time	DPPAWWTM	QPACAWTW	X	X	X	X
DPPBEGSC	Package/DBRM Beginning Store Clock	DPPBEGSC	QPACSCB	X	X	X	X
DPPBGTCB	Package/DBRM TCB Time at Entry to DB2	DPPBGTCB	QPACBJST	X	X	X	X
DPPCALL	SQL CALL Statement Count	DPPCALL	QPCALL	X	X	X	X
DPPCIMW	No. Of Immed. Sync Write I/O Buffer	DB2CIMW	QBACIMW	X	X	X	X
DPPCLOSE	CLOSES Count	DPPCLOSE	QPCLOSE	X	X	X	X
DPPCLS7	No. Packages/DBRMs With Class 7 Data	DPPCLS7	QPACFLGS	X	X	X	X
DPPCLS8	No. Packages/DBRMs With Class 8 Data	DPPCLS8	QPACFLGS	X	X	X	X
DPPCRNT	Most Current Package Executed	DPPCRNT	QPACFLGS	X	X	X	X
DPPDBRM	Number of DBRMs	DPPDBRM	QPACFLGS	X	X		
DPPDEAD	Deadlock Count	DPPDEAD	QTXADEA	X	X	X	X
DPPDELET	DELETES Count	DPPDELET	QPDELET	X	X	X	X
DPPDESC	DESCRIBES Count	DPPDESC	QPDESC	X	X	X	X
DPPDPF	No. Times Dynamic Prefetch Req	DB2DPF	QBACDPF	X	X	X	X
DPPENDSC	Package/DBRM Ending Store Clock	DPPENDSC	QPACSCE	X	X	X	X
DPPENTCB	Package/DBRM TCB Time At Exit From DB2	DPPENTCB	QPACEJST	X	X	X	X
DPPENTEX	Entry/Exit Events Processed	DPPENTEX	QPACARNA	X	X	X	X
DPPFETCH	FETCHES Count	DPPFETCH	QPFETCH	X	X	X	X
DPPFLGS	Program Type Execution Flags	DPPFLGS	QPACFLGS	X	X	X	X
DPPGPGR	GETPAGE Requests	DB2GPGR	QBACGET	X	X	X	X
DPPINCP	No. Packages w/Incompatible Functions	DPPINCP	QPACFLGS				X
DPPINSP	No. Packages Loaded by Stored Proc.	DPPINSP	QPACFLGS	X	X	X	X
DPPINSRT	INSERTS Count	DPPINSRT	QPINSRT	X	X	X	X
DPPLEEM	Lock Escalations to Exclusive Count	DPPLEEM	QTXALEX	X	X	X	X
DPPLESM	Lock Escalations to Shared Count	DPPLESM	QTXALES	X	X	X	X
DPPLOCK	LOCK TABLE Count	DPPLOCK	QPLOCK	X	X	X	X
DPPLPF	No. Times LIST PREFETCH req.	DB2LPF	QBACLPF	X	X	X	X
DPPMXPL	Max Page Locks Held	DPPMXPL	QTXANPL	X	X	X	X
DPPNFLMT	Infinite Resource Limit Count	DPPNFLMT	QTXAFLG1	X	X	X	X
DPPNGT	No. Time GETPAGE Req Not Satisfied	DB2NGT	QBACNGT	X	X	X	X
DPPNIUDF	Non-Inline User Defined Function	DPPNIUDF	QPACAAFG			X	X
DPPNSTP	Number of Native SQL Procedures	DPPNSTP	QPACAAFG		X	X	X
DPPOPEN	OPENS Count	DPPOPEN	QPOPEN	X	X	X	X
DPPPACK	Number of Packages	DPPPACK	QPACFLGS	X	X		
DPPPQSCT	No. Parallel Qry Susp Wt Prnt/Chld Syn	DPPPQSCT	QPAC_PQS_COUNT				X
DPPPQSWT	Wait Time for Requests to IDAA	DPPPQSWT	QPAC_PQS_WAIT				X
DPPPREP	PREPARES Count	DPPPREP	QPPREP	X	X	X	X
DPPPRFH	PREFETCH Read Requests Buffer	DB2PRFH	QBACSEQ	X	X	X	X
DPPRLNU	No. Threads Roll Data to Pkg Section	DPPRLNU	QPACRLNU			X	X
DPPRNKCL	No. Wait Trace Glbl Cont. Child LLock	DB2RNKCL	QPACARNK	X	X	X	X
DPPRNMOL	No. Wait Trace Glbl Cont. Other LLock	DB2RNMOL	QPACARNM	X	X	X	X
DPPRNNPL	No. Wait Trace Glbl Cont. PP PLock	DB2RNNPL	QPACARNN	X	X	X	X
DPPRNOPL	No. Wait Trace Glbl Cont. PG PLock	DB2RNOPL	QPACARNO	X	X	X	X
DPPRNQOL	No. Wait Trace Glbl Cont. Other PLock	DB2RNQOL	QPACARNQ	X	X	X	X
DPPROLL	Package Roll Up Flag	DPPROLL	QPACFLGS			X	X
DPPRUSM	Package Summary Roll Up Flag	DPPRUSM	QPACFLGS			X	X
DPPSELCT	SELECTS Count	DPPSELCT	QPSELECT	X	X	X	X
DPPSIO	No. Async Pages Read by PREFETCH	DB2SIO	QBACSIO	X	X	X	X
DPPSPNS	No. Stored Procedures Executed	DPPSPNS	QPACSPNS	X	X	X	X
DPPSPRU	System Page Record Update	DB2SPRU	QBACSWS	X	X	X	X
DPPSQLC	Sql Stmts Issued	DPPSQLC	QPACSQLC	X	X	X	X
DPPSRIO	Synchronous Read IOs	DB2SRIO	QBACRIO	X	X	X	X
DPPSTPR	Number of External Stored Procedures	DPPSTPR	QPACAAFG	X	X	X	X
DPPSUAC	No. Successful Authorization Checks	DPPSUAC	QPACFLGS	X	X	X	X
DPPSWTCH	Number of Package Switches	DPPSWTCH	QPACSWITCH		X	X	X
DPPTCBTM	Total TCB Time All Executions	DPPTCBTM	QPACTJST	X	X	X	X
DPPTIMO	Timeout Count	DPPTIMO	QTXATIM	X	X	X	X
DPPTREX	Number of Trigger Executions	DPPTREX	QPACAAFG	X	X	X	X
DPPUDNU	No. User-Defined Functions Scheduled	DPPUDNU	QPACUDNU	X	X	X	X
DPPUPDTE	UPDATES Count	DPPUPDTE	QPUPDTE	X	X	X	X
DPPWATRA	Wt Trace for Log Reads	DPPWATRA	QPACANAR	X	X	X	X
DPPWATRB	Wt Trace for TCP/IP LOB Material.	DPPWATRB	QPACALBC		X	X	X
DPPWATRC	Wait Trace Events - Claims	DPPWATRC	QPACARNC	X	X	X	X
DPPWATRD	Wait Trace Events - Drain Lock	DPPWATRD	QPACARND	X	X	X	X
DPPWATRG	Wait Trace Events - Sending Messages	DPPWATRG	QPACARNG	X	X	X	X
DPPWATRJ	Wt Trace Events - Global Lock Content	DPPWATRJ	QPACARNJ	X	X	X	X
DPPWATRL	Wait Trace Events - Lock/Latch	DPPWATRL	QPACARNL	X	X	X	X
DPPWATRP	Wt Trace for Latch Contention	DPPWATRP	QPACARNH	X	X	X	X
DPPWATRR	Wait Trace Events - Read Other	DPPWATRR	QPACARNR	X	X	X	X
DPPWATRW	Wait Trace Events - Write Other	DPPWATRW	QPACARNW	X	X	X	X
DPPWATSE	Wait Trace Events - Sync Exec	DPPWATSE	QPACARNS	X	X	X	X
DPPWATTR	Wait Trace Events Processed	DPPWATTR	QPACARNE	X	X	X	X

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   DPPWLCTM  Glbl Contention Child L-Lock Wait Time    DB2WLCTM  QPACAWTK          |  X  |  X  |  X  |  X  |
   DPPWLGTM  Glbl Contention PG P-Lock Wait Time       DB2WGLTM  QPACAWTO          |  X  |  X  |  X  |  X  |
   DPPWLLTM  Glbl Contention Other L-Locks Wait Time   DB2WLLTM  QPACAWTM          |  X  |  X  |  X  |  X  |
   DPPWLPTM  Glbl Contention PP P-Lock Wait Time       DB2WLPTM  QPACAWTN          |  X  |  X  |  X  |  X  |
   DPPWTEPL  Wait Trace Events - Waits on Latches      DPPWTEPL  QPACANLH          |     |     |  X  |  X  |
   DPPWTOTM  Glbl Contention Other P-Locks Wait Time   DB2WTOTM  QPACAWTQ          |  X  |  X  |  X  |  X  |
   DPPZRLMT  Zero Resource Limit Count                 DPPZRLMT  QTXAFLG1          |  X  |  X  |  X  |  X  |
   DPPZTCBT  Total TCB Time All Executions on zIIP     DPPZTCBT  QPACCLS7_ZIIP     |  X  |  X  |  X  |  X  |
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The DBPDSB (DB2 Buffer Pool Activity) File

ELEMENT	ELEMENT DESCRIPTION	DICTIONARY MEMBER	RAW ELEMENT	AVAILABLE IN DB2 VERSIONS 8.1	9.1	10.1	11.1
DB2DSGN	Data Sharing Group Name	DB2DSGN	QWHADSGN	X	X	X	X
DB2ISEQ	Instrumentation Sequence Number	DB2ISEQ	QWHSISEQ	X	X	X	X
DB2MEMN	DB2 Member Name	DB2MEMN	QWHAMEMN	X	X	X	X
DB2PID	DB2 Buffer Pool Identifier	DB2PID	QBACPID	X	X	X	X
DB2RELN	DB2 Release Identifier	DB2RELN	QWHSRELN	X	X	X	X
DSBABBP	Active Buffers in Buffer Pool	DSBABBP	QBSTCBA	X	X	X	X
DSBACZ	CF Writes Clean Pages	DSBACZ	QBGLAC	X	X	X	X
DSBAWZ	CF Writes Changed Pages	DSBAWZ	QBGLAW	X	X	X	X
DSBAXZ	RPL Request Done by Prefetch	DSBAXZ	QBGLAX	X	X	X	X
DSBAYZ	GBP Reads Prefetch Changed Page	DSBAYZ	QBGLAY	X	X	X	X
DSBBPSO	Buffer Pool Data Sets Opened	DSBBPSO	QBSTDSO	X	X	X	X
DSBCCZ	IXLCACHE Read-Castout-Class Req	DSBCCZ	QBGLCC	X	X	X	X
DSBCIO	Castout I/O Operations	DSBCIO	QBSTCIO		X	X	X
DSBCKZ	GBP Checkpoints Triggered	DSBCKZ	QBGLCK	X	X	X	X
DSBCMZ	Read for Castout Multiple Requests	DSBCMZ	QBGLCM	X	X	X	X
DSBCNZ	Castout Engine Not Available	DSBCNZ	QBGLCN				
DSBCRZ	Read for Castout Requests	DSBCRZ	QBGLCR	X	X	X	X
DSBCSZ	IXLCACHE Read-Castout-Stats Req	DSBCSZ	QBGLCS	X	X	X	X
DSBCTZ	Castout Class Threshold Detected	DSBCTZ	QBGLCT	X	X	X	X
DSBDBPR	Physical Database Page Requests	DSBDBPR	QBSTGET	X	X	X	X
DSBDBPU	Database Page Updates	DSBDBPU	QBSTSWS	X	X	X	X
DSBDGZ	Unregistered Page Requests	DSBDGZ	QBGLDG	X	X	X	X
DSBDIO	Async Read I/Os via Dynamic Prefetch	DSBDIO	QBSTDIO	X	X	X	X
DSBDMCT	No. Times DM Critical WPHFWT Reached	DSBDMCT	QBSTDMC	X	X	X	X
DSBDNZ	IXLCACHE Delete-Name Requests	DSBDNZ	QBGLDN	X	X	X	X
DSBDPF	No. Times Dynamic Prefetch Req.	DB2DPF	QBACDPF	X	X	X	X
DSBDPP	Async Page Reads via Dynamic Pref.	DSBDPP	QBSTDPP	X	X	X	X
DSBDWRT	Times Deferred Write Threshold Reached	DSBDWRT	QBSTDWT	X	X	X	X
DSBDWV	Times Vert. Defer. Write Thresh	DSBDWV	QBSTDWV	X	X	X	X
DSBEXZ	Explicit XIs	DSBEXZ	QBGLEX	X	X	X	X
DSBGGZ	GETPAGEs for GBP-Dependent Pagesets	DSBGGZ	QBGLGG	X	X	X	X
DSBGTZ	Group BP Castout Threshold Detected	DSBGTZ	QBGLGT	X	X	X	X
DSBHST	No. Times Len SLRU eq VPSEQT	DSBHST	QBSTHST			X	X
DSBHSZ	Asynch IXLCACHE for Prim GBP	DSBHSZ	QBGLHS	X	X	X	X
DSBIMWS	Count of Immediate Writes System Pages	DSBIMWS	QBSTIMW	X	X	X	X
DSBJIS	Total No. Pref. I/O Streams Denied	DSBJIS	QBSTJIS	X	X	X	X
DSBLIO	Async Read I/Os via List Prefetch	DSBLIO	QBSTLIO	X	X	X	X
DSBLPF	List Prefetch Requested	DB2LPF	QBSTLPF	X	X	X	X
DSBLPL	No. LPL Inserts	DSBLPL	QBSTLPL	X	X	X	X
DSBLPP	Async Page Reads via List Prefetch	DSBLPP	QBSTLPP	X	X	X	X
DSBMAX	BP Not Supp Concur WK File	DSBMAX	QBSTMAX	X	X	X	X
DSBMDZ	CF Reads Data Returned	DSBMDZ	QBGLMD	X	X	X	X
DSBMMRR	Media Manager Read Requests	DSBMMRR	QBSTRIO	X	X	X	X
DSBMRZ	CF Reads Data Not Returned Entry	DSBMRZ	QBGLMR	X	X	X	X
DSBNGT	No. GETPAGE Requests Not Satisfied	DB2NGT	QBSTNGT	X	X	X	X
DSBNSG	No. Seq GETPAGE Failures	DSBNSG	QBSTNSG	X	X	X	X
DSBN1Z	Page P-lock Negt Space Map Pages	DSBN1Z	QBGLN1		X	X	X
DSBN2Z	Page P-lock Negt Data Pages	DSBN2Z	QBGLN2		X	X	X
DSBN3Z	Page P-lock Negt Index Leaf Pages	DSBN3Z	QBGLN3		X	X	X
DSBOSZ	Other CF Requests	DSBOSZ	QBGLOS	X	X	X	X
DSBPCO	Pages Written for Castout I/Os	DSBPCO	QBSTPCO		X	X	X
DSBPL1	Total Times Pref. Qty 1/2 Normal	DSBPL1	QBSTPL1	X	X	X	X
DSBPL2	Total Times Pref. Qty 1/4 Normal	DSBPL2	QBSTPL2	X	X	X	X
DSBP1Z	Page P-lock Req Space Map Pages	DSBP1Z	QBGLP1		X	X	X
DSBP2Z	Page P-lock Req Data Pages	DSBP3Z	QBGLP2		X	X	X
DSBP3Z	Page P-lock Req Index Leaf Pages	DSBP3Z	QBGLP3		X	X	X

DSBRCZ	Pages Castout to DASD	DSBRCZ	QBGLRC	X	X	X	X
DSBRDZ	IXLCACHE Read-DIRINFO Requests	DSBRDZ	QBGLRD	X	X	X	X
DSBREEP	Prefetch Request Disabled No Read	DSBREEP	QBSTREE	X	X	X	X
DSBRFXS	Read Page-Fixed without Real Storage	DSBRFXS	QBSTRPI	X	X	X	X
DSBRFZ	CF Read Requests No Storage	DSBRFZ	QBGLRF				
DSBRGZ	Registered Page Requests	DSBRGZ	QBGLRG	X	X	X	X
DSBRHS	No. Random Getpage Buff Hit on SLRU	DSBRSH	QBSTRHS			X	X
DSBSIO	Sync Read I/Os Seq Access Req	DB2SIO	QBSTSIO	X	X	X	X
DSBSMAX	Max Buffers on SLRU	DSBSMAX	QBSTSMAX			X	X
DSBSMIN	Min Buffers on SLRU	DSBSMIN	QBSTSMIN			X	X
DSBSPDF	Prefetch Request Disabled No Buffer	DSBSPDF	QBSTSPD	X	X	X	X
DSBSPPF	Number of Pages Read Due to Prefetch	DSBSPPF	QBSTSPP	X	X	X	X
DSBSPWR	System Pages Written to DASD	DSBSPWR	QBSTPWS	X	X	X	X
DSBSSEF	Storage Shortage Expansion Fails	DSBSSEF	QBSTXFV	X	X	X	X
DSBSUZ	CF Write Engine Not Available	DSBSUZ	QBGLSU				
DSBSWZ	CF Writes For Changed Pages	DSBSWZ	QBGLSW	X	X	X	X
DSBS1Z	Page P-lock Susp Space Map Pages	DSBS1Z	QBGLS1		X	X	X
DSBS2Z	Page P-lock Sups Data Pages	DSBS2Z	QBGLS2		X	X	X
DSBS3Z	Page P-lock Sups Index Leaf Pages	DSBS3Z	QBGLS3		X	X	X
DSBTMIG	No. Migrated Datasets Encountered	DSBTMIG	QBSTMIG	X	X	X	X
DSBTPF0	WK PF Abort - 0 PF QTY	DSBTPF0	QBSTWKPD	X	X	X	X
DSBTPIO	No. Prefetch Async Read I/Os	DSBTPIO	QBSTPIO	X	X	X	X
DSBTRTO	No. Recall Time Outs	DSBTRTO	QBSTRTO	X	X	X	X
DSBUNZ	IXLCACHE Unlock-Castout Req	DSBUNZ	QBGLUN	X	X	X	X
DSBU1Z	Page P-lock Unlock Requests	DSBU1Z	QBGLU1		X	X	X
DSBVPA	Successful VPOOL Expand/Contract	DSBVPA	QBSTVPA	X	X	X	X
DSBVPL	No. Buffers Allocated for a VPOOL	DSBVPL	QBSTVPL	X	X	X	X
DSBWAZ	Pages in Write Around	DSBWAZ	QBGLWA				X
DSBWCZ	CF Writes For Clean Pages	DSBWCZ	QBGLWC	X	X	X	X
DSBWDRP	Pages Destruct Read Req	DSBWDRP	QBSTWDRP	X	X	X	X
DSBWFD	Work Files Denied Sort Merge	DSBWFD	QBSTWFD	X	X	X	X
DSBWFF	Poor Sort Merge - Buf Short	DSBWFF	QBSTWFF	X	X	X	X
DSBWFM	Max WK File Alloc Sort Merge	DSBWFM	QBSTWFM	X	X	X	X
DSBWFR	Req Query WK File Sort Merge	DSBWFR	QBSTWFR	X	X	X	X
DSBWFT	Work Files Req Sort Merge	DSBWFT	QBSTWFT	X	X	X	X
DSBWFXS	Write Page Fixed W/O Real Storage	DSBWFXS	QBSTWPI	X	X	X	X
DSBWFZ	CF Write Requests No Storage	DSBWFZ	QBGLWF	X	X	X	X
DSBWMZ	Write and Register Multiple Requests	DSBWMZ	QBGLWM	X	X	X	X
DSBWPZ	Pages Written via WARM	DSBWPZ	QBGLWP	X	X	X	X
DSBWREE	No. Times Write Engine Unavailable	DSBWREE	QBSTWEE	X			
DSBWRMM	Write I/Os By Media Manager	DSBWRMM	QBSTWIO	X	X	X	X
DSBWSZ	Write and Register Requests	DSBWSZ	QBGLWS	X	X	X	X
DSBXDZ	CF Reads Buffer XI	DSBXDZ	QBGLXD	X	X	X	X
DSBXFL	Buffer Not Located -- VPOOL Full	DSBXFL	QBSTXFL	X	X	X	X
DSBXIS	Max No. Concurrent Pref. Streams	DSBXIS	QBSTXIS	X	X	X	X
DSBXRZ	CF Reads Entry Created	DSBXRZ	QBGLXR	X	X	X	X
DSB2DZ	IXLCACHE Delete-Name-List 2nd GBP	DSB2DZ	QBGL2D	X	X	X	X
DSB2FZ	Write Chg Pgs to 2nd GBP Fail Stg	DSB2FZ	QBGL2F	X	X	X	X
DSB2HZ	Asynch IXLCACHE for 2nd GBP	DSB2HZ	QBGL2H	X	X	X	X
DSB2NZ	IXLCACHE Delete-Name 2nd GBP	DSB2NZ	QBGL2N	X	X	X	X
DSB2RZ	IXLCACHE Read-Castout-St 2nd GBP	DSB2RZ	QBGL2R	X	X	X	X
DSB2SZ	Comp Write 2nd GBP Suspended	DSB2SZ	QBGL2S	X	X	X	X

The DB2DSD (DB2 Database Activity) File

ELEMENT	ELEMENT DESCRIPTION	DICTIONARY MEMBER	RAW ELEMENT	AVAILABLE IN DB2 VERSIONS 8.1	9.1	10.1	11.1
DB2DSGN	Data Sharing Group Name	DB2DSGN	QWHADSGN	X	X	X	X
DB2ISEQ	Instrumentation Sequence Number	DB2ISEQ	QWHSISEQ	X	X	X	X
DB2MEMN	DB2 Member Name	DB2MEMN	QWHAMEMN	X	X	X	X
DB2RELN	DB2 Release Identifier	DB2RELN	QWHSRELN	X	X	X	X
DSDABBP0	Active Buffers in Buffer Pool 0	DSDABBPX	QBSTCBA	X	X	X	X
DSDABBP1	Active Buffers in Buffer Pool 1	DSDABBPX	QBSTCBA	X	X	X	X
DSDABBP2	Active Buffers in Buffer Pool 2	DSDABBPX	QBSTCBA	X	X	X	X
DSDABBP3	Active Buffers in Buffer Pool 3	DSDABBPX	QBSTCBA	X	X	X	X
DSDACHG	Change Request Count	DSDACHG	QTXACHG	X	X	X	X
DSDACHUS	Highest CPU 16 Microseconds Used	DSDACHUS	QTXACHUS	X	X	X	X
DSDACLMT	Limit In CPU 16 Microseconds	DSDACLMT	QTXACLMT	X	X	X	X
DSDAFLG	Flag Byte	DSDAFLG	QTXAFLG1	X	X	X	X
DSDAIRLM	Other IRLM Request Count	DSDAIRLM	QTXAIRLM	X	X	X	X
DSDALDAB	No. of ALTER DATABASE Stmts	DSDALDAB	QXALDAB	X	X	X	X
DSDALLOC	Successful Bound Plan Allocations	DSDALLOC	QTALLOC	X	X	X	X
DSDALOCA	Requests to Allocate Bound Plan	DSDALOCA	QTALLOCA	X	X	X	X
DSDALOCC	ALLOCATE CURSOR Statements Executed	DSDALOCC	QXALOCC	X	X	X	X
DSDALOCK	Lock Request Count	DSDALOCK	QTXALOCK	X	X	X	X
DSDALOCL	Associate Locator Statement Executed	DSDALOCL	QXALOCL	X	X	X	X
DSDALPRO	Number of Alter Procedure Statements	DSDALPRO	QXALPRO	X	X	X	X
DSDALSEQ	Alter Sequence Statements	DSDALSEQ	QXALTSEQ	X	X	X	X
DSDALTIX	ALTER INDEX Statements	DSDALTIX	QXALTIX	X	X	X	X
DSDALTJR	Alter JAR Statements	DB2ALTJR	QXAALTJR		X	X	X
DSDALTMP	Alter Mask / Permission Statements	DB2ALTMP	QXAALTMP			X	X
DSDALTST	ALTER STORAGE GROUP Statements	DSDALTST	QXALTST	X	X	X	X
DSDALTTA	ALTER TABLE Statements	DSDALTTA	QXALTTA	X	X	X	X
DSDALTTS	ALTER TABLESPACE Statements	DSDALTTS	QXALTTS	X	X	X	X
DSDALTTX	Alter Trusted Context Statements	DB2ALTTX	QXALTCTX		X	X	X
DSDALTVW	Alter View Statements	DB2ALTVW	QXALTVW	X	X	X	X
DSDALUDF	Number of Alter Function Statements	DSDALUDF	QXALUDF	X	X	X	X
DSDAMXU	Highest WFDB Storage Used (KB)	DSDAMXU	QISTAMXU				X
DSDAPREC	How Limit Was Determined	DSDAPREC	QTXAPREC	X	X	X	X
DSDAQRY	Query Request Count	DSDAQRY	QTXAQRY	X	X	X	X
DSDARLID	Resource Limit Table ID	DSDARLID	QTXARLID	X	X	X	X
DSDARREX	No. Parallel Grps Back to Seq Mode	DB2ARREX	QXSTARRAY_EXPANSIONS				X
DSDASLAT	Suspend Count - Latch Conflict	DSDASLAT	QTXASLAT	X	X	X	X
DSDASLMT	Limit In SUs - ASUTIME	DSDASLMT	QTXASLMT	X	X	X	X
DSDASOTH	Suspend Count - Other Conflict	DSDASOTH	QTXASOTH	X	X	X	X
DSDASTH	Agent-Level WFDB Space Usage Thresh %	DSDASTH	QISTASTH				X
DSDATNM	Active Trace Number Mask	DSDATNM	QWHSMTN	X	X	X	X
DSDAUCHK	Authorization Checks	DSDAUCHK	QTAUCHK	X	X	X	X
DSDAUD	Number of User Defined Functions Exec	DSDAUD	QXCAUD	X	X	X	X
DSDAUDAB	Times UDF Abended	DSDAUDAB	QXCAUDAB	X	X	X	X
DSDAUDRJ	Times UDF was Rejected	DSDAUDRJ	QXCAUDRJ	X	X	X	X
DSDAUDTO	Times UDF Timed out Waiting Schedule	DSDAUDTO	QXCAUDTO	X	X	X	X
DSDAUNLK	Unlock Request Count	DSDAUNLK	QTXAUNLK	X	X	X	X
DSDAUPUB	AUTH Checks Based PUBLIC Auth	DSDAUPUB	QTAUPUB	X	X	X	X
DSDAUTOB	Attempts To AUTOBIND a Pkg	DSDAUTOB	QTAUTOBA	X	X	X	X
DSDBIND	Successful Automatic Binds	DSDBIND	QTABIND	X	X	X	X
DSDBINDA	Automatic Bind Attempts	DSDBINDA	QTABINDA	X	X	X	X
DSDBNDAA	Bind Action ADD Subcommands	DSDBNDAA	QTBINDA	X	X	X	X
DSDBNDAR	Bind Action REPLACE Subcommands	DSDBNDAR	QTBINDR	X	X	X	X
DSDBNDPA	BIND (ADD) PACKAGE Sub-Cmnds	DSDBNDPA	QTBINDPA	X	X	X	X
DSDBNDPR	BIND (REP) PACKAGE Sub-Cmnds	DSDBNDPR	QTBINDPR	X	X	X	X
DSDBPNX	Parallel Groups Run Cross Data Share	DSDBPNX	QXXCBPNX	X	X	X	X
DSDBPSO0	Buffer Pool Data Sets Opened	DSDBPSOX	QBSTDSO	X	X	X	X

DSDBPSO1	Buffer Pool Data Sets Opened	DSDBPSOX	QBSTDSO	X	X	X	X
DSDBPSO2	Buffer Pool Data Sets Opened	DSDBPSOX	QBSTDSO	X	X	X	X
DSDBPSO3	Buffer Pool Data Sets Opened	DSDBPSOX	QBSTDSO	X	X	X	X
DSDCALL	SQL CALL Statements Executed	DSDCALL	QXCALL	X	X	X	X
DSDCALLA	Times Stored Procedure Abended	DSDCALLA	QXCALLAB	X	X	X	X
DSDCALLR	Times SQL CALL Stmt Was Rejected	DSDCALLR	QXCALLRJ	X	X	X	X
DSDCALLT	Times SQL CALL Stmt Timed Out	DSDCALLT	QXCALLTO	X	X	X	X
DSDCDIST	Create Distinct Type Statements	DSDCDIST	QXCDIST	X	X	X	X
DSDCHNP	Changep Requests	DSDCHNP	QTGSCHNP	X	X	X	X
DSDCLNO	Number of Claim Requests	DSDCLNO	QTXACLNO	X	X	X	X
DSDCLOSE	CLOSE Statements	DSDCLOSE	QXCLOSE	X	X	X	X
DSDCLUN	Number of Unsuccessful Claim Requests	DSDCLUN	QTXACLUN	X	X	X	X
DSDCMTON	COMMENT ON Statements	DSDCMTON	QXCMTON	X	X	X	X
DSDCOLS	Invalid Select Procedure Encountered	DSDCOLS	QISTCOLS	X	X	X	X
DSDCON1	Number of Connect Type 1 Statements	DSDCON1	QXCON1	X	X	X	X
DSDCON2	Number of Connect Type 2 Statements	DSDCON2	QXCON2	X	X	X	X
DSDCRAL	Create Alias	DSDCRAL	QXCRALS	X	X	X	X
DSDCRATB	Create AUX Table Statements	DSDCRATB	QXCRATB	X	X	X	X
DSDCRCTX	Create Trusted Context Statements	DB2CRCTX	QXCRCTX		X	X	X
DSDCRDAB	CREATE DATABASE Statements	DSDCRDAB	QXCRDAB	X	X	X	X
DSDCREMP	Create Mask / Permission Statements	DB2CREMP	QXCREMP			X	X
DSDCRGTT	Create Global Temporary Table	DSDCRGTT	QXCRGTT	X	X	X	X
DSDCRINX	CREATE INDEX Statements	DSDCRINX	QXCRINX	X	X	X	X
DSDCRPRO	Create Procedure Statements	DSDCRPRO	QXCRPRO	X	X	X	X
DSDCRROL	Create Role Statements	DB2CRROL	QXCRROL		X	X	X
DSDCRSEQ	Create Sequence Statements	DSDCRSEQ	QXCRESEQ	X	X	X	X
DSDCRSTG	CREATE STORAGE GROUP Statements	DSDCRSTG	QXCRSTG	X	X	X	X
DSDCRSYN	CREATE SYNONYM Statements	DSDCRSYN	QXCRSYN	X	X	X	X
DSDCRTAB	CREATE TABLE Statements	DSDCRTAB	QXCRTAB	X	X	X	X
DSDCRTSV	Create Variable Statements	DB2CRTSV	QXCRTSV				X
DSDCRUDF	Create Function Statements	DSDCRUDF	QXCRUDF	X	X	X	X
DSDCSLM	Change Requests Propagated to XES	DSDCSLM	QTGSCSLM	X	X	X	X
DSDCTABS	CREATE TABLESPACE Statements	DSDCTABS	QXCTABS	X	X	X	X
DSDCTRIG	Number of Create Triggers	DSDCTRIG	QXCTRIG	X	X	X	X
DSDCWLD	Times Duplicate Concentrate Dyna Stmnts	DB2CWLD	QXSTCWLD	X	X	X	X
DSDCWLM	Times Matched Concentrate Dyna Stmnts	DB2CWLM	QXSTCWLM	X	X	X	X
DSDCWLP	Times Parsed Concentrate Dyna Stmnts	DB2CWLP	QXSTCWLP	X	X	X	X
DSDCWLR	Times Replaced Concentrate Dyna Stmnts	DB2CWLR	QXSTCWLR	X	X	X	X
DSDDBDG	Requests for Database Descriptors	DSDDBDG	QISEDBDG	X	X	X	X
DSDDBDL	Number of Loads: Database Descriptors	DSDDBDL	QISEDBDL	X	X	X	X
DSDDBPR0	Physical Database Page Requests 0	DSDDBPRX	QBSTGET	X	X	X	X
DSDDBPR1	Physical Database Page Requests 1	DSDDBPRX	QBSTGET	X	X	X	X
DSDDBPR2	Physical Database Page Requests 2	DSDDBPRX	QBSTGET	X	X	X	X
DSDDBPR3	Physical Database Page Requests 3	DSDDBPRX	QBSTGET	X	X	X	X
DSDDBPU0	Database Page Updates 0	DSDDBPUX	QBSTSWS	X	X	X	X
DSDDBPU1	Database Page Updates 1	DSDDBPUX	QBSTSWS	X	X	X	X
DSDDBPU2	Database Page Updates 2	DSDDBPUX	QBSTSWS	X	X	X	X
DSDDBPU3	Database Page Updates 3	DSDDBPUX	QBSTSWS	X	X	X	X
DSDDCGTT	Declare Global Temporary Table Stmts	DSDDCGTT	QXDCLGTT	X	X	X	X
DSDDDIST	Drop Distinct Type Statements	DSDDDIST	QXDDIST	X	X	X	X
DSDDEAD	Deadlock Count	DSDDEAD	QTXADEA	X	X	X	X
DSDDEFVU	CREATE VIEW Statements	DSDDEFVU	QXDEFVU	X	X	X	X
DSDDEGAT	No. Parallel Grps Back to Seq Mode	DB2DEGAT	QXDEGAT				X
DSDDELET	DELETE Statements	DSDDELET	QXDELET	X	X	X	X
DSDDESC	DESCRIBE Statements	DSDDESC	QXDESC	X	X	X	X
DSDDEXP	PREPARE Discarded	DSDDEXP	QXSTDEXP	X	X	X	X
DSDDGBUF	Total Number of Parallel Groups That	DSDDGBUF	QXDEGBUF	X	X	X	X
DSDDGCUR	Parallel Groups to Seq Cursor Update	DSDDGCUR	QXDEGCUR	X	X	X	X
DSDDGESA	Parallel Groups to Seq No ESA Sort	DSDDGESA	QXDEGESA	X	X	X	X
DSDDGNGP	No. Parallel Grp Degenerated Sys Stress	DB2DGNGP	QXSTODGNGRP				X
DSDDINV	PREPARE Purged	DSDDINV	QXSTDINV	X	X	X	X
DSDDIO0	Async Read I/Os via Dynamic Pref. BP0	DSDDIOX	QBSTDIO	X	X	X	X
DSDDIO1	Async Read I/Os via Dynamic Pref. BP1	DSDDIOX	QBSTDIO	X	X	X	X
DSDDIO2	Async Read I/Os via Dynamic Pref. BP2	DSDDIOX	QBSTDIO	X	X	X	X
DSDDIO3	Async Read I/Os via Dynamic Pref. BP3	DSDDIOX	QBSTDIO	X	X	X	X
DSDDLRU	Number of Stealable DB Descriptors	DSDDLRU	QISEDLRU			X	X
DSDDMCT0	No. Times DM Critical WPHFWT reached 0	DSDDMCTX	QBSTDMC	X	X	X	X
DSDDMCT1	No. Times DM Critical WPHFWT reached 1	DSDDMCTX	QBSTDMC	X	X	X	X
DSDDMCT2	No. Times DM Critical WPHFWT reached 2	DSDDMCTX	QBSTDMC	X	X	X	X
DSDDMCT3	No. Times DM Critical WPHFWT reached 3	DSDDMCTX	QBSTDMC	X	X	X	X
DSDDPF0	No. Times Dynamic Prefetch Req. BP0	DB2DPFX	QBACDPF	X	X	X	X
DSDDPF1	No. Times Dynamic Prefetch Req BP1	DB2DPFX	QBACDPF	X	X	X	X
DSDDPF2	No. Times Dynamic Prefetch Req BP2	DB2DPFX	QBACDPF	X	X	X	X

DSDDPF3	No. Times Dynamic Prefetch Req BP3	DB2DPFX	QBACDPF	X	X	X	X
DSDDPP0	Async Page Reads via Dynamic Pref. BP0	DSDDPPX	QBSTDPP	X	X	X	X
DSDDPP1	Async Page Reads via Dynamic Pref. BP1	DSDDPPX	QBSTDPP	X	X	X	X
DSDDPP2	Async Page Reads via Dynamic Pref. BP2	DSDDPPX	QBSTDPP	X	X	X	X
DSDDPP3	Async Page Reads via Dynamic Pref. BP3	DSDDPPX	QBSTDPP	X	X	X	X
DSDDRAL	Drop Alias	DSDDRAL	QXDRPAL	X	X	X	X
DSDDRNO	Number of Drain Requests	DSDDRNO	QTXADRNO	X	X	X	X
DSDDRPDB	DROP DATABASE Statements	DSDDRPDB	QXDRPDB	X	X	X	X
DSDDRPFN	Number of Drop User Defined Function	DSDDRPFN	QXDRPFN	X	X	X	X
DSDDRPIX	DROP INDEX Statements	DSDDRPIX	QXDRPIX	X	X	X	X
DSDDRPKG	No. of DROP PACKAGE Stmts	DSDDRPKG	QXDRPPKG	X	X	X	X
DSDDRPMP	Drop Mask / Permission Statements	DB2DRPMP	QXDRPMP			X	X
DSDDRPPR	Number of Drop Procedures	DSDDRPPR	QXDRPPR	X	X	X	X
DSDDRPRO	Drop Role Statements	DB2DRPRO	QXDRPROL		X	X	X
DSDDRPST	DROP STORAGE GROUP Statements	DSDDRPST	QXDRPST	X	X	X	X
DSDDRPSV	Drop Variable Statements	DB2DRPSV	QXDRPSV				X
DSDDRPSY	DROP SYNONYM Statements	DSDDRPSY	QXDRPSY	X	X	X	X
DSDDRPTA	DROP TABLE Statements	DSDDRPTA	QXDRPTA	X	X	X	X
DSDDRPTR	Number of Drop Triggers	DSDDRPTR	QXDRPTR	X	X	X	X
DSDDRPTS	DROP TABLESPACE Statements	DSDDRPTS	QXDRPTS	X	X	X	X
DSDDRPTX	Drop Trusted Context Statements	DB2DRPTX	QXDRPCTX		X	X	X
DSDDRPVU	DROP VIEW Statements	DSDDRPVU	QXDRPVU	X	X	X	X
DSDDRSEQ	Drop Sequence Statements	DSDDRSEQ	QXDROSEQ	X	X	X	X
DSDDRTA	Global Requests Denied	DSDDRTA	QTGSDRTA	X	X	X	X
DSDDRUN	Number of Unsuccessful Drain Requests	DSDDRUN	QTXADRUN	X	X	X	X
DSDDSCRT	No. of DESCRIBE TABLE Stmts	DSDDSCRT	QXDSCRTB	X	X	X	X
DSDDSDRN	DDs That Drain Has Produced	DSDDSDRN	QTDSDRN	X	X	X	X
DSDDSOPN	Data Sets Currently Open	DSDDSOPN	QTDSOPN	X	X	X	X
DSDDSPBD	Plans Bound and Kept	DSDDSPBD	QTPLNBD	X	X	X	X
DSDDSTSN	Destination Sequence Number	DB2DSTSN	QWHSWSEQ	X	X	X	X
DSDDWRT0	Times Deferred Write Threshold Reached 0	DSDDWRTX	QBSTDWT	X	X	X	X
DSDDWRT1	Times Deferred Write Threshold Reached 1	DSDDWRTX	QBSTDWT	X	X	X	X
DSDDWRT2	Times Deferred Write Threshold Reached 2	DSDDWRTX	QBSTDWT	X	X	X	X
DSDDWRT3	Times Deferred Write Threshold Reached 3	DSDDWRTX	QBSTDWT	X	X	X	X
DSDDWV0	Times Vert. Defer. Write Thresh BP0	DSDDWVX	QBSTDWV	X	X	X	X
DSDDWV1	Times Vert. Defer. Write Thresh BP1	DSDDWVX	QBSTDWV	X	X	X	X
DSDDWV2	Times Vert. Defer. Write Thresh BP2	DSDDWVX	QBSTDWV	X	X	X	X
DSDDWV3	Times Vert. Defer. Write Thresh BP3	DSDDWVX	QBSTDWV	X	X	X	X
DSDECFAL	No. of Failures: Full Statement Pool	DSDECFAL	QISECFAL	X	X	X	X
DSDECFRE	No. of Free Pages in Statement Pool	DSDECFRE	QISECFRE	X	X	X	X
DSDECPGE	No. of Pages in Statement Pool	DSDECPGE	QISECPGE	X	X	X	X
DSDECTA	Pages Used for Cursor Tables Above 2GB	DSDECTA	QISECTA		X	X	X
DSDECTG	Requests for Cursor Table Sections	DSDECTG	QISECTG	X	X	X	X
DSDECTL	Number of Loaded Cursor Table Sections	DSDECTL	QISECTL	X	X	X	X
DSDECTU	Pages Used for Cursor Tables Below 2GB	DSDECTU	QISECT	X	X		
DSDEDFAL	Number of Fails Due to Dataspace Full	DSDEDFAL	QISEDFAL	X	X	X	X
DSDEDFRE	Number of Free pages in Dataspace	DSDEDFRE	QISEDFRE	X	X	X	X
DSDEDPGE	Number of Pages in EDM Dataspace	DSDEDPGE	QISEDPGE	X	X	X	X
DSDEDSG	Number of Requests for Dynamic Cache	DSDEDSG	QISEDSG	X	X	X	X
DSDEDSI	Number of Inserts for Dynamic Cache	DSDEDSI	QISEDSI	X	X	X	X
DSDEDYNP	No. of Pages Used in Statement Pool	DSDEDYNP	QISEDYNP	X	X	X	X
DSDEFAL	Number of Failures Due to Full EDM Pool	DSDEFAL	QISEFAIL	X	X	X	X
DSDEGENC	Parallel Groups Executed Sequential	DSDEGENC	QXDEGENC	X	X		
DSDEKFAL	No. of Failures: Full Skeleton Pool	DSDEKFAL	QISEKFAL		X	X	X
DSDEKFRE	No. of Free Pages in Skeleton Pool	DSDEKFRE	QISEKFRE		X	X	X
DSDEKNFA	NOT FOUND Records Added to EDM Cache	DSDEKNFA	QISEKNFA		X	X	X
DSDEKNFM	NOT FOUND Records in EDM Cache	DSDEKNFM	QISEKNFM		X	X	X
DSDEKNFR	NOT FOUND Recs. Removed from EDM Cache	DSDEKNFR	QISEKNFR		X	X	X
DSDEKPGE	No. of Pages in Skeleton Pool	DSDEKPGE	QISEKPGE		X	X	X
DSDEPTA	Pages Used for Package Tables Above 2GB	DSDEPTA	QISEKTA		X	X	X
DSDEPTG	No. Req for Package Table Sections	DSDEPTG	QISEKTG	X	X	X	X
DSDEPTL	No. Loaded Package Table Sections	DSDEPTL	QISEKTL	X	X	X	X
DSDEPTU	Pages Used for Package Tables Below 2GB	DSDEPTU	QISEKT	X	X		
DSDESFAL	No. of Failures: Full Stmt (>2GB) Pool	DSDESFAL	QISESFAL		X	X	X
DSDESFRE	No. of Free Pages in Stmt (>2GB) Pool	DSDESFRE	QISESFRE		X	X	X
DSDESKC	No. Free Pages Used for SKCT Table	DSDESKC	QISESKCT	X	X	X	X
DSDESKP	No. Free Pages Used for SKPT Table	DSDESKP	QISESKPT	X	X	X	X
DSDESPGE	No. of Pages in Statement (>2GB) Pool	DSDESPGE	QISESPGE		X	X	X
DSDESTMT	No. of Statements in EDM Pool	DSDESTMT	QISESTMT	X	X	X	X
DSDFETCH	Number of FETCH Statements	DSDFETCH	QXFETCH	X	X	X	X
DSDFLSE	No. of False Contentions	DSDFLSE	QTGSFLSE	X	X	X	X
DSDFND	PREPARE Request Satisfied	DSDFND	QXSTFND	X	X	X	X
DSDFREAP	Attempts To FREE a Package	DSDFREAP	QTFREEAP	X	X	X	X
DSDFREE	FREE Subcommands	DSDFREE	QTFREE	X	X	X	X

DSDFREEA	Attempts to FREE Plan	DSDFREEA	QTFREEA	X	X	X	X
DSDFREEL	Free Locator Statements	DSDFREEL	QXFREEL	X	X	X	X
DSDFREEP	Plan Successfully Freed	DSDFREEP	QTPLNFRD	X	X	X	X
DSDFREPK	FREE PACKAGE Sub-Cmnds	DSDFREPK	QTFREEP	X	X	X	X
DSDFRIDS	Times RID List Overflowed RID Storage	DB2FRIDS	QXWFRIDS			X	X
DSDFRIDT	Times RID List Overflowed RID Exceeded	DB2FRIDT	QXWFRIDT			X	X
DSDFRPG	Number of Free Pages in Free Chain	DSDFRPG	QISEFREE	X	X		
DSDGRANT	GRANT Statements	DSDGRANT	QXGRANT	X	X	X	X
DSDHOLDL	Hold Locator Statements	DSDHOLDL	QXHOLDL	X	X	X	X
DSDIGLO	Suspends Due to IRLM Global Contention	DSDIGLO	QTGSIGLO	X	X	X	X
DSDIMAC	Curr Active DM In-Memory Workfiles	DSDIMAC	QISTIMAC			X	X
DSDIMAH	Hi-Watermark Cnt Max DM In-Mem WFs	DSDIMAH	QISTIMAH			X	X
DSDIMNC	Times WF not Created Due To Storage	DSDIMNC	QISTIMNC				X
DSDIMSC	Total Used Space DM In-Mem Workfiles KB	DSDIMSC	QISTIMSC			X	X
DSDIMSH	Hi-Watermark Cnt Max Space DM In-Mem WFs	DSDIMSH	QISTIMSH			X	X
DSDIMWS0	Count of Immediate Writes Sys Pages 0	DSDIMWSX	QBSTIMW	X	X	X	X
DSDIMWS1	Count of Immediate Writes Sys Pages 1	DSDIMWSX	QBSTIMW	X	X	X	X
DSDIMWS2	Count of Immediate Writes Sys Pages 2	DSDIMWSX	QBSTIMW	X	X	X	X
DSDIMWS3	Count of Immediate Writes Sys Pages 3	DSDIMWSX	QBSTIMW	X	X	X	X
DSDINCRB	Incremental Binds	DSDINCRB	QXINCRB	X	X	X	X
DSDINSRT	INSERT Statements	DSDINSRT	QXINSRT	X	X	X	X
DSDIPRP	Implicit PREPARE Performed	DSDIPRP	QXSTIPRP	X	X	X	X
DSDISEQ	Instrumentation Sequence Number	DB2ISEQ	QWHSISEQ	X	X	X	X
DSDISTOR	No. Sparse Index Disabled Insf Stg	DB2ISTOR	QXSISTOR				X
DSDIWF	No. Sparse Index Built Phys WF Probe	DB2IWF	QXSIWF				X
DSDI2AC	Curr Active Non-Sort In-mem Workfiles	DSDI2AC	QISTI2AC				X
DSDI2AH	Max Active Non-sort Inmem Workfiles	DSDI2AH	QISTI2AH				X
DSDI2OF	Times Type2 Inmem WFs Overflowed	DSDI2OF	QISTI2OF				X
DSDJINCS	Times RID List Append RID Storage	DB2JINCS	QXHJINCS			X	X
DSDJINCT	Times RID List Append RID Exceeded	DB2JINCT	QXHJINCT			X	X
DSDJIS0	Total No. Pref. I/O Streams Denied BP0	DSDJISX	QBSTJIS	X	X	X	X
DSDJIS1	Total No. Pref. I/O Streams Denied BP1	DSDJISX	QBSTJIS	X	X	X	X
DSDJIS2	Total No. Pref. I/O Streams Denied BP2	DSDJISX	QBSTJIS	X	X	X	X
DSDJIS3	Total No. Pref. I/O Streams Denied BP3	DSDJISX	QBSTJIS	X	X	X	X
DSDKIDS	Locks Propagated By IRLM to XES SYNC	DSDKIDS	QTGSKIDS	X	X	X	X
DSDKLRU	Number of Stealable Skeleton Pkg Table	DSDKLRU	QISEKLRU			X	X
DSDKSPA	Number of Pages Alloc for Exec Procs	DSDKSPA	QISEKSPA			X	
DSDKSPA	Number of Pages Alloc for Exec Procs	DSDKSPA	QISEKSPA8				X
DSDKSPG	Number of xPROC Requests	DSDKSPG	QISEKSPG			X	X
DSDLABEL	Number of LABEL ON Statements	DSDLABEL	QXLABON	X	X	X	X
DSDLEEM	Count of Escalations to Exclusive Mode	DSDLEEM	QTXALEX	X	X	X	X
DSDLESM	Number of Lock Escalations to Shared	DSDLESM	QTXALES	X	X	X	X
DSDLIO0	Async Read I/Os via List Prefetch BP0	DSDLIOX	QBSTLIO	X	X	X	X
DSDLIO1	Async Read I/Os via List Prefetch BP1	DSDLIOX	QBSTLIO	X	X	X	X
DSDLIO2	Async Read I/Os via List Prefetch BP2	DSDLIOX	QBSTLIO	X	X	X	X
DSDLIO3	Async Read I/Os via List Prefetch BP3	DSDLIOX	QBSTLIO	X	X	X	X
DSDLOCK	LOCK TABLE Statements	DSDLOCK	QXLOCK	X	X	X	X
DSDLPF0	No. List Prefetch Requested BP0	DB2LPFX	QBSTLPF	X	X	X	X
DSDLPF1	No. List Prefetch Requested BP1	DB2LPFX	QBSTLPF	X	X	X	X
DSDLPF2	No. List Prefetch Requested BP2	DB2LPFX	QBSTLPF	X	X	X	X
DSDLPF3	No. List Prefetch Requested BP3	DB2LPFX	QBSTLPF	X	X	X	X
DSDLPLK	Lock Requests for Physical Locks	DSDLPLK	QTGSLPLK	X	X	X	X
DSDLPP0	Async Page Reads via List Prefetch BP0	DSDLPPX	QBSTLPP	X	X	X	X
DSDLPP1	Async Page Reads via List Prefetch BP1	DSDLPPX	QBSTLPP	X	X	X	X
DSDLPP2	Async Page Reads via List Prefetch BP2	DSDLPPX	QBSTLPP	X	X	X	X
DSDLPP3	Async Page Reads via List Prefetch BP3	DSDLPPX	QBSTLPP	X	X	X	X
DSDLSLM	Lock Requests Propagated to XES	DSDLSLM	QTGSLSLM	X	X	X	X
DSDMAX0	BP Not Supp Concur WK File 0	DSDMAXX	QBSTMAX	X	X	X	X
DSDMAX1	BP Not Supp Concur WK File 1	DSDMAXX	QBSTMAX	X	X	X	X
DSDMAX2	BP Not Supp Concur WK File 2	DSDMAXX	QBSTMAX	X	X	X	X
DSDMAX3	BP Not Supp Concur WK File 3	DSDMAXX	QBSTMAX	X	X	X	X
DSDMERGE	Merge Statements	DB2MERGE	QXMERGE		X	X	X
DSDMIXNL	Mult Indx Not Used - RID Limit	DSDMIXNL	QXMRMIAP	X	X	X	X
DSDMIXNU	Mult Indx Not Used - No Storage	DSDMIXNU	QXNSMIAP	X	X	X	X
DSDMIXU	Multiple Index Path Used	DSDMIXU	QXMIAP	X	X	X	X
DSDMMRR0	Media Manager Read Requests 0	DSDMMRRX	QBSTRIO	X	X	X	X
DSDMMRR1	Media Manager Read Requests 1	DSDMMRRX	QBSTRIO	X	X	X	X
DSDMMRR2	Media Manager Read Requests 2	DSDMMRRX	QBSTRIO	X	X	X	X
DSDMMRR3	Media Manager Read Requests 3	DSDMMRRX	QBSTRIO	X	X	X	X
DSDMNCFR	Min Free Pages in Statement Pool	DSDMNCFR	QISECFRE	X	X	X	X
DSDMNDRU	Min Stealable DB Descriptors	DSDMNDRU	QISEDLRU			X	X
DSDMNKFR	Min Free Pages in Skeleton Pool	DSDMNKFR	QISEKFRE		X	X	X
DSDMNKRU	Min Stealable Skeleton Pkg Table	DSDMNKRU	QISEKLRU			X	X
DSDMNQCA	Min Storage Alloc for Plans (>2GB) Bar	DSDMNQCA	QISESQCA			X	X

DSDMNQCB	Min Storage Alloc for Plans (<2GB) Bar	DSDMNQCB	QISESQCB				X	X
DSDMNQKA	Min Storage Alloc for Pkgs (>2GB) Bar	DSDMNQKA	QISESQKA				X	X
DSDMNQKB	Min Storage Alloc for Pkgs (<2GB) Bar	DSDMNQKB	QISESQKB				X	X
DSDMNRPG	Min Free Pages in Free Chain	DSDMNRPG	QISEFREE	X	X			
DSDMNSFR	Min Free Pages in Statement (>2GB) Pool	DSDMNSFR	QISESFRE		X	X	X	X
DSDMNSPA	Min Pgs Alloc for Exec Procs	DSDMNSPA	QISEKSPA				X	X
DSDMXBDG	Max Requests for DBD	DSDMXBDG	QISEDBDG	X	X	X	X	X
DSDMXBDL	Max Loads of DBD	DSDMXBDL	QISEDBDL	X	X	X	X	X
DSDMXCFA	Max Failures: Full Statement Pool	DSDMXCFA	QISECFAL	X	X	X	X	X
DSDMXCFR	Max Free Pages in Statement Pool	DSDMXCFR	QISECFRE	X	X	X	X	X
DSDMXCPG	Max Pages in Statement Pool	DSDMXCPG	QISECPGE	X	X	X	X	X
DSDMXCTA	Max Pages Used for Cursor Tables (>2GB)	DSDMXCTA	QISECTA		X	X	X	X
DSDMXCTG	Max Requests for Cursor Table Section	DSDMXCTG	QISECTG	X	X	X	X	X
DSDMXCTL	Max Loaded Cursor Table Sections	DSDMXCTL	QISECTL	X	X	X	X	X
DSDMXCTU	Max Pages Used for Cursor Table (<2GB)	DSDMXCTU	QISECT	X	X			
DSDMXCUR	Max PB Count On Free PB	DSDMXCUR	QTMAXPB	X	X	X	X	X
DSDMXDBD	Max Pages Used for DBD	DSDMXDBD	QISEDBD	X	X	X	X	X
DSDMXDEG	Max Degree of Parallelism	DSDMXDEG	QXMAXDEG	X	X	X	X	X
DSDMXDRS	Max DDs That Drain Has Produced	DSDMXDRS	QTDSDRN	X	X	X	X	X
DSDMXDRU	Max Stealable Database Descriptors	DSDMXDRU	QISEDLRU				X	X
DSDMXDSO	Max Data Sets Open Concurrently	DSDMXDSO	QTMAXDS	X	X	X	X	X
DSDMXDYN	Max Pages Used in Statement Pool	DSDMXDYN	QISEDYNP	X	X	X	X	X
DSDMXEST	Max Parallel Grp Estimated Degree	DB2MXEST	QXMAXESTIDG					X
DSDMXFAL	Max of Failures Due EDM Pool Full	DSDMXFAL	QISEFAIL	X	X	X	X	X
DSDMXKFA	Max Failures: Full Skeleton Pool	DSDMXKFA	QISEKFAL			X	X	X
DSDMXKFR	Max Free Pages in Skeleton Pool	DSDMXKFR	QISEKFRE			X	X	X
DSDMXKPG	Max Pages in Skeleton Pool	DSDMXKPG	QISEKPGE			X	X	X
DSDMXKRU	Max Stealable Skeleton Pkg Table	DSDMXKRU	QISEKLRU				X	X
DSDMXNSQ	Max Level of Nested SQL Cascading	DSDMXNSQ	QXCASCDP	X	X	X	X	X
DSDMXPGE	Max Pages in EDM Pool	DSDMXPGE	QISEPAGE	X	X			
DSDMXPL	Maximum Number of Page Locks Held	DSDMXPL	QTXANPL	X	X	X	X	X
DSDMXPLN	Max Parallel Grp Planned Degree	DB2MXPLN	QXMAXPLANDG					X
DSDMXPTA	Max Pages Used for Pkg Tables (>2GB)	DSDMXPTA	QISEKTA			X	X	X
DSDMXPTG	Max Requests for Package Table Section	DSDMXPTG	QISEKTG	X	X	X	X	X
DSDMXPTL	Max Loaded Package Table Sections	DSDMXPTL	QISEKTL	X	X	X	X	X
DSDMXPTU	Max Pages Used for Pkg Tables (<2GB)	DSDMXPTU	QISEKT	X	X	X		
DSDMXQCA	Max Storage Alloc for Plans (>2GB) Bar	DSDMXQCA	QISESQCA				X	X
DSDMXQCB	Max Storage Alloc for Plans (<2GB) Bar	DSDMXQCB	QISESQCB				X	X
DSDMXQKA	Max Storage Alloc for Pkgs (>2GB) Bar	DSDMXQKA	QISESQKA				X	X
DSDMXQKB	Max Storage Alloc for Pkgs (<2GB) Bar	DSDMXQKB	QISESQKB				X	X
DSDMXROP	Max PB Found on Free Q During Open	DSDMXROP	QTREOPN	X	X	X	X	X
DSDMXRPG	Max Free Pages in Free Chain	DSDMXRPG	QISEFREE	X	X			
DSDMXSFA	Max Failures: Full Stmt (>2GB) Pool	DSDMXSFA	QISESFAL			X	X	X
DSDMXSFR	Max Free Pages in Statement (>2GB) Pool	DSDMXSFR	QISESFRE			X	X	X
DSDMXSKC	Max Pages Used for SKCT Table	DSDMXSKC	QISESKCT	X	X	X	X	X
DSDMXSKP	Max Pages Used for SKPT Table	DSDMXSKP	QISESKPT	X	X	X	X	X
DSDMXSLW	Max DDs Used for Slow Close TS	DSDMXSLW	QTSLWDD	X	X	X	X	X
DSDMXSPA	Max Pgs Alloc for Exec Procs	DSDMXSPA	QISEKSPA				X	X
DSDMXSPG	Max Pages in Statement (>2GB) Pool	DSDMXSPG	QISESPGE			X	X	X
DSDMXSTM	Max Number of Statements in EDM Pool	DSDMXSTM	QISESTMT	X	X	X	X	X
DSDMXWF	Max Allow Per Agent Storage Use Limit KB	DSDMXWF	QISTWFMX			X	X	X
DSDMXXML	MAX Storage Used for XML Values	DSDMXXML	QXSTXMLV			X	X	X
DSDNFLMT	No. Infinite Resource Limit	DSDNFLMT	QTXAFLG1				X	X
DSDNFND	PREPARE Request - No Match	DSDNFND	QXSTNFND	X	X	X	X	X
DSDNOGRP	Parallel Groups Exec Planned Degree	DSDNOGRP	QXNORGRP	X	X	X	X	X
DSDNPRP	PREPARE Avoided	DSDNPRP	QXSTNPRP	X	X	X	X	X
DSDNTFR	Notify Messages Received	DSDNTFR	QTGSNTFR	X	X	X	X	X
DSDNTFY	Notify Messages Sent	DSDNTFY	QTGSNTFY	X	X	X	X	X
DSDNVRID	Allocate Requests Nonexistent Plan	DSDNVRID	QTINVRID	X	X	X	X	X
DSDOPEN	OPEN Statements	DSDOPEN	QXOPEN	X	X	X	X	X
DSDORNO	Parallel Groups Executed Coordination	DSDORNO	QXCOORNO	X	X	X	X	X
DSDORR	Parallel Groups Executed Repeat-read	DSDORR	QXISORR	X	X	X	X	X
DSDOTPE	Negotiate Other Physical Lock	DSDOTPE	QTGSOTPE	X	X	X	X	X
DSDPAGE	No. Pages in EDM Pool	DSDPAGE	QISEPAGE	X	X			
DSDPCAUT	Auth Checks Using Package Auth Cache	DSDPCAUT	QTPACAUT	X	X	X	X	X
DSDPCNOT	Auth Checks Not Using Package Auth Cach	DSDPCNOT	QTPACNOT	X	X	X	X	X
DSDPCOW1	Overwrote Authid In Cache	DSDPCOW1	QTPACOW1	X	X	X	X	X
DSDPCOW2	Overwrote Package Entry in Cache	DSDPCOW2	QTPACOW2	X	X	X	X	X
DSDPCPUB	Auth Checks for Package Held by Public	DSDPCPUB	QTPACPUB	X	X	X	X	X
DSDPCWDP	Duplicate Per Parsed Dyna Stmnts	DB2PCWDP					X	X
DSDPCWMP	Matched Per Parsed Dyna Stmnts	DB2PCWMP					X	X
DSDPCWRP	Replaced Per Parsed Dyna Stmnts	DB2PCWRP					X	X
DSDPEMX	Engines Available For Exit Requests	DSDPEMX	QTGSPEMX	X	X	X	X	X
DSDPEQW	Times Engine Not Available For Exit	DSDPEQW	QTGSPEQW	X	X	X	X	X

DSDPGDTT	Parallel GPS Using UDF - Ex. Single DB2	DSDPGDTT	QXDEGDTT	X	X	X	X
DSDPGPE	Negotiate Page Physical Lock	DSDPGPE	QTGSPGPE	X	X	X	X
DSDPKABN	Packages Autobound	DSDPKABN	QTPKABND	X	X	X	X
DSDPKALC	Attempts To Allocate a Pkg	DSDPKALC	QTPKALLA	X	X	X	X
DSDPKALL	Packages Allocated	DSDPKALL	QTPKALL	X	X	X	X
DSDPKGBD	Packages Bound	DSDPKGBD	QTPKGBD	X	X	X	X
DSDPKGFR	Packages Freed	DSDPKGFR	QTPKGFRD	X	X	X	X
DSDPL10	Total Times Pref. Qty 1/2 Normal BP0	DSDPL1X	QBSTPL1	X	X	X	X
DSDPL11	Total Times Pref. Qty 1/2 Normal BP1	DSDPL1X	QBSTPL1	X	X	X	X
DSDPL12	Total Times Pref. Qty 1/2 Normal BP2	DSDPL1X	QBSTPL1	X	X	X	X
DSDPL13	Total Times Pref. Qty 1/2 Normal BP3	DSDPL1X	QBSTPL1	X	X	X	X
DSDPL20	Total Times Pref. Qty 1/4 Normal BP0	DSDPL2X	QBSTPL2	X	X	X	X
DSDPL21	Total Times Pref. Qty 1/4 Normal BP1	DSDPL2X	QBSTPL2	X	X	X	X
DSDPL22	Total Times Pref. Qty 1/4 Normal BP2	DSDPL2X	QBSTPL2	X	X	X	X
DSDPL23	Total Times Pref. Qty 1/4 Normal BP3	DSDPL2X	QBSTPL2	X	X	X	X
DSDPPPE	Negotiate Pageset/Partition Phys Lock	DSDPPPE	QTGSPPPE	X	X	X	X
DSDPQF0	Total Times Parallel Buf. Not Alloc BP0	DSDPQFX	QBSTPQF	X	X	X	X
DSDPQF1	Total Times Parallel Buf. Not Alloc BP1	DSDPQFX	QBSTPQF	X	X	X	X
DSDPQF2	Total Times Parallel Buf. Not Alloc BP2	DSDPQFX	QBSTPQF	X	X	X	X
DSDPQF3	Total Times Parallel Buf. Not Alloc BP3	DSDPQFX	QBSTPQF	X	X	X	X
DSDPQO0	Total No. Parallel Queries BP0	DSDPQOX	QBSTPQO	X	X	X	X
DSDPQO1	Total No. Parallel Queries BP1	DSDPQOX	QBSTPQO	X	X	X	X
DSDPQO2	Total No. Parallel Queries BP2	DSDPQOX	QBSTPQO	X	X	X	X
DSDPQO3	Total No. Parallel Queries BP3	DSDPQOX	QBSTPQO	X	X	X	X
DSDPREP	PREPARE Statements	DSDPREP	QXPREP	X	X	X	X
DSDPREPI	Prepare Statements Restricted	DSDPREPI	QXPRRESI	X	X	X	X
DSDPROPT	Max Parallel Grp Degenerated Opt	DB2PROPT	QXPAROPT				X
DSDRBND	Successful Rebind Plan	DSDRBND	QTPLNRBD	X	X	X	X
DSDRBNDA	Rebind Plan Attempts	DSDRBNDA	QTRBINDA	X	X	X	X
DSDRBNDP	REBIND PACKAGE Sub-Cmnds	DSDRBNDP	QTRBINDP	X	X	X	X
DSDRBNPA	Attempts To REBIND a Package	DSDRBNPA	QTRBNDPA	X	X	X	X
DSDRCAUT	Auth Chks for Routine Using Cache	DSDRCAUT	QTRACAUT	X	X	X	X
DSDRCCD	Committed Delete Read - Rows Accessed	DSDRCCD	QISTRCCD			X	X
DSDRCCI	Committed Insert Read - Rows Skipped	DSDRCCI	QISTRCCI			X	X
DSDRCCU	Committed Update Read - Rows Accessed	DSDRCCU	QISTRCCU			X	X
DSDRCNAC	Unable to Add Entry in Routine Cache	DSDRCNAC	QTRACNAC	X	X	X	X
DSDRCNOT	Rtn Auth Chks Not Using Rtn Cache	DSDRCNOT	QTRACNOT	X	X	X	X
DSDRCOW1	DB2 Overwrote Authid in Rtn Cache	DSDRCOW1	QTRACOW1	X	X	X	X
DSDRCOW2	DB2 Overwrote Rtn Entry in Rtn Cache	DSDRCOW2	QTRACOW2	X	X	X	X
DSDRCPUB	Auth Chks for Routine Held by Public	DSDRCPUB	QTRACPUB	X	X	X	X
DSDRCUR	INT BLKS Currently Allocated	DSDRCUR	QISTRCUR	X	X	X	X
DSDRDGRP	Total Number of Parallel Groups That	DSDRDGRP	QXREDGRP	X	X	X	X
DSDRDLTD	Deleted Rows	DB2RDLTD	QXRWSDELETD	X	X		
DSDREBND	REBIND Subcommands	DSDREBND	QTREBIND	X	X	X	X
DSDREDGP	No. Parallel Grp Reduced Sys Stress	DB2REDGP	QXSTOREDGRP				X
DSDREEP0	Sequential Prefetch Disabled No Read 0	DSDREEPX	QBSTREE	X	X	X	X
DSDREEP1	Sequential Prefetch Disabled No Read 1	DSDREEPX	QBSTREE	X	X	X	X
DSDREEP2	Sequential Prefetch Disabled No Read 2	DSDREEPX	QBSTREE	X	X	X	X
DSDREEP3	Sequential Prefetch Disabled No Read 3	DSDREEPX	QBSTREE	X	X	X	X
DSDREL	Number of Release Statements Executed	DSDREL	QXREL	X	X	X	X
DSDREOP	Times Reoptimization Occurs	DSDREOP	QXSTREOP	X	X	X	X
DSDREOPN	PB Found On Free Q During Open	DSDREOPN	QTREOPN	X	X	X	X
DSDREVOK	REVOKE Statements	DSDREVOK	QXREVOK	X	X	X	X
DSDRFCHD	Fetched Rows	DB2RFCHD	QXRWSFETCHD	X	X		
DSDRFXS0	Read Page-Fixed without Real Storage 0	DSDRFXSX	QBSTRPI	X	X	X	X
DSDRFXS1	Read Page-Fixed without Real Storage 1	DSDRFXSX	QBSTRPI	X	X	X	X
DSDRFXS2	Read Page-Fixed without Real Storage 2	DSDRFXSX	QBSTRPI	X	X	X	X
DSDRFXS3	Read Page-Fixed without Real Storage 3	DSDRFXSX	QBSTRPI	X	X	X	X
DSDRHIG	Highest # Int BLKS Concur Alloc	DSDRHIG	QISTRHIG	X	X	X	X
DSDRLLM	RLP Stop: RID Limit Exceeded	DSDRLLM	QISTRLLM	X	X	X	X
DSDRMAX	RLP STOP: Concur. Proc Lim Exceeded	DSDRMAX	QISTRMAX	X	X	X	X
DSDRMID	DB2 Resource Manager Identifier	DB2RMID	QWHSRMID	X	X	X	X
DSDRNIX	Rename Index Statements	DB2RNIX	QXRNIX		X	X	X
DSDRNSTD	Inserted Rows	DB2RNSTD	QXRWSINSRTD	X	X		
DSDRNTAB	Number of RENAME TABLE Statements	DSDRNTAB	QXRNTAB	X	X	X	X
DSDROIDX	Direct Row Access Revert to Index	DSDROIDX	QXROIIDX	X	X	X	X
DSDROITS	Direct Row Access Revert to Table	DSDROITS	QXROITS	X	X	X	X
DSDRPLM	RLP Stop: DM Limit Exceeded	DSDRPLM	QISTRPLM	X	X	X	X
DSDRPOP1	Parallel GPS Reformatted - Sysplex Conf	DSDRPOP1	QXREPOP1	X	X	X	X
DSDRPOP2	Parallel GPS Reformatted - Buffer Resrc	DSDRPOP2	QXREPOP2	X	X	X	X
DSDRSTG	RLP STOP: Insufficient Storage	DSDRSTG	QISTRSTG	X	X	X	X
DSDRUDTD	Updated Rows	DB2RUDTD	QXRWSUPDTD	X	X		
DSDRWTRG	Times Row Trigger Activated	DSDRWTRG	QXROWTRG	X	X	X	X
DSDSABBP	Total Active Buffers in Buffer Pool	DSDSABBP	QBSTCBA	X	X	X	X

DSDSAC	Total CF Writes Clean Pages	DSDSAC	QBGLAC	X	X	X	X
DSDSAW	Total CF Writes Changed Pages	DSDSAW	QBGLAW	X	X	X	X
DSDSAX	Total RPL Request Done by Prefetch	DSDSAX	QBGLAX	X	X	X	X
DSDSAY	Total GBP Reads Prefetch Changed Page	DSDSAY	QBGLAY	X	X	X	X
DSDSCC	Total IXLCACHE Read-Castout-Class Req	DSDSCC	QBGLCC	X	X	X	X
DSDSCIO	Total Castout I/O Operations	DSDSCIO	QBSTCIO		X	X	X
DSDSCK	Total GBP Checkpoints Triggered	DSDSCK	QBGLCK	X	X	X	X
DSDSCM	Total Read for Castout Multiple Reqs	DSDSCM	QBGLCM	X	X	X	X
DSDSCN	Total Castout Engine Not Available	DSDSCN	QBGLCN				
DSDSCR	Total Read for Castout Requests	DSDSCR	QBGLCR	X	X	X	X
DSDSCS	Total IXLCACHE Read-Castout-Stats Req	DSDSCS	QBGLCS	X	X	X	X
DSDSCT	Total Castout Class Threshold Detected	DSDSCT	QBGLCT	X	X	X	X
DSDSDG	Total Unregistered Page Requests	DSDSDG	QBGLDG	X	X	X	X
DSDSDN	Total IXLCACHE Delete-Name Requests	DSDSDN	QBGLDN	X	X	X	X
DSDSELCT	Number of SELECT Statements	DSDSELCT	QXSELECT	X	X	X	X
DSDSETHV	No. of SET HOST-VAR Stmts	DSDSETHV	QXSETHV	X	X	X	X
DSDSEX	Total Explicit XIs	DSDSEX	QBGLEX	X	X	X	X
DSDSGG	Total GETPAGEs for GBP-Dep Pagesets	DSDSGG	QBGLGG	X	X	X	X
DSDSGLO	Suspends Due to XES Global Contention	DSDSGLO	QTGSSGLO	X	X	X	X
DSDSGT	Total Group BP Castout Threshold Det.	DSDSGT	QBGLGT	X	X	X	X
DSDSHS	Total Asynch IXLCACHE for Prim GBP	DSDSHS	QBGLHS	X	X	X	X
DSDSHST	Total Times SLRU Len eq VPSEQT	DSDSHST	QBSTHST			X	X
DSDSIAC	Count of Curr Active Sort In-Mem WFs	DSDSIAC	QISTSIAC			X	X
DSDSIAH	Hi-Watermark Cnt Max Sort In-Mem WFs	DSDSIAH	QISTSIAH			X	X
DSDSIO0	Sync Read I/Os Seq Access Req BP0	DSDSIOX	QBSTSIO	X	X	X	X
DSDSIO1	Sync Read I/Os Seq Access Req BP1	DSDSIOX	QBSTSIO	X	X	X	X
DSDSIO2	Sync Read I/Os Seq Access Req BP2	DSDSIOX	QBSTSIO	X	X	X	X
DSDSIO3	Sync Read I/Os Seq Access Req BP3	DSDSIOX	QBSTSIO	X	X	X	X
DSDSISC	Tot Space Used Curr Active Sort In-Mem	DSDSISC	QISTSISC			X	X
DSDSISH	Hi-Watermark Cnt Max Space Sort In-Mem	DSDSISH	QISTSISH			X	X
DSDSKIP	Parallel Coordination Bypass DB2	DSDSKIP	QXXCSKIP	X	X	X	X
DSDSLWDD	DDs Used for Slow Close TS	DSDSLWDD	QTSLWDD	X	X	X	X
DSDSMAX	Max Buffers on SLRU	DSDSMAX	QBSTSMAX			X	X
DSDSMD	Total CF Reads Data Returned	DSDSMD	QBGLMD	X	X	X	X
DSDSMIAP	Times RID List Retrieval Skipped	DB2SMIAP	QXRSMIAP			X	X
DSDSMIN	Min Buffers on SLRU	DSDSMIN	QBSTSMIN			X	X
DSDSMN	Total CF Reads Data Not Ret. No Entry	DSDSMN	QBGLMN				
DSDSMR	Total CF Reads Data Not Returned Entry	DSDSMR	QBGLMR	X	X	X	X
DSDSN1	Total Page P-lock Negt Space Map Pages	DSDSN1	QBGLN1		X	X	X
DSDSN2	Total Page P-lock Negt Data Pages	DSDSN2	QBGLN2		X	X	X
DSDSN3	Total Page P-lock Negt Index Leaf Pages	DSDSN3	QBGLN3		X	X	X
DSDSOS	Total Other CF Requests	DSDSOS	QBGLOS	X	X	X	X
DSDSPCO	Total Pages Written for Castout I/Os	DSDSPCO	QBSTPCO		X	X	X
DSDSPDF0	Sequential Prefetch Disabled No Buffer 0	DSDSPDFX	QBSTSPD	X	X	X	X
DSDSPDF1	Sequential Prefetch Disabled No Buffer 1	DSDSPDFX	QBSTSPD	X	X	X	X
DSDSPDF2	Sequential Prefetch Disabled No Buffer 2	DSDSPDFX	QBSTSPD	X	X	X	X
DSDSPDF3	Sequential Prefetch Disabled No Buffer 3	DSDSPDFX	QBSTSPD	X	X	X	X
DSDSPPF0	Number of Pages Read Due to Prefetch 0	DSDSPPFX	QBSTSPP	X	X	X	X
DSDSPPF1	Number of Pages Read Due to Prefetch 1	DSDSPPFX	QBSTSPP	X	X	X	X
DSDSPPF2	Number of Pages Read Due to Prefetch 2	DSDSPPFX	QBSTSPP	X	X	X	X
DSDSPPF3	Number of Pages Read Due to Prefetch 3	DSDSPPFX	QBSTSPP	X	X	X	X
DSPPQSCT	No. Parallel Query WT Prnt/Chld Sync	DB2PQSCT	QWAC_PQS_COUNT				X
DSPPQSWT	Parent Child Task Sync Wait Time	DB2PQSWT	QWAC_PQS_WAIT				X
DSDSPWR0	System Pages Written to DASD 0	DSDSPWRX	QBSTPWS	X	X	X	X
DSDSPWR1	System Pages Written to DASD 1	DSDSPWRX	QBSTPWS	X	X	X	X
DSDSPWR2	System Pages Written to DASD 2	DSDSPWRX	QBSTPWS	X	X	X	X
DSDSPWR3	System Pages Written to DASD 3	DSDSPWRX	QBSTPWS	X	X	X	X
DSDSP1	Total Page P-lock Req Space Map Pages	DSDSP1	QBGLP1		X	X	X
DSDSP2	Total Page P-lock Req Data Pages	DSDSP2	QBGLP2		X	X	X
DSDSP3	Page P-lock Req Index Leaf Pages	DSDSP3	QBGLP3		X	X	X
DSDSQCA	Storage Allocated for Plans (>2GB) Bar	DSDSQCA	QISESQCA			X	X
DSDSQCB	Storage Allocated for Plans (<2GB) Bar	DSDSQCB	QISESQCB			X	X
DSDSQKA	Storage Allocated for Pkgs (>2GB) Bar	DSDSQKA	QISESQKA			X	X
DSDSQKB	Storage Allocated for Pkgs (<2GB) Bar	DSDSQKB	QISESQKB			X	X
DSDSQLID	No. Of Set Current SQLID	DSDSQLID	QXSETSQL	X	X	X	X
DSDSQPF0	Number of Sequential Prefetch Requests	DSDSQPFX	QBSTSEQ	X	X	X	X
DSDSRC	Total Pages Castout to DASD	DSDSRC	QBGLRC	X	X	X	X
DSDSRD	Total IXLCACHE Read-DIRINFO Requests	DSDSRD	QBGLRD	X	X	X	X
DSDSRF	Total CF Read Requests No Storage	DSDSRF	QBGLRF				
DSDSRG	Total Registered Page Requests	DSDSRG	QBGLRG	X	X	X	X
DSDSRHS	Total Times Random Getpage Hit on SLRU	DSDSRSH	QBSTRHS			X	X
DSDSSEF0	Storage Shortage Expansion Fails 0	DSDSSEFX	QBSTXFV	X	X	X	X
DSDSSEF1	Storage Shortage Expansion Fails 1	DSDSSEFX	QBSTXFV	X	X	X	X
DSDSSEF2	Storage Shortage Expansion Fails 2	DSDSSEFX	QBSTXFV	X	X	X	X

DSDSSEF3	Storage Shortage Expansion Fails 3	DSDSSEFX	QBSTXFV	X	X	X	X
DSDSSTH	System-Level WFDB Space Usage Thresh %	DSDSSTH	QISTSSTH				X
DSDSSU	Total CF Write Engine Not Available	DSDSSU	QBGLSU				
DSDSSW	Total CF Writes For Changed Pages	DSDSSW	QBGLSW	X	X	X	X
DSDSS1	Total Page P-lock Susp Space Map Pages	DSDSS1	QBGLS1		X	X	X
DSDSS2	Total Page P-lock Susp Data Pages	DSDSS2	QBGLS2		X	X	X
DSDSS3	Total Page P-lock Susp Index Leaf Pages	DSDSS3	QBGLS3		X	X	X
DSDSTAC	Sync to Async Heuristic Convs LOCK Reqs	DSDSTAC	QTGSFLSE	X	X	X	X
DSDSTCDG	Number of Set Current Degree	DSDSTCDG	QXSETCDG	X	X	X	X
DSDSTCON	Number of Set Connection Statements	DSDSTCON	QXSETCON	X	X	X	X
DSDSTCPR	Set Current Precision Stmts Executed	DSDSTCPR	QXSETCPR	X	X	X	X
DSDSTCRL	Set Current Rules Stmts Executed	DSDSTCRL	QXSETCRL	X	X	X	X
DSDSTPT	Set Current Path Statements	DSDSTPT	QXSETPTH	X	X	X	X
DSDSTTRG	Times Statement Trigger Activated	DSDSTTRG	QXSTTRG	X	X	X	X
DSDSUN	Total IXLCACHE Unlock-Castout Req	DSDSUN	QBGLUN	X	X	X	X
DSDSU1	Total Page P-lock Unlock Requests	DSDSU1	QBGLU1		X	X	X
DSDSWA	Total Pages in Write Around	DSDSWA	QBGLWA				X
DSDSWC	Total CF Writes For Clean Pages	DSDSWC	QBGLWC	X	X	X	X
DSDSWF	Total CF Write Requests No Storage	DSDSWF	QBGLWF	X	X	X	X
DSDSWM	Total Write and Register Multiple Reqs	DSDSWM	QBGLWM	X	X	X	X
DSDSWP	Total Pages Written via WARM	DSDSWP	QBGLWP	X	X	X	X
DSDSWREE	Total Times Write Engine Unavailable	DSDSWREE	QBSTWEE	X		X	X
DSDSWS	Total Write and Register Requests	DSDSWS	QBGLWS	X	X	X	X
DSDSXD	Total CF Reads Buffer XI	DSDSXD	QBGLXD	X	X	X	X
DSDSXR	Total CF Reads Entry Created	DSDSXR	QBGLXR	X	X	X	X
DSDS2D	Total IXLCACHE Delete-Name-List 2nd GBP	DSDS2D	QBGL2D	X	X	X	X
DSDS2F	Total Write Chg Pgs to 2nd GBP Fail Stg	DSDS2F	QBGL2F	X	X	X	X
DSDS2H	Total Asynch IXLCACHE for 2nd GBP	DSDS2H	QBGL2H	X	X	X	X
DSDS2N	Total IXLCACHE Delete-Name 2nd GBP	DSDS2N	QBGL2N	X	X	X	X
DSDS2R	Total IXLCACHE Read-Castout-St 2nd GBP	DSDS2R	QBGL2R	X	X	X	X
DSDS2S	Total Comp Write 2nd GBP Suspended	DSDS2S	QBGL2S	X	X	X	X
DSDTCTO	Curr STG (KB) used for DGTTs	DSDTCTO	QISTDGTTCTO				X
DSDTESTB	Binds Without Plan ID	DSDTESTB	QTTESTB	X	X	X	X
DSDTGERR	Number of Create Aux Table Statements	DSDTGERR	QXTRGERR	X	X	X	X
DSDTIMO	Time-out Count	DSDTIMO	QTXATIM	X	X	X	X
DSDTMIG0	No. Migrated Dataset Encountered BP 0	DSDTMIGX	QBSTMIG	X	X	X	X
DSDTMIG1	No. Migrated Dataset Encountered BP 1	DSDTMIGX	QBSTMIG	X	X	X	X
DSDTMIG2	No. Migrated Dataset Encountered BP 2	DSDTMIGX	QBSTMIG	X	X	X	X
DSDTMIG3	No. Migrated Dataset Encountered BP 3	DSDTMIGX	QBSTMIG	X	X	X	X
DSDTMXU	Highest Storage Used (KB) for DGTTs	DSDTMXU	QISTDGTTMXU				X
DSDDGNGP	No. Parallel Grp Degenerated Sys Stress	DB2DGNGP	QXSTODGNGRP				X
DSDTOGRP	Total Number of Parallel Groups	DSDTOGRP	QXTOTGRP	X	X	X	X
DSDREDGP	No. Parallel Grp Reduced Sys Stress	DB2REDGP	QXSTOREDGRP				X
DSDTPF00	WK PF Abort - 0 PF QTY 0	DSDTPF0X	QBSTWKPD	X	X	X	X
DSDTPF01	WK PF Abort - 0 PF QTY 1	DSDTPF0X	QBSTWKPD	X	X	X	X
DSDTPF02	WK PF Abort - 0 PF QTY 2	DSDTPF0X	QBSTWKPD	X	X	X	X
DSDTPF03	WK PF Abort - 0 PF QTY 3	DSDTPF0X	QBSTWKPD	X	X	X	X
DSDTPIO0	No. Prefetch Async Read I/Os 0	DSDTPIOX	QBSTPIO	X	X	X	X
DSDTPIO1	No. Prefetch Async Read I/Os 1	DSDTPIOX	QBSTPIO	X	X	X	X
DSDTPIO2	No. Prefetch Async Read I/Os 2	DSDTPIOX	QBSTPIO	X	X	X	X
DSDTPIO3	No. Prefetch Async Read I/Os 2	DSDTPIOX	QBSTPIO	X	X	X	X
DSDTRTBL	Truncate Table Statements	DB2TRTBL	QXTRTBL		X	X	X
DSDTRTO0	No. Recall Time Outs 0	DB2TRTOX	QBSTRTO	X	X	X	X
DSDTRTO1	No. Recall Time Outs 1	DB2TRTOX	QBSTRTO	X	X	X	X
DSDTRTO2	No. Recall Time Outs 2	DB2TRTOX	QBSTRTO	X	X	X	X
DSDTRTO3	No. Recall Time Outs 3	DB2TRTOX	QBSTRTO	X	X	X	X
DSDTSTG	Total Preferred STG (KB) Config DGTTs	DSDTSTG	QISTDGTTSTG				X
DSDUPDTE	UPDATE Statements	DSDUPDTE	QXUPDTE	X	X	X	X
DSDUPLK	Unlock Requests for Physical Locks	DSDUPLK	QTGSUPLK	X	X	X	X
DSDUSLM	Unlock Requests Propagated to XES	DSDUSLM	QTGSUSLM	X	X	X	X
DSDUSUC	Checks Actually Authorized	DSDUSUC	QTAUSUC	X	X	X	X
DSDVPA0	Successful VPOOL Expand/Contract BP0	DSDVPAX	QBSTVPA	X	X	X	X
DSDVPA1	Successful VPOOL Expand/Contract BP1	DSDVPAX	QBSTVPA	X	X	X	X
DSDVPA2	Successful VPOOL Expand/Contract BP2	DSDVPAX	QBSTVPA	X	X	X	X
DSDVPA3	Successful VPOOL Expand/Contract BP3	DSDVPAX	QBSTVPA	X	X	X	X
DSDVPL0	No. Buffers Allocated for a VPOOL BP0	DSDVPLX	QBSTVPL	X	X	X	X
DSDVPL1	No. Buffers Allocated for a VPOOL BP1	DSDVPLX	QBSTVPL	X	X	X	X
DSDVPL2	No. Buffers Allocated for a VPOOL BP2	DSDVPLX	QBSTVPL	X	X	X	X
DSDVPL3	No. Buffers Allocated for a VPOOL BP3	DSDVPLX	QBSTVPL	X	X	X	X
DSDW4K	Cur 4KB Tablespace Storage Used KB	DSDW4K	QISTW4K		X	X	X
DSDW32K	Curr 32KB Tablespace Storage Used KB	DSDW32K	QISTW32K		X	X	X
DSDWBVQ0	Pages Deq VDWQ Destr Read Rq 0	DSDWBVQX	QBSTWBVQ	X	X	X	X
DSDWBVQ1	Pages Deq VDWQ Destr Read Rq 1	DSDWBVQX	QBSTWBVQ	X	X	X	X
DSDWBVQ2	Pages Deq VDWQ Destr Read Rq 2	DSDWBVQX	QBSTWBVQ	X	X	X	X

DSDWBVQ3	Pages Deq VDWQ Destr Read Rq 3	DSDWBVQX	QBSTWBVQ	X	X	X	X
DSDWCTO	Curr Total Workfile Storage Used KB	DSDWCTO	QISTWCTO		X	X	X
DSDWDRP0	Pages Destruct Read Req 0	DSDWDRPX	QBSTWDRP	X	X	X	X
DSDWDRP1	Pages Destruct Read Req 1	DSDWDRPX	QBSTWDRP	X	X	X	X
DSDWDRP2	Pages Destruct Read Req 2	DSDWDRPX	QBSTWDRP	X	X	X	X
DSDWDRP3	Pages Destruct Read Req 3	DSDWDRPX	QBSTWDRP	X	X	X	X
DSDWFCTO	Curr STG (KB) Config WFDB	DSDWFCTO	QISTWFCTO				X
DSDWFD0	Work Files Denied Sort Merge 0	DSDWFDX	QBSTWFD	X	X	X	X
DSDWFD1	Work Files Denied Sort Merge 1	DSDWFDX	QBSTWFD	X	X	X	X
DSDWFD2	Work Files Denied Sort Merge 2	DSDWFDX	QBSTWFD	X	X	X	X
DSDWFD3	Work Files Denied Sort Merge 3	DSDWFDX	QBSTWFD	X	X	X	X
DSDWFF0	Poor Sort Merge - Buf Short 0	DSDWFFX	QBSTWFF	X	X	X	X
DSDWFF1	Poor Sort Merge - Buf Short 1	DSDWFFX	QBSTWFF	X	X	X	X
DSDWFF2	Poor Sort Merge - Buf Short 2	DSDWFFX	QBSTWFF	X	X	X	X
DSDWFF3	Poor Sort Merge - Buf Short 3	DSDWFFX	QBSTWFF	X	X	X	X
DSDWFM0	Max WK File Alloc Sort Merge 0	DSDWFMX	QBSTWFM	X	X	X	X
DSDWFM1	Max WK File Alloc Sort Merge 1	DSDWFMX	QBSTWFM	X	X	X	X
DSDWFM2	Max WK File Alloc Sort Merge 2	DSDWFMX	QBSTWFM	X	X	X	X
DSDWFM3	Max WK File Alloc Sort Merge 3	DSDWFMX	QBSTWFM	X	X	X	X
DSDWFMU	Max Total Workfile Storage Ever Used KB	DSDWFMU	QISTWFMU		X	X	X
DSDWFMXU	Highest Storage Used (KB) for WFs	DSDWFMXU	QISTWFMXU				X
DSDWFNE	Times Max Allow Storage Limit Exceeded	DSDWFNE	QISTWFNE		X	X	X
DSDWFP1	Times 32KB Page TS Used Instead of 4KB	DSDWFP1	QISTWFP1		X	X	X
DSDWFP2	Times 4KB Page TS Used Instead of 32KB	DSDWFP2	QISTWFP2		X	X	X
DSDWFR0	Req Query WK File Sort Merge 0	DSDWFRX	QBSTWFR	X	X	X	X
DSDWFR1	Req Query WK File Sort Merge 1	DSDWFRX	QBSTWFR	X	X	X	X
DSDWFR2	Req Query WK File Sort Merge 2	DSDWFRX	QBSTWFR	X	X	X	X
DSDWFR3	Req Query WK File Sort Merge 3	DSDWFRX	QBSTWFR	X	X	X	X
DSDWFRCU	Curr RID Blocks Residing in Workfile	DSDWFRCU	QISTWFRCUR			X	X
DSDWFRHG	Max RID Blocks Stored to Workfile	DSDWFRHG	QISTWFRHIG			X	X
DSDWFSTG	Total Preferred STG (KB) Config WFDB	DSDWFSTG	QISTWFSTG				X
DSDWFT0	Work Files Req Sort Merge 0	DSDWFTX	QBSTWFT	X	X	X	X
DSDWFT1	Work Files Req Sort Merge 1	DSDWFTX	QBSTWFT	X	X	X	X
DSDWFT2	Work Files Req Sort Merge 2	DSDWFTX	QBSTWFT	X	X	X	X
DSDWFT3	Work Files Req Sort Merge 3	DSDWFTX	QBSTWFT	X	X	X	X
DSDWFXS0	Write Page Fixed W/O Real Storage 0	DSDWFXSX	QBSTWPI	X	X	X	X
DSDWFXS1	Write Page Fixed W/O Real Storage 1	DSDWFXSX	QBSTWPI	X	X	X	X
DSDWFXS2	Write Page Fixed W/O Real Storage 2	DSDWFXSX	QBSTWPI	X	X	X	X
DSDWFXS3	Write Page Fixed W/O Real Storage 3	DSDWFXSX	QBSTWPI	X	X	X	X
DSDWREE0	No. Times Write Engine Unavailable 0	DSDWREEX	QBSTWEE	X			
DSDWREE1	No. Times Write Engine Unavailable 1	DSDWREEX	QBSTWEE	X			
DSDWREE2	No. Times Write Engine Unavailable 2	DSDWREEX	QBSTWEE	X			
DSDWREE3	No. Times Write Engine Unavailable 3	DSDWREEX	QBSTWEE	X			
DSDWRMM0	Write I/Os By Media Manager 0	DSDWRMMX	QBSTWIO	X	X	X	X
DSDWRMM1	Write I/Os By Media Manager 1	DSDWRMMX	QBSTWIO	X	X	X	X
DSDWRMM2	Write I/Os By Media Manager 2	DSDWRMMX	QBSTWIO	X	X	X	X
DSDWRMM3	Write I/Os By Media Manager 3	DSDWRMMX	QBSTWIO	X	X	X	X
DSDWSTG	Curr Stg Used (KB) Config in WFDB	DSDWSTG	QISTWSTG				X
DSDXFL0	Buffer Not Located -- VPOOL Full BP0	DSDXFLX	QBSTXFL	X	X	X	X
DSDXFL1	Buffer Not Located -- VPOOL Full BP1	DSDXFLX	QBSTXFL	X	X	X	X
DSDXFL2	Buffer Not Located -- VPOOL Full BP2	DSDXFLX	QBSTXFL	X	X	X	X
DSDXFL3	Buffer Not Located -- VPOOL Full BP3	DSDXFLX	QBSTXFL	X	X	X	X
DSDXIS0	Max No. Concurrent Pref. Streams BP0	DSDXISX	QBSTXIS	X	X	X	X
DSDXIS1	Max No. Concurrent Pref. Streams BP1	DSDXISX	QBSTXIS	X	X	X	X
DSDXIS2	Max No. Concurrent Pref. Streams BP2	DSDXISX	QBSTXIS	X	X	X	X
DSDXIS3	Max No. Concurrent Pref. Streams BP3	DSDXISX	QBSTXIS	X	X	X	X
DSDZRLMT	No. Zero Resource Limit	DSDZRLMT	QTXAFLG1			X	X

The DB2DSI (DB2 System IDAA Activity) File

ELEMENT	ELEMENT DESCRIPTION	DICTIONARY MEMBER	RAW ELEMENT	AVAILABLE IN DB2 VERSIONS 8.1	9.1	10.1	11.1
DSIMXCOR	Total Amount of Processors within IDAA	DSIMXCOR	Q8STCORS		X	X	X
DSIMXDKA	IDAA Max Disk Storage (MB) Available	DSIMXDKA	Q8STDSKA		X	X	X
DSIMXDKB	IDAA Disk Storage In Use for Database	DSIMXDKB	Q8STDSKB		X	X	X
DSIMXDKU	IDAA Max Percent Disk Storage In Use	DSIMXDKU	Q8STDSKU		X	X	X
DSIMXMIP	IDAA Max Processing Capacity	DSIMXMIP	Q8STMIPS		X	X	X
DSIMXMXA	IDAA Maximum Active Requests Count	DSIMXMXA	Q8STMAXA		X	X	X
DSIMXMXQ	IDAA Query Queue Length High Watermark	DSIMXMXQ	Q8STMAXQ		X	X	X
DSIMXNDS	IDAA V2 Max Number of Data Slices	DSIMXNDS	Q8STNMDS		X	X	X
DSIMXQUE	IDAA Maximum Queue Wait Elapsed Time	DSIMXQUE	Q8STQUEM		X	X	X
DSIMXSKW	IDAA Maximum Data Skew	DSIMXSKW	Q8STSKEW		X	X	X
DSIMXWMA	Max Shared Mem Data Avail Worker Node	DSIMXWMA	Q8STWSMA		X	X	X
DSIMXWSM	Max Shared Mem Data Use IWA Worker Node	DSIMXWSM	Q8STWSMM		X	X	X
DSIXACPU	IDAA CPU Time	DSIXACPU	Q8STACPU		X	X	X
DSIXACTV	IDAA Current Active Requests	DSIXACTV	Q8STACTV		X	X	X
DSIXAELA	IDAA Elapsed time	DB2XAELA	Q8STAELA		X	X	X
DSIXAVQ3	IDAA Avg Query Queue Len Last 3 hours	DSIXAVQ3	Q8STAVQ03		X	X	X
DSIXAV24	IDAA Avg Query Queue Len last 24 hours	DSIXAV24	Q8STAVGQ24		X	X	X
DSIXAWAT	IDAA Wait Time	DB2XAWAT	Q8STAWAT		X	X	X
DSIXBLKR	IDAA Blocks Returned Count	DB2XBLKR	Q8STBLKR		X	X	X
DSIXBLKS	IDAA Blocks Sent Count	DB2XBLKS	Q8STBLKS		X	X	X
DSIXBYTR	IDAA Bytes Returned Count	DB2XBYTR	Q8STBYTR		X	X	X
DSIXBYTS	IDAA Bytes Sent Count	DB2XBYTS	Q8STBYTS		X	X	X
DSIXCCPU	Sum Avg Pct CPU Util IDAA Coordinator	DSIXCCPU	Q8STCCPU		X	X	X
DSIXCONN	IDAA Connects Count	DB2XCONN	Q8STCONN		X	X	X
DSIXCPMU	Sum Phys Mem Avg Use Coordinator Node	DSIXCPMU	Q8STCPMU		X	X	X
DSIXFAIL	IDAA Failed Connection Requests Count	DB2XFAIL	Q8STFAIL		X	X	X
DSIXFINV	IDAA Failed Connection Requests Count	DSIXFINV	Q8STFINV		X	X	X
DSIXFREQ	IDAA Failed Query Requests Count	DSIXFREQ	Q8STFREQ		X	X	X
DSIXMSGR	IDAA Messages Returned Count	DB2XMSGR	Q8STMSGR		X	X	X
DSIXMSGS	IDAA Messages Sent Count	DB2XMSGS	Q8STMSGS		X	X	X
DSIXPRID	IDAA Product ID	DB2XPRID	Q8STPRID		X	X	X
DSIXQUEW	Sum of IDAA Avg Queue Wait Elapsed Time	DSIXQUEW	Q8STQUEW		X	X	X
DSIXREQ	IDAA DRDA Requests Count	DB2XREQ	Q8STREQ		X	X	X
DSIXROWR	IDAA Rows Returned Count	DB2XROWR	Q8STROWR		X	X	X
DSIXROWS	IDAA Rows Sent Count	DB2XROWS	Q8STROWS		X	X	X
DSIXSREQ	IDAA Successful Query Requests Count	DSIXSREQ	Q8STSREQ		X	X	X
DSIXST	IDAA State	DSIXST	Q8STST		X	X	X
DSIXSVNM	IDAA Server Name	DB2XSVNM	Q8STNAME		X	X	X
DSIXTCPU	IDAA TCP/IP CPU Time	DSIXTCPU	Q8STTCPU		X	X	X
DSIXTELA	IDAA TCP/IP Elapsed Time	DB2XTELA	Q8STTELA		X	X	X
DSIXTOUT	IDAA Timed Out Connection Requests	DB2XTOUT	Q8STTOUT		X	X	X
DSIXWCPU	Sum Avg Pct CPU Util IDAA Worker Nodes	DSIXWCPU	Q8STWCPU		X	X	X
DSIXWNOD	IDAA Active Worker Nodes Count	DSIXWNOD	Q8STWNOD		X	X	X
DSIXWPMU	Sum Physical Mem Avg Use Worker Nodes	DSIXWPMU	Q8STWPMU		X	X	X
DSIXWSMU	Sum Shared Mem Data Avg Use Worker	DSIXWSMU	Q8STWSMU		X	X	X

The DB2DSP (DB2 Plan Activity) File

ELEMENT	ELEMENT DESCRIPTION	DICTIONARY MEMBER	RAW ELEMENT	AVAILABLE IN DB2 VERSIONS 8.1	9.1	10.1	11.1
DB2ACE	DB2 Agent Control Element	DB2ACE	QWHSACE	X	X	X	X
DB2ATNM	Active Trace Number Mask	DB2ATNM	QWHSMTN	X	X	X	X
DB2AUTH	Authorization Identifier	DB2AUTH	QWHCAID	X	X	X	X
DB2CONN	Connection Identifier	DB2CONN	QWHCCN	X	X	X	X
DB2CORR	Correlation Identifier	DB2CORR	QWHCCV	X	X	X	X
DB2CPU	DB2 CPU Time	DB2CPU	QWHUCPU	X	X	X	X
DB2DDFCT	DDF COMMIT Count	DB2DDFCT	QWHSLUCC	X	X	X	X
DB2DSGN	Data Sharing Group Name	DB2DSGN	QWHADSGN	X	X	X	X
DB2DSTSN	Destination Sequence Number	DB2DSTSN	QWHSWSEQ	X	X	X	X
DB2ISEQ	Instrumentation Sequence Number	DB2ISEQ	QWHSISEQ	X	X	X	X
DB2LOCN	DDF Local Location ID	DB2LOCN	QWHSLOCN	X	X	X	X
DB2LUNAM	DB2 Logical Unit Name	DB2LUNAM	QWHSLUNM	X	X	X	X
DB2MEMN	DB2 Member Name	DB2MEMN	QWHAMEMN	X	X	X	X
DB2NETID	Network Identifier	DB2NETID	QWACNID	X	X	X	X
DB2OPID	Original Operator ID	DB2OPID	QWHCOPID	X	X	X	X
DB2PLAN	Plan Name	DB2PLAN	QWHCPLAN	X	X	X	X
DB2RELN	DB2 Release Identifier	DB2RELN	QWHSRELN	X	X	X	X
DB2REQID	DDF Requester Location ID	DB2REQID	QWHDRQNM	X	X	X	X
DB2STCK	DB2 Store Clock At End Event	DB2STCK	QWHSSTCK	X	X	X	X
DB2UNIQ	DDF Instance Number Identifier	DB2UNIQ	QWHSLUUV	X	X	X	X
DSPABORT	Abort Requests	DB2ABORT	QWACABRT	X	X	X	X
DSPACHG	Change Request Count	DSPACHG	QTXACHG	X	X	X	X
DSPACHUS	Highest CPU 16 Microseconds Used	DSPACHUS	QTXACHUS	X	X	X	X
DSPACLMT	Limit In CPU 16 Microseconds	DSPACLMT	QTXACLMT	X	X	X	X
DSPAFLG	Flag Byte	DSPAFLG	QTXAFLG1	X	X	X	X
DSPAIETM	Class 5 Accum Elapsed Time IFI Calls	DSPAIETM	QIFAAIET	X	X	X	X
DSPAIRLM	Other IRLM Request Count	DSPAIRLM	QTXAIRLM	X	X	X	X
DSPAITTM	Class 5 Accum TCB Time IFI Calls	DSPAITTM	QIFAAITT	X	X	X	X
DSPALDAB	No. ALTER DATABASE Statements	DSPALDAB	QXALDAB	X	X	X	X
DSPALGTM	Class 3 Accum Wait Archive Log Time	DB2ALGTM	QWAXALOG	X	X	X	X
DSPALLTM	DB2 Lock & Latch Time	DB2ALLTM	QWACAWTL	X	X	X	X
DSPALOCK	Lock Request Count	DSPALOCK	QTXALOCK	X	X	X	X
DSPALTIX	ALTER INDEX Statements	DSPALTIX	QXALTIX	X	X	X	X
DSPALTJR	Alter JAR Statements	DB2ALTJR	QXAALTJR		X	X	X
DSPALTMP	Alter Mask / Permission Statements	DB2ALTMP	QXAALTMP			X	X
DSPALTST	ALTER STORAGE GROUP Statements	DSPALTST	QXALTST	X	X	X	X
DSPALTTA	ALTER TABLE Statements	DSPALTTA	QXALTTA	X	X	X	X
DSPALTTS	ALTER TABLESPACE Statements	DSPALTTS	QXALTTS	X	X	X	X
DSPALTTX	Alter Trusted Context Statements	DB2ALTTX	QXALTCTX		X	X	X
DSPALTVW	Alter View Statements	DB2ALTVW	QXALTVW		X	X	X
DSPAMBTM	Class 5 Accum Elapsed Time Data Capture	DSPAMBTM	QIFAAIET	X	X	X	X
DSPAMLTM	Class 5 Accum Elapsed Time Log Records	DSPAMLTM	QIFAAIET	X	X	X	X
DSPANDD	No. Data Descriptions Returned	DSPANDD	QIFAANDD	X	X	X	X
DSPANIF	No. Entry/Exit Events Class 5	DSPANIF	QIFAANIF	X	X	X	X
DSPANLR	No. Data Capture Log Reads	DSPANLR	QIFAANLR	X	X	X	X
DSPANMB	No. Data Capture Describes Performed	DSPANMB	QIFAANMB	X	X	X	X
DSPANRC	No. Log Records Captured	DSPANRC	QIFAANRC	X	X	X	X
DSPANRR	No. Log Records Returned to Caller	DSPANRR	QIFAANRR	X	X	X	X
DSPANTB	No. Data Capture Tables	DSPANTB	QIFAANTB	X	X	X	X
DSPAPREC	How Limit Was Determined	DSPAPREC	QTXAPREC	X	X	X	X
DSPAQRY	Query Request Count	DSPAQRY	QTXAQRY	X	X	X	X
DSPARLH	Wait Trace Events Latch Contention	DB2ARLH	QWACARLH			X	X
DSPARLCT	No. Archive Log Suspensions	DB2ARLCT	QWAXALCT	X	X	X	X
DSPARLID	Resource Limit Table ID	DSPARLID	QTXARLID	X	X	X	X
DSPARREX	No. Parallel Grps Back to Seq Mode	DB2ARREX	QXSTARRAY_EXPANSIONS				X
DSPASLAT	Suspend Count - Latch Conflict	DSPASLAT	QTXASLAT	X	X	X	X

DSPASLMT	Limit In SU's - ASUTIME	DSPASLMT	QTXASLMT	X	X	X	X
DSPASOTH	Suspend Count - Other Conflict	DSPASOTH	QTXASOTH	X	X	X	X
DSPATCNT	No. Autonomous Procedures Executed	DB2ATCNT	QWAC_AT_COUNT				X
DSPATWAT	Autonomous Procedure Wait Time	DB2ATWAT	QWAC_AT_WAIT				X
DSPAUNLK	Unlock Request Count	DSPAUNLK	QTXAUNLK	X	X	X	X
DSPAWATM	Class 3 Accum Wait Log Reads Time	DB2AWATM	QWAXAWAR	X	X	X	X
DSPAWBTM	Wait Time - TCP/IP LOB Material	DB2AWBTM	QWACALBW		X	X	X
DSPAWCTM	Class 3 Accum Wait Drain Wait Time	DB2AWCTM	QWAXAWCL	X	X	X	X
DSPAWDTM	Class 3 Accum Wait Drain Lock Time	DB2AWDTM	QWAXAWDR	X	X	X	X
DSPAWETM	Class 3 Accum Wait Service Task Time	DB2AWETM	QWACAWTE	X	X	X	X
DSPAWGTM	Accum Wait Time Data Sharing Messages	DB2AWGTM	QWACAWTG	X	X	X	X
DSPAWJTM	Accum Wait Time Global Locks	DSPAWJTM	QWACAWTJ	X	X	X	X
DSPAWLTM	Accum Wait Time - Latch Contention	DB2AWLTM	QWACAWTE			X	X
DSPAWLTM	Accum Wait Time - Latch Contention	DB2AWLTM	QWACAWLH			X	X
DSPAWPTM	Class 3 Accum Wait Latch Contention	DB2AWPTM	QWACAWTP	X	X	X	X
DSPAWRTM	Class 3 Accum Wait Read Other Time	DB2AWRTM	QWACAWTR	X	X	X	X
DSPAWWTM	Class 3 Accum Wait Write Other Time	DSPAWWTM	QWACAWTW	X	X	X	X
DSPBEGSC	Beginning Store Clock	DSPBEGSC	QWACBSC	X	X	X	X
DSPBGTCB	Beginning TCB Timer	DSPBGTCB	QWACBJST	X	X	X	X
DSPBPNX	Parallel Groups Run Cross Data Share	DB2BPNX	QXXCBPNX	X	X	X	X
DSPAACC	No. Wait Trace Events Req to IDAA	DB2AACC	QWACAACC				X
DSPAACW	Wait Time for Requests to IDAA	DB2AACW	QWACAACW				X
DSPCANM	No. Times SQL Call Wait for TCB	DB2CANM	QWACCANM	X	X	X	X
DSPCATYP	Connecting System Type Code	DSPCATYP	QMDACTYP	X	X	X	X
DSPCIMW0	No. of Immed. Sync Write I/O Buffer BP0	DB2CIMWX	QBACIMW	X	X	X	X
DSPCIMW1	No. of Immed. Sync Write I/O Buffer BP1	DB2CIMWX	QBACIMW	X	X	X	X
DSPCIMW2	No. of Immed. Sync Write I/O Buffer BP2	DB2CIMWX	QBACIMW	X	X	X	X
DSPCIMW3	No. of Immed. Sync Write I/O Buffer BP3	DB2CIMWX	QBACIMW	X	X	X	X
DSPCLOSE	CLOSE Statements	DSPCLOSE	QXCLOSE	X	X	X	X
DSPCLRAB	No. Log Record Bytes Written	DB2CLRAB	QWACLRAB	X	X	X	X
DSPCLRN	No. Log Records Written	DB2CLRN	QWACLRN	X	X	X	X
DSPCLS2	No. Accounting Class 2 Data	DSPCLS2	QWACFLGS	X	X	X	X
DSPCLS2C	No. Accounting Class 2 Data Collected	DSPCLS2C	QWACFLGS	X	X	X	X
DSPCLS3	No. Accounting Class 3 Data	DSPCLS3	QWACFLGS	X	X	X	X
DSPCLS3C	No. Accounting Class 3 Data Collected	DSPCLS3C	QWACFLGS	X	X	X	X
DSPCLS7C	No. Accounting Class 7 Data Collected	DSPCLS7C	QWACFLGS	X	X	X	X
DSPCLS8C	No. Accounting Class 8 Data Collected	DSPCLS8C	QWACFLGS	X	X	X	X
DSPCMTON	COMMENT ON Statements	DSPCMTON	QXCMTON	X	X	X	X
DSPCOMM2	Commit Phase Two Invocations	DB2COMM2	QWACCOMM	X	X	X	X
DSPCPLK	Change Requests for Physical Locks	DSPCPLK	QTGACPLK	X	X	X	X
DSPCPUZ1	Accum CPU Tm Used on z/OS Spec Eng	DB2CPUZ1	QWACCLS1_zIIP	X	X	X	X
DSPCPUZ2	CPU Tm Used in DB2 on z/OS Spec Eng	DB2CPUZ2	QWACCLS2_zIIP	X	X	X	X
DSPCRAL	Create Alias	DSPCRAL	QXCRALS	X	X	X	X
DSPCRCTX	Create Trusted Context Statements	DB2CRCTX	QXCRCTX		X	X	X
DSPCRDAB	CREATE DATABASE Statements	DSPCRDAB	QXCRDAB	X	X	X	X
DSPCREMP	Create Mask / Permission Statements	DB2CREMP	QXCREMP			X	X
DSPCRINX	CREATE INDEX Statements	DSPCRINX	QXCRINX	X	X	X	X
DSPCRROL	Create Role Statements	DB2CRROL	QXCRROL		X	X	X
DSPCRSTG	CREATE STORAGE GROUP Statements	DSPCRSTG	QXCRSTG	X	X	X	X
DSPCRSYN	CREATE SYNONYM Statements	DSPCRSYN	QXCRSYN	X	X	X	X
DSPCRTAB	CREATE TABLE Statements	DSPCRTAB	QXCRTAB	X	X	X	X
DSPCRTSV	Create Variable Statements	DB2CRTSV	QXCRTSV				X
DSPCSLM	Change Requests Propagated to XES	DSPCSLM	QTGACSLM	X	X	X	X
DSPCTABS	CREATE TABLESPACE Statements	DSPCTABS	QXCTABS	X	X	X	X
DSPCUDNE	No. SQL Entry/exit UDF Events	DB2CUDNE	QWACUDNE	X	X	X	X
DSPCWLD	Times Duplicate Concentrate Dyna Stmnts	DB2CWLD	QXSTCWLD			X	X
DSPCWLM	Times Matched Concentrate Dyna Stmnts	DB2CWLM	QXSTCWLM			X	X
DSPCWLP	Times Parsed Concentrate Dyna Stmnts	DB2CWLP	QXSTCWLP			X	X
DSPCWLR	Times Replaced Concentrate Dyna Stmnts	DB2CWLR	QXSTCWLR			X	X
DSPDEAD	Deadlock Count	DSPDEAD	QTXADEA	X	X	X	X
DSPDEFVU	CREATE VIEW Statements	DSPDEFVU	QXDEFVU	X	X	X	X
DSPDEGAT	No. Parallel Grps Back to Seq Mode	DB2DEGAT	QXDEGAT				X
DSPDELET	DELETE Statements	DSPDELET	QXDELET	X	X	X	X
DSPDESC	DESCRIBE Statements	DSPDESC	QXDESC	X	X	X	X
DSPDGBUF	Total Number of Parallel Groups That	DB2DGBUF	QXDEGBUF	X	X	X	X
DSPDGCUR	Parallel Groups to Seq Cursor Update	DB2DGCUR	QXDEGCUR	X	X	X	X
DSPDGESA	Parallel Groups to Seq No ESA Sort	DB2DGESA	QXDEGESA	X	X	X	X
DSPDGNGP	No. Parallel Grp Degenerated Sys Stress	DB2DGNGP	QXSTODGNGRP				X
DSPDPF0	No. Times Dynamic Prefetch Req BP0	DB2DPFX	QBACDPF	X	X	X	X
DSPDPF1	No. Times Dynamic Prefetch Req BP1	DB2DPFX	QBACDPF	X	X	X	X
DSPDPF2	No. Times Dynamic Prefetch Req BP2	DB2DPFX	QBACDPF	X	X	X	X
DSPDPF3	No. Times Dynamic Prefetch Req BP3	DB2DPFX	QBACDPF	X	X	X	X
DSPDRAL	Drop Alias	DSPDRAL	QXDRPAL	X	X	X	X

DSPDRPDB	DROP DATABASE Statements	DSPDRPDB	QXDRPDB	X	X	X	X
DSPDRPIX	DROP INDEX Statements	DSPDRPIX	QXDRPIX	X	X	X	X
DSPDRPKG	No. DROP PACKAGE Statements	DSPDRPKG	QXDRPPKG	X	X	X	X
DSPDRPMP	Drop Mask / Permission Statements	DB2DRPMP	QXDRPMP			X	X
DSPDRPRO	Drop Role Statements	DB2DRPRO	QXDRPROL		X	X	X
DSPDRPST	DROP STORAGE GROUP Statements	DSPDRPST	QXDRPST	X	X	X	X
DSPDRPSV	Drop Variable Statements	DB2DRPSV	QXDRPSV				X
DSPDRPSY	DROP SYNONYM Statements	DSPDRPSY	QXDRPSY	X	X	X	X
DSPDRPTA	DROP TABLE Statements	DSPDRPTA	QXDRPTA	X	X	X	X
DSPDRPTS	DROP TABLESPACE Statements	DSPDRPTS	QXDRPTS	X	X	X	X
DSPDRPTX	Drop Trusted Context Statements	DB2DRPTX	QXDRPCTX		X	X	X
DSPDRPVU	DROP VIEW Statements	DSPDRPVU	QXDRPVU	X	X	X	X
DSPDRTA	Global Requests Denied	DSPDRTA	QTGADRTA	X	X	X	X
DSPDSCRT	No. DESCRIBE TABLE Statements	DSPDSCRT	QXDSCRTB	X	X	X	X
DSPDSNS	No. Wait Trace Events - Dataspace Mgr	DB2DSNS	QWAXDSNS	X	X	X	X
DSPDSSTM	Accum Wait Time Dataspace Manager	DB2DSSTM	QWAXDSSE	X	X	X	X
DSPDSTSN	Destination Sequence Number	DB2DSTSN	QWHSWSEQ	X	X	X	X
DSPEGENC	Parallel Groups Executed Sequential	DB2EGENC	QXDEGENC	X	X		
DSPELGZP	Accumulated CPU Time zIIP-Eligible Work	DSPELGZP	QWACZIIP_ELIGIBLE	X	X		
DSPENDSC	Ending Store Clock	DSPENDSC	QWACESC	X	X	X	X
DSPENTCB	Ending TCB Timer	DSPENTCB	QWACEJST	X	X	X	X
DSPENTEX	Number of Entry/Exit Events Processed	DB2ENTEX	QWACARNA	X	X	X	X
DSPET2TM	Elapsed Time in DB2	DB2ET2TM	QWACASC	X	X	X	X
DSPFCCT	No. Wait Trace Events - Force-At-Commit	DB2FCCT	QWAXFCCT	X	X	X	X
DSPFETCH	Number of FETCH Statements	DSPFETCH	QXFETCH	X	X	X	X
DSPFLGS	Accounting Class Flags	DSPFLGS	QWACFLGS	X	X	X	X
DSPFLSE	No. of False Contentions	DSPFLSE	QTGAFLSE	X	X	X	X
DSPFRIDS	Times RID List Overflowed RID Storage	DB2FRIDS	QXWFRIDS			X	X
DSPFRIDT	Times RID List Overflowed RID Exceeded	DB2FRIDT	QXWFRIDT			X	X
DSPGPGR0	GETPAGE Requests BP0	DB2GPGRX	QBACGET	X	X	X	X
DSPGPGR1	GETPAGE Requests BP1	DB2GPGRX	QBACGET	X	X	X	X
DSPGPGR2	GETPAGE Requests BP2	DB2GPGRX	QBACGET	X	X	X	X
DSPGPGR3	GETPAGE Requests BP3	DB2GPGRX	QBACGET	X	X	X	X
DSPGRANT	GRANT Statements	DSPGRANT	QXGRANT	X	X	X	X
DSPIGLO	Suspends Due to IRLM Global Contention	DSPIGLO	QTGAIGLO	X	X	X	X
DSPINCRB	Incremental Binds	DSPINCRB	QXINCRB	X	X	X	X
DSPINSRT	INSERT Statements	DSPINSRT	QXINSRT	X	X	X	X
DSPIOETM	Accumulated I/O Elapsed Wait Time in DB2	DSPIOETM	QWACAWTI	X	X	X	X
DSPISEQ	Instrumentation Sequence Number	DB2ISEQ	QWHSISEQ	X	X	X	X
DSPISTOR	No. Sparse Index Disabled Insf Stg	DB2ISTOR	QXSISTOR				X
DSPIWF	No. Sparse Index Built Phys WF Probe	DB2IWF	QXSIWF				X
DSPIXLE	No. Wait Trace Events - Async IXLCACHE	DB2IXLE	QWAXIXLE	X	X	X	X
DSPIXLTM	Total Wait Time IXLCACHE/FCOMP Asynch	DB2IXLTM	QWAXIXLT	X	X	X	X
DSPJINCS	Times RID List Append RID Storage	DB2JINCS	QXHJINCS			X	X
DSPJINCT	Times RID List Append RID Exceeded	DB2JINCT	QXHJINCT			X	X
DSPLABEL	Number of LABEL ON Statements	DSPLABEL	QXLABON	X	X	X	X
DSPLEEM	Number of Lock Escalations to Exclusive	DSPLEEM	QTXALEX	X	X	X	X
DSPLESM	Number of Lock Escalations to Shared	DSPLESM	QTXALES	X	X	X	X
DSPLOCK	LOCK TABLE Statements	DSPLOCK	QXLOCK	X	X	X	X
DSPLPF0	No. List Prefetch Requested BP0	DB2LPFX	QBACLPF	X	X	X	X
DSPLPF1	No. List Prefetch Requested BP1	DB2LPFX	QBACLPF	X	X	X	X
DSPLPF2	No. List Prefetch Requested BP2	DB2LPFX	QBACLPF	X	X	X	X
DSPLPF3	No. List Prefetch Requested BP3	DB2LPFX	QBACLPF	X	X	X	X
DSPLPLK	Lock Requests for Physical Locks	DSPLPLK	QTGALPLK	X	X	X	X
DSPLSLM	Lock Requests Propagated to XES	DSPLSLM	QTGALSLM	X	X	X	X
DSPMALCT	Max Archive Log Suspensions	DSPMALCT	QWAXALCT	X	X	X	X
DSPMCHG	Max Change Lock Requests	DSPMCHG	QTXACHG	X	X	X	X
DSPMDEAD	Max Deadlocks	DSPMDEAD	QTXADEA	X	X	X	X
DSPMENTX	Max Entry/Exits	DSPMENTX	QWACARNA	X	X	X	X
DSPMERGE	Merge Statements	DB2MERGE	QXMERGE		X	X	X
DSPMGPG0	Max BP0 GETPAGE Requests	DB2MGPGX	QBACGET	X	X	X	X
DSPMGPG1	Max BP1 GETPAGE Requests	DB2MGPGX	QBACGET	X	X	X	X
DSPMGPG2	Max BP2 GETPAGE Requests	DB2MGPGX	QBACGET	X	X	X	X
DSPMGPG3	Max BP3 GETPAGE Requests	DB2MGPGX	QBACGET	X	X	X	X
DSPMIOTM	Max I/O Elapsed Wait Time in DB2	DSPMIOTM	QWACAWTI	X	X	X	X
DSPMIRLM	Max IRLM Lock Requests	DSPMIRLM	QTXAIRLM	X	X	X	X
DSPMIXNL	Mult Indx Not Used - RID Limit	DSPMIXNL	QXMRMIAP	X	X	X	X
DSPMIXNU	Mult Indx Not Used - No Storage	DSPMIXNU	QXNSMIAP	X	X	X	X
DSPMIXU	Multiple Index Path Used	DSPMIXU	QXMIAP	X	X	X	X
DSPMLEEM	Max Escalate to Exclusive Lock	DSPMLEEM	QTXALEX	X	X	X	X
DSPMLESM	Max Escalate to Shared Lock	DSPMLESM	QTXALES	X	X	X	X
DSPMLGTM	Max Class 3 Accum Wait Archive Log Time	DSPMLGTM	QWACALOG			X	X
DSPMLOCK	Max Lock Requests	DSPMLOCK	QTXALOCK	X	X	X	X
DSPMLPF0	Total List Prefetch Requested	DSPMLPFX	QBACLPF	X	X	X	X

DSPMLPF1	Total List Prefetch Requested	DSPMLPFX	QBACLPF	X	X	X	X
DSPMLPF2	Total List Prefetch Requested	DSPMLPFX	QBACLPF	X	X	X	X
DSPMLPF3	Total List Prefetch Requested	DSPMLPFX	QBACLPF	X	X	X	X
DSPMMXPL	Max Max. No. Page Locks Held	DSPMMXPL	QTXANPL	X	X	X	X
DSPMPFR0	Max Buffer Pool Prefetch Reads	DB2MPFRX	QBACSEQ	X	X	X	X
DSPMPFR1	Max Buffer Pool Prefetch Reads	DB2MPFRX	QBACSEQ	X	X	X	X
DSPMPFR2	Max Buffer Pool Prefetch Reads	DB2MPFRX	QBACSEQ	X	X	X	X
DSPMPFR3	Max Buffer Pool Prefetch Reads	DB2MPFRX	QBACSEQ	X	X	X	X
DSPMQRY	Max Query Requests	DSPMQRY	QTXAQRY	X	X	X	X
DSPMSLAT	Max Latch Suspensions	DSPMSLAT	QTXASLAT	X	X	X	X
DSPMSOTH	Max Other Suspends	DSPMSOTH	QTXASOTH	X	X	X	X
DSPMSPU0	Max BP0 System Pages Updated	DB2MSPUX	QBACSWS	X	X	X	X
DSPMSPU1	Max BP1 System Pages Updated	DB2MSPUX	QBACSWS	X	X	X	X
DSPMSPU2	Max BP2 System Pages Updated	DB2MSPUX	QBACSWS	X	X	X	X
DSPMSRD0	Max Buffer Pool Synchronous Reads	DB2MSRDX	QBACRIO	X	X	X	X
DSPMSRD1	Max Buffer Pool Synchronous Reads	DB2MSRDX	QBACRIO	X	X	X	X
DSPMSRD2	Max Buffer Pool Synchronous Reads	DB2MSRDX	QBACRIO	X	X	X	X
DSPMSRD3	Max Buffer Pool Synchronous Reads	DB2MSRDX	QBACRIO	X	X	X	X
DSPMSWR0	Max Buffer Pool Synchronous Reads	DB2MSWRX	QBACIMW	X	X	X	X
DSPMSWR1	Max Buffer Pool Synchronous Reads	DB2MSWRX	QBACIMW	X	X	X	X
DSPMSWR2	Max Buffer Pool Synchronous Reads	DB2MSWRX	QBACIMW	X	X	X	X
DSPMSWR3	Max Buffer Pool Synchronous Reads	DB2MSWRX	QBACIMW	X	X	X	X
DSPMTIMO	Max Timeouts	DSPMTIMO	QTXATIM	X	X	X	X
DSPMWATR	Max Wait Trace Events / Plan	DSPMWATR	QWACARNE	X	X	X	X
DSPMWETM	Max Class 3 Accum Wait Serv. Task Time	DSPMWETM	QWACAWTE	X	X	X	X
DSPMWRTM	Max Class 3 Accum Wait Read Other Time	DSPMWRTM	QWACAWTR	X	X	X	X
DSPMWTRL	Max Wait Trace Events for Lock/Latch	DSPMWTRL	QWACARNL	X	X	X	X
DSPMWTRR	Max Wait Trace Events for Read Other	DSPMWTRR	QWACARNR	X	X	X	X
DSPMWTRW	Max Wait Trace Events for Write Other	DSPMWTRW	QWACARNW	X	X	X	X
DSPMWTSE	Max Wait Trace Events for Sync. Exec.	DSPMWTSE	QWACARNS	X	X	X	X
DSPMWWTM	Max Class 3 Accum Wait Write Other Time	DSPMWWTM	QWACAWTW	X	X	X	X
DSPMXDEG	Max Degree of Parallelism	DB2MXDEG	QXMAXDEG	X	X	X	X
DSPMXEST	Max Parallel Grp Estimated Degree	DB2MXEST	QXMAXESTIDG				X
DSPMXPL	Maximum Number of Page Locks Held	DSPMXPL	QTXANPL	X	X	X	X
DSPMXPLN	Max Parallel Grp Planned Degree	DB2MXPLN	QXMAXPLANDG				X
DSPMXSE1	Max CPU Tm Exec SP on z/OS SE	DSPMXSE1	QWACSP_CLS1se		X	X	X
DSPMXSE2	Max CPU Tm in DB2 Exec SP on z/OS SE	DSPMXSE2	QWACSP_CLS2se		X	X	X
DSPMXSET	Max CPU Tm Exec Trgrs on z/OS Spec Eng	DSPMXSET	QWACTRTE_se		X	X	X
DSPMXZP1	Max CPU Tm Used on z/OS Spec Eng	DSPMXZP1	QWACCLS1_zIIP	X	X	X	X
DSPMXZP2	Max CPU Tm Used in DB2 on z/OS Spec Eng	DSPMXZP2	QWACCLS2_zIIP	X	X	X	X
DSPMXZTT	Max CPU Tm Exec Trgrs on z/OS Spec Eng	DSPMXZTT	QWACTRTT_zIIP	X	X	X	X
DSPNATHD	Count of ACCUMACC Roll-up Threads	DSPNATHD	QWACPCNT	X	X	X	X
DSPNETID	Network Identifier	DSPNETID	QWACNID	X	X	X	X
DSPNFLMT	No. Infinite Resource Limit	DSPNFLMT	QTXAFLG1				
DSPNGT0	No. Time GETPAGE Req Not Satisfied BP0	DB2NGTX	QBACNGT	X	X	X	X
DSPNGT1	No. Time GETPAGE Req Not Satisfied BP1	DB2NGTX	QBACNGT	X	X	X	X
DSPNGT2	No. Time GETPAGE Req Not Satisfied BP2	DB2NGTX	QBACNGT	X	X	X	X
DSPNGT3	No. Time GETPAGE Req Not Satisfied BP3	DB2NGTX	QBACNGT	X	X	X	X
DSPNOGRP	Total Number of Parallel Groups That	DB2NOGRP	QXNORGRP	X	X	X	X
DSPNTFY	Notify Messages Sent	DSPNTFY	QTGANTFY	X	X	X	X
DSPOCNS	No. Wait Trace Events - Open/Close/HSM	DB2OCNS	QWAXOCNS	X	X	X	X
DSPOCSTM	Accum Wait Time Open/Close/HSM	DB2OCSTM	QWAXOCSE	X	X	X	X
DSPOPEN	OPEN Statements	DSPOPEN	QXOPEN	X	X	X	X
DSPOPID	Original Operator ID	DB2OPID	QWHCOPID	X	X	X	X
DSPORNO	Parallel Groups Executed Coordination	DB2ORNO	QXCOORNO	X	X	X	X
DSPORR	Parallel Groups Executed Repeat-read	DB2ORR	QXISORR	X	X	X	X
DSPOTNS	No. Wait Trace Events - Other Services	DB2OTNS	QWAXOTNS	X	X	X	X
DSPOTSTM	Accum Wait Time Other DB2 Services	DB2OTSTM	QWAXOTSE	X	X	X	X
DSPPACE	Parallel Task Token	DSPPACE	QWACPACE	X	X	X	X
DSPPARQR	No. Parallel Query Rollup Records	DB2PARQR	QWACFLGS2			X	X
DSPPARR	No. Rollup Data	DSPPARR	QWACFLGS				
DSPPCAGT	No. Parallel Child Agent Tasks Rolled	DB2PCAGT	QWAC_PT_COUNT			X	X
DSPPCNT	No. Parallel Tasks Created	DB2PCNT	QWACPCNT	X	X	X	X
DSPPCWDP	Duplicate Per Parsed Dyna Stmnts	DB2PCWDP				X	X
DSPPCWMP	Matched Per Parsed Dyna Stmnts	DB2PCWMP				X	X
DSPPCWRP	Replaced Per Parsed Dyna Stmnts	DB2PCWRP				X	X
DSPPEDTM	Accum CPU Proc SQL Prior Enclave	DB2PEDTM	QWACPECD	X			
DSPPETTM	Accum TCB Prior Enclave Create	DB2PETTM	QWACPECT	X			
DSPPGDTT	Parallel GPS Using UDF - Ex. Single DB2	DB2PGDTT	QXDEGDTT	X	X	X	X
DSPPKGN	No. Packages or DBRMs	DB2PKGN	QWACPKGN	X	X	X	X
DSPPLAN	Plan Name	DB2PLAN	QWHCPLAN	X	X	X	X
DSPPRFH0	PREFETCH Read Requests Buffer BP0	DB2PRFHX	QBACSEQ	X	X	X	X
DSPPRFH1	PREFETCH Read Requests Buffer BP1	DB2PRFHX	QBACSEQ	X	X	X	X
DSPPRFH2	PREFETCH Read Requests Buffer BP2	DB2PRFHX	QBACSEQ	X	X	X	X

DSPPRFH3	PREFETCH Read Requests Buffer BP3	DB2PRFHX	QBACSEQ	X	X	X	X
DSPPROPT	Max Parallel Grp Degenerated Opt	DB2PROPT	QXPAROPT				X
DSPREASN	Reason for Accounting Record	DSPREASN	QWACRINV	X	X	X	X
DSPRBSV	No. SQL Rollback to Savepoint Stmts	DB2RBSV	QWACRBSV	X	X	X	X
DSPRDGRP	Total Number of Parallel Groups That	DB2RDGRP	QXREDGRP	X	X	X	X
DSPRDLTD	Deleted Rows	DB2RDLTD	QXRWSDELETD	X	X		
DSPREDGP	No. Parallel Grp Reduced Sys Stress	DB2REDGP	QXSTOREDGRP				X
DSPREVOK	REVOKE Statements	DSPREVOK	QXREVOK	X	X		
DSPRFCHD	Fetched Rows	DB2RFCHD	QXRWSFETCHD	X	X		
DSPRLSV	No. SQL Release Savepoint Statements	DB2RLSV	QWACRLSV	X	X	X	X
DSPRMID	DB2 Resource Manager Identifier	DB2RMID	QWHSRMID	X	X		
DSPRNIX	Rename Index Statements	DB2RNIX	QXRNIX		X	X	X
DSPRNKCL	No. Wait Trace Glbl Cont. Child LLock	DB2RNKCL	QWACARNK	X	X	X	X
DSPRNMOL	No. Wait Trace Glbl Cont. Other LLock	DB2RNMOL	QWACARNM	X	X	X	X
DSPRNNPL	No. Wait Trace Glbl Cont. PP PLock	DB2RNNPL	QWACARNN	X	X	X	X
DSPRNOPL	No. Wait Trace Glbl Cont. PG PLock	DB2RNOPL	QWACARNO	X	X	X	X
DSPRNQOL	No. Wait Trace Glbl Cont. Other PLock	DB2RNQOL	QWACARNQ	X	X	X	X
DSPRNSTD	Inserted Rows	DB2RNSTD	QXRWSINSRTD	X	X		
DSPRPOP1	Parallel GPS Reformatted - Sysplex Conf	DB2RPOP1	QXREPOP1	X	X		
DSPRPOP2	Parallel GPS Reformatted - Buffer Resrc	DB2RPOP2	QXREPOP2	X	X		
DSPRUDTD	Updated Rows	DB2RUDTD	QXRWSUPDTD	X	X		
DSPSDG	Total Unregister Pages Requests	DB2SDG	QBGADG	X	X	X	X
DSPSELCT	Number of SELECT Statements	DSPSELCT	QXSELECT	X	X	X	X
DSPSETHV	No. SET HOST-VAR Statements	DSPSETHV	QXSETHV	X	X	X	X
DSPSEX	Total Explicit XIs	DB2SEX	QBGAEX	X	X	X	X
DSPSGG	Total GETPAGEs for GBP-Dep Pagesets	DB2SGG	QBGAGG	X	X	X	X
DSPSGLO	Suspends Due to XES Global Contention	DSPSGLO	QTGASGLO	X	X	X	X
DSPSHS	Total Asynch IXLCACHE for Prim GBP	DB2SHS	QBGAHS	X	X	X	X
DSPSIO0	Number of Sync Read I/Os Issued	DB2SIOX	QBSTSIO	X	X	X	X
DSPSIO1	Number of Sync Read I/Os Issued	DB2SIOX	QBSTSIO	X	X	X	X
DSPSIO2	Number of Sync Read I/Os Issued	DB2SIOX	QBSTSIO	X	X	X	X
DSPSIO3	Number of Sync Read I/Os Issued	DB2SIOX	QBSTSIO	X	X	X	X
DSPSKIP	Parallel Coordination Bypass DB2	DB2SKIP	QXXCSKIP	X	X	X	X
DSPSLNS	No. Wait Trace Events - SYSLGRNG	DB2SLNS	QWAXSLNS	X	X	X	X
DSPSLSTM	Accum Wait Time SYSLGRNG	DB2SLSTM	QWAXSLSE	X	X	X	X
DSPSMD	Total CF Reads Data Returned	DSPSMD	QBGAMD	X	X	X	X
DSPSMIAP	Times RID List Retrieval Skipped	DB2SMIAP	QXRSMIAP			X	X
DSPSMN	Total CF Reads Data Not Ret. No Entry	DSPSMN	QBGAMN	X	X	X	X
DSPSMR	Total CF Reads Data Not Returned Entry	DSPSMR	QBGAMR	X	X	X	X
DSPSPATM	Total Elapsed Time Stored Procedures	DB2SPATM	QWACSPEA	X	X	X	X
DSPSPBTM	Total Elapsed Time in DB2 Stored Proc.	DB2SPBTM	QWACSPEB	X	X	X	X
DSPSPCTM	Accum CPU Time SQL Procedures Main Unit	DB2SPCTM	QWACSPNF_CP		X	X	X
DSPSPETM	Total Elapsed Time Wait for TCB	DSPSPETM	QWACCAST	X	X	X	X
DSPSPNE	SQL Events by Stored Procs	DSPSPNE	QWACSPNE	X	X	X	X
DSPSPPTM	CPU Time Stored Proc Address Space	DSPSPPTM	QWACSPCP	X	X	X	X
DSPSPRU0	System Page Record Update BP0	DB2SPRUX	QBACSWS	X	X	X	X
DSPSPRU1	System Page Record Update BP1	DB2SPRUX	QBACSWS	X	X	X	X
DSPSPRU2	System Page Record Update BP2	DB2SPRUX	QBACSWS	X	X	X	X
DSPSPRU3	System Page Record Update BP3	DB2SPRUX	QBACSWS	X	X	X	X
DSPSPSE1	Accum CPU Tm Exec SP on z/OS Spec Eng	DB2SPSE1	QWACSP_CLS1se		X	X	X
DSPSPSE2	CPU Tm in DB2 Exec SP on z/OS Spec Eng	DB2SPSE2	QWACSP_CLS2se		X	X	X
DSPSPZET	Total Elapsed Time on zIIP Stored Proc.	DB2SPZET	QWACSPNF_ELAP		X	X	X
DSPSPZTM	CPU Tm Exec Strd Proc on z/OS Spec Eng	DB2SPZTM	QWACSPNF_CP		X	X	X
DSPSP1	P-Lock Lock Requests-Space Map Pages1	DB2SP1	QBGAP1	X	X	X	X
DSPSP2	P-Lock Lock Requests-Data Pages2	DB2SP2	QBGAP2	X	X	X	X
DSPSP2TM	Accum CPU Time in DB2 Stored Proc.	DSPSP2TM	QWACSPTT	X	X	X	X
DSPSP3	P-Lock Lock Requests-Index Leaf Pages3	DB2SP3	QBGAP3	X	X	X	X
DSPSQLID	No. Of Set Current SQLID	DSPSQLID	QXSETSQL	X	X	X	X
DSPSRIO0	Synchronous Read IOs BP0	DB2SRIOX	QBACRIO	X	X	X	X
DSPSRIO1	Synchronous Read IOs BP1	DB2SRIOX	QBACRIO	X	X	X	X
DSPSRIO2	Synchronous Read IOs BP2	DB2SRIOX	QBACRIO	X	X	X	X
DSPSRIO3	Synchronous Read IOs BP3	DB2SRIOX	QBACRIO	X	X	X	X
DSPSSW	Total CF Writes For Changed Pages	DSPSSW	QBGASW	X	X	X	X
DSPSS1	P-Lock Lock Susp. - Space Map Pages 1	DB2SS1	QBGAS1	X	X	X	X
DSPSS2	P-Lock Lock Suspensions - Data Pages 2	DB2SS2	QBGAS2	X	X	X	X
DSPSS3	P-Lock Lock Susp. - Index Leaf Pages 3	DB2SS3	QBGAS3	X	X	X	X
DSPSUCV	SU:CPU-second Conversion Factor	DB2SUCV	QWACSUCV	X	X	X	X
DSPSU1	P-Lock Unlock Requests1	DB2SU1	QBGAU1	X	X	X	X
DSPSVPT	No. SQL Savepoint Statements	DB2SVPT	QWACSVPT	X	X	X	X
DSPSWC	Total CF Writes For Clean Pages	DSPSWC	QBGAWC	X	X	X	X
DSPSWM	Total Write and Register Multiple Reqs	DB2SWM	QBGAWM	X	X	X	X
DSPSWS	Total Write and Register Requests	DB2SWS	QBGAWS	X	X	X	X
DSPSXD	Total CF Reads Buffer XI	DSPSXD	QBGAXD	X	X	X	X
DSPSXN	Total CF Reads Entry Not Created	DSPSXN	QBGAXN			X	X

DSPSXR	Total CF Reads Entry Created	DSPSXR	QBGAXR	X	X	X	X
DSPS2H	Total Asynch IXLCACHE for 2nd GBP	DB2S2H	QBGA2H	X	X	X	X
DSPS2S	Total Comp Chks 4 Wrts 2nd GBP Suspend	DB2S2S	QBGA2S	X	X	X	X
DSPTC2TM	Class 2 Accumulated TCB Time in DB2	DB2TC2TM	QWACAJST	X	X	X	X
DSPTEETM	Total Elps Tm Exec Trigger Undr Enclave	DB2TEETM	QWACTREE	X	X	X	X
DSPTIMO	Timeout Count	DSPTIMO	QTXATIM	X	X	X	X
DSPDGNGP	No. Parallel Grp Degenerated Sys Stress	DB2DGNGP	QXSTODGNGRP				X
DSPTOGRP	Total Number of Parallel Groups	DB2TOGRP	QXTOTGRP	X	X	X	X
DSPREDGP	No. Parallel Grp Reduced Sys Stress	DB2REDGP	QXSTOREDGRP				X
DSPTRETM	Elapsed Time Executing Control Triggers	DB2TRETM	QWACTRET	X	X	X	X
DSPTRTBL	Truncate Table Statements	DB2TRTBL	QXTRTBL		X	X	X
DSPTRTSE	Accum CPU Tm Exe Trgrs on z/OS Spec Eng	DB2TRTSE	QWACTRTE_se		X	X	X
DSPTRTTM	Accum TCB Time Under Cntl Trigger	DB2TRTTM	QWACTRTT	X	X	X	X
DSPTRTZP	CPU Tm Exec Triggers on z/OS Spec Eng	DB2TRTZP	QWACTRTT_zIIP	X	X	X	X
DSPTTETM	Total TCB Tm Exec Trigger Undr Enclave	DB2TTETM	QWACTRTE	X	X	X	X
DSPUDATM	Total Elapsed Time UDF	DB2UDATM	QWACUDEA	X	X	X	X
DSPUDBTM	Total Elapsed Time in DB2 UDF	DB2UDBTM	QWACUDEB	X	X	X	X
DSPUDCTM	Accum CPU Time UDF	DB2UDCTM	QWACUDCP	X	X	X	X
DSPUDSTM	Total Elapsed Time UDF Wait for TCB	DB2UDSTM	QWACUDST	X	X	X	X
DSPUDSE1	Accum CPU Tm Exec UDF on z/OS Spec Eng	DB2UDSE1	QWACUDF_CLS1se		X	X	X
DSPUDSE2	CPU Tm in DB2 Exec UDF on z/OS Spec Eng	DB2UDSE2	QWACUDF_CLS2se		X	X	X
DSPUDTTM	Accum CPU Time in DB2 UDF	DB2UDTTM	QWACUDTT	X	X	X	X
DSPUPDTE	UPDATE Statements	DSPUPDTE	QXUPDTE	X	X	X	X
DSPUPLK	Unlock Requests for Physical Locks	DSPUPLK	QTGAUPLK	X	X	X	X
DSPUSLM	Unlock Requests Propagated to XES	DSPUSLM	QTGAUSLM	X	X	X	X
DSPWATRA	No. Wait Trace Events for Log Reads	DB2WATRA	QWAXANAR	X	X	X	X
DSPWATRB	Wt Trace for TCP/IP LOB Material	DB2WATRB	QWACALBC		X	X	X
DSPWATRC	Wait Trace for Claims	DB2WATRC	QWAXARNC	X	X	X	X
DSPWATRD	Wait Trace for Drain Lock	DB2WATRD	QWAXARND	X	X	X	X
DSPWATRG	No. Wait Trace for Global Lock	DB2WATRG	QWACARNJ	X	X	X	X
DSPWATRL	No. Wait Trace Events for Lock/Latch	DB2WATRL	QWACARNL	X	X	X	X
DSPWATRM	No. Wait Trace Events for Data Shr Msgs	DB2WATRM	QWACARNG	X	X	X	X
DSPWATRP	Wait Trace for Latch Contention	DB2WATRP	QWACARNH	X	X	X	X
DSPWATRR	No. Wait Trace Events for Read Other	DB2WATRR	QWACARNR	X	X	X	X
DSPWATRW	No. Wait Trace Events for Write Other	DB2WATRW	QWACARNW	X	X	X	X
DSPWATSE	No. Wait Trace Events for Sync. Exec.	DB2WATSE	QWACARNS	X	X	X	X
DSPWATTR	Number of Wait Trace Events Processed	DB2WATTR	QWACARNE	X	X	X	X
DSPWFCTM	Total Wait Time for Force-At-Commit	DB2WFCTM	QWAXAWFC	X	X	X	X
DSPWLCTM	Glbl Contention Child L-Lock Wait Time	DB2WLCTM	QWACAWTK	X	X	X	X
DSPWGLTM	Glbl Contention PG P-Lock Wait Time	DB2WGLTM	QWACAWTO	X	X	X	X
DSPWLLTM	Glbl Contention Other L-Locks Wait Time	DB2WLLTM	QWACAWTM	X	X	X	X
DSPWLPTM	Glbl Contention PP P-Lock Wait Time	DB2WLPTM	QWACAWTN	X	X	X	X
DSPWTOTM	Glbl Contention Other P-Locks Wait Time	DB2WTOTM	QWACAWTQ	X	X	X	X
DSPWLGTM	Accum Wait Time for Log Write IO	DB2WLGTM	QWACAWLG	X	X	X	X
DSPWLMCL	WLM Service Class Name	DB2WLMCL	QWACWLME	X	X	X	X
DSPXACPU	IDAA CPU Time	DSPXACPU	Q8ACACPU		X	X	X
DSPXAWAT	IDAA Wait Time	DB2XAWAT	Q8ACAWAT		X	X	X
DSPXAELA	IDAA Elapsed time	DB2XAELA	Q8ACAELA		X	X	X
DSPXBLKR	IDAA Blocks Returned Count	DB2XBLKR	Q8ACBLKR		X	X	X
DSPXBLKS	IDAA Blocks Sent Count	DB2XBLKS	Q8ACBLKS		X	X	X
DSPXBYTR	IDAA Bytes Returned Count	DB2XBYTR	Q8ACBYTR		X	X	X
DSPXBYTS	IDAA Bytes Sent Count	DB2XBYTS	Q8ACBYTS		X	X	X
DSPXCONN	IDAA Connects Count	DB2XCONN	Q8ACCONN		X	X	X
DSPXFAIL	IDAA Failed Connection Requests Count	DB2XFAIL	Q8ACFAIL		X	X	X
DSPXMSGR	IDAA Messages Returned Count	DB2XMSGR	Q8ACMSGR		X	X	X
DSPXMSGS	IDAA Messages Sent Count	DB2XMSGS	Q8ACMSGS		X	X	X
DSPXPRID	IDAA Product ID	DB2XPRID	Q8ACPRID		X	X	X
DSPXREQ	IDAA DRDA Requests Count	DB2XREQ	Q8ACREQ		X	X	X
DSPXROWR	IDAA Rows Returned Count	DB2XROWR	Q8ACROWR		X	X	X
DSPXROWS	IDAA Rows Sent Count	DB2XROWS	Q8ACROWS		X	X	X
DSPXSVNM	IDAA Server Name	DB2XSVNM	Q8ACNAME		X	X	X
DSPXTCPU	IDAA TCP/IP CPU Time	DSPXTCPU	Q8ACTCPU		X	X	X
DSPXTELA	IDAA TCP/IP Elapsed Time	DB2XTELA	Q8ACTELA		X	X	X
DSPXTOUT	IDAA Timed Out Connection Requests	DB2XTOUT	Q8ACTOUT		X	X	X
DSPXCQO	Mem Name of Parallelism Coordinator	DB2XCQO	QWDAXCQO	X	X	X	X
DSPZRLMT	No. Zero Resource Limit	DSPZRLMT	QTXAFLG1			X	X

The DB2DSU (DB2 User Activity) File

ELEMENT	ELEMENT DESCRIPTION	DICTIONARY MEMBER	RAW ELEMENT	AVAILABLE IN DB2 VERSIONS 8.1	9.1	10.1	11.1
DB2ACE	DB2 Agent Control Element	DB2ACE	QWHSACE	X	X	X	X
DB2ATNM	Active Trace Number Mask	DB2ATNM	QWHSMTN	X	X	X	X
DB2AUTH	Authorization Identifier	DB2AUTH	QWHCAID	X	X	X	X
DB2CONN	Connection Identifier	DB2CONN	QWHCCN	X	X	X	X
DB2CORR	Correlation Identifier	DB2CORR	QWHCCV	X	X	X	X
DB2CPU	DB2 CPU Time	DB2CPU	QWHUCPU	X	X	X	X
DB2CRDNT	CICS/RRSAF/DB Access Network Name	DB2CRDNT	QWHCTOKN				
DB2CRDLU	CICS/RRSAF/DB Access LU Name	DB2CRDLU	QWHCTOKN				
DB2CRDUV	CICS/RRSAF/DB Access Uniqueness Value	DB2CRDUV	QWHCTOKN				
DB2DDFCT	DDF COMMIT Count	DB2DDFCT	QWHSLUCC	X	X	X	X
DB2DSGN	Data Sharing Group Name	DB2DSGN	QWHADSGN	X	X	X	X
DB2DSTSN	Destination Sequence Number	DB2DSTSN	QWHSWSEQ	X	X	X	X
DB2ISEQ	Instrumentation Sequence Number	DB2ISEQ	QWHSISEQ	X	X	X	X
DB2LOCN	DDF Local Location ID	DB2LOCN	QWHSLOCN	X	X	X	X
DB2LUNAM	DB2 Logical Unit Name	DB2LUNAM	QWHSLUNM	X	X	X	X
DB2MEMN	DB2 Member Name	DB2MEMN	QWHAMEMN	X	X	X	X
DB2NETID	Network Identifier	DB2NETID	QWACNID	X	X	X	X
DB2OPID	Original Operator ID	DB2OPID	QWHCOPID	X	X	X	X
DB2PLAN	Plan Name	DB2PLAN	QWHCPLAN	X	X	X	X
DB2RELN	DB2 Release Identifier	DB2RELN	QWHSRELN	X	X	X	X
DB2STCK	DB2 Store Clock At End Event	DB2STCK	QWHSSTCK	X	X	X	X
DSUABORT	ABORT Requests	DB2ABORT	QWACABRT	X	X	X	X
DSUACHG	Change Request Count	DSUACHG	QTXACHG	X	X	X	X
DSUACHUS	Highest CPU 16 Microseconds Used	DSUACHUS	QTXACHUS	X	X	X	X
DSUACLMT	Limit In CPU 16 Microseconds	DSUACLMT	QTXACLMT	X	X	X	X
DSUAFLG	Flag Byte	DSUAFLG	QTXAFLG1	X	X	X	X
DSUAIETM	Class 5 Accum Elapsed Time IFI Calls	DSUAIETM	QIFAAIET	X	X	X	X
DSUAIRLM	Other IRLM Request Count	DSUAIRLM	QTXAIRLM	X	X	X	X
DSUAITTM	Class 5 Accum TCB Time IFI Calls	DSUAITTM	QIFAAITT	X	X	X	X
DSUALDAB	No. ALTER DATABASE Statements	DSUALDAB	QXALDAB	X	X	X	X
DSUALGTM	Class 3 Accum Wait Archive Log Time	DB2ALGTM	QWAXALOG	X	X	X	X
DSUALLTM	DB2 Lock & Latch Time	DB2ALLTM	QWACAWTL	X	X	X	X
DSUALOCK	Lock Request Count	DSUALOCK	QTXALOCK	X	X	X	X
DSUALTIX	ALTER INDEX Statements	DSUALTIX	QXALTIX	X	X	X	X
DSUALTJR	Alter JAR Statements	DB2ALTJR	QXAALTJR		X	X	X
DSUALTMP	Alter Mask / Permission Statements	DB2ALTMP	QXAALTMP			X	X
DSUALTST	ALTER STORAGE GROUP Statements	DSUALTST	QXALTST	X	X	X	X
DSUALTTA	ALTER TABLE Statements	DSUALTTA	QXALTTA	X	X	X	X
DSUALTTS	ALTER TABLESPACE Statements	DSUALTTS	QXALTTS	X	X	X	X
DSUALTTX	Alter Trusted Context Statements	DB2ALTTX	QXALTCTX		X	X	X
DSUALTVW	Alter View Statements	DB2ALTVW	QXALTVW		X	X	X
DSUAMBTM	Class 5 Accum Elapsed Time Data Capture	DSUAMBTM	QIFAAIET	X	X	X	X
DSUAMLTM	Class 5 Accum Elapsed Time Log Records	DSUAMLTM	QIFAAIET	X	X	X	X
DSUANDD	No. Data Descriptions Returned	DSUANDD	QIFAANDD	X	X	X	X
DSUANDR	No. Data Rows Returned	DSUANDR	QIFAANDR	X	X	X	X
DSUANIF	No. Entry/Exit Events Class 5	DSUANIF	QIFAANIF	X	X	X	X
DSUANMB	No. Data Capture Describes Performed	DSUANMB	QIFAANMB	X	X	X	X
DSUANRC	No. Log Records Captured	DSUANRC	QIFAANRC	X	X	X	X
DSUANRR	No. Log Records Returned to Caller	DSUANRR	QIFAANRR	X	X	X	X
DSUANTB	No. Data Capture Tables	DSUANTB	QIFAANTB	X	X	X	X
DSUAPPL	Client Application Name	DSUAPPL	QMDAAPPL	X	X	X	X
DSUAPREC	How Limit Was Determined	DSUAPREC	QTXAPREC	X	X	X	X
DSUAQRY	Query Request Count	DSUAQRY	QTXAQRY	X	X	X	X
DSUARLH	Wait Trace Events Latch Contention	DB2ARLH	QWACARLH			X	X
DSUARLCT	No. Archive Log Suspensions	DB2ARLCT	QWAXALCT	X	X	X	X
DSUARLID	Resource Limit Table ID	DSUARLID	QTXARLID	X	X	X	X

DSUARREX	No. Parallel Grps Back to Seq Mode	DB2ARREX	QXSTARRAY_EXPANSIONS				X
DSUASLAT	Suspend Count - Latch Conflict	DSUASLAT	QTXASLAT	X	X	X	X
DSUASLMT	Limit In SU's - ASUTIME	DSUASLMT	QTXASLMT	X	X	X	X
DSUASOTH	Suspend Count - Other Conflict	DSUASOTH	QTXASOTH	X	X	X	X
DSUATID	Client Authid	DSUATID	QMDAATID	X	X	X	X
DSUATCNT	No. Autonomous Procedures Executed	DB2ATCNT	QWAC_AT_COUNT				X
DSUATWAT	Autonomous Procedure Wait Time	DB2ATWAT	QWAC_AT_WAIT				X
DSUAUNLK	Unlock Request Count	DSUAUNLK	QTXAUNLK	X	X	X	X
DSUAWATM	Class 3 Accum Wait Log Reads Time	DB2AWATM	QWAXAWAR	X	X	X	X
DSUAWBTM	Wait Time - TCP/IP LOB Material	DB2AWBTM	QWACALBW		X	X	X
DSUAWCTM	Class 3 Accum Wait Drain Wait Time	DB2AWCTM	QWAXAWCL	X	X	X	X
DSUAWDTM	Class 3 Accum Wait Drain Lock Time	DB2AWDTM	QWAXAWDR	X	X	X	X
DSUAWETM	Class 3 Accum Wait Service Task Time	DB2AWETM	QWACAWTE	X	X	X	X
DSUAWGTM	Accum Wait Time Data Sharing Messages	DB2AWGTM	QWACAWTG	X	X	X	X
DSUAWJTM	Accum Wait Time Global Locks	DB2AWJTM	QWACAWTJ	X	X	X	X
DSUAWLTM	Accum Wait Time - Latch Contention	DB2AWLTM	QWACAWTE			X	X
DSUAWPTM	Class 3 Accum Wait Latch Contention	DB2AWPTM	QWACAWTP	X	X	X	X
DSUAWRTM	Class 3 Accum Wait Read Other Time	DB2AWRTM	QWACAWTR	X	X	X	X
DSUAWWTM	Class 3 Accum Wait Write Other Time	DB2AWWTM	QWACAWTW	X	X	X	X
DSUBEGSC	Beginning Store Clock	DSUBEGSC	QWACBSC	X	X	X	X
DSUBGTCB	Beginning TCB Timer	DSUBGTCB	QWACBJST	X	X	X	X
DSUBPNX	Parallel Groups Run Cross Data Share	DB2BPNX	QXXCBPNX	X	X	X	X
DSUAACC	No. Wait Trace Events Req to IDAA	DB2AACC	QWACAACC				X
DSUAACW	Wait Time for Requests to IDAA	DB2AACW	QWACAACW				X
DSUCANM	No. Times SQL Call Wait for TCB	DB2CANM	QWACCANM	X	X	X	X
DSUCATYP	Connecting System Type Code	DSUCATYP	QWHCATYP	X	X	X	X
DSUCIMW0	No. of Immed. Sync Write I/O Buffer BP0	DB2CIMWX	QBACIMW	X	X	X	X
DSUCIMW1	No. of Immed. Sync Write I/O Buffer BP1	DB2CIMWX	QBACIMW	X	X	X	X
DSUCIMW2	No. of Immed. Sync Write I/O Buffer BP2	DB2CIMWX	QBACIMW	X	X	X	X
DSUCIMW3	No. of Immed. Sync Write I/O Buffer BP3	DB2CIMWX	QBACIMW	X	X	X	X
DSUCLOSE	CLOSE Statements	DSUCLOSE	QXCLOSE	X	X	X	X
DSUCLRAB	No. Log Record Bytes Written	DB2CLRAB	QWACLRAB	X	X	X	X
DSUCLRN	No. Log Records Written	DB2CLRN	QWACLRN	X	X	X	X
DSUCLS2	No. Accounting Class 2 Data	DSUCLS2	QWACFLGS				
DSUCLS2C	No. Accounting Class 2 Data Collected	DSUCLS2C	QWACFLGS				
DSUCLS3	No. Accounting Class 3 Data	DSUCLS3	QWACFLGS				
DSUCLS3C	No. Accounting Class 3 Data Collected	DSUCLS3C	QWACFLGS				
DSUCLS7C	No. Accounting Class 7 Data Collected	DSUCLS7C	QWACFLGS				
DSUCLS8C	No. Accounting Class 8 Data Collected	DSUCLS8C	QWACFLGS				
DSUCOMM2	Commit Phase Two Invocations	DB2COMM2	QWACCOMM	X	X	X	X
DSUCPLK	Change Requests for Physical Locks	DSUCPLK	QTGACPLK	X	X	X	X
DSUCPUZ1	Accum CPU Tm Used on z/OS Spec Eng	DB2CPUZ1	QWACCLS1_ZIIP	X	X	X	X
DSUCPUZ2	CPU Tm Used in DB2 on z/OS Spec Eng	DB2CPUZ2	QWACCLS2_ZIIP	X	X	X	X
DSUCRAL	Create Alias	DSUCRAL	QXCRALS	X	X	X	X
DSUCRCTX	Create Trusted Context Statements	DB2CRCTX	QXCRCTX		X	X	X
DSUCRDAB	CREATE DATABASE Statements	DSUCRDAB	QXCRDAB	X	X	X	X
DSUCREMP	Create Mask / Permission Statements	DB2CREMP	QXCREMP			X	X
DSUCRINX	CREATE INDEX Statements	DSUCRINX	QXCRINX	X	X	X	X
DSUCRROL	Create Role Statements	DB2CRROL	QXCRROL		X	X	X
DSUCRSTG	CREATE STORAGE GROUP Statements	DSUCRSTG	QXCRSTG	X	X	X	X
DSUCRSYN	CREATE SYNONYM Statements	DSUCRSYN	QXCRSYN	X	X	X	X
DSUCRTAB	CREATE TABLE Statements	DSUCRTAB	QXCRTAB	X	X	X	X
DSUCRTSV	Create Variable Statements	DB2CRTSV	QXCRTSV				X
DSUCSLM	Change Requests Propagated to XES	DSUCSLM	QTGACSLM	X	X	X	X
DSUCTABS	CREATE TABLESPACE Statements	DSUCTABS	QXCTABS	X	X	X	X
DSUCUDNE	No. SQL Entry/exit UDF Events	DB2CUDNE	QWACUDNE	X	X	X	X
DSUCWLD	Times Duplicate Concentrate Dyna Stmnts	DB2CWLD	QXSTCWLD			X	X
DSUCWLM	Times Matched Concentrate Dyna Stmnts	DB2CWLM	QXSTCWLM			X	X
DSUCWLP	Times Parsed Concentrate Dyna Stmnts	DB2CWLP	QXSTCWLP			X	X
DSUCWLR	Times Replaced Concentrate Dyna Stmnts	DB2CWLR	QXSTCWLR			X	X
DSUDEAD	Deadlock Count	DSUDEAD	QTXADEA	X	X	X	X
DSUDEFVU	CREATE VIEW Statements	DSUDEFVU	QXDEFVU	X	X	X	X
DSUDEGAT	No. Parallel Grps Back to Seq Mode	DB2DEGAT	QXDEGAT				X
DSUDELET	DELETE Statements	DSUDELET	QXDELET	X	X	X	X
DSUDESC	DESCRIBE Statements	DSUDESC	QXDESC	X	X	X	X
DSUDGBUF	Total Number of Parallel Groups That	DB2DGBUF	QXDEGBUF	X	X	X	X
DSUDGCUR	Parallel Groups to Seq Cursor Update	DB2DGCUR	QXDEGCUR	X	X	X	X
DSUDGESA	Parallel Groups to Seq No ESA Sort	DB2DGESA	QXDEGESA	X	X	X	X
DSUDGNGP	No. Parallel Grp Degenerated Sys Stress	DB2DGNGP	QXSTODGNGRP				X
DSUDPF0	No. Times Dynamic Prefetch Req BP0	DB2DPFX	QBACDPF	X	X	X	X
DSUDPF1	No. Times Dynamic Prefetch Req BP1	DB2DPFX	QBACDPF	X	X	X	X
DSUDPF2	No. Times Dynamic Prefetch Req BP2	DB2DPFX	QBACDPF	X	X	X	X
DSUDPF3	No. Times Dynamic Prefetch Req BP3	DB2DPFX	QBACDPF	X	X	X	X

DSUDRAL	Drop Alias	DSUDRAL	QXDRPAL	X	X	X	X
DSUDRPDB	DROP DATABASE Statements	DSUDRPDB	QXDRPDB	X	X	X	X
DSUDRPIX	DROP INDEX Statements	DSUDRPIX	QXDRPIX	X	X	X	X
DSUDRPKG	No. DROP PACKAGE Statements	DSUDRPKG	QXDRPPKG	X	X	X	X
DSUDRPMP	Drop Mask / Permission Statements	DB2DRPMP	QXDRPMP			X	X
DSUDRPRO	Drop Role Statements	DB2DRPRO	QXDRPROL		X	X	X
DSUDRPST	DROP STORAGE GROUP Statements	DSUDRPST	QXDRPST	X	X	X	X
DSUDRPSV	Drop Variable Statements	DB2DRPSV	QXDRPSV				X
DSUDRPSY	DROP SYNONYM Statements	DSUDRPSY	QXDRPSY	X	X	X	X
DSUDRPTA	DROP TABLE Statements	DSUDRPTA	QXDRPTA	X	X	X	X
DSUDRPTS	DROP TABLESPACE Statements	DSUDRPTS	QXDRPTS	X	X	X	X
DSUDRPTX	Drop Trusted Context Statements	DB2DRPTX	QXDRPCTX		X	X	X
DSUDRPVU	DROP VIEW Statements	DSUDRPVU	QXDRPVU	X	X	X	X
DSUDRTA	Global Requests Denied	DSUDRTA	QTGADRTA	X	X	X	X
DSUDSCRT	No. DESCRIBE TABLE Statements	DSUDSCRT	QXDSCRTB	X	X	X	X
DSUDSNS	No. Wait Trace Events - Dataspace Mgr	DB2DSNS	QWAXDSNS	X	X	X	X
DSUDSSTM	Accum Wait Time Dataspace Manager	DB2DSSTM	QWAXDSSE	X	X	X	X
DSUDSTSN	Destination Sequence Number	DB2DSTSN	QWHSWSEQ	X	X	X	X
DSUEGENC	Parallel Groups Executed Sequential	DB2EGENC	QXDEGENC	X	X		
DSUELGZP	Accumulated CPU Time zIIP-Eligible Work	DB2ELGZP	QWACZIIP_ELIGIBLE	X	X		
DSUENDSC	Ending Store Clock	DSUENDSC	QWACESC	X	X	X	X
DSUENTCB	Ending TCB Timer	DSUENTCB	QWACEJST	X	X	X	X
DSUENTEX	Number of Entry/Exit Events Processed	DB2ENTEX	QWACARNA	X	X	X	X
DSUET2TM	Elapsed Time in DB2	DB2ET2TM	QWACASC	X	X	X	X
DSUEUTX	End User Transaction Name	DSUEUTX	QWHCEUTX	X	X	X	X
DSUEUWN	End User Workstation Name	DSUEUWN	QWHCEUWN	X	X	X	X
DSUFCCT	No. Wait Trace Events - Force-At-Commit	DB2FCCT	QWAXFCCT	X	X	X	X
DSUFETCH	Number of FETCH Statements	DSUFETCH	QXFETCH	X	X	X	X
DSUFLGS	Accounting Class Flags	DSUFLGS	QWACFLGS	X	X	X	X
DSUFLSE	No. of False Contentions	DSUFLSE	QTGAFLSE	X	X	X	X
DSUFRIDS	Times RID List Overflowed RID Storage	DB2FRIDS	QXWFRIDS			X	X
DSUFRIDT	Times RID List Overflowed RID Exceeded	DB2FRIDT	QXWFRIDT			X	X
DSUGPGR0	GETPAGE Requests BP0	DB2GPGRX	QBACGET	X	X	X	X
DSUGPGR1	GETPAGE Requests BP1	DB2GPGRX	QBACGET	X	X	X	X
DSUGPGR2	GETPAGE Requests BP2	DB2GPGRX	QBACGET	X	X	X	X
DSUGPGR3	GETPAGE Requests BP3	DB2GPGRX	QBACGET	X	X	X	X
DSUGRANT	GRANT Statements	DSUGRANT	QXGRANT	X	X	X	X
DSUIGLO	Suspends Due to IRLM Global Contention	DSUIGLO	QTGAIGLO	X	X	X	X
DSUINCRB	Incremental Binds	DSUINCRB	QXINCRB	X	X	X	X
DSUINSRT	INSERT Statements	DSUINSRT	QXINSRT	X	X	X	X
DSUIOETM	Accumulated I/O Elapsed Wait Time in DB2	DB2IOETM	QWACAWTI	X	X	X	X
DSUISEQ	Instrumentation Sequence Number	DB2ISEQ	QWHSISEQ	X	X	X	X
DSUISTOR	No. Sparse Index Disabled Insf Stg	DB2ISTOR	QXSISTOR				X
DSUIWF	No. Sparse Index Built Phys WF Probe	DB2IWF	QXSIWF				X
DSUIXLE	No. Wait Trace Events - Async IXLCACHE	DB2IXLE	QWAXIXLE	X	X	X	X
DSUIXLTM	Total Wait Time IXLCACHE/FCOMP Asynch	DB2IXLTM	QWAXIXLT	X	X	X	X
DSUJINCS	Times RID List Append RID Storage	DB2JINCS	QXHJINCS			X	X
DSUJINCT	Times RID List Append RID Exceeded	DB2JINCT	QXHJINCT			X	X
DSULABEL	Number of LABEL ON Statements	DSULABEL	QXLABON	X	X	X	X
DSULEEM	Number of Lock Escalations to Exclusive	DSULEEM	QTXALEX	X	X	X	X
DSULESM	Number of Lock Escalations to Shared	DSULESM	QTXALES	X	X	X	X
DSULOCK	LOCK TABLE Statements	DSULOCK	QXLOCK	X	X	X	X
DSULPF0	No. List Prefetch Requested BP0	DB2LPFX	QBACLPF	X	X	X	X
DSULPF1	No. List Prefetch Requested BP1	DB2LPFX	QBACLPF	X	X	X	X
DSULPF2	No. List Prefetch Requested BP2	DB2LPFX	QBACLPF	X	X	X	X
DSULPF3	No. List Prefetch Requested BP3	DB2LPFX	QBACLPF	X	X	X	X
DSULPLK	Lock Requests for Physical Locks	DSULPLK	QTGALPLK	X	X	X	X
DSULSLM	Lock Requests Propagated to XES	DSULSLM	QTGALSLM	X	X	X	X
DSUMERGE	Merge Statements	DB2MERGE	QXMERGE		X	X	X
DSUMIOTM	Max I/O Elapsed Wait Time in DB2	DSUMIOTM	QWACAWTI	X	X	X	X
DSUMIXNL	Mult Indx Not Used - RID Limit	DSUMIXNL	QXMRMIAP	X	X	X	X
DSUMIXNU	Mult Indx Not Used - No Storage	DSUMIXNU	QXNSMIAP	X	X	X	X
DSUMIXU	Multiple Index Path Used	DSUMIXU	QXMIAP	X	X	X	X
DSUMMXPL	Max Max. No. Page Locks Held	DSUMMXPL	QTXANPL	X	X	X	X
DSUMXDEG	Max Degree of Parallelism	DB2MXDEG	QXMAXDEG	X	X	X	X
DSUMXEST	Max Parallel Grp Estimated Degree	DB2MXEST	QXMAXESTIDG				X
DSUMXPL	Maximum Number of Page Locks Held	DSUMXPL	QTXANPL	X	X	X	X
DSUMXPLN	Max Parallel Grp Planned Degree	DB2MXPLN	QXMAXPLANDG				X
DSUNATHD	Count of ACCUMACC Roll-up Threads	DSUNATHD	QWACPCNT	X	X	X	X
DSUNETID	Network Identifier	DSUNETID	QWACNID	X	X	X	X
DSUNFLMT	No. Infinite Resource Limit	DSUNFLMT	QTXAFLG1				
DSUNGT0	No. Time GETPAGE Req Not Satisfied BP0	DB2NGTX	QBACNGT	X	X	X	X
DSUNGT1	No. Time GETPAGE Req Not Satisfied BP1	DB2NGTX	QBACNGT	X	X	X	X
DSUNGT2	No. Time GETPAGE Req Not Satisfied BP2	DB2NGTX	QBACNGT	X	X	X	X

DSUNGT3	No. Time GETPAGE Req Not Satisfied BP3	DB2NGTX	QBACNGT	X	X	X	X	
DSUNOGRP	Total Number of Parallel Groups That	DB2NOGRP	QXNORGRP	X	X	X	X	
DSUNTFY	Notify Messages Sent	DSUNTFY	QTGANTFY	X	X	X	X	
DSUOCNS	No. Wait Trace Events - Open/Close/HSM	DB2OCNS	QWAXOCNS	X	X	X	X	
DSUOCSTM	Accum Wait Time Open/Close/HSM	DB2OCSTM	QWAXOCSE	X	X	X	X	
DSUOPEN	OPEN Statements	DSUOPEN	QXOPEN	X	X	X	X	
DSUOPID	Original Operator ID	DB2OPID	QWHCOPID	X	X	X	X	
DSUORNO	Parallel Groups Executed Coordination	DB2ORNO	QXCOORNO	X	X	X	X	
DSUORR	Parallel Groups Executed Repeat-read	DB2ORR	QXISORR	X	X	X	X	
DSUOTNS	No. Wait Trace Events - Other Services	DB2OTNS	QWAXOTNS	X	X	X	X	
DSUOTSTM	Accum Wait Time Other DB2 Services	DB2OTSTM	QWAXOTSE	X	X	X	X	
DSUPACE	Parallel Task Token	DSUPACE	QWACPACE	X	X	X	X	
DSUPARQR	No. Parallel Query Rollup Records	DB2PARQR	QWACFLGS2			X	X	
DSUPARR	No. Rollup Data	DSUPARR	QWACFLGS	X	X	X	X	
DSUPCAGT	No. Parallel Child Agent Tasks Rolled	DB2PCAGT	QWAC_PT_COUNT			X	X	
DSUPCNT	No. Parallel Tasks Created	DB2PCNT	QWACPCNT	X	X	X	X	
DSUPCWDP	Duplicate Per Parsed Dyna Stmnts	DB2PCWDP				X	X	
DSUPCWMP	Matched Per Parsed Dyna Stmnts	DB2PCWMP				X	X	
DSUPCWRP	Replaced Per Parsed Dyna Stmnts	DB2PCWRP				X	X	
DSUPEDTM	Accum CPU Proc SQL Prior Enclave	DB2PEDTM	QWACPECD	X				
DSUPETTM	Accum TCB Prior Enclave Create	DB2PETTM	QWACPECT	X				
DSUPGDTT	Parallel GPS Using UDF - Ex. Single DB2	DB2PGDTT	QXDEGDTT	X	X	X	X	
DSUPKGN	No. Packages or DBRMs	DB2PKGN	QWACPKGN	X	X	X	X	
DSUPLAN	Plan Name	DB2PLAN	QWHCPLAN	X	X	X	X	
DSUPLAT	Client Platform	DSUPLAT	QMDAPLAT	X	X	X	X	
DSUPQSCT	No. Parallel Query WT Prnt/Chld Sync	DB2PQSCT	QWAC_PQS_COUNT				X	
DSUPQSWT	Parent Child Task Sync Wait Time	DB2PQSWT	QWAC_PQS_WAIT				X	
DSUPREP	PREPARE Statements	DSUPREP	QXPREP	X	X	X	X	
DSUPRFH0	PREFETCH Read Requests Buffer BP0	DB2PRFHX	QBACSEQ	X	X	X	X	
DSUPRFH1	PREFETCH Read Requests Buffer BP1	DB2PRFHX	QBACSEQ	X	X	X	X	
DSUPRFH2	PREFETCH Read Requests Buffer BP2	DB2PRFHX	QBACSEQ	X	X	X	X	
DSUPRFH3	PREFETCH Read Requests Buffer BP3	DB2PRFHX	QBACSEQ	X	X	X	X	
DSUPROPT	Max Parallel Grp Degenerated Opt	DB2PROPT	QXPAROPT				X	
DSURBSV	No. SQL Rollback to Savepoint Stmts	DB2RBSV	QWACRBSV	X	X	X	X	
DSURDGRP	Total Number of Parallel Groups That	DB2RDGRP	QXREDGRP	X	X	X	X	
DSURDLTD	Deleted Rows	DB2RDLTD	QXRWSDELETD	X	X			
DSUREDGP	No. Parallel Grp Reduced Sys Stress	DB2REDGP	QXSTOREDGRP				X	
DSUREVOK	REVOKE Statements	DSUREVOK	QXREVOK	X	X			
DSURFCHD	Fetched Rows	DB2RFCHD	QXRWSFETCHD	X	X			
DSURLSV	No. SQL Release Savepoint Statements	DB2RLSV	QWACRLSV	X	X	X	X	
DSURMID	DB2 Resource Manager Identifier	DB2RMID	QWHSRMID	X	X			
DSURNIX	Rename Index Statements	DB2RNIX	QXRNIX		X	X	X	
DSURNKCL	No. Wait Trace Glbl Cont. Child LLock	DB2RNKCL	QWACARNK	X	X	X	X	
DSURNMOL	No. Wait Trace Glbl Cont. Other LLock	DB2RNMOL	QWACARNM	X	X	X	X	
DSURNNPL	No. Wait Trace Glbl Cont. PP PLock	DB2RNNPL	QWACARNN	X	X	X	X	
DSURNOPL	No. Wait Trace Glbl Cont. PG PLock	DB2RNOPL	QWACARNO	X	X	X	X	
DSURNQOL	No. Wait Trace Glbl Cont. Other PLock	DB2RNQOL	QWACARNQ	X	X	X	X	
DSURNSTD	Inserted Rows	DB2RNSTD	QXRWSINSRTD	X	X			
DSURPOP1	Parallel GPS Reformatted - Sysplex Conf	DB2RPOP1	QXREPOP1	X	X			
DSURPOP2	Parallel GPS Reformatted - Buffer Resrc	DB2RPOP2	QXREPOP2	X	X			
DSURUDTD	Updated Rows	DB2RUDTD	QXRWSUPDTD	X	X			
DSUSDG	Total Unregister Pages Requests	DB2SDG	QBGADG	X	X	X	X	
DSUSELCT	Number of SELECT Statements	DSUSELCT	QXSELECT	X	X	X	X	
DSUSETHV	No. SET HOST-VAR Statements	DSUSETHV	QXSETHV	X	X	X	X	
DSUSEX	Total Explicit XIs	DB2SEX	QBGAEX	X	X	X	X	
DSUSGG	Total GETPAGEs for GBP-Dep Pagesets	DB2SGG	QBGAGG	X	X	X	X	
DSUSGLO	Suspends Due to XES Global Contention	DSUSGLO	QTGASGLO	X	X	X	X	
DSUSHS	Total Asynch IXLCACHE for Prim GBP	DB2SHS	QBGAHS	X	X	X	X	
DSUSIO0	Number of Sync Read I/Os Issued	DB2SIOX	QBSTSIO	X	X	X	X	
DSUSIO1	Number of Sync Read I/Os Issued	DB2SIOX	QBSTSIO	X	X	X	X	
DSUSIO2	Number of Sync Read I/Os Issued	DB2SIOX	QBSTSIO	X	X	X	X	
DSUSIO3	Number of Sync Read I/Os Issued	DB2SIOX	QBSTSIO	X	X	X	X	
DSUSKIP	Parallel Coordination Bypass DB2	DB2SKIP	QXXCSKIP	X	X	X	X	
DSUSLNS	No. Wait Trace Events - SYSLGRNG	DB2SLNS	QWAXSLNS	X	X	X	X	
DSUSLSTM	Accum Wait Time SYSLGRNG	DB2SLSTM	QWAXSLSE	X	X	X	X	
DSUSMD	Total CF Reads Data Returned	DSUSMD	QBGAMD	X	X	X	X	
DSUSMIAP	Times RID List Retrieval Skipped	DB2SMIAP	QXRSMIAP			X	X	
DSUSMN	Total CF Reads Data Not Ret. No Entry	DSUSMN	QBGAMN	X	X	X	X	
DSUSMR	Total CF Reads Data Not Returned Entry	DSUSMR	QBGAMR	X	X	X	X	
DSUSPATM	Total Elapsed Time Stored Procedures	DB2SPATM	QWACSPEA	X	X	X	X	
DSUSPBTM	Total Elapsed Time in DB2 Stored Proc.	DB2SPBTM	QWACSPEB	X	X	X	X	
DSUSPCTM	Accum CPU Time SQL Procedures Main Unit	DB2SPCTM	QWACSPNF_CP		X	X	X	
DSUSPETM	Total Elapsed Time Wait for TCB	DB2SPETM	QWACCAST	X	X	X	X	
DSUSPNE	SQL Events by Stored Procs	DB2SPNE	QWACSPNE	X	X	X	X	

DSUSPPTM	CPU Time Stored Proc Address Space	DB2SPPTM	QWACSPCP	X	X	X	X
DSUSPRU0	System Page Record Update BP0	DB2SPRUX	QBACSWS	X	X	X	X
DSUSPRU1	System Page Record Update BP1	DB2SPRUX	QBACSWS	X	X	X	X
DSUSPRU2	System Page Record Update BP2	DB2SPRUX	QBACSWS	X	X	X	X
DSUSPRU3	System Page Record Update BP3	DB2SPRUX	QBACSWS	X	X	X	X
DSUSPZET	Total Elapsed Time on zIIP Stored Proc.	DB2SPZET	QWACSPNF_ELAP		X	X	X
DSUSPZTM	CPU Tm Exec Strd Proc on z/OS Spec Eng	DB2SPZTM	QWACSPNF_CP		X	X	X
DSUSP1	P-Lock Lock Requests-Space Map Pages1	DB2SP1	QBGAP1	X	X	X	X
DSUSP2	P-Lock Lock Requests-Data Pages2	DB2SP2	QBGAP2	X	X	X	X
DSUSP2TM	Accum CPU Time in DB2 Stored Proc.	DB2SP2TM	QWACSPTT	X	X	X	X
DSUSP3	P-Lock Lock Requests-Index Leaf Pages3	DB2SP3	QBGAP3	X	X	X	X
DSUSPSE1	Accum CPU Tm Exec SP on z/OS Spec Eng	DB2SPSE1	QWACSP_CLS1se		X	X	X
DSUSPSE2	CPU Tm in DB2 Exec SP on z/OS Spec Eng	DB2SPSE2	QWACSP_CLS2se		X	X	X
DSUSQLID	No. Of Set Current SQLID	DSUSQLID	QXSETSQL	X	X	X	X
DSUSRIO0	Synchronous Read IOs BP0	DB2SRIOX	QBACRIO	X	X	X	X
DSUSRIO1	Synchronous Read IOs BP1	DB2SRIOX	QBACRIO	X	X	X	X
DSUSRIO2	Synchronous Read IOs BP2	DB2SRIOX	QBACRIO	X	X	X	X
DSUSRIO3	Synchronous Read IOs BP3	DB2SRIOX	QBACRIO	X	X	X	X
DSUSSW	Total CF Writes For Changed Pages	DSUSSW	QBGASW	X	X	X	X
DSUSS1	P-Lock Lock Susp. - Space Map Pages 1	DB2SS1	QBGAS1	X	X	X	X
DSUSS2	P-Lock Lock Suspensions - Data Pages 2	DB2SS2	QBGAS2	X	X	X	X
DSUSS3	P-Lock Lock Susp. - Index Leaf Pages 3	DB2SS3	QBGAS3	X	X	X	X
DSUSUCV	Raw SU:CPU-second Conversion Factor	DB2SUCV	QWACSUCV	X	X	X	X
DSUSUFX	DDCS Client Suffix	DSUSUFX	QMDASUFX	X	X	X	X
DSUSUSP	Suspend Count	DSUSUSP	QTXASLOC	X	X	X	X
DSUSU1	P-Lock Unlock Requests1	DB2SU1	QBGAU1	X	X	X	X
DSUSVPT	No. SQL Savepoint Statements	DB2SVPT	QWACSVPT	X	X	X	X
DSUSWC	Total CF Writes For Clean Pages	DSUSWC	QBGAWC	X	X	X	X
DSUSWM	Total Write and Register Multiple Reqs	DB2SWM	QBGAWM	X	X	X	X
DSUSWS	Total Write and Register Requests	DB2SWS	QBGAWS	X	X	X	X
DSUSXD	Total CF Reads Buffer XI	DSUSXD	QBGAXD	X	X	X	X
DSUS2H	Total Asynch IXLCACHE for 2nd GBP	DB2S2H	QBGA2H	X	X	X	X
DSUS2S	Total Comp Chks 4 Wrts 2nd GBP Suspend	DB2S2S	QBGA2S	X	X	X	X
DSUTC2TM	Class 2 Accumulated TCB Time in DB2	DB2TC2TM	QWACAJST	X	X	X	X
DSUTEETM	Total Elps Tm Exec Trigger Undr Enclave	DB2TEETM	QWACTREE	X	X	X	X
DSUTIMO	Timeout Count	DSUTIMO	QTXATIM	X	X	X	X
DSUDGNGP	No. Parallel Grp Degenerated Sys Stress	DB2DGNGP	QXSTODGNGRP				X
DSUTOGRP	Total Number of Parallel Groups	DB2TOGRP	QXTOTGRP	X	X	X	X
DSUREDGP	No. Parallel Grp Reduced Sys Stress	DB2REDGP	QXSTOREDGRP				X
DSUTRTSE	Accum CPU Tm Exe Trgrs on z/OS Spec Eng	DB2TRTSE	QWACTRTE_se		X	X	X
DSUTRETM	Elapsed Time Executing Control Triggers	DB2TRETM	QWACTRET	X	X	X	X
DSUTRTBL	Truncate Table Statements	DB2TRTBL	QXTRTBL		X	X	X
DSUTRTTM	Accum TCB Time Under Cntl Trigger	DB2TRTTM	QWACTRTT	X	X	X	X
DSUTRTZP	CPU Tm Exec Triggers on z/OS Spec Eng	DB2TRTZP	QWACTRTT_ZIIP	X	X	X	X
DSUTTETM	Total TCB Tm Exec Trigger Undr Enclave	DB2TTETM	QWACTRTE	X	X	X	X
DSUUDATM	Total Elapsed Time UDF	DB2UDATM	QWACUDEA	X	X	X	X
DSUUDBTM	Total Elapsed Time in DB2 UDF	DB2UDBTM	QWACUDEB	X	X	X	X
DSUUDMTM	CPU Time in DB2 Exec Userdef	DB2UDMTM	QWACUDEM	X	X	X	X
DSUUDCTM	Accum CPU Time UDF	DB2UDCTM	QWACUDCP	X	X	X	X
DSUUDMTM	CPU Time in DB2 Exec Userdef	DB2UDMTM	QWACUDCP	X	X	X	X
DSUUDSE1	Accum CPU Tm Exec UDF on z/OS Spec Eng	DB2UDSE1	QWACUDF_CLS1se		X	X	X
DSUUDSE2	CPU Tm in DB2 Exec UDF on z/OS Spec Eng	DB2UDSE2	QWACUDF_CLS2se		X	X	X
DSUUDSTM	Total Elapsed Time UDF Wait for TCB	DB2UDSTM	QWACUDST	X	X	X	X
DSUUDTTM	Accum CPU Time in DB2 UDF	DB2UDTTM	QWACUDTT	X	X	X	X
DSUUDZET	Elapsed Time in DB2 for Userdef	DB2UDZET	QWACUDFNF_ELAP		X	X	X
DSUUDZTM	UDF Spec Eng Time	DB2UDZTM	QWACUDFNF_zIIP		X	X	X
DSUUPDTE	UPDATE Statements	DSUUPDTE	QXUPDTE	X	X	X	X
DSUUPLK	Unlock Requests for Physical Locks	DSUUPLK	QTGAUPLK	X	X	X	X
DSUUSLM	Unlock Requests Propagated to XES	DSUUSLM	QTGAUSLM	X	X	X	X
DSUWATRA	No. Wait Trace Events for Log Reads	DB2WATRA	QWACANAR			X	X
DSUWATRA	No. Wait Trace Events for Log Reads	DSUWATRA	QWAXANAR	X	X	X	X
DSUWATRB	Wt Trace for TCP/IP LOB Material	DB2WATRB	QWACALBC		X	X	X
DSUWATRC	Wait Trace for Claims	DB2WATRC	QWAXARNC	X	X	X	X
DSUWATRD	Wait Trace for Drain Lock	DB2WATRD	QWAXARND	X	X	X	X
DSUWATRG	No. Wait Trace for Global Lock	DB2WATRG	QWACARNJ	X	X	X	X
DSUWATRL	No. Wait Trace Events for Lock/Latch	DB2WATRL	QWACARNL	X	X	X	X
DSUWATRM	No. Wait Trace Events for Data Shr Msgs	DB2WATRM	QWACARNG	X	X	X	X
DSUWATRP	Wait Trace for Latch Contention	DB2WATRP	QWACARNH	X	X	X	X
DSUWATRR	No. Wait Trace Events for Read Other	DB2WATRR	QWACARNR	X	X	X	X
DSUWATRW	No. Wait Trace Events for Write Other	DB2WATRW	QWACARNW	X	X	X	X
DSUWATSE	No. Wait Trace Events for Sync. Exec.	DB2WATSE	QWACARNS	X	X	X	X
DSUWATTR	Number of Wait Trace Events Processed	DB2WATTR	QWACARNE	X	X	X	X
DSUWFCTM	Total Wait Time for Force-At-Commit	DB2WFCTM	QWAXAWFC	X	X	X	X
DSUWLCTM	Glbl Contention Child L-Lock Wait Time	DB2WLCTM	QWACAWTK	X	X	X	X

DSUWGLTM	Glbl Contention PG P-Lock Wait Time	DB2WGLTM	QWACAWTO	X	X	X	X	
DSUWLLTM	Glbl Contention Other L-Locks Wait Time	DB2WLLTM	QWACAWTM	X	X	X	X	
DSUWLPTM	Glbl Contention PP P-Lock Wait Time	DB2WLPTM	QWACAWTN	X	X	X	X	
DSUWTOTM	Glbl Contention Other P-Locks Wait Time	DB2WTOTM	QWACAWTQ	X	X	X	X	
DSUWLGCT	No. Wait Trace Events - Log Write IO	DB2WLGCT	QWACARLG	X	X	X	X	
DSUWLGTM	Accum Wait Time for Log Write IO	DB2WLGTM	QWACAWLG	X	X	X	X	
DSUWLMCL	WLM Service Class Name	DB2WLMCL	QWACWLME	X	X	X	X	
DSUXACPU	IDAA CPU Time	DSUXACPU	Q8ACACPU		X	X	X	
DSUXAWAT	IDAA Wait Time	DB2XAWAT	Q8ACAWAT		X	X	X	
DSUXAELA	IDAA Elapsed time	DB2XAELA	Q8ACAELA		X	X	X	
DSUXBLKR	IDAA Blocks Returned Count	DB2XBLKR	Q8ACBLKR		X	X	X	
DSUXBLKS	IDAA Blocks Sent Count	DB2XBLKS	Q8ACBLKS		X	X	X	
DSUXBYTR	IDAA Bytes Returned Count	DB2XBYTR	Q8ACBYTR		X	X	X	
DSUXBYTS	IDAA Bytes Sent Count	DB2XBYTS	Q8ACBYTS		X	X	X	
DSUXCONN	IDAA Connects Count	DB2XCONN	Q8ACCONN		X	X	X	
DSUXFAIL	IDAA Failed Connection Requests Count	DB2XFAIL	Q8ACFAIL		X	X	X	
DSUXMSGR	IDAA Messages Returned Count	DB2XMSGR	Q8ACMSGR		X	X	X	
DSUXMSGS	IDAA Messages Sent Count	DB2XMSGS	Q8ACMSGS		X	X	X	
DSUXPRID	IDAA Product ID	DB2XPRID	Q8ACPRID		X	X	X	
DSUXREQ	IDAA DRDA Requests Count	DB2XREQ	Q8ACREQ		X	X	X	
DSUXROWR	IDAA Rows Returned Count	DB2XROWR	Q8ACROWR		X	X	X	
DSUXROWS	IDAA Rows Sent Count	DB2XROWS	Q8ACROWS		X	X	X	
DSUXSVNM	IDAA Server Name	DB2XSVNM	Q8ACNAME		X	X	X	
DSUXTCPU	IDAA TCP/IP CPU Time	DSUXTCPU	Q8ACTCPU		X	X	X	
DSUXTELA	IDAA TCP/IP Elapsed Time	DB2XTELA	Q8ACTELA		X	X	X	
DSUXTOUT	IDAA Timed Out Connection Requests	DB2XTOUT	Q8ACTOUT		X	X	X	
DSUZRLMT	No. Zero Resource Limit	DSUZRLMT	QTXAFLG1					

The DB2DSY (DB2 System Activity) File

ELEMENT	ELEMENT DESCRIPTION	DICTIONARY MEMBER	RAW ELEMENT	AVAILABLE IN DB2 VERSIONS 8.1	9.1	10.1	11.1
DB2ATNM	Active Trace Number Mask	DB2ATNM	QWHSMTN	X	X	X	X
DB2DSGN	Data Sharing Group Name	DB2DSGN	QWHADSGN	X	X	X	X
DB2MEMN	DB2 Member Name	DB2MEMN	QWHAMEMN	X	X	X	X
DSYAAQLT	SSSC Allied Agent Queue Latch	DSYAAQLT	QVLSLC10	X	X	X	X
DSYABORT	Successful Aborts	DSYABORT	Q3STABRT	X	X	X	X
DSYACFTQ	ACCUMACC Count: Failure to Qualify	DSYACFTQ	QWSDARIR	X	X	X	X
DSYACSTL	ACCUMACC Count: Staleness	DSYACSTL	QWSDARST	X	X	X	X
DSYACSTR	ACCUMACC Count: Storage Exceeded	DSYACSTR	QWSDARSG	X	X	X	X
DSYACUTR	ACCUMACC Count: Threshold Exceeded	DSYACUTR	QWSDARTH	X	X	X	X
DSYALGCI	Active Log Control Intervals	DSYALGCI	QJSTBFFL	X	X	X	X
DSYALOCD	Allocation Deadlock	DSYALOCD	QVASADDL	X	X	X	X
DSYARLOG	Archive Log Count	DSYARLOG	Q9STCTRM	X	X	X	X
DSYARLRA	Archive Log Read Allocations	DSYARLRA	QJSTALR	X	X	X	X
DSYARLWA	Archive Log Write Allocations	DSYARLWA	QJSTALW	X	X	X	X
DSYASALT	Address Space Active Latch	DSYASALT	QVLSLC27	X	X	X	X
DSYASP0	Start Address Space Procedure	DB2APROC	QWSAPROC	X	X	X	X
DSYASP1	Start Address Space Procedure	DB2APROC	QWSAPROC	X	X	X	X
DSYASP2	Start Address Space Procedure	DB2APROC	QWSAPROC	X	X	X	X
DSYASP3	Start Address Space Procedure	DB2APROC	QWSAPROC	X	X	X	X
DSYASP4	Start Address Space Procedure	DB2APROC	QWSAPROC	X	X	X	X
DSYASP5	Start Address Space Procedure	DB2APROC	QWSAPROC	X	X	X	X
DSYASSLT	Service Queue Latch	DSYASSLT	QVLSLC28	X	X	X	X
DSYAUSRS	Async Unrelated SRBs Scheduled	DSYAUSRS	QVASXAUS	X	X	X	X
DSYAUTCS	Async Unrelated TCBs Scheduled	DSYAUTCS	QVASXAUT	X	X	X	X
DSYBFERA	Count of Buffer Errors n	DSYBFERX	QWSBSBUF	X	X	X	X
DSYBFERB	Count of Buffer Errors n	DSYBFERX	QWSBSBUF	X	X	X	X
DSYBFERC	Count of Buffer Errors n	DSYBFERX	QWSBSBUF	X	X	X	X
DSYBFERD	Count of Buffer Errors n	DSYBFERX	QWSBSBUF	X	X	X	X
DSYBFERE	Count of Buffer Errors n	DSYBFERX	QWSBSBUF	X	X	X	X
DSYBFERF	Count of Buffer Errors n	DSYBFERX	QWSBSBUF		X	X	X
DSYBFER1	Count of Buffer Errors n	DSYBFERX	QWSBSBUF	X	X	X	X
DSYBFER2	Count of Buffer Errors n	DSYBFERX	QWSBSBUF	X	X	X	X
DSYBFER3	Count of Buffer Errors n	DSYBFERX	QWSBSBUF	X	X	X	X
DSYBFER4	Count of Buffer Errors n	DSYBFERX	QWSBSBUF	X	X	X	X
DSYBFER5	Count of Buffer Errors n	DSYBFERX	QWSBSBUF	X	X	X	X
DSYBFER6	Count of Buffer Errors n	DSYBFERX	QWSBSBUF	X	X	X	X
DSYBFER7	Count of Buffer Errors n	DSYBFERX	QWSBSBUF	X	X	X	X
DSYBFER8	Count of Buffer Errors n	DSYBFERX	QWSBSBUF	X	X	X	X
DSYBFER9	Count of Buffer Errors n	DSYBFERX	QWSBSBUF	X	X	X	X
DSYBMELT	Buffer Manager Exclusive Latch	DSYBMELT	QVLSLC14	X	X	X	X
DSYBMSLT	Buffer Manager Shared Latch	DSYBMSLT	QVLSLC13	X	X	X	X
DSYBM2LT	Buffer Manager Exclusive 2 Latch	DSYBM2LT	QVLSLC23	X	X	X	X
DSYBNASA	Buffer-Not-Available Errors	DB2BNAER	QWSCSBNA	X	X	X	X
DSYBNASB	Buffer-Not-Available Errors	DB2BNAER	QWSCSBNA	X	X	X	X
DSYBNASC	Buffer-Not-Available Errors	DB2BNAER	QWSCSBNA	X	X	X	X
DSYBNASE	Buffer-Not-Available Errors	DB2BNAER	QWSCSBNA	X	X	X	X
DSYBNASF	Buffer-Not-Available Errors	DB2BNAER	QWSCSBNA	X	X	X	X
DSYBNASG	Buffer-Not-Available Errors	DB2BNAER	QWSCSBNA	X	X	X	X
DSYBNASH	Buffer-Not-Available Errors	DB2BNAER	QWSCSBNA	X	X	X	X
DSYBNASI	Buffer-Not-Available Errors	DB2BNAER	QWSCSBNA	X	X	X	X
DSYBNASP	Buffer-Not-Available Errors	DB2BNAER	QWSCSBNA	X	X	X	X
DSYBNASS	Buffer-Not-Available Errors	DB2BNAER	QWSCSBNA	X	X	X	X
DSYBNAST	Buffer-Not-Available Errors	DB2BNAER	QWSCSBNA	X	X	X	X
DSYBNASU	Buffer-Not-Available Errors	DB2BNAER	QWSCSBNA	X	X	X	X
DSYBNASX	Buffer-Not-Available Errors	DB2BNAER	QWSCSBNA	X	X	X	X
DSYBPAG	Log Write Buffer Page-ins	DSYBPAG	QJSTBPAG	X	X	X	X

DSYBSDSA	BSDS Accesses	DSYBSDSA	QJSTBSDS	X	X	X	X
DSYCDDD	Data Capture Descriptions Returned	DSYCDDD	QWSDCDDD	X	X	X	X
DSYCDDR	Data Capture Log Rows Returned	DSYCDDR	QWSDCDDR	X	X	X	X
DSYCDLC	Log Records Captured	DSYCDLC	QWSDCDLC	X	X	X	X
DSYCDLR	Data Capture Log Reads Performed	DSYCDLR	QWSDCDLR	X	X	X	X
DSYCDMB	Data Capture Describes Performed	DSYCDMB	QWSDCDMB	X	X	X	X
DSYCDRR	Data Capture Log Records Returned	DSYCDRR	QWSDCDRR	X	X	X	X
DSYCDTB	Data Capture Tables Returned	DSYCDTB	QWSDCDTB	X	X	X	X
DSYCIN2	Current Inactive Connections	DSYCIN2	QDSTCIN2	X	X	X	X
DSYCIWR	Log CI-s Written	DSYCIWR	QJSTCIWR	X	X	X	X
DSYCNAT	Current Active DBATs	DSYCNAT	QDSTCNAT	X	X	X	X
DSYCNINO	Control Intervals Offloaded	DSYCNINO	QJSTCIOF	X	X	X	X
DSYCOLFA	Collection Failures	DB2COLFL	QWSCSCF	X	X	X	X
DSYCOLFB	Collection Failures	DB2COLFL	QWSCSCF	X	X	X	X
DSYCOLFC	Collection Failures	DB2COLFL	QWSCSCF	X	X	X	X
DSYCOLFD	Collection Failures	DB2COLFL	QWSCSCF	X	X	X	X
DSYCOLFE	Collection Failures	DB2COLFL	QWSCSCF	X	X	X	X
DSYCOLFF	Collection Failures	DB2COLFL	QWSCSCF	X	X	X	X
DSYCOLFG	Collection Failures	DB2COLFL	QWSCSCF	X	X	X	X
DSYCOLFH	Collection Failures	DB2COLFL	QWSCSCF	X	X	X	X
DSYCOLFI	Collection Failures	DB2COLFL	QWSCSCF	X	X	X	X
DSYCOLFP	Collection Failures	DB2COLFL	QWSCSCF	X	X	X	X
DSYCOLFS	Collection Failures	DB2COLFL	QWSCSCF	X	X	X	X
DSYCOLFT	Collection Failures	DB2COLFL	QWSCSCF	X	X	X	X
DSYCOLFU	Collection Failures	DB2COLFL	QWSCSCF	X	X	X	X
DSYCOLFX	Collection Failures	DB2COLFL	QWSCSCF	X	X	X	X
DSYCOMM	Successful Commits	DSYCOMM	Q3STCOMM	X	X	X	X
DSYCONEC	Successful Connects to DB2	DSYCONEC	Q3STIDEN	X	X	X	X
DSYCONTR	Contractions Due to Storage	DSYCONTR	QSSTCONT	X	X	X	X
DSYCPTM0	Accumulated CPU Time for Address Space x	DSYCPTMX	QWSAEJST	X	X	X	X
DSYCPTM1	Accumulated CPU Time for Address Space x	DSYCPTMX	QWSASRBT	X	X	X	X
DSYCPTM3	Accumulated CPU Time for Address Space x	DSYCPTMX	QWSASRBT	X	X	X	X
DSYCPTM4	Accumulated CPU Time for Address Space x	DSYCPTMX	QWSASRBT	X	X	X	X
DSYCPTM5	Accumulated CPU Time for Address Space x	DSYCPTMX	QWSASRBT	X	X	X	X
DSYCPUTM	Accumulated CPU Time All ASIDs	DSYCPUTM	QWSAEJST	X	X	X	X
DSYCPUTM	Accumulated CPU Time All ASIDs	DSYCPUTM	QWSASRBT	X	X	X	X
DSYCSTR	Cold Start Connections	DSYCSTR	QDSTCSTR	X	X	X	X
DSYCTHDW	Create Thread Requests Waited	DSYCTHDW	Q3STCTHW	X	X	X	X
DSYCTHRD	Successful Create Threads	DSYCTHRD	Q3STCTHD	X	X	X	X
DSYCWRAL	Calls to Write Active Log	DSYCWRAL	QJSTBFWR	X	X	X	X
DSYDBALT	Database Allocation Control Latch	DSYDBALT	QVLSLC12	X	X	X	X
DSYDDFCN	Cancel DDF Commands	DSYDDFCN	Q9STCTRK	X	X	X	X
DSYDDFSP	Stop DDF Commands	DSYDDFSP	Q9STCTRJ	X	X	X	X
DSYDDFST	START DDF Commands	DSYDDFST	Q9STCTRI	X	X	X	X
DSYDISPT	DISPLAY TRACE Commands	DSYDISPT	Q9STCTRC	X	X	X	X
DSYDMLT	Data Manager Latch	DSYDMLT	QVLSLC26	X	X	X	X
DSYDSCA	Count of IFI Abends	DSYDSCA	QWSDSCA	X	X	X	X
DSYDSCCO	Count of IFI Command Requests	DSYDSCCO	QWSDSCCO	X	X	X	X
DSYDSCRA	Count of IFI Reada Requests	DSYDSCRA	QWSDSCA	X	X	X	X
DSYDSCRS	Count of IFI Reads Requests	DSYDSCRS	QWSDSCRS	X	X	X	X
DSYDSCU	Count of IFI Unrecognized Functions	DSYDSCU	QWSDSCU	X	X	X	X
DSYDSCWR	Count of IFI Write Requests	DSYDSCWR	QWSDSCWR	X	X	X	X
DSYDSPDB	DISPLAY DATABASE Commands	DSYDSPDB	Q9STCTR0	X	X	X	X
DSYDSPLC	DISP LOCATION Commands	DSYDSPLC	Q9STCTRL	X	X	X	X
DSYDSPTH	DISPLAY THREAD Commands	DSYDSPTH	Q9STCTR1	X	X	X	X
DSYDSPUT	DISPLAY UTILITY Commands	DSYDSPUT	Q9STCTR2	X	X	X	X
DSYDSTSN	Destination Sequence Number	DSYDSTSN	QWHSWSEQ	X	X	X	X
DSYEOMEM	End of Memory	DSYEOMEM	Q3STMEOM	X	X	X	X
DSYEOTSK	End of Task	DSYEOTSK	Q3STMEOT	X	X	X	X
DSYEXIT	Successful DSN3EXITs	DSYEXIT	Q3STEXIT	X	X	X	X
DSYFPCRT	Fixed Pools Created	DSYFPCRT	QSSTGPLF	X	X	X	X
DSYFPDEL	Fixed Pools Deallocated	DSYFPDEL	QSSTFPLF	X	X	X	X
DSYFPSGC	Fixed Pool Segments Contracted	DSYFPSGC	QSSTCONF	X	X	X	X
DSYFPSGE	Fixed Pool Segments Expanded	DSYFPSGE	QSSTEXPF	X	X	X	X
DSYFPSGF	Fixed Pool Segments Freed	DSYFPSGF	QSSTFREF	X	X	X	X
DSYFREMN	FREEMAIN Requests	DSYFREMN	QSSTFREM	X	X	X	X
DSYGETMN	GETMAIN Requests	DSYGETMN	QSSTGETM	X	X	X	X
DSYHRBA	High Used Log RBA	DSYHRBA	QWSDLR	X	X	X	
DSYHRBAG	High Used RBA of Log	DSYHRBAG	QWSDLRG				X
DSYHUHCM	Unrecognized Commands	DSYHUHCM	Q9STEROR	X	X	X	X
DSYHWCT	High Water Mark for CTHREAD Threads	DSYHWCT	Q3STHWCT	X	X	X	X
DSYHWIB	High Water Mark for IDBACK Threads	DSYHWIB	Q3STHWIB	X	X	X	X
DSYHWIF	High Water Mark for IDFORE Threads	DSYHWIF	Q3STHWIF	X	X	X	X

DSYIDESA	Instrumentation Destination n	DSYIDESX	QWSBNM	X	X	X	X
DSYIDESB	Instrumentation Destination n	DSYIDESX	QWSBNM	X	X	X	X
DSYIDESC	Instrumentation Destination n	DSYIDESX	QWSBNM	X	X	X	X
DSYIDESE	Instrumentation Destination n	DSYIDESX	QWSBNM	X	X	X	X
DSYIDESF	Instrumentation Destination n	DSYIDESX	QWSBNM		X	X	X
DSYIDES1	Instrumentation Destination n	DSYIDESX	QWSBNM	X	X	X	X
DSYIDES2	Instrumentation Destination n	DSYIDESX	QWSBNM	X	X	X	X
DSYIDES3	Instrumentation Destination n	DSYIDESX	QWSBNM	X	X	X	X
DSYIDES4	Instrumentation Destination n	DSYIDESX	QWSBNM	X	X	X	X
DSYIDES5	Instrumentation Destination n	DSYIDESX	QWSBNM	X	X	X	X
DSYIDES6	Instrumentation Destination n	DSYIDESX	QWSBNM	X	X	X	X
DSYIDES7	Instrumentation Destination n	DSYIDESX	QWSBNM	X	X	X	X
DSYIDES8	Instrumentation Destination n	DSYIDESX	QWSBNM	X	X	X	X
DSYIDES9	Instrumentation Destination n	DSYIDESX	QWSBNM	X	X	X	X
DSYIFCNA	IFC Records Not Written	DB2IFCRN	QWSCSRNW	X	X	X	X
DSYIFCNB	IFC Records Not Written	DB2IFCRN	QWSCSRNW	X	X	X	X
DSYIFCNC	IFC Records Not Written	DB2IFCRN	QWSCSRNW	X	X	X	X
DSYIFCND	IFC Records Not Written	DB2IFCRN	QWSCSRNW	X	X	X	X
DSYIFCNE	IFC Records Not Written	DB2IFCRN	QWSCSRNW	X	X	X	X
DSYIFCNF	IFC Records Not Written	DB2IFCRN	QWSCSRNW	X	X	X	X
DSYIFCNG	IFC Records Not Written	DB2IFCRN	QWSCSRNW	X	X	X	X
DSYIFCNH	IFC Records Not Written	DB2IFCRN	QWSCSRNW	X	X	X	X
DSYIFCNI	IFC Records Not Written	DB2IFCRN	QWSCSRNW	X	X	X	X
DSYIFCNP	IFC Records Not Written	DB2IFCRN	QWSCSRNW	X	X	X	X
DSYIFCNS	IFC Records Not Written	DB2IFCRN	QWSCSRNW	X	X	X	X
DSYIFCNT	IFC Records Not Written	DB2IFCRN	QWSCSRNW	X	X	X	X
DSYIFCNU	IFC Records Not Written	DB2IFCRN	QWSCSRNW	X	X	X	X
DSYIFCNX	IFC Records Not Written	DB2IFCRN	QWSCSRNW	X	X	X	X
DSYIFCSD	IFCID Sequence Number	DB2IFCSN	QWSCISEQ	X	X	X	X
DSYIFCSS	IFCID Sequence Number	DB2IFCSN	QWSCISEQ	X	X	X	X
DSYIFCSU	IFCID Sequence Number	DB2IFCSN	QWSCISEQ	X	X	X	X
DSYIFCSX	IFCID Sequence Number	DB2IFCSN	QWSCISEQ	X	X	X	X
DSYIFCWA	IFC Records Successfully Written	DB2IFCRW	QWSCSRSW	X	X	X	X
DSYIFCWB	IFC Records Successfully Written	DB2IFCRW	QWSCSRSW	X	X	X	X
DSYIFCWC	IFC Records Successfully Written	DB2IFCRW	QWSCSRSW	X	X	X	X
DSYIFCWD	IFC Records Successfully Written	DB2IFCRW	QWSCSRSW	X	X	X	X
DSYIFCWE	IFC Records Successfully Written	DB2IFCRW	QWSCSRSW	X	X	X	X
DSYIFCWF	IFC Records Successfully Written	DB2IFCRW	QWSCSRSW	X	X	X	X
DSYIFCWG	IFC Records Successfully Written	DB2IFCRW	QWSCSRSW	X	X	X	X
DSYIFCWH	IFC Records Successfully Written	DB2IFCRW	QWSCSRSW	X	X	X	X
DSYIFCWI	IFC Records Successfully Written	DB2IFCRW	QWSCSRSW	X	X	X	X
DSYIFCWP	IFC Records Successfully Written	DB2IFCRW	QWSCSRSW	X	X	X	X
DSYIFCWS	IFC Records Successfully Written	DB2IFCRW	QWSCSRSW	X	X	X	X
DSYIFCWT	IFC Records Successfully Written	DB2IFCRW	QWSCSRSW	X	X	X	X
DSYIFCWX	IFC Records Successfully Written	DB2IFCRW	QWSCSRSW	X	X	X	X
DSYINDBT	Number of In Doubt Threads	DSYINDBT	Q3STINDT	X	X	X	X
DSYINSEA	Instrumentation Sequence Count n	DSYINSEX	QWSBWSEQ	X	X	X	X
DSYINSEB	Instrumentation Sequence Count n	DSYINSEX	QWSBWSEQ	X	X	X	X
DSYINSEC	Instrumentation Sequence Count n	DSYINSEX	QWSBWSEQ	X	X	X	X
DSYINSED	Instrumentation Sequence Count n	DSYINSEX	QWSBWSEQ	X	X	X	X
DSYINSEE	Instrumentation Sequence Count n	DSYINSEX	QWSBWSEQ	X	X	X	X
DSYINSEF	Instrumentation Sequence Count n	DSYINSEX	QWSBWSEQ		X	X	X
DSYINSE2	Instrumentation Sequence Count n	DSYINSEX	QWSBWSEQ	X	X	X	X
DSYINSE3	Instrumentation Sequence Count n	DSYINSEX	QWSBWSEQ	X	X	X	X
DSYINSE4	Instrumentation Sequence Count n	DSYINSEX	QWSBWSEQ	X	X	X	X
DSYINSE5	Instrumentation Sequence Count n	DSYINSEX	QWSBWSEQ	X	X	X	X
DSYINSE6	Instrumentation Sequence Count n	DSYINSEX	QWSBWSEQ	X	X	X	X
DSYINSE7	Instrumentation Sequence Count n	DSYINSEX	QWSBWSEQ	X	X	X	X
DSYINSE8	Instrumentation Sequence Count n	DSYINSEX	QWSBWSEQ	X	X	X	X
DSYINSE9	Instrumentation Sequence Count n	DSYINSEX	QWSBWSEQ	X	X	X	X
DSYINVAL	Invalid Resource	DSYINVAL	QVASADIR	X	X	X	X
DSYISEQ	Instrumentation Sequence Number	DSYISEQ	QWHSISEQ	X	X	X	X
DSYITLC	Index Tree Latch Contentions	DSYITLC	QVLSLC254		X	X	X
DSYLAMA	Look Ahead Tape Mounts Attempted	DSYLAMA	QJSTLAMA	X	X	X	X
DSYLAMS	Look Ahead Tape Mounts Performed	DSYLAMS	QJSTLAMS	X	X	X	X
DSYLAT02	Contentions Latch Class 2	DSYLAT02	QVLSLC02	X	X	X	X
DSYLAT03	Contentions Latch Class 3	DSYLAT03	QVLSLC03	X	X	X	X
DSYLAT04	Contentions Latch Class 4	DSYLAT04	QVLSLC04	X	X	X	X
DSYLAT06	Contentions Latch Class 6	DSYLAT06	QVLSLC06	X	X	X	X
DSYLAT07	Contentions Latch Class 7	DSYLAT07	QVLSLC07	X	X	X	X
DSYLAT08	Contentions Latch Class 8	DSYLAT08	QVLSLC08	X	X	X	X
DSYLAT09	Contentions Latch Class 9	DSYLAT09	QVLSLC09	X	X	X	X
DSYLAT18	Contentions Latch Class 18	DSYLAT18	QVLSLC18	X	X	X	X
DSYLAT20	Contentions Latch Class 20	DSYLAT20	QVLSLC20	X	X	X	X

DSYLAT22	Contentions Latch Class 22	DSYLAT22	QVLSLC22	X	X	X	X
DSYLAT24	Contentions Latch Class 24	DSYLAT24	QVLSLC24	X	X	X	X
DSYLAT29	Contentions Latch Class 29	DSYLAT29	QVLSLC29	X	X	X	X
DSYLBALT	Log BSDS Access Latch	DSYLBALT	QVLSLC21	X	X	X	X
DSYLGWLT	Log Write Function Latch	DSYLGWLT	QVLSLC19	X	X	X	X
DSYLOGW	Log Write I/O Requests	DSYLOGW	QJSTLOGW	X	X	X	X
DSYLSUS	Log Req Suspended for log wait	DSYLSUS	QJSTLSUS	X	X	X	X
DSYLWRF	Log Write Requests FORCE	DSYLWRF	QJSTWRF	X	X	X	X
DSYLWRNW	Log Write Requests NOWAIT	DSYLWRNW	QJSTWRNW	X	X	X	X
DSYLWRW	Log Write Requests Wait	DSYLWRW	QJSTWRW	X	X	X	X
DSYMARD	Max Currently Active DBAT Pkgs Bound	DSYMARD	QDSTMARD			X	X
DSYMHLT	Data Manager Hash Tables Latch	DSYMHLT	QVLSLC25	X	X	X	X
DSYMHWAT	Active DBATs High Water Mark	DSYMHWAT	QDSTHWAT	X	X	X	X
DSYMHWDT	Remote Connections High Water Mark	DSYMHWDT	QDSTHWDT	X	X	X	X
DSYMMADS	DBATs Not In Use High Water Mark	DSYMMADS	QDSTMADS	X	X	X	X
DSYMMIN2	Inactive Connections High Water Mark	DSYMMIN2	QDSTMIN2	X	X	X	X
DSYMMQR2	Inactive Connections Queued HWM	DSYMMQR2	QDSTMQR2	X	X	X	X
DSYMQMIT	Inactive DBATs High Water Mark	DSYMQMIT	QDSTQMIT	X	X	X	X
DSYNADS	Current DBATs Not In Use	DSYNADS	QDSTNADS	X	X	X	X
DSYNAERA	Count of Not-Active Errors n	DSYNAERX	QWSBSACT	X	X	X	X
DSYNAERC	Count of Not-Active Errors n	DSYNAERX	QWSBSACT	X	X	X	X
DSYNAERD	Count of Not-Active Errors n	DSYNAERX	QWSBSACT	X	X	X	X
DSYNAERE	Count of Not-Active Errors n	DSYNAERX	QWSBSACT	X	X	X	X
DSYNAERF	Count of Not-Active Errors n	DSYNAERX	QWSBSACT		X	X	X
DSYNAER1	Count of Not-Active Errors n	DSYNAERX	QWSBSACT	X	X	X	X
DSYNAER2	Count of Not-Active Errors n	DSYNAERX	QWSBSACT	X	X	X	X
DSYNAER3	Count of Not-Active Errors n	DSYNAERX	QWSBSACT	X	X	X	X
DSYNAER4	Count of Not-Active Errors n	DSYNAERX	QWSBSACT	X	X	X	X
DSYNAER5	Count of Not-Active Errors n	DSYNAERX	QWSBSACT	X	X	X	X
DSYNAER6	Count of Not-Active Errors n	DSYNAERX	QWSBSACT	X	X	X	X
DSYNAER7	Count of Not-Active Errors n	DSYNAERX	QWSBSACT	X	X	X	X
DSYNAER8	Count of Not-Active Errors n	DSYNAERX	QWSBSACT	X	X	X	X
DSYNAER9	Count of Not-Active Errors n	DSYNAERX	QWSBSACT	X	X	X	X
DSYNARD	Currently Active DBAT Pkgs Bound	DSYNARD	QDSTNARD			X	X
DSYNCCW	Client Conn Closed Max Time for DBAT	DSYNCCW	QWSTNCCW				X
DSYNCKPT	Number of DB2 Checkpoints Taken	DSYNCKPT	QWSDCKPT	X	X	X	X
DSYNCQC	Client Conn Closed MAXDBAT Reached	DSYNCQC	QWSTNCQC				X
DSYNDBA	DBATs Created	DSYNDBA	QDSTNDBA	X	X	X	X
DSYNITC	Connections Terminated - Max Inactive	DSYNITC	QDSTNITC	X	X	X	X
DSYNQAV	Avg Time Inactive Connections Queued	DSYNQAV	QDSTNQAV				X
DSYNQMN	Min Time Inactive Connections Queued	DSYNQMN	QDSTNQMN				X
DSYNQMX	Max Time Inactive Connections Queued	DSYNQMX	QDSTNQMX				X
DSYNQR2	Current Inactive Connections Queued	DSYNQR2	QDSTNQR2	X	X	X	X
DSYNZGFM	Non-zero Returns from GET/FREE	DSYNZGFM	QSSTRCNZ	X	X	X	X
DSYPOOL	Pool DBATs Reused	DSYPOOL	QDSTPOOL	X	X	X	X
DSYPREPR	Successful Prepare to Commits	DSYPREPR	Q3STPREP	X	X	X	X
DSYQCIT	Current Inactive DBATs	DSYQCIT	QDSTQCIT	X	X	X	X
DSYQCRT	Conversations Deallocated - Max Remote	DSYQCRT	QDSTQCRT	X	X	X	X
DSYQDBT	DBATs Queued - Max Remote Active	DSYQDBT	QDSTQDBT	X	X	X	X
DSYQIN2	Inactive Connections Queued Requests	DSYQIN2	QDSTQIN2	X	X	X	X
DSYRCNAA	Count of Records Not Accepted n	DSYRCNAX	QWSBSRNA	X	X	X	X
DSYRCNAB	Count of Records Not Accepted n	DSYRCNAX	QWSBSRNA	X	X	X	X
DSYRCNAC	Count of Records Not Accepted n	DSYRCNAX	QWSBSRNA	X	X	X	X
DSYRCNAD	Count of Records Not Accepted n	DSYRCNAX	QWSBSRNA	X	X	X	X
DSYRCNAE	Count of Records Not Accepted n	DSYRCNAX	QWSBSRNA	X	X	X	X
DSYRCNAF	Count of Records Not Accepted n	DSYRCNAX	QWSBSRNA		X	X	X
DSYRCNA1	Count of Records Not Accepted n	DSYRCNAX	QWSBSRNA	X	X	X	X
DSYRCNA2	Count of Records Not Accepted n	DSYRCNAX	QWSBSRNA	X	X	X	X
DSYRCNA3	Count of Records Not Accepted n	DSYRCNAX	QWSBSRNA	X	X	X	X
DSYRCNA4	Count of Records Not Accepted n	DSYRCNAX	QWSBSRNA	X	X	X	X
DSYRCNA5	Count of Records Not Accepted n	DSYRCNAX	QWSBSRNA	X	X	X	X
DSYRCNA6	Count of Records Not Accepted n	DSYRCNAX	QWSBSRNA	X	X	X	X
DSYRCNA7	Count of Records Not Accepted n	DSYRCNAX	QWSBSRNA	X	X	X	X
DSYRCNA8	Count of Records Not Accepted n	DSYRCNAX	QWSBSRNA	X	X	X	X
DSYRCNA9	Count of Records Not Accepted n	DSYRCNAX	QWSBSRNA	X	X	X	X
DSYRCNDA	Records Not Desired	DB2RECND	QWSCSRND	X	X	X	X
DSYRCNDB	Records Not Desired	DB2RECND	QWSCSRND	X	X	X	X
DSYRCNDC	Records Not Desired	DB2RECND	QWSCSRND	X	X	X	X
DSYRCNDD	Records Not Desired	DB2RECND	QWSCSRND	X	X	X	X
DSYRCNDE	Records Not Desired	DB2RECND	QWSCSRND	X	X	X	X
DSYRCNDF	Records Not Desired	DB2RECND	QWSCSRND	X	X	X	X
DSYRCNDG	Records Not Desired	DB2RECND	QWSCSRND	X	X	X	X
DSYRCNDH	Records Not Desired	DB2RECND	QWSCSRND	X	X	X	X
DSYRCNDI	Records Not Desired	DB2RECND	QWSCSRND	X	X	X	X

DSYRCNDP	Records Not Desired	DB2RECND	QWSCSRND	X	X	X	X
DSYRCNDS	Records Not Desired	DB2RECND	QWSCSRND	X	X	X	X
DSYRCNDU	Records Not Desired	DB2RECND	QWSCSRND	X	X	X	X
DSYRCNDX	Records Not Desired	DB2RECND	QWSCSRND	X	X	X	X
DSYRDAA	Reads Delayed Tape Volume Contention	DSYRDAA	QJSTTVC	X	X	X	X
DSYRDON	Number of Read Only Commits	DSYRDON	Q3STRDON	X	X	X	X
DSYRECBS	RECOVER BSDS Commands	DSYRECBS	Q9STCTR3	X	X	X	X
DSYRECIN	RECOVER IN DOUBT Commands	DSYRECIN	Q9STCTR4	X	X	X	X
DSYRECNA	Records Unsuccessfully Written n	DSYRECNX	QWSBSRNW	X	X	X	X
DSYRECNB	Records Unsuccessfully Written n	DSYRECNX	QWSBSRNW	X	X	X	X
DSYRECNC	Records Unsuccessfully Written n	DSYRECNX	QWSBSRNW	X	X	X	X
DSYRECND	Records Unsuccessfully Written n	DSYRECNX	QWSBSRNW	X	X	X	X
DSYRECNE	Records Unsuccessfully Written n	DSYRECNX	QWSBSRNW	X	X	X	X
DSYRECNF	Records Unsuccessfully Written n	DSYRECNX	QWSBSRNW		X	X	X
DSYRECN1	Records Unsuccessfully Written n	DSYRECNX	QWSBSRNW	X	X	X	X
DSYRECN2	Records Unsuccessfully Written n	DSYRECNX	QWSBSRNW	X	X	X	X
DSYRECN3	Records Unsuccessfully Written n	DSYRECNX	QWSBSRNW	X	X	X	X
DSYRECN4	Records Unsuccessfully Written n	DSYRECNX	QWSBSRNW	X	X	X	X
DSYRECN5	Records Unsuccessfully Written n	DSYRECNX	QWSBSRNW	X	X	X	X
DSYRECN6	Records Unsuccessfully Written n	DSYRECNX	QWSBSRNW	X	X	X	X
DSYRECN7	Records Unsuccessfully Written n	DSYRECNX	QWSBSRNW	X	X	X	X
DSYRECN8	Records Unsuccessfully Written n	DSYRECNX	QWSBSRNW	X	X	X	X
DSYRECN9	Records Unsuccessfully Written n	DSYRECNX	QWSBSRNW	X	X	X	X
DSYRECWA	Records Successfully Written n	DSYRECWX	QWSBSRSW	X	X	X	X
DSYRECWB	Records Successfully Written n	DSYRECWX	QWSBSRSW	X	X	X	X
DSYRECWC	Records Successfully Written n	DSYRECWX	QWSBSRSW	X	X	X	X
DSYRECWD	Records Successfully Written n	DSYRECWX	QWSBSRSW	X	X	X	X
DSYRECWE	Records Successfully Written n	DSYRECWX	QWSBSRSW	X	X	X	X
DSYRECWF	Records Successfully Written n	DSYRECWX	QWSBSRSW		X	X	X
DSYRECW1	Records Successfully Written n	DSYRECWX	QWSBSRSW	X	X	X	X
DSYRECW2	Records Successfully Written n	DSYRECWX	QWSBSRSW	X	X	X	X
DSYRECW3	Records Successfully Written n	DSYRECWX	QWSBSRSW	X	X	X	X
DSYRECW4	Records Successfully Written n	DSYRECWX	QWSBSRSW	X	X	X	X
DSYRECW5	Records Successfully Written n	DSYRECWX	QWSBSRSW	X	X	X	X
DSYRECW6	Records Successfully Written n	DSYRECWX	QWSBSRSW	X	X	X	X
DSYRECW7	Records Successfully Written n	DSYRECWX	QWSBSRSW	X	X	X	X
DSYRECW8	Records Successfully Written n	DSYRECWX	QWSBSRSW	X	X	X	X
DSYRECW9	Records Successfully Written n	DSYRECWX	QWSBSRSW	X	X	X	X
DSYRESLV	Successful Resolve In Doubts	DSYRESLV	Q3STRIUR	X	X	X	X
DSYRMID	DB2 Resource Manager Identifier	DSYRMID	QWHSRMID	X	X	X	X
DSYRMSLT	Recovery Manager Status Latch	DSYRMSLT	QVLSLC15	X	X	X	X
DSYRSACL	Reads Satisfied Active Log	DSYRSACL	QJSTRACT	X	X	X	X
DSYRSARL	Reads Satisfied Archive Log	DSYRSARL	QJSTRARH	X	X	X	X
DSYRSAT	Resynchronizations Attempted	DSYRSAT	QDSTRSAT	X	X	X	X
DSYRSINV	Reason Statistics Were Invoked	DSYRSINV	QWSDRINV	X	X	X	X
DSYRSSU	Resynchronizations Succeeded	DSYRSSU	QDSTRSSU	X	X	X	X
DSYSC1LT	Synonym Chain 1 Latch	DSYSC1LT	QVLSLC17	X	X	X	X
DSYSC2LT	Synonym Chain 2 Latch	DSYSC2LT	QVLSLC16	X	X	X	X
DSYSERW	Serial Log Write Req - CI Rewrite	DSYSERW	QJSTSERW	X	X	X	X
DSYSIGN	Successful Signons	DSYSIGN	Q3STSIGN	X	X	X	X
DSYSMHLT	Storage Mgr Header Block Latch	DSYSMHLT	QVLSLC32	X	X	X	X
DSYSMVLT	Storage Mgr Vector Table Latch	DSYSMVLT	QVLSLC31	X	X	X	X
DSYSPDBA	STOP DATABASE Commands	DSYSPDBA	Q9STCTR8	X	X	X	X
DSYSPDB2	STOP DB2 Commands	DSYSPDB2	Q9STCTRA	X	X	X	X
DSYSPTRC	STOP TRACE Commands	DSYSPTRC	Q9STCTR9	X	X	X	X
DSYSRBTM	Accumulated SRB Time All ASIDs	DSYSRBTM	QWSASRBT	X	X	X	X
DSYSRSRS	Sync Related SRBs Scheduled	DSYSRSRS	QVASXSRS	X	X	X	X
DSYSRTCS	Sync Related TCBs Scheduled	DSYSRTCS	QVASXSRT	X	X	X	X
DSYSRTM0	Accumulated SRB Time Addr x	DSYSRTMX	QWSASRBT	X	X	X	X
DSYSRTM1	Accumulated SRB Time Addr x	DSYSRTMX	QWSASRBT	X	X	X	X
DSYSRTM2	Accumulated SRB Time Addr x	DSYSRTMX	QWSASRBT	X	X	X	X
DSYSRTM3	Accumulated SRB Time Addr x	DSYSRTMX	QWSASRBT	X	X	X	X
DSYSRTM4	Accumulated SRB Time Addr x	DSYSRTMX	QWSASRBT	X	X	X	X
DSYSRTM5	Accumulated SRB Time Addr x	DSYSRTMX	QWSASRBT	X	X	X	X
DSYSSICL	Number of SSI Calls	DSYSSICL	Q3STSSSI	X	X	X	X
DSYSSILT	Subsystem Interface Latch	DSYSSILT	QVLSLC11	X	X	X	X
DSYSTCLT	Service Task Controller Latch	DSYSTCLT	QVLSLC05	X	X	X	X
DSYSTDBA	Start Database Commands	DSYSTDBA	Q9STCTR5	X	X	X	X
DSYSTDB2	START DB2 Commands	DSYSTDB2	Q9STCTR7	X	X	X	X
DSYSTOSA	Storage Shortage Abends	DSYSTOSA	QSSTABND	X	X	X	X
DSYSTOSH	Storage Shortage	DSYSTOSH	QSSTCRIT	X	X	X	X
DSYSTTRC	START TRACE Commands	DSYSTTRC	Q9STCTR6	X	X	X	X
DSYSUSP	Physical Suspends	DSYSUSP	QVASSUSP	X	X	X	X
DSYSUSRS	Sync Unrelated SRBs Scheduled	DSYSUSRS	QVASXSUS	X	X	X	X

DSYSUTCS	Sync Unrelated TCBs Scheduled	DSYSUTCS	QVASXSUT	X	X	X	X
DSYSYNC	Successful Synchronizes	DSYSYNC	Q3STSYNC	X	X	X	X
DSYTCTAD	Access Database Commands	DSYTCTAD	Q9STCTAD		X	X	X
DSYTCTM0	Accumulated TCB Time Addr x	DSYTCTMX	QWSAEJST	X	X	X	X
DSYTCTM1	Accumulated TCB Time Addr x	DSYTCTMX	QWSAEJST	X	X	X	X
DSYTCTM2	Accumulated TCB Time Addr x	DSYTCTMX	QWSAEJST	X	X	X	X
DSYTCTM3	Accumulated TCB Time Addr x	DSYTCTMX	QWSAEJST	X	X	X	X
DSYTCTM4	Accumulated TCB Time Addr x	DSYTCTMX	QWSAEJST	X	X	X	X
DSYTCTM5	Accumulated TCB Time Addr x	DSYTCTMX	QWSAEJST	X	X	X	X
DSYTCTRE	Start Rlimit Count	DSYTCTRE	Q9STCTRE	X	X	X	X
DSYTCTRF	Stop Rlimit Count	DSYTCTRF	Q9STCTRF	X	X	X	X
DSYTCTRG	Display Rlimit Count	DSYTCTRG	Q9STCTRG	X	X	X	X
DSYTCTRH	Modify Trace Count	DSYTCTRH	Q9STCTRH	X	X	X	X
DSYTCTRO	Display Bufferpool Count	DSYTCTRO	Q9STCTRO	X	X	X	X
DSYTCTRP	Set Archive Count	DSYTCTRP	Q9STCTRP	X	X	X	X
DSYTCTRQ	Display Archive Count	DSYTCTRQ	Q9STCTRQ	X	X	X	X
DSYTCTRR	Reset Indoubt Count	DSYTCTRR	Q9STCTRR	X	X	X	X
DSYTCTRS	Alter Group Buffer Pool Count	DSYTCTRS	Q9STCTRS	X	X	X	X
DSYTCTRT	Display Group Buffer Pool Count	DSYTCTRT	Q9STCTRT	X	X	X	X
DSYTCTRU	Display Procedure Count	DSYTCTRU	Q9STCTRU	X	X	X	X
DSYTCTRV	Start Procedure Count	DSYTCTRV	Q9STCTRV	X	X	X	X
DSYTCTRW	Stop Procedure Count	DSYTCTRW	Q9STCTRW	X	X	X	X
DSYTCTRX	Display Group Count	DSYTCTRX	Q9STCTRX	X	X	X	X
DSYTCTRY	Alter Utility Count	DSYTCTRY	Q9STCTRY	X	X	X	X
DSYTCTRZ	Display Function Count	DSYTCTRZ	Q9STCTRZ	X	X	X	X
DSYTCTSD	Display Profile Commands	DSYTCTSD	Q9STCTSD		X	X	X
DSYTCTSS	Start Profile Commands	DSYTCTSS	Q9STCTSS		X	X	X
DSYTCTST	Stop Profile Commands	DSYTCTST	Q9STCTST		X	X	X
DSYTCTX0	Start Function Count	DSYTCTX0	Q9STCTX0	X	X	X	X
DSYTCTX1	Stop Function Count	DSYTCTX1	Q9STCTX1	X	X	X	X
DSYTCTX2	Set Log Count	DSYTCTX2	Q9STCTX2	X	X	X	X
DSYTCTX3	Display Log Count	DSYTCTX3	Q9STCTX3	X	X	X	X
DSYTCTX4	Set Sysparm Count	DSYTCTX4	Q9STCTX4	X	X	X	X
DSYTCTX5	DISPLAY DDF Commands	DSYTCTX5	Q9STCTX5		X	X	X
DSYTERM	Successful Terminates	DSYTERM	Q3STTERM	X	X	X	X
DSYTERMU	TERM UTILITY Commands	DSYTERMU	Q9STCTRB	X	X	X	X
DSYTHRW	Log Write Req Sch w/lw Thrsh Reached	DSYTHRW	QJSTTHRW	X	X	X	X
DSYTSELT	Test Shared/Exclusive Latch	DSYTSELT	QVLSLC01	X	X	X	X
DSYTTLT	Trace Table Latch	DSYTTLT	QVLSLC30	X	X	X	X
DSYUNAVL	Unavailable Resource	DSYUNAVL	QVASADUR	X	X	X	X
DSYVPCRT	Variable Pools Created	DSYVPCRT	QSSTGPLV	X	X	X	X
DSYVPDEL	Variable Pools Deallocated	DSYVPDEL	QSSTFPLV	X	X	X	X
DSYVPSGC	Variable Pool Segments Contract	DSYVPSGC	QSSTCONV	X	X	X	X
DSYVPSGE	Variable Pool Segments Expanded	DSYVPSGE	QSSTEXPV	X	X	X	X
DSYVPSGF	Variable Pool Segments Freed	DSYVPSGF	QSSTFREV	X	X	X	X
DSYWFAIA	Count of Write Failures n	DSYWFAIX	QWSBSWF	X	X	X	X
DSYWFAIB	Count of Write Failures n	DSYWFAIX	QWSBSWF	X	X	X	X
DSYWFAIC	Count of Write Failures n	DSYWFAIX	QWSBSWF	X	X	X	X
DSYWFAID	Count of Write Failures n	DSYWFAIX	QWSBSWF	X	X	X	X
DSYWFAIE	Count of Write Failures n	DSYWFAIX	QWSBSWF	X	X	X	X
DSYWFAIF	Count of Write Failures n	DSYWFAIX	QWSBSWF		X	X	X
DSYWFAI1	Count of Write Failures n	DSYWFAIX	QWSBSWF	X	X	X	X
DSYWFAI2	Count of Write Failures n	DSYWFAIX	QWSBSWF	X	X	X	X
DSYWFAI3	Count of Write Failures n	DSYWFAIX	QWSBSWF	X	X	X	X
DSYWFAI4	Count of Write Failures n	DSYWFAIX	QWSBSWF	X	X	X	X
DSYWFAI5	Count of Write Failures n	DSYWFAIX	QWSBSWF	X	X	X	X
DSYWFAI6	Count of Write Failures n	DSYWFAIX	QWSBSWF	X	X	X	X
DSYWFAI7	Count of Write Failures n	DSYWFAIX	QWSBSWF	X	X	X	X
DSYWFAI8	Count of Write Failures n	DSYWFAIX	QWSBSWF	X	X	X	X
DSYWUR	Read Access Delayed Unavailable	DSYWUR	QJSTWUR	X	X	X	X
DSYWUWB	Wait Unavailable Write Buffer	DSYWUWB	QJSTWTB	X	X	X	X
DSYWSTR	Warm Start Connections	DSYWSTR	QDSTWSTR	X	X	X	X
				AVAILABLE IN DB2 VERSIONS			

The DB2SSA (DB2 System Stor Usage by Address Space) File

ELEMENT	ELEMENT DESCRIPTION	DICTIONARY MEMBER	RAW ELEMENT	AVAILABLE IN DB2 VERSIONS 8.1	9.1	10.1		
SSAADSNM	Address Space Name	SSAADSNM	QW0225AN				X	X
SSAASFLG	Address Space Summary Flags	SSAASFLG	QW02251FLGS				X	X
SSAERGSZ	MVS Extended Region Size (MB)	SSAERGSZ	QW0225RG				X	X
SSASCWRN	Storage Cushion Warning to Contract (MB)	SSASCWRN	QW0225SO				X	X
SSA24HAD	High Address of 24-bit Priv Region (MB)	SSA24HAD	QW0225TP				X	X
SSA24HP	MVS 24-bit High Private (MB)	SSA24HP	QW0225HI				X	X
SSA24LP	MVS 24-bit Low Private (MB)	SSA24LP	QW0225LO				X	X
SSA31AVL	Available 31-bit Storage (MB)	SSA31AVL	QW0225AV				X	X
SSA31EHP	MVS 31-bit Extended High Private (MB)	SSA31EHP	QW0225EH				X	X
SSA31ELP	MVS 31-bit Extended Low Private (MB)	SSA31ELP	QW0225EL				X	X
SSA31FPS	31-bit Fixed Pool Storage (MB)	SSA31FPS	QW0225FX				X	X
SSA31GM	31-bit Getmained Storage (MB)	SSA31GM	QW0225GM				X	X
SSA31GMS	31-bit Getmained Stack (MB)	SSA31GMS	QW0225GS				X	X
SSA31HAD	High Address of 31-bit Priv Region (MB)	SSA31HAD	QW0225EP				X	X
SSA31MC	31-bit Storage Reservd Must Complete(MB)	SSA31MC	QW0225CR				X	X
SSA31MVS	31-bit Storage Reserved for MVS (MB)	SSA31MVS	QW0225MV				X	X
SSA31SSA	31-bit Stack in Use for Sys Agents (MB)	SSA31SSA	QW0225SS				X	X
SSA31STU	31-bit Stack in Use (MB)	SSA31STU	QW0225SU				X	X
SSA31VPS	31-bit Variable Pool Storage (MB)	SSA31VPS	QW0225VR				X	X
SSA4KAUX	4K Aux Slots for 31 & 64-bit Private	SSA4KAUX	QW0225AX				X	X
SSA4KFRM	Real 4K Frames for 31 & 64-bit Private	SSA4KFRM	QW0225RL				X	X
SSA4K64A	4K Aux Slots for 64-bit Private	SSA4K64A	QW0225HVAUXSLOTS				X	X
SSA4K64N	Real 4K 64-bit Private Frames - NOBP	SSA4K64N	QW0225PRISTG_REAL				X	X
SSA4K64O	4K Aux 64-bit Private Slots - NOBP	SSA4K64O	QW0225PRISTG_AUX				X	X
SSA4K64P	Real 4K Frames for 64-bit Private	SSA4K64P	QW0225HVPAGESINREAL				X	X
SSA64PAX	HWM for 4K 64-bit Private Aux Slots	SSA64PAX	QW0225HVGAUXSLOTS				X	X
SSA64PFH	HWM for Real 4K 64-bit Private Frames	SSA64PFH	QW0225HVGPAGESINREAL				X	X
SSA64PFP	64-bit Private Fixed Pool Storage (MB)	SSA64PFP	QW0225FA				X	X
SSA64PGM	64-bit Private Getmained Storage (MB)	SSA64PGM	QW0225GA				X	X
SSA64PSM	64-bit Private Storage for SMCS (MB)	SSA64PSM	QW0225SM				X	X
SSA64PVP	64-bit Private Variable Pool Stor (MB)	SSA64PVP	QW0225VA				X	X

The DB2SSU (DB2 System Storage Usage) File

ELEMENT	ELEMENT DESCRIPTION	DICTIONARY MEMBER	RAW ELEMENT	AVAILABLE IN DB2 VERSIONS 8.1	9.1	10.1	11.1
SSUABCSA	64-bit Common ILRM Pools Curr Used (MB)	SSUABCSA	QW0225I_ABCSA				X
SSUABCSH	HWM for 64-bit Common IRLM Pools (MB)	SSUABCSH	QW0225I_ABCSH				X
SSUABPVH	HWM for 64-bit IRLM Private Pools (MB)	SSUABPVH	QW0225I_ABPVH				X
SSUABPVT	64-bit Curr Used IRLM Private Pools (MB)	SSUABPVT	QW0225I_ABPVT				X
SSUACTTH	Active Threads	SSUACTTH	QW0225AT	X	X	X	X
SSUADBAT	Active and Disconnected DBATs	SSUADBAT	QW0225DB			X	X
SSUALPLC	Statements in 64-bit Agent Local Pools	SSUALPLC	QW0225LC	X	X	X	X
SSUALPL2	Allocated 64-bit AL Pool Stmt Cache (MB)	SSUALPL2	QW0225L2		X	X	X
SSUALSST	64-bit Shared Agent Local Storage (MB)	SSUALSST	QW0225ALG			X	X
SSUALSTR	Agent Local Storage (MB)	SSUALSTR	QW0225AL	X	X	X	X
SSUAPCTH	Active Parallel Child Threads	SSUAPCTH	QW0225PT			X	X
SSUAPMAX	64-BIT Threshold IRLM Private Stg (MB)	SSUAPMAX	QW0225I_APMAX				X
SSUARSTR	Total Array Variable Storage (MB)	SSUARSTR	QW0225AR				X
SSUBECSA	31-bit Curr Used ECSA IRLM Pools (MB)	SSUBECSA	QW0225I_BBECSA				X
SSUBECSH	HWM for 31-bit ECSA IRLM Pools (MB)	SSUBECSH	QW0225I_BBECSAH				X
SSUBBPVH	HWM for 31-bit IRLM Private Pools (MB)	SSUBBPVH	QW0225I_BBPVH				X
SSUBBPVT	31-bit Curr Used IRLM Private Pools (MB)	SSUBBPVT	QW0225I_BBPVH				X
SSUBDITS	BM/DM Internal Trace Table Storage (MB)	SSUBDITS	QW0225TT	X	X		
SSUBMSBK	Buffer Manager Storage Blocks	SSUBMSBK	QW0225BB	X	X	X	X
SSUBPMAX	31-BIT Threshold IRLM Private Stg (MB)	SSUBPMAX	QW0225I_BPMAX				X
SSUCDSTR	Compression Dictionary Storage (MB)	SSUCDSTR	QW0225CD	X	X	X	X
SSUCOENT	Castout Engines	SSUCOENT	QW0225CE	X	X	X	X
SSUDEFWE	Deferred Write Engines	SSUDEFWE	QW0225DW	X	X	X	X
SSUECSA	MVS Extended CSA Size (MB)	SSUECSA	QW0225EC	X	X	X	X
SSUECSAL	Service Field QW0225_ECSA_Alloc	SSUECSAL	QW0225_ECSA_ALLOC			X	X
SSUECSCV	Service Field QW0225_ECSA_Conv	SSUECSCV	QW0225_ECSA_CONV			X	X
SSUECSHW	Service Field QW0225_ECSA_HWM	SSUECSHW	QW0225_ECSA_HWM			X	X
SSUERGSZ	MVS Extended Region Size (MB)	SSUERGSZ	QW0225RG	X	X		
SSUESQAL	Service Field QW0225_ESQA_Alloc	SSUESQAL	QW0225_ESQA_Alloc			X	X
SSUESQAS	Service Field QW0225_ESQAS	SSUESQAS	QW0225_ESQAS			X	X
SSUESQHW	Service Field QW0225_ESQA_HWM	SSUESQHW	QW0225_ESQA_HWM			X	X
SSUGDBWE	GBP Write Engines	SSUGDBWE	QW0225GW	X	X	X	X
SSUHCHWM	HWM # of Stmts in 64-bit Agent LPs	SSUHCHWM	QW0225HC	X	X	X	X
SSUHSHWM	HWM for Dynamic SQL Storage (MB)	SSUHSHWM	QW0225HS	X	X	X	
SSUHSHWM	HWM for Dynamic SQL Storage (MB)	SSUHSHWM	QW0225HS8				X
SSUHTHTS	HWM Alloc 64-bit AL Pool Timestamp	SSUHTHTS	QW0225HT	X	X	X	X
SSUH2HWM	HWM Alloc 64-bit ALV Pool Stmt Cache(MB)	SSUH2HWM	QW0225H2		X	X	X
SSULMCAX	Log Mgr Control Frames in Aux Stg	SSULMCAX	QW0225_LMCtrl_Aux				X
SSULMCRL	Log Mgr Control Frames in Real Stg	SSULMCRL	QW0225_LMCtrl_Real				X
SSULMWAX	Log Mgr Write Frames in Aux Stg	SSULMWAx	QW0225_LMWrite_Aux				X
SSULMWRL	Log Mgr Write Frames in Real Stg	SSULMWRL	QW0225_LMWrite_Real				X
SSUPMSS	Pipe Manager Subpool Storage (MB)	SSUPMSS	QW0225PM	X	X		
SSUPNEXE	P-lock/notify Exit Engines	SSUPNEXE	QW0225PL	X	X	X	X
SSUPREFE	Prefetch Engines	SSUPREFE	QW0225PF	X	X	X	X
SSURAVL	Service Field QW0225_REALAVAIL	SSURAVL	QW0225_REALAVAIL			X	X
SSURAVLO	Service Field QW0225_REALAVAILLO	SSURAVLO	QW0225_REALAVAILLO			X	X
SSURAVOK	Service Field QW0225_REALAVAILOK	SSURAVOK	QW0225_REALAVAILOK			X	X
SSURIDPS	RID Pool Storage (MB)	SSURIDPS	QW0225RP	X	X	X	X
SSUROPS	RDS Operations Pool Storage (MB)	SSUROPS	QW0225RO	X	X		
SSURS	Service Field QW0225_RS	SSURS	QW0225_RS				X
SSUSASST	64-bit Shared System Agent Storage (MB)	SSUSASST	QW0225ASG			X	X
SSUSASTR	System Agent Storage (MB)	SSUSASTR	QW0225AS	X	X	X	X
SSUSCBS	Statement Cache Block Storage (MB)	SSUSCBS	QW0225SB	X	X		
SSUSCWRN	Storage Cushion Warning to Contract (MB)	SSUSCWRN	QW0225SO	X	X		
SSUSFLAG	Shared/Common Storage Summary Flag	SSUSFLAG	QW02253FLGS			X	X
SSUSMOA	Shared Memory Objects Allocated	SSUSMOA	QW0225SHRNMOMB			X	X

SSUSRVSJ	Service Field QW0225SJ	SSUSRVSJ	QW0225SJ	X	X			
SSUSTCS2	2G Block 64-bit Statement Cache (MB)	SSUSTCS2	QW0225S2	X	X	X	X	
SSUSVCF1	Service Field QW0225F1	SSUSVCF1	QW0225F1	X	X	X	X	
SSUSVCF2	Service Field QW0225F2	SSUSVCF2	QW0225F2	X	X	X	X	
SSUWARN	Service Field QW0225_WARN	SSUWARN	QW0225_WARN			X	X	
SSUXPSLS	Total Alloc Dynamic SQL Storage (MB)	SSUXPSLS	QW0225LS	X	X	X		
SSUXPSLS	Total Alloc Dynamic SQL Storage (MB)	SSUXPSLS	QW0225LS8				X	
SSUXPSSC	Total Sharable Storage Dynamic SQL (MB)	SSUXPSSC	QW0225SC	X	X	X		
SSUXPSSC	Total Sharable Storage Dynamic SQL (MB)	SSUXPSSC	QW0225SC8				X	
SSUXPSSX	Total Static SQL Storage (MB)	SSUXPSSX	QW0225SX			X		
SSUXPSSX	Total Static SQL Storage (MB)	SSUXPSSX	QW0225SX8				X	
SSU24HP	MVS 24-bit High Private Storage (MB)	SSU24HP	QW0225HI	X	X			
SSU24LP	MVS 24-bit Low Private Storage (MB)	SSU24LP	QW0225LO	X	X			
SSU31AVL	Available 31-bit Storage (MB)	SSU31AVL	QW0225AV	X	X			
SSU31CFP	31-bit Common Fixed Pool Storage (MB)	SSU31CFP	QW0225FC			X	X	
SSU31CGM	31-bit Common Getmained Storage (MB)	SSU31CGM	QW0225GC			X	X	
SSU31CVP	31-bit Common Variable Pool Storage (MB)	SSU31CVP	QW0225VC			X	X	
SSU31EHP	MVS 31-bit Extended High Priv Stor (MB)	SSU31EHP	QW0225EH	X	X			
SSU31ELP	MVS 31-bit Extended Low Priv Stor (MB)	SSU31ELP	QW0225EL	X	X			
SSU31FPS	Total 31-bit Fixed Pool Storage (MB)	SSU31FPS	QW0225FX	X	X			
SSU31GM	Total 31-bit Getmained Storage (MB)	SSU31GM	QW0225GM	X	X			
SSU31GMS	Total 31-bit Getmained Stack (MB)	SSU31GMS	QW0225GS	X	X			
SSU31MC	31-bit Stor Resvd for Must Complete (MB)	SSU31MC	QW0225CR	X	X			
SSU31MVS	31-bit Storage Reserved for MVS (MB)	SSU31MVS	QW0225MV	X	X			
SSU31STU	Total 31-bit Stack in Use (MB)	SSU31STU	QW0225SU		X			
SSU31VPS	Total 31-bit Variable Pool Storage (MB)	SSU31VPS	QW0225VR	X	X			
SSU4KAUX	4K Aux Slots for 31 & 64-bit Private	SSU4KAUX	QW0225AX	X	X			
SSU4KFRM	Real 4K Frames for 31 & 64-bit Private	SSU4KFRM	QW0225RL	X	X			
SSU64ACS	64-bit Common Storage Aux Slots	SSU64ACS	QW0225ComStg_Aux			X	X	
SSU64ASH	4K 64-bit Shared Storage Aux Slots	SSU64ASH	QW0225ShrStg_Aux			X	X	
SSU64ASL	Aux Slots - 64-bit Shared Storage	SSU64ASL	QW0225SHRAUXSLOTS			X	X	
SSU64CFP	64-bit Common Fixed Pool Storage (MB)	SSU64CFP	QW0225FCG			X	X	
SSU64CGM	64-bit Common Getmained Storage (MB)	SSU64CGM	QW0225GCG			X	X	
SSU64CSM	64-bit Common Storage for SMCS (MB)	SSU64CSM	QW0225SMC			X	X	
SSU64CST	Real 4K 64-bit Common Storage Frames	SSU64CST	QW0225ComStg_Real			X	X	
SSU64CVP	64-bit Common Variable Pool Storage (MB)	SSU64CVP	QW0225VCG			X	X	
SSU64FSS	Real 4K 64-bit Shared Storage Frames	SSU64FSS	QW0225ShrStg_Real			X	X	
SSU64PFP	64-bit Private Fixed Pool Stor (MB)	SSU64PFP	QW0225FA	X	X			
SSU64PGM	64-bit Private Getmain Stor (MB)	SSU64PGM	QW0225GA	X	X			
SSU64PVP	64-bit Private Variable Pool Stor (MB)	SSU64PVP	QW0225VA	X	X			
SSU64SFP	64-bit Shared Fixed Pool Storage (MB)	SSU64SFP	QW0225SF		X	X	X	
SSU64SGM	64-bit Shared Getmained Storage (MB)	SSU64SGM	QW0225SG		X	X	X	
SSU64SHW	HWM for Number of 64-bit Shr Bytes (MB)	SSU64SHW	QW0225SHRGBYTES			X	X	
SSU64SMA	64-bit Shared Memory Pages Allocated	SSU64SMA	QW0225SHRPAGES			X	X	
SSU64SNA	64-bit Shared Non-sys Agent Stack (MB)	SSU64SNA	QW0225GSG			X	X	
SSU64SNU	64-bit Shared Non-sys Agent Stk Use (MB)	SSU64SNU	QW0225SUG			X	X	
SSU64SPB	64-bit Shared Pages Backed in Real Stor	SSU64SPB	QW0225SHRINREAL			X	X	
SSU64SPI	64-bit AUX Stor Shared Pages Paged In	SSU64SPI	QW0225SHRPAGEINS			X	X	
SSU64SPO	64-bit AUX Stor Shared Pages Paged Out	SSU64SPO	QW0225SHRPAGEOUTS			X	X	
SSU64SSA	64-bit Shared System Agent Stack (MB)	SSU64SSA	QW0225GSG_SYS			X	X	
SSU64SSM	64-bit Shared Storage for SMCS (MB)	SSU64SSM	QW0225SMS			X	X	
SSU64SSS	Real 4K 64-bit Shared Stack Stor Frames	SSU64SSS	QW0225ShrStkStg_Rea			X	X	
SSU64SST	4K 64-bit Shared Stack Aux Slots	SSU64SST	QW0225SHRSTKSTG_AUX			X	X	
SSU64SSU	64-bit Shared Sys Agent Stk in Use (MB)	SSU64SSU	QW0225SUG_SYS			X	X	
SSU64SVP	64-bit Shared Variable Pool Storage (MB)	SSU64SVP	QW0225SV		X	X	X	

6.4 Query CP Parallelism Considerations

DB2 can significantly reduce the response time for processor-intensive queries by initiating multiple parallel operations when it needs to access data from a table or index in a table space.

Query CP parallelism enables true multi-tasking by breaking a large query into many smaller queries running simultaneously on several processors accessing data in parallel, therefore reducing the query elapsed time.

The following topics describe the impact of query CP parallelism on CA MICS processing and data analysis:

1 - Collecting Query CP Parallelism Information
2 - Parallel Tasks Data Analysis

6.4.1 Collecting Query CP Parallelism Information

The CA MICS Analyzer Option for DB2 collects application program information from the DB2 SMF type 101 Accounting Trace Record (IFCID 0003 or IFCID 0239). Applications using CP parallelism generate multiple records, each one containing a portion of the total query consumptions.

Parallel tasks, by default, result in additional accounting trace records because, in addition to the record for the parent query, a record is produced for each parallel child task. A DB2 parameter, PTASKROL=YES, results in the consolidation of the child records into a single rollup record, thereby reducing the number of SMF type 101 accounting trace records to one for the parent and a rollup record for the parallel child tasks.

The rollup record is written at deallocation time, along with the parent task record. For example, if a query generates 6 additional parallel subtasks (with PTASKROL set to YES), instead of writing 7 SMF records (1 for the parent task and 6 for the child tasks), only two will be created: the parent task and the child tasks' summary.

Although both records are written at deallocation time and contain common identification information, the rollup summary record is not a duplicate of the parent record. Some fields in the rollup record are identical or already included in the parent record, but most of the information used for accounting and performance analysis must be added to parent task's metrics to get a complete picture. The fields containing rollup data were described in IBM APARs PQ10864, PQ22451, and further qualified in PQ41012.

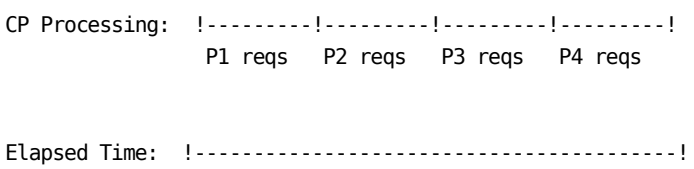
The CA MICS Analyzer Option for DB2 reads and stores information from both records, allowing a complete application or user resource accounting, as well as a detailed DB2 performance analysis of parallel processing. For more information, see Section 6.4.2, Parallel Tasks Data Analysis.

6.4.2 Parallel Tasks Data Analysis

When analyzing data involving query parallelism, you have to consider the end users perception and the internal DB2 parallel monitoring. What appears to be a single execution of a thread for a user, actually translates into multiple DB2 subtasks which will only provide an overall elapsed time improvement if their parallelism is well balanced. An example of a comparison between sequential prefetch and parallel processing follows:

SEQUENTIAL PROCESSING:

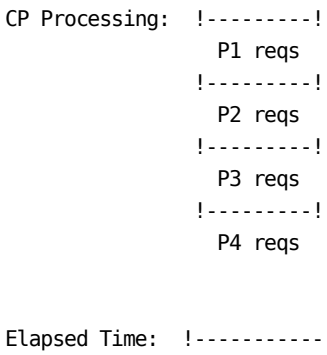
With sequential processing, all requests for the various partitions of a table space (four in our example, P1, P2, P3 and P4) are processed in order, one partition after each other.



In the preceding diagram, a single thread performs multiple requests against the four partitions of a table space. From both the user and DB2 analyst perspective, the elapsed time of this thread, commonly referred to as the response time, is indeed the sum of the times used to perform sequential requests (plus I/O and wait times not represented here).

PARALLEL PROCESSING:

With parallel processing, DB2 can generate several subtasks (running in parallel), one task per partition performing all the requests for this specific partition.



In the preceding diagram, the elapsed time of the thread is greatly reduced, again from both the user and the analyst perspective. However, complications occur when you switch from diagrams to actual measured data to establish service level objectives or monitor CP parallelism activity.

The following topics present more detailed information:

1 - Understanding Elapsed Time CA MICS Metrics
2 - Data Analysis Guidelines

6.4.2.1 Understanding Elapsed Time CA MICS Metrics

In DB2, elapsed time is an important measurement because it is used for several purposes. From the end users perspective, it is commonly considered as the response time of a thread. For the DB2 analyst, it is used in correlation with other critical metrics, such as CPU time and I/Os for performance analysis. For query CP parallelism, it is helpful to know the elapsed times of each individual parallel task because it may help to determine how parallelism is balanced (does every subtask have an "equal amount" of the total work in terms of I/Os CPU, etc.).

The CA MICS files that provide a number of data elements related to elapsed time measurements are the DB2 User Activity (DB2DSU) and DB2 Plan Activity (DB2DSP) files. Accurate reporting on threads elapsed time requires a good understanding of the content of these variables, as soon as parallel processing is involved.

The following table will help you with this task. For detailed information about each listed data element, see its data dictionary entry.

CONTENTS OF ELAPSED TIME DATA ELEMENTS FOR THE DB2DSU/DB2DSP FILES

Element Name	Sequential Processing	Parallel Processing
fffELPTM fffET2TM	thread total elapsed time	parent task elapsed time only
fffPELPT fffPET2T	zero	sum of all child tasks elapsed times
fffTELPT fffTET2T	thread total elapsed time	sum of parent and all child tasks elps. times

For guidelines on how to use these data elements under different perspectives, see Section 6.4.2.2 Data Analysis Guidelines, later in this chapter.

6.4.2.2 Data Analysis Guidelines

Data Analysis is fairly complicated when query CP parallelism is being used, mainly because there are two different approaches that are available: User activity reporting and Fine parallelism monitoring. Although, both are based on the same raw data, they must be addressed differently. This is described in the following sections:

1 - Reporting on User Activity
2 - Monitoring Query CP Parallelism

6.4.2.2.1 Reporting on User Activity

DB2 user activity reporting does not generally require access to the most detailed level of data. So, by default, the CA MICS User/Plan Activity files (DB2DSU and DB2DSP) are inactivated in the DETAIL timespan. However, data summarization in higher levels of granularity must be accurate and prevent data duplication, overlapping, or incomplete measurements.

But, how can you determine if any query has been enabled for CP parallelism (at any point within the reporting interval), if you don't have access to DB2 system information or parameters?

If you have activated the DETAIL timespan for the user activity files and want to report on this granularity level, each observation can be identified using the Special Transaction Type Identifier (DB2PTASK) data element.

- A value of 'NONE' indicates that the observation represents the activity of a sequential query.

- A value of 'ACUMAC' indicates a record representing the DB2 ACCUMACC summarization of two or more DDF or RRSAF queries.

- A value of 'PARENT' indicates that the observation represents only the activity of the originating task of a parallel query.

- A value of 'CHILD' indicates that the observation represents the activity of a single parallel subtask (individual child records are generated when the DB2 system parameter PTASKROL is set to NO).

- A value of 'ROLLUP' indicates that the observation represents the summarized activity of all parallel child subtasks (summarized child roll-up records are generated when the DB2 system parameter PTASKROL is set to YES).

If you report on higher levels than DETAIL, then DB2PTASK is no longer meaningful. However, the database maintains an accumulated counter containing the number of parallel tasks created, DSUPCNT. If all the queries are sequential, DSUPCNT will be equal to zero. On the other hand, if DSUPCNT is positive, at least one query in the reporting interval used CP parallelism.

The following guidelines are intended to assist you by using

correct CA MICS data elements under various circumstances.

1 - Queries That Do Not Use CP Parallelism
2 - Queries Enabled for CP Parallelism

6.4.2.2.1.1 Queries That Do Not Use CP Parallelism

When CP parallelism is not used and the DB2DSU file in the DAYS timespan has been correctly summarized by DAY, then producing the following summary daily statistics for a given user ID is straightforward. However, you will see that it is more complex with parallelism involved.

The following examples illustrate a few basics of user reporting, but they can easily be extended to other metrics:

1. Number of threads executed

   Element or Computation: DSUNTHRD

   Explanation: In DB2, each thread executed generates its own accounting SMF type 101 record. When CA MICS processes this data, it sets the accumulated DSUNTHRD data element to 1 each time it encounters a new record. Therefore, you only need to print the value of DSUNTHRD to get the number of threads executed.

2. Total elapsed time for all threads

   Element or Computation: DSUELPTM or DSUTELPT

   Explanation: DSUELPTM and DSUTELPT are only different when at least one thread (in the period covered by measurement interval) used CP parallelism because DSUTELPT would contain the parent task elapsed time and all the child subtasks' elapsed times. This example does not use parallelism and there are no child subtasks. Therefore, DSUELPTM contains the same value as DSUTELPT.

3. Average elapsed time per thread

   Element or Computation: DSUELPTM / DSUNTHRD

```
                                        or
                                DSUTELPT / DSUNTHRD

    Explanation:  Since DSUELPTM and DSUTELPT contain the
                  accumulated elapsed times for all threads
                  executed, simply divide one of these
                  variables by DSUNTHRD to get the average
                  elapsed time for a single thread.

4.  Total elapsed time spent in DB2 for all threads
    ----------------------------------------------

    Element or Computation:  DSUET2TM or DSUTET2T

    Explanation:  In-DB2 elapsed time is a subset of the
                  total thread elapsed time.  DSUET2TM and
                  DSUTET2T are only different when at least
                  one thread (in the period covered by
                  measurement interval) used CP parallelism
                  because DSUTET2T would contain the parent
                  task in-DB2 elapsed time and the child
                  subtasks in-DB2 elapsed times.  This
                  example does not use parallelism and
                  there are no child subtasks. Therefore,
                  DSUET2TM contains the same value as
                  DSUTET2T.

5.  Average in-DB2 elapsed time per thread
    -------------------------------------

    Element or Computation:  DSUET2TM / DSUNTHRD
                                        or
                                DSUTET2T / DSUNTHRD

    Explanation:  Since DSUET2TM and DSUTET2T contain the
                  accumulated in-DB2 elapsed times for all
                  threads executed, simply divide one of
                  these variables by DSUNTHRD to get the
                  average time for a single thread.

6.  Total CPU time consumed by all threads
    -------------------------------------

    Element or Computation:  DSUTCBTM or DSUCPUTM

    Explanation:  DSUCPUTM once contained the sum of TCB
                  time (DSUTCBTM) and SRB time (DSUSRBTM).
                  However, since Version 6 Release 1, DB2
                  does not set SRB times, hence CA MICS no
```

longer captures SRB related data
elements. Consequently, DSUTCBTM and
DSUCPUTM contain the same value.

7. Average CPU time per thread

Element or Computation: DSUTCBTM / DSUNTHRD
or
DSUCPUTM / DSUNTHRD

Explanation: Since DSUTCBTM and DSUCPUTM contain the
accumulated CPU times for all threads
executed, simply divide one of these
variables by DSUNTHRD to get the average
time for a single thread.

8. Total in-DB2 CPU time consumed by all threads

Element or Computation: DSUTC2TM

Explanation: In-DB2 CPU time is a subset of the total
thread CPU time. It quantifies the TCB
time actually spent on performing DB2
functions. Simply use this accumulated
data element.

9. Average in-DB2 CPU time per thread

Element or Computation: DSUTC2TM / DSUNTHRD

Explanation: Since DSUTC2TM contains the accumulated
in-DB2 CPU times for all threads
executed, simply divide one of these
variables by DSUNTHRD to get the average
time for a single thread.

10. Total wait time for all threads

Element or Computation: DSUIOETM + DSUALLTM

Explanation: DSUIOETM represents the time all threads
waited for I/Os in DB2 and DSUALLTM
represents the time they waited for locks
and latches.

11. Average wait time per thread

Element or Computation: DSUIOETM + DSUALLTM / DSUNTHRD

Explanation: Just divide the total wait time by the number of threads executed.

6.4.2.2.1.2 Queries Enabled For CP Parallelism

As soon as CP parallelism is enabled for a DB2 query, questions about measurements arise. Do the subtasks' elapsed times overlap with the originating parent task? If so, how can we accurately translate the user perception of the response time? On the other hand, if there is no overlap in elapsed times and the subtasks are processed concurrently, we may see CPU times greater than elapsed times. How can we correlate them?

The following section answers a few common questions about queries enabled for CP parallelism. Note that the elements used or the computations performed are similar to the previous section. This illustrates that you can use the same variables under different circumstances and still be safe.

For more information on specific performance statistics of parallel processing, see Section 6.4.2.2.2 Monitoring Query CP Parallelism.

1. Number of threads executed

Element or Computation: DSUNTHRD

Explanation: When a query is enabled for CP parallelism, instead of creating a unique SMF type 101 record for the complete thread, DB2 generates one record for the originating parent task and either one additional rollup record containing summary information for all the parallel child subtasks (when the DB2 parameter PTASKROL is set to YES), or one record per individual parallel subtask executed (when the DB2 parameter PTASKROL is set to NO). When CA MICS detects that a record belongs to a parallel query, it sets DSUNTHRD to one for the parent

```
                record and to zero for the subtasks'
                records.  By taking these measures,
                even if DB2 internally created 12
                parallel tasks, the query that the user
                executed will only count for one thread.
                This is very important when you have to
                derive average measurements per thread.

2.  Total elapsed time for all threads
    ---------------------------------

    Element or Computation:  DSUELPTM

    Explanation:  DSUELPTM is the only element to use to
                get the user view of elapsed time when a
                query is enabled for CP parallelism.  To
                avoid overlap between the originating
                task (which lasts until the end of all
                parallel tasks) and the child subtasks,
                DSUELPTM is only populated for the parent
                task and is set to zero for all child
                subtasks.  This reflects the user
                response time.

3.  Average elapsed time per thread
    ------------------------------

    Element or Computation:  DSUELPTM / DSUNTHRD

    Explanation:  This computation provides the actual
                average thread response time, as
                perceived by the user, which should be
                much smaller for CP parallelism enabled
                queries than for sequential processing
                since parallel subtasks are not accounted
                for in any of these two data elements.

4.  Total elapsed time spent on DB2 for all threads
    ----------------------------------------------

    Element or Computation:  DSUET2TM

    Explanation:  In DB2 elapsed time is a subset of the
                total thread elapsed time.  When a query
                is enabled for CP parallelism, DSUET2TM
                is the only element that can be used to
                get the user view of in-DB2 elapsed time.
                In order to avoid overlap between the
                originating task (which lasts until the
```

end of all parallel tasks) and the child subtasks, DSUET2TM is only populated for the parent task and is set to zero for all child subtasks.

5. Average in-DB2 elapsed time per thread

   Element or Computation: DSUET2TM / DSUNTHRD

   Explanation: Since DSUET2TM contains the accumulated in-DB2 elapsed times for all threads executed, simply divide one of these variables by DSUNTHRD to get the average time for a single thread. Again, only parent tasks in-DB2 times are accounted for in this derivation.

6. Total CPU time consumed by all threads

   Element or Computation: DSUTCBTM or DSUCPUTM

   Explanation: In versions prior to Version 6 Release 1, DSUCPUTM contained the sum of TCB time (DSUTCBTM) and SRB time (DSUSRBTM). However, since Version 6 Release 1, DB2 does not set SRB times, hence CA MICS no longer captures related data elements. Consequently, DSUTCBTM and DSUCPUTM contain the same value.

   These data elements contain the sum of the parent task plus all child subtasks' TCB times; therefore, they can be greater than DSUELPTM (the elapsed time), which only accounts for parent tasks. This should not cause a problem because these statistics serve two different purposes. Elapsed time is a service level indicator and TCB time is a charging element that must account for the total CPU used by all tasks and subtasks executed.

   If you need to correlate elapsed time to TCB time, you will use other CA MICS data elements including both the parent and child tasks' elapsed times, like DSUTELPT, Total Elapsed Time.

```
 7.  Average CPU time per thread
     --------------------------

     Element or Computation:  DSUTCBTM / DSUNTHRD
                                      or
                              DSUCPUTM / DSUNTHRD

     Explanation:  Since DSUTCBTM and DSUCPUTM contain the
                   accumulated CPU times for all threads
                   executed, simply divide one of these
                   variables by DSUNTHRD to get the average
                   time for a single thread.

 8.  Total in DB2 CPU time consumed by all threads
     --------------------------------------------

     Element or Computation:  DSUTC2TM

     Explanation:  In-DB2 CPU time is a subset of the total
                   thread CPU time.  It quantifies the TCB
                   time actually spent on performing DB2
                   functions. Simply use this accumulated
                   data element.

                   For more information on in-DB2 TCB times,
                   as it relates to parallelism, see item 6.

 9.  Average in-DB2 CPU time per thread
     ---------------------------------

     Element or Computation:  DSUTC2TM / DSUNTHRD

     Explanation:  Since DSUTC2TM contains the accumulated
                   in-DB2 CPU times for all threads
                   executed, simply divide one of these
                   variables by DSUNTHRD to get the average
                   time for a single thread.

10.  Total wait time for all threads
     ------------------------------

     Element or Computation:  DSUIOETM + DSUALLTM

     Explanation:  DSUIOETM represents the time all threads
                   waited for I/Os in DB2, while DSUALLTM
                   represents the time they waited for locks
                   and latches.  These data elements contain
                   the sum of the parent task, plus all
```

child subtasks' wait times because there is no overlap between the SMF type 101 records for TCB time and most other accounting measurements.

11. Average wait time per thread

    Element or Computation: DSUIOETM + DSUALLTM

    DSUNTHRD

    Explanation: Just divide the total wait time by the number of threads executed.

6.4.2.2.2 Monitoring Query CP Parallelism

In addition to the user reporting guidelines provided in the previous section, the analyst has to address the internal DB2 perspective of parallel processing. This includes several tasks like identifying potentially good candidates for query CP parallelism, monitoring balance, and overall performance of parallel subtasks executions.

1 - Identify Potential Candidates for CP Parallelism
2 - Analyzing CP Parallelism Performance
3 - Parallelism Reduction and Degradation

6.4.2.2.2.1 Identify Potential Candidates for CP Parallelism

Knowing the profile of your DB2 sequential queries before enabling them for CP parallelism is important because only processor-intensive queries will benefit from concurrent executions.

The type of DB2 queries that consume large amounts of processor time include:

- Queries involving large volumes of data scans, but whose selection criteria only return a few rows.

- Queries accessing long data rows with a very low rows per page ratio.

- Queries containing aggregate column functions (like AVG, SUM, etc.), which generally return a single result after scanning multiple rows.

- Queries involving large data sorts.

The commonly used criteria to determine if a query is CP-intensive is the ratio of the total TCB time to the total elapsed time. The following computation, from the DB2 User Activity file (DB2DSU) provides this ratio:

CP_RATIO = (DSUTCBTM / DSUELPTM) * 100

If CP_RATIO is less than 30%, the query will not take advantage of CP parallelism.

If CP_RATIO is between 30% and 70%, the query is well-balanced and enabling it for CP parallelism may slightly improve its performance.

If CP_RATIO is greater than 70%, then the query is

processor-intensive and is a good candidate for CP parallelism.

6.4.2.2.2.2 Analyzing CP Parallelism Performance

In this section, you are presented with a list of questions and explanations that should be taken into account when optimizing a DB2 query after enabling parallelism:

1. Did the overall performance of the query improve?

   Element or Computation: DSUELPTM vs. DSUTELPT

   Explanation: The difference between these two data elements is that DSUELPTM represents the elapsed time of only the parent task, which is the actual query response time while DSUTELPT is the accumulation of all parallel tasks, the parent plus all child subtasks. Thus, DSUTELPT is equivalent to the total query elapsed time, when executed sequentially.

   If DSUELPTM is significantly lower than DSUTELPT, the goal is achieved.

2. How many parallel tasks were generated for this query?

   Element or Computation: DSUNTHRD + DSUPCNT

   Explanation: When a query is enabled for CP parallelism, instead of creating a unique SMF type 101 record for the complete thread, DB2 generates one record for the originating parent task and either one additional rollup record containing summary information for all the parallel child subtasks (when the DB2 parameter PTASKROL is set to YES) or one record per individual parallel subtask executed (when the DB2 parameter PTASKROL is set to NO). When CA MICS detects that a record belongs to a parallel query, it sets these two variables for the parent record: DSUNTHRD is set to one and DSUPCNT is set to the number of parallel subtasks generated. For subtasks record(s), they are both forced to zero.

For example, if an originating task creates 8 parallel subtasks, the total number of tasks executed for the query will be 9 (1 in DSUNTHRD and 8 in DSUPCNT). This is very important when you want to derive average measurements per task.

3. What is the average TCB time per parallel task?

   Element or Computation: DSUTCBTM

   DSUNTHRD + DSUPCNT

   Explanation: DSUTCBTM contains the sum of all parallel tasks TCB time. This includes the parent task and all child subtasks.

4. What is the average elapsed time per parallel task?

   Element or Computation: DSUTELPT

   DSUNTHRD + DSUPCNT

   Explanation: You must use DSUTELPT, which is the only data element containing the accumulated elapsed times of all parallel tasks, including the parent task, and not DSUELPTM, which only represents the elapsed time of the parent task.

5. Is parallelism well balanced across all subtasks?

   Element or Computation: DB2PTASK

   Analyze in detail how each parallel subtask performs compared to its counterpart. This task should be carefully planned and should only be performed for a short-term, as it may have severe implications on your data center operations and CA MICS daily processes.

   By default, the PTASKROL value of the DB2 system parameter is YES, which means DB2 rolls up all child tasks information into a single SMF type 101 record. If you want task level information, you will have to change the PTASKROL value to NO, which instructs DB2 to

write a SMF type 101 record for each individual parallel subtask. This action may flood your installation's SMF data sets and lead to severe operational problems.

Once the SMF data is created, you will have to store it in the CA MICS database. This can be done by activating the DB2DSU file in the DETAIL timespan (by default, the DB2DSU file is inactive). Again, this may lead to disk space problems during your CA MICS daily processing. However, you can use the TAPEDSU facility to create the detail file on tape, rather than disk.

Data element DB2PTASK, Special Transaction Type Identifier, allows you to determine if the observation represents the activity of the parent task or of the child subtask activity. For more information, see the DB2PTASK data dictionary entry.

6.4.2.2.2.3 Parallelism Reduction and Degradation

In DB2, the optimal number of parallel operations or tasks used to access data in order to achieve minimum elapsed time is initially determined at bind time, and later adjusted when the query is executed. If the query cannot be run at the planned degree, as determined by DB2, parallelism will execute at a reduced degree or will degrade to sequential operations.

This section summarizes the reasons for parallelism reduction and degradation, and provides you with some related CA MICS data elements, when available, that you may find useful for monitoring.

The easiest way to verify if parallelism ran at the planned degree is to compare the values of the following data elements:

- DSUTOGRP: Parallel Groups Executed
- DSUNOGRP: Parallel Groups Exec Planned Degree

A parallel group is a set of parallel operations. A single query can have several parallel groups, but each group within the query is identified by its own unique number.

If the number of parallel groups executed at the planned degree is not equal to the total number of parallel groups executed, then parallelism reduction or/and degradation occurred at some point for one of the following reasons:

```
o  Lack of Virtual Buffer Pool Space Availability
   ---------------------------------------------

   Element(s) :  DSUDGBUF, DSURDGRP, DSURPOP2, DSUSKIP

   Explanation:  Non-zero values for any of these data
                 elements is an indicator of a storage
                 shortage or contention on the buffer pool
                 that affected parallelism execution.  You
                 may want to increase the current buffer
                 pool using the ALTER BUFFERPOOL
                 statement, or assign table spaces
                 accessed by this query to a different
                 buffer pool using the ALTER TABLESPACE
                 statement.

o  Runtime Host Variable Values
   ----------------------------

   Element(s) :  Not Available

   Explanation:  In an application program, a variable
                 that is referenced by embedded SQL
                 statements can determine the qualifying
                 partitions of a table for a given query.
                 In this case, determination of optimum
                 parallelism degree is deferred until
                 runtime, when the host variable value is
                 known.

o  Updateable Cursor
   ----------------

   Element(s) :  DSUDGCUR

   Explanation:  A non-zero value in this data element
                 indicates that DB2 determined, at
                 runtime, that an ambiguous cursor was
                 updateable, and that the parallel groups
                 fell back to sequential mode.  This
                 situation can occur when a query is bound
                 with the CURRENDATA(YES) option, and if
                 DB2 cannot tell if the cursor is
                 read-only.  To ensure DB2 will consider
                 parallelism for ambiguous cursors, you
                 can choose the CURRENDATA(NO) bind
                 option.  However, it is best to always
                 prevent such a situation, by indicating
```

when a cursor is read-only on the DECLARE CURSOR statement.

- Lack of Proper Hardware and Software Support

  Element(s) : DSUDGESA, DSUEGENC

  Explanation: If the hardware sort facility is not available at runtime, and a sort merge join is needed, DSUDGESA will have a non-zero value. Similarly, if enclave services are unavailable, DSUEGENC will have a non-zero value. Enclave services are required for distributed requests, because the parallel tasks run under an enclave SRB, unlike non-distributed requests, for which parallel tasks run under a client SRB.

- Changes in the Configuration of Online Processors

  Element(s) : DSURPOP1

  Explanation: DB2 can reduce the parallelism degree if there are fewer online central processors (or, for sysplex parallelism, DB2 members) available at runtime than at bind time. DSURPOP1 has to be used as a potential problem indicator only if parallelism did not run at the planned degree, because a non-zero value does not necessarily mean that a reduction occurred. If the change in configuration results in an increase of the processing power, DB2 can increase the parallel degree to take best advantage of this updated configuration.

- Disabled by the Resource Limit Facility (RLF)

  Element(s) : DSURLFDP

  Explanation: This data element provides the number of threads for which query parallelism was disabled by the RLF.

o Execution Limited to a Single DB2 Subsystem

Element(s) : DSUORNO, DSUORR, DSUPGDTT

Explanation: These data elements indicate that parallel groups executed on a single DB2 subsystem due to one of the following reasons:

- For DSUORNO: Either the COORDINATOR subsystem parameter was set to YES at bind time, but the parameter is set to NO at runtime; or the plan or package was bound on a DB2 with the COORDINATOR subsystem parameter set to YES, but the program is being run on a different DB2 that has the COORDINATOR value set to NO.

- For DSUORR: The plan or package was bound with an isolation value of REPEATABLE-READ or READ-STABILITY.

- For DSUPGDTT: Sysplex parallelism was downgraded to CP parallelism for parallel groups because they referenced a user-defined function (UDF), and a declared temporary table was detected at runtime.

6.5 ACCUMACC Roll-up Records

Beginning with DB2 Version 8.1, the ACCUMACC zPARM can be used to instruct DB2 to summarize accounting records for DDF and RRSAF transaction records prior to writing to SMF.

To use this feature, an ACCUMACC threshold parameter is specified in the range from 2 to 65535. This threshold represents the number of records that will be summarized before a roll-up record is written. The roll-up is done for each end-user identifier, defined as the concatenation of end-user ID, end-user transaction name, and end-user workstation name.

The data element names representing these key data elements are found in the DB2 User Activity (DB2DSU) file:

- DSUEUTX End User Transaction Name
- DSUEUWN End User Workstation Name
- DSUEUID End USERID

A related DB2 zPARM, ACCUMUID, permits customization of the end-user fields used for summarization. The following combinations are permitted:

- End user ID, transaction name, and workstation name.
- End user transaction name.
- End user workstation name.
- End user ID and transaction name.
- End user ID and workstation name.
- End user transaction name and workstation name.

ACCUMACC and the CA MICS DB2 Analyzer

External access to mainframe based DB2 databases can result in high volumes of DDF and RRSAF transactions. ACCUMACC offers relief via lower volumes of SMF data records, but with some loss of information.

o Character Fields

  Character fields cannot be summarized. In some cases, IBM stores the character field from the last accounting record summarized. In other cases, character fields are left empty in the SMF data records.

o Numeric Fields

  Most numeric fields representing counts are summarized

```
  correctly in the ACCUMACC roll-up records.  Fields that
  represent timestamp values and certain bit-map fields,
  however, cannot be accurately summarized.

In cases where data is unreliable or unavailable, it must be
interpreted differently due to ACCUMACC summarization.
CA MICS data dictionary element descriptions provide the
information necessary to understand the data element values
represented.  In cases where numeric data metrics are
unavailable with ACCUMACC summarization, CA MICS sets the
values to missing (.).

CA MICS file observations created from ACCUMACC roll-up
records are easily identified.  Data element Special
Transaction Type Identifier (DB2PTASK) is set to 'ACUMAC'
when the source record was an ACCUMACC roll-up record.

The following sections explain the impact of ACCUMACC on
several CA MICS DB2 Analyzer files.  Included is information
to assist you in understanding how well ACCUMACC is reducing
SMF record volume.

  1 - ACCUMACC and DB2 Region Level Files
  2 - ACCUMACC and Transaction Level Files
```

6.5.1 ACCUMACC and DB2 Region Level Files

The DB2 System Activity (DB2DSY) file is built from interval records generated at the DB2 region level. Included in the file are four data elements that count the number of DDF and RRSAF ACCUMACC records written for the region over the time interval represented by the CA MICS file observation:

```
DSYACFTQ - ACCUMACC Count: Failure to Qualify
DSYACSTR - ACCUMACC Count: Storage Exceeded
DSYACSTL - ACCUMACC Count: Staleness
DSYACUTR - ACCUMACC Count: Threshold Exceeded
```

The first data element, DSYACFTQ, quantifies the number of DDF and RRSAF transaction records that were written unsummarized because one or more of the summarization key fields was null.

The other three data elements quantify the number of roll-up records written. The most common reason that a roll-up record is written is because the ACCUMACC threshold value was exceeded (DSYACUTR).

The other two reasons, staleness and storage exceeded, mean that a decision was made to write the roll-up record prior to summarizing the amount of records specified by the ACCUMACC threshold value.

By analyzing DSYACUTR and knowing your ACCUMACC threshold value, you can determine SMF record reduction by DB2 region.

For example, if your ACCUMACC threshold is 10 and DSYACUTR has a value of 1000 in a CA MICS observation, you know that without ACCUMACC, the region would have written 10,000 DDF and RRSAF transaction records, but instead, they were consolidated into 1000 roll-up records, a reduction of 9,000 SMF records over the time period represented by the DB2DSY file observation.

6.5.2 ACCUMACC and Transaction Level Files

```
FILE: DB2 User DDF Activity (DB2DDU)

The DB2 User DDF Activity (DB2DDU) file will not contain
observations for ACCUMACC roll-up records.  In DB2 Version 8,
the DB2 DSNDQLAC DDF metrics are not rolled-up for DDF
transactions.  Normally, the SMF type 101 subtype 0
transaction accounting record for DDF activity contains a
record segment containing the DDF metrics defined in the DB2
DSNDQLAC macro.  This SMF record yields a DB2DSU file user
activity record and a corresponding DB2DDU file DDF activity
record in your CA MICS database.  With ACCUMACC, you will no
longer have DB2DDU file observations for rolled-up DDF
transaction records.

FILES: DB2 User Activity (DB2DSU)
       DB2 Plan Activity (DB2DSP)

The DB2 User Activity (DB2DSU) and DB2 Plan Activity (DB2DSP)
files are built from SMF type 101 subtype 0 transaction
accounting records.  At the DETAIL timespan, these two files
are virtually identical.  The difference in these files is
found in the DAYS and higher timespans.  The DB2 Account Code
data elements are used as summarization keys in the DB2DSU
file, allowing the file to be summarized by user related
metrics.  The DB2DSP file, on the other hand, includes DB2
Plan Name (DB2PLAN) and Connection Identifier (DB2CONN) in
the summarization keys providing for a more technical
summarization of transaction activity.

In the DETAIL timespan, you can identify DB2DSU and DB2DSP
file observations representing ACCUMACC roll-up records by
examining the value of the Special Transaction Type
Identifier (DB2PTASK) data element.  DB2PTASK='ACUMAC' for
ACCUMACC roll-up records.

Data elements in these files are adjusted as described below
for observations created from ACCUMACC roll-up records (note
that fff represents both DSP and DSU):

o Modified data elements:

  fffNTHRD - Count of Threads Initiated

  For non-ACCUMACC records, fffNTHRD is set to 1 in each
  DETAIL timespan DB2fff file observation.  For ACCUMACC
  roll-up records, however, fffNTHRD is set to the value of
  field QWACPCNT, which contains the number of individual
```

accounting records summarized in the roll-up record.

o Unavailable data elements:

  fffBGTCB - Beginning TCB Timer
  fffENTCB - Ending TCB Timer
  fffENTEX - No. of Entry/Exit Events Processed
  DB2NETID - Network Identifier

  For ACCUMACC records, the raw data fields from which these data elements are unavailable or redefined. The CA MICS DB2 Analyzer sets these elements to missing values for ACCUMACC roll-up records.

o Data elements reflecting the value of the last accounting record to be rolled up:

  DB2AUTH - Authorization Identifier
  DB2CORR - Correlation Identifier
  DB2CONN - Connection Identifier
  DB2PLAN - Plan Name
  DB2OPID - Original Operator ID
  fffCATYP - Connecting System Type Code
  fffCICLU - CICS Terminal LU Name
  fffCICNT - CICS Network Identifier
  fffCICUW - CICS Logical Unit of Work ID

  These data elements are all included, unmodified, in the DB2DSU file observations for ACCUMACC roll-up records. Note that the value represented may not reflect the value encountered in all records summarized in the roll-up. Per IBM, the value stored in the SMF roll-up record represents the value encountered in the last record rolled-up.

The following data elements are provided to assist in understanding ACCUMACC activity:

  fffACNT - No. ACCUMACC Records Encountered
  fffACUTR - ACCUMACC Count: Threshold Exceeded
  fffACSTR - ACCUMACC Count: Storage Exceeded
  fffACSTL - ACCUMACC Count: Staleness

  fffACNT is set to 1 for observations created from ACCUMACC roll-up records. In the same observation, one of the other three data elements is set to 1 based on the reason that the roll-up record was written.

  fffNATHD - Count of ACCUMACC Roll-up Threads

```
  fffNATHD is set equal to the number of individual
  accounting records rolled-up in an ACCUMACC roll-up record.
  By dividing fffNATHD by fffACNT, you can determine the
  number of individual records rolled-up, on average, into
  ACCUMACC roll-up records.

FILE: DB2 Package/DBRM Activity (DB2DPP)

The DB2 Package/DBRM Activity (DB2DPP) file is built from SMF
type 101 subtype 1 package records.  This file is the most
impacted by ACCUMACC because a major summarization key data
element in this file, Package/DBRM Name (DB2PKNM) is not
available.

For DDF and RRSAF transaction records rolled-up with
ACCUMACC, the rolled-up SMF type 101 subtype 1 record
contains a single package segment where all package activity
for all rolled-up transactions is summarized.  The raw data
fields that comprise Package/DBRM Name are set to binary
zeros.

The primary purpose of the DB2DPP file is to permit analysis
of DB2 package activity, by Package/DBRM Name.  With ACCUMACC
summarization masking package name, DB2DPP file observations
for rolled-up DDF and RRSAF transactions are of dubious
value.  In addition, there is no indication of the number of
individual package segments represented by the accumulated
numeric data elements.

Rather than storing binary zeros in the DB2PKNM data element,
the Analyzer Option for DB2 stores the value 'ACCUMACC
ROLLUP RECORD' in observations created from ACCUMACC
roll-up records.

In the DETAIL timespan, you can identify DB2DPP file
observations representing ACCUMACC roll-up records by
examining the value of the Special Transaction Type
Identifier (DB2PTASK) data element, DB2PTASK='ACUMAC' for
ACCUMACC roll-up records.  Additionally, the DB2PKNM data
element will always contain 'ACCUMACC ROLLUP RECORD'.

Data elements in the DB2DPP file are adjusted as described
below for observations created from ACCUMACC roll-up records:

o Unavailable data elements:

  DPPAAFG  - Activity Flag
  DPPAANM  - Name of Activity
  DPPASCH  - Nested Activity Schema Name
```

```
DPPBEGSC - Package/DBRM Beginning Store Clock
DPPBGTCB - Package/DBRM TCB Time At Entry To DB2
DPPDBRM  - Number of DBRMs
DPPELRTM - Elapsed Time for Most Recent Execution
DPPENDSC - Package/DBRM Ending Store Clock
DPPENTCB - Package/DBRM TCB Time At Exit From DB2
DPPENTEX - Entry/Exit Events Processed
DPPINSP  - No. Packages Loaded by Stored Proc.
DPPNSTP  - Number of Native SQL Procedure
DPPPACK  - Number of Packages
DPPSPNS  - No. Stored Procedures Executed
DPPSQLC  - SQL Stmts Issued
DPPSUAC  - No. Successful Authorization Checks
DPPTCRTM - TCB Time for Most Recent Execution
DPPUDNU  - No. User-Defined Functions Scheduled

For ACCUMACC records, the raw data fields from which these
data elements are derived are unavailable or redefined.
The CA MICS Analyzer Option for DB2 sets these elements
to missing values for ACCUMACC roll-up records.
```

6.6 CA MICS and CA SMF Director Interface

CA SMF Director is an SMF management product with special features that can be used to optimize CA MICS processing. CA SMF Director can significantly reduce operational overhead by creating content specific files while simultaneously creating an SMF historical archive during the SMF dump process.

CA MICS DAILY and incremental update operational jobs can be modified to take advantage of this product, provided your site is licensed for and has CA SMF Director installed in your environment.

CA SMF Director provides functions that extract SMF data at dump time or from previously archived SMF files. These functions eliminate the need for any external utilities used for preprocessing of the SMF dump tape for data extraction prior to execution of the DAILY job. In addition, the DAYSMF step of the CA MICS DAILY job may no longer be required. For details on how to eliminate the DAYSMF step, see section 5.10, Removing the DAYSMF Step from the DAILY Job of the PIOM guide.

CA SMF Director SPLIT and EXTRACT statement operands provide a way for you to create content specific files to meet your requirements. The main functions of the operands include the ability to:

- Select system identifiers
- Select or exclude SMF record types and subtypes
- Use conditional statements for granularity
- Define time boundaries for SMF data

To use the SPLIT function of CA SMF Director for CA MICS components, one or more SPLIT statements must be coded. The split is performed at SMF dump time and the files can then be used as input to products in one or more units. The same results can be accomplished by using the EXTRACT function of CA SMF Director, which retrieves data from the previously created history files. For more information on the SPLIT and EXTRACT functions, see the CA SMF Director User Guide at http://ca.com/support.

A complete set of SMF record types and subtypes, for each CA MICS component that inputs SMF data, can be found in sharedprefix.MICS.PARMS(cccSMFD), where ccc is the three-character product identifier. Each PARMS member lists the available SMF record types and subtypes for that component in a format suitable for use in CA SMF Director SPLIT and EXTRACT statements. These members are provided as examples only; the CA SMF Director JCL should not reference sharedprefix.MICS.PARMS(cccSMFD).

Chapter 7: PARAMETERS

This chapter shows you how to complete the required definitions for installing the CA MICS Analyzer Option for DB2. You must understand your data center and its needs, then translate that understanding into CA MICS parameters. This chapter will lead you through the parameter specifications required for installing the DB2 Analyzer. You must make a number of policy decisions, fill out several worksheets, and translate the worksheet entries into the corresponding parameter library member entries.

Note that the focus of this chapter is on the considerations that are unique to the DB2 Analyzer. Chapters 2 and 3 of the PIOM document the mechanics of the CA MICS installation process and include checklists that describe each installation step.

If you have a question at any time, contact Technical Support at http://ca.com/support.

This section contains the following topics:

7.1 Environmental Considerations (see page 460)
7.2 Complex Level Parameters (see page 461)
7.3 Unit Level Parameters (see page 475)

7.1 Environmental Considerations

Before coding the installation parameters, you need to know about the DB2 environment at your installation. To do so, we suggest that you perform the following:

- Examine existing user groups, account codes, and job control information used by DB2. This information helps you code appropriate values for the account code parameters of the DB2 Analyzer.

- Review the default setting of the installation parameters provided by the DB2 Analyzer to determine their applicability to your environment.

- Review current CA MICS parameter specifications:

  - Review data base unit specifications to determine which unit or units should include DB2 data. Normally this will be the same data base unit that the SMF/RMF component are install.

  - Review the SYSID parameter to determine whether it correlates to the DB2 data. Your site's SYSID definition is located in the prefix.MICS.PARMS data set associated with each data base unit.

  - Review the CA MICS ZONE parameter to ensure that it reflects the variations in DB2 data. This parameter is located in the prefix.MICS.PARMS data set associated with each data base unit.

  - Examine existing accounting standards for other CA MICS products, if applicable, to ensure that CA MICS Accounting and Chargeback aggregates information consistently.

7.2 Complex Level Parameters

This section shows you how to specify the complex level parameters that define the processing of the CA MICS Analyzer Option for DB2. The definitions apply to all CA MICS database units in which the DB2 Analyzer is installed.

The following topics are presented:

1 - DB2GENIN Customization
2 - Account Code Structure (DB2ACCT)
3 - Account Code Derivation Routine (DB2ACRT)

7.2.1 DB2GENIN Customization

```
This section discusses customizing DB2GENIN using the OPTION
 and COMPRESS statements.

 The OPTION Statement
 --------------------
 To define DB2 Analyzer file processing options, code the
 OPTION statement, specifying one term from each pair of
 keywords.

  OPTION <NODDF/DDF> <NOSERV/SERV> <NOPKG/PKG/PKG10>
         <NOSHARE/SHARE> <NOBUFFER/BUFFER>
         <BPELEMENT/NOBPELEMENT> <NOIDAA/IDAA>

 where:

 NODDF/DDF    controls whether the Analyzer is to process data
              for the distributed data facility (DDF)
              information that is contained in the DB2 SMF
              records.  The default is DDF.

              When NODDF is set, the following CA MICS
              files are deactivated:

              DB2DDY--System DDF Statistics
              DB2_SH--System DDF Suspend
              DB2DDU--DB2 User DDF Activity
              DB2DDP--DB2 Plan DDF Activity

              Additionally, all  DDF-related elements,
              identified with cluster code 10, are turned off
              in the following files:

              DB2DSY--DB2 System Activity
              DB2DSD--DB2 Database Activity
              DB2DSU--DB2 User Activity
              DB2DSP--DB2 Plan Activity

              The NODDF option overrides FILE statement
              specifications for the DDF files and the NAME
              statement specifications for the DDF elements in
              the other CA MICS DB2 files.  See the notes
              below for more information about how to
              coordinate the DDF and non-DDF CA MICS files.

 NOSERV/SERV  controls whether the Analyzer populates
              elements whose data comes from fields that IBM
              has labeled serviceability fields.
```

Serviceability fields are used at IBM's request for problem determination. The only information provided about these fields comes from the DSECTs (dummy control sections).

The default is NOSERV, which saves space in the CA MICS database by not populating the elements that come from serviceability fields.

Note: The sequence/summary elements for the following pairs of files should match. If you tailor the sequence/summary elements in the Primary File, you should tailor the Associated DDF File the same way.

Primary File	Associated DDF File	Activity Captured
DB2DSY	DB2DDY	System
DB2DSU	DB2DDU	User
DB2DSP	DB2DDP	Plan

Note: The DB2DSP and DB2DDP Plan Activity files are required for Plan Performance reporting. These plan activity files are generated by renaming the DB2DSU and DB2DDU User Activity file elements at the WORK file level.

Because CA MICS WORK files are built using KEEP lists at the DETAIL timespan, you must ensure that the DB2DSP and DB2DDP elements are defined at the DETAIL timespan in the associated DB2DSU and DB2DDU files.

The DB2DSU and DB2DDU files do NOT have to be activated at the DETAIL timespan to define elements in the KEEP list for the DETAIL timespan. See chapter 4 of the System Modification Guide for detailed information about activating CA MICS elements at various timespans.

NOPKG/ PKG/ PKG10 — controls whether the Analyzer processes data for packages and database request modules (DBRM) contained in the SMF type 101 subtype 1 record.

NOPKG, the default, deactivates the Package/DBRM Activity (DB2DPP) file and turns off all related elements found in DB2GENIN with cluster codes 13

and 20.

PKG activates the DB2DPP file, and turns on the basic package data elements mapped by the DB2 DSNDQPAC macro, identified by cluster code 13.

PKG10 performs the same functions as PKG, and additionally, activates both the read-up of DB2 Accounting Trace Class 10 data metrics for packages, and the inclusion of the related data elements in the DB2DPP file. The data metrics are mapped by the DSNDQXPK, DSNDQBAC, and DSNDQTXA macros, and the related data elements are identified by cluster code 20.

NOSHARE/SHARE — controls whether the Analyzer is to process data sharing information. The default, NOSHARE, turns off elements with cluster code 12 in the following files:

DB2DSY--DB2 System Activity
DB2DSD--DB2 Database Activity
DB2DSU--DB2 User Activity
DB2DSP--DB2 Plan Activity

NOBUFFER/BUFFER — controls whether the Analyzer processes Expanded Buffer Pool files. The default, NOBUFFER, turns off the following files:

DBPDSB--DB2 Buffer Pool Activity
DBPDBU--DB2 User Buffer Pool Activity
DBPDBP--DB2 Plan Buffer Pool Activity

NOBPELEMENT/BPELEMENT — controls whether unique data elements for buffer pools 0, 1, 2, and 80 are kept in the DB2DSU, DB2DBU, and DB2DSD files. If NOBPELEMENT is set, only totals for buffer pool elements are kept. BPELEMENT is the default.

NOIDAA/IDAA — controls whether unique data elements for IBM's Analytics Accelerator are kept in the DB2DSI, DB2DSP, and DB2DSU files.
The default value is NOIDAA.

Each of the above keywords controls the activation of data elements that are associated with a cluster code. The following table summarizes the cluster codes used in the DB2 Analyzer.

DB2 Analyzer Cluster Codes

Code	Keyword	Description
10	DDF	Distributed Database Facility
11	SERV	Serviceability Fields
12	SHARE	Data Sharing
13	PKG or PKG10	Package and DBRM
14	BUFFER	Buffer Files
15	BPELEMENT	Individual Buffer 0 - 3 Elements
18	IDAA	DB2 Analytics Accelerator
20	PKG10	Accounting Trace Class 10 metrics for packages

The COMPRESS Statement

The SAS system gives you the option to create variable-length or fixed-length observations in a SAS data set. Variable-length observations differ from fixed-length observations in that the former are usually smaller because the blank spaces used to pad fixed-length observations are removed.

You instruct SAS to create variable length observations by specifying the COMPRESS= option. SAS data set compression can be implemented for individual data sets or across the entire SAS system by specifying COMPRESS= on either a DATA statement (for the individual data set named on the DATA statement) or an OPTIONS statement (for the entire system).

For more information on the COMPRESS= option, see the SAS Institute documentation.

```
Do not compress the DB2 Analyzer's interim work files:

DB2_DS, the System Activity Suspend File
DB2_DD, the Database Activity Suspend File
DB2_DI, the System IDAA Suspend File
DB2_DA, the Aggregated Accounting Stats Suspend File
DB2_SH, the System DDF Suspend File
DB2_DB, the System DBP Suspend File
DB2_SU, the System Storage Usage Suspend File
DB2_SS, the Sys Stor Usage by AS Suspend File
DB2_BP, the Buffer Manager Group Suspend File
DB2_BM, the Buffer Manager Suspend File
```

7.2.2 Account Code Structure (DB2ACCT)

In CA MICS, data about DB2 activity is stored by account codes in the DB2 User Activity (DB2DSU) and DB2 User DDF Activity (DB2DDU) files.

The parameters you specify in sharedprefix.MICS.PARMS(DB2ACCT) define the number of account code fields that will be carried in these files, the length of each field, and the SAS long names that are associated with each field. Once the fields are defined, you provide a routine that assigns them values (see Section 7.2.3).

Preparing to Define Account Codes

Each data center has its own method for associating its DB2 work with the responsible users, projects, or departments. Before defining account codes, it is important that you investigate your data center's accounting standards to do the following:

- Identify the current organizational coding system (for example, a cost center coding system identifying the division, department, project, and employee) and determine how the account codes are specified.

- Identify the naming conventions for physical and logical entities such as database name, tablespace name, user ID name, and connected subsystem ID.

- Identify if, and how, the codes are verified to ensure that they correspond to valid definitions. You should always validate account codes and assign unidentified or invalid account codes to a special data center overhead account code. This approach provides you with two benefits:

  - It groups all invalid codes under the same category and therefore requires less DASD space.

  - It enables you to easily determine how much of this overhead activity is taking place.

Consider the following suggestions in determining the number of account codes required to meet your data center's reporting and analysis needs:

- Account codes are part of the summarization keys for the

files that support them. As such, at least one record is generated for each combination of values. Therefore, the higher the number of account codes, the more DASD space the database will require. But, at the same time, a higher number of account codes also supports data analysis at a greater level of detail.

o If you anticipate needing to expand the account code structure in the future, establish an extra account code now to eliminate the need to retrofit the database later to add the new account code.

Defining Account Codes

Account code field names are in the form DB2ACTx, where x is the sequential number of the account code field. If three fields are defined, they will be DB2ACT1, DB2ACT2, and DB2ACT3. In your accounting structure, these might identify the authorization ID, correlation ID, and connection method.

The sequential number is called the account code field "level" number. You can have a maximum of nine levels. A sample account code structure is provided in sharedprefix.MICS.PARMS(DB2ACCT).

Figure 7-1 provides a worksheet for collecting the data. The worksheet should be filled in as follows:

o Code a separate statement for each account code level.

o Blank statements are permitted. Comments are coded by beginning the statement with an '*'.

o Account levels are provided in order, starting with 1.

o Up to nine levels are permitted. No gaps are permitted between the numbers.

o The statement format is freeform but positional. The statement format is either:

level length 'descriptive title'

or

level (optional)mask length 'descriptive title'

where:

level = The level of importance of each account code, with level 1 being the most important and the highest level number being the least important. The levels are defined sequentially starting with 1. You can define up to nine levels. This parameter is required.

mask = An optional parameter that deactivates account codes in specified timespans. Specifying a timespan mask requires coding T(......) as the second parameter in a statement, where each . represents a file timespan, in the order of DETAIL, DAYS, WEEKS, MONTHS, YEARS, and TABLES. For each timespan, specify a Y to indicate that the account code is active or an N to indicate that it is inactive.

If you do not code the mask, it has a default value of T(YYYYYY).

The following rules apply if you code the mask:

- DETAIL must always be Y. Account codes may not be deactivated in this timespan.
- If DAYS is N, then WEEKS, MONTHS, and YEARS must also be N. If the account code is inactive in the DAYS timespan, it cannot be active in higher timespans.
- If MONTHS is N, then YEARS must be N. If the account code is inactive in the MONTHS timespan, it cannot be active in the YEARS timespan.

length = The length of the account code. The length may range from 1 to 30. This parameter is required.

descriptive title = The title that describes the account code. The length of the title is 1 to 40 characters. The title is embedded in quotes ('). This is a required parameter.

A sample DB2ACCT member with four levels is illustrated below:

```
1  T(YYYYYY)   8 'AUTHORIZATION ID'
```

```
2  T(YYYYYY)  12 'CORRELATION ID'
3  T(YYYYYY)   8 'CONNECTION ID'
4  T(YYYYYY)   4 'DISTRIBUTED THREAD TYPE
```

```
+-------------------------------------------------------------------------+
| INSTALLATION PREPARATION WORKSHEET:  DB2  Account Code Level Definition |
|                                                                         |
| PARMS Library Member is DB2ACCT                                         |
+-------------------------------------------------------------------------+
|  ACCOUNT   (Optional)                                                   |
| CODE LEVEL timespan   FIELD                                             |
|   (1-9)      MASK     LENGTH          ACCOUNT CODE LEVEL TITLE          |
|                                                                         |
|     _      T(______)    __     '_____________________________________'|
|                                                                         |
|     _      T(______)    __     '_____________________________________'|
|                                                                         |
|     _      T(______)    __     '_____________________________________'|
|                                                                         |
|     _      T(______)    __     '_____________________________________'|
|                                                                         |
|     _      T(______)    __     '_____________________________________'|
|                                                                         |
|     _      T(______)    __     '_____________________________________'|
|                                                                         |
|     _      T(______)    __     '_____________________________________'|
|                                                                         |
|     _      T(______)    __     '_____________________________________'|
|                                                                         |
|     _      T(______)    __     '_____________________________________'|
|                                                                         |
+-------------------------------------------------------------------------+
```

Figure 7-1. DB2 Account Code Level Definition Worksheet

7.2.2.1 Add or Modify DB2 Account Structure

You can add, delete, or change the definitions of the DB2 account codes. However, changing the account code structure affects not only the content of the CA MICS database, but also your ability to produce consistent reports, as the DB2 files will be summarized differently afterwards. Your CA MICS Accounting and Chargeback files will also be affected. Therefore, you should implement the new account code structure when it will produce the least impact on your CA MICS system, such as during the testing phase or at the beginning of an accounting month.

Use the following checklist to alter the DB2 account code structure (DB2ACCT):

___ 1. Save a copy of sharedprefix.MICS.PARMS members DB2ACCT and DB2ACRT (if necessary) in sharedprefix.MICS.LOCALMOD.CNTL for recovery purposes.

___ 2. Modify sharedprefix.MICS.PARMS(DB2ACCT) to add, delete, or modify an existing account code definition.

___ 3. Submit sharedprefix.MICS.CNTL(DB2CGEN).

___ 4. Modify the DB2 Account Code Derivation Routine in sharedprefix.MICS.PARMS(DB2ACRT) to derive the account codes. Changes to this member take effect immediately, as this code is included in the next DAILY execution.

___ 5. Retrofit the 00 cycles of the DB2DSU and DB2DDU files in the WEEKS, MONTHS, and YEARS (if active) timespans if you added or deleted an account code level or shortened the account code length. See Section 6.3.2 of the System Modification Guide for a sample retrofit routine.

7.2.3 Account Code Derivation Routine (DB2ACRT)

After you have defined DB2ACCT for the number of account codes to be carried in your DB2 files, code the Account Code Derivation Routine (DB2ACRT) in sharedprefix.MICS.PARMS. DB2ACRT is a SAS routine that derives the account code data elements during the DAY065 step. For example, if you have defined four account codes in DB2ACCT, then your DB2ACRT exit must contain SAS code to derive the data elements DB2ACT1, DB2ACT2, DB2ACT3, and DB2ACT4.

The DB2ACRT code is included directly into the DAY065 step. If you modify the DB2ACRT code, the changes will take effect during the next DAILY update run.

You are responsible for testing the accuracy of the exit routine; however, the Analyzer provides a sample exit routine. The worksheet for coding the DB2ACRT exit is shown in Figure 7-2.

A sample DB2ACRT member is shown below:

```
/*********************************************************/
/*                                                       */
/* DB2ACT1 - Retain Auth. ID identifying requestor.      */
/*                                                       */
/* DB2ACT2 - Retain transaction, "*BATCH*" or Correlation */
/*   ID. Correlation ID for batch requests will contain  */
/*   JES job name so "*BATCH*" is used to group all batch */
/*   interface requests.  Retaining each unique batch job */
/*   name in DB2ACT2 would increase the size of each     */
/*   CA MICS cycle of data.                              */
/*                                                       */
/* DB2ACT3 - Retain interface connection method used to  */
/*   access DB2.                                         */
/*                                                       */
/* DB2ACT4 - Retain DB2 thread type.                     */
/*                                                       */
/* NOTE:  This sample exit assumes that the VTAM APPLIDs */
/*   assigned to CICS and IMS regions all begin with the */
/*   characters "CIC" and "IMS" respectively.  The SAS   */
/*   code must be changed if a different naming          */
/*   convention is used.                                 */

/*  Identify requesting user from Authorization ID       */
DB2ACT1=DB2AUTH;

/*  Identify requestor for specific Connection IDs       */
SELECT(DB2CONN);
```

```
  /*  Identify batch interface as being used              */
  WHEN ('BATCH')   DB2ACT2 = '*BATCH*';
  WHEN ('UTILITY') DB2ACT2 = '*BATCH*';
  WHEN ('DB2')     DB2ACT2 = '*BATCH*';
  WHEN ('DB2CALL') DB2ACT2 = '*BATCH*';
/*    Identify requestor for all other Connection IDs     */
  OTHERWISE DO;
/*      Retain the CICS trancode from the correlation ID  */
 IF DB2CONN =: 'CIC' THEN DB2ACT2 = SUBSTR(DB2CORR,5,4);
/*      Retain the IMS PSBNAME from the correlation ID    */
 ELSE IF DB2CONN =: 'IMS' THEN DB2ACT2 = SUBSTR(DB2CORR,5,8);
/*      Otherwise retain the entire correlation ID        */
    ELSE DB2ACT2 = DB2CORR;
  END;
END;

/*  Retain Connection ID for reference                    */
DB2ACT3=DB2CONN;

/*  Retain Thread Type for DB2 remote (DDF) accesses      */
DB2ACT4=DB2THDTY;
```

When CA MICS processes records that have Distributed Data Facility (DDF) input, the DB2ACRT routine writes account code values for the DB2 User DDF Activity (DB2DDU) file. In this case, CA MICS reads the QMDAACCT field which provides the MVS accounting string associated with the address space of an SQL application. Multiple account codes are supplied in the QMDAACCT field. CA MICS parses QMDAACCT so that these codes can be available in up to nine work variables with names DSUACTF1 through DSUACTF9. These work variables can be referenced in the DB2ACRT when populating the DB2ACTn account code elements for the DB2DDU file.

The multiple account fields for the SQL program can be seen in the EXEC statement as follows:

```
//STEP1   EXEC PGM=progname,ACCT=(W,X,Y,Z)
```

In this case the account code strings W, X, Y, and Z will appear in the QMDAACCT field which will populate work variables DSUACTF1, DSUACTF2, DSUACTF3, and DSUACTF4. These can be referenced in DB2ACRT by code that looks like this:

```
IF DB2THDTY GT 0 THEN DO:
  DB2ACT1=DSUACTF1;
  DB2ACT2=DSUACTF2;
  DB2ACT3=DSUACTF3;
```

```
  DB2ACT4=DSUACTF4;
END;

Using 'DB2THDTY GT 0' limits the input to the DDF cases.

+-------------------------------------------------------------------------+
| INSTALLATION PREPARATION WORKSHEET:  DB2 Account Code Routine Definition |
|                                                                         |
| PARMS Library Member is DB2ACRT                                         |
+-------------------------------------------------------------------------+
| * VALIDATE ACCOUNT CODES                                                |
|                                                                         |
| IF { account data is valid } THEN DO;                                   |
|                                                                         |
| * POPULATE ACCOUNT CODE FIELDS                                          |
|                                                                         |
|     DB2ACT1=field source 1 ;                                            |
|     DB2ACTn=field source n ;                                            |
|     _____________________________________________________________       |
|     _____________________________________________________________       |
|     _____________________________________________________________       |
|     _____________________________________________________________       |
|     _____________________________________________________________       |
| END;                                                                    |
| ELSE DO;                                                                |
|                                                                         |
| * ASSIGN TO OVERHEAD ACCOUNT                                            |
|                                                                         |
|     DB2ACT1='overhead category' ;                                       |
|     DB2ACTn='overhead category' ;                                       |
|     _____________________________________________________________       |
|     _____________________________________________________________       |
|     _____________________________________________________________       |
|     _____________________________________________________________       |
|     _____________________________________________________________       |
|                                                                         |
| END;                                                                    |
+-------------------------------------------------------------------------+
```

Figure 7-2. DB2 Account Code Routine Definition Worksheet

7.3 Unit Level Parameters

This section shows you how to define the unit level parameters for the DB2 Analyzer. These parameter definitions exist for each CA MICS database unit in which the DB2 Analyzer is installed.

The following topics are presented:

1 - DB2 Processing Options (DB2OPS)
2 - INPUTRDR and INPUTDB2 PARMS Members
3 - Database Space Modeling (DBMODEL)

7.3.1 DB2 Processing Options (DB2OPS)

```
The DB2OPS member of prefix.MICS.PARMS contains statements
for the DB2 Analyzer's processing options.

Numerous optional statements are supported that allow you to
customize the analyzer's behavior to meet your data center
requirements.

Operational statements are stored in the prefix.MICS.PARMS
cccOPS member, where ccc is the component identifier, and are
incorporated into the CA MICS system by running the
prefix.MICS.CNTL(cccPGEN) job.

************************************************************
*                                                          *
*  NOTE:  CHANGES to prefix.MICS.PARMS(cccOPS) members     *
*         REQUIRE EXECUTION of prefix.MICS.CNTL(cccPGEN)   *
*         to take effect.                                  *
*                                                          *
*         In addition, any change to parameters that       *
*         impact the DAILY operational job JCL such as,    *
*                                                          *
*         o  changing RESTART NO to RESTART YES,           *
*                                                          *
*         o  WORK parameter changes when RESTART NO is in  *
*            effect,                                       *
*                                                          *
*         o  Specifying TAPEfff (if this product supports  *
*            a DETAIL level TAPE option),                  *
*                                                          *
*         o  or changes to prefix.MICS.PARMS(INPUTccc),    *
*                                                          *
*         will require regeneration of the DAILY job by    *
*         executing prefix.MICS.CNTL(JCLGEND) or by        *
*         specifying DAILY in prefix.MICS.PARMS(JCLGENU)   *
*         and executing prefix.MICS.CNTL(JCLGENU).         *
*                                                          *
*         Refer to the checklist (if provided) for updating *
*         cccOPS parameters and running required generation *
*         jobs.                                            *
************************************************************
The following sections explain each of the optional
statements specified in prefix.MICS.PARMS(DB2OPS).

WORK, MULTWORK, and NOMULT Statements
Internal Step RESTART Statements
Incremental Update Statements
DETAIL Tape Processing
```

7.3.1.1 WORK, MULTWORK, and NOMULT Statements

```
WORK
----

This statement is optional.  It enables sites experiencing
either SAS WORK space allocation problems or out of work
space conditions during DAYnnn or INCRnnn (where nnn is the
job step number), daily or incremental update processing, to
allocate multiple WORK files.

You can allocate multiple WORK files for use during the daily
and/or incremental update job step.  The maximum number of
WORK files you can allocate varies by product.  These
additional work files are used in conjunction with the single
work data set allocated by default using the JCLDEF
parameters WORKUNIT and WORKSPACE.

Because the individual space allocation requirement for each
WORK file is typically much smaller, it is more likely to be
satisfied.

To take advantage of multiple WORK files support, edit
prefix.MICS.PARMS(cccOPS) and insert a WORK statement as
shown below:

WORK n data_set_allocation_parameters

where n is the number of WORK data sets

        Note: The default is three (3).
              The maximum is thirty five (35).

        data_set_allocation_parameters is one or more data
        set allocation parameters (for example, STORCLAS or
        SPACE) separated by spaces.

You can also specify the WORK parameter as the following:

WORK n XXX pppp ssss

where:

  n    is the number of WORK data sets
  XXX  is TRK or CYL
  pppp is the primary allocation
  ssss is the secondary allocation

Note:  When allocating any number of SAS WORK data sets, be
```

aware that one additional SAS WORK data set is automatically allocated to facilitate sorting. For example, if you allocate six SAS WORK data sets, you will actually get seven.

If you omit the data_set_allocation_parameters or the WORK parameter, the work data sets are allocated according to the values you specified for the WORKUNIT and WORKSPACE parameters in prefix.MICS.PARMS(JCLDEF). Use the data_set_allocation_parameters to override this default, either to alter the space allocation or to use System Managed Storage (SMS) parameters to control data set placement and characteristics.

Note: If you allocate insufficient space for the WORK data sets, DAYnnn and/or INCRnnn processing will fail and can only be restarted from the beginning.

Note: If internal step restart is active, you can override the WORK data set allocation parameters at execution-time using the //PARMOVRD facility. For more information about execution-time override of dynamic data set allocation parameters, see the PIOM, section 2.3.6.

Specify data set allocation parameters, separated by blanks, according to SAS LIBNAME statement syntax. If you need multiple lines, repeat the WORK keyword on the continuation line.

WORK accepts the engine/host options documented in the SAS Companion for the z/OS environment, including STORCLAS, UNIT, SPACE, BLKSIZE, DATACLAS, MGMTCLAS, and VOLSER.

Important! Do not specify the DISP parameter.

Example 1:

```
WORK n STORCLAS=MICSTEMP SPACE=(XXX,(pppp,ssss),RLSE)
```

where:

```
  n        - is the number of WORK data sets.
  STORCLAS - specifies a storage class for a new data set.
             The name can have up to 8 characters.
  SPACE    - specifies how much disk space to provide for
             a new data set being allocated.
  XXX      - is TRK or CYL.
  pppp     - is the primary allocation.
  ssss     - is the secondary allocation.
  RLSE     - specifies that free-space should be released
```

```
              when the data set is closed.

Example 2:

WORK n XXX pppp ssss

where:

  n        - is the number of WORK data sets.
  XXX      - is TRK or CYL.
  pppp     - is the primary allocation.
  ssss     - is the secondary allocation.

Example 3 (multiple lines):

WORK n STORCLAS=MICSTEMP UNIT=SYSDA
WORK   SPACE=(xxxx,(pppp,ssss),,,ROUND))

where:

  n        - is the number of WORK data sets.
  STORCLAS - specifies a storage class for a new data set.
             The name can have up to eight characters.
  UNIT     - specifies the generic unit for a new data set.
             The name can have up to eight characters.
  SPACE    - specifies how much disk space to provide for
             a new data set being allocated.
  XXX      - is TRK or CYL.
  pppp     - is the primary allocation.
  ssss     - is the secondary allocation.

Note:  Since there is some performance impact when using
multiple WORK files, you should specify the minimum number of
WORK data sets to meet your work space requirements.  As a
start, try incrementing the number gradually beginning from
the default.


WORK Considerations
--------------------

How Much Space Should You Allocate?

o  First Time Implementation of Multiple Work Files

   If this is the first time you are implementing multiple
   work files for this product in this unit, review
   prefix.MICS.PARMS(JCLDEF) and find the WORKSPACE
   parameter.  It will resemble this sample statement:
```

```
WORKSPACE      TRK 500 250
```

The value shows the current SAS WORK space allocation for the unit as a single data set. It also serves as the default value used in the unit's DAYnnn daily update (and/or INCRnnn incremental update) step unless you provide a WORK parameter.

To achieve the equivalent work space allocation of WORKSPACE TRK 500 250 using multiple WORK data sets that will collectively share the work space requirements of the daily and/or incremental update step, you could code either one of these:

```
WORK 2 SPACE=(TRK,(250,125))
```

```
WORK 5 SPACE=(TRK,(100,50))
```

To determine the total work space, multiply the number of WORK files (n) by the primary (pppp) and secondary (ssss) values specified.

Note: To simplify the example, only the SPACE parameter is shown above. You can follow either with data set allocation parameters like UNIT or STORCLAS as required for your site.

o Adjusting Allocation for Existing Multiple WORK Files

If you have previously implemented multiple WORK file support for this product in this unit, and you want to change either the number of WORK files or the space allocations, examine prefix.MICS.PARMS(cccOPS) and find the existing WORK statement.

- If the existing WORK statement only specifies the number of WORK files but does not contain space allocation information as shown below:

  ```
  WORK 5
  ```

  Then each of the multiple WORK files is allocated using the values from the WORKSPACE parameter of prefix.MICS.PARMS(JCLDEF), as described earlier under First Time Implementation of Multiple Work Files.

  To increase workspace, you can increase the number of WORK files (for example, change WORK 5 to WORK 6,7,8,

or 9), increase the space allocation in the WORKSPACE parameter, or do both.

To decrease workspace, you can decrease the number of WORK files (for example, change WORK 5 to WORK 4,3,2, or 1), decrease the space allocation in the WORKSPACE parameter, or do both.

You can also elect to explicitly specify the multiple WORK file space allocation by adding the space allocation values directly to the WORK statement. This will remove the link to the prefix.MICS.PARMS(JCLDEF) WORKSPACE parameter for multiple WORK file space allocation. This is recommended as it serves to clearly document, in one place, how multiple WORK files are allocated.

- If the existing WORK statement does include space allocation as shown in the examples below:

  WORK 5 TRK 200 100

  or

  WORK 5 SPACE=(TRK,(200,100)) STORCLAS=MICSTEMP

  Simply change the values to meet your needs.

  If you need more work space, you can increase the number of WORK files (for example, change WORK 5 to WORK 6,7,8, or 9), increase the space allocation (for example, change TRK 200 100 to TRK 250 120), or do both.

  To decrease work space, you can decrease the number of WORK files (for example, change WORK 5 to WORK 4,3,2, or 1), decrease the space allocation (for example, change TRK 200 100 to TRK 150 80), or do both.

Note: If internal step restart is NOT active (RESTART NO) and you change the WORK parameter, you must:

o Run cccPGEN
o Run JCLGENU for DAILY (to regenerate DAILY) and, if incremental update is enabled, INCRccc

When internal step restart is active, (RESTART YES), then, when you change WORK and run cccPGEN, changes take effect immediately. There is no need to run JCLGENU.

```
SASWORK
-------

This statement is optional.

The WORK DD statement in the CA MICS procedures allocates
a temporary data set where SAS keeps its temporary data
files and other items that SAS uses during processing of
the current job.

By default, the space allocated is defined in the member
prefix.MICS.PARMS(JCLDEF) with the WORKSPACE and WORKUNIT
parameters, then generated into all the JCL procedures for
a given unit.

With the SASWORK statement you have the option to override
this unit-wide definition to specify the space allocation
individually for the current step.

The format of the SASWORK statement is:

SASWORK data_set_allocation_parameters

where data_set_allocation_parameters is one or more data set
allocation parameters (for example, STORCLAS or SPACE)
separated by spaces.

You can also specify the SASWORK parameter as the following:

SASWORK XXX pppp ssss

where:

  XXX  is TRK or CYL
  pppp is the primary allocation
  ssss is the secondary allocation

If you omit the data_set_allocation_parameters or the SASWORK
statement, the WORK data set is allocated according to the
values you specified for the WORKUNIT and WORKSPACE
parameters in prefix.MICS.PARMS(JCLDEF).  Use the
data_set_allocation_parameters to override this default,
either to alter the space allocation or to use System Managed
Storage (SMS) parameters to control data set placement and
characteristics.

Specify data set allocation parameters, separated by blanks,
```

```
according to SAS LIBNAME statement syntax.  If you need
multiple lines, repeat the SASWORK keyword on the
continuation line.

Example:

SASWORK STORCLAS=MICSTEMP SPACE=(XXX,(pppp,ssss))

where:

  STORCLAS - specifies a storage class for a new data set.
             The name can have up to 8 characters.
  SPACE    - specifies how much disk space to provide for
             a new data set being allocated.
  XXX      - is TRK or CYL.
  pppp     - is the primary allocation.
  ssss     - is the secondary allocation.


Note:  If you change the SASWORK parameter, you must:

o  Run cccPGEN
o  Run JCLGENU for DAILY (to regenerate DAILY) and, if
   incremental update is enabled, INCRccc

MULTWORK|NOMULT fff fff ... fff
-------------------------------

Since multiple work files usage impacts performance, this
product provides these optional parameters so you can
restrict multiple work files usage to only those files having
excessive space requirements.

Note:  You can only use one of these optional parameters with
the WORK statement, NOT both.

The MULTWORK parameter restricts the use of multiple WORK
files to ONLY those listed after the MULTWORK keyword.

MULTWORK fff fff ... fff

where fff is the unique three character identifier

If you need multiple lines, repeat the MULTWORK on the
continuation line.

The NOMULT parameter forces the use of multiple WORK files
for all files EXCEPT those specified after the NOMULT
keyword.
```

```
NOMULT fff fff ... fff

where fff is the unique three character identifier

If you need multiple lines, repeat the NOMULT on the
continuation line.

The default is as follows if neither MULTWORK nor NOMULT
parameters are specified:

MULTWORK DBU DDU DPP DSU DPX

The following files are eligible for multiple WORK support:

DB2   DB2 Information Area

  DDU   DB2 User DDF Activity File
  DPP   DB2 Package/DBRM Activity File
  DSU   DB2 User Activity File
  DPX   DB2 Package/DBRM Activity Work File

DBP   DB2 Buffer Pool Area

  DBU   DB2 User Buffer Pool Activity


The following section discusses changing the WORK option:

    1 - Change the Number of Work Files
```

7.3.1.1.1 Change the Number of WORK Files

To change the number of work files used in the CA MICS DB2 Analyzer processing in DAY065, follow the checklist provided below for each unit:

```
   ************************************************
   *                                              *
   *           CHANGE NUMBER OF WORK FILES        *
   *                                              *
   ************************************************
```

___ 1. Update the WORK statement in prefix.MICS.PARMS(cccOPS), where (ccc) is the component identifier, to specify the number of work data sets required. Below is an example:

```
WORK n STORCLAS=MICSTEMP SPACE=(XXX,(pppp,ssss))
```

where:

```
n        - is the number of WORK data sets.
STORCLAS - specifies a storage class for a new data
           set.  The name can have up to eight
           characters.
SPACE    - specifies how much disk space to provide
           for a new data set being allocated.
XXX      - is TRK or CYL.
pppp     - is the primary allocation.
ssss     - is the secondary allocation.
```

You should specify the minimum number of WORK data sets to meet your work space requirements. As a start, try incrementing the number gradually beginning from the default.

___ 2. If this is the first time you are implementing multiple work files for this product, then continue with Step 2. If you are just changing the number currently in use, or simply the space definitions, then proceed to Step 3 of this checklist.

Browse sharedprefix.MICS.PROTOLIB(DYcccnnn) and sharedprefix.MICS.PROTOLIB(cccINCR), where (nnn) is the job step number and (ccc) is the product ID for this product, checking for the presence of the WORK symbolic on the EXEC statement to determine if you have previously modified this product to increase the allocation of SAS WORK space.

```
___ 2a. If you find a WORK symbolic, simply divide the
        primary and secondary allocation values from the WORK
        symbolic by the number of work files specified above
        (value of n on the WORK statement coded in Step 1).

        Coding the resulting values will yield the same
        aggregate space allocation you have been using with a
        single WORK file.  To double your available WORK
        space, carry out the division, double the results and
        use the values in the WORK definition above.

___ 2b. If you did not find a WORK symbolic in PROTOLIB,
        examine prefix.MICS.PARMS(JCLDEF) for each CA MICS
        unit containing this product.  Find the WORKSPACE
        keyword.  The space allocation specified is used for
        a single SAS WORK file.  Perform the same division as
        described in the previous paragraph to determine the
        quantity that will yield equivalent total allocation
        with multiple WORK files.  Then adjust the values
        upward to meet your needs.

___ 3.  Submit the job in prefix.MICS.CNTL(cccPGEN).

___ 4.  If you specified RESTART YES in the product's cccOPS,
        you are done.  Otherwise, you must do Steps 5, 6, and
        7.

___ 5.  Edit prefix.MICS.PARMS(JCLGENU) so that it contains a
        single line that reads:

        DAILY

        or, if incremental update is enabled for this product
        in this unit database, specify:

        DAILY INCRccc

        where ccc is the product ID.

___ 6.  Submit the job in prefix.MICS.CNTL(JCLGENU).  Ensure
        that there are no error messages in MICSLOG or
        SYSTSPRT, that the MICSLOG contains the normal
        termination message, BAS10999I, and that the job
        completes with a condition code of zero.

___ 7.  The following operational job(s) have changed:

        DAILY
```

INCRccc (if incremental update is enabled)

If your site has implemented the operational CA MICS processes in a scheduling product, the JCL may have to be refreshed in that product. See the scheduling product's administrator for the exact processes involved in updating that product's representation of the CA MICS jobs.

7.3.1.2 Internal Step RESTART Statements

```
RESTART YES/NO
--------------

This statement is optional.  Specify this to activate
internal step restart for this product's DAILY and/or INCRccc
database update job steps:

RESTART YES


If you do not specify or enable the RESTART parameter, then
this option defaults to the following and internal step
restart is disabled:

RESTART NO


************************************************************
*                                                          *
*  Note:  Changing the RESTART parameter (either from NO   *
*         to YES or from YES to NO) requires regeneration  *
*         of the DAILY operational job by executing        *
*         prefix.MICS.CNTL(JCLGEND) or by specifying       *
*         DAILY in prefix.MICS.PARMS(JCLGENU) and          *
*         executing prefix.MICS.CNTL(JCLGENU).             *
*                                                          *
*         If incremental update is active for this product, *
*         you must also regenerate the INCRccc job.        *
*                                                          *
************************************************************

Internal step restart can significantly reduce time and
resource usage to recover from daily and/or incremental
update processing failures.  CA MICS uses a
checkpoint/restart technique.

o  When internal step restart is activated, the database
   update job step "checkpoints" (or saves) intermediate
   results (work file contents) and the operational
   environment at the end of each processing phase.

o  Then, if required, the database update step can resume
   execution at the beginning of the processing phase in
   which the failure occurred.

o  Restart is accomplished by restoring the operational
   environment from the last checkpoint, bypassing completed
```

```
   processing phases, and resuming execution using
   intermediate results (work files) from the last
   checkpoint.

Note:  When you activate internal step restart (RESTART YES),
       the following optional restart parameters are enabled.
       These parameters have no effect if restart is disabled
       (RESTART NO).  For more details, see the individual
       parameter descriptions later in this section.

       o  RESTARTCKPT data_set_allocation_parameters

       o  RESTARTWORK data_set_allocation_parameters

       o  DYNAMWAIT minutes


Processing Phases:
------------------

This product employs three database update processing phases,
followed by the two common roll-up phases.

    Phase          Description
    -------------  ----------------------------------------

    FORMAT         Read raw input data, convert to SAS
                   format, and output to intermediate work
                   files.

    DELTA          Perform required delta processing on the
                   DDY, DSB, DSD, and DSY files.

    DBUPDATE       Sort intermediate work file contents,
                   eliminate duplicate input data, merge data
                   across optional multiple work files,
                   enhance data content, and create the new
                   DETAIL cycle.

    DYSUM          Summarize DETAIL data to create new DAYS
                   cycles and to update current week-to-date
                   and month-to-date cycles.

    DYAGE          Cutover new database cycles to production
                   and "age" existing cycles.

RESTART Considerations
----------------------
```

- Overhead

  Enabling internal step restart adds some overhead to the database update job step -- the cost of taking checkpoints and managing saved materials. Since this overhead is relatively constant and independent of input data volume, you may find that costs outweigh potential savings when input data volume is low, for example in a test unit. For high volume, production units, internal step restart support overhead should be a minor portion of total resource usage.

- Cataloged Work Files

  When internal step restart is enabled, the SAS work data set, internal step restart control data set, and multiple work file data sets are allocated and cataloged with permanent dataset names so they will be retained for use in restart if the step abends. These data sets are deleted when the step completes successfully.

  Prior to enabling internal step restart support, these data sets were probably allocated on system "scratch" space with a temporary, system assigned data set names. If your installation standards do not allow "permanent" data sets on DASD volumes used for temporary work space, you may need to use the WORK, RESTARTCKPT, and RESTARTWORK parameters to direct the internal step restart data sets to a generic unit or storage class that allows cataloged data sets.

- Dynamic Allocation

  When internal step restart is active, dynamic allocation is employed for the work data sets. If your installation restricts dynamic allocation of large, cataloged data sets, you may need to use the WORK, RESTARTCKPT, and RESTARTWORK parameters to direct work data set allocation to a generic unit or storage class where dynamic allocation is allowed.

- Data Set Names

  The SAS work data set, internal step restart control data set, and multiple work file data sets are allocated and cataloged according to the standard CA MICS unit database data set name conventions. The default DDNAME and data set names are:

```
      o SAS work data set,
             //cccXWORK DD DSN=prefix.MICS.cccXWORK,.....

      o Internal step restart control data set,
             //cccXCKPT DD DSN=prefix.MICS.cccXCKPT,.....

      o Multiple work file data sets,
             //WORKnn   DD DSN=prefix.MICS.cccWRKnn,.....

    Since these data sets conform to the same data set name
    conventions as your existing CA MICS data sets, there
    should be few, if any, data set name related allocation
    issues.  However, it is possible to override the data set
    names if required.  Please contact CA MICS Product
    Support for assistance if you must alter data set names.


RESTARTCKPT
-----------

This statement is optional.  Specify the following to
override default data set allocation parameters for the
internal step restart checkpoint data set:

RESTARTCKPT   data_set_allocation_parameters

Note:  RESTARTCKPT is ignored when you specify RESTART NO.

The internal step restart checkpoint data set (or cccXCKPT
data set) contains processing status, control, and SAS
environmental information for internal step restart
processing checkpoints.  This includes a copy of the SAS WORK
format and macro catalogs, current macro variable values, and
a description of work files that may be needed to restart
DAYnnn processing.

By default, the cccXCKPT data set is allocated according to
the values you specified for the WORKUNIT and WORKSPACE
parameters in prefix.MICS.PARMS(JCLDEF).  Specify RESTARTCKPT
to override this default, either to alter the space
allocation or to use System Managed Storage (SMS) parameters
to control data set placement and characteristics.

Note:  If you allocate insufficient space for the cccXCKPT
data set, DAYnnn processing will fail and can only be
restarted from the beginning.

Note:  You can override the RESTARTCKPT data set allocation
```

```
parameters at execution-time using the //PARMOVRD facility.
For more information about execution-time override of dynamic
data set allocation parameters, see the PIOM, section 2.3.6.

Specify data set allocation parameters, separated by blanks,
according to SAS LIBNAME statement syntax.  If you need
multiple lines, repeat the RESTARTCKPT keyword on the
continuation line.

RESTARTCKPT accepts the engine/host options documented in the
SAS Companion for the z/OS Environment, including STORCLAS,
UNIT, SPACE, BLKSIZE, DATACLAS, MGMTCLAS, and VOLSER.

Important!  DO NOT SPECIFY THE DISP PARAMETER.

Example 1:

RESTARTCKPT  STORCLAS=MICSTEMP SPACE=(xxxx,(pp,ss),,,ROUND)

where:

  STORCLAS - specifies a storage class for a new data set.
             The name can have up to eight characters.

  SPACE    - specifies how much disk space to provide for
             a new data set being allocated, where:

             xxxx is TRK, CYL, or blklen
             pp is the primary allocation
             ss is the secondary allocation

             and ROUND specifies that the allocated space be
             "rounded" to a cylinder boundary when the unit
             specified was a block length.  ROUND is ignored
             with the TRK or CYL options.

Example 2 (multiple lines):

RESTARTCKPT  STORCLAS=MICSTEMP UNIT=SYSDA
RESTARTCKPT  SPACE=(xxxx,(pp,ss),,,ROUND)

where:

  STORCLAS - specifies a storage class for a new data set.
             The name can have up to eight characters.

  UNIT     - specifies the generic unit for a new data set.
             The name can have up to eight characters.
```

```
  SPACE    - specifies how much disk space to provide for
             a new data set being allocated.


RESTARTWORK
-----------

This statement is optional.  Specify the following to
override default data set allocation parameters for the
internal step restart WORK data set:

RESTARTWORK   data_set_allocation_parameters

Note:  RESTARTWORK is ignored when you specify RESTART NO.

The internal step restart WORK data set (or cccXWORK data
set) contains the intermediate work files that are not
enabled to multiple work file support, including those files
you may have specified on the optional NOMULT statement.

By default, the cccXWORK data set is allocated according to
the values you specified for the WORKUNIT and WORKSPACE
parameters in prefix.MICS.PARMS(JCLDEF).  Specify RESTARTWORK
to override this default, either to alter the space
allocation or to use System Managed Storage (SMS) parameters
to control data set placement and characteristics.

Note:  If you allocate insufficient space for the cccXWORK
data set, DAYnnn processing will fail and can only be
restarted from the beginning.

Note:  You can override the RESTARTWORK data set allocation
parameters at execution-time using the //PARMOVRD facility.
For more information about execution-time override of dynamic
data set allocation parameters, see the PIOM, section 2.3.6.

Specify data set allocation parameters, separated by blanks,
according to SAS LIBNAME statement syntax.  If you need
multiple lines, repeat the RESTARTWORK keyword on the
continuation line.

RESTARTWORK accepts the engine/host options documented in
"SAS Companion for the z/OS Environment", including STORCLAS,
UNIT, SPACE, BLKSIZE, DATACLAS, MGMTCLAS, and VOLSER.

Important!  DO NOT SPECIFY THE DISP PARAMETER.

Example 1:
```

```
  RESTARTWORK  STORCLAS=MICSTEMP SPACE=(xxxx,(pp,ss),,,ROUND)

where:

  STORCLAS - specifies a storage class for a new data set.
             The name can have up to eight characters.

  SPACE    - specifies how much disk space to provide for
             a new data set being allocated, where:

             xxxx is TRK, CYL, or blklen
             pp is the primary allocation
             ss is the secondary allocation

             and ROUND specifies that the allocated space be
             "rounded" to a cylinder boundary when the unit
             specified was a block length.  ROUND is ignored
             with the TRK or CYL options.

Example 2 (multiple lines):

  RESTARTWORK  STORCLAS=MICSTEMP UNIT=SYSDA
  RESTARTWORK  SPACE=(xxxx,(pp,ss),,,ROUND)

where:

  STORCLAS - specifies a storage class for a new data set.
             The name can have up to eight characters.

  UNIT     - specifies the generic unit for a new data set.
             The name can have up to 8 characters.

  SPACE    - specifies how much disk space to provide for
             a new data set being allocated.

The following section discusses enabling this option:

    1 - Enable Internal Step Restart
```

7.3.1.2.1 Enable Internal Step Restart

```
To enable the internal step restart in the CA MICS DB2
Analyzer, follow the checklist provided below for each unit:

   ************************************************
   *                                              *
   *          ENABLE INTERNAL STEP RESTART        *
   *                                              *
   ************************************************

___ 1.  Edit prefix.MICS.PARMS(cccOPS), where (ccc) is the
        component identifier, and specify:

        RESTART YES

        For additional information on related topic, review
        the documentation for this product on WORK,
        RESTARTWORK, and RESTARTCKPT parameters to override
        default data set allocation parameters.

___ 2.  Submit the job in prefix.MICS.CNTL(cccPGEN).

___ 3.  Edit prefix.MICS.PARMS(JCLGENU) so that it contains a
        single line that reads:

        DAILY

        or, if incremental update is enabled for this product
        in this unit database, specify:

        DAILY INCRccc

        where ccc is the product ID.

___ 4.  Submit the job in prefix.MICS.CNTL(JCLGENU).  Ensure
        that there are no error messages in MICSLOG or
        SYSTSPRT, that the MICSLOG contains the normal
        termination message, BAS10999I, and that the job
        completes with a condition code of zero.

___ 5.  The following operational job(s) have changed:

        DAILY

        INCRccc (if incremental update is enabled)

        If your site has implemented the operational CA MICS
        processes in a scheduling product, the JCL may have
```

```
to be refreshed in that product.  See the scheduling
product's administrator for the exact processes
involved in updating that product's representation of
the CA MICS jobs.
```

7.3.1.3 Incremental Update Statements

```
INCRUPDATE
----------

This statement is optional.  Specify this to enable
incremental update for this product:

INCRUPDATE YES

If you do not specify or enable the INCRUPDATE parameter,
then this option defaults to this and incremental update is
disabled:

INCRUPDATE NO

************************************************************
*                                                          *
*  Note:  Changing the INCRUPDATE parameter (either from NO *
*         to YES or from YES to NO) requires regeneration   *
*         of the DAILY operational job by executing         *
*         prefix.MICS.CNTL(JCLGEND) or by specifying        *
*         DAILY in prefix.MICS.PARMS(JCLGENU) and           *
*         executing prefix.MICS.CNTL(JCLGENU).              *
*                                                          *
*         If you specify INCRUPDATE YES, you must also      *
*         generate the INCRccc, cccIUALC, and cccIUGDG jobs *
*         (where ccc is the 3 character product ID).        *
*         Depending on the options you select, you may also *
*         need to execute the cccIUALC and/or cccIUGDG      *
*         jobs.                                             *
*                                                          *
************************************************************

Incremental update can significantly reduce time and resource
usage in the DAILY job by letting you split out a major
portion of daily database update processing into multiple,
smaller, incremental updates executed throughout the day.

o  Standard CA MICS database update processing involves (1)
   reading and processing raw input data to generate DETAIL
   and DAYS level CA MICS database files, followed by (2)
   summarization of DETAIL/DAYS level data to update
   week-to-date and month-to-date database files.

o  When you activate incremental update:

   -  You can execute the first-stage processing (raw data
      input to create DETAIL/DAYS files) multiple times
```

throughout the day, each time processing a subset of the total day's input data.

- Then, during the final update of the day (in the DAILY job), the incremental DETAIL/DAYS files are "rolled-up" to the database DETAIL and DAYS timespans, and then summarized to update the week-to-date and month-to-date files.

o Incremental update is independent of your internal step restart or DBSPLIT specifications. You have the option to perform incremental updates with or without internal step restart support.

o Incremental update is activated and operates independently by product. The incremental update job for this product, INCRccc (where ccc is the product ID), can execute concurrently with the incremental update job for another product in the same unit database.

o The CA MICS database remains available for reporting and analysis during INCRccc job execution.

```
************************************************************
*                                                          *
*  Note:  CA MICS is a highly configurable system          *
*         supporting up to 36 unit databases, each of which *
*         can be configured and updated independently.     *
*         Incremental update is just one of the options you *
*         can use to configure your CA MICS complex.       *
*                                                          *
*         All efforts should be made to employ CA MICS     *
*         configuration capabilities to minimize issues    *
*         prior to activating incremental update.  For     *
*         example:                                         *
*                                                          *
*         o  Splitting work to multiple units is an        *
*            effective way to enable parallel database     *
*            update processing                             *
*                                                          *
*         o  Adjusting account code definitions to ensure  *
*            adequate data granularity while minimizing    *
*            total database space and processing time      *
*                                                          *
*         o  Tailoring the database to drop measurements   *
*            and metrics of lesser value to your           *
*            data center, thereby reducing database update *
*            processing and resource consumption           *
*                                                          *
```

```
*         While incremental update is intended to reduce    *
*         DAILY job elapsed time, total resource usage of   *
*         the combined INCRccc and DAILY jobs steps can     *
*         increase due to the additional processing         *
*         required to maintain the incremental update       *
*         "to-date" files and for roll-up to the unit       *
*         database.  The increased total resource usage     *
*         will be more noticeable with small data volumes,  *
*         where processing code compile time is a greater   *
*         percentage of total processing cost.              *
*                                                           *
*************************************************************
```

Note: When you activate incremental update (INCRUPDATE YES), the following optional incremental update parameters are enabled. These parameters have no effect if incremental update is disabled (INCRUPDATE NO). For more details, see the individual parameter descriptions later in this section.

o INCRDB   PERM/TAPE/DYNAM

o INCRDETAIL data_set_allocation_parameters

o INCRDAYS   data_set_allocation_parameters

o INCRCKPT   data_set_allocation_parameters

o INCRSPLIT USE/IGNORE data_set_allocation_parameters

Incremental update processing reads and processes raw measurement data to create and maintain DETAIL and DAYS level "to-date" files for the current day.

- These incremental update database files are maintained on unique z/OS data sets, independent of the standard CA MICS database files, and independent of any other product's incremental update database files. There is one data set each for DETAIL and DAYS level "to-date" data and a single incremental update checkpoint data set for this product in this unit.

- The incremental update DETAIL and DAYS files can be permanent DASD data sets, or they can be allocated dynamically as needed and deleted after DAILY job processing completes. Optionally, you can keep the incremental update DETAIL and DAYS files on tape, with the data being loaded onto temporary DASD space as needed for incremental update or DAILY job processing. See the INCRDB PERM/TAPE/DYNAM option for more

information.

After activating incremental update, you will use three incremental update facility jobs found in prefix.MICS.CNTL (Note that ccc is the product ID):

o cccIUALC

  You execute this job to allocate and initialize the incremental update checkpoint file, and optionally the incremental update DETAIL and DAYS database files. cccIUALC is generally executed just ONE time.

o cccIUGDG

  You execute this job to add generation data group (GDG) index definitions to your system catalog in support of the INCRDB TAPE option. cccIUGDG is generally executed just ONE time.

o INCRccc

  This is the job you execute for each incremental update. You will integrate this job into your database update procedures for execution one or more times per day to process portions of the total day's measurement data.

  Note: The DAILY job is run once at the end of the day. It will perform the final incremental update for the day's data, and then roll-up the incremental DETAIL/DAYS files to the database DETAIL and DAYS timespans and update the week-to-date and month-to-date files.

INCRUPDATE Considerations
---

o Overhead

  Incremental update is intended to reduce DAILY job resource consumption and elapsed time by offloading a major portion of database update processing to one or more executions of the INCRccc job. In meeting this objective, incremental update adds processing in the INCRccc and DAILY jobs to accumulate data from each incremental update execution into the composite "to-date" DETAIL and DAYS incremental update files, and also adds processing in the DAILY job to copy the incremental update files to the unit database DETAIL and DAYS

timespans. The amount of this overhead and the savings in the DAILY job are site-dependent, and will vary based on input data volume and on the number of times INCRccc is executed each day.

In addition, activating incremental update will cause additional compile-based CPU time to be consumed in the DAYnnn DAILY job step. The increase in compile time is due to additional code included for each file structure in support of the feature. This increase should be static based on the scope of the CA MICS data integration product in terms of files. This compile-time increase does not imply an increase in elapsed or execution time. Incremental update allows I/O bound, intensive processing (raw data inputting, initial CA MICS transformation, etc.) to be distributed outside of the DAILY job. I/O processing is the largest contributor to elapsed time in large volume applications. Thus, the expected overall impact is a decrease in the actual runtime of the DAYnnn job step.

- Increased "Prime Time" Workload

  By offloading work from the DAILY job to one or more INCRccc executions throughout the day, you are potentially moving system workload and DASD work space usage from the "off-hours," (when the DAILY job is normally executed) to periods of the day where your system resources are in highest demand. You should schedule INCRccc executions carefully to avoid adverse impact to batch or online workloads. For example, if your site's "prime shift" is 8:00 AM to 5:00 PM, you might choose to schedule incremental updates for 7:00 AM (just before "prime shift") and 6:00 PM (just after "prime shift"), with the DAILY job executing just after midnight.

- Increased DASD Usage

  The DASD space required for the incremental update DETAIL and DAYS database files is in addition to the DASD space already reserved for the CA MICS database. By default, the incremental update database files are permanently allocated, making this DASD space unavailable for other applications. In general, you can assume that the incremental update database files will require space equivalent to two cycles of this product's DETAIL and DAYS timespan files.

  Alternatively, the incremental update database files can

be allocated in the first incremental update of the day and deleted by the DAILY job (see the INCRDB DYNAM option later in this section). This approach reduces the amount of time that the DASD space is dedicated to incremental update, and lets the amount of DASD space consumed increase through the day as you execute each incremental update.

A third option is to store the incremental update database files on tape (see the INCRDB TAPE option). With this approach, the DASD space is required just for the time that each incremental update or DAILY job step is executing. Note that while this alternative reduces the "permanent" DASD space requirement, the total amount of DASD space required while the incremental update or DAILY jobs are executing is unchanged. In addition, the TAPE option adds processing to copy the incremental update files to tape, and to reload the files from tape to disk.

Note: The incremental update checkpoint file is always a permanently allocated disk data set. This is a small data set and should not be an issue.

- Operational Complexity

  Incremental update expands your measurement data management and job scheduling issues. You must ensure that each incremental update and the DAILY job processes your measurement data chronologically; that is, each job must see data that is newer than the data processed by the prior job. By incrementally updating the database, you have more opportunities to miss a log file, or to process a log out of order.

- Interval End Effects

  Each incremental update processes a subset of the day's measurement data, taking advantage of early availability of some of the day's data, for example, when a measurement log fills and switches to a new volume. This can cause a problem if the measurement log split occurs while the data source is logging records for the end of a measurement interval, thus splitting the data for a single measurement interval across two log files. When an incremental update processes the first log file, the checkpoint high end timestamp is set to indicate that this split measurement interval has been processed. Then, when the rest of the measurement interval's data is

encountered in a later update, it can be dropped as duplicate data (because data for this measurement interval end timestamp has already been processed).

Appropriate scheduling of log dumps and incremental updates can avoid this problem. For example, if you plan to run incremental updates at 7:00 AM and 6:00 PM, you could force a log dump in the middle of the measurement interval just prior to the scheduled incremental update executions. This is an extension of the procedure you may already be using for end-of-day measurement log processing. The objective is to ensure that all records for each monitor interval are processed in the same incremental update.

- Dynamic Allocation

  When you activate incremental update and specify TAPE or DYNAM for the INCRDB parameter, dynamic allocation is employed for the incremental update database files. If your site restricts dynamic allocation of large, cataloged data sets, you must use the INCRDETAIL and INCRDAYS parameters to direct incremental update data set allocation to a generic unit or storage class where dynamic allocation is allowed.

- Data Set Names

  The incremental update database files are allocated and cataloged according to standard CA MICS unit database data set name conventions. The DDNAME and default data set names are (where ccc is the product ID):

  - Incremental update checkpoint file,
    ```
    //IUCKPT   DD DSN=prefix.MICS.ccc.IUCKPT,.....
    ```
  - Incremental update DETAIL
    ```
    //IUDETAIL DD DSN=prefix.MICS.ccc.IUDETAIL,.....
    ```
  - Incremental update DAYS
    ```
    //IUDAYS   DD DSN=prefix.MICS.ccc.IUDAYS,....
    ```

  Since these data sets conform to the same data set name conventions as your existing CA MICS data sets, there should be few, if any, data-set-name-related allocation issues. However, it is possible to override the data set names if required. Contact Technical Support at http://ca.com/support for assistance if you must change data set names.

```
************************************************************
*                                                          *
*  Note:  If your data center uses the TAPEfff option      *
*         or USRXfff exits, be sure to review the          *
*         important considerations in Section 10.3.1 of    *
*         this guide.                                      *
*                                                          *
************************************************************
```

INCRDB

This statement is optional. The default is this:

INCRDB PERM

Note: INCRDB is ignored when you specify INCRUPDATE NO.

Specify this statement or take the default, to keep the incremental update database DETAIL and DAYS files on permanently allocated DASD data sets:

INCRDB PERM

Execute the prefix.MICS.CNTL(cccIUALC) job to allocate the incremental update database files.

```
************************************************************
*                                                          *
*  Note:  The incremental update checkpoint file is always *
*         a permanently allocated DASD data set.           *
*                                                          *
************************************************************
```

Specify this to offload the incremental update DETAIL and DAYS files to tape between incremental update executions:

INCRDB TAPE #gdgs UNIT=name

With the TAPE option, the incremental update DETAIL and DAYS DASD data sets are dynamically allocated at the beginning of the incremental update job or DAILY job step, and then are deleted after the job step completes.

o The first incremental update job of the day allocates

and initializes the incremental update database files. At the end of the job, the DETAIL and DAYS files are copied to a new (+1) generation of the incremental update tape data sets. Then the DASD files are deleted.

- Subsequent incremental update jobs restore the DASD incremental update database files from the current, (0) generation, incremental update tape data sets before processing the input measurement data. At the end of the job, the DETAIL and DAYS files are copied to a new (+1) generation of the incremental update tape data sets. Then the DASD files are deleted.

- The DAILY job step also restores the DASD incremental update database files from the (0) generation tape files before processing the input data, but does NOT copy the incremental update database files to tape. Thus, the DAILY job actually creates a new, null (+1) generation.

- Use the #gdgs parameter to specify the maximum number of incremental update tape generations. The minimum is 2 and the maximum is 99, with a default of 5.
  Set the number of generations equal to or greater than the number of incremental updates, including the DAILY job you plan to execute each day. This facilitates restart and recovery if you encounter problems requiring you to reprocess portions of the daily measurement data.

- Use the optional UNIT=name parameter to specify a tape unit name for the incremental update database output tapes. The default is to use the same tape unit as the input tapes.

- A special index must be created in your system catalog for each of the incremental update tape data set generation data groups. The prefix.MICS.CNTL(cccIUGDG) job will generate the statements to create the incremental update GDG index definitions.

  - Before each index is built, it is deleted. These DLTX (or DELETE) statements causes an error message if no entry exists. This is done so that you can change the number of entries without having to delete each of the index entries.

  - DLTX and BLDG (or DELETE and DEFINE) fail if there is a cataloged data set with the same index. IDCAMS (or IEHPROGM) issues a message and gives a return code of 8. This issue is not a problem for

```
      non-GDG entries or if the GDG already has the
      desired number of entries.

   -  If you want to change the number of entries kept in
      a GDG with cataloged data sets, do the
      following:

      1. Uncatalog any existing entries in the GDG.
      2. Delete the index with a DLTX (or DELETE).
      3. Create the index with a BLDG (or DEFINE).
      4. Catalog any entries that are uncataloged in step 1.

o  The incremental update tape data set names are as follows,
   where ccc is the product ID:

   -  Incremental update tape DETAIL file
         tapeprefix.MICS.ccc.IUXTAPE.GnnnnV00

   -  Incremental update tape DAYS file
         tapeprefix.MICS.ccc.IUDTAPE.GnnnnV00

************************************************************
*                                                          *
*  Note:  The INCRDETAIL and INCRDAYS parameters are       *
*         required when you specify INCRDB TAPE.           *
*                                                          *
************************************************************


Specify this parameter to allocate dynamically the
incremental update  DETAIL and DAYS DASD data sets in the first
incremental update of the day, and then delete these data sets
at the end of the DAILY job step:

INCRDB DYNAM


o  With this option, no space is used for the incremental
   update database files during the time between the end of
   the DAILY job step and the beginning of the next day's
   first incremental update.

o  With this approach, you can set the data set allocation
   parameters so that the incremental update DETAIL and DAYS
   data sets start out with a minimum allocation and then
   grow through secondary allocations as more space is
   required for subsequent incremental updates. For
   example, enough space for one incremental update.
```

```
************************************************************
*                                                          *
*  Note:  The INCRDETAIL and INCRDAYS parameters are       *
*         required when you specify INCRDB DYNAM.          *
*                                                          *
************************************************************
```

INCRDETAIL

This statement is required if you specify either of these:

INCRDB TAPE

INCRDB DYNAM

Otherwise, this statement is optional. There is no default.

Specify this to define data set allocation parameters for the incremental update DETAIL data set (IUDETAIL):

INCRDETAIL data_set_allocation_parameters

Note: INCRDETAIL is ignored when you specify INCRUPDATE NO.

The incremental update DETAIL data set (IUDETAIL) contains the current incremental update detail-level database files, and the DETAIL "to-date" data for the current daily update cycle. You should allocate DASD space equivalent to two cycles of this product's DETAIL timespan data.

If you specified INCRDB PERM (the default), your INCRDETAIL parameter specifications are used in generating the cccIUALC job (where ccc is the product ID).

- You will execute the cccIUALC job to allocate and initialize the incremental update database and checkpoint files.

- Omit the INCRDETAIL parameter if you prefer to specify data set allocation parameters directly in the generated prefix.MICS.CNTL(cccIUALC) job.

If you specified INCRDB TAPE or INCRDB DYNAM, your INCRDETAIL parameter specifications are used in incremental update DETAIL data set dynamic allocation during incremental update

```
or DAILY job step execution.

o  The INCRDETAIL parameter is required for the TAPE or
   DYNAM option.

o  Specify data set allocation parameters, separated by
   blanks, according to SAS LIBNAME statement syntax.  If
   you need multiple lines, repeat the INCRDETAIL keyword
   on the continuation line.

o  INCRDETAIL accepts the engine/host options documented in
   the SAS Companion for the z/OS Environment, including
   STORCLAS, UNIT, SPACE, BLKSIZE, DATACLAS, MGMTCLAS, and
   VOLSER.

   Important!  DO NOT SPECIFY THE DISP PARAMETER.

o  You can override the INCRDETAIL data set allocation
   parameters at execution-time using the //PARMOVRD
   facility.  For more information about execution-time
   override of dynamic data set allocation parameters, see
   the PIOM, section 2.3.6.

Example 1:

INCRDETAIL   STORCLAS=MICSTEMP SPACE=(xxxx,(pp,ss),,,ROUND)

where:

  STORCLAS - specifies a storage class for a new data set.
             The name can have up to eight characters.

  SPACE    - specifies how much disk space to provide for
             a new data set being allocated, where:

             xxxx is TRK, CYL, or blklen
             pp   is the primary allocation
             ss   is the secondary allocation

             and ROUND specifies that the allocated space be
             "rounded" to a cylinder boundary when the unit
             specified was a block length.  ROUND is ignored
             with the TRK or CYL options.

Example 2 (multiple lines):

INCRDETAIL   STORCLAS=MICSTEMP UNIT=SYSDA
INCRDETAIL   SPACE=(xxxx,(pp,ss),,,ROUND)
```

where:

  STORCLAS - specifies a storage class for a new data set.
             The name can have up to eight characters.

  UNIT   - specifies the generic unit for a new data set.
             The name can have up to eight characters.

  SPACE   - specifies how much disk space to provide for
             a new data set being allocated.

INCRDAYS

This statement is required if you specify either of these:

INCRDB TAPE

INCRDB DYNAM

Otherwise, this statement is optional. There is no default.

Specify this to define data set allocation parameters for the incremental update DAYS data set (IUDAYS):

INCRDAYS   data_set_allocation_parameters

Note: INCRDAYS is ignored when you specify INCRUPDATE NO.

The incremental update DAYS data set (IUDAYS) contains the current incremental update days-level database files, and the DAYS "to-date" data for the current daily update cycle. You should allocate DASD space equivalent to two cycles of this product's DAYS timespan data.

If you specified INCRDB PERM (the default), your INCRDAYS parameter specifications are used in generating the cccIUALC job (where ccc is the product ID).

o You will execute the cccIUALC job to allocate and initialize the incremental update database and checkpoint files.

o Omit the INCRDAYS parameter if you prefer to specify data set allocation parameters directly in the generated prefix.MICS.CNTL(cccIUALC) job.

If you specified INCRDB TAPE or INCRDB DYNAM, your INCRDAYS parameter specifications are used in incremental update DAYS data set dynamic allocation during incremental update or DAILY job step execution.

- The INCRDAYS parameter is required for the TAPE or DYNAM option.

- Specify data set allocation parameters, separated by blanks, according to SAS LIBNAME statement syntax. If you need multiple lines, repeat the INCRDAYS keyword on the continuation line.

- INCRDAYS accepts the engine/host options documented in the SAS Companion for the z/OS Environment, including STORCLAS, UNIT, SPACE, BLKSIZE, DATACLAS, MGMTCLAS, and VOLSER.

  Important! DO NOT SPECIFY THE DISP PARAMETER.

- You can override the INCRDAYS data set allocation parameters at execution-time using the //PARMOVRD facility. For more information about execution-time override of dynamic data set allocation parameters, see the PIOM, Section 2.3.6.

Example 1:

```
INCRDAYS     STORCLAS=MICSTEMP SPACE=(xxxx,(pp,ss),,,ROUND)
```

where:

```
  STORCLAS - specifies a storage class for a new data set.
             The name can have up to eight characters.

  SPACE    - specifies how much disk space to provide for
             a new data set being allocated, where:

             xxxx is TRK, CYL, or blklen
             pp   is the primary allocation
             ss   is the secondary allocation

             and ROUND specifies that the allocated space be
             "rounded" to a cylinder boundary when the unit
             specified was a block length.  ROUND is ignored
             with the TRK or CYL options.
```

Example 2 (multiple lines):

```
INCRDAYS     STORCLAS=MICSTEMP UNIT=SYSDA
INCRDAYS     SPACE=(xxxx,(pp,ss),,,ROUND)

where:

  STORCLAS - specifies a storage class for a new data set.
             The name can have up to eight characters.

  UNIT     - specifies the generic unit for a new data set.
             The name can have up to eight characters.

  SPACE    - specifies how much disk space to provide for
             a new data set being allocated.



 INCRCKPT
 --------

 This statement is optional.  Specify this to override default
 data set allocation parameters for the incremental update
 checkpoint data set:

 INCRCKPT      data_set_allocation_parameters

 Note:  INCRCKPT is ignored when you specify INCRUPDATE NO.


 The incremental update checkpoint data set tracks incremental
 update job status and the data that has been processed during
 the current daily update cycle.  The incremental update
 checkpoint is used to detect and block the input of duplicate
 data during incremental update processing.  This data set
 will be exactly the same size as prefix.MICS.CHECKPT.DATA
 (the unit checkpoint data set), usually 20K to 200K depending
 on the prefix.MICS.PARMS(SITE) CKPTCNT parameter (100-9999).

 Your INCRCKPT parameter specifications are used in generating
 the cccIUALC job (where ccc is the product ID).

 o  You will execute the cccIUALC job to allocate and
    initialize the incremental update checkpoint file.  If you
    specified INCRDB PERM, then the cccIUALC job will also
    allocate the incremental update DETAIL and DAYS database
    files.

 o  By default the incremental update checkpoint data set is
    allocated as SPACE=(TRK,(5,2)) using the value you
    specified for the prefix.MICS.PARMS(JCLDEF) DASDUNIT
```

```
   parameter.

o  Omit the INCRCKPT parameter if you prefer to override
   data set allocation parameters directly in the generated
   prefix.MICS.CNTL(cccIUALC) job.

Specify data set allocation parameters, separated by blanks,
according to SAS LIBNAME statement syntax.  If you need
multiple lines, repeat the INCRCKPT keyword on the
continuation line.

INCRCKPT accepts the engine/host options documented in the
SAS Companion for the MVS Environment, including STORCLAS,
UNIT, SPACE, BLKSIZE, DATACLAS, MGMTCLAS, and VOLSER.

Important!  DO NOT SPECIFY THE DISP PARAMETER.


Example 1:

INCRCKPT     STORCLAS=MICSTEMP SPACE=(xxxx,(pp,ss),,,ROUND)


where:

  STORCLAS - specifies a storage class for a new data set.
             The name can have up to eight characters.

  SPACE    - specifies how much disk space to provide for
             a new data set being allocated, where:

             xxxx is TRK, CYL, or blklen
             pp   is the primary allocation
             ss   is the secondary allocation

             and ROUND specifies that the allocated space be
             "rounded" to a cylinder boundary when the unit
             specified was a block length.  ROUND is ignored
             with the TRK or CYL options.


Example 2 (multiple lines):

INCRCKPT     STORCLAS=MICSTEMP UNIT=SYSDA
INCRCKPT     SPACE=(xxxx,(pp,ss),,,ROUND)


where:
```

```
   STORCLAS - specifies a storage class for a new data set.
              The name can have up to eight characters.

   UNIT     - specifies the generic unit for a new data set.
              The name can have up to eight characters.

   SPACE    - specifies how much disk space to provide for
              a new data set being allocated.
```

```
INCRSPLIT
---------

This statement is optional and defaults to this:

INCRSPLIT IGNORE

Specify the following if you want the incremental update job
for this product to get input measurement data from the
output of the SPLITSMF job.  The optional
data_set_allocation_parameters are used by the SPLITSMF job
when creating the measurement data file for this product.

INCRSPLIT  USE  data_set_allocation_parameters

Note:  INCRSPLIT is ignored when you specify INCRUPDATE NO.

This option would be used when multiple products in a
single unit database are enabled to incremental update.  The
SPLITSMF job performs the same function for incremental
update jobs as the DAILY job DAYSMF step performs for the
DAYnnn database update steps.

o  The SPLITSMF job dynamically allocates, catalogs, and
   populates prefix.MICS.ccc.IUSPLTDS data sets for each
   product in the unit database for which you specified both
   the INCRUPDATE YES and INCRSPLIT USE parameters.  These
   data sets are then deleted after processing by the
   appropriate INCRccc job.

o  Specify data set allocation parameters, separated by
   blanks, according to SAS LIBNAME statement syntax.  If you
   need multiple lines, repeat the INCRSPLIT keyword on each
   continuation line.

o  INCRSPLIT accepts the engine/host options documented in
   the SAS Companion for the MVS Environment, including
```

```
   STORCLAS, UNIT, SPACE, BLKSIZE, DATACLAS, MGMTCLAS, and
   VOLSER.

   Important!  DO NOT SPECIFY THE DISP PARAMETER.


Specify the following or accept the default if you want the
incremental update jobs for this product to get their input
measurement data from the data sets specified in the INPUTccc
(or INPUTSMF) member of prefix.MICS.PARMS:

INCRSPLIT  IGNORE

When you specify INCRSPLIT IGNORE, this product will NOT
participate in SPLITSMF job processing.


Example 1:

INCRSPLIT USE  STORCLAS=MICSTEMP SPACE=(xxxx,(pp,ss),,,ROUND)


where:

  STORCLAS - specifies a storage class for a new data set.
             The name can have up to eight characters.

  SPACE    - specifies how much disk space to provide for
             a new data set being allocated, where:

             xxxx is TRK, CYL, or blklen
             pp   is the primary allocation
             ss   is the secondary allocation

             and ROUND specifies that the allocated space be
             "rounded" to a cylinder boundary when the unit
             specified was a block length.  ROUND is ignored
             with the TRK or CYL options.


Example 2 (multiple lines):

INCRSPLIT  USE  STORCLAS=MICSTEMP UNIT=SYSDA
INCRSPLIT       SPACE=(xxxx,(pp,ss),,,ROUND)


where:

  STORCLAS - specifies a storage class for a new data set.
```

```
              The name can have up to eight characters.

  UNIT      - specifies the generic unit for a new data set.
              The name can have up to eight characters.

  SPACE     - specifies how much disk space to provide for
              a new data set being allocated.
```

DYNAMWAIT

This statement is optional. Specify the following:

```
     DYNAMWAIT   minutes
```

to override the default amount of time, in minutes, the DAILY and/or INCRccc job will wait for an unavailable data set.

Note: This optional parameter is not normally specified.
       The system default is adequate for most data centers.

Internal Step Restart and Incremental Update facilities use z/OS dynamic allocation services to create new data sets and to access existing data sets. Data set naming conventions and internal program structure are designed to minimize data set contention. However, if data set allocation does fail because another batch job or online user is already using a data set, DAILY and/or INCRccc processing will wait 15 seconds and then try the allocation again. By default, the allocation will be attempted every 15 seconds for up to 15 minutes. After 15 minutes, the DAILY or INCRccc job will abort.

If data set contention in your data center does cause frequent DAILY or INCRccc job failures, and you are unable to resolve the contention through scheduling changes, you may want to use the DYNAMWAIT parameter to increase the maximum number of minutes the DAILY and/or INCRccc jobs will wait for the data set to become available.

On the other hand, if your data center standards require that the DAILY and/or INCRccc jobs fail immediately if required data sets are unavailable, specify the following:

```
     DYNAMWAIT 0
```

Note: You can override the DYNAMWAIT parameter at

execution-time using the //PARMOVRD facility. For more information about execution-time override of dynamic data set allocation parameters, see the PIOM, section 2.3.6.

The following section discusses enabling this option:

1 - Implement Incremental Update

7.3.1.3.1 Implement Incremental Update

```
To implement incremental update in the CA MICS DB2 Analyzer,
follow the checklist provided below:


   ************************************************
   *                                              *
   *           IMPLEMENT INCREMENTAL UPDATE       *
   *                                              *
   ************************************************

___ 1.  Edit prefix.MICS.PARMS(cccOPS), where (ccc) is the
        component identifier:

        o  Specify the following:

           INCRUPDATE  YES

        o  If you want to store the incremental update
           database files on tape between incremental
           updates, specify this:

           INCRDB  TAPE  #gdgs

        o  If you want to allocate the incremental update
           database files during the first incremental update
           of the day and delete these data sets at the end
           of the DAILY job step, specify this:

           INCRDB  DYNAM

        o  If you specified INCRDB TAPE or INCRDB DYNAM, then
           you must also specify this:

           INCRDETAIL  data_set_allocation_parameters
           INCRDAYS    data_set_allocation_parameters

        o  If you want the incremental update job for this
           product to get input measurement data from the
           output of the SPLITSMF job, specify this:

           INCRSPLIT  USE  data_set_allocation_parameters

        o  For additional information on related topic,
           review the documentation for this product on
           INCRCKPT, INCRDETAIL, INCRDAYS, or INCRSPLIT
           parameters to override default data set allocation
           parameters.
```

___ 2. Submit the job in prefix.MICS.CNTL(cccPGEN).

___ 3. Edit prefix.MICS.PARMS(JCLGENU) so that it contains two or more lines reading:

```
DAILY
INCRccc cccIUALC cccIUGDG
```

___ 4. Submit the job in prefix.MICS.CNTL(JCLGENU). Ensure that there are no error messages in MICSLOG or SYSTSPRT, that the MICSLOG contains the normal termination message, BAS10999I, and that the job completes with a condition code of zero.

___ 5. Edit the job in prefix.MICS.CNTL(cccIUALC).

- Inspect and/or specify data set allocation parameters for the incremental update database and checkpoint files. If you specified INCRDB TAPE or INCRDB DYNAM, the cccIUALC job will only allocate the incremental update checkpoint data set.
- Submit the job. Ensure that there are no error messages in MICSLOG or SASLOG, and that the job completes with a condition code of zero.

___ 6. If you specified INCRDB TAPE, submit the job in prefix.MICS.CNTL(cccIUGDG) to define generation group indexes for the incremental update DETAIL and DAYS tape data sets. Examine SASLOG, MICSLOG, and SYSPRINT to verify that the generation group indexes were correctly defined.

Note: You may see error messages for the DLTX (or DELETE) statements. This is not a problem. cccIUGDG deletes each index prior to defining it, and an error message is issued if the index does not yet exist (e.g., if this is the first time you ran the cccIUGDG job).

___ 7. The following operational job(s) have changed:

```
DAILY  INCRccc
```

If your site has implemented the operational CA MICS processes in a scheduling product, the JCL may have to be refreshed in that product. See the scheduling product's administrator for the exact processes

involved in updating that product's representation of the CA MICS jobs.

___ 8. Implement operational procedures for gathering input measurement data and executing incremental updates (INCRccc) during the day.

You may also need to modify operational procedures for the DAILY job to ensure that processing is limited to input measurement data that has not been input to one of the day's incremental update executions.

7.3.1.4 DETAIL Tape Processing Overview

For certain high volume files, the CA MICS architecture provides the ability to create optional DETAIL timespan data sets. These optional data sets are separate from the normal CA MICS database and have the following characteristics:

- They are created during the component step execution: during either an incremental update or the DAILY update run. Each DETAIL tape file has a separate DD statement in the DAILY or incremental update job that specifies the data set name and other data set characteristics.

- The data set name (DSN) for each DETAIL tape in a component step is:

  tapeprefix.tmics.DETAIL.iiifff(+1)

  where:

  - tapeprefix is the tape prefix value specified with the TAPEPREFIX statement in prefix.MICS.PARMS(JCLDEF)

  - tmics is either null when NOMICSLEVEL is specified, or MICS if MICSLEVEL is specified with the TAPEPREFIX statement in prefix.MICS.PARMS(JCLDEF)

  - iii is the three character CA MICS information area associated with the file

  - fff is the three character CA MICS file identifier

  Example: For the CA MICS DB2 Analyzer, if DETAIL tape processing were activated for the DB2DSU file, the following prefix.MICS.PARMS(JCLDEF) statement:

  TAPEPREFIX CPLXA.U1T NOMICSLEVEL

  yields the following DETAIL tape DSN:

  CPLXA.U1T.DETAIL.DB2DSU(+1)

- There is no cycle aging associated with these data sets. Instead, each DETAIL tape data set created is an 01 cycle (for example, DB2DSU01), and multiple instances are managed using Generation Data Groups (GDGs).

- The creation of DETAIL tape data sets is independent of any sharedprefix.MICS.GENLIB customization choices. You can have one or more cycles of a file written to and managed in the unit DETAIL timespan database, and also use the DETAIL tape feature to create independent data sets for that same file.

- The decision to create DETAIL tape data sets is made at the unit level. You can choose to create DETAIL tape data sets for a component file in unit A, but not in unit B.

- While the expectation is that these files will be written to tape, you can make JCL choices to target other media such as DASD. Note that the SAS sequential tape engine will be used to write these files for both DASD and tape data sets.

- Unique output exits are provided to permit manipulation and subsetting of the records written to the DETAIL tape data sets. This manipulation and subsetting, however, has no impact on files written to the standard CA MICS database.

The activation of DETAIL tape data sets is accomplished by specifying a TAPEfff statement in prefix.MICS.PARMS(cccOPS).

Customization of the JCL used to create each data set is accomplished using a cascading hierarchy of parameters beginning with choices made with the TAPEPARM statement in prefix.PARMS(JCLDEF).

The following sections provide the information required to activate DETAIL tape processing:

1 - Component Files Supporting DETAIL Tape Activation
2 - DETAIL Tape JCL Customization Overview
3 - The TAPEfff Statement
4 - The DETAILTAPEPARM Statement
5 - DETAILTAPESMSPARM and TAPEfffSMS Statements
6 - DETAIL Tape User Exits
7 - Activating DETAIL Tape Checklist
8 - Deactivating DETAIL Tape Checklist

7.3.1.4.1 DB2 DETAIL Tape Supported Files

The CA MICS DB2 Analyzer supports DETAIL tape processing for the following files:

- DB2DSU - DB2 User Activity File
- DB2DSP - DB2 Plan Activity File
- DB2DDU - DB2 User DDF Activity File
- DB2DDP - DB2 Plan DDF Activity File
- DB2DPP - DB2 Package/DBRM Activity File
- DB2DBU - DB2 User Buffer Pool Activity File
- DB2DBP - DB2 Plan Buffer Pool Activity File

7.3.1.4.2 Overview of JCL Customization Parameters

The JCL for DETAIL tape data sets is constructed using tape-related parameters that are specified in prefix.MICS.PARMS(JCLDEF) and prefix.MICS.PARMS(cccOPS).

Each DETAIL tape data set has a unique DD in the component step. The JCL for each DETAIL tape data set is customized according to user-specified JCL parameters such as the number of generation data group (GDG) entries that are maintained, unit names, volume count, retention, and expiration dates, and System Managed Storage (SMS) keywords.For example, STORCLAS=storclas.

CA MICS provides a hierarchical means to specify tape-related JCL parameters suitable for each data center.

The hierarchy, as it applies to DETAIL tape specification, is described:

o Unit Level - TAPEPARM and TAPESMSPARM

  Used for all tape data sets created by all components in the unit. Specified in prefix.MICS.PARMS(JCLDEF)

o Unit DETAIL Tape Level - DETAILTAPEPARM and DETAILTAPESMSPARM

  Used for all DETAIL tape data sets created by all components in the unit. Overrides choices that were made in TAPEPARM and TAPESMSPARM. Specified in prefix.MICS.PARMS(JCLDEF).

o Component Level - DETAILTAPEPARM and DETAILTAPESMSPARM

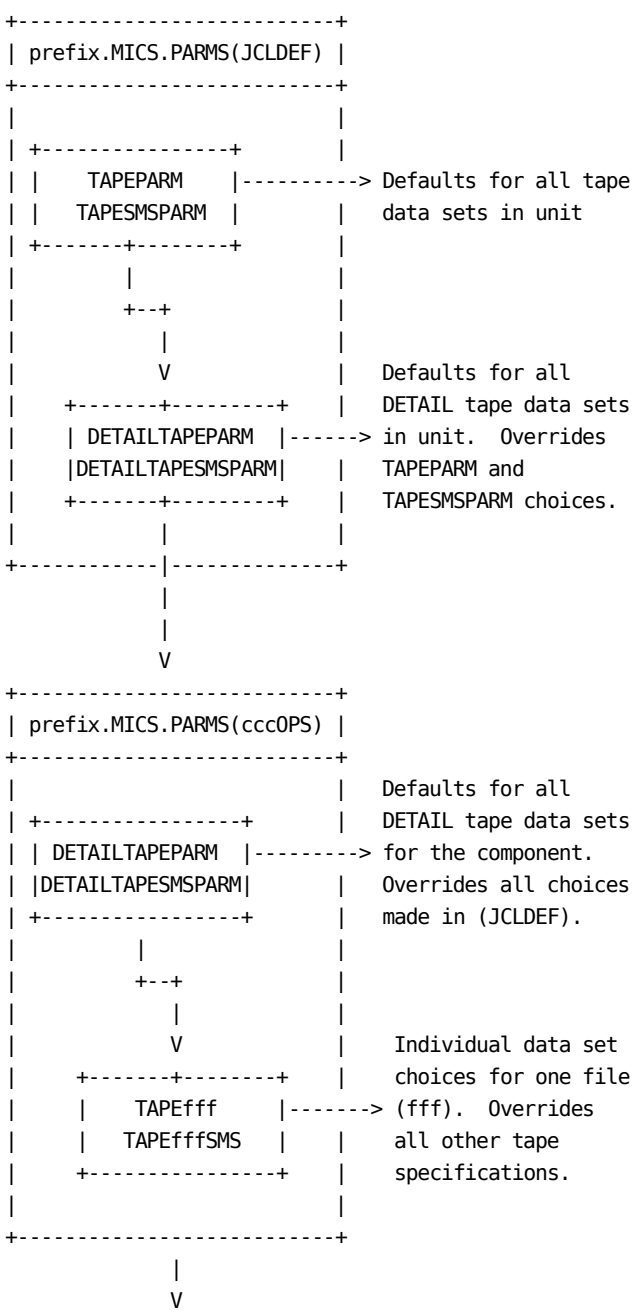
  Used for all DETAIL tape data sets created by a particular component. Overrides all choices that were made in JCLDEF. Specified in prefix.MICS.PARMS(cccOPS), where ccc represents the component.

o File Level - TAPEfff and TAPEfffSMS

  Used for a particular DETAIL tape data set. The fff identifies the specific DETAIL file. Overrides all choices made in JCLDEF and choices that were made with DETAILTAPEPARM and DETAILTAPESMSPARM in prefix.MICS.PARMS(cccOPS). Specified in prefix.MICS.PARMS(cccOPS), where ccc represents the component.

The JCL parameter specification hierarchy that is used for DETAIL tape customization is shown graphically in the following diagram:

DETAIL Tape JCL Parameter Hierarchy



```
// DD statements and GDG generation
```

7.3.1.4.3 The TAPEfff Statement

```
The TAPEfff statement is used to:

o Activate DETAIL tape data set creation for the file
  indicated by fff.  The component files eligible for DETAIL
  tape processing are listed in a previous section.

o Override, for the indicated file, any JCL-related
  tape specifications made in prefix.MICS.PARMS(JCLDEF)
  and prefix.MICS.PARMS(cccOPS) with TAPEPARM or
  DETAILTAPEPARM statements.

The syntax is as follows:

TAPEfff <optional parameters>

where fff is the unique 3-character file identifier

The optional parameters include both keyword parameters and
keyword=value specifications.  You can include multiple
TAPEfff statements if required in order to specify the
desired optional parameters.  If you specify a parameter
multiple times, the last instance defines the value in
effect.

You can specify as many parameters as you want on each
statement, but each TAPEfff statement must end by column 72.
You may also choose to specify only one parameter per TAPEfff
statement.  Either approach is acceptable.

The optional parameters available for the TAPEfff statement
are listed below:

TAPEfff GDG=nnn UNIT=unitname VOLCOUNT=n
TAPEfff EXPDT=expdt / RETPD=nnn / NOEXPDT
TAPEfff COMP/NOCOMP
TAPEfff STACK/NOSTACK AFF/NOAFF
TAPEfff MODEL='modeldsn' / MODEL=NOMODEL
TAPEfff DISK / TAPE  SPACE=spacedef
TAPEfff VOLSER=volser

The following is a sample TAPEfff statement:

TAPEfff GDG=3 VOLCOUNT=7

In this sample, only the number of generation data groups
(GDGs) and VOLCOUNT parameters are explicitly specified for
the file fff.  All other JCL related parameters for the data
```

set will be set according to specifications made with TAPEPARM and DETAILTAPEPARM statements according to the hierarchy described in a previous section.

The optional parameters for the TAPEfff statement are identical to those supported by the DETAILTAPEPARM statement. A detailed description of the optional parameters is presented immediately following the DETAILTAPEPARM statement description.

7.3.1.4.4 The DETAILTAPEPARM Statement

In prefix.MICS.PARMS(cccOPS), the optional DETAILTAPEPARM statement is used to specify parameters defining processing options for CA MICS DETAIL tape data sets at the component (ccc) level.

When specified in prefix.MICS.PARMS(cccOPS), the DETAILTAPEPARM parameter specifications override unit level tape data set defaults established by TAPEPARM and DETAILTAPEPARM statements in prefix.MICS.PARMS(JCLDEF).

Refer to chapter 2 of the CA MICS Planning, Installation, Operations, and Maintenance Guide for unit level TAPEPARM and DETAILTAPEPARM statements in prefix.MICS.PARMS(JCLDEF).

The primary reason to include a DETAILTAPEPARM statement in prefix.MICS.PARMS(cccOPS) is to specify unique parameters for the DETAIL tapes created for a particular component (ccc).

For example, your site may want to direct the CA MICS DETAIL tapes for a particular component (ccc) to a unique tape volume pool, or to a tape device type such as a virtual tape unit, or to a DASD pool backed by an archive facility. If so, this could be accomplished by including the appropriate DETAILTAPEPARM statements in prefix.MICS.PARMS(cccOPS).

DETAILTAPEPARM <parameters>

Note: In prefix.MICS.PARMS(cccOPS), all DETAILTAPEPARM statements must precede any TAPEfff or TAPEfffSMS statements.

The general form of the DETAILTAPEPARM statement is the keyword DETAILTAPEPARM, followed by one or more DETAILTAPEPARM parameters. DETAILTAPEPARM parameters include both keyword parameters and keyword=value specifications. You can specify the DETAILTAPEPARM statement as many times as you want in order to specify all of the tape data set definitions you require. If you specify a parameter multiple times, the last instance defines the value in effect.

The following summarizes the DETAILTAPEPARM parameters:

- Each parameter is described in detail below.
- While the following syntax sample shows only one or two parameters per statement (line), you have the

```
   option to specify as many parameters as you want on
   each statement (limited only by the 72-character-
   maximum line length).

   DETAILTAPEPARM GDG=nnn UNIT=unitname VOLCOUNT=n
   DETAILTAPEPARM EXPDT=expdt / RETPD=nnn / NOEXPDT
   DETAILTAPEPARM COMP/NOCOMP
   DETAILTAPEPARM STACK/NOSTACK AFF/NOAFF
   DETAILTAPEPARM MODEL='modeldsn' / MODEL=NOMODEL
   DETAILTAPEPARM DISK / TAPE  SPACE=spacedef
   DETAILTAPEPARM VOLSER=volser

The following is a sample DETAILTAPEPARM statement:

DETAILTAPEPARM GDG=3 VOLCOUNT=7

In this example, the default parameter values are used
for most of the DETAILTAPEPARM parameters.

The following describes each of the DETAILTAPEPARM
parameters:

  o  GDG=nnn

     Defaults to 7.

     The number of entries to be created in the GDG for
     each DETAIL tape data set.

     Overrides the TAPEPARM statement GDG=nnn.

  o  UNIT=unitname

     Defaults to the value specified on the TAPEPARM
     statement or to UNIT=3490 if UNIT=unitname is not
     specified on the TAPEPARM statement.

     The generic unit name for tape file allocation.
     The parameter value (unitname) must be a valid 1 to
     8 character generic unit name for your
     installation.  The value will be used in generated
     tape data set JCL DD statement UNIT parameters.
     CA MICS does not validate the unitname value except
     to verify that it is non-blank and no more than 8
     characters in length.


      Overrides the TAPEPARM statement UNIT=unitname
      Value, the old-style TAPEUNIT statement, or both.
```

- VOLCOUNT=n

  Defaults to the value specified on the TAPEPARM statement. If no VOLCOUNT is specified, the z/OS default volume count of 5 applies.

  The volume count JCL parameter for CA MICS tape data sets. Specify a decimal number from 1 to 255.

  Overrides the TAPEPARM statement VOLCOUNT=nnn parameter or the old-style VOLCOUNT statement.

- EXPDT=expdt

  Defaults to the value specified on the TAPEPARM statement. If no expiration date or retention period is specified, a default retention period is used which equals the GDG=nnn value.

  Specify an expiration date definition which replaces the derived default retention period (RETPD) specifications. This facility is specifically intended for use by installations with tape management systems which require specific EXPDT definitions.

  Note: For some tape management systems, certain EXPDT values makes the tape available for scratching immediately. Such values are NOT suitable for CA MICS tapes.

  The EXPDT=expdt parameter is optional, and, if omitted, CA MICS derives a RETPD=nnn specification as appropriate for the specific CA MICS tape data set being created and the number of GDG entries defined.

  Overrides the TAPEPARM statement EXPDT=expdt or NOEXPDT parameter, or the old-style EXPDT statement.

  Note: The EXPDT=expdt, RETPD=nnn, and NOEXPDT parameters are mutually exclusive.

- NOEXPDT

Defaults to the value specified on the TAPEPARM statement.

Specify NOEXPDT if you want CA MICS to omit both the EXPDT=date and RETPD=days JCL parameters from generated JCL statements for new tape data set creation. This option is provided for those installations where the tape management system or SMS specifications automatically control tape expiration dates, retention periods, or both.

Overrides the TAPEPARM statement EXPDT=expdt or NOEXPDT parameters, or the old-style EXPDT statement.

Note: The NOEXPDT, EXPDT=expdt, and RETPD=nnn parameters are mutually exclusive.

- COMP / NOCOMP

  Defaults to the value specified on the TAPEPARM statement. If COMP or NOCOMP is not specified, the z/OS default for the selected tape unit type applies.

  This parameter specifies data compaction (COMP) or no data compaction (NOCOMP) for a tape device enabled for hardware compaction. Data compaction is only supported for IBM standard labels. If specified, the value will be coded in the TRTCH subparameter of the DCB JCL parameter. If not specified, no TRTCH subparameter will be generated.

  Overrides the TAPEPARM statement COMP/NOCOMP parameter or the old-style IDRC statement.

- STACK / NOSTACK

  Defaults to NOSTACK for DETAIL tapes.

  Specify STACK to place multiple CA MICS tape files on a single tape volume. This mode of operation uses a minimum number of tape volumes and tape mounts are minimized. CA MICS JCL statements are generated with the VOL=REF=ddname construct and unit affinity is

enforced (that is, STACK also means AFF).

Specify NOSTACK (the default) to place exactly one CA MICS tape file on a tape volume. With this option the generated CA MICS JCL statements will NOT contain the VOL=REF=ddname construct. This option is useful if your implementation of a virtual tape system prohibits "stacked" tape volumes, or if you are directing CA MICS tape files to a DASD pool backed with an archival facility.

Overrides the TAPEPARM statement STACK/NOSTACK parameter.

- AFF / NOAFF

  Defaults to the value specified on the TAPEPARM statement or to AFF.

  Specify AFF to use a single tape unit for all related tape files. This is the normal mode of operation where a minimum number of tape units are used and tape mounts are minimized. CA MICS JCL statements are generated with the UNIT=AFF=ddname construct. AFF is required for the STACK option.

  Specify NOAFF to enable allocation of different tape units for each CA MICS tape data set. With this option the generated CA MICS JCL statements will NOT contain the UNIT=AFF=ddname construct. You may find this option useful with certain virtual tape system implementations, or where you are directing CA MICS tape files to a DASD pool backed with an archival facility.

  Note, if you specify NOAFF, then NOSTACK is automatically set.

  Overrides the TAPEPARM statement AFF/NOAFF parameter.

- MODEL='modeldsn' / MODEL=NOMODEL

  Defaults to the value specified on the TAPEPARM statement.

  The fully qualified name of a cataloged data set to be used when defining or extending GDG entries.

Ensure that the data set's DCB characteristics are LRECL=0 and BLKSIZE=0. Coding BLKSIZE=0 causes SAS to use the blocksize defined by the BLKSIZE(TAPE) option defined in the configuration member(s) referenced by the CONFIG DD statement. If this parameter is omitted, a CA MICS generation job will allocate a default model GDG data set.

If NOMODEL is specified as the model dataset name, the use of the model dataset in the DCB specification will be bypassed.

Overrides the TAPEPARM statement MODEL='modeldsn' parameter or the old-style SYSTEMMODEL statement.

- DISK / TAPE

  Defaults to TAPE.

  Specify DISK if you want to write the dataset to a disk instead of a tape. Specify TAPE to write the dataset to a tape.

  When you specify DISK, make sure that you have both a UNIT parameter with a generic unit name of a disk device and a SPACE parameter defining disk space. You can also define a VOLSER parameter to direct the data to a specific disk.

  Overrides the TAPEPARM statement DISK/TAPE parameter.

- SPACE=spacedef

  No default.

  Defines the space allocation parameter for a data set defined with the DISK parameter. Specify this parameter according to JCL language syntax.

  Overrides the TAPEPARM statement SPACE= parameter.

- VOLSER=volser

  No default.

  Defines the volume serial number of a disk for a data set defined with the DISK parameter. Specify this parameter according to JCL language syntax.

Overrides the TAPEPARM statement VOLSER= parameter.

7.3.1.4.5 DETAILTAPESMSPARM and TAPEfffSMS Statements

In prefix.MICS.PARMS(cccOPS), the optional DETAILTAPESMSPARM and TAPEfffSMS statements allow you to specify System Managed Storage (SMS) keywords (for example,STORCLAS=storclass) for DETAIL tape data sets at the component and individual file level, respectively.

DETAILTAPESMSPARM

When specified in prefix.MICS.PARMS(cccOPS), the DETAILTAPESMSPARM parameter specifications override unit level tape data set SMS defaults established by TAPESMSPARM and DETAILTAPESMSPARM statements in prefix.MICS.PARMS(JCLDEF).

Refer to chapter 2 of the CA MICS Planning, Installation, Operations, and Maintenance Guide for unit level TAPESMSPARM and DETAILTAPESMSPARM statements in prefix.MICS.PARMS(JCLDEF).

The primary reason to include a DETAILTAPESMSPARM statement in prefix.MICS.PARMS(cccOPS) is to specify unique SMS parameters for the DETAIL tapes created for a particular component (ccc).

For example, your site may want to direct the CA MICS DETAIL tapes for a particular component (ccc) to a unique storage class.

Sample DETAILTAPESMSPARM statement:

```
DETAILTAPESMSPARM STORCLAS=DTPCLASS
```

In this example, the JCL for all DETAIL tape data sets for the component will include the SMS STORCLAS=DTPCLASS assignment.

TAPEfffSMS

The TAPEfffSMS statement is only permitted in prefix.MICS.PARMS(cccOPS). It is not supported in prefix.MICS.PARMS(JCLDEF). TAPEfffSMS keyword specifications override, for the indicated file, any SMS related tape specifications made in prefix.MICS.PARMS(JCLDEF) and prefix.MICS.PARMS(cccOPS) with TAPESMSPARM or DETAILTAPESMSPARM statements.

The primary reason to include a TAPEfffSMS statement in

prefix.MICS.PARMS(cccOPS) is to specify unique SMS parameters for a specific DETAIL tape file (fff).

Sample TAPEfffSMS statement:

```
TAPEfffSMS STORCLAS=fffCLASS
```

In this example, the JCL for the DETAIL tape data set for file ffft will include the SMS STORCLAS=fffCLASS assignment.

7.3.1.4.6 DETAIL Tape User Exits

A user exit is invoked just prior to the output of each record to a DETAIL tape file. The exits are named _USRTfff, where fff matches the file identifier for the DETAIL tape file.

Refer to chapter 10 of this guide for a complete description of the DETAIL tape user exits.

7.3.1.4.7 Activating DETAIL Tape Checklist

___ 1. Add or modify the desired TAPEfff and TAPEfffSMS statements in prefix.MICS.PARMS(cccOPS), where fff is the three-character file identifier for the file to be written to tape.

___ 2. Submit prefix.MICS.CNTL(cccPGEN).

___ 3. Edit prefix.MICS.PARMS(JCLGENU) so that it reads:

cccGDGGN DAILY

If Incremental Update is active, add this:

INCRccc

___ 4. Submit prefix.MICS.CNTL(JCLGENU) to regenerate the JCL for DAILY and cccGDGGN.

Note: If you want to use specific JCL and SMS parameter values for your DETAIL tape data sets, make sure you have coded the appropriate DETAILTAPEPARM and/or DETAILTAPESMSPARM statements in prefix.MICS.PARMS(JCLDEF) for unit level, or prefix.MICS.PARMS(cccOPS) for component level DETAIL tape JCL parameters. Refer to the previous sections for a detailed discussion on JCL parameters available for DETAIL tape data sets.

___ 5. Submit prefix.MICS.CNTL(cccGDGGN) to define the tape GDG.

Note: If you want to override the number of entries kept in a GDG with cataloged data sets for a TAPEfff file, you must delete and redefine the index with the new limit for GDG entries. Follow the checklist in section 3.5.6.3 of the PIOM.

___ 6. You have just activated DETAIL tape for one or more database files. As mentioned in the DETAIL Tape Processing Overview section, the choice to create DETAIL tape files is independent of, and does not affect the creation of DETAIL files in the unit database.

If you are currently creating one or more cycles of the files you just activated for DETAIL tape in your unit prefix.MICS.DETAIL timespan, your DAILY update

```
job will continue to do so.

Now that you are creating DETAIL tape cycles for the
files, you may want to deactivate, or limit the
number of DETAIL cycles written to the unit DETAIL
timespan database.

The CA MICS System Modification Guide contains
instructions for changing the number of cycles of a
file as well as instructions for deactivation of the
DETAIL timespan of a file.

If you deactivate the files in the DETAIL timespan,
make sure you delete the existing cycles to free up
space in the prefix.MICS.DETAIL database.  If you
reduce the number of cycles, make sure you delete any
existing cycles in prefix.MICS.DETAIL beyond the new
cycle limit.

The following JCL can be used to delete specific
cycles of a file from the DETAIL timespan.  Make sure
to replace 'x' with the unit identifier:

a) Delete all cycles for file fff (01-nn)

//DELETE  EXEC MICSDBx
//SYSIN   DD *
 PROC DATASETS DDNAME=%DDNx(TS=DETAIL);
   DELETE cccfff01 cccfff02 ... cccfffnn ;
   RUN;

b) Delete cycles 02, 03, and 04 for file fff:

//DELETE  EXEC MICSDBx
//SYSIN   DD *
 PROC DATASETS DDNAME=%DDNx(TS=DETAIL);
   DELETE cccfff02 cccfff03 cccfff04 ;
   RUN;
```

7.3.1.4.8 Deactivating DETAIL Tape Checklist

___ 1. Delete the desired TAPEfff and TAPEfffSMS statements from prefix.MICS.PARMS(cccOPS).

___ 2. If there are no longer any TAPEfff statements in prefix.MICS.PARMS(cccOPS), delete any DETAILTAPEPARM and DETAILTAPESMSPARM statements.

___ 3. Submit prefix.MICS.CNTL(cccPGEN).

___ 4. Edit prefix.MICS.PARMS(JCLGENU) so that it reads:

DAILY

If Incremental Update is active, add this:

INCRccc

___ 5. Submit prefix.MICS.CNTL(JCLGENU) to regenerate the JCL for the DAILY job.

___ 6. (Optional) Delete the index and the cataloged datasets for each TAPEfff statements deleted in step 1.

7.3.1.5 Sample DB2OPS

Following is a sample of optional statements that may be coded in prefix.MICS.PARMS(DB2OPS):

```
+-----------------------------------------------------------+
| INSTALLATION PREPARATION WORKSHEET:                       |
|   DB2 Analyzer Options Definition                         |
|                                                           |
| PARMS Library Member is DB2OPS                            |
| Reference Section:  7.3.1.n  CA MICS DB2 Analyzer Guide   |
+-----------------------------------------------------------+
|                                                           |
| DB2 Processing Options:                                   |
|                                                           |
|     TAPEDSP                                               |
|                                                           |
|     TAPEDSU                                               |
|                                                           |
|     TAPEDPP                                               |
|                                                           |
|     TAPEDDU                                               |
|                                                           |
|     TAPEDDP                                               |
|                                                           |
|     TAPEDBU                                               |
|                                                           |
|     TAPEDBP                                               |
|                                                           |
|     DETAILTAPEPARM                                        |
|                                                           |
|     DETAILTAPESMSPARM                                     |
|                                                           |
|     WORK n data_set_allocation_parameters                 |
|     MULTWORK|NOMULT fff ... fff                           |
|                                                           |
|     RESTART YES/NO                                        |
|                                                           |
|     INCRUPDATE YES/NO                                     |
|     INCRDB     PERM/TAPE/DYNAM                            |
|     INCRDETAIL data_set_allocation_parameters             |
|                                                           |
+-----------------------------------------------------------+
```

Figure 7-3. CA MICS DB2 Analyzer Definition Worksheet

7.3.2 INPUTRDR and INPUTDB2 PARMS Members

The prefix.MICS.PARMS members INPUTRDR and INPUTccc are used to specify the input data for the Data Integration Application component step.

To determine whether INPUTccc or INPUTRDR or both are used, review the DAYSMF, SMFRECORDING, and SMFDRCTR specifications in prefix.MICS.PARMS(JCLDEF). Consider the following table and comments for the row:

ROW	PARAMETER IN JCLDEF	INPUTRDR WHERE USED	INPUTccc WHERE USED
1	DAYSMF OFF	Not Used	Each Comp Step
2	DAYSMF FILE(S) ...	DAYSMF Step	Not Used
3	Only 1 SMF Comp	Comp Step	Not Used
4	SMFDIRECTOR	Not Used	Comp Step
5	DAYSMF EXCLUDE ccc	Not Used	Comp ccc Step
6	SMFRECORDING ccc	It depends	Comp ccc Step

Row 1: When DAYSMF OFF is specified in JCLDEF, then the prefix.MICS.PARMS(INPUTccc) member is used for each component step.

Row 2: When DAYSMF FILES PERMANENT or TEMPORARY is specified in JCLDEF, the prefix.MICS.PARMS(INPUTRDR) member is used in DAYSMF.

Row 3: If there is only one SMF recording component in this unit, DAYSMF will not be generated and the component step with SMF input data will use the prefix.MICS.PARMS(INPUTRDR) member.

Row 5: If the use of DAYSMF EXCLUDE ccc results in only one component remaining as DAYSMF eligible, DAYSMF will automatically be deactivated, and row 1 applies.

Row 6: Some components accept data from both SMF and non-SMF sources, such as CIC and VCA. In this case, the component may optionally input data from the INPUTRDR member, but will always include the INPUTccc member. Refer to the component's guide.

For details on the DAYSMF parameters, see PIOM section 2.3.3.2.1, JCL Option Definitions (JCLDEF).

For details on deactivating DAYSMF, see PIOM section 5.10, Removing the DAYSMF Step from the DAILY Job.

The following sections describe how to specify the input data set JCL definitions.

1 - INPUTRDR PARMS Member JCL Definition
2 - INPUTDB2 PARMS Member JCL Definition

7.3.2.1 INPUTRDR PARMS Member JCL Definition

The INPUTRDR member of prefix.MICS.PARMS defines the DD statements that specify the SMF input data for all products in the units that use SMF data. The INPUTSMF DD statements are used by the DAYSMF step, which reads and splits the SMF data into separate files, one for each CA MICS product.

The INPUTRDR member defines the input SMF data sets when DAYSMF FILES PERMANENT or TEMPORARY is specified in the prefix.MICS.PARMS(JCLDEF) member.

An INPUTSMF DD statement is required for each SMF data source. A worksheet for preparing the INPUTRDR member is provided below. If you change the contents of the INPUTRDR member, you must regenerate the CA MICS DAILY job using either JCLGENU or JCLGEND in prefix.MICS.CNTL.

For example, if you want to read your SMF data from a data set named SMF.DAILY.DATA, you would change the INPUTRDR member to contain the name of the SMF data set as follows:

```
//INPUTSMF DD DISP=SHR,DSN=SMF.DAILY.DATA
```

If there is only one SMF recording component in this unit, DAYSMF will not be generated and the component step with SMF input data will use the prefix.MICS.PARMS(INPUTRDR) member directly.

If DAYSMF has been deactivated by the DAYSMF OFF statement specified in the prefix.MICS.PARMS(JCLDEF) member, then each component step will read its input from their corresponding prefix.MICS.PARMS(INPUTccc) member.

```
+-------------------------------------------------------------------+
| INSTALLATION PREPARATION WORKSHEET:  SMF Input DD Statements      |
|                                                                   |
| PARMS Library Member is INPUTRDR                                  |
+-------------------------------------------------------------------+
|                                                                   |
|This definition is required to specify the DD statement for SMF data|
|which will be read by the DAILY CA MICS job.                       |
|                                                                   |
|   //@                                                            |
|   //@ WARNING: ALWAYS MAKE CHANGES IN PARMS(INPUTRDR) AND NOT     |
|   //@          &CNTL(DAILY).                                     |
|   //@          CHANGES MADE TO &CNTL(DAILY)                      |
|   //@          WILL BE GONE WHEN DAILY REGENERATED BY JCLGEN.    |
|   //@                                                            |
|   //INPUTSMF DD DISP=SHR,DCB=BUFNO=3,DSN=_____________________    |
|   //         DD DISP=SHR,DCB=BUFNO=3,DSN=_____________________    |
|                                                                   |
|                                                                   |
+-------------------------------------------------------------------+
```

Figure 7-3a. INPUTRDR JCL Definition Worksheet

7.3.2.2 INPUTDB2 PARMS Member JCL Definition

The INPUTDB2 member of prefix.MICS.PARMS contains the DD statements to specify the input data for the CA MICS Analyzer for DB2. The //INPUTSMF DD and, optionally, the //SMFDRCTR DD statements are used by the DAY065 step of the DAILY job.

The INPUTDB2 member contains the input SMF data sets when ANY of the following JCLDEF options is used:

- DAYSMF OFF is specified
- SMFDRCTR/SMFDIRECTOR DB2 is specified
- DAYSMF EXCLUDE DB2 is specified

A //INPUTSMF DD statement is required for each SMF data source.

A //SMFDRCTR DD statement is only required when CA SMF Director split indices are used.

A worksheet for preparing the INPUTDB2 member is provided below in Figure 7-3b.

If you change the contents of the INPUTDB2 member, you must regenerate the CA MICS DAILY job using either JCLGENU or JCLGEND in prefix.MICS.CNTL.

NOTE: If your site has CA SMF Director installed, you can use it to extract specific SMF record types and subtypes at SMF dump time. For more details on this product feature see section 6.5, CA MICS and CA SMF Director Interface, of this guide.

```
+-------------------------------------------------------------------------+
| INSTALLATION PREPARATION WORKSHEET:  INPUTDB2 JCL Definitions            |
|                                                                         |
| PARMS Library Member is INPUTDB2                                        |
+-------------------------------------------------------------------------+
|                                                                         |
|                                                                         |
| This definition is required to specify the DD statement for data        |
| that will be read by the DAILY CA MICS job.                             |
|                                                                         |
|   //@                                                                   |
|   //@ WARNING: ALWAYS MAKE CHANGES IN PARMS(INPUTDB2) AND NOT           |
|   //@          &CNTL(DAILY).                                            |
|   //@          CHANGES MADE TO &CNTL(DAILY)                             |
|   //@          WILL BE GONE WHEN DAILY REGENERATED BY JCLGEN.           |
|   //@                                                                   |
|   //INPUTSMF DD DISP=SHR,DCB=BUFNO=5,DSN=___________ _____________      |
|   //         DD DISP=SHR,DCB=BUFNO=5,DSN=___________ _____________      |
|   //@                                                                   |
|   //SMFDRCTR DD DISP=SHR,DCB=BUFNO=5,DSN=___________ _____________      |
|   //         DD DISP=SHR,DCB=BUFNO=5,DSN=___________ _____________      |
|                                                                         |
|                                                                         |
|                                                                         |
+-------------------------------------------------------------------------+
```

Figure 7-3b. INPUTDB2 JCL Definition Worksheet

7.3.3 Database Space Modeling (DBMODEL)

This section describes the information required to define the Analyzer to the Database Space Modeling Facility. Specifically, the user must provide values for the cycle (data retention) definitions. The special considerations for defining the FILE input statements to the Database Space Modeling facility are discussed.

Section 2.3.4 of the PIOM, Database Space Modeling Facility, explains how these values are used in estimating the DASD requirements of the database, and how the user can input these values to the modeling facility.

This section covers the following topics:

1 - Data Retention Specifications (FILE Statements)

7.3.3.1 Data Retention Specifications (FILE Statement)

This section describes cycle (data retention) definitions required for the DB2 Analyzer, discusses how to determine the DB2 data cycles required, and provides instructions for completing the FILE statements in the PARMS member DBMODEL.

Database Data Retention Worksheet Definition

Figure 7-4 provides a worksheet to define the different retention limits for the online and archive database files. The numbers shown on the worksheet reflect the default retention values in prefix.MICS.PARMS(DBMODEL).

Use the worksheet to define your retention specifications, which in turn will allow you to determine the appropriate values for the modeling process.

Note that the DBMODEL worksheet shown here contains values for this product only. For more information, see Section 2.3.4.1, Preparing the Modeling Input, in the CA MICS PIOM Guide.

The worksheet is organized by information area. Each file in the area is listed by name. For each file, a line is formatted to allow six definitions in the online database and two in the archive database:

o The online database files quantify the number of cycles of data that is maintained in the DETAIL, DAYS, WEEKS, MONTHS, and YEARS timespans and the TABLES data area.

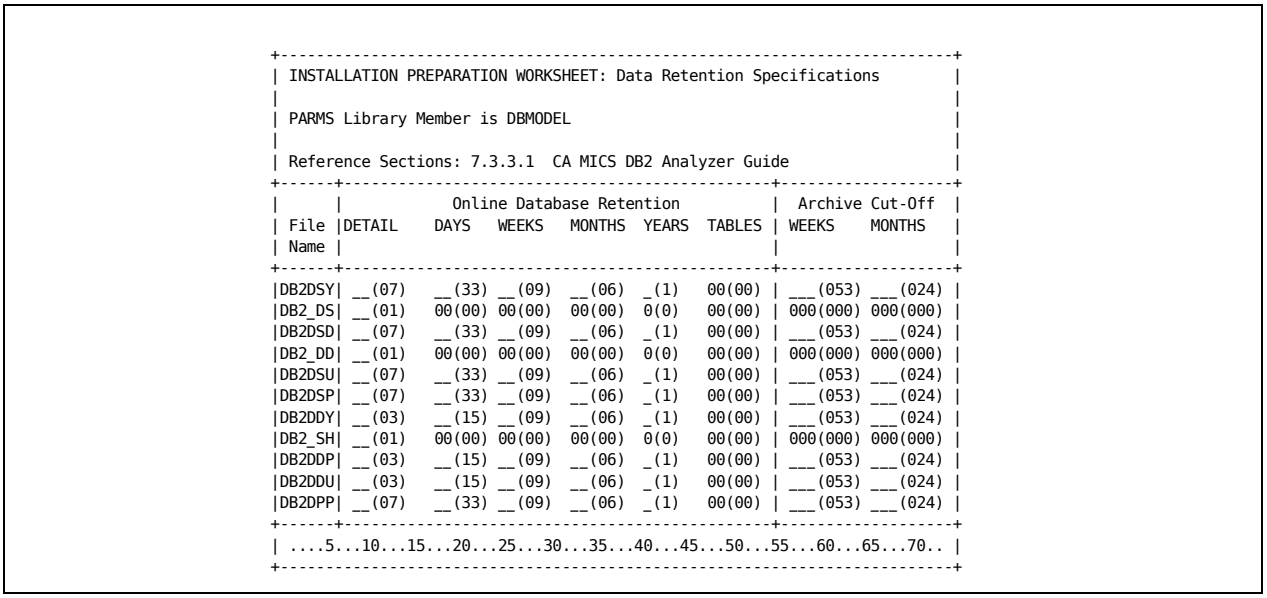
o The two definitions for the archive database files quantify the number of cycles of data to be retained, up to the cutoff limit defined. The archive definitions have no impact on the size of the database and can be specified whethert the weekly and/or monthly archive history files have actually been activated (see Section 2.3.3, CA MICS JCL Planning and Parameters, of the PIOM).

The worksheet formats provide an underscored area for the user's definition, followed by the recommended value, shown within parentheses. If the underscored area contains a value of 00, the file is not supported for the indicated timespan. To add support, perform database tailoring as described in Section 6.2, Tailoring the Database, of the System Modification Guide (SMG).

When specifying a retention limit, remember that the number may never be zero if the file has been defined to be active in the timespan.

DB2 Data Retention Definition

The DB2 Analyzer is comprised of the DB2 Information Area and its files. The FILE statements shown below specify the default online and archive history retention limits for each file. A complete description of the FILE statement is provided in the PIOM, Section 2.3.4.1, Preparing the Modeling Input.



INSTALLATION PREPARATION WORKSHEET: Data Retention Specifications

PARMS Library Member is DBMODEL

Reference Sections: 7.3.3.1 CA MICS DB2 Analyzer Guide

File Name	Online Database Retention DETAIL DAYS	WEEKS	MONTHS	YEARS	TABLES	Archive Cut-Off WEEKS	MONTHS
DB2DSY	__(07)	__(33)	__(09)	__(06)	_(1)	00(00)	___(053)	___(024)
DB2_DS	__(01)	00(00)	00(00)	00(00)	0(0)	00(00)	000(000)	000(000)
DB2DSD	__(07)	__(33)	__(09)	__(06)	_(1)	00(00)	___(053)	___(024)
DB2_DD	__(01)	00(00)	00(00)	00(00)	0(0)	00(00)	000(000)	000(000)
DB2DSU	__(07)	__(33)	__(09)	__(06)	_(1)	00(00)	___(053)	___(024)
DB2DSP	__(07)	__(33)	__(09)	__(06)	_(1)	00(00)	___(053)	___(024)
DB2DDY	__(03)	__(15)	__(09)	__(06)	_(1)	00(00)	___(053)	___(024)
DB2_SH	__(01)	00(00)	00(00)	00(00)	0(0)	00(00)	000(000)	000(000)
DB2DDP	__(03)	__(15)	__(09)	__(06)	_(1)	00(00)	___(053)	___(024)
DB2DDU	__(03)	__(15)	__(09)	__(06)	_(1)	00(00)	___(053)	___(024)
DB2DPP	__(07)	__(33)	__(09)	__(06)	_(1)	00(00)	___(053)	___(024)

....5...10...15...20...25...30...35...40...45...50...55...60...65...70..

Figure 7-4. Data Retention Specification Worksheet

Chapter 8: INSTALLATION

You install the CA MICS Analyzer Option for DB2 by following the instructions in the PIOM. Chapter 7 of this guide provides instructions for the correct definition of the DB2 Analyzer parameters. The SYSID, SITE, ZONE, and other parameter files that are used by more than one CA MICS product are defined in Chapter 2 of the PIOM. Section 3.8 of the PIOM provides step-by-step checklists that you must follow to ensure a successful installation.

Chapter 9: PROCESSING

This chapter describes a number of considerations for operation of the DB2 Analyzer.

This section contains the following topics:

9.1 Processing Requirements (see page 552)
9.2 Collector Options And Operation (see page 553)
9.3 Data Integrity Considerations (see page 554)

9.1 Processing Requirements

CA MICS assumes that the SMF record collection (using IFASMFDP) and processing (CA MICS DAILY job) occur daily.

The DB2 Analyzer can be installed either of two ways:

o In the same database unit as the CA MICS Batch and Operations Analyzer to run with CA MICS SMF processing. In this case the SMF file will be read only once.

o In a separate database unit. In this case both the Batch and Operations Analyzer and the DB2 Analyzer read the entire SMF file each day.

If it can be guaranteed that the Batch and Operations Analyzer will execute before the DB2 Analyzer each day, it is possible to have the Batch and Operations Analyzer extract the Type 100 and 101 DB2 SMF records and leave these for later processing by the DB2 Analyzer, thus speeding the Batch and Operations Analyzer update.

To cause the Batch and Operations Analyzer to extract this data, change the _USRSEL macro in sharedprefix.MICS.SOURCE(#BASEXIT) to this:

```
MACRO _USRSEL
 IF ROUTINE='INPUTRDR' AND
 (SMFRTYPE EQ 100 OR SMFRTYPE EQ 101) THEN
 USERFILE=1;
%
```

The SMF Type 100 and 101 records will be extracted and written to prefix.MICS.USER.DATA, where "prefix" is the prefix of the unit database for the Batch and Operations Analyzer. This file will then be used as input to the DB2 Analyzer.

9.2 Collector Options And Operation

The collection of accounting type 101 and statistical type 101 data is optional with DB2. To obtain the maximum benefit from the DB2 Analyzer, both record types should be collected. To enable the collection of DB2 accounting and statistical data:

1. Update the SMFPRMxx member of SYS1.PARMLIB by using a utility such as IEBUPDTE. SMFPRM determines which records SMF will allow to be written. Use SET SMFPRM=xx to select the member dynamically and cause SMF to begin logging DB2 records.

2. Do one of the following as appropriate:

   a. During DB2 installation, use the ISPF installation panels to choose accounting and statistics.

   b. During an update to the DB2 installation parameters, use the appropriate ISPF panel to specify that DB2 accounting and statistics data should be written to SMF.

   c. Activate the new SMFPRMxx member. To do this, re-IPL the system specifying the member (SMF=xx) or use the SET SMF=xx command.

3. Restart DB2 using the new installation parameters.

4. To prepare the SMF data for processing, dump the SMF records to a sequential data set using the IFASMFDP routine.

9.3 Data Integrity Considerations

The section of the DB2 Analyzer that reads the DB2 accounting and statistical records from the SMF file incorporates a number of provisions for validating the integrity of the SMF data:

- Record length checks
- Missing data checks
- Duplicate data checks
- Improper data combination checks

Messages are written to the SAS log if the DB2 Analyzer detects any of these conditions.

In addition, the DB2 Analyzer detects the restart of DB2. This is required for the proper calculation of data in the DB2 System Activity and Data Base Activity files. The procedure involves checking the sequence number of each DB2 SMF record.

It should be remembered that DB2 SMF data is not checkpointed and is not preserved over a DB2 restart. If a restart occurs, some data may be lost.

Chapter 10: MODIFICATION

The CA MICS Analyzer Option for DB2 is tailored, primarily, through the use of options and parameters and, sometimes, through the use of exits. Most of the customization is done by following the standard procedures defined by the System Modification Guide (SMG). This chapter does not repeat the details already provided by the SMG. Instead, it provides checklists to show you how to customize the DB2 Analyzer and describes the exits that are available during daily update processing.

This section contains the following topics:

10.1 Modification Checklists (see page 555)
10.2 Standard User Exits (see page 561)

10.1 Modification Checklists

This section provides checklists for tailoring the CA MICS Analyzer Option for DB2. The following topics are discussed:

1 - Activate DB2 Plan Activity Files (DB2DSP, DB2DDP)
2 - Implement Incremental Update
3 - Alter the Active Timespans for a File

10.1.1 Activate DB2 Plan Activity Files (DB2DSP, DB2DDP)

The DB2 Plan Activity Files, DB2DSP and DB2DDP, are optional files created from a rename of the DB2DSU and DB2DDU files. These files are distributed as active files. The procedure to activate the DB2DSP and DB2DDP files is, therefore, needed only if the files have been set to inactive.

To activate these files, use the following checklist:

___ 1. Save a copy of sharedprefix.MICS.GENLIB(DB2GENIN) in sharedprefix.MICS.LOCALMOD.CNTL for recovery purposes.

___ 2. Modify sharedprefix.MICS.GENLIB(DB2GENIN). If DDF reporting is required, modify the OPTION statement as follows:

OPTION DDF

Code the following FILE statement for the DB2DSP file if the file will be turned on in the DETAIL, DAYS, and MONTHS timespans:

FILE DSP 00 2 Y E N Y N N N N DB2 PLAN Activity File

Ensure the DDP FILE statement matches the DSP FILE statement if DDF is selected on the OPTION statement.

Ensure all elements turned on in the DB2DSP and DB2DDP files are also available at the DETAIL timespan for DB2DSU and DB2DDP respectively. The DB2DSU and DB2DDP timespan need NOT be active to comply with this requirement.

___ 3. Submit the job in sharedprefix.MICS.CNTL(DB2CGEN).

___ 4. Move CA MICS parameter library members that are dependent on the components installed in this database unit.

Submit prefix.MICS.CNTL(COPYLIBU)

___ 5. Review the definitions in prefix.MICS.PARMS(DBMODEL). Modify the cycle retention number to match the file status in each timespan. For example, at least one cycle is retained for the DETAIL timespan for the files you activated. See Section 7.3.3 of this guide for details on DBMODEL definitions.

___ 6. Submit the job in prefix.MICS.CNTL(CYCLEGEN).

10.1.2 Implement Incremental Update

If you are using the TAPEfff exit to collect detail-level data, and incremental update is active, you may need to make a few simple but very important adjustments to your exits or options to accommodate the way that incremental update processes data.

This section discusses the following:

o TAPEfff option considerations with incremental update

TAPEfff OPTION CONSIDERATIONS WITH INCREMENTAL UPDATE

The TAPEfff option allows the creation of DETAIL timespan tape files for certain high volume files.

Without incremental update, a single DETAIL timespan tape file is created for TAPEfff activated files during the DAILY run. The general practice is to use GDGs so that the (+0) tape volume contains yesterday's data, (-1) contains the prior day's data, and so on.

With incremental update activated, a tape is created with each execution of an incremental update as well as a final tape during the DAILY update run. For example, three incremental updates followed by a final daily update run result in a total of four tapes created, one for each TAPEfff activated file. Each tape contains only the detail data encountered during the individual incremental update or daily run. If you are employing GDGs you will want to consider increasing the number of generations to encompass the desired time range of history. For example, if previously 7 "daily" generations were maintained and you run 4 increments per day, you may wish to expand the generations kept to 28 (7 times 4 updates per day).

The use of fewer tapes in a single update under the incremental feature expedites processing. In addition, due to the "special study" nature of the data, separation into multiple pieces representing period time slices should allow usage to be more direct. That is, the data is already subset to the period contained within the update.

You also may consider creating a standalone job to consolidate these individual tapes into a single one after the DAILY job completes if you prefer to have a single tape data set contain all transactions for the time range.

10.1.3 Alter the Active Timespans for a File

For each DB2 Information Area file, there is a corresponding FILE statement in sharedprefix.MICS.GENLIB(DB2GENIN). The FILE statement defines the file name, the file type, the file status (active or inactive) in each timespan, and the file status for archive (audit and history collection).

Note: If incremental update is active, be sure to review Section 10.1.2 of this guide before using the TAPEfff option or USRXfff exits.

The USRXfff exits are coded in the #DB2EXIT member of the sharedprefix.MICS.SOURCE library. They use the %FXIT technique, which is described in section 10.2.3 of this guide, as well as in Section 4.3.1.2 of the SMG.

Because the DB2DSP, DB2DSU, DB2DPP, DB2DDU, DB2DDP, DBPDBU, and DBPDBP files contain large amounts of data at the DETAIL timespan, the CA MICS Analyzer Option for DB2 provides the TAPEDSP, TAPEDSU, TAPEDPP, TAPEDDU, TAPEDDP, TAPEDBU, and TAPEDBP options, which allow you to write the DETAIL timespan data to tape rather than DASD. You do not need to code the USRXfff exit to use the TAPEfff options. For more information about the TAPEfff options, refer to Section 7.3.1.4.3 in this guide.

```
****************** IMPORTANT ***************************
*                                                      *
*    If incremental update is active, be sure to       *
*    review the important considerations in Section    *
*    10.1.2 of this guide before using the TAPEfff     *
*    option or USRXfff exits.                          *
*                                                      *
****************** IMPORTANT ***************************
```

```
+-----------------------------------------------+
|To ...                  | use checklist...     |
|------------------------+----------------------|
|activate the TAPEfff    |                      |
| options...             | 3.1, which follows.  |
+-----------------------------------------------+
```

```
*****************************************************
*                                                   *
*    Checklist 3.1 - Activate the TAPEfff Options   *
*                                                   *
*    If incremental update is active, be sure to    *
*    review the considerations in Section 10.1.2.   *
```

```
   *                                                  *
   ****************************************************

___ 1.  Make a backup copy of all complex and unit level
        libraries in the complex.

___ 2.  Review the descriptions of the FILE statement
        provided in Section 4.2.4.2.1 of the SMG.

   ****************************************************
   *     Repeat the following steps for each database *
   *     unit containing the CA MICS Analyzer Option  *
   *     for DB2.                                     *
   ****************************************************

___ 3.  Edit prefix.MICS.PARMS(DB2OPS) and add the following
        statements anywhere in the member:

        TAPEDSP--to write the DETAIL.DB2DSP01 file to tape
        TAPEDSU--to write the DETAIL.DB2DSU01 file to tape
        TAPEDPP--to write the DETAIL.DB2DPP01 file to tape
        TAPEDDU--to write the DETAIL.DB2DDU01 file to tape
        TAPEDDP--to write the DETAIL.DB2DDP01 file to tape
        TAPEDBU--to write the DETAIL.DBPDBU01 file to tape
        TAPEDBP--to write the DETAIL.DBPDBP01 file to tape
        WORK--to set the number of work data set pairs to use
              when processing DETAIL transactions for each
              intermediate work file

___ 4.  Submit prefix.MICS.CNTL(DB2PGEN).

___ 5.  Edit prefix.MICS.PARMS(JCLGENU) so that it reads:

        DB2GDGGN DAILY

___ 6.  Submit prefix.MICS.CNTL(JCLGENU) to regenerate the
        JCL for DAILY and DB2GDGGN.

___ 7.  Submit prefix.MICS.CNTL(DB2GDGGN) to define the tape
        GDG.

        Note:  If your site already uses the TAPEfff options
        for other files, DB2GDGGN will complete with
        condition code 12.  Examine the output from the
        IDCAMS step to verify that a GDG entry has been
        successfully created for the selected file.
```

10.2 Standard User Exits

Before implementing an exit, determine whether the required modification can be accomplished by parameter modification or file tailoring.

At times, additional system customization is needed to tailor CA MICS to your site. There are many user exit points provided within CA MICS. Each of these points corresponds to a position in the CA MICS logic where user modification:

- Is likely to occur, based on our experience
- Presents only a slight possibility of compromising the CA MICS database or operational integrity
- Is relatively easy to document and understand

Using the CA MICS exit facilities to augment CA MICS processing logic is the safest method of system modification. Generally, you have four methods with which to augment, change, and enhance CA MICS.

- CA MICS standard option and parameter definitions

  The diverse installation and definition options provide most users with adequate provisions for customizing CA MICS.

- Modification through user exits

  Often there may be site-dependent requirements that are not adequately addressed through the standard options and parameters. In these cases, one or more of the user exits provided with CA MICS may be used to insert user-written routines that satisfy the requirements.

- Extension through field developed applications

  Although most users do not initially consider this a way of modifying a standard CA MICS product, the development of field developed applications may be the most advantageous method. For example, often it may be better to write a field developed application to handle additional SMF data than to attempt to modify the logic of the CA MICS DB2 Analyzer.

- System code modification

As a final option, you may be able to satisfy your site's requirements by implementing a source code change.

GENERAL EXIT CONSIDERATIONS

You should carefully explore whether you need to develop a user exit routine. First, ensure that the requirement cannot be satisfied through one of the standard options or definitions by discussing your requirement with CA Technical Support.

Designing, coding, testing, and implementing a CA MICS user exit routine should be done carefully, since any resulting errors may corrupt the data. You should be meticulous in the definition and validation of the exit routines to ensure that system integrity and performance are not adversely affected.

If an exit must be used, refer to Chapter 9 of this guide for a description of the location of the exit in the DAILY update. For a better understanding of CA MICS user exits, see Section 4.3 of the System Modification Guide.

Product exits are classified according to their purpose and include product input, output, parameter-related, and accounting exits. Input exits are invoked as the raw input records are read. Output exits are invoked just before CA MICS writes an observation to the CA MICS database.

The DB2 Analyzer provides the input exit _USRSEL. You can use this exit to select or exclude input data that meets special site-defined criteria, add data elements, or modify record fields as they are read.

One output exit routine is provided for each product file. You can use this output exit routine to selectively block the writing of specified records, alter data elements in the records, or produce additional records for the target file or a user-defined file.

The product parameter-related exits are also user exits, but they are defined as part of the standard CA MICS installation process. They are normally associated with other parameters or options. For example, the Account Code Derivation Routine is a user exit routine for completing values for account codes that were defined in the separate but related DB2ACRT member of sharedprefix.MICS.PARMS. DB2ACRT is the Account Code Definition parameter member. These exits are identified

in this chapter, but they are described in detail in Chapter 7.

The user exits for the DB2 Analyzer are discussed in detail in the following sections:

1 - Input Exits
2 - Parameter-Related Exits
3 - Output Exits

10.2.1 Input Exits

This section provides a description of the input exit that is shared by DB2 with the other installed CA MICS products.

The exit description includes the name and title, a description of its purpose, when it is invoked, and whether it has an interface to CA MICS Accounting and Chargeback. It also shows which data elements are available, the special considerations to note, and a sample user exit.

```
+-------------+
| U S R S E L |  Input Record Selection Exit (USRSEL)
+-------------+

DESCRIPTION:  The _USRSEL exit allows you to reject records
from being processed by the CA MICS Analyzer Option for DB2
during the DB2 input format routine.  It is similarly invoked
in input format routines for other CA MICS products. It can
be defined at the complex level in
sharedprefix.MICS.SOURCE(#BASEXIT) or at the unit level in
prefix.MICS.USER.SOURCE(#BASEXIT).

INVOCATION:  The _USRSEL exit gains control during the input
format routine in the DAY065 step of the DAILY job. It is
invoked for each input record processed from SMF.

ACCOUNTING INTERFACE:  No interface is provided.

USES:  This exit can be used to exclude records from being
processed by the CA MICS Analyzer Option for DB2 during the
daily input step.  To exclude a record, set SKIP_REC to one.
For example, you can code the following to skip records that
contain the SMF system ID "TEST":

   MACRO _USRSEL;
     IF ROUTINE EQ 'DYDB2FMT' THEN DO;
      IF ORGSYSID EQ 'TEST' THEN SKIP_REC=1;
     END;
   %

The CA MICS Analyzer Option for DB2 provides the appropriate
logic to delete the record based on the value of SKIP-REC
after the _USRSEL exit is invoked.

ELEMENTS AVAILABLE:  ORGSYSID - Original System ID

CODING RESTRICTIONS:  Do not refer to any CA MICS-assigned
```

```
data elements such as DB2ID and DB2ACTx when setting SKIP_REC
in this exit.  Extra records will be deleted as a result.
For additional coding restrictions, refer to the SMG, Section
4.3.2.1.


+---------------+
| U S R S D B 2 |  Input Record Selection Exit (DB2SEL)
+---------------+

DESCRIPTION:  The USRSDB2 exit allows you to reject records
from being processed by the CA MICS Analyzer Option for DB2
during the DB2 input format routine.  It is ONLY invoked in
CA MICS DB2 format routine.  It can be defined at the complex
level in sharedprefix.MICS.SOURCE(#DB2EXIT) or at the unit
level in prefix.MICS.USER.SOURCE(#DB2EXIT).

INVOCATION:  The USRSDB2 exit gains control during the input
format routine in the DAY065 step of the CA MICS DAILY job
following the decode of the DB2 header information from an
input SMF log record.  Elements available at the point of
this exit are listed below, after the sample exit.  It is
invoked for each DB2 input record processed from SMF.

ACCOUNTING INTERFACE:  No interface is provided.

USES:  This exit can be used to exclude records from being
processed during the daily input step based on distributed
thread type, user ID, plan ID, transaction, and facility ID.
To exclude a record, set SKIP_REC to one.  For example, you
can code the following to skip records that contain the
DB2PLAN, LOOPER:

      IF DB2PLAN EQ 'LOOPER' THEN SKIP_REC=1;

The CA MICS Analyzer Option for DB2 provides the appropriate
logic to delete the record based on the value of SKIP-REC
after the USRSDB2 exit is invoked.

ELEMENTS AVAILABLE:

  ORGSYSID -  Original System ID
  ENDTS    -  SMF Time stamp
  DB2RMID  -  DB2 Resource Manager ID
  DB2IFCID -  Instrumentation Facility ID
  DB2RELN  -  DB2 Release Number
  DB2ACE   -  DB2 Agent Control Element (ACE) ID
  DB2ID    -  DB2 Subsystem ID
  DB2STCK  -  Time Stamp
```

```
DB2LOCN  -  Location ID
DB2AUTH  -  Primary Authid
DB2CORR  -  Job name
DB2CONN  -  DB2 Facility ID (TSO, CICS, IMS)
DB2PLAN  -  DB2 Plan name
DB2OPID  -  DB2 OPERATOR ID
DB2NETID -  NETWORK ID
DB2LUNAM -  DDF  LU NAME
DB2UNIQ  -  DDF  INSTANCE NUMBER
DB2DDFCT -  DDF  COMMIT COUNT
DB2REQID -  Remote Requesting Location Id
DB2THDTY -  Distributed Thread Type
```

10.2.2 Parameter-Related Exits

This section identifies the DB2 parameter-related exits you define at product installation. Detailed descriptions of these exits are presented in Chapter 7 of this guide.

```
+---------------+
| D B 2 A C R T |  DB2 Account Code Derivation Exit
+---------------+
```

DESCRIPTION: The DB2ACRT exit derives the value of the account code elements defined in sharedprefix.MICS.PARMS(DB2ACCT). It is a complex-level exit (it resides in the same library as DB2ACCT) and its definition applies to all database units in which the Analyzer Option for DB2 is installed.

INVOCATION: The DB2ACRT exit gains control during the input format routine of the daily update process step DAY065. It is invoked once for each detail transaction record processed by the Analyzer Option for DB2.

ACCOUNTING INTERFACE: No interface is provided.

USES: This exit sets the value of the DB2ACTx variables.

ELEMENTS AVAILABLE: All DETAIL timespan elements of the files are available.

CODING RESTRICTIONS: Refer to Section 7.2.3 of this guide.

SPECIAL NOTES: The exit code is contained in sharedprefix.MICS.PARMS(DB2ACRT).

SAMPLE USER EXIT: See Section 7.2.3 for a sample exit.

10.2.3 Output Exits

Output exits are invoked just prior to adding the observation to the DETAIL timespan of the file. These exits can be used to modify the value of elements or prevent selected observations from being added. In addition, the CA MICS Analyzer Option for DB2 provides two special exits to output detail data to a user-defined data set. These exits specify user data set names and the length, formats, and labels associated with the data set.

```
+----------------+
|  U S R S f f f |  DB2 File Selection Exit
+----------------+
```

DESCRIPTION: The USRSfff exit provides the ability to modify or select observations immediately prior to output. The files available (iiifff) are DB2DDY, DB2DDP, DB2DDU, DB2DSP, DB2DSU, DB2DSY, DB2DSD, DB2DPP, DB2SSA, DB2SSU, DBPBMD, DBPBMG, DBPDBU, and DBPDSB.

INVOCATION: These exits are invoked in the information area processing phase immediately before output of the file.

ACCOUNTING INTERFACE: No interface is provided.

USES: The exit allows elements to be modified and observations to be excluded from the output file. To exclude an observation, set SKIP_REC to one (1).

ELEMENTS AVAILABLE: All elements in the file are available.

Example:

```
   sharedprefix.MICS.SOURCE(#DB2EXIT):

     %LET USRSDPP = PACKAGE ;

   prefix.MICS.USER.SOURCE(PACKAGE):

      IF   DB2PKNM EQ: 'ACCUMACC' THEN ;
      ELSE DB2PKNM=QPACSLOC !! QPACSCOL ;
```

In this example, DB2PKNM was redefined as a concatenation of QPACSLOC and QPACSCOL raw SMF101-1 elements of the QPAC or PACKAGE section. Note that DB2PKNM is, by default, defined by concatenating QPACLOCN, QPACCOLN, QPACPKID, and QPACCONT variables of the QPAC section.

```
Member PACKAGE was created in the unit level
prefix.MICS.USER.SOURCE library for the unit where DB2PKNM is
to be redefined for the DB2DPP file.

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
*                                                                     *
* THIS IS IMPORTANT:                                                  *
*                                                                     *
* The USRSDPP exit cannot access the QPACxxxx variables               *
* unless they are made available within the following                 *
* macro definition in sharedprefix.MICS.SOURCE(#DB2EXIT):             *
*                                                                     *
*   %MACRO DB2QPAC;                                                   *
*    /*  QPACLOCN  */                                                 *
*    /*  QPACCOLN  */                                                 *
*    /*  QPACPKID  */                                                 *
*    /*  QPACCONT  */                                                 *
*    /*  QPACSLOC  */                                                 *
*    /*  QPACSCOL  */                                                 *
*    /*  QPACSPKI  */                                                 *
*    /*  LQPACLOC  */                                                 *
*    /*  LQPACCOL  */                                                 *
*    /*  LQPACPKI  */                                                 *
*   %MEND DB2QPAC;                                                    *
*                                                                     *
* Uncomment only those variables that you need since they             *
* impose overhead on the CA MICS DAILY and Incremental                *
* updates.  The variable names and their descriptions are             *
* as follows:                                                         *
*                                                                     *
*   QPACLOCN  -  QPACLOCN Work Variable Long Form                     *
*   QPACCOLN  -  QPACCOLN Work Variable Long Form                     *
*   QPACPKID  -  QPACPKID Work Variable Long Form                     *
*   QPACSLOC  -  QPACSLOC Work Variable Short Form                    *
*   QPACSCOL  -  QPACSCOL Work Variable Short Form                    *
*   QPACSPKI  -  QPACSPKI Work Variable Short Form                    *
*   QPACCONT  -  QPACCONT Work Variable                               *
*   LQPACLOC  -  QPACLOCN Length for Long Form                        *
*   LQPACCOL  -  QPACCOLN Length for Long Form                        *
*   LQPACPKI  -  QPACPKID Length for Long Form                        *
*                                                                     *
* Variables designated as long form are each 128 characters           *
* long.  The last three variables are numeric variables               *
* that indicate how much of their respective long form                *
* variables are actually populated.  The long form variables          *
* are available for DB2 V8.1 and above.                               *
*                                                                     *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

```
CODING RESTRICTIONS:  This exit must not issue the RETURN or
DELETE statements, nor use a subsetting IF since its
invocation assumes the entire DATA step will be executed.
Refer to the SMG, Section 4.3.1.2, for more information.


+---------------+
|  U S R D f f f |  DB2 User-written Cost Derivation Exit
+---------------+

DESCRIPTION:  The USRDfff exit lets you provide the
derivation of the fffCOST data element.  The files available
(fff) are the DB2DSU, DB2DDU, DB2DSP, DB2DDP, and DB2DPP
files.

INVOCATION:  These exits are invoked in the information area
processing phase immediately before output of the file.

ACCOUNTING INTERFACE:  No interface is provided.

USES:  The exit allows elements to be passed to the routine
computing the value of fffCOST.

ELEMENTS AVAILABLE:  All elements in the file are available.


+---------------+
|  U S R X f f f |  DB2 Detail Data Exit
+---------------+

************************************************************
*                                                          *
*  Note:  If incremental update is active, be sure to      *
*  review the important considerations in Section 10.1.2   *
*  of this guide before coding USRXfff exits.              *
*                                                          *
************************************************************

DESCRIPTION:  The USRXfff exit can be used to create a file
in the DETAIL timespan when the DETAIL timespan is inactive
on the FILE statement in sharedprefix.MICS.GENLIB(DB2GENIN).
In this case, the exit contains the entire SAS data block
that writes the DETAIL timespan for the fff file. When the
DETAIL timespan is active on the FILE statement in
sharedprefix.MICS.GENLIB(DB2GENIN), the USRXfff exit is
restricted to modifying or deleting observations in the
DETAIL timespan.  To exclude an observation, set SKIP_REC to
one (1).  In any case, the USRXfff exit is available for the
```

files DB2DSU, DB2DDU, DB2DSP, DB2DDP, DB2DPP, DBPDBU, and DBPDBP.

INVOCATION: This exit is invoked in the code that processes detail DB2 transaction data after a sort of the detail data into the detail DB2fff file sequence and before the data is summarized to the DAYS level.

ACCOUNTING INTERFACE: No interface is provided.

USES: The exit allows a DETAIL timespan file to be created when it is not coded as active on the FILE statement in the sharedprefix.MICS.GENLIB(DB2GENIN). In any case, the exit allows elements to be modified and observations to be excluded from the output file.

ELEMENTS AVAILABLE: All elements in the file are available.

CODING RESTRICTIONS: Refer to the System Modification Guide, Section 4.3.1.2.

Example:

Below USRXfff exit routine excludes observations with missing DSUREQID value:

```
  MACRO _USRXDSU
    SELECT( DSUREQID ) ;
      WHEN( MISSING( DSUREQID ) ) SKIP_REC=ONE ;
      OTHERWISE;
    END;
  %
```

```
+----------------+
|  U S R T f f f | DETAIL Tape Data Selection Exit
+----------------+
```

DESCRIPTION: The USRTfff exits provide access to DETAIL file records prior to their output to DETAIL tape data sets. Refer to Chapter 7 of this guide for information about DETAIL tape processing and a list of eligible component files.

INVOCATION: The USRTfff exit is invoked prior to output to DETAIL tape files.

ACCOUNTING INTERFACE: No interface is provided.

USES: Use this exit to limit the amount of data that is written to DETAIL tape files, or to modify the contents of

data elements written to DETAIL tape files. Note that USRTfff exit code only affects the DETAIL tape file content for a particular file (fff). It has no impact on the normal unit database content for the same file (fff).

ELEMENTS AVAILABLE: All elements in the DETAIL timespan of the file.

ACTIVATION: The USRTfff exits are invoked using the indirect exit convention described in Section 4.3.1.2 of the SMG.

All of the USRTfff indirect exits are activated in sharedprefix.MICS.SOURCE(#cccEXIT). In #cccEXIT, you will find the following statement for each file (fff) eligible for DETAIL tape:

```
%LET USRTfff = ;
```

The exit is activated by providing a member name to the right of the equal sign:

```
%LET USRTfff = exitname ;
```

If you code an exitname, you MUST create a member in each unit's prefix.MICS.USER.SOURCE library with that name. Provide valid SAS code in the member. This code will be invoked prior to the output of records to the DETAIL tape file.

Example:

sharedprefix.MICS.SOURCE(#DB2EXIT):

```
%LET USRTDSU = DSUTEXIT ;
```

prefix.MICS.USER.SOURCE(DSUTEXIT):

```
IF DB2ID NE 'RGN1' THEN SKIP_REC=1 ;
```

In this example, DSUTEXIT was chosen as the name for the DETAIL tape exit for the DB2DSU file. Member DSUTEXIT was created in the unit level prefix.MICS.USER.SOURCE library for each unit where DETAIL tape was activated for the DB2DSU file.

The exit was coded to limit the records written to the DETAIL tape file to those from a particular DB2 region, RGN1.

Note that the exit member name must be identical in each

```
unit's prefix.MICS.USER.SOURCE library, but the contents of
each member can be different (or identical) for each unit.

CODING RESTRICTIONS:  Ensure that you have activated DETAIL
tape processing for a file, and executed cccPGEN prior to
activating and coding USRTfff exits.

+----------------+
|  U S R U J f f |  Accounting & Chargeback Exits
|  D B 2 J f f f |
+----------------+

DESCRIPTION:  These exits provide the linkage into CA MICS
Accounting and Chargeback.  The files available (fff) are the
DB2DSU, DB2DDU, and DB2DPP files.

INVOCATION:  These exits are invoked in the daily
summarization #fffDSUM routines, where fff is DSU, DDU, or
DPP as the data is summarized at the DAYS timespan.

ACCOUNTING INTERFACE:  These exits provide the interface to
Accounting and Chargeback.

USES:  The exit allows elements to be passed to Accounting
and Chargeback.

ELEMENTS AVAILABLE:  All elements in the file are available.

CODING RESTRICTIONS:  Refer to Section 4.3.1.1 of the SMG.
```

Appendix A: MESSAGES

Messages

This appendix lists the messages generated by the CA MICS Analyzer Option for DB2. Some messages are printed on both the MICSLOG and SAS log data sets. When reviewing the output of a job, first look at the MICSLOG data set, because it will contain fewer lines of information, thus making it easier to see whether or a job or job step completed as expected. If the MICSLOG message does not provide enough information, see this appendix for more information. The messages are listed in ascending numerical sequence and include the full text of the message, the type, the reason for the message, appropriate user action, and applicable references to documentation. If you still need more information, see the SAS log to help debug the problem.

The following type codes are used to categorize the messages:

Information	Designates a note that documents a CA MICS option or potentially important feature in the data.
Warning	Designates a condition in either the data or the control statements that does not affect CA MICS Analyzer Option for DB2 operation, but that may lead to unexpected results.
Error	Designates that a problem has been encountered with a control statement that will prevent a successful run of the product. Execution is stopped after all control statements are processed.

The message text often includes references to information that is contained in a control statement or values of permanent or temporary variables created during CA MICS processing. In the description below, the message text contains a word beginning with a percent sign (%), which indicates that a value will be substituted into the text at execution time. For example, message DB200037 reads as follows:

```
  >>>>> INPUT PROCESSING ERROR
    DB2 VERSION %XREL IS NOT SUPPORTED.  INPUT RECORD WITH
    DB2ID = %DB2ID AND END TIME STAMP = %XENDTS
    HAS BEEN REJECTED.
```

A possible version of the printed message in the MICSLOG might be:

```
  >>>>> INPUT PROCESSING ERROR
    DB2 VERSION 9.5 IS NOT SUPPORTED.  INPUT RECORD WITH
    DB2ID = D95A AND END TIME STAMP = 29SEP04:15:47:35.00
    HAS BEEN REJECTED.
```

```
+------------+
|  DB200001  |
+------------+

   TEXT:    >>>>> FIRST INPUT TIMESTAMP THIS RUN=%XENDTS FROM
            SYSTEM %ORGSYSID.

   TYPE:    Information

   REASON:  List the first input timestamp.

   ACTION:  None

   REFERENCES:  None


+------------+
|  DB200002  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            SYSTEM RECORD - PRODUCT SECTION %QWS00PSN
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error
```

```
   REASON:  Incorrect number of Product sections.

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None


+------------+
|  DB200003  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            SYSTEM RECORD - ADDRESS SPACE SECTION %QWS00R1N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of Address Space sections.

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None

+------------+
|  DB200004  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            SYSTEM RECORD - INSTRUMENTATION SECTION %QWS00R2N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of Instrumentation sections.

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None


+------------+
|  DB200005  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            SYSTEM RECORD - IFCID SECTION %QWS00R3N
```

```
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of IFCID sections.

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None


+------------+
|  DB200006  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            SYSTEM RECORD - SYSTEM SERVICES SECTION %QWS00R4N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of System Services sections.

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None

+------------+
|  DB200007  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            SYSTEM RECORD - COMMAND SECTION %QWS00R5N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of Command sections.

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None


+------------+
|  DB200008  |
```

```
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            SYSTEM RECORD - LATCH MANAGER SECTION %QWS00R7N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of Latch Manager sections.

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None


+------------+
|  DB200009  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            SYSTEM RECORD - RECORD AGENT SECTION %QWS00R8N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of Record Agent sections.

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None

+------------+
|  DB200010  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            SYSTEM RECORD - STORAGE MANAGER SECTION %QWS00R9N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of Storage Manager sections.

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None
```

```
+------------+
|  DB200011  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            SYSTEM RECORD - TRACE SECTION %QWS00RAN
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of Trace sections.

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None


+------------+
|  DB200012  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            SYSTEM RECORD - LOG MANAGER SECTION %QWS00RBN
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of Log Manager sections.

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None

+------------+
|  DB200013  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            DATA BASE RECORD - PRODUCT SECTION %QWS10PSN
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of Product sections.
```

```
   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None


+------------+
|  DB200014  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            DATA BASE RECORD - SQL STATEMENT SECTION
            %QWS10R1N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of SQL Statement sections.

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None


+------------+
|  DB200015  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            DATA BASE RECORD - RECORD BIND SECTION %QWS10R2N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of Record Bind sections.

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None


+------------+
|  DB200016  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            DATA BASE RECORD - BUFFER MANAGER SECTION
```

```
            %QWS10R3N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of Buffer Manager sections.

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None


+------------+
|  DB200017  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            DATA BASE RECORD - DATA MANAGER SECTION %QWS10R4N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of Data Manager sections.

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None

+------------+
|  DB200018  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            ACCOUNTING RECORD - PRODUCT SECTION %QWA01PSN
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of Product sections.

   ACTION:  Verify that the SMF Type 101 records being input
            contain only DB2 data.

   REFERENCES:  None

+------------+
|  DB200019  |
```

```
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            ACCOUNTING RECORD - INSTRUMENTATION SECTION
            %QWA01R1N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of Instrumentation sections.

   ACTION:  Verify that the SMF Type 101 records being input
            contain only DB2 data.

   REFERENCES:  None


+------------+
|  DB200020  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            ACCOUNTING RECORD - SQL STATEMENT SECTION
            %QWA01R2N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of SQL Statement sections.

   ACTION:  Verify that the SMF Type 101 records being input
            contain only DB2 data.

   REFERENCES:  None

+------------+
|  DB200021  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            ACCOUNTING RECORD - BUFFER MANAGER SECTION
            %QWA01R3N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of Buffer Manager sections.

   ACTION:  Verify that the SMF Type 101 records being input
```

```
            contain only DB2 data.

   REFERENCES:  None


+------------+
|  DB200022  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            ACCOUNTING RECORD - RECORD LOCK SECTION %QWA01R4N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of Record Lock sections.

   ACTION:  Verify that the SMF Type 101 records being input
            contain only DB2 data.

   REFERENCES:  None


+------------+
|  DB200023  |
+------------+

   TEXT:    >>>>> LAST INPUT TIMESTAMP THIS RUN=%LASTTME FROM
            SYSTEM %ORGSYSID

   TYPE:    Information

   REASON:  List the last input timestamp.

   ACTION:  None

   REFERENCES:  None

+------------+
|  DB200024  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            SYSTEM RECORD - IFC CHECKPOINT SECTION %QWS00R6N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of IFC Checkpoint sections.
```

```
   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None


+------------+
|  DB200025  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            DATA BASE RECORD - RECORD LOCK SECTION %QWS10R5N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of Record Lock sections.

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None

+------------+
|  DB200026  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            DATA BASE RECORD - EDM SECTION %QWS10R6N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of EDM sections.

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None

+------------+
|  DB200027  |
+------------+

   TEXT:    >>>>> THE FIRST DB2DSY RECORD PROCESSED FOR DB2ID
            = %DB2ID END TIME STAMP = %XENDTS HAD A SEQUENCE
            NUMBER OF %DSYISEQ.  THIS OBSERVATION WILL BE
            WRITTEN WITH MISSING VALUES >>>>>
```

```
   TYPE:    Information

   REASON:  The first value for DSYISEQ is not 1.

   ACTION:  Verify that SMF records are not missing.

   REFERENCES:  None


+------------+
|  DB200028  |
+------------+

   TEXT:    >>>>> THE PRIOR DB2DSY RECORD PROCESSED FROM
            DB2ID = %LAGDB2ID WITH AN END TIME STAMP =
            %XLAGENDT HAD A %SEQDIF INTERVAL DIFFERENCE FROM
            THE CURRENT RECORD BEING PROCESSED DB2ID = %DB2ID
            END TIME STAMP = %XENDTS.  THIS RECORD WILL BE
            WRITTEN AS AN ACCUMULATED OBSERVATION IN THE
            DB2DSY FILE.

   TYPE:    Information

   REASON:  There is a difference between the current
            sequence number DSYISEQ and the prior sequence
            number LAGISEQ that is greater than 1.

   ACTION:  Verify that SMF records are not missing.

   REFERENCES:  None

+------------+
|  DB200029  |
+------------+

   TEXT:    >>>>> MISSING DB2DSY DATA AFTER DB2 SYSTEM
            RESTART.  THE CURRENT RECORD DB2ID = %DB2ID END
            TIME STAMP = %XENDTS WILL BE WRITTEN AS AN
            ACCUMULATED OBSERVATION.

   TYPE:    Information

   REASON:  SMF data is missing after a DB2 subsystem
            restart.

   ACTION:  Verify that SMF records are not missing.

   REFERENCES:  None
```

```
+------------+
|  DB200030  |
+------------+

   TEXT:    >>>>> THERE IS MORE THAN A ONE DAY DIFFERENCE
            BETWEEN THE PRIOR DB2DSY RECORD PROCESSED DB2ID =
            %LAGDB2ID END TIME STAMP = %XLAGENDT AND THE
            CURRENT RECORD BEING PROCESSED DB2ID = %DB2ID END
            TIME STAMP = %XENDTS.  THIS OBSERVATION WILL BE
            WRITTEN WITH MISSING VALUES >>>>>

   TYPE:    Information

   REASON:  There is more than a one-day difference between
            the end timestamps of the current and prior
            records.

   ACTION:  Verify that SMF records are not missing.

   REFERENCES:  None

+------------+
|  DB200031  |
+------------+

   TEXT:    >>>>> THE FIRST DB2DSD RECORD PROCESSED FOR DB2ID
            = %DB2ID END TIME STAMP = %XENDTS HAD A SEQUENCE
            NUMBER OF %DB2ISEQ.  THIS OBSERVATION WILL BE
            WRITTEN WITH MISSING VALUES >>>>>

   TYPE:    Information

   REASON:  The first value for DSDISEQ is not 1.

   ACTION:  Verify that SMF records are not missing.

   REFERENCES:  None


+------------+
|  DB200032  |
+------------+

   TEXT:    >>>>> THE PRIOR DB2DSD RECORD PROCESSED FROM
            DB2ID = %LAGDB2ID WITH AN END TIME STAMP =
            %XLAGENDT HAD A %SEQDIF INTERVAL DIFFERENCE FROM
            THE CURRENT RECORD BEING PROCESSED DB2ID = %DB2ID
```

```
            END TIME STAMP =%XENDTS.  THIS RECORD WILL BE
            WRITTEN AS AN ACCUMULATED OBSERVATION IN THE
            DB2DSD FILE

   TYPE:    Information

   REASON:  There is a difference between the current
            sequence number DSDISEQ and the prior sequence
            number LAGISEQ that is greater than 1.

   ACTION:  Verify that SMF records are not missing.

   REFERENCES:  None

+------------+
|  DB200033  |
+------------+

   TEXT:    >>>>> MISSING DB2DSD DATA AFTER DB2 SYSTEM
            RESTART.  THE CURRENT RECORD DB2ID = %DB2ID END
            TIME STAMP = %XENDTS WILL BE WRITTEN AS AN
            ACCUMULATED OBSERVATION

   TYPE:    Information

   REASON:  SMF data is missing after a DB2 subsystem
            restart.

   ACTION:  Verify that SMF records are not missing.

   REFERENCES:  None

+------------+
|  DB200034  |
+------------+

   TEXT:    >>>>> THERE IS MORE THAN A ONE DAY DIFFERENCE
            BETWEEN THE PRIOR DB2DSD RECORD PROCESSED DB2ID =
            %LAGDB2ID END TIME STAMP = %XLAGENDT AND THE
            CURRENT RECORD BEING PROCESSED DB2ID = %DB2ID END
            TIME STAMP = %XENDTS.  THIS OBSERVATION WILL BE
            WRITTEN WITH MISSING VALUES >>>>>

   TYPE:    Information

   REASON:  There is more than a one-day difference between
            the end timestamps of the current and prior
            records.
```

```
   ACTION:  Verify that SMF records are not missing.

   REFERENCES:  None

+------------+
|  DB200035  |
+------------+

   TEXT:    >>>>> THE NEW START RECORD FOR DB2DDY IS FOR
                          MVSID:  %SYSID
                          DB2ID:  %DB2ID
                       LOCATION:  %DB2RLOCN
                  END TIME STAMP:  %XENDTS
                      SEQUENCE #:  %DB2ISEQ
                THIS OBSERVATION WILL BE THE NEW BASE FOR
                CALCULATING ALL STATISTICS FOR THIS LOCATION

   TYPE:    Information

   REASON:  Identifies the start record for this location.

   ACTION:  None

   REFERENCES:  None

+------------+
|  DB200036  |
+------------+

   TEXT:    >>>>> SEQUENCE ERROR FOR PRIOR DB2DDY RECORD
              LAST DB2ID:  %LAGDB2ID
              LAST LOCATION:  %LAGRLOCN
              END TIME STAMP:  %XLAGENDT
              LAST SEQUENCE#:  %LAGISEQ INDICATING %SEQDIF
              STATISTICS RECORD(S) MAY BE MISSING.
              NEW SEQUENCE#:  %DB2ISEQ

   TYPE:    Information

   REASON:  Some Type 100 SMF records are missing.

   ACTION:  Determine the cause for the missing records.

   REFERENCES:  None

+------------+
|  DB200037  |
+------------+
```

```
   TEXT:    >>>>> INPUT PROCESSING ERROR
            DB2 VERSION %XREL IS NOT SUPPORTED.  INPUT RECORD
            WITH DB2ID = %DB2ID AND END TIME STAMP = %XENDTS
            HAS BEEN REJECTED.

   TYPE:    Error

   REASON:  SMF records from an unsupported release of DB2
            have been encountered.

   ACTION:  Verify that SMF data being input is from a
            supported DB2 release.

   REFERENCES:  None

+------------+
|  DB200038  |
+------------+

   TEXT:    %INSMFOL SKIPPED SMF RECORDS FROM UNSUPPORTED DB2
             RELEASES.

   TYPE:    Warning

   REASON:  SMF records from an unsupported release of DB2
            have been encountered and skipped.

   ACTION:  Verify that SMF data being input is from a
            supported DB2 release.

   REFERENCES:  None


+------------+
|  DB200039  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            SYSTEM RECORD - DDF SYSTEM STATISTICS SECTION
            %QWS00RCN
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of DDF System Statistics data
            sections

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.
```

```
   REFERENCES:  None

+------------+
|  DB200040  |
+------------+

   TEXT:    NOTE:  EITHER THE DSD OR THE DSY FILE IS TURNED
            OFF IN THE DAYS TIMESPAN.  YOU CANNOT PRODUCE THE
            CALENDAR REPORT UNLESS BOTH FILES ARE ACTIVE IN
            THE DAYS TIMESPAN.

   TYPE:    Warning

   REASON:  The Calendar Report has been requested but the
            DB2DSD and DB2DSY files are not active in the
            DAYS timespan.

   ACTION:  Verify that the DB2DSY and DB2DSD files are
            active in the DAYS timespan.

   REFERENCES:  None


+------------+
|  DB200041  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            DATA BASE RECORD - BUFFER MANAGER DATA SHARING
            SECTION %QWS10R7N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of group buffer pool sections.

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None

+------------+
|  DB200042  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            DATA BASE RECORD - SERVICE CONTROLLER DATA
            SHARING SECTION %QWS10R8N
```

```
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of global locking sections.

   ACTION:  Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None


+------------+
|  DB200043  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            ACCOUNTING RECORD - BUFFER MANAGER DATA SHARING
            SECTION %QWA01R9N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of buffer manager data sharing
            sections.

   ACTION:  Verify that the SMF Type 101 records being input
            contain only DB2 data.

   REFERENCES:  None

+------------+
|  DB200044  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            ACCOUNTING RECORD - GLOBAL LOCKING DATA SHARING
            SECTION %QWA01RAN
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Error

   REASON:  Incorrect number of global locking data sharing
            sections.

   ACTION:  Verify that the SMF Type 101 records being input
            contain only DB2 data.

   REFERENCES:  None
```

```
+------------+
|  DB200045  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            ACCOUNTING RECORD - ACCELERATOR SERVICES DATA
            SECTION %QWA01RDN
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Warning

   REASON:  More IDAA (IBM DB2 Analytics Accelerator) data
            sections are present in the record than expected.
            Fields from the additional IDAA data sections will
            be aggregated into the IDAA (cluster code 18)
            data elements in the DB2DSP and DB2DSU file
            observations.

            This message will only appear for the first 5
            DB2 threads that encounter contain the multiple
            data sections.

   ACTION:  None

   REFERENCES:  None

+------------+
|  DB200046  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            STATISTICS RECORD - ACCELERATOR SERVICES DATA
            SECTION %QWS10RBN
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Warning

   REASON:  More IDAA (IBM DB2 Analytics Accelerator) data
            sections are present in the record than expected.
            Only the first data section will be processed and
            output to the DB2DSD file.

   ACTION:  None

   REFERENCES:  None


+------------+
```

```
|  DB200049  |
+------------+

   TEXT:    %WEIRDREC INVALID (NO-HEADER) RECORDS DROPPED

   TYPE:    Warning

   REASON:  Some SMF records do not have enough sections to
            be processed by CA MICS.

   ACTION:  No action is needed.  CA MICS discards records
            that have insufficient data.

   REFERENCES:  None

+------------+
|  DB200050  |
+------------+

   TEXT:    UNICODE TO EBCDIC TRANSLATION FAILED:
            INSUFFICIENT SAS LEVEL
            SYSID = %U_SYSID; DB2ID = %U_DB2ID; VARIABLE =
            %U_VAR(%U_CNT TIMES).

   TYPE:    Warning

   REASON:  During the processing of DB2 Version 8 Release 1
            or higher data, the CA MICS Analyzer Option for
            DB2 could not perform Unicode to EBCDIC character
            translation because it is not executing at the
            minimum SAS 8.02 maintenance level.  This message
            displays the number of times this condition
            occurred for each SYSID, DB2ID, and affected data
            element combination.

   ACTION:  The data element %U_VAR will contain unprintable
            characters.  Verify that the CA MICS Analyzer
            Option for DB2 executes at SAS 8.02 or higher
            maintenance level.

   REFERENCES:  None

+------------+
|  DB200051  |
+------------+

   TEXT:    %CSRERREC RECORDS DROPPED DUE TO CSRCESRV
            EXPANSION FAILURE.
```

```
   TYPE:    Warning

   REASON:  During the processing of DB2 Version 10 Release 1
            or higher data, compressed data was detected, but
            the call the CSRCESRV EXPAND function resulted
            in a non-zero return code.  The record is
            discarded.

   ACTION:  If the number of records dropped is significant,
            examination of the raw data is advised.

   REFERENCES:  None

+------------+
|  DB200052  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            100-4 RECORD - SYSTEM SECTION %SSU00R1N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Warning

   REASON:  Incorrect number of System Sections.

   ACTION:  Only the first section is processed.
            Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None

+------------+
|  DB200053  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            100-4 RECORD - THRESHOLD SECTION %SSU00R2N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Warning

   REASON:  Incorrect number of Threshold Sections.

   ACTION:  Only the first section is processed.
            Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None
```

```
+------------+
|  DB200054  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            100-4 RECORD - SHARED AND COMMON STORAGE SECTION %SSU00R3N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Warning

   REASON:  Incorrect number of Shared and Common Storage Sections.

   ACTION:  Only the first section is processed.
            Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None

+------------+
|  DB200055  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            100-4 RECORD - STATEMENT CACHE AND XPROC SECTION %SSU00R4N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Warning

   REASON:  Incorrect number of Statement Cache and XPROC Sections.

   ACTION:  Only the first section is processed.
            Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None

+------------+
|  DB200056  |
+------------+

   TEXT:    !!!!! UNANTICIPATED SECTION COUNT !!!!!
            100-4 RECORD - POOL DETAILS SECTION %SSU00R5N
            !!!!! UNANTICIPATED SECTION COUNT

   TYPE:    Warning

   REASON:  Incorrect number of Pool Details Sections.

   ACTION:  Only the first section is processed.
```

```
            Verify that the SMF Type 100 records being input
            contain only DB2 data.

   REFERENCES:  None

+------------+
|  DB200100  |
+------------+

   TEXT:    STARTING DELTA PROCESSING FOR:  %FILENAME

   TYPE:    Information

   REASON:  The delta calculations for the %FILENAME data
            elements have been initiated.

   ACTION:  None

   REFERENCES:  None

+------------+
|  DB200102  |
+------------+

   TEXT:    SUSPEND RECORD DELETED DUE TO AGE:  SYSID=%SYSID;
            DB2ID=%DB2ID; ENDTS=%ENDTS; DB2SUSCT=%DB2SUSCT

   TYPE:    Information

   REASON:  Suspend records are deleted from the suspend file
            for DB2IDs not encountered for 10 days.  Suspend
            records hold the values last encountered for a
            DB2ID in the DAILY update and are used to
            initialize the lag variables for delta
            calculations during the next DAILY run.  DB2IDs
            not encountered for 10 days are considered
            decommissioned.

   ACTION:  None

   REFERENCES:  None

+------------+
|  DB200104  |
+------------+

   TEXT:    ISEQUENCE RESET:  SYSID=%SYSID; DB2ID=%DB2ID;
            DB2ISEQ=%DB2ISEQ; ENDTS=%ENDTS
```

```
   TYPE:    Information

   REASON:  The instrumentation sequence value was 1.  The
            DB2ID was most likely terminated and restarted.
            Lag values are reset for delta calculations.

   ACTION:  None

   REFERENCES:  None

+------------+
|  DB200106  |
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   TEXT:    NO SUSPEND RECORD FOR:  SYSID=%SYSID;
            DB2ID=%DB2ID; ENDTS=%ENDTS DB2ISEQ=%DB2ISEQ

   TYPE:    Information

   REASON:  No suspend record was found to initialize lag
            variables for delta calculations.  The DB2ID is
            probably new.  Delta processing will be skipped
            for the first record.

   ACTION:  None

   REFERENCES:  None

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|  DB200108  |
+------------+

   TEXT:    OUT OF SEQUENCE:  SYSID=%SYSID; DB2ID=%DB2ID;
            ENDTS=%ENDTS; DB2ISEQ=%DB2ISEQ; LAGISEQ=%LAGISEQ;
            FILE00=%FILE00; SUSPEND=%SUSPEND

   TYPE:    Warning

   REASON:  An instrumentation sequence value was less than
            the previous value.  Normally, the
            instrumentation sequence values increment by 1
            from record to record.  No delta processing can
            take place.  Lags values are reloaded.

   ACTION:  If this is a frequent problem, contact the DB2
            administrator.

   REFERENCES:  None
```

```
+------------+
|  DB200109  |
+------------+

   TEXT:    DUPLICATE ISEQ:  SYSID=%SYSID; DB2ID=%DB2ID;
            ENDTS=%ENDTS; DB2ISEQ=%DB2ISEQ; LAGISEQ=%LAGISEQ;
            FILE00=%FILE00; SUSPEND=%SUSPEND

   TYPE:    Warning

   REASON:  The same instrumentation sequence value was found
            on consecutive records.  However, the end
            timestamp was higher than the previous record.
            Delta processing continues.  Some possible causes
            of this are:
            o  Some other DB2 monitor is recording DB2
               performance data to SMF.
            o  A performance trace was started that
               recorded additional records to SMF.

   ACTION:  Alert the DB2 administrator of this condition.

   REFERENCES:  None

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|  DB200110  |
+------------+

   TEXT:    MORE THAN ONE DAY EXISTS BETWEEN CURRENT
            AND PREVIOUS OBSERVATIONS:
                SYSID=%SYSID; DB2ID=%DB2ID; ENDTS=%XENDTS
                LAGENDTS=%XLAGTS; FILE00=%FILE00
                SUSPEND=%SUSPEND DB2RLOCN=%DB2RLOCN

   TYPE:    Warning

   REASON:  The difference between ENDTS on the current
            record and the previous record is greater than 24
            hours.

   ACTION:  Determine if this gap in data is correct or if
            data was missing from SMF.  Data will not exist
            unless the DB2 Address Space was active (up and
            running) and recording to SMF.  If data was
            missing, but is available, you may want to
            restore the unit database and rerun the daily
            process with all the input data.

   REFERENCES:  None
```

```
+------------+
|  DB200111  |
+------------+

   TEXT:    ONE OR MORE VARIABLES CONTAINED A MISSING VALUE.
            FILE=%FILE
            THIS MAY BE NORMAL IF VARIABLE IS INACTIVE IN
            DB2GENIN OR UNAVAILABLE AT THIS DB2 RELEASE.
            REFER TO THE SASLOG FOR THE SPECIFIC VARIABLES.

   TYPE:    Warning

   REASON:  Either the temporary variable used to hold the
            previous observation's value or the current
            observation contains a missing value.

   ACTION:  This condition may be normal if either the
            variable is not available at the release of DB2
            that you are processing or the data element has
            been deactivated in DB2GENIN.  Determine which it
            is, and, if this field is available and you
            require it, activate it.

   REFERENCES:  None


+------------+
|  DB200112  |
+------------+

   TEXT:    DURING DELTA PROCESSING, AT LEAST ONE VARIABLE
            WOULD HAVE RESULTED IN A NEGATIVE VALUE.
            VARIABLE IS SET TO 0.  FILE=%FILE
            REFER TO THE SASLOG FOR THE SPECIFIC VARIABLES.

   TYPE:    Warning

   REASON:  The reason depends on the file noted in the
            message text, but is the result of the preceding
            observation containing a value greater than that
            in the current observation, which is unexpected
            in cumulative records.

   ACTION:  If the file is the DSB, DSY, or DDY files, then the problem
            may be in the raw data itself.  The fields
            are either corrupted, or the field is not
            accumulated across intervals as expected.  If the
            file is the DSD file, this may be the result
```

```
            of our attempt to move the buffer pool related
            variables to the DSD file.  One cause of this
            may be that there are more observations in the
            DSB file for some buffer pools than others.  When
            this occurs, remaining observations will contain
            a 0 value, and result in this error message.
            This may be normal if the buffer pools
            displayed in the error message text have been
            dynamically deactivated.  Refer to the SASLOG for
            the specific variables to determine the cause.

   REFERENCES:  None

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|  DB200199  |
+------------+

   TEXT:    ENDING DELTA PROCESS FOR:  %FILENAME
            LAG RELOADS             :  %RELOADS
            INSTRUMENTATION RESETS  :  %ISEQS
            SUSPEND RECORDS AGED    :  %SUSDELS
            MISSING SUSPEND RECORDS :  %MISSSUSP
            DUPLICATE ISEQS         :  %DUPISEQ

   TYPE:    Informational

   REASON:  Informational processing summary statistics.

   ACTION:  None

   REFERENCES:  None
```

Appendix B: DATA DICTIONARY

The Data Dictionary is only available at your site, where it has been customized to your configuration and your product change level.

To see the Data Dictionary at your site, follow the instructions under Document Browse in the Document Access Guide.