

CA JARS®/OLF

User Guide

Release 12.7



This Documentation, which includes embedded help systems and electronically distributed materials, (hereinafter referred to as the "Documentation") is for your informational purposes only and is subject to change or withdrawal by CA at any time.

This Documentation may not be copied, transferred, reproduced, disclosed, modified or duplicated, in whole or in part, without the prior written consent of CA. This Documentation is confidential and proprietary information of CA and may not be disclosed by you or used for any purpose other than as may be permitted in (i) a separate agreement between you and CA governing your use of the CA software to which the Documentation relates; or (ii) a separate confidentiality agreement between you and CA.

Notwithstanding the foregoing, if you are a licensed user of the software product(s) addressed in the Documentation, you may print or otherwise make available a reasonable number of copies of the Documentation for internal use by you and your employees in connection with that software, provided that all CA copyright notices and legends are affixed to each reproduced copy.

The right to print or otherwise make available copies of the Documentation is limited to the period during which the applicable license for such software remains in full force and effect. Should the license terminate for any reason, it is your responsibility to certify in writing to CA that all copies and partial copies of the Documentation have been returned to CA or destroyed.

TO THE EXTENT PERMITTED BY APPLICABLE LAW, CA PROVIDES THIS DOCUMENTATION "AS IS" WITHOUT WARRANTY OF ANY KIND, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NONINFRINGEMENT. IN NO EVENT WILL CA BE LIABLE TO YOU OR ANY THIRD PARTY FOR ANY LOSS OR DAMAGE, DIRECT OR INDIRECT, FROM THE USE OF THIS DOCUMENTATION, INCLUDING WITHOUT LIMITATION, LOST PROFITS, LOST INVESTMENT, BUSINESS INTERRUPTION, GOODWILL, OR LOST DATA, EVEN IF CA IS EXPRESSLY ADVISED IN ADVANCE OF THE POSSIBILITY OF SUCH LOSS OR DAMAGE.

The use of any software product referenced in the Documentation is governed by the applicable license agreement and such license agreement is not modified in any way by the terms of this notice.

The manufacturer of this Documentation is CA.

Provided with "Restricted Rights." Use, duplication or disclosure by the United States Government is subject to the restrictions set forth in FAR Sections 12.212, 52.227-14, and 52.227-19(c)(1) - (2) and DFARS Section 252.227-7014(b)(3), as applicable, or their successors.

Copyright © 2012 CA. All rights reserved. All trademarks, trade names, service marks, and logos referenced herein belong to their respective companies.

CA Technologies Product References

This document references the following CA products:

- CA ACF2™ for z/OS
- CA Auditor for z/OS
- CA Common Services for z/OS
- CA MICS® Resource Management
- CA Service Desk
- CA SMF Director®
- CA Top Secret® for z/OS

Contact CA Technologies

Contact CA Support

For your convenience, CA Technologies provides one site where you can access the information that you need for your Home Office, Small Business, and Enterprise CA Technologies products. At <http://ca.com/support>, you can access the following resources:

- Online and telephone contact information for technical assistance and customer services
- Information about user communities and forums
- Product and documentation downloads
- CA Support policies and guidelines
- Other helpful resources appropriate for your product

Providing Feedback About Product Documentation

If you have comments or questions about CA Technologies product documentation, you can send a message to techpubs@ca.com.

To provide feedback about CA Technologies product documentation, complete our short customer survey which is available on the CA Support website at <http://ca.com/docs>.

Contents

Chapter 1: CA JARS/OLF Overview 13

Sharing Information with Other Products	13
Charging Options	14
Other Features	14
What is the CA JARS/OLF Option?	15
CA JARS/OLF Input Sources	16
CA JARS/OLF Functional Overview	17
Online Functions	17
Batch Functions	18
CA JARS/OLF Output	20
CA JARS/OLF Terms & Related Concepts	20
Terms	20
Related Concepts	22
Version	22
The Commit Process	25
The Parameter Files	25
CA JARS/OLF Rules & Cautions	28
How Information is Displayed on CA JARS/OLF Panels	28
Specifying Search Strings	28
Naming Conventions	28
Specifying Numerics	29
Qualifier Conventions	29
Panels You Will See When Using CA JARS/OLF	29
The CA JARS/OLF Primary Panel	31
Action Bar Pull-Downs	35
Windowing	39
Standard Panels	41
Function Key Summary	60
CA JARS/OLF Relational Characteristics	61
CA JARS/OLF Tables	62

Chapter 2: CA JARS/OLF Versions 67

Version Interrelationships	67
Commit Interrelationships	68

Chapter 3: Setting Up Your Accounting Structure 69

Accounting Structure Panel.....	71
Defining Your Accounting Sources	73
Accounting Sources Primary Panel.....	74
Accounting Sources List Panel.....	78
Expanded Sources List Panel	80
Accounting Sources Entry Panel.....	80
Example 1: Defining Accounting Sources Without a Lookup Table	84
Example 2: Defining Accounting Sources Using a Lookup Table	85
Creating a Lookup Table.....	86
Example 1: Defining Entities for a Division	90
Example 2: Defining Entities for a Department	91
Defining Accounting Periods	92

Chapter 4: Defining Charges 97

Defining Charge Elements	99
The Chargeback Algorithm	100
Calculation Logic	101
Extended Charging Example.....	103
Charge Elements Panels	105
Charge Elements Primary Panel	105
Charge Elements List Panel	107
Expanded Charge Elements List Panel	109
Charge Elements Entry Panel	110
Example 1: Creating a Simple Charge Algorithm.....	114
Example 2: Defining a Normalized Complex Charge Unit with a Conditional Rate.....	115
Charge Units Entry Panel.....	117
Examples: Defining a Complex Charge Unit	121
Example 1: Defining a Complex Unit without a Constant	121
Example 2: Defining a Complex Unit with a Constant.....	122
Qualified Rates Entry Panel.....	123
Examples: Defining Conditional Rates.....	127
Example 1: Defining Conditional Rates by Qualifier	128
Example 2: Defining Conditional Rates by Qualifier	129
Defining Charge Units, Normalizers, & Qualifiers Directly	130
Charge Units Panels.....	131
Charge Units Primary Panel	131
Charge Units List Panel.....	133
Expanded Charge Units List Panel	135
Charge Units Entry Panel.....	136
Expanded Units Entry Panel	139

Normalizer Panels	139
Normalizer Primary Panel	140
Normalizer List Panel	142
Expanded Normalizer List Panel.....	144
Normalizer Entry Panel	145
Expanded Normalizer Entry Panel.....	148
Qualifier Panels	148
Qualifiers Primary Panel.....	149
Qualifier List Panel	152
Expanded Qualifier List Panel.....	154
Qualifier Entry Panel	155
Expanded Qualifier Entry Panel	158
Qualifier Entry Panel	158
Defining Modifiers.....	174
Modifiers Primary Panel.....	175
Modifier List Panel	177
Expanded Modifier List Panel.....	179
Modifier Entry Panel	179
Examples	183
Example 1: Modifying Charges Using ORD & Element Criteria	187
Example 2: Modifying Charges by Structure	188
Example 3: Modifying Charges by Qualifier	189
Example 4: Using a Wildcard with Selection Criteria	190
Defining Split Resources.....	190
Split Charges Primary Panel	191
Split Charges List Panel	193
Split Charges Expanded List Panel.....	195
Split Charges Entry Panel	195
Example 1: Splitting a Resource Charge Between Two Accounting Levels	198
Example 2: Splitting a Resource Charge Among Four Accounting Levels	200
Shift Chop Definition	201
Example: Defining a Shift Chop	203

Chapter 5: Defining Adjustments **205**

Cost Recovery Panels	206
Cost Recovery Primary Panel	207
Cost Recovery List Panel	209
Expanded Cost Recovery List Panel.....	211
Cost Recovery Entry Panel	211
Example 1: Cost Recovery From a Single Accounting Level	214
Example 2: Cost Recovery from All Accounting Levels using a Qualifier	215

Performing Overhead Distribution.....	215
Overhead Distribution Primary Panel	216
Overhead Distribution List Panel	218
Expanded Overhead Distribution List Panel.....	220
Overhead Distribution Entry Panel	220
Example 1: Distributing Overhead Globally Across Accounting Levels that Have a @SHIFT1 Qualification.....	223
Example 2: Distributing Overhead Among an Accounting Level.....	225

Chapter 6: Performing Query Functions **227**

Charge Query Panels	228
Charge Query Primary Panel	230
Charge Query List Panel	233
Expanded Query List Panel.....	235
Charge Query Specifications Panel	235
Charge Query Specifications Processing Options.....	242
Charge Query Specifications Entry Field Options.....	250
Budget Query Specifications Panel	261
Budget Query Specifications Processing Options	266
Budget Query Specifications Entry Field Options	271
DB/CR Query Specifications Panel.....	273
DB/CR Query Specifications Processing Options.....	278
DB/CR Query Specifications Entry Field Options.....	282

Chapter 7: Performing Data Functions **285**

Budgets Panels	286
Budgets Primary Panel	287
Budget Browse Criteria Panel	289
Example 1: Specifying Budget Browse Criteria by ORD Type & Period	292
Example 2: Specifying Budget Browse Criteria by Qualifier	293
Budget List Panel.....	294
Expanded Budget List Panel	296
Example 1: Selecting a Browse List Entry By ORD Type for a Specific Period	297
Example 2: Selecting a Browse List Entry By Qualifier for a Specific Period	298
Budget Entry Panel.....	299
Example 1: Defining a Budget by ORD Type for an Accounting Level	303
Example 2: Defining a Budget for an Accounting Level	304
Example 3: Updating a Budget	305
Example 4: Deleting a Budget Record	308
Debits/Credits Panels	311
Debits/Credits Primary Panel	312

DB/CR Browse Criteria Panel	314
Example 1: Specifying Debit/Credit Browse Criteria by ORD Type & Period	317
Example 2: Specifying DB/CR Browse Criteria by Qualifier	318
Debit/Credit List Panel	319
Debit/Credit Expanded List Panel	321
Example 1: Selecting a Browse List Entry By ORD Type for a Specific Period	322
Example 2: Selecting a Browse List Entry By Qualifier for a Specific Period	323
Debits/Credits Entry Panel	324
Example 1: Creating a Credit	328
Example 2: Creating a Debit	330
Example 3: Updating a Credit	331
Example 4: Updating a Debit (Changing a Debit to a Credit)	334
Example 5: Deleting a Debit or a Credit Entry	338

Chapter 8: Using Period Functions **343**

Forecast Panels	344
Overall Forecast Results Panel	345
Example 1: Performing a Manual Adjustment (Results)	348
Example 2: Forecasting Using the Line Algorithm (Results)	349
Example 3: Forecasting Using the Smooth Algorithm (Results)	350
Forecast Elements List Panel	352
Forecast Element Panel	355
Forecast Qualifiers List Panel	357
Forecast Qualifier Panel	360
Example 1: Adjusting the Amount of the SHIFT1 Qualifier	361
Rate Determination Panels	363
Rate Determination (Elements) Entry Panel	363
Rate Determination (Qualifiers) Entry Panel	366
Example 1: Recovering Charges for Element CPU-CHARGE	369
Copy MOD -> TAB	372

Chapter 9: Setting CA JARS/OLF Options **375**

User Options Panel	376
The Are You Sure? Window	378
Versions	379
Examples	382

Chapter 10: Using Help **385**

Requesting Help	385
The About Window	387

Help Panel Areas	388
Overview	388
Help Function Key Settings	389
Moving Through Help.....	390
Exiting Help	390
Help Panels.....	391
Panel Helps.....	391
Field Helps.....	392
The Table of Contents Panel	394
Topic Help Panel.....	396
Index Help Panels.....	398
The Help for Help Panel	399

Chapter 11: Batch Processing & Reporting 401

The Parameter Files.....	403
CAIKSPAR Parameter File	404
CAIKRPAR Parameter File.....	406
The Archive/Restore Program (CAKSARCH)	409
CAKSARES Procedure	410
The BACKUP Option	411
The RESTORE Option	414
The COMMIT Option	418
The COPY Option.....	422
CA JARS/OLF Processing	427
CA JARS/OLF Daily Processing.....	427
CAWFLOAD Statements and Parameters.....	429
Control Statements	430
CAWFLOAD User Exits.....	438
The CA\$KRLD User Exit for CAWFLOAD	438
Daily Processing Output	441
Batch Forecasting (CAKRFCB).....	446
Summary Processing (CAKRBREC).....	454
Period Processing Programs.....	457
Reporting with CA Earl	463
The CAKSEARL Procedure.....	463
The CA Earl Print Job	465
JCL for ORD Reports	466
CA Earl Output.....	467
Reconciliation Reports	468
Generating CA JARS/OLF Invoices	475
Generating the General Ledger Interface File.....	484

Using CAKRINST as a Utility Program	487
Setting Up Security Views on CCCTAB.....	488

Chapter 12: CA JARS/OLF Security and Audit 489

CA TOP SECRET Security	489
CA ACF2 Security	490
RACF Security	491
Implementing Security for the CA JARS/OLF Query System	491

Appendix A: Chargeback Tables 493

ACCSRTAB (Accounting Sources Table)	493
ACCSTTAB (Accounting Structure Table)	494
ACCTLOOK (Lookup Table)	494
BUDTAB (Budget Table).....	495
CCCMOD (The 'Scratchpad' Table)	495
CCCTAB (Consolidated Calculated Charges Table)	495
CHOPTAB (Shift Chopper Definition Table)	496
DBCRTAB (Credit and Debit Table).....	497
ELEMTAB (Charge Element Definition Table).....	498
IRDESC Table	498
IRDTAB Table	499
MODTAB (Charge Modifier Table).....	499
NORMTAB (Unit Normalization Table)	500
OPTTAB (Option Settings Definition Table)	500
ORDDESC Table	501
ORDTAB Table	501
PERTAB (Period Definition Table).....	502
QUALTAB (Algorithm Qualifier Definition Table)	502
QUERYTAB (Saved Query Definition Table).....	503
RATETAB (Charge Algorithm Definition Table).....	504
SPLITTAB (Split Resource Definition Table)	505
SUMTAB (Summary Function Definition Table)	505
UNITTAB (Charge Unit Definition Table)	506

Appendix B: CA JARS/OLF Panel Displays: Monochrome vs. Color 507

Action Bar and Pull-Down	507
Panel Body.....	508
Function Key Area	508
Selection Emphasis.....	509
Error Emphasis	509

Messages.....	509
Appendix C: Predefined CA JARS History Records	511
Glossary	517
Index	527

Chapter 1: CA JARS/OLF Overview

- **Advanced Online Facilities**

CA JARS/OLF uses the CA Common Services User Interface Management Services which incorporate advanced interactive techniques. Pull-down menus that open for various functions are featured. Direct navigation enables users to open multiple windows to best meet their needs. Prompt facilities display pop-up windows with choice lists to aid in entering data. These features are available in monochrome, color or extended attribute color formats. CA JARS/OLF uses IBM SAA Common User Access standards to provide a **common look and feel**, in line with the CA Common Services guiding principle to endorse and enhance established industry architectures and standard.

- **Integration**

In line with the CA Common Services principle to promote integration, CA JARS/OLF supports all the interface history files produced by CA JARS MVS, CA JASPER MVS, and CA VSCHARGE MVS, providing integration with many software systems, subsystems and products including:

- MVS, VSE, VM, VAX VMS
- CA IDMS/DB, CA Datacom/DB, DB2, IMS, ADABAS
- CA Roscoe, CICS, TSO, CA Mazdamon, NetView
- CA 1, CA DYNAM/TLMS

Since CA JARS/OLF can be used in conjunction with your current resource accounting system, it preserves your investment in current software.

- **Relational Database Structure**

CA JARS/OLF takes advantage of the CA Common Services Integration Services layer by using its Database Management Services. The CA JARS/OLF database supports standard SQL capabilities and is designed to be fully capable of supporting all chargeback requirements.

- **Security**

CA JARS/OLF provides full-function security utilizing the CA Standard Security Facility (CASSF) service of CA Common Services, providing access control with CA ACF2 and CA Top Secret.

Sharing Information with Other Products

CA JARS/OLF

- Accepts CA JARS history files as input.
- Creates a charge file than can be used as input to CA GENERAL LEDGER.

Charging Options

CA JARS/OLF

■ Flexible Rate Structure Definition

With CA JARS/OLF you can define as flexible a rate structure as you need including variable rates for shift differentials, premiums and surcharges, minimum and maximum charges, and so forth. In other words, CA JARS/OLF:

- Handles billing adjustments at several levels including debits and credits, overhead allocation, and cost recovery to provide flexibility when invoice modifications are required.
- Provides shift chopping to allow the expense of long-running jobs or tasks that span multiple shifts to be prorated according to the resources consumed within each shift.
- Offers split charging so that costs can be distributed across several accounting entities.

■ Flexible Accounting Structure Definition

CA JARS/OLF enables you to define your accounting structure to match your organizational environment. You can define up to five levels of accounting structure, each composed of three fields. Additionally, a table lookup facility is provided to translate the incoming accounting codes to user-defined values. Additionally, CA JARS/OLF accepts user-defined accounting time periods that include flexible time boundaries which need not be based on calendar month.

■ Unit Normalization

CA JARS/OLF provides the ability to apply normalization or weighting factors to a specific resource unit. For example, CPU time from CPUs with different processing speeds can be normalized or standardized, thus providing the ability to define a single rate for multiple CPU models. This greatly simplifies rate definition.

Other Features

■ Customized Queries

CA JARS/OLF provides powerful online query capabilities which allow you to view detail and summary budget and charge data. The query subsystem internally generates the appropriate SQL statements based on user criteria, providing the power of SQL without requiring familiarity with SQL. Queries can be generated and stored for future use, simplifying access to data by non-technical personnel.

■ Forecasting

The CA JARS/OLF forecasting feature projects past resource utilization into the future for budget and rate determination purposes. This feature allows you to modify forecasted utilization levels to assess the impact of potential changes in resource consumption.

- **Online Budget Control**

CA JARS/OLF online facilities provide an easy-to-use method of defining budgets at any level of detail in the chargeback database. The online query facilities enable clients to examine budgets and charges online, to ensure that projects are completed within budget limitations.

- **Rate Determination**

The rate determination feature enables you to set up accurate rates for future accounting periods based on forecasted utilization levels and your cost recovery goals. You can perform "what if" analyses by changing rates and immediately seeing the impact on the total cost for each charge element or the total cost for the entire accounting period. Once you arrive at a set of rates that meet your cost recovery targets, they can be automatically generated and implemented in your current chargeback plan or they can be saved and implemented at a future date.

What is the CA JARS/OLF Option?

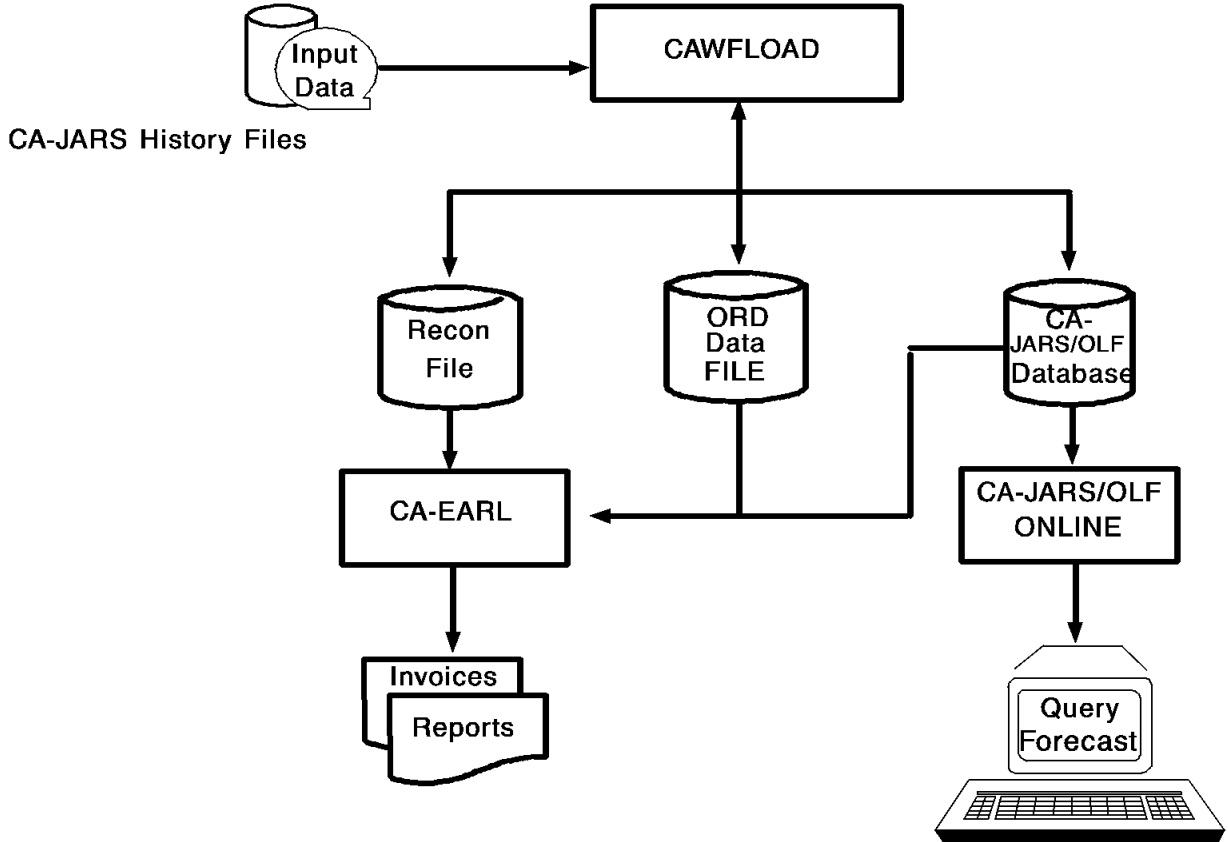
CA JARS/OLF is a comprehensive and flexible application that performs chargeback for computing resources and services. It is designed to meet the needs of the novice and the more sophisticated user. CA JARS/OLF takes advantage of the CA Common Services to promote integration, facilitate portability to other platforms and to provide a common user interface. It enables you to consolidate a comprehensive base of IS (Information Services) cost management data in a single application. This consolidation provides comprehensive invoices and reports.

CA JARS/OLF provides advanced online facilities to perform:

- Rate specification
- Forecasting
- Rate determination
- Budgeting
- Adjustments
- Database queries

CA JARS/OLF accepts CA JARS history files as input. The CA JARS history files are predefined fixed definitions which exist in the ORDTAB under both the PROD and TEST versions. CA JARS/OLF uses these files to perform the chargeback functions listed above. The next page contains a flowchart detailing this process.

CA JARS/OLF Application System Flow



CA JARS/OLF Input Sources

CA JARS/OLF accepts CA JARS history files as input, including the following CA JARS interface history files:

- CA JARS/ADABAS
- CA JARS/CICS (MVS & VSE)
- CA Datacom/DB
- DB2

- CA JARS DSA
- CA JARS/ICCF
- CA JARS/IDMS/DB (MVS & VSE)
- CA JARS/IMS
- NETVIEW
- CA JARS/Roscoe
- CA JARS TVA
- CA JARS/VAX
- CA JARS/VM

CA JARS/OLF Functional Overview

The processes used by the CA JARS/OLF application fall into two major areas:

- Online functions
- Batch functions

However, there is **interaction** between online and batch functions.

A given product and/or interface may have multiple input/output definitions associated with it.

For more information:

[Predefined CA JARS History Records](#) (see page 511)

Online Functions

Online functions are invoked from a terminal. The following is a list of CA JARS/OLF online functions:

Acctdefs Functions:	Enable you to define your accounting structure and sources, as well as create the CA JARS/OLF construct (application identifier) that is appended to a CA JARS/OLF output record. When you make changes to these tables, the changes have no effect on the actual operation of the product until they are <i>committed</i> (a batch process) and thus made active. These tables are created and maintained using the CA JARS/OLF Acctdefs facility.
---------------------	---

Cbdefs Functions:	Create the CA JARS/OLF definition tables that control the product as a whole. When you make changes to these tables, the changes have no effect on the actual operation of the product until they are <i>committed</i> (a batch process) and thus made active. These tables are created and maintained using the CA JARS/OLF Cbdefs facility.
Query Functions:	Allow you to view the contents of the CCCTAB, CCCMOD, BUDTAB, and Debit/Credit tables according to criteria you specify.
Data Entry Functions:	Provide a facility to enter actual data, rather than definitions, into the system. This includes budget amounts and manual financial adjustments, such as debits and credits. The results of data entry are immediately available via Query functions.
Period Functions:	Interrogate and modify the information contained on the specific CA JARS/OLF database. Forecast, Rate Determination, and <i>What if</i> analysis are examples of Period functions.
Options:	Specify the options that you want in effect for an online session. This includes which version of the CA JARS/OLF database you want to run against, whether you want to use mnemonics, have warning messages and Save/Delete prompts displayed, and so forth.

Batch Functions

These functions fall into the following categories.

Note:The Batch functions under this heading are all directly associated with the Batch Consolidation/LOAD process.

Detail Functions:	Are frequently run jobs. This category includes long running tasks, that would not be advisable to run online.
Period or Summary Functions:	Handle those conditions that cannot be dealt with until summarization of data occurs (calculation of charge elements).
Other Batch Functions:	Handle database maintenance.

Detail Functions

Detail Functions are frequently run tasks concerned with the processing of CA JARS/OLF records. For the CA JARS/OLF application, the Detail functions handle four aspects of front-end processing:

1. The definition of the application identifier (construct) that is appended to the detail records. However, construct definition is performed online using the Acctdefs option.
2. The creation of records specific to the CA JARS/OLF application: the charges.
3. The summarization of these records and their placement in the CA JARS/OLF CCCTAB table.
4. Optional reconciliation file for detail charges.

Processing is controlled by the CA JARS/OLF tables generated and maintained by the Table Maintenance functions' online component.

Period or Summary Functions

Period Processing (**Summary Functions**) handles those conditions that cannot be handled at a detail level. That is, after charge elements have been calculated. This processing updates the CA JARS/OLF tables.

Period Processing, as with detail functions, is controlled by the tables generated and maintained by the Table Maintenance functions' online component. Summary Functions include Overhead Distribution, Cost Recovery, Rate Determination, Forecasting, Invoicing, Period Open, and Period Close. Forecasting results can be viewed online; while batch processing is provided for efficient handling of data.

Other Batch Functions

Other batch functions relate to database maintenance. They include:

- **Archive/Restore** allows your Database Administrators to Archive or Restore various versions of the CA JARS/OLF database.
- **Commit Processing** allows your Database Administrator to make various versions of the CA JARS/OLF database available to the system.

CA JARS/OLF Output

CA JARS/OLF output falls into the following categories:

- CA JARS/OLF reports and invoices generated using CA Earl
 - Reconciliation Reports
 - Invoices
- Online Reporting
 - Query
 - Forecasting
 - Rate Determination
- Optional CA JARS/OLF Reconciliation File
- CA JARS/OLF Database

CA JARS/OLF Terms & Related Concepts

Terms

The following information is an introduction to the concepts and terms that are used throughout this document.

Chargeback
Algorithm

An algorithm is a formula used to calculate a charge. Each algorithm is associated or owned by the charge element it calculates. In its simplest form, the chargeback algorithm is:

$$\begin{array}{ccccccc} \text{Charge Unit} & * & \text{Rate} & = & \text{Charge Element} & & \\ | & & | & & | & & \\ | & & | & & | & & \\ | & & | & & | & & \\ | & & | & & | & & \\ | & & | & & | & & \\ | & & | & & | & & \\ \text{result} & & | & & & & \text{-- User-defined field that holds the calculation} \\ & & | & & & & \text{--- Can be either simple or conditional} \\ & & | & & & & \text{--- Can be simple or complex} \end{array}$$

All calculations start with the charge unit definition.

Charge Unit	<p>Defines a chargeable resource. It can be any numeric field name. A charge unit can be:</p> <ul style="list-style-type: none"> ■ Simple: An existing element defined within an output record definition. That is, a numeric field from the incoming record (ORD) used in the chargeback algorithm. Any numeric field in the record can be designated as a charge unit, and thus charged for. ■ Complex: A user-defined name that is calculated from two or more existing output record fields. <p>Note: You can also use constants.</p>								
Rate	<p>A multiplication factor. Rates can be:</p> <ul style="list-style-type: none"> ■ Simple: A constant. ■ Conditional/Qualified: Where different rates are applied to a unit based on a qualifier (a true or false condition based on the contents or range of a field). 								
Construct	A unique application identifier appended to a CA JARS data record by CA JARS/OLF. The construct tells CA JARS/OLF which version(s) require the output data record for processing.								
Modifiers	Used to make special changes to a charge, such as discounts and surcharges. Modifiers take the form of either an amount, or a percentage. If an associated conditional test is found to be true, then the modifier is applied to the calculated charge (the charge element).								
Normalizers	Give you the ability to weight the value of a charge unit. They are entered as percentages and always have qualifiers associated								
ORD Element	A source field that is defined within an incoming data record.								
ORDs	Output Record Definitions - predefined fixed definitions of the various different types of records contained within the JARS history files.								
Qualifiers	<p>Are normally associated with a specific ORD record, and are used in rate selection, as well as with normalizers and modifiers. A qualifier is simply a user-defined test resulting in a true or false condition.</p> <p>For example,</p> <table border="0" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: left;">Qualifier</th> <th style="text-align: left;">Conditional Test</th> </tr> </thead> <tbody> <tr> <td>@SHIFT1 =</td> <td>START-TIME >= '8' and START-TIME < '16'</td> </tr> <tr> <td>@SHIFT2 =</td> <td>START-TIME >= '16' and START-TIME < '24'</td> </tr> <tr> <td>@SHIFT3 =</td> <td>START-TIME >= '' and START-TIME < '8'</td> </tr> </tbody> </table>	Qualifier	Conditional Test	@SHIFT1 =	START-TIME >= '8' and START-TIME < '16'	@SHIFT2 =	START-TIME >= '16' and START-TIME < '24'	@SHIFT3 =	START-TIME >= '' and START-TIME < '8'
Qualifier	Conditional Test								
@SHIFT1 =	START-TIME >= '8' and START-TIME < '16'								
@SHIFT2 =	START-TIME >= '16' and START-TIME < '24'								
@SHIFT3 =	START-TIME >= '' and START-TIME < '8'								
Unit	See the Charge Unit definition section.								
Version	An eight-character identifier that distinguishes different sets of chargeback definitions contained within CA JARS/OLF definition tables and used in online definition and batch processing. CA JARS/OLF processing is performed on tables that contain definitions/records for an infinite number of versions. A detailed discussion of Version is presented on 1-14. Version is equivalent to the CB-LOAD parameter specified in the CAIKRPAR dataset.								

Development Version	A subset of Version. An eight-character identifier (either: TESTbbbb or PRODbbbb) that distinguishes the definitions that are modifiable via the CA JARS/OLF online facility. Development version definitions cannot be used for processing until commit processing is performed.
Committed Version	A subset of version. An eight-character identifier where the first four characters are either PROD or TEST. The second four characters can be any user-defined value. This identifier associates all CA JARS/OLF definition tables with a respective committed version. Note: This explanation does not apply to the Acctdefs tables and their associated panels. For these panels, the CA JARS/OLF Version appears as a four-character field. This field is a unique subset of the CA ARS/OLF tables.
Acct Version	A four character (either PROD or TEST) identifier which pertains to the Acctdef tables. The Acct Version is equivalent to the Base-Version parameter specified in both the CAIKSPAR and CAIKRPAR datasets.

Related Concepts

Version

Version is a key concept because CA JARS/OLF batch and online processing can be performed on tables that contain definitions/records for an infinite number of versions. CA JARS/OLF processing validates its definitions and data against the Acct version of the tables. Therefore, CA JARS/OLF **must** know which Acct **version** to use in this process: PROD or TEST. There are two categories of versions: committed and Development (the uncommitted working version). The commit process *freezes* definitions. An **eight-character** identifier, called a version, distinguishes which table entries to use for processing and validation. You specify the version you want to use for processing and validation via the CAIKSPAR parameter file.

```
CA JARS/OLF
|--- VERSION ---|
▼1 2 3 4 5 6 7 8▼
|_|_|_|_|_|_|_|_|
characters
```

The first character set (composed of characters one through four) is the **version** of the Acct table entries you are running: either PROD (production) or TEST.

```

CA JARS/OLF
|--- VERSION ---|
▼1 2 3 4 5 6 7 8▼
|_|_|_|_|_|_|_|_|
|P R O D|_|_|_|
|_|_|_|_|_|_|_|_|
▲
Acct Version Identifier: PROD
    
```

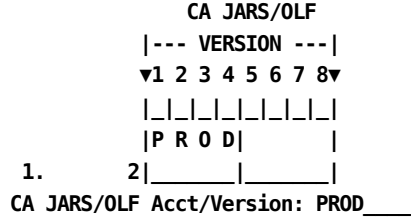
The **complete** field, composed of characters one through eight: PRODTST (see 1 below), is the version of the CA JARS/OLF tables you are running. Remember, the CA JARS/OLF version includes the four-character Acct version identifier (see 2 below) and a second four-character Version (see 3 below). For example:

```

CA JARS/OLF
|--- VERSION ---|
▼1 2 3 4 5 6 7 8▼
|_|_|_|_|_|_|_|_|
1  ► |P R O D|T E S T|
2  3  |_|_|_|_|_|_|_|_|
CA JARS/OLF Version: PRODTST
    
```

Note: Characters 5-8 can be any user-defined character string (A-Z, 0-9 only) exclusive of reserved characters. This is the version that you supply for the CAWFLOAD parameter in the CAIKRPAR parameter file discussed in "CAIKRPAR parameter file".

When you are creating or modifying CA JARS/OLF definitions, the second set of characters reserved for the Version (see 2 below) is blank. We refer to this condition as the Development version.

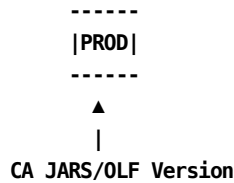


Note: The previous explanation does **not** apply to the following Acctdefs panels:

- Accounting Structure
- Accounting Sources
- Accounting Sources Lookup
- Accounting Periods

For these panels, the CA JARS/OLF version appears as a four-character field. This field is a unique subset of the CA JARS/OLF tables that:

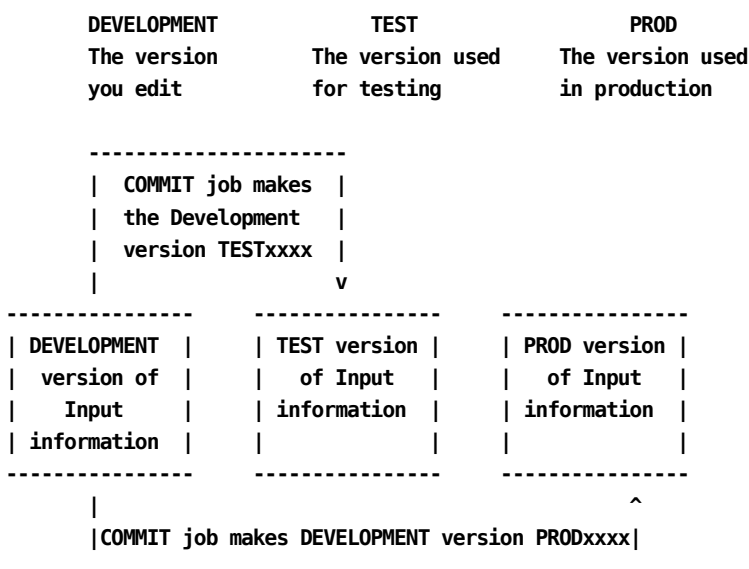
- Is used during daily LOAD processing to link the information contained within these tables with the appropriate record
- Provide a mechanism for cross-validation during COMMIT processing



You **must** *commit* your data using a batch process that makes your changes effective on the specified CA JARS/OLF version's table entries.

The Commit Process

This process **validates** the CA JARS/OLF definition sets. Commit processing allows you to commit the Development version (the version in process), either TEST or PROD, to any user-defined second four character CB Version identifier. The following diagram shows how this process works.



For more information:

[Related Concepts](#) (see page 22)

The Parameter Files

Global parameter files provide *static* definitions used by CA JARS/OLF in online and batch processing. There are two types of parameter files:

- **CAIKSPAR** is used by both CA JARS/OLF online and batch functions.
- **CAIKRPAR** is used in conjunction with the CAIKSPAR parameter file for CA JARS/OLF batch processing.

These parameter files are accessed by the online dialogs and batch processes by the following ddnames: CAIKSPAR and CAIKRPAR.

Note: For CA JARS/OLF batch processing, ORD (Output Record Definition) data record selection is dependent on the BASE_VERSION specified in the CAIKRPAR parameter file.

The CAIKSPAR Parameter File

The CAIKSPAR parameter file provides information about the database system as a whole, along with specific CA JARS/OLF parameters.

Note: You will find a detailed discussion of this file in section "CAIKSPAR Parameter File".

Both CA JARS/OLF online and batch facilities use the CAIKSPAR parameter file. It provides these facilities with the following information:

1. BASE_VERSION =
2. CHARGE_PREC =
3. CUSTOMER_NAME =
4. DATABASE_NAME =
5. PLAN_ID =
6. RATE_PREC =
7. SQL_TYPE =
8. SUBSYSTEM_ID =
9. UNIT_PREC =
10. EURODB2 =

Parameter **1**, BASE_VERSION =, is a four-character required field that must be either TEST or PROD. This parameter specifies the Acct version CA JARS/OLF validates its data against.

Example:

```
BASE_VERSION = TEST
```

Parameters **2, 6, and 9**, (CHARGE_PREC =, RATE_PREC =, and UNIT_PREC =) control CA JARS/OLF decimal precision. Precision affects calculations, as well as the populating of the database. Therefore, its effect is system-wide.

Note: Budget and Debit/Credit calculations and value display is **fixed** at five decimal places.

Parameters **4, 5, 7, and 8** specify the database product your installation uses and its requirements.

The CAIKRPAR Parameter File

The CAIKRPAR parameter file defines CA JARS/OLF batch processing parameters only.

Note: A detailed discussion of this file is provided in section "CAIKRPAR Parameter File".

The following parameters are defined in the CAIKRPAR parameter file:

1. BASE_VERSION =
2. CBLOAD_VERSION =
3. RECONCILIATION_FILE =
4. PERIOD_VERSION =

Parameter **1**, BASE_VERSION = , specifies the **first four characters** of the CA JARS/OLF Acct version tables (either PROD or TEST) you want to use for processing. ORD data record selection is dependent upon this parameter.

Parameter **2**, CBLOAD_VERSION = , specifies the **second four characters of the CA JARS/OLF** version that will be processed. CB_LOAD version names are user-defined, the following list is provided as an example:

CBLOAD_VERSION = TEST

CBLOAD_VERSION = PROD

CBLOAD_VERSION = WXYZ

where WXYZ is a user-defined version name

Note: User-defined version names can be between one to four characters.

Parameter **3**, RECONCILIATION_FILE = , is used to create an **optional** reconciliation file composed of variable length records. This file can consume a very significant amount of memory. The Reconciliation file shows in **detail** all charges, in segments, of every ORD.

Parameter **4**, PERIOD_VERSION = , is **optional**. It allows you to specify a CBLOAD Version that is associated with a period.

For more information:

[Batch Processing & Reporting](#) (see page 401)

CA JARS/OLF Rules & Cautions

How Information is Displayed on CA JARS/OLF Panels

- Protected display field areas are preceded by a colon (:).
- You can determine the number of allowable characters for an entry field by the number of underscore characters displayed. In general, most character fields accept up to 16 alphanumeric characters.

Specifying Search Strings

When specifying character strings for searches, you can use the SQL wildcard character, %, to represent either a single or multiple characters. You can specify it anywhere within the search string.

Example:

- To list all ORD (Output Record Definition) types starting with MB, specify: MB%. This yields: MBJ, MBP, MBS, and so forth.
- To list all ORD types containing a B as the second character, specify: %B%. This yields: MBJ, MBP, and so forth.

Naming Conventions

- The following characters are reserved and should **not** be used in any name you supply to CA JARS/OLF:
 - % (percent)
 - _ (underscore)
- Most CA JARS/OLF user-supplied names, unless otherwise noted, can consist of up to 16 alphanumeric characters, starting with an alpha character.
- User-defined names associated with complex charge units and qualifiers **must** be prefixed by the @ symbol.
- Using **ALL** as a qualifier ORD type, allows you to apply qualifier definitions to all ORDs globally.

Specifying Numerics

- Charge, Rate and Unit precision are user-defined and specified in the CAIKSPAR parameter file.
- The higher the level of precision, the greater the **risk** of data overflow and hence lost data (integers) at the summarization level.
- When specifying numeric constants in qualifiers, the numeric **must** be enclosed in single quotes.

Example:

Priority '9' or START-TIME =< '0800'.

Qualifier Conventions

- When specifying constants in qualifiers, the constant **must** be enclosed in single quotes.

Example:

Priority '9' or START-TIME =< '0800'.

- The following entries must be prefixed with the @ symbol:
 - A user-defined complex unit. For example, CPU-TIME, must be entered as @CPU-TIME. The @ symbol allows CA JARS/OLF to differentiate between user-defined entry names and names that have a direct one-to-one relationship with ORDs available to the CA JARS/OLF application.
 - Qualifier names, such as SHIFT1, SHIFT2 must also have the @ prefix: @SHIFT1, @SHIFT2.
- You can assign an ORD type of **ALL** to qualifier definitions. This means the qualifier is applied globally to all ORDs.
- ORD-specific qualifiers are always applied **before** global qualifiers (those with an ORD type of ALL).

Panels You Will See When Using CA JARS/OLF

In this section we discuss the main entry to the CA JARS/OLF application, and some general points that are common throughout the system.

Note: CA JARS/OLF can be run on both non-programmable color and monochrome terminals.

For more information:

[CA JARS/OLF Panel Displays: Monochrome vs. Color](#) (see page 507)

The CA JARS/OLF Primary Panel

To start the CA JARS/OLF application, type: **PMACBC**. The CA JARS/OLF Primary Panel appears.

CA JARS/OLF Primary Panel

```

      USERID                CA JARS/OLF                MM/DD/YY HH:MM:S
S
A __ B Acctdefs Cbdefs Query Data Period Options Exit Help
.
.              ***** ***** ***** ***** *
.              ** ** ** ** * ** ** *
.              ** ** ** ** * ** *
.              CCCCCC              ** ** ***** ***** *
.              CC CC              ** ***** ** ** ** *
.              CC AAAA              **** ** ** ** ** ** *
.              CC AAAAA
.              CC AA AA
.              CCAA AA ***** ***** ** *****
.              AACCCAA              ** ** ** ** ** ** **
.              AA AA              ** ** ** ** ** **
.              AA AA              ** ** ** *****
.              AA AA              ** ** ** ** ** **
.
.              ***** ***** **
.
.
C Command ==>
F1=Help F3=E D it F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp
E
  
```

A description of this panel is provided on the next page.

The following areas are available for selection:

A

Fast path entry area: This two-character entry field allows experienced users to specify the *fast path* (no intervening menus or panels) to get to the panel or function they wish to perform. For example, enter **CC** where:

C

Represents the first character of an action bar keyword on the CA JARS/OLF primary panel. In this case, C for Cbdefs. Other possibilities include Q for Query, D for Data, and so forth.

C

Represents an alphabetic mnemonic from an action bar pull-down. In this case, C for Charge Elements ([Action Bar Pull-Downs](#) (see page 35) for a display of the Cbdefs pull-down).

B

Action Bar: Lists actions you can access by tabbing to a specific keyword and pressing **ENTER**. When you make a selection, a **pull-down** appears that lists the available choices for the keyword you selected.

Acctdefs

(Accounting definition): Use this facility to define your accounting sources and structures. The following choices fall in the Acctdefs category:

- Accounting Structures
- Accounting Sources
- Period Tables

Cbdefs

(Chargeback definition): Use this facility to define your specific chargeback environment. The following choices fall in the Cbdefs category:

- Charge Elements
- Charge Units
- Qualifiers
- Normalizers
- Modifiers
- Split Job Charges
- Shift Chop
- Cost Recovery
- Overhead Distribution

Query

Allows you to query the following categories:

- Charge
- Budget
- Debit/Credit

Data

Provides a facility for entering chargeback-related data. Functions include:

- Budgets
- Debits/Credits

Period

These functions fall into the following categories:

- Forecasting
- Rate Determination
- MOD>TAB Copy

Options

Displays an Options pull-down that offers you the following choices (these choices allow you to override default settings for your userid):

- User Settings
- Versions

Exit

Displays a pull-down asking you if you are sure that you want to exit CA JARS/OLF.

Help

Displays a pull-down with the following choices:

- Index
- Table of Contents
- Help for Help
- About: Tells you the genlevel of the CA PMA product you are using

C

Global Message Area: Command processing messages are displayed in this area and may overlay data on the panel.

D

Command: You use this entry area to type commands such as: EXEC, EXIT, HELP, CBDEFS, QUERY, and so forth. You can also execute the following commands from the command area:

- ? displays the last executed command
- = re-executes the last command
- = **pull-down panel name** displays the named pull-down

E

Global Function Keys: Global function keys appear on the CA JARS/OLF Primary Panel and are consistent across all product panels, **even** when they are not displayed.

F1=Help

Displays the Help panel behind the current panel.

F3=Exit

Terminates the current function.

F4=Prompt

Displays a pop-up window containing **choices** that can be inserted in the **entry** field where the cursor is positioned. F4 also works at the Command area. Remember, this function is dependent on the position of the cursor.

When you select a choice from the list, the pop-up window disappears. The choice text is then placed in the entry field as though you typed it there. You can also cancel the Choices pop-up window without making a selection using F12=Cancel.

Note: If you request a prompt when the cursor is **not** on an entry field, nothing happens. All entry fields have either a choices list or provides you with a descriptive message.

F9=Command

Positions the cursor at the command area and activates it. You can execute the following commands from the command area:

- ? displays the last executed command
- = re-executes the last command
- = **pull-down panel** name displays the named pull-down

F10=Action Bar

Pressing F10 activates a panel's action bar and positions the cursor at the first selection. (F10 toggles the action bar on and off).

F12=Cancel

Lets you cancel an action.

PA1=Susp

Lets you suspend processing for the currently active panel and activate the global action bar.

Action Bar Pull-Downs

Action bar pull-downs appear when you position the cursor next to the function/keyword you want to invoke on an Action Bar and then press **Enter**.

Example:

If you select the Cbdefs keyword from the Primary Panel's action bar the following pull-down appears. It displays the available selections for Cbdefs.

USERID	CA JARS/OLF				MM/DD/YY HH:MM:SS
---	Acctdefs	Cbdefs	Query	Data	Period Options Exit Help
CB Definitions					
A		1. Charge Elements			
		2. Charge Units	(U)		B
		3. Qualifiers			
		4. Normalizer			
		5. Modifiers			
		6. Split Job Charges			
		7. Shift Chop	(B)		C
		8. Cost Recovery	(T)		D
		9. Overhead Distribution			

		E F12=Cancel			

Command ==> _____					
F F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp					

A

This entry field allows you to make a selection using a mnemonic which can be **either** the **number** or the **first letter** of a pull-down action. Notice that for those actions having duplicate first letters, the acceptable mnemonic is provided in parentheses. However, you can also make your selection by positioning the cursor next to the action you want to perform and pressing Enter.

B

(U) indicates the acceptable mnemonic, **U**, to be used in the entry area when selecting this action.

C

(B) indicates the acceptable mnemonic, **B**, to be used in the entry area when selecting this action.

D

(T) indicates the acceptable mnemonic, **T**, to be used in the entry area when selecting this action.

E

Local Function Key Area: Some function key assignments change from panel to panel. These *local* F (function) keys are shown at the bottom of each panel.

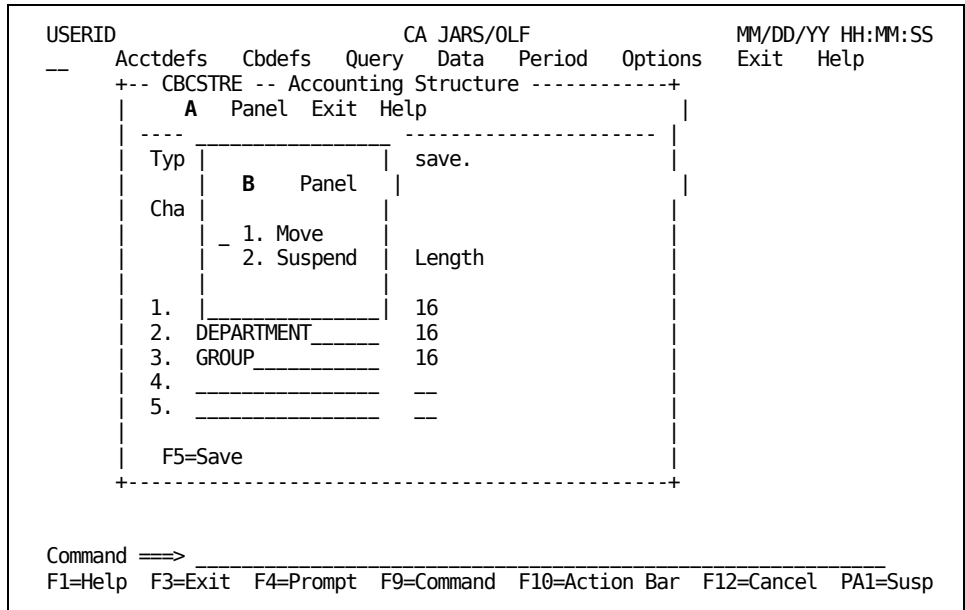
F

Global Function Key Area: These standardized function key assignments appear on the bottom line of the Primary Panel. They work the same way on all CA JARS/OLF panels.

Note: The following function keys are active when an action bar pull-down is displayed: F1 (Help), F3 (Exit), and F12 (Cancel).

The Panel Pull-Down

All panels that have action bar pull-downs contain the keyword **Panel**. By activating the Action Bar (F10) and selecting the keyword **Panel** you can use this option to position or suspend panels.



A

Each time you select a keyword from an action bar, CA JARS/OLF overlays the panel with another panel. When the new panel is active, you can choose from the options displayed there.

B

Selecting **Panel** displays a pull-down that provides you with the following options:

1. **Move** gives you instructions on how to reposition panels on the screen.
2. **Suspend** allows you to interrupt a panel without erasing it from your screen. The other panels you display overlay suspended panels. By suspending one panel and then another, you can toggle back and forth between them. Toggling is accomplished by moving the cursor via the arrow keys to the panel you wish to activate and then pressing enter.

Note: Windows may also extend beyond the screen's edge. However, you cannot enter data into fields that aren't completely contained on the screen.

The Exit Pull-Down

The Exit pull-down always appears when you select the Exit keyword from the action bar. It conditionally appears when you press F3 (Exit).

```

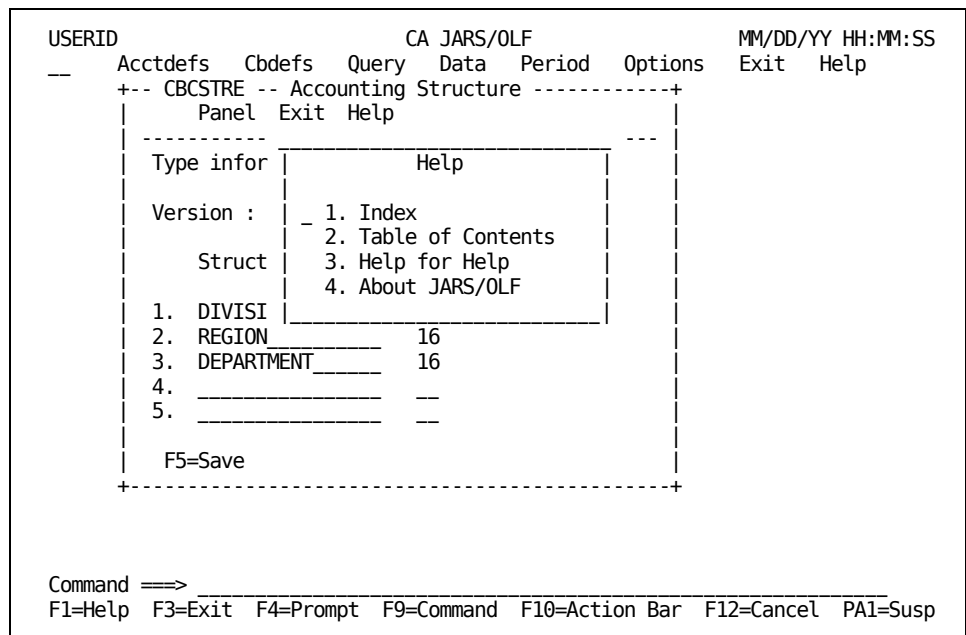
USERID                      CA JARS/OLF                      MM/DD/YY HH:MM:SS
--  Acctdefs Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCSTRE -- Accounting Structure -----+
    Panel  Exit  Help
    -----
    Type infor
    Version :
    Struct  - 1. Save and exit
              2. Exit without saving
              3. Resume
    1. DIVISI
    2. REGION_____ 16
    3. DEPARTMENT_____ 16
    4. _____ --
    5. _____ --
    F5=Save
    -----
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Exit windows provide you with the following choices:

1. **Save and exit:** Lets you back out one screen at a time, saving any changes or entries.
2. **Exit without saving:** Lets you back out one screen at a time, without saving any changes or entries.
3. **Resume:** Lets you carry on as though you never selected Exit.

The Help Pull-Down

The Help pull-down appears when you select the Help keyword from the CA JARS/OLF Primary Panel's action bar.



Help windows provide you with the following choices:

1. **Index:** Displays a list of items, in alphabetical order, for which Help is available.
2. **Table of Contents:** Displays a list of topics for which Help is available.
3. **Help for Help:** Gives you information on how to use the Help system.
4. **About:** Displays a pop-up window telling you the **genlevel** of the CA PMA product you are using.

Windowing

When running CA JARS/OLF's online facility, you'll encounter the following windows:

- **Primary:** Contain standard panels.
- **Pop-ups:** Extend the dialog with an underlying window (standard panel). Some examples of pop-up windows are the Prompt window, [Are You Sure? window](#) (see page 378), [The Data Not Saved Window](#) (see page 41), and Entry panel insert windows. Pop-ups cannot be moved or sized by users and do not have action bars.

Note: The following table summarizes the functions that are active/inactive when pop-up windows are displayed.

Active	Inactive
F1=Help	F4=Prompt
F3=Exit	F9=Command
F12=Cancel	F10=Action Bar
	PA1=Susp

About JARS/OLF (Genlevel) Pop-Up Window

To verify the **genlevel** of the CA PMA product you are using, you must select the Help keyword from the Primary Panel's action bar and then select **About**. A pop-up window appears telling you the genlevel of your product.

```
+-- OLABOUT ----- About JARS/OLF -----+
|                                     |
|                                     |
|          CA JARS/OLF                |
|                                     |
|          GenLevel = nnnnnnnnn       |
|                                     |
+-----+-----+-----+-----+-----+
```

Prompt Pop-Up Window

To use this feature, position the cursor at an input field for which you want information. When you press the global function key F4, a pop-up window containing *choices* appears. To select a choice, position the cursor next to the choice you want inserted in the field where the cursor is positioned and press **Enter**. This causes the pop-up window to disappear. Your choice appears in the entry field as though you typed it there.

Note: Remember, this function is dependent on the position of the cursor when you press **F4**.

This feature is very helpful when running CA JARS/OLF.

Example:

Suppose you are filling in fields on the Accounting Sources panel (shown below) and can't remember what ORD Type to use. Pressing F4 while the cursor is positioned at the ORD Type entry field causes CA JARS/OLF to list the names of existing ORD Types so you can choose one.

```

USERID                               CA JARS/OLF                               MM/DD/YY HH:MM:SS
--   Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCSRCP  ----- Accounting Sources -----+
|   Panel    Exit  Help  |
+-----+
|   Type information. Then select an action.   |
|   +-----+                                 |
|   Version .                                |
|   ORD Type |                               |
|   Structure |                               |
|   F2=Creat |                               |
+-----+
|   +-----+                                 |
|   | ORDID | DESCRIPT |                     |
|   +-----+                                 |
|   | MBS  | MVS JARS BATCH STEP |           |
|   | MBJ  | MVS JARS BATCH JOB  |           |
|   | MBI  | MVS JARS BATCH I/O  |           |
|   | MBP  | MVS JARS BATCH PRINT |           |
|   +-----+                                 |
+-----+

Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

You can also cancel the Choices pop-up window without making a selection using F12=Cancel.

Note: ORD Type display information comes from the Acct version used to validate CA JARS/OLF information. Structure values are obtained from the CCCTAB's Development version.

For more information:

[Setting CA JARS/OLF Options](#) (see page 375)

Entry Panel Insert Pop-Up Window

Entry panel insert pop-up windows appear when you enter an I in the Cmd column of an entry panel. Insert windows provide you with the same entry fields that are available on the panel from which it was invoked. Turn to [Sample Entry Panel Insert Pop-Up Window](#) (see page 58) for a further discussion of Entry panel Insert windows.

The Data Not Saved Window

When you attempt to leave a panel without first saving its contents, this window appears.

```
-----  
| Data has not been saved |  
| _ 1. Save and exit      |  
|   2. Exit without saving|  
|   3. Resume            |  
|                         |  
-----
```

Note:The [Are You Sure?Window](#) (see page 378) panel is discussed in Chapter 9.

Standard Panels

Most CA JARS/OLF functions consist of a panel set (multiple panels). The standard access to these panels is shown in the diagram below.

The choices available at the standard Primary panel are to select a key to:

- Create an entry
- Browse a list of existing of entries

Sample Primary Panel

The following sample primary panel normally appears when you make a selection from an action bar pull-down. Use this panel to specify the criteria for the data you are interested in creating, viewing, or editing.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
A  +-- CBCELMP ----- Charge Elements -----+
      B      Panel  Exit  Help
      |-----|
      | Type information. Then select an action. |
      |-----|
      | Version . . . : PROD                    |
      | ORD Type . . . : MBJ                    C |
      | Charge Element . %                      |
      |-----|
      | D  F2=Create  F11=Browse                |
      |-----|
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

All primary panels have the following common panel areas:

- A** This area displays the panel identifier and panel name.

```

-----
+-- CBCELMP ----- Charge Elements ---
-----
    
```

- B** This action bar provides you with various options which are explained on the next page.

```

-----
|  Panel Exit Help
|-----|
|
|
    
```

<p>Panel Displays a window (see "The Panel Pull-Down) that provides you with the following options:</p> <p>Move Gives you instructions on how to reposition panels and pull-downs against the background of the CA JARS/OLF Primary Panel.</p> <p>Suspend Allows you to suspend the functioning of a panel and invoke other panels that overlay suspended panels. If you invoke panels from different sets, you can toggle between them.</p>	<hr/> <p> Panel</p> <p> _1. Move</p> <p> 2. Suspend</p> <p> </p>
<p>Exit Displays a window (see "The Exit Pull-Down) that provides you with the following choices:</p> <p>1. Save and exit: Lets you back out one screen at a time, saving any changes or entries</p> <p>2. Exit without saving: Lets you back out one screen at a time, without saving any changes or entries</p> <p>3. Resume: Lets you carry on as though you never selected Exit</p>	<hr/> <p> Exit</p> <p> _1. Save and exit</p> <p> 2. Exit without saving</p> <p> 3. Resume</p> <p> </p>
<p>Help Displays the Help for Help panel. This panel tells you how to use the Help system. Refer to "The Help for Help Panel" for a detail discussion of this panel.</p>	<p>+-- CBHELP1H _ -- HELP WITH HELP</p> <p> This product has a complete HELP the dialog.</p> <p> Call HELP from any panel for info</p> <p> HELP from a field for information</p> <p> Once you are in HELP you can acce</p>

C Use this area to specify the criteria for data that you want to browse, edit or create.

Version

Displays an eight-character protected field that tells you the version of the CA JARS/OLF tables you are using. When you are creating or modifying CA JARS/OLF data, characters five through eight appear as blanks. The Acctdefs panels are an **exception**. For these panels, Version appears as a **four-character** field. However, when you are creating or modifying CA JARS/OLF data, these characters appear as blanks.

You must **commit** your data, if you are authorized, to make your changes effective on a specified CA JARS/OLF database version. Or, arrange for your CA JARS/OLF Administrator to commit your data.

ORD Type

The name (up to 3 alphanumeric characters) of the output record identifier you wish to create, view, or modify. If you do not know the ORD Type name, enter the SQL wildcard character %. This displays a list of all currently defined ORD Types that match the Charge Element you specify in the next field.

Charge Element

Type the name of the charge element you want to create, view, or modify. The SQL wildcard character % is not required.

| **Version . . . : PROD**

| **ORD Type MBJ**

| **Charge Element . %**

|

D Primary panels lead to list and entry panels using the following function keys:

F2

(Create) Takes you to the entry panel

F11

(Browse) Takes you to the list panel

| **F2=Create F11=Browse**

+-----

Sample List Panel

The following is a sample list panel. It appears when you press F11 (Browse) on a primary panel. It presents a protected display of the criteria you specified on the primary panel (see C below), as well as a selection list of items meeting the criteria (see F below).

```

USERID                               CA JARS/OLF                               MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
  A  +-- CBCELML ----- Charge Elements List -----+
      B      Panel  Exit  Help
      -----+
      Select charge element name. Then Enter.
      Version . . . : PROD
      ORD Type . . . : MBJ          C
      Charge Element : %
      D      More: - + ____ Row 0001 of 0004
      E  ORD  Charge Element
      _ MBJ  CPU-CHARGE
      _ MBJ  DISK-CHARGE          F
      _ MBJ  TAPE-CHARGE
      _ MBJ  TOT-CPU
      G  Enter  F7=Bkwd  F8=Fwd  F11=Expand
      -----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

All list panels have the following common panel areas:

- A This area displays the panel identifier and panel name.


```

-----+
+-- CBCELML --- Charge Elements List --
-----+
            
```

- B This action bar provides you with various options that are described on the next page.


```

| Panel Exit Help|
|-----|
|
|
|
            
```

<p>Panel Displays a window (see “The Panel Pull-Down”) that provides you with the following options:</p> <p>Move Gives you instructions on how to reposition panels and pull-downs against the background of the CA JARS/OLF Primary Panel</p> <p>Suspend Allows you to suspend the functioning of a panel and invoke other panels that overlay suspended panels. If you invoke panels from different sets, you can toggle between them.</p>	<p>-----</p> <p> Panel</p> <p> 1. Move</p> <p> 2. Suspend</p> <p> </p> <hr/>
<p>Exit Displays a window (see “The Exit Pull-Down”) that provides you with the following choices:</p> <p>1. Save and exit: Lets you back out one screen at a time, saving any changes or entries</p> <p>2. Exit without saving: Lets you back out one screen at a time, without saving any changes or entries</p> <p>3. Resume: Lets you carry on as though you never selected Exit.</p>	<hr/> <p> Exit</p> <p> 1. Save and exit</p> <p> 2. Exit without saving</p> <p> 3. Resume</p> <hr/>

<p>Help Displays the Help for Help panel. This panel tells you how to use the Help system. Refer to “The Help for Help Panel” for a detail discussion of this panel.</p>	<pre> +-- CBHELP1H _ -- HELP WITH HELP CA ChargeBack has a complete HELP the dialog. Call HELP from any panel for info HELP from a field for information Once you are in HELP you can acce </pre>
---	---

<p>C Displays the version of the Acct and CA JARS/OLF tables you are using, as well as the criteria you specified for the ORD Type, and Charge Element on the primary panel.</p>	<pre> Version . . . : PROD ORD Type . . . : MBJ Charge Element : % </pre>
---	---

<p>D This area is called the scroll bar; it serves several purposes:</p>	<pre> More: - + ____ Row 0001 of 0003 </pre>
---	--

<ul style="list-style-type: none"> ■ It tells you your location within a list. 	<pre> More: - + ___ > Row 0001 of 0003 </pre>
---	--

<ul style="list-style-type: none"> ■ You can enter the row you want to view by typing its number in theRow entry area and pressing Enter. The named row appears at the top of the list. 	<pre> More: - + ____ Row 0050 of 0100 ▲ </pre>
--	--

- You can scroll backward and forward a specific number of rows by typing the number of rows you want to scroll in the entry area following the - (minus) and + (plus) symbols and using your F7 or F8 key to indicate the scrolling direction.

```

| More: - + ____ Row nnnn of 0003 |
|      ▲           |
|_____

```

- Using the entry area following the - (minus) and + (plus) symbols, you can indicate one of the following scrolling increments:

```

| More: - + ____ Row nnnn of 0003 |
|      ▲           |
|_____

```

- a specific **number** of rows you want to scroll

```

| More: - + nnnn Row 0001 of 0003 |
|_____

```

- **page** displays only new lines (no carry over)

```

| More: - + page Row 0001 of 0003 |
|_____

```

- **data** repeats just the first or last line on the next panel

```

| More: - + data Row 0001 of 0003 |
|_____

```

- **csr** (cursor) moves the line containing the cursor to the top or bottom of the list

```

| More: - + csr_ Row 0001 of 0003 |
|_____

```

- Then, place the cursor on the + or - to indicate the direction you want to scroll in.

E Column headings used to clarify the categories of data returned that match the search criteria you specified on the primary panel:

ORD
The output record definition identifier.

Charge Element
The user-defined name containing the charge for a specific resource.

| **ORD Charge Element**

F This area lists all the charge elements presently defined for the ORD Type specified on the primary panel - in this case: MBJ.

| **ORD Charge Element**

|

| **MBJ CPU-CHARGE**

| **MBJ DISK-CHARGE**

| **MBJ TAPE-CHARGE**

G List panels allow you to perform the following actions:

Enter
Lets you select an item for detailed examination. Place the cursor next to the item you want to view and press **Enter**. This action takes you to the entry panel for the selected item.

F7
Lets you scroll backwards through the display.

F8
Lets you scroll forward through the display.

F11
Takes you to the expanded list panel.

| **Enter F7=Bkwd F8=Fwd F11=Expand**

+-----

Sample Expanded List Panel

The following is a sample **expanded** list panel. It appears when you press **F11** (Expand) on the List panel. This panel functions in the same manner as the list panel. It gives you an eight-line, rather than a five-line display of data that matches the search criteria you specified on the primary panel. This is because the Browse criteria information contained on the standard List panel is not displayed.

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--- CBCELMX ----- Expanded Element List -----+
      Panel  Exit  Help
-----+-----
      Select charge element name. Then Enter.

                        More: - +      Row 0001 of 0005
      ORD Charge Element

      _ MBJ CPU-CHARGE
      _ MBJ DIO-CHARGE
      _ MBJ TOT-CPU
      _ MBP LASER-CHARGE
      _ MBP PRINT-CHARGE
      _
      _
      _
      Enter  F7=Bkwd  F8=Fwd
-----+-----

Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

Sample Entry Panel

Entry panels are used to create, modify, and delete data. They appear when you:

- Press **F2** (Create) on the primary panel
- Position the cursor next to an item on a list or expanded list panel and press **Enter**
- Select an action from a pull-down or another entry panel that exists only as an entry function

```

USERID                      CA JARS/OLF                      MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
A +  -- CBCELMU ----- Charge Units Entry -----+
  |  B  Panel  Exit  Help
  |-----|
  |  Type information. Then select an action.
  |
  |  Version . . . : PROD
  |  ORD Type . . . : MBJ          C
  |  Charge Unit : TOT-CPU
  |
  |          D  More: - + _____ Row 0000 of 0000
  |  E  Cmd  ORD Field/@Unit  Aop Field/Constant  Aop
  |          SRB-TIME_____ * '.5' _____ +
  |  &coF.  TCB-TIME_____ * '.5' _____ -
  |          _____ - _____ -
  |          _____ - _____ -
  |
  |  G  F2=Xref F5=Save F6=Delete F7=Bkwd F8=Fwd F11=Expand
  |-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

All entry panels have the following common panel areas:

A This area displays the panel identifier and panel title. _____
+-- CBCELML ----- Charge Elements Entry ---

B This action bar provides you with various options which are explained on the next page. _____
Panel Exit Help

Panel	<p>Displays a window (see “The Panel Pull-Down) that provides you with the following options:</p> <p>Move</p> <p>Gives you instructions on how to reposition panels and pull-downs against the background of the CA JARS/OLF Primary Panel.</p> <p>Suspend</p> <p>Allows you to suspend the functioning of a panel and invoke other panels that overlay suspended panels. If you invoke panels from different sets, you can toggle between them.</p>	<hr/> Panel __1. Move 2. Suspend <hr/>
Exit	<p>Displays a window (see “The Exit Pull-Down) that provides you with the following choices:</p> <p>1. Save and exit: Lets you back out one screen at a time, saving any changes or entries</p> <p>2. Exit without saving: Lets you back out one screen at a time, without saving any changes or entries</p> <p>3. Resume: Lets you carry on as though you never selected Exit</p>	<hr/> Exit __1. Save and exit 2. Exit without saving 3. Resume <hr/>
Help	<p>Displays the Help for Help panel. This panel tells you how to use the Help system. Refer to “The Help for Help Panel” for a detail discussion of this panel.</p>	<hr/> +-- CBHELP1H _-- HELP WITH HELP This product has a complete HELP the dialog. Call HELP from any panel for info HELP from a field for information Once you are in HELP you can acce <hr/>
C	<p>This are displays the version of the Acct and CA JARS/OLF tables you are using, as well as the criteria you specified for the ORD Type, and Charge Element on the primary panel.</p>	<hr/> Version . . . : PROD ORD Type . . . : MBJ Charge Element : TOT-CPU <hr/>

D This area is called the scroll bar; it serves several purposes:

| More: - + ____ Row 0001 of 0003 |

- It tells you your location within a list.

| More: - + ____ > Row 0001 of 0003 |

- You can enter the row you want to view by typing its number in the Row entry area and pressing Enter. The named row appears at the top of the list.

| More: - + ____ Row 0050 of 0100 |



- You can scroll backward and forward a specific number of rows by typing the number of rows you want to scroll in the entry area following the - (minus) and + (plus) symbols and using your F7 or F8 key to indicate the scrolling direction.

| More: - + ____ Row nnnn of 0003 |



- Using the entry area following the - (minus) and + (plus) symbols, you can indicate one of the following scrolling increments:

| More: - + ____ Row nnnn of 0003 |



- a specific **number** of rows you want to scroll

| More: - +!nnnn! Row 0001 of 0003 |

- **page** displays only new lines (no carry over)

| More: - +!page! Row 0001 of 0003 |

- **data** repeats just the first or last line on the next panel

| More: - +!data! Row 0001 of 0003 |

<ul style="list-style-type: none"> ■ csr (cursor) moves the line containing the cursor to the top or bottom of the list 	<pre> More: - + lcsr_! Row 0001 of 0003 _____ </pre>
<ul style="list-style-type: none"> ■ Then, place the cursor on the + or - to indicate the direction you want to scroll in. 	
<p>E Column headings used to clarify the categories of data returned and input areas that are available to you:</p>	<pre> Cmd ORD Field/@Unit Aop Field/Constant Aop _____ </pre>
<p>Cmd Use this column to specify commands. Valid commands include:</p> <p>D delete</p> <p>I insert: provides you with a pop-up window that prompts you for the information you want inserted into the table.</p>	<pre> Cmd ORD Field/@Unit Aop Field/Constant Aop > 0 > 1 _____ </pre>
<p>ORD Field/@Unit Can refer to either a valid field defined in the ORD or another user-defined charge unit (indicated by the @ prefix) applying to the same ORD.</p>	<pre> Cmd ORD Field/@Unit Aop Field/Constant Aop > SRB-TIME * '100' + > TCB-TIME * '200' _____ </pre>
<p>Aop Use this column to indicate any arithmetic operations you want performed. Acceptable operators are: + (plus), - (minus), * (multiply), and / (divide)</p>	<pre> Cmd ORD Field/@Unit Aop Field/Constant Aop MBJ SRB-TIME ** '100' + MBJ TCB-TIME ** '200' _____ </pre>

Field/Constant

You use this column when you want a charge unit's value to be calculated based on either the contents of another field's value or a constant.

```

| Cmd ORD Field/@Unit Aop Field/Constant Aop
| MBJ SRB-TIME * '100' +
| MBJ TCB-TIME * '200'
|
|      ▲
    
```

Aop

Use this column to indicate how you want a calculation linked to any operations that follow. Acceptable operators are: +, -, *, and /.

```

| Cmd ORD Field/@Unit Aop Field/Constant Aop
| MBJ SRB-TIME * '100' ++
| MBJ TCB-TIME * '200'
    
```

F This area lists all the units presently defined for the ORD specified on the primary panel - in this case, MBJ.

```

| MBJ SRB-TIME * '100' +
| MBJ TCB-TIME * '200'
    
```

G Entry panels may differ in the function keys they provide. However, standard entry panel function keys include:

F5

Saves your data to disk

F6

Deletes all entries

F7

Lets you scroll backwards through the display

F8

Lets you scroll forward through the display

```

| F5=Save F6=Delete F7=Bkwd F8=Fwd
| +-----
    
```


Sample Expanded Entry Panel

The following is a sample *Expanded* Entry panel. Expanded Entry panels are displayed when you press **F11** on an entry panel. Expanded Entry panels function in the same way as entry panels. The only difference between an Entry panel and Expanded Entry panel is the protected fields are not displayed. This allows you to view more information on a single panel.

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCELMV ----- Expanded Units Entry -----+
      Panel  Exit  Help
+-----+
      Type information. Then select an action.
      More: - + _____ Row 0001 of 0002
      Cmd  ORD Field/@Unit  Aop Field/Constant  Aop
      SRB-TIME_____ * '.5'_____ +
      TCB-TIME_____ * '.5'_____ -
      _____ - _____ -
      _____ - _____ -
      _____ - _____ -
      _____ - _____ -
      F2=Xref  F5=Save  F6=Delete  F7=Bkwd  F8=Fwd
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

Sample Entry Panel Insert Pop-Up Window

To invoke an Insert window, enter an arithmetic operator in the second Aop field of the entry **preceding** the row where you want to perform the insert. Next, type an I in the Cmd column for this row; then press Enter. The pop-up Insert window displays.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCELMU ----- Charge Units Entry -----+
      Panel  Exit  Help
-----+-----
      Type information. Then select an action.

      Version . . : PROD
      ORD Type . . : MBJ
      Charge Unit : TOT-CPU

                               More: - + _____ Row 0001 of 0002
      Cmd  ORD Field/@Unit  Aop Field/Constant  Aop
      -   SRB-TIME_____ * '.5' _____ +
      I   TCB-TIME_____ * '.5' _____ > +
      >
      -   _____ - _____ -
      -   _____ - _____ -

      F2=Xref F5=Save F6=Delete F7=Bkwd F8=Fwd F11=Expand
-----+-----
Command ==> _____
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp
    
```

The following is a sample Entry *Insert* window. Insert windows provide you with the same entry fields that are available on the panel from which it was invoked. However, while the window is visible, the **only** functions available to you are F5 (Save), F3 (Exit), and F12 (Cancel).

```

USERID                               CA JARS/OLF                               MM/DD/YY HH:MM:SS
--   Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCELMU ----- Charge Units Entry -----+
      Panel  Exit  Help
+-----+
      Type information and save. Then select an action.
+-- CBCUMII ----- Unit insert -----+
      |
      | Enter unit data. Then save.
      |
      | ORD Field / @Unit . WAIT-TIME_____
      | Aop . . . . . *
      | Field / Constant . . '.5' _____
      | Aop . . . . . _
      |
      | F5=Save
+-----+
      |
      | F2=Xref F5=Save F6=Delete F7=Bkwd F8=Fwd F11=Expand
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

After completing the insert, press **F5**. The information is always inserted on the Entry panel on the line **after** the one where you typed the I.

```

USERID                               CA JARS/OLF                               MM/DD/YY HH:MM:SS
--   Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCELMU ----- Charge Units Entry -----+
      Panel  Exit  Help
+-----+
      Type information. Then select an action.
      |
      | Version . . . : PROD
      | ORD Type . . . : MBJ
      | Charge Unit : TOT-CPU
      |
      | More: - + _____ Row 0001 of 0003
      | Cmd  ORD Field/@Unit  Aop  Field/Constant  Aop
      | -   SRB-TIME_____  *  '.5' _____  +
      | -   TCB-TIME_____  *  '.5' _____  +
      | -   WAIT-TIME_____  *  '.5' _____  -
      | >
      |
      | F2=Xref F5=Save F6=Delete F7=Bkwd F8=Fwd F11=Expand
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

Function Key Summary

Function keys enable you to navigate through the CA JARS/OLF application and perform various actions. Some function keys apply to all panels while others are panel specific.

Note: All panels described in this guide contain information on how their function keys operate.

Global Function Keys

The following is a list of **global** function key assignments for the CA JARS/OLF application. They appear on the CA JARS/OLF Primary Panel and are consistent across all product panels, **even** when they are not displayed.

F1=Help

Provides a Help panel for the current panel.

F3=Exit

Terminates the current function.

F4=Prompt

Displays a pop-up window containing **choices** that can be inserted in the **entry** field where the cursor is positioned. You can also use F4 at the command area. Remember, this function is dependent on the position of the cursor when requesting a prompt using F4 (see [Prompt Pop-Up Window](#) (see page 39)).

When you select a choice from the list, the pop-up window disappears. The choice text is then placed in the entry field as though you typed it there. You can also cancel the Choices pop-up window without making a selection using F12=Cancel.

Note: If you request a prompt when the cursor is not on an entry field, nothing happens. All entry fields have either a choices list or provide you with a descriptive message.

F9=Command

Positions the cursor at the command area and activates it. You can execute the following commands from the command area:

- **? displays the last executed command**
- **= reexecutes the last command**
- **= pull-down panel name displays the named pull-down**

F10=Action Bar

Pressing F10 activates a panel's action bar and positions the cursor at the first selection. (F10 toggles the action bar on and off).

F12=Cancel

Lets you cancel an action.

PA1=Susp

Lets you suspend processing for the currently active panel and activate the global action bar.

Local Function Keys

Local function keys only work for the panel that displays them. Each panel description explains how its local function keys work.

CA JARS/OLF Relational Characteristics

CA JARS/OLF uses relational concepts to create and manipulate data in its database. These characteristics ensure the following:

- Centralized data storage and management
- Eliminate the need for multiple products to process the same data
- Allow data to be shared across products

By centralizing data, redundancies in data collection, processing, and storage are eliminated.

Relational database structure is basically a simple matrix of records (rows) and fields (columns). All CA JARS/OLF data is stored in tables that possess the following characteristics:

Column

A column is the vertical component of a table. Columns are used to describe an indivisible unit of data. Each column has a name and a specific data type, such as character or integer. While the order of columns in a table is fixed, there is no conceptual significance to this order. Columns are frequently referred to as **fields**.

Row

A row is the horizontal component of table. A row is a sequence of values, one for each column of the table. Each row contains the same number of columns. Rows are frequently referred to as **records**.

Note: You insert and delete rows, whereas you update individual columns. Furthermore, a table can exist without any rows, but not without any columns.

Tables are two-dimensional, they consist of a matrix of information composed of rows and columns:

- Depth is the number of rows within a table.
- Width is the number of columns within a row.

Sample Table		
Record		
Type	Structure	
Row 1	BJ	DEPARTMENT
Row 2	BJ	DIVISION
Row 3	BJ	GROUP ID
Row 4	BP	DEPARTMENT
Row 5	BP	DIVISION

The CA JARS/OLF database is made up of two types of tables:

- **Definition Tables:** Contain primarily user-defined input that defines the actual CA JARS/OLF processing environment and controls the logic of the system.
- **Data Tables:** Contain data produced by the application detailing the charges, and so forth.

CA JARS/OLF Tables

The following list gives a brief description and definition of the chargeback tables that are distributed with CA JARS/OLF. These tables contain ORDs (Output Record Definitions). Note that ORDs can only be modified using CA JARS/OLF. However, you can modify these tables to meet your data center's requirements using the CA JARS/OLF **Table Maintenance Function**.

For more information:

[Chargeback Tables](#) (see page 493)

Definition Tables

ACCSTTAB*

(Accounting Structure Table): Defines the organizational hierarchy that is maintained on the CA JARS/OLF database. This table along with the ACCSRTAB, ACCTLOOK, and PERTAB definition tables are used to create the CA JARS/OLF construct.

ACCSRTAB*

(Accounting Sources Table): Contains the information required to define sources for each accounting structure level.

ACCTLOOK*

(Lookup Table): Associates raw accounting entity values with meaningful organizational names.

PERTAB*

(Period Table): Defines fixed accounting periods across the CA JARS/OLF system.

* The above tables are used by CA JARS/OLF during processing, as well as during output record generation. As such, these tables' version reference the Acct version.

ELEMTAB

(Charge Element Table): Defines the elements used to calculate default charge element values.

NORMTAB

(Unit Normalization Table): Defines normalization or weighting factors applied during charge unit value calculation.

UNITTAB

(Charge Unit Table): Defines the formula used for calculating charge unit values.

RATETAB

(Charge Algorithm Table): An algorithm is a formula that associates a rate with a qualifier. This table contains the **qualified** (conditional) rates.

QUALTAB

(Qualifier Table): Defines Qualifier definitions that associate a qualifier with an algorithm.

Definition Tables (Continued)

MODTAB

(Charge Modifier Table): Defines conditions that modify the calculated charges for reasons such as vacation discounts, priority weighting, class weighting and so forth.

QUERYTAB

(Saved QUERY Table): Defines queries that are stored by name, for later retrieval and use.

SPLITTAB

(Split Resource Table): Defines the conditions under which a charge associated with a given job or task executed on behalf of several users is split among those users.

CHOPTAB

(Shift Chopper Table): Defines the times at which records associated with long running tasks are to be chopped and prorated records generated.

SUMTAB

(Summary Functions Table): Defines which records are selected at the end of a period.

OPTTAB

(Option Settings Table): Defines user options, by userid, so that each user's settings are saved individually.

Data Tables

CCCTAB

(Consolidated Calculated Charges Data Table): Contains the information used by **all** CA JARS/OLF functions. It is created and maintained by the **Detail** (batch) functions and is a summary table of the output records' processed data. Each item kept in the CCCTAB table is a line item on an invoice. The table is maintained with a unique key comprised of the Accounting Structure, Period, Charge Element, and Qualifier. Information contained is:

- Number of units
- Rate
- Charge
- Number of ORD records that constitute each CCCTAB record

The CCCTAB table is the **principal** CA JARS/OLF information data table.

CCCMOD

(The *Scratchpad* Table/Modified Consolidated Calculated Charges Table): Is generated by the batch Forecast process and used by the Period functions to display and modify forecasted periods/rates, as well as by the Query function for displaying data. It exists so that these calculations are not applied directly to the *live* CCCTAB table.

BU DTAB

(Budget Table): Contains budget information that is entered online via the Budgets facility and is immediately available via the Query facility. This information is also used for invoice generation. This table is used in conjunction with the CCCTAB table.

DBCRTAB

(Debit and Credit Table): Contains credit and debit manual adjustments that are entered online using the Data Entry facility. Adjustments are immediately available for viewing via the Query facility. This information is also used for invoice generation in conjunction with the CCCTAB table.

Internal Tables

The following tables are CA JARS/OLF internal tables and are not to be modified.

- ACCTCMD
- ACCTDISP
- BSATCMD
- BSATDISP
- EDITTAB
- VALTAB

Chapter 2: CA JARS/OLF Versions

CA JARS/OLF processes input from CA JARS level 6 and level 7 History files as well as Account Files containing EXTDATA.

This section contains the following topics:

[Version Interrelationships](#) (see page 67)

[Commit Interrelationships](#) (see page 68)

Version Interrelationships

CA JARS/OLF processing can be performed on an infinite number of versions. CA JARS/OLF processing validates its definitions and data against the Acct version of the tables. The CAWFLOAD process and its associated CAIKRPAR parameter file require definition of the Acct version in order to validate and process CA JARS/OLF data against the appropriate table entries. An **eight-character** identifier, called a version, distinguishes which table entries are used for processing and validation.

The first four characters of the version tell you which **version** of Acct tables you are running: either PROD (production) or TEST.

```
CA JARS/OLF
---- VERSION ----
▼1 2 3 4 5 6 7 8▼
-----
|P R O D|A B C D|
-----
Acct Version Identifier: PROD
```

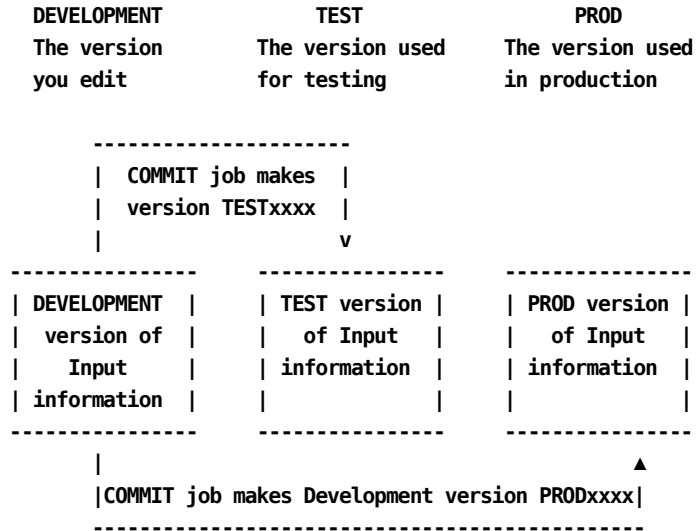
Note: The previous explanation does **not** apply to the Acctdefs panels. For these panels (described in the next chapter), the Acct Version appears as a **four-character** field. This field is a unique subset of the CA JARS/OLF tables that:

- Is used within CA JARS/OLF during daily CAKSLOAD and CAKRLOAD processing to link the information contained within these tables with the appropriate record
- Provide a mechanism for cross-validation during CA JARS/OLF commit processing

```
-----
|PROD|
-----
▲
|
CA JARS/OLF Version
```

Commit Interrelationships

The commit process **validates** CA JARS/OLF definition sets. Commit processing allows you to commit the Development version (the version in process), either TEST or PROD, to any user-defined second four character version identifier. The following diagram shows how this process works.



The commit process performs the following functions:

- **Freezes** all of the associated CA JARS/OLF product's (*pc*) Development version definition tables.
- **Deletes** any existing CA JARS/OLF committed tables for the specified CA JARS/OLF product and version. (Defined as the four-character *fromver* **plus** the four-character *tover* on the COMMIT control statement.)
- **Changes** the version of the CA JARS/OLF Development definitions, specified in the the COMMIT control statement **plus** four blanks to an eight-character CA JARS/OLF version (the four-character *fromver* plus *tover* specified in the COMMIT control statement).

The CAIKSPAR file (described in Chapter 11) specifies which committed version to use for processing.

Chapter 3: Setting Up Your Accounting Structure

Before you can begin using the CA JARS/OLF option, it must know which records it maps are required for processing. This is achieved by having CA JARS/OLF create a **construct** (an application identifier) that is appended to a CA JARS/OLF output record (ORD). This construct tells CA JARS/OLF that it needs the record.

The definition of information required for this process falls under the category of Table Maintenance Functions and is handled by CA JARS/OLF **Acctdefs** tasks.

Accounting definition functions are invoked when you select **Acctdefs** by placing the cursor next to Acctdefs keyword on the CA JARS/OLF Primary Panel's action bar and pressing Enter. The Acctdefs pull-down shown on [Setting Up Your Accounting Structure](#) (see page 69) appears. The Acctdefs pull-down presents you with three choices that are used in creating the CA JARS/OLF construct:

- 1 Accounting Structure
- 2 Accounting Sources (R)
- 3 Period Tables

Note: Construct definition is normally the responsibility of the CA JARS/OLF Administrator. Construct definition is usually a onetime only task occurring during implementation. However, when additional records are required for processing, some functions may need to be repeated.

Acctdefs Pull-Down

USERID	CA JARS/OLF				MM/DD/YY HH:MM:SS																								
__	Acctdefs	Cbdefs	Query	Data	Period Options Exit Help																								
A	<table border="1"> <tr> <td colspan="4">Acct Definitions</td> </tr> <tr> <td>1.</td> <td colspan="3">Accounting Structure</td> </tr> <tr> <td>2.</td> <td colspan="3">Accounting Sources (R)</td> </tr> <tr> <td>3.</td> <td colspan="3">Period Tables</td> </tr> <tr> <td colspan="4">-----</td> </tr> <tr> <td colspan="4">F12=Cancel</td> </tr> </table>				Acct Definitions				1.	Accounting Structure			2.	Accounting Sources (R)			3.	Period Tables			-----				F12=Cancel				<p>A A 1-character field that allows you to make a selection using a mnemonic that can be either a number or the first letter of an action. Notice that when actions have duplicate first letters, you can use either the number or the letter provided in the parentheses.</p> <p>You can also make your selection by tabbing the cursor next to the action you want to perform and pressing Enter.</p>
Acct Definitions																													
1.	Accounting Structure																												
2.	Accounting Sources (R)																												
3.	Period Tables																												

F12=Cancel																													
Command ==> _____ F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp																													

An overview of the Acct Definitions options used in construct building is provided below.

1. Accounting Structure

Lets you define up to five accounting levels within your organization.

2. Accounting Sources

Enables you to specify the ORD field name(s) (the source fields) from the CA JARS/OLF output record definitions that contain the value(s) for each level of your accounting structure.

3. Period Tables

Enables you to maintain fixed periods across all ORD input records. The PERTAB Table, an accounting period definition table, is maintained to specify the **end** date and time for a given period. This data is used to indicate the period to which a given detail record is allocated.

Accounting Structure Panel

The CA JARS/OLF Administrator uses this panel to define your organization's accounting structure to CA JARS/OLF.

The Accounting Structure panel updates the ACCSTTAB table with the names of up to five user-defined accounting entities.

You can define up to five accounting levels and assign a name (up to 16 alphanumeric characters) for each level (see **2** below).

Example:

1: Division 3: Section 5: Team
2: Department 4: Group-ID

Each structure supports up to 16 positions (see **3**. below) composed of the combined length of the ORD field names you specify on the [Accounting Sources Entry Panel](#) (see page 80). You **must** press **F5** (Save) to save your accounting structure definition.

The contents of the protected display field, Version (see **1** below), is determined by information you specify using the Options facility. The Version **must** be PROD, TEST or appear as blanks. Blanks indicate you are using the Development version. Remember, you can only update a Development version.

USERID	Acctdefs	Cbdefs	Query	CA JARS/OLF	Data	Period	Options	MM/DD/YY	HH:MM:SS	
--	+-- CBASTRE -- Accounting Structure -----+								Exit	Help
	Panel Exit Help									
	-----+									
	Type information. Then save.									
	-----+									
	1	Version :								
		2	Structure			3	Length			
			1. DIVISION_____				16			
			2. DEPARTMENT_____				16			
			3. SECTION_____				08			
			4. GROUP-ID_____				08			
			5. TEAM_____				04			
			F5=Save							
	-----+									
Command ==>										
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp										

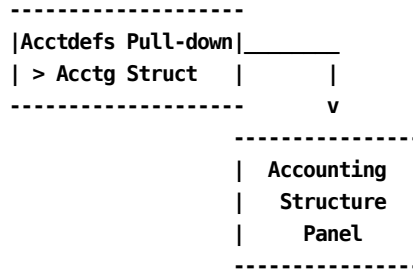
Caution: Accounting Structure assignment is **mandatory**. At least one entity must be defined.

The following is a description of the Accounting Structure panel.

Access

The Accounting Structure panel appears when one of these events occurs:

- You type AA in the fast path area of the CA JARS/OLF Primary Panel's action bar.
- You select Acctdefs on the Primary Panel's action bar and then choose Accounting Structure on the Acctdefs pull-down.



Input

The following Accounting Structure panel fields are available for input:

Structure

An organizational structure name of up to 16 alphanumeric characters. For example, division, department, and so forth.

Length

The combined length of up to three ORD fields, defined in the ORD Field Name column of the Accounting Sources Entry panel (see [Accounting Sources Entry Panel](#) (see page 80)).

Note: Each structure's length **cannot** exceed 16.

Actions

F5

(Save) Saves the accounting structure definition.

For more information:

[Versions](#) (see page 379)

Defining Your Accounting Sources

Unlike the Accounting Structure table which has only one panel, the Accounting Sources table uses multiple panels. The following panels make up the Accounting Sources panel set:

- Accounting Sources primary panel
- Accounting Sources List panel
- Accounting Sources Expanded List panel
- Accounting Sources Entry panel
- Accounting Sources Lookup Table panel
- Accounting Sources Lookup Table Insert panel

Note: All protected display field areas are preceded by a colon (:).

These panels enable the CA JARS/OLF Administrator to define the source field(s), ORD field(s), that supply the value for each level of your accounting structure. For each ORD record used by the CA JARS/OLF application, there exists an Accounting Sources record detailing the source for each entry in the Accounting Structure (ACCSTTAB) table.

Each level of the structure can be comprised of up to three source fields/subfields. An optional lookup table facility is available for each organizational level you define. [Creating a Lookup Table](#) (see page 86) for a discussion of this feature.

Note: Accounting sources must be specified for each ORD type you define to the CA JARS/OLF application and should be consistent across all ORD types.

Each time you perform a SAVE, CA JARS/OLF checks the ORD Table to validate each entry's existence.

ORD names are composed of three alphanumeric characters according to the following convention.

Example:

MBJ

where:

M

Represents the operating system, in this case: MVS

B

Represents the subsystem, in this case: BATCH

J

Represents the record type, in this case: JOB

Accounting Sources Primary Panel

Accounting Sources definition starts with the Accounting Sources primary panel. You specify, at the ORD Type prompt, a **key** for browsing or defining data.

In the example below, the key for ORD Type is MBJ (MVS Batch Jobs). For Structure, it is the SQL wildcard character %. The contents of the protected display fields: Version and Acct Version is determined by information you specify using the Option facility. The Acct Version field tells you the version used to validate and commit your constructs and definitions. It must be PROD or TEST.

Note: When using the Accounting Sources panel set:

- The Version field must be blank if you are creating or editing constructs or definitions.
- To view constructs for a committed CA JARS/OLF version, you must first use the Options facility to specify the Version you want to browse.

Example:

PRODABCD. When the Accounting Sources panel appears, the Version protected field displays as ABCD (see the sample panel below). Then, press **F11** to browse accounting sources data.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBASRCP ----- Accounting Sources -----+
|   Panel  Exit  Help  |
|-----|
|   Type information. Then select an action.   |
|   Version : ABCD          Acct Version : PROD |
|   ORD Type . . MBJ      |
|   Structure . %_____ |
|   F2=Create  F11=Browse |
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

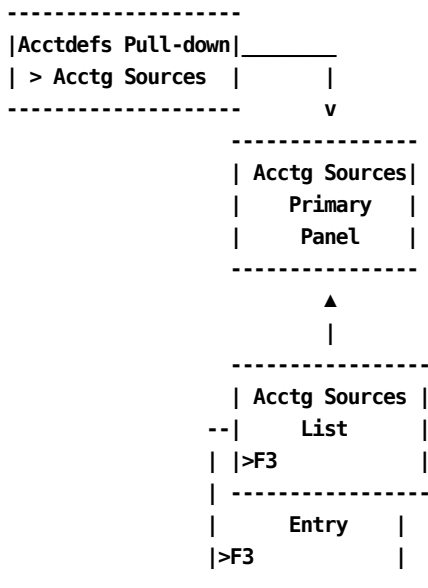
```

On the next page is a description of the Accounting Sources primary panel.

Access

The Accounting Sources primary panel appears when one of these events occurs:

- You type AR in the fast path area of the Primary Panel's action bar.
- You select Acctdefs on the Primary Panel's action bar and then choose Accounting Sources on the Acctdefs pull-down.
- You return to this panel using **F3** from the Accounting Sources Entry or List panels.



Input

The following prompts let you specify information that takes you to other panels where you can browse or enter information relating to Accounting Sources.

ORD Type

The three-character name of an ORD whose sources you want to define.

Structure

An organizational structure name within the hierarchy of your organization. For example, division, department, and so forth.

Note: Entering % and pressing F11 results in a display of all rows of the ACCSR TAB.

Pathways

F2

(Create) Takes you to [Accounting Sources Entry Panel](#) (see page 80).

F11

(Browse) Takes you to [Accounting Sources List Panel](#) (see page 78).

For more information:

[Versions](#) (see page 379)

Accounting Sources List Panel

The Accounting Sources List panel provides you with a list of all currently defined ORDs and structures meeting the search criteria specified on the Accounting Sources primary panel. The search criteria are redisplayed as protected display fields.

```

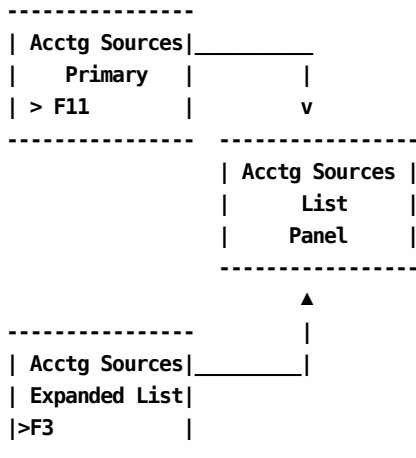
USERID                                CA JARS/OLF                                MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBASRCL --- Accounting Sources List -----+
|   Panel  Exit  Help
|-----|
|   Select accounting structure name. Then Enter.
|
|   ORD Type . : MBJ                Version   : ABCD
|   Structure  : %_____          Acct Version : PROD
|
|                                     More: - + ____  Row 0001 of 0003
|
|   ORD  Structure
|
|   _ MBJ  DIVISION
|   _ MBJ  DEPARTMENT
|   _ MBJ  GROUP-ID
|
|   _ _ _ _ _
|   _ _ _ _ _
|
|   Enter  F7=Bkwd  F8=Fwd  F11=Expand
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Access

The Accounting Sources List panel appears when one of these events occurs:

- You press **F11** (Browse) on the Accounting Sources primary panel shown on [Accounting Sources Primary Panel](#) (see page 74).
- You return to this panel using **F3** from the Accounting Sources Expanded List panel.



Scrolling

F7 and F8 let you scroll backward and forward through the Structure selection list. You can also use the scroll bar, [Sample List Panel](#) (see page 46), to move through the list.

Pathways

Enter

By positioning the cursor next to an item and pressing **Enter**, you can go to the Accounting Sources Entry panel to examine and optionally update the selected item.

F1

(Expand)

Gives you an **expanded** (eight-line display) view of the Accounting Sources List panel.

Expanded Sources List Panel

The following panel appears when you press **F11 (Expand)** on the Accounting Sources List panel. The only difference between the two panels is the ORD Type, Version, Structure and Acct Version display fields are not shown. This allows you to view more information on a single panel. The Expanded List panel functions in the same way as the panel from which it was called.

```
USERID                                CA JARS/OLF                                MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBASRCX ---- Expanded Sources List -----+
      Panel  Exit  Help
      -----
      Select accounting structure name. Then Enter.
      More: - + ____ Row 0001 of 0001
      ORD Structure
      _ MBJ DEPARTMENT
      -
      -
      -
      -
      -
      -
      Enter  F7=Bkwd  F8=Fwd
+-----+

Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
```

Accounting Sources Entry Panel

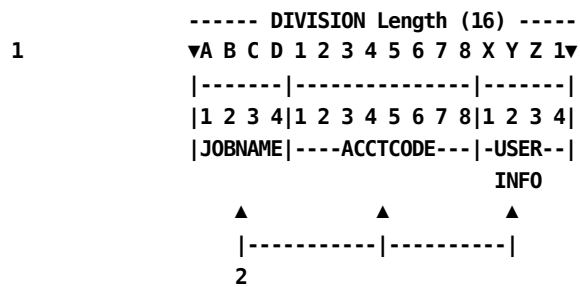
The Accounting Sources Entry panel lets you examine, define, and optionally update detail information for an accounting structure. It displays information meeting the ORD Type and Structure search criteria you specified on the Accounting Sources primary panel. This panel gives you a true representation of the detail in the ACCSRTAB table.

Note: You **must** define sources for every ORD Type that CA JARS/OLF uses.

The Accounting Sources Entry panel, provided on the next page, shows how to provide the definition for an accounting structure called Division (see **B**) **without** using the Lookup Table option (see **C**). You can define up to three field names. Note that each structure can be comprised of up to three source fields/subfields. In this example, Division is composed of three fields: JOBNAME, ACCTCODE, and USER-INFO. It shows the sources for the MBJ ORD (A):

- The first four characters of the JOBNAME field (see **D**), concatenated with
- The first eight characters of ACCTCODE field (see **E**), concatenated with
- The first four characters of USER-INFO field (see **F**.)

The following diagram shows you STRUCTURE1 (DIVISION).



1

When ORD records are processed, the values contained within these fields are displayed for this structure (DIVISION).

2

These are the ORD field names.

Caution: The **sum** of the Length column contained on the Accounting Sources Entry panel **must not** exceed the length of the structure as defined on the [Accounting Structure Panel](#) (see page 71).

```

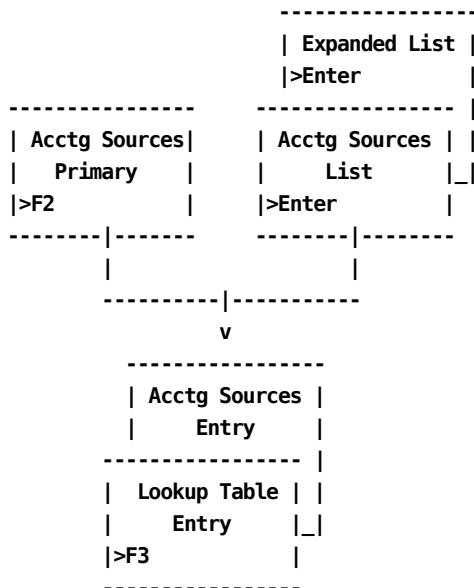
USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
---            +--- CBASRCE --- Accounting Sources Entry -----+
                Panel Exit Help
                -----+
                Type information. Then select an action.
                Version . :          Acct Version : PROD
                ORD Type . : MBJ      A
                Structure : DIVISION  B
                Lookup Table _____ C
                ORD Field Name  St  Length
                JOBNAME_____ 01 04    D
                ACCTCODE_____ 01 08    E
                USER-INFO_____ 01 04    F
                F5=Save  F6=Delete  F11=Lookup
                -----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

The following is a description of the Accounting Sources Entry panel.

Access

The Accounting Sources Entry panel appears when one of these events occurs:

- You press **F2** (Create) on the primary panel.
- You make a selection on the Accounting Sources List or Expanded List panel.
- You return from the Lookup Table entry panel by pressing **F3**.



Input

The following Accounting Sources Entry panel fields (C-F above) are available for input:

Lookup Table (optional)

This optional feature is used to identify the specific entities within an Accounting Structure. It allows you to define a meaningful name for each entity. Enter a name (up to eight alphanumeric characters) that is associated with the structure you are defining. You **are not** restricted to the ORD Type from which the table was invoked. A discussion of the Lookup Table option is provided in [Creating a Lookup Table](#) (see page 86).

Note: To view a list of defined Lookup Table names, press **F4** (Prompt) while the cursor is positioned at the Lookup Table field.

ORD Field**Name**

Defines the ORD Field Name that contains this structure's value.

St

Specifies which column in this field to **start** from when obtaining structure information.

Length

Specifies the **length** or number of columns to read from the start column when obtaining information to identify this structure.

Actions**F5=Save**

Lets you add or update rows in the ACCSRTAB table.

F6=Delete

Lets you delete rows from the ACCSRTAB table.

F11=Lookup

Takes you to the Lookup Table entry panel (section [Creating a Lookup Table](#) (see page 86)).

Note: You should **save** this panel using F5 **before** proceeding to the Lookup Table entry panel.

F4=Prompt

To view a list of defined Lookup Table names, press **F4** (Prompt) while the cursor is positioned at the Lookup Table field.

Example 1: Defining Accounting Sources Without a Lookup Table

In this example, we are telling CA JARS/OLF to:

1. Create a field called DIVISION (see **B** below) for the MBJ (Batch Job) ORD (see **A** below)
2. Its sources should be:
 - a. The first four characters of the JOBNAME (see **C** below), concatenated with
 - b. The first eight characters of the ACCTCODE field (see **D** below), concatenated with
 - c. The first four characters of the USER-INFO field (see **E** below)

```
|----- DIVISION Length (16) ----|
▼A B C D 1 2 3 4 5 6 7 8 X Y Z 1▼
|-----|-----|-----|
|1 2 3 4|1 2 3 4 5 6 7 8|1 2 3 4|
-JOBNAME-----ACCTCODE-----USER---
                               INFO
```

Note: When you perform a query or print an invoice, this structure will be displayed as: DIVISION: ABCD12345678XYZ1

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--            +---+ CBASRCE --- Accounting Sources Entry -----+
                Panel Exit Help
                -----
                Type information. Then select an action.
                Version . :                Acct Version : PROD
                ORD Type . : MBJ      A
                Structure : DIVISION    B
                Lookup Table _____
                ORD Field Name  St  Length
                JOBNAME_____  01  04    C
                ACCTCODE_____  01  08    D
                USER-INFO_____  01  04    E
                F5=Save  F6=Delete  F11=Lookup
                -----
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

This processing takes place at Detail function time for each ORD record.

The ACCSRTAB table is used to generate the required code to perform this task. The data entered is validated to ensure that the fields used in the creation of the *construct* are valid and exist within the ORD definition.

Example 2: Defining Accounting Sources Using a Lookup Table

In this example, we are telling CA JARS/OLF to:

1. Create a field called DIVISION (see **B** below) for the MBJ (Batch Job) ORD (see **A** below)
2. Its sources should be:
 - a. The first four characters of the JOBNAME (see **D** below), concatenated with
 - b. The first eight characters of the ACCTCODE field (see **E** below), concatenated with
 - c. The first four characters of the USER-INFO field (see **F** below)

```

|----- DIVISION Length (16) ----|
▼A B C D 1 2 3 4 5 6 7 8 X Y Z 1▼
|-----|-----|-----|
|1 2 3 4|1 2 3 4 5 6 7 8|1 2 3 4|
-JOBNAME-----ACCTCODE-----USER---
                               INFO
    
```

3. Create a Lookup Table named DIVTAB (see C below)

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBASRCE --- Accounting Sources Entry -----+
|   Panel  Exit  Help                               |
|-----|
|   Type information. Then select an action.         |
|   Version . :                               Acct Version : PROD |
|   ORD Type . : MBJ           A                 |
|   Structure : DIVISION           B             |
|   Lookup Table DIVTAB           C             |
|   ORD Field Name  St  Length                    |
|   JOBNAME_____  01  04           D           |
|   ACCTCODE_____  01  08           E           |
|   USER-INFO_____  01  04           F           |
|   F5=Save  F6=Delete  F11=Lookup                |
+-----+

Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Proceed to the discussion of the Accounting Sources Lookup panel presented on the next page.

Creating a Lookup Table

The Lookup Table is an optional feature. It is used to name specific entities within an accounting structure and return a meaningful name for each entity you define.

Example:

Accounting structure's entities might be composed of entries that look like:

```

AA0000
ZZ9999
--|_|
| |
| --The fourth through seventh positions of ACCTCODE
--The first two positions of JOBNAME
    
```

Most likely very few people in your organization would be able to identify specific entities using the above codes. However, by using the Lookup Table, you can assign a meaningful name to the above structure's entities (for example, Accounting for AA0000 and Operations for ZZ9999).

Note: Once you define a Lookup Table, you are **not restricted** to the ORD type from which the table was invoked. However, the return value (the number of characters) and From and To range length **must** be consistent. There is **no limit** on the number of Lookup Table entries you can create.

The following is a sample Accounting Sources Lookup panel. The protected display fields, preceded by colons (:), display information you entered on the Accounting Sources Entry panel. A description of the Accounting Sources Lookup panel is provided on the next page.

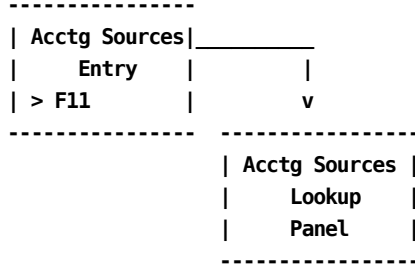
```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--            +-+ CBASRCU ----- Accounting Sources Lookup -----+
                Panel Exit Help
                -----
                Type information. Then select an action.
                Version . . . :                Acct Version : PROD
                Lookup table : DIVTAB
                Cmd From range          More: - + ____ Row 0000 of 0000
                -----                To range          Return value
                -----                -----
                -----                -----
                -----                -----
                -----                -----
                F5=Save  F6=Delete  F7=Bkwd  F8=Fwd
                -----+-----
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Note: The first time the Accounting Sources Lookup panel appears, you are in **insert** mode; no lines appear under the Cmd column, the scroll bar does not show a row count, and the only active panel function keys are F2, F5, and F11. When you press **F5** (Save), you receive a message telling you the **insert** is successful. At this point, you are in **update** mode. The panel scroll bar provides a row count, the Cmd column is active (lines appear under the column) and **all** panel function keys are active. Pressing F5 (Save) displays a message telling you the **update** is successful.

Access

The Accounting Sources Lookup Table panel appears when you press **F11** (Lookup) on the Accounting Sources Entry panel.



Input

The following Accounting Sources Lookup panel fields are available for input:

Cmd

This column is used to specify commands. Valid commands include:

D Deletes individual rows from the table.

I Inserts row(s) into the table using the Accounting Sources Insert (CBASRCI) pop-up window. Refer to :spotref refid=ins. for information on how to use the Insert window.

From range

Enter the starting value that defines an accounting entity for the structure named in the Structure display field at the top of the Accounting Sources Entry panel. Examples are provided on the next page.

Note that you can use the SQL wildcard % in the From range. If you do so, the To range **must** be blank.

Example:

To check for the occurrence of the value **A** in the third position of a string, specify: %%A%. Because the **first** match is used, you should order your entries with wildcards first, followed by explicit (full) values in the From range. If a record does not match any of the entries, then the **last** item defined in the Lookup Table is used.

To range

Enter the ending value to complete the range defining the entity. Examples are provided on the next page.

Return value

Enter the name (up to 16 alphanumeric characters) you want **stored** in the database. This name is also available for display when doing queries and printing invoices; it cannot be greater than the accounting structure length.

Caution: If CA JARS/OLF encounters a record that has **not** been defined in the Lookup Table, it defaults to the **last** entry's return value.

Note: The sequence of your entries is important **only** if you have overlapping sources. In the event of overlapping ranges, CA JARS/OLF stops its search at the first match.

Example:

If you specify:

From range	To range	Return value
AA0001	AZ0001	New York
AB9999	AC0001	New Jersey

You would never see a return value of New Jersey, since the search stops when it encounters the first true condition.

Tip

Try adding % as the last entry and assign it a value of *other* or *undefined*.

From range	To range	Return value
%		Other

Scrolling

F7 and F8 let you scroll backward and forward through the Structure selection list. You can also use the scroll bar, [Sample List Panel](#) (see page 46), to move through the list.

Actions**F5=Save**

Saves any data you entered.

F6=Delete

Deletes the entire Lookup Table. To delete an entry, type D on that entry and press enter.

Example 1: Defining Entities for a Division

Using the Accounting Sources Lookup panel below, we are defining four distinct entities for MBJ ORD Types within a structure called Division. In Example 2 in [Example 2: Defining Accounting Sources Using a Lookup Table](#) (see page 85), we indicated that our accounting sources were:

ORD Field Name	St	Length
MBJ-JOBNAME	01	04
MBJ-ACCTCODE	01	08
MBJ-USER-INFO	01	04

Therefore, our entries look like those shown on the panel below.

```

-----
▼A B C D 1 2 3 4 1 2 3 8 X Y Z 1▼
|-----|-----|-----
|1 2 3 4|1 2 3 4 5 6 7 8|1 2 3 4|
-JOBNAME|----ACCTCODE---|-USER---
                               INFO
    
```

USERID	CA JARS/OLF	MM/DD/YY HH:MM:SS
Acctdefs Cbdefs Query Data Period Options Exit Help		
+-- CBASRCU ----- Accounting Sources Lookup -----+		
Panel Exit Help		

Type information. Then select an action.		
Version . . . : Acct Version : PROD		
Lookup table : DIVTAB		
More: - + _____ Row 0001 of 0004		
Cmd From range To range Return value		
ABCD12345678XYZ1	CDEF12345678XYZ1	GARDEN CITY_____
DBCD12345678XYZ1	EDEF12345678XYZ1	DALLAS_____
GBCD12345678XYZ1	IDEF12345678XYZ1	PRINCETON_____
JBCD12345678XYZ1	PDEF12345678XYZ1	RESTON_____

F5=Save F6=Delete F7=Bkwd F8=Fwd		
+-----+		
Command ==> _____		
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp		

Example 2: Defining Entities for a Department

Using the Accounting Sources Lookup panel below, we are defining six distinct entities for MBJ ORD Type within a structure called Department. Our Accounting Sources are:

ORD Field Name St Length

MBJ-JOBNAME 02 02

MBJ-ACCTCODE 04 04

DEPARTMENT Structure Length = 16

Therefore, our entries look like this: AA9999, where AA is the JOBNAME and 9999 represents the ACCTCODE value.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBASRCU ----- Accounting Sources Lookup -----+
   Panel  Exit  Help
-----+-----
   Type information. Then select an action.
   Version . . . :                      Acct Version : PROD
   Lookup table  : DEPTAB
   Cmd From range      More: - + ____  Row 0001 of 0005
   To range            Return value
   - AA0001_____  AA0010_____  DEVELOPMENT_____
   - AB0001_____  AB0020_____  QA_____
   - AC0001_____  AC0005_____  SUPPORT_____
   - BB0004_____  BB0009_____  ACCOUNTS PAYABLE
   - BB0100_____  BB0300_____  RECEIPTS_____
   F5=Save  F6=Delete  F7=Bkwd  F8=Fwd
-----+-----
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

To enter the sixth range, you must press **F5** to save the entries; then, scroll the screen forward using **F8**. You then see the display presented on the next page.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBASRCU ----- Accounting Sources Lookup -----+
  Panel  Exit  Help
+-----+
  Type information. Then select an action.
  Version . . . :          Acct Version : PROD
  Lookup table  : DEPTAB
  Cmd From range      More: - + ____  Row 0006 of 0006
                        To range      Return value
  _ CC0000_____  DE0020_____  EASTERN SALES__
  - _____
  - _____
  - _____
  - _____
  F5=Save  F6=Delete  F7=Bkwd  F8=Fwd
+-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Note: If our DEPARTMENT structure length had been defined as having a length of 10 on the Accounting Structures panel and you entered a Return Value that exceeded 10 characters, you would receive a message telling you that the entity's Return Value **exceeds** the length of the structure. In this case, you must provide a new Return Value with a character count that is less than or equal to the structure's length.

Remember: The return value can **never** be greater than the structure length defined on the Accounting Structure panel.

Defining Accounting Periods

In order to maintain fixed periods across all ORD input records, an Accounting Period Table (PERTAB) is maintained to specify the End Date and Time for a given period. The PERTAB is used to determine the period to which a given detail record is allocated.

The contents of the protected display field Version, is determined by information you specify using the Options facility.

The following is a sample Accounting Periods entry panel.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--            +---+
Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+---+ CBAPERE - Accounting Periods -----+
      Panel  Exit  Help
      -----
      Type information and save.
      Version :
      More: - + ____ Row 0001 of 0005
      End      End
      Cmd  Period  MM/DD/YYYY  HH:MM
      -    001    01/31/1990    24:00
      -    002    02/28/1990    24:00
      -    003    03/31/1990    24:00
      -    004    04/30/1990    24:00
      -    005    05/30/1990    24:00
      F5=Save  F7=Bkwd  F8=Fwd
+-----+

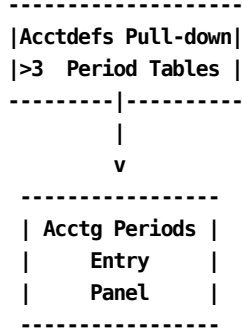
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
  
```

Note: The first time this panel appears, you are in **insert** mode; no lines appear under the Cmd column, the scroll bar does not show a row count, and the only active panel function key is F5. When you press **F5** (Save), a message appears telling you the **insert** is successful. At this point, you are in **update** mode. The panel scroll bar provides a row count, the Cmd column is active (lines appear under the column) and **all** panel function keys are active. Pressing F5 (Save) displays a message telling you the **update** is successful.

Access

The Accounting Periods panel appears when one of these events occurs:

- You type AP in the fast path area of the Primary Panel's action bar.
- You select Acctdefs on the Primary Panel's action bar and then choose Period Tables on the Acctdefs pull-down.



Input

The following Accounting Periods entry panel fields are available for input:

Cmd

Used to specify commands. The only valid command for this panel is:

D Deletes individual rows from the table.

Note: You **cannot** delete a period once it has been closed.

Period

Contains the period identifier, a number, that is a key to the CCCTAB table.

Note: For validation, there must be no overlap between periods, and the date/times **must** be in sequence. Also, a period cannot be changed if it is the *current* period or if it has passed. This ensures that the contents of the CCCTAB are accurate.

End MM/DD/YYYY

Contains the ending date of the specified period. Its format is mm/dd/yyyy. You cannot save this data unless you provide an End Time for each period.

End HH:MM

Contains the ending time for the specified period. You **must** provide an End Time: no default is provided.

Actions

F5=Save

Lets you add and update rows in the table.

F7=Bkwd

Lets you scroll backwards through the table.

F8=Fwd

Lets you scroll forward through the table.

For more information:

[Versions](#) (see page 379)

Chapter 4: Defining Charges

With CA JARS/OLF you can create both simple and complex charge algorithms to charge for resource consumption. CA JARS/OLF gives you total **flexibility** and **control** over this process. The Cbdefs options discussed in this chapter are invoked when you select **Cbdefs** from the CA JARS/OLF Primary Panel's action bar. The Cbdefs pull-down presents you with nine choices. Charge definition uses the following choices:

- 1
Charge Elements
- 2
Charge Units (U)
- 3
Qualifiers
- 4
Normalizers
- 5
Modifiers
- 6
Split Job Charges
- 7
Shift Chop (B)

While all of the Cbdefs choices are available to you, the following choices are **not** discussed in this chapter: Choices 8 and 9 are used in performing adjustments and are discussed in Chapter 6.

Note: When reviewing our examples, please keep in mind that there are many different ways in which you can proceed. We are showing you just a few of the possibilities.

On the next page is a summary of the choices that are available to you for defining your rate charges.

Cbdefs Pull-Down

USERID	CA	JARS/OLF	MM/DD/YY	HH:MM:SS
__	Acctdefs	Cbdefs	Query	Data
			Period	Options
			Exit	Help

CB Definitions		A
1. Charge Elements		<p>A 1-character field that allows you to make a selection using a mnemonic that can be either a number or the first letter of an action. Notice that when actions have duplicate first letters, you can use either the number or the letter provided in the parentheses.</p> <p>You can also make your selection by tabbing the cursor next to the action you want to perform and pressing Enter.</p>
2. Charge Units	(U)	
3. Qualifiers		
4. Normalizer		
5. Modifiers		
6. Split Job Charges		
7. Shift Chop	(B)	
8. Cost Recovery	(T)	
9. Overhead Distribution		

F12=Cancel		

Command ==> _____

F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp

The following choices are discussed in this chapter:

1. Charge Elements

Allow you to define the algorithms that are used to calculate your charges. This includes simple, complex, and normalized charge unit definitions, as well as simple and conditional rate definitions.

2. Charge Units

Allow you to define a user-defined charge unit that is a computed item.

3. Qualifiers

Provide you with a mechanism for qualifying charge units, normalizers, and modifiers.

4. Normalizers

Provide you with a mechanism for weighting the value of a charge unit.

5. Modifiers

Enable you to modify charges globally by adjusting charges via a user-defined percentage or applying a fixed surcharge or discount.

6. Split Job Charges

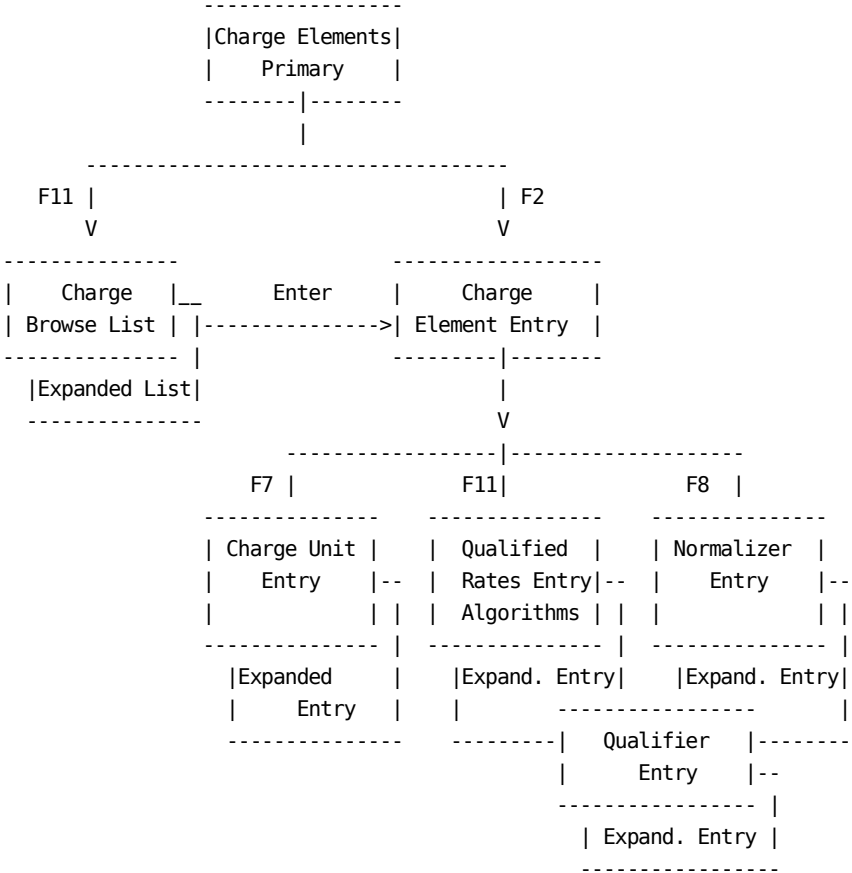
Give you the ability to split and distribute charges calculated for a specific accounting entity across multiple accounting entities.

7. Shift Chop

Provides you with the option of splitting ORD records that span user-defined shifts, ensuring equitable charging for long running tasks.

Defining Charge Elements

The Charge Element definition is the most complex of the Cbdefs functions. This is because it accesses many behind-the-scene tables for inserting, updating, and validating data. The processing flow is as follows:



It is helpful to keep the following points in mind:

- A Charge Element is always associated with a Charge Unit
- Charge Elements own algorithms
 - Qualifiers are then associated with an algorithm
 - A Normalizer is directly associated with the Charge Element, and its factor is applied to the **calculated units**

The following examples and sample panels help you understand these concepts.

The Chargeback Algorithm

The chargeback algorithms used by CA JARS/OLF are defined by Version and ORD Type, which are in turn defined by your Chargeback Administrator. An algorithm is a formula used to calculate a charge. Each algorithm is associated or *owned* by a charge element. All calculations start with the *charge unit* definition. In its simplest form, the chargeback algorithm is:

```
Charge          Charge
Unit * Rate = Element
|             |
|             | --User-defined field that holds the
|             | result of the calculation
|             |
|             | --Can be either simple or conditional
|             |
|             | --Can be simple or complex
```

where:

Charge Unit

Defines a chargeable resource. It can be any quantitative field. A charge unit can be:

- **Simple:** An existing ORD Element (field) contained within an ORD. That is, a numeric element from the incoming ORD record used in the chargeback algorithm. Any quantitative field in the incoming ORD record can be designated as a charge unit, and hence a chargeable resource.

- **Complex:** The calculated result of two or more existing elements (fields) defined within an ORD that is identified by a user-defined name and prefixed by @. Complex Units or an existing field and a constant are defined on the [Charge Units Entry Panel](#) (see page 117).

Charge units, both simple and complex, can also be **normalized**. That is, have a weighting factor applied that serves as a charge unit adjustment factor when a conditional test is applied that results in a true or false condition.

Normalization factors can be entered via the Charge Elements Entry Panel using F8 which takes you to the [Normalizer Entry panel](#) (see page 145), or by selecting the Normalizers option on the Cbdefs pull-down and following the pathway to the [Normalizer Entry panel](#) (see page 145). A normalizer's qualifiers are entered using the [Qualifier Entry panel](#) (see page 155).

Rate

A user-defined **charge** per unit. Rates can be:

- **Simple:** A constant (the default rate)
- **Conditional:** When different rates are applied to a unit based on its qualifier (a true or false condition based on the contents or range of a unit)

Charge Element

A user-defined element (chargeable resource) that holds the **result** of a chargeback algorithm (the charge). A charge element is always associated with a charge unit.

Calculation Logic

In the following section you see numerous examples of chargeback algorithms. However, it is critical that you understand the logic.

Note: As you can see from the examples below, you must present data to CA JARS/OLF using linear or left-to-right order. This is because CA JARS/OLF performs calculations in **the order they are presented**. That is:

- One row at a time
- From left to right
- From top to bottom

$$(2 * 3) + 6 / 6 - 1$$

Since CA JARS/OLF performs calculations in the order they are presented and does not permit the use of parenthetical expressions (they are implied), you must present the algorithm in the sequence you want the calculations performed:

More: - + ____ Row 0001 of 0003							
Cmd	ORD	Field/@Unit	Aop	Field/Constant	Aop		
-	2		*	3	+	Operation	Result
-	6		/	6	-	6 +	
-	1		-			6 + 1	7
						7 - 1	6

More: - + ____ Row 0001 of 0004							
Cmd	ORD	Field/@Unit	Aop	Field/Constant	Aop		
-	2		*	3	+	Operation	Result
-	6		-		/	6	12
-	6		-		-	12 / 6	2
-	1		-			2 - 1	1

Extended Charging Example

On the following pages we show you how to perform extended charging. We start with simple definitions and make them increasingly more complex. When you complete this chapter, you will know how to create a charge element with a normalized complex unit and conditional rate. A flow of this process is provided below. You may find it helpful to refer to it occasionally as we move through the different steps in the process. Remember, you can achieve the same results in many ways. We are only showing you one way.

```

-----
| Charge Element          |
|-----|
| Charge Element . CPU-CHARGE |
| Unit . . . . . @CPU-TIME |
| Minimum Charge . 0.50    |
|-----|-----
|
|-----|-----
|
|-----|-----
| Complex Unit          | | Qualified Rates      |
|-----|-----|-----|
| Unit . . . . . @CPU-TIME | | @SHIFT1 . . 0.055   |
| TCB-TIME * '.5' +   | | @SHIFT2 . . 0.040   |
| SRB-TIME * '.5'     | | @SHIFT3 . . 0.026   |
|-----|-----|-----|
|
|-----|-----|-----|
| Normalizers          | | Rate Qualifiers     | |-----| | | |
|---|---|---|---|---|---|---|---|
| Normalizer . . SYSTEM | | Qualifier . . . @SHIFT1 | | |
| @CPUIDA . . 100      | | | @SHIFT2 | | |
| @CPUIOB . . 530.8    | | START-TIME >= '0800' and | | @SHIFT3 |
| | | | | | | | |
|-----|-----|-----|-----|
|
|-----|-----|-----|-----|
| Normalizer Qualifiers |-----| | |
|---|---|---|---|
| Qualifier . . @CPUIDA | |
| | @CPUIDB | |
| CPU ID = 'A'         | |
| | | | |
|-----|-----|-----|
|-----|-----|

```

In this example we:

1. Create a charge element: CPU-CHARGE.
2. Define a complex charge unit: @CPU-TIME.
3. Name a normalizer (SYSTEM) and assign weighting factors.
4. Define qualifiers for the normalizer (SYSTEM). These qualifiers establish the tests that determine when and if the normalizer is applied.

For example, assume you have two CPUs with different processing speeds (CPUA and CPUB). You want to ensure that users' charges are equitable regardless of which CPU performs the work. All you need to do is apply a weighting factor that adjusts the charge unit calculation to allow for the difference in processing speed **before** rates are applied. The appropriate weighting factor (normalizer) is applied when the following qualifier tests are applied: If the CPU ID = A, multiply the unit by 1.000; if CPU ID = B, multiply the unit by 5.308.

5. Establish conditional (qualified) rates based on rate qualifiers. Conditional Rates mean that the actual charge rate is determined by a set of user-defined conditions. For example, the time of day a resource is used. These conditions are specified as qualifiers and are defined in the next step.
6. Define qualifiers that determine the rate used in calculating the charge element: CPU-CHARGE. The algorithm looks like this:

$$\begin{array}{ccccccc} \text{Complex} & & & & & & \text{(RESULT)} \\ \text{Unit} & * & \text{Normalizer} & * & \text{Condit'l Rate} & = & \text{Charge Element} \\ | & & | & & & & \\ \text{--Normalized Unit--} & & & & & & \end{array}$$

Data Entry Conventions

1. When specifying constants in qualifiers, they **must** be enclosed in single quotes. For example, priority '9' or START-TIME =< '0800'. Otherwise CA JARS/OLF treats them as ORD element names.
2. The following entries must be prefixed with the @ symbol:
 - A user-defined complex unit. For example, CPU-TIME must be entered as @CPU-TIME. This allows CA JARS/OLF to differentiate between user-defined charge unit names and charge unit names having a direct one-to-one relationship with ORDs available to CA JARS/OLF.
 - Qualifier names, such as SHIFT1, SHIFT2 must also have the @ prefix: @SHIFT1, @SHIFT2.

Charge Elements Panels

Charge Elements Primary Panel

You use this panel to specify a *charge element* or group of elements you want to define, browse or modify that are associated with an ORD Type. The panel below shows how to indicate you want to view all charge elements for ORD record type MBJ.

Note: Protected display field areas are preceded by a colon (:).

```

USERID                                CA JARS/OLF                                MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query Data  Period  Options  Exit  Help
+--- CBCELMP ----- Charge Elements -----+
|      Panel  Exit  Help                       |
|-----+-----+-----+-----+-----+
|      Type information. Then select an action.
|
|      Version . . . : PROD
|      ORD Type . . . : MBJ
|      Charge Element . %
|
|      F2=Create  F11=Browse
+-----+-----+-----+-----+

This panel associates an ORD record type, as defined by
the CA JARS/OLF DB Administrator, with charge elements

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

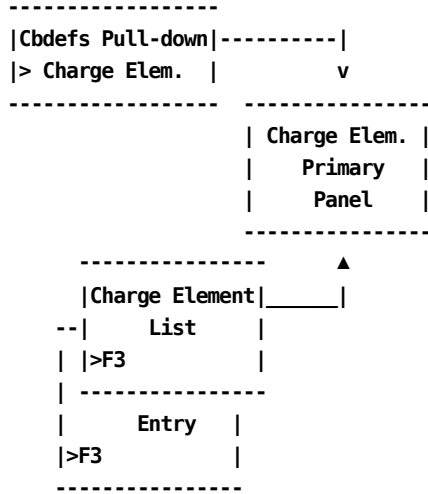
```

On the next page is a description of the Charge Elements primary panel.

Access

The Charge Elements primary panel appears when one of these events occurs:

- You type CC in the fast path area of the Primary Panel's action bar.
- You select Cbdefs from the action bar and then choose Charge Elements on the Cbdefs pull-down.
- You return from the Charge Elements List or Entry panel.



Input

The following Charge Elements primary panel fields are available for input:

ORD Type

The three-character name of the ORD Type for which you want to define a charge.

When using F11=Browse: if you do not know the ORD Type name, you can enter the SQL wildcard character %. This provides you with a list of all ORD Types meeting the Charge Element you specify in the next field. Or you can enter a % at both the ORD Type and Charge Element prompts and get a list of everything.

Charge Element

The name of the charge element (up to 16 alphanumeric characters) you want to create, view, or modify. When creating charge elements, try to give them meaningful or descriptive names.

Pathways

F2

(Create) takes you to the [Charge Elements Entry Panel](#) (see page 110). However, if the specified Charge Element already exists, receive a message telling you so. You can then press **F11** (Browse).

F11

(Browse) Takes you to the [Charge Elements List Panel](#) (see page 107). This panel gives you a list of all currently defined charge elements for the specified ORD Type.

Charge Elements List Panel

The Charge Elements List panel displays a list of all currently defined charge elements see **2** below meeting the criteria specified on the Charge Elements primary panel. The search criteria are redisplayed as protected display fields at the top of the panel (see **1** in the panel on the next page).

```

USERID                                CA JARS/OLF                                MM/DD/YY HH:MM:SS
--  Acctdefs Cbdefs Query Data Period Options Exit Help
+-- CBCELML ----- Charge Elements List -----+
|          Panel Exit Help
|-----+
| Select charge element name. Then Enter.
|
| Version . . . : PROD
| ORD Type . . . : MBJ                1
| Charge Element : %
|
|          More: - + ____ Row 0001 of 0003
| ORD Charge Element
|
| _ MBJ CPU-CHARGE
| _ MBJ DISK-CHARGE                2
| _ MBJ TAPE-CHARGE
|
|
| Enter F7=Bkwd F8=Fwd F11=Expand
+-----+

Command ==>
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp

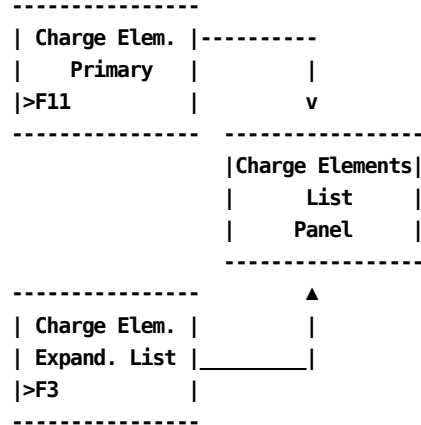
```

The following is a description of the Charge Elements List panel.

Access

The Charge Elements List panel appears when one of these events occurs:

- You press **F11** (Browse) on the [Charge Elements Primary Panel](#) (see page 105).
- You return from the Expanded Charge Elements List panel.



Scrolling

F7 and F8 let you scroll backward and forward through the Charge Element selection list. You can also use the scroll bar, [Sample List Panel](#) (see page 46) to move through the list.

Pathways

Enter

By placing the cursor next to the item you want to view and pressing **Enter**, you can go to the [Charge Elements Entry Panel](#) (see page 110) to examine and optionally update its contents.

F11

(Expand) Gives you an **expanded** (eight-line display) view of the Charge Elements List panel.

Expanded Charge Elements List Panel

The following panel appears when you press **F11** (Expand) on the [Charge Elements List Panel](#) (see page 107). The only difference between the two panels is the Version, ORD Type, and Charge Element protected fields are not displayed. This allows you to view more information on a single panel. The Expanded List panel functions in the same way as the List panel from which it was called.

```

USERID                                CA JARS/OLF                                MM/DD/YY HH:MM:SS
---  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCELMX ----- Charge Elements List -----+
      Panel  Exit  Help
+-----+
      Select charge element name. Then Enter.
      More: - + ____ Row 0001 of 0003
      ORD Charge Element
      _ MBJ CPU-CHARGE
      _ MBJ DISK-CHARGE
      _ MBJ TAPE-CHARGE
      _
      _
      _
      _
      Enter  F7=Bkwd  F8=Fwd
+-----+

Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

Charge Elements Entry Panel

The Charge Elements Entry panel is used to specify a **charge unit's** name and **default** rate. You can also assign maximum and minimum charges for the charge unit based on the calculated value of the charge element, as well as a normalizer.

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCELME ----- Charge Elements Entry -----+
|   Panel  Exit  Help                               |
|-----|
|   Type information. Then select an action.         |
|   Version . . . : PROD                             |
|   ORD Type . . . : MBJ                             |
|   Charge Element : TAPE-MOUNT-CHARGE               |
|   Charge Unit . . TAPE-MOUNT_____                |
|   Normalizer . . . _____                     |
|   Default Rate . . 1.00000_____                 |
|   Maximum Charge . _____                     |
|   Minimum Charge . _____                     |
|   F5=Save  F6=Delete  F7=Unit  F8=Norm  F11=Rate  |
+-----+

Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

If you enter a Normalizer name that is not defined and press **F5** (Save), you receive a message telling you to define the normalizer. You do this by pressing **F8** (Norm). After saving the normalizer definition, you are returned to this panel. At this point you can either, proceed with the entry of other information or press **F5** (Save).

Note:

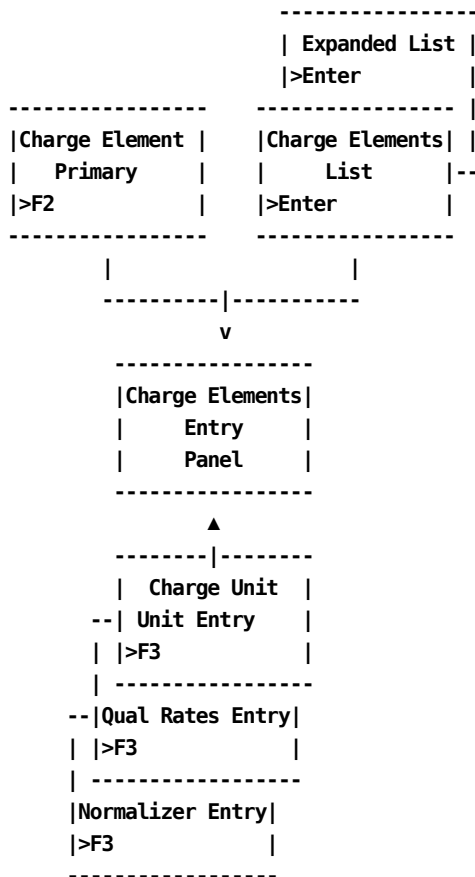
1. Charge, Rate and Unit precision is specified in the CAIKSPARparameter file.
2. Using *ONE* as the named charge unit allows you to charge a fixed rate for a resource, or create a surcharge. When performing zero-based accounting, it is critical that you create charge elements and assign a default rate of zero. Even though this results in a 0 charge, it ensures records are generated so that you can later adjust your charges. Remember, no CCCTAB records are generated unless you have defined charge elements.

The following is a description of the Charge Elements Entry panel.

Access

The Charge Elements Entry panel appears when one of these events occurs:

- You press **F2** (Create) on the Charge Elements primary panel.
- You make a selection on the Charge Elements List or Expanded List panel.
- You return from the Charge Elements List, Charge Units Entry, Normalizer, or Qualified Rate panels.



Input

The following Charge Elements Entry panel fields are available for input:

Charge Unit (Required)

The unit name (up to 16 alphanumeric characters) of a numeric field from the incoming ORD record used in the chargeback algorithm or a complex charge unit name. A charge unit can be **either** simple (field from ORD), or complex (@CPU-TIME: a combination of fields from an ORD). Both types can be normalized.

Note: If you supply a *complex* Charge Unit name that is not defined, you are not able to save the data. A message appears telling you this. You must now define the named complex Charge Unit by pressing (F7 Unit). After defining the complex Charge Unit, you are returned to the Charge Elements Entry panel. You can now successfully save the data.

Normalizer

The name (up to 16 characters) of a weighting factor you want applied to a charge unit. You define normalizers using the [Normalizer Entry panel](#) (see page 145).

Note: If you supply a normalizer name that is not defined, you are not able to save the data. A message appears telling you this. You must now define the named normalizer by pressing **F8** (Norm). After defining the normalizer, you are returned to the Charge Elements Entry panel. You can now successfully save the data.

Default Rate (Required)

Can be any numeric, including negative numbers, zero, or all 9s. The default is 0.

Notes:

- All 9s is a special condition. It tells CA JARS/OLF that **no record** should be generated unless a conditional rate (qualified rate) is applied. For instance, you may have three qualified rates set up for an element that has a default rate of all 9s. If any of the qualified rates are used, a charge record is created and written out to the CCCTAB file. If all of the qualified rates are found to be false, the default rate of all 9s causes no record to be written out to the CCCTAB file.
- The default rate can be used regardless of whether a rate is simple or conditional. However, if you are using conditional rates, you need to define them. You do this by pressing **F11** (Rate), this takes you to the [Qualified Rates Entry Panel](#) (see page 123).

Maximum Charge:

The maximum charge that can be assessed for the **charge element**. If the computed charge is greater than or equal to the maximum charge, the maximum charge is applied.

Minimum Charge:

The minimum charge that can be assessed for the **charge element**. If the computed charge is less than or equal to the minimum charge, the minimum charge is applied.

Actions**F5=Save**

Causes the contents of the panel to be saved to disk.

F6=Delete

Causes the record to be deleted.

F7=Unit

Takes you to the [Charge Units Entry Panel](#) (see page 117). This key is only functional when a complex charge unit has been named or defined.

F8=Norm

Takes you to the [Normalizer Entry Panel](#) (see page 145).

F11=Rate

Takes you to the [Qualified Rates Entry Panel](#) (see page 123).

At various points throughout the online system there will be a need to reference Output Record Definition (ORD) fields, and to know what format these fields are in. The most notable cases are when you are creating charge elements, complex units, and qualifiers. By pressing **PF4** while the cursor is on a field that may contain an ORD field name, the following choices panel is displayed:

USERID	Acctdefs	Cbdefs	Query	CA JARS/OLF Data	Period	Options	Exit	MM/DD/YY HH:MM:SS	Help	
CHOICES										
---	+	-----							+	
Ty		ELEMENT		FORMAT		LENGTH		PREC		
---	+	-----							+	
Ve		*ONE*								
OR		@TEST-LIST								
Ch		ABSORPTION RATE		N		04		00		
		ACTIVE TIME		R		08		05		
Ch		ADJUSTED RATE		N		06		02		
No		ALLOC DELAY TIME		R		08		05		
De		CARDS PUNCHED		N		06		00		
Ma		CARDS READ		N		06		00		
Mi		CONNECT CHARGE		N		05		02		
		CONNECT TIME		R		08		05		
		CORE ALLOCATED		N		04		00		
F		CORE USED		N		04		00		
+	---	CPU INDEX		N		02		00		
	+	-----								
Command ==>										
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp										

For all entries that have been retrieved from the ORD table the FORMAT, LENGTH, and PREC fields are filled in.

Example 1: Creating a Simple Charge Algorithm

The following panel shows how to define a simple charge algorithm called DISK-IO-CHARGE using the basic chargeback algorithm:

```

Simple   Simple Charge
Unit    * Rate = Element

DISK-IO * .50 = DISK-IO-CHARGE
1       2     3
    
```

Simple Charge Format

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--             +---+ CBCELME ----- Charge Elements Entry -----+
              | Panel Exit Help |
              |-----|
              | Type information. Then select an action. |
              |-----|
              | Version . . . : PROD |
              | ORD Type . . . : MBJ |
              | Charge Element : DISK-IO-CHARGE__ 3 |
              |-----|
              | Charge Unit . . DISK-IO__ 1____ |
              | Normalizer . . . : _____ |
              | Default Rate . . .50000_____ 2 |
              | Maximum Charge . : _____ |
              | Minimum Charge . : _____ |
              |-----|
              | F5=Save F6=Delete F7=Unit F8=Norm F11=Rate |
              +-----+

Command ==> _____
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp

```

As you can see from the panel above, we created a Charge Element named DISK-IO-CHARGE. The DISK-IO-CHARGE is calculated by multiplying the value of the charge unit, DISK-IO by the default rate, .50.

Example 2: Defining a Normalized Complex Charge Unit with a Conditional Rate

Now, return to our Extended Charging Example. The algorithm is:

```

Charge Unit   Normalizer           Charge Element
@CPU-TIME *  SYSTEM *  Condit'l Rate = CPU-CHARGE

```

Based on the algorithm, we start the CPU-CHARGE charge element definition following a path from the Charge Elements primary panel to the Charge Elements Entry panel, shown below.

```
USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--            +---+ CBCELME ----- Charge Elements Entry -----+
              | Panel Exit Help |
              |-----|
              | Type information. Then select an action. |
              |-----|
              | Version . . . : PROD |
              | ORD Type . . . : MBJ   2 |
              | Charge Element : CPU-CHARGE___ 1___ |
              |-----|
              | Charge Unit . . @CPU-TIME___ 3___ |
              | Normalizer . . . SYSTEM_____ 4___ |
              | Default Rate . . .4000_____ 5 |
              | Maximum Charge . 5000.00000_____ |
              | Minimum Charge . __100.00000_____ 6 |
              |-----|
              | F5=Save F6=Delete F7=Unit F8=Norm F11=Rate |
              +-----+

Command ==> _____
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp
```

Thus far, we have:

- Started the definition of a charge element called CPU-CHARGE 1 that is associated with an ORD called MBJ 2,
- Provided a user-defined complex charge unit name: @CPU-TIME 3, which must be defined
- Provided a user-defined normalizer name: SYSTEM 4 which must be defined
- Defined a default rate for our charge element: CPU-CHARGE 5 element 6
- Provided minimum and maximum charge values for the charge

We must now:

- Define @CPU-TIME (complex unit)
- Specify the normalizer weight or factor
- Provide normalizer qualifiers
- Define the conditional rates

We now proceed to the [Charge Units Entry Panel](#) (see page 117) to define our complex unit: @CPU-TIME.

Note: Remember, you have the option of performing any of the following actions in the order you want. Upon completion of any of these actions, you are returned to the Charge Elements Entry panel.

F7

Takes you to the [Charge Units Entry Panel](#) (see page 117).

F8

Takes you to the [Normalizer Entry Panel](#) (see page 145).

F11

Takes you to the [Qualified Rates Entry Panel](#) (see page 123).

Charge Units Entry Panel

You only select this panel, using F7 on the Charge Elements Entry panel, when you are defining a **complex** charge unit. A complex charge unit is a user-defined entity (indicated by the @ prefix) that is a computed item. The algorithm for @CPU-TIME is shown below **2**. This panel is used to validate the Charge Unit name on the Charge Elements Entry panel shown as a protected display field, (see **1** below).

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCELMU ----- Charge Units Entry -----+
|  Panel  Exit  Help  |
|-----|
|  Type information. Then select an action.  |
|  Version . . . : PROD                      |
|  ORD Type . . . : MBJ                      1  |
|  Charge Unit : @CPU-TIME                   |
|-----|
|  More: - + _____ Row 0000 of 0000    |
|  Cmd  ORD Field/@Unit  Aop  Field/Constant  Aop  |
|  SRB-TIME_____ *  '.5'_____ +         |
|  TCB-TIME_____ *  '.5'_____ 2_____ -         |
|  _____ - _____ -                 |
|  _____ - _____ -                 |
|-----|
|  F2=Xref F5=Save F6=Delete F7=Bkwd F8=Fwd F11=Expand  |
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

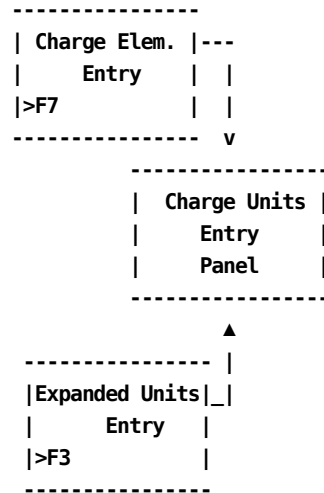
Note: The first time this panel appears, you are in **insert** mode; no lines appear under the Cmd column, the scroll bar does not show a row count, and the only active panel function keys are F2, F5, and F11. When you press F5 (Save), a message appears telling you the **insert** is successful. At this point, you are in **update** mode. The panel scroll bar provides a row count, the Cmd column is active (lines appear under the column) and **all** panel function keys are active. Pressing **F5** (Save) displays a message telling you the **update** is successful.

On the next page is a description of the Charge Units Entry panel.

Access

The Charge Units Entry panel appears when one of these events occurs:

- You press **F2** (Create) on the [Charge Units Primary Panel](#) (see page 131).
- You press **F7** (Unit) on the [Charge Elements Entry Panel](#) (see page 110).
- You return from the Expanded Units Entry panel.



Scrolling

F7 and F8 let you scroll backward and forward through the charge unit entries. You can also use the scroll bar, [Sample List Panel](#) (see page 46) to move through the charge unit entries.

Input

The Charge Units Entry panel contains the following input fields:

Cmd

Use this column to specify commands. Valid commands include:

D Deletes lines from the calculation.

I Inserts lines into the calculation using the Unit Insert (CBCUNII) pop-up window. Refer to [Sample Entry Panel](#) (see page 52) for information on how to use the Insert window.

ORD Field/@Unit

Can refer to either a valid field defined in the ORD or another user-defined charge unit (indicated by the @ prefix) applying to the same ORD. Thus, complex calculations can be performed in an hierarchical manner.

Caution: Sequencing of items is critical.

Aop

(Arithmetic operator): + (addition), - (subtraction), * (multiplication), / (division).

Field/Constant

List any constants or ORD fields used in the definition of a complex charge unit.

Note: When specifying constants, they **must** be enclosed in single quotes.

Example:

'5' as shown on the panel on the preceding page.

Aop

(Arithmetic operator) a **link** used to continue the calculation: + (addition), - (subtraction), * (multiplication), / (division).

Actions

F2=Xref

Gives you a cross-referenced listing of other complex units that reference this complex unit.

F5=Save

Lets you add and update rows in the Charge Units table.

F6=Delete

Lets you delete all entries from the Charge Units table.

F7=Bkwd

Lets you scroll backward through the table.

F8=Fwd

Lets you scroll forward through the table.

F11=Expand

Presents you with an eight-line display of the Charge Units Entry panel.

Expanded Units Entry Panel

The following panel appears when you press F11 (Expand) on the Charge Units Entry panel. The only difference between the Charge Unit Entry and Expanded Entry panels is the Version, ORD Type, and Charge Unit protected fields are not displayed. This allows you to view more information on a single panel. The Expanded Entry panel functions in the same way as the Entry panel from which it was called.

```

USERID                               CA JARS/OLF                               MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCELMV ----- Expanded Units Entry -----+
|  Panel  Exit  Help  |
|-----|
|  Type information. Then select an action.  |
|                                     |
|                                     More: - + ____ Row 0001 of 0002 |
| Cmd  ORD Field/@Unit  Aop  Field/Constant  Aop  |
| -   SRB-TIME_____ *  '.5'_____ +  |
| -   TCB-TIME_____ *  '.5'_____ -  |
| _____ - _____ -  |
| _____ - _____ -  |
| _____ - _____ -  |
| _____ - _____ -  |
|_____ - _____ -  |
| F2=Xref  F5=Save  F6=Delete  F7=Bkwd  F8=Fwd  |
+-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```


Examples: Defining a Complex Charge Unit

Using the Extended Charging Example and the [Charge Elements Entry Panel](#) (see page 110).

Thus far, we have:

- **named:**
 - A charge element
 - A complex charge unit
 - A normalizer
- **provided**
 - A default rate
 - Minimum and maximum charge values

We must now:

- Define @CPU-TIME (complex unit)
- Define the conditional rates
- Define a normalizer
- Define qualifiers

The following examples show you how to define a Complex Unit.

Example 1: Defining a Complex Unit without a Constant

In our Extended Charge Example, we use a user-defined complex charge unit: @CPU-TIME.

Complex Charge Unit	Normalizer	Charge Element
@CPU-TIME	* System	* Condit'l Rate = CPU-CHARGE

@CPU-TIME is composed of the calculated result of two fields defined within an ORD: SRB-TIME + TCB-TIME. The following example shows you how to define a complex charge unit without a constant.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--            Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCELMU ----- Charge Units Entry -----+
|   Panel  Exit  Help  |
|-----|
|   Type information. Then select an action.   |
|   Version . . . : PROD                       |
|   ORD Type . . . : MBJ                       |
|   Charge Unit : @CPU-TIME                     |
|                                               |
|           More: - + ____ Row 0000 of 0000   |
|   Cmd  ORD Field/@Unit  Aop Field/Constant  Aop  |
|   SRB-TIME_____ + TCB-TIME_____ -         |
|   _____ - _____ -                 |
|   _____ - _____ -                 |
|   _____ - _____ -                 |
|   F2=Xref F5=Save F6=Delete F7=Bkwd F8=Fwd F11=Expand |
+-----+
Command ==> _____
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp
    
```

Example 2: Defining a Complex Unit with a Constant

This example shows the definition of a complex charge unit named @IO-COUNT. It is composed of DISK-IO, TAPE-IO, and OTHER-IO. The rate is per 1000 EXCPs.

Note: AOP and Field/Constant columns are not blank, but contain an arithmetic operator and a numeric constant.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCELMU ----- Charge Units Entry -----+
|   Panel  Exit  Help  |
|-----|
|   Type information. Then select an action.   |
|   Version . . . : PROD                       |
|   ORD Type . . . : MBJ                       |
|   Charge Unit : @IO-COUNT                     |
|   More: - + _____ Row 0000 of 0000     |
|   Cmd  ORD Field/@Unit  Aop  Field/Constant  Aop  |
|   DISK-IO _____ *  '.10' _____ +   |
|   TAPE-IO _____ *  '.15' _____ +   |
|   OTHER-IO _____ *  '.22' _____ /   |
|   _____ - '1000' _____ -         |
|   F2=Xref F5=Save F6=Delete F7=Bkwd F8=Fwd F11=Expand |
+-----+
Command ==> _____
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp

```

Note: When specifying constants, they **must** be enclosed in single quotes, or CA JARS/OLF assumes the constant is an ORD element name.

Example:

'.5' as shown on the panel in "[Charge Units Entry Panel](#) (see page 117)".

Qualified Rates Entry Panel

The Qualified Rates entry panel is used to associate different rates with an algorithm based on certain criteria. In the panel below, we are qualifying the rates used in the CPU-CHARGE charge element based on **shift**. The protected fields at the top of the panel **1** below indicate we are defining rates for the CPU-CHARGE charge element for MBJ ORDs. We use the lower part of the panel **2** below to name the rate qualifier and its associated rate - the rate that is applied when the qualifying condition is **true**.

Note: Qualifiers are tested one at a time. CA JARS/OLF assigns the rate associated with the first qualifier that is **true**. Therefore, the order in which you define qualifiers is important.

If none of the qualifying conditions are met, the **default** rate specified on the [Charge Elements Entry Panel](#) (see page 110) is used.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--            +---+ CBCELMR ----- Qualified Rates -----+
                Panel Exit Help
                -----
                Type information. Then select an action.
                Version . . . : PROD
                ORD Type . . . : MBJ
                Charge Element : CPU-CHARGE
                More: - + ____ Row 0001 of 0003
                Cmd Qualifier          Rate
                - @SHIFT1             200.00000
                - @SHIFT2             150.00000
                - @SHIFT3             100.00000
                -----
                F2=Qual  F5=Save  F6=Delete  F7=Bkwd  F8=Fwd  F11=Expand
                -----
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Note: The first time this panel appears, you are in **insert** mode; no lines appear under the Cmd column, the scroll bar does not show a row count, and the only active panel function keys are F2, F5, and F11. When you press **F5** (Save), a message appears telling you the **insert** is successful. At this point, you are in **update** mode. The panel scroll bar provides a row count, the Cmd column is active (lines appear under the column) and **all** panel function keys are active. Pressing **F5** (Save) displays a message telling you the **update** is successful.

On the next page is a description of the Qualified Rates entry panel.

Access

The Qualified Rates Entry panel appears when one of these events occurs:

- You press **F11** (Rate) on the [Charge Elements Entry Panel](#) (see page 110).
- You return from the Expanded Qualified Rates Entry panel.

```

-----
| Charge Elem. | _____
|   Entry     |         |
|>F8         |         | v
-----
                    |Qualified Rates|
                    |   Entry   |
                    |   Panel   |
                    -----
                      ^
                      |
-----
|Expand. Qualif|--
| Rates Entry  |
|>F3         |
-----

```

Scrolling

F7 and F8 let you scroll backward and forward through the list of qualifiers and rates. You can also use the scroll bar, as explained on [Sample List Panel](#) (see page 46), to move through the listed normalizers.

Input

The Qualified Rates Entry panel contains the following input fields:

Cmd

This column is used to specify commands. Valid commands include:

D Deletes lines from the qualification.

I Inserts lines into the qualification using the Qualified Rate Insert (CBCQLRI) pop-up window. Refer to [Sample Entry Panel](#) (see page 52) for information on how to use the Insert window.

Qualifier

A user-defined name that provides the test to determine if a conditional rate is applied. The ORD elements that comprise the Qualifier name are defined using the [Qualifier Entry Panel](#) (see page 155).

Rate

The actual amount to be used if the condition is met.

Actions

F2=Qual

Takes you to the [Qualifier Entry Panel](#) (see page 155).

F5= Save

Let you save add and update information.

F6= Delete

Lets you delete rows from the table.

F7=Bkwd

Lets you scroll backwards through the table.

F8=Fwd

Lets you scroll forward through the table.

F11=Expand

Presents you with an eight-line display of the Qualified Rates Entry panel.

To continue with the Extended Charging Example, we would press **F2** (QUAL) so that we can define our rate qualifiers. This action takes us to the [Qualifier Entry Panel](#) (see page 155).

Expanded Qualified Rates Entry Panel

The following panel appears when you press **F11** (Expand) on the Qualified Rates Entry panel. The only difference between the Qualified Rates and Expanded Entry panels is the Version, ORD Type, and Charge Unit protected fields are not displayed. This allows you to view more information on a single panel. The Expanded Entry panel functions in the same way as the Entry panel from which it was called.

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCELMs ----- Expanded Qualified Rates Entry-----+
      Panel  Exit  Help
-----+-----
      Type information. Then select an action.
      More: - + ____ Row 0000 of 0000
      Cmd  Qualifier                Rate
      -   @SHIFT1_____  200.00000
      -   @SHIFT2_____  150.00000
      -   @SHIFT3_____  100.00000
      -   _____
      -   _____
      -   _____
      -   _____
      -   _____
      F2=Qual  F5=Save  F6=Delete  F7=Bkwd  F8=Fwd  F11=Expand
-----+-----
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

Examples: Defining Conditional Rates

Using the Extended Charging Example:

Thus far, we have:

- **named:**
 - A charge element
 - A complex charge unit
 - A normalizer
- **provided**
 - A default rate
 - Minimum and maximum charge values
- **defined**
 - A complex unit

We must now:

- Define the conditional rates
- Define qualifiers
- Define a normalizer

The examples in [Example 1: Defining Conditional Rates by Qualifier](#) (see page 128) and [Example 2: Defining Conditional Rates by Qualifier](#) (see page 129) show you how to define your conditional (qualified) rates.

Example 1: Defining Conditional Rates by Qualifier

In our Extended Charge Example, we want a specific rate used in the algorithm when a given condition is found to be true. A qualifier, **shift**, is used to determine which rate is applied.

```

Complex
Charge
Unit          Normalizer      -----      Charge Element
CPU-TIME *    SYSTEM *    |Condit'l Rate| = CPU-CHARGE
-----
    
```

To define the conditional rates, list the qualifier name and the associated rate for each qualifier you want tested, as shown on the panel below.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--            +---+
Acctdefs Cbdefs Query Data Period Options Exit Help
+--- CBCELMR ----- Qualified Rates -----+
|
| Panel Exit Help
|-----|
| Type information. Then select an action.
|
| Version . . . : PROD
| ORD Type . . . : MBJ
| Charge Element : CPU-CHARGE
|
| More: - + ____ Row 0001 of 0003
| Cmd Qualifier          Rate
| - @SHIFT1_____ 200.00000_____
| - @SHIFT2_____ 150.00000_____
| - @SHIFT3_____ 100.00000_____
| - _____
|
| F2=Qual F5=Save F6=Delete F7=Bkwd F8=Fwd F11=Expand
|-----+
Command ==> _____
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp
    
```

When a qualifying condition is met, the appropriate rate is applied.

Example:

If the MBJ ORD record meets the @SHIFT1 qualification, then the rate charged is 200 per unit. If the record does not meet the SHIFT1 qualification, then the @SHIFT2 qualification is tested, and so on. If none of the qualifiers' conditions are met, the **default** rate specified on the [Charge Elements Entry Panel](#) (see page 110) is used.

Example 2: Defining Conditional Rates by Qualifier

In this example, we are extending the algorithm we used in Example 1 (on the previous page) to include a 50% discount for CPU weekend usage. As in the previous example, we must list each qualifier and its associated rate for each shift which now includes weekend rates for each shift. The **W** stands for weekend.

Note: You must scroll the panel to see the rate for @SHIFT2 which is 150.00000 and @SHIFT3 which is 100.00000.

When a qualifying condition is met, the appropriate rate is applied.

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCELMR ----- Qualified Rates -----+
|   Panel  Exit  Help
|-----+
|   Type information. Then select an action.
|
|   Version . . . : PROD
|   ORD Type . . . : MBJ
|   Charge Element : CPU-CHARGE
|
|   More: - + ____ Row 0001 of 0006
|   Cmd  Qualifier          Rate
|   --  - - - - - - - - - - - - - - -
|   -   @SHIFT1W           100.0000
|   -   @SHIFT2W           75.00000
|   -   @SHIFT3W           50.00000
|   -   @SHIFT1           200.00000
|
|   F2=Qual  F5=Save  F6=Delete  F7=Bkwd  F8=Fwd  F11=Expand
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

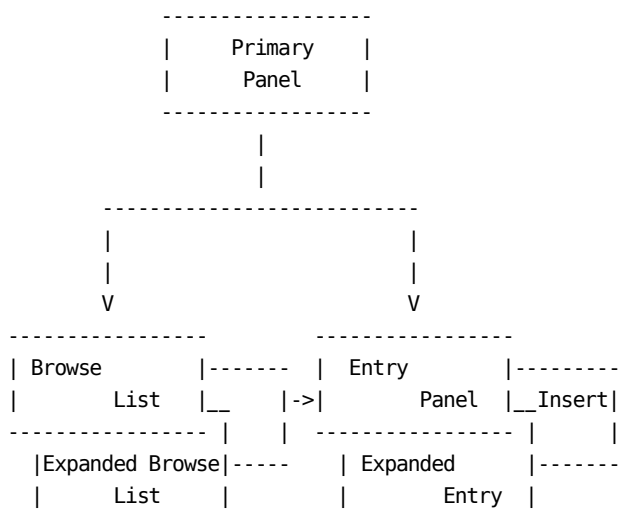
Using the panel above, if the MBJ ORD record meets the @SHIFT1W qualification, then the rate charged is 100 per unit. If the record does not meet the @SHIFT1W qualification, then the @SHIFT2W qualification is tested. The testing continues through @SHIFT3 until a true condition is encountered. However, if none of the qualifiers' conditions are met, the **default** rate specified on the Charge Elements Entry panel is used.

Defining Charge Units, Normalizers, & Qualifiers Directly

You have seen the usage of Charge Units, Normalizers, and Qualifiers as a part of the Charge Element definition. There is a need, especially during the initial implementation of the system, for direct entry of Charge Units, Normalizers, and Qualifiers **external** to the Charge Element definition.

Unit, Normalizer, and Qualifier definition functions allow this to happen, by enabling you to directly enter Units, Normalizers, and Qualifiers without regard for their use in Charge Elements. In the case of Qualifiers, you do **not** provide a Charge Element name on the [Qualifiers primary panel](#) (see page 155).

The screen logic follows that of a Primary panel, followed by List, Expanded List, Entry, Expanded Entry panels.



Charge Units Panels

The Charge Units panel set allows you to create or define complex charge units directly. That is, without using the Charge Elements option.

The following panels make up the Charge Units panel set:

- Charge Units primary panel
- Charge Units List panel
- Expanded Charge Units List panel
- Charge Units Entry panel
- Charge Units Entry Insert panel
- Expanded Charge Units Entry panel

Note: Protected display field areas are preceded by a colon (:).

Charge Units Primary Panel

The Charge Units Primary panel is used for creating, examining or modifying Charge Units.

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--  CBCUNIP  -----  Charge Units  -----+
|                                     |
|   Panel  Exit  Help                 |
|                                     |
|-----|
|   Type information. Then select an action.
|
|   Version . . . : PROD
|   ORD Type . . . : ___
|   Charge Unit . . : _____
|
|   F2=Create  F11=Browse
|-----+

```

This panel associates an ORD record type, as defined by
the CA JARS/OLF Administrator, with Charge Units

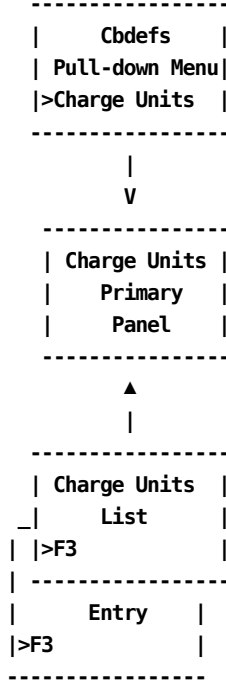
Command ==> _____
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp

On the next page is a description of the Charge Units primary panel.

Access

The Charge Units primary panel appears when one of these events occurs:

- You type CU in the fast path area of the Primary Panel's action bar.
- You select Cbdefs on the action bar and then choose Charge Units on the Cbdefs pull-down.
- You return from the Charge Units List or Entry panel.



Input

The Charge Units primary panel contains the following input fields:

ORD Type

The three-character name of the output record identifier for which you want to define, view or modify a charge unit.

When using F11=Browse: if you do not know the ORD Type name, enter the SQL wildcard character %. This provides you with a list of all ORD Types meeting the qualifier you specify in the next field. By entering a % at both the ORD Type and Charge Unit input fields you can get a list of all defined ORDs and Qualifiers.

Charge Unit

The name of a complex charge unit for which you want to bill. A Charge Unit can be up to 16 alphanumeric characters in length and must be preceded by the @ symbol.

Pathways**F2**

(Create) Takes you to the [Charge Units Entry Panel](#) (see page 136).

F11

(Browse) Takes you to the [Charge Units List Panel](#) (see page 133).

Charge Units List Panel

The Charge Units List panel displays a list of all currently defined charge units meeting the criteria specified on the Charge Units primary panel. The search criteria are redisplayed as protected fields (see **1** below). The following panel shows all Charge Units, currently defined for ORD type MBJ (see **2** below).

USERID	CA JARS/OLF					MM/DD/YY HH:MM:		
SS	Acctdefs	Cbdefs	Query	Data	Period	Options	Exit	Help
---	+-- CBCUNIL ----- Charge Units List -----+							
	Panel Exit Help							

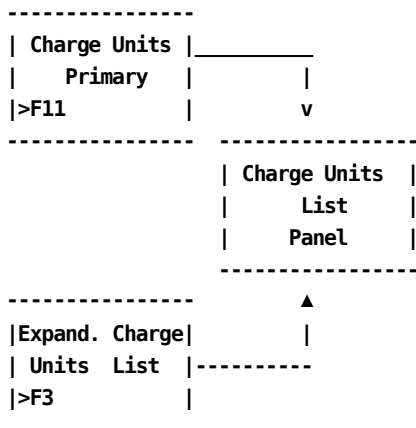
	Select charge unit name. Then Enter.							
	Version . . . : PROD							
	ORD Type . . . : MBJ							1
	Charge Unit : %							
	More: - + ____ Row 0001 of 0004							
	ORD	Charge Unit						
-	MBJ	@CPUIDA						
-	MBJ	@CPUIDB						2
-	MBJ	@DISK-CHARGE						
-	MBJ	@IO-COUNT						
	Enter F7=Bkwd F8=Fwd F11=Expand							
	+-----							
Command ==> _____								
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp								

The following is a description of the Charge Units List panel.

Access

The Charge Units List panel appears when one of these events occurs:

- You press **F11** (Browse) on the [Charge Units Primary Panel](#) (see page 131).
- You return from the Expanded Charge Units List panel.



Scrolling

F7 and F8 let you scroll backward and forward through the Charge Units selection list, or use the scroll bar as [Sample List Panel](#) (see page 46).

Pathways

Enter

By placing the cursor next to the required item, and pressing Enter, a selection is made.

F11

(Expand) Gives you an **expanded** (eight-line display) view of the Charge Units List panel.

Expanded Charge Units List Panel

The following panel appears when you press **F11** (Expand) on the [Charge Units List Panel](#) (see page 133). The only difference between the two panels is the Version, ORD Type, and Charge Units protected fields are not displayed. This allows you to view more information on a single panel. The Expanded List panel functions in the same way as the list panel from which it was called.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCUNIX ----- Expanded Units List -----+
      Panel  Exit  Help
      -----
      Select charge unit name. Then Enter.
      More: - + ____ Row 0001 of 0004
      ORD Charge Unit
      - MBJ @CPUIDA
      - MBJ @CPUIDB
      - MBJ @DISK-CHARGE
      - MBJ @IO-COUNT
      -
      -
      -
      Enter  F7=Bkwd  F8=Fwd
+-----+

Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

Charge Units Entry Panel

You only select this panel, when you are defining a **complex** charge unit. A complex charge unit is a user-defined entity (indicated by the @ prefix) that is a computed item. The algorithm for @CPU-TIME is shown below **1**.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCUNIE ----- Charge Units Entry -----+
|   Panel  Exit  Help  |
|-----|
| Type information and save. Then select an action. |
| Version . . . : PROD |
| ORD Type . . . : MBS |
| Charge Unit : @CPU-TIME |
|-----|
| More: - + _____ Row 0000 of 0000 |
| Cmd  ORD Field/@Unit  Aop  Field/Constant  Aop |
| SRB-TIME_____ * '.5'_____ + |
| TCB-TIME_____ * '.5'_____ 1_____ - |
| _____ - _____ - |
| _____ - _____ - |
| F2=Xref F5=Save F6=Delete F7=Bkwd F8=Fwd F11=Expand |
+-----+

Command ==> _____
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp
    
```

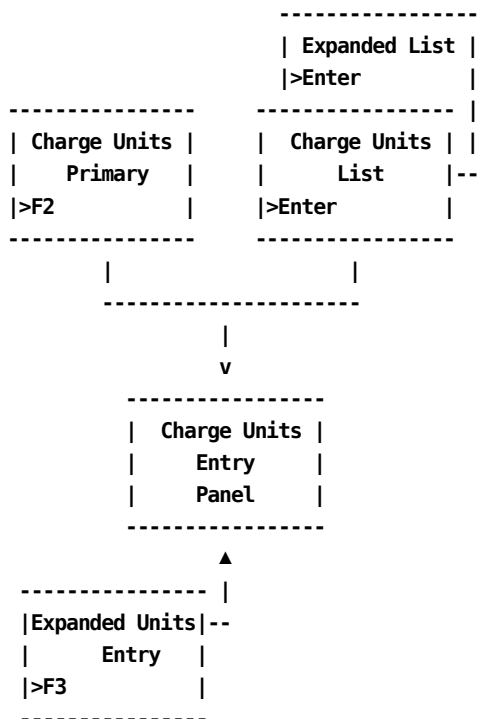
Note: The first time this panel appears, you are in **insert** mode; no lines appear under the Cmd column, the scroll bar does not show a row count, and the only active panel function keys are F2, F5, and F11. When you press **F5** (Save), a message appears telling you the **insert** is successful. At this point, you are in **update** mode. The panel scroll bar provides a row count, the Cmd column is active (lines appear under the column) and **all** panel function keys are active. Pressing F5 (Save) displays a message stating the **update** was successful.

You will find a description of the Charge Units Entry panel on the next page.

Access

The Charge Units Entry panel appears when one of these events occurs:

- You press **F2** (Create) on the [Charge Units Primary Panel](#) (see page 131).
- You return from the Expanded Units Entry panel.

**Scrolling**

F7 and F8 let you scroll backward and forward through the charge unit entries. You can also use the scroll bar, as explained [Sample List Panel](#) (see page 46) to move through the charge unit entries.

Input

The Charge Units Entry panel contains the following input fields:

Cmd

Use this column to specify commands. Valid commands include:

D Deletes lines from the calculation.

I Inserts lines into the calculation using the Charge Units Insert (CBUNII) pop-up window. Refer to [Sample Entry Panel](#) (see page 52) for information on how to use the insert window.

ORD Field/@Unit

Can refer to either a valid field defined in the ORD or another user-defined charge unit (indicated by the @ prefix) applying to the same ORD. Thus, complex calculations can be performed in an hierarchical manner.

Note: Sequencing of items is critical.

Aop

(Arithmetic operator): + (addition), - (subtraction), * (multiplication), / (division).

Field/Constant

List any constants or ORD fields used in the definition of a complex charge unit.

Note: When specifying constants, they **must** be enclosed in single quotes. For example, '.5' as shown on the preceding panel.

Aop

(Arithmetic operator) a **link** used to continue the calculation: + (addition), - (subtraction), * (multiplication), / (division).

Actions

F2=Xref

Gives you a cross-referenced listing of other complex units and charge elements that reference this complex unit.

F5=Save

Lets you add and update rows in the Charge Units table.

F6=Delete

Lets you delete all entries from the Charge Units table.

F7=Bkwd

Lets you scroll backward through the table.

F8=Fwd

Lets you scroll forward through the table.

F11=Expand

Presents you with an eight-line display of the Charge Units Entry.

Expanded Units Entry Panel

The following panel appears when you press F11 (Expand) on the Charge Units Entry panel. The only difference between the Charge Unit Entry and Expanded Entry panels is the Version, ORD Type, and Charge Unit protected fields are not displayed. This allows you to view more information on a single panel. The Expanded Entry panel functions in the same way as the Entry panel from which it was called.

```

USERID                                CA JARS/OLF                                MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--  CBCUNIV  -----  Expanded Units Entry -----+
|  Panel  Exit  Help  |
|-----|
|  Type information and save. Or Delete.  |
|-----|
|  More: - + _____ Row 0000 of 0000  |
|  Cmd  ORD Field/@Unit  Aop Field/Constant  Aop  |
|  SRB-TIME _____ * '.5' _____ +  |
|  TCB-TIME _____ * '.5' _____ -  |
|  _____ - _____ -  |
|  _____ - _____ -  |
|  _____ - _____ -  |
|  _____ - _____ -  |
|-----|
|  F2=Xref  F5=Save  F6=Delete  F7=Bkwd  F8=Fwd  |
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Normalizer Panels

The Normalizer panel set allows you to create or define normalizers directly. That is, without using the Charge Elements option.

The following panels make up the Normalizer panel set:

- Normalizers primary panel
- Normalizer List panel
- Expanded Normalizer List panel
- Normalizer Entry panel
- Normalize Entry Insert panel
- Expanded Normalizer Entry panel

Note: Protected display field areas are preceded by a colon (:).

Normalizer Primary Panel

The Normalizer Primary panel is used for creating, examining or modifying Normalizers.

```
USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCNRMP ----- Normalizers -----+
|   Panel  Exit  Help
|-----|
|   Type information. Then select an action.
|
|   Version . : PROD
|   ORD Type . . MBJ
|   Normalizer . SYSTEM
|
|   F2=Create  F11=Browse
+-----+

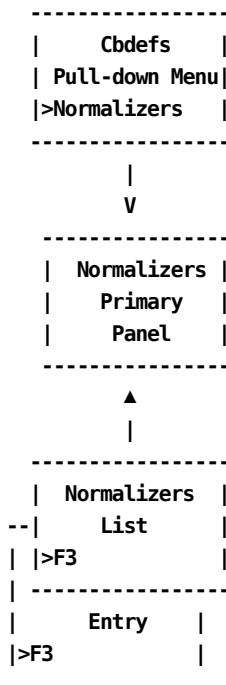
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
```

On the next page is a description of the Normalizers primary panel.

Access

The Normalizers primary panel appears when one of these events occurs:

- You type CN in the fast path area of the Primary Panel's action bar.
- You select Cbdefs on the action bar and then choose Normalizer on the Cbdefs pull-down.
- You return from the Normalizer List or Entry panel.



Input

The Normalizers primary panel contains the following input fields:

ORD Type

The three-character name of the output record identifier for which you want to define, view or modify a normalizer.

When using F11=Browse: if you do not know the ORD Type name, enter the SQL wildcard character %. This provides you with a list of all ORD Types meeting the qualifier you specify in the next field. By entering a % at both the ORD Type and Normalizer prompts you can get a list of all defined ORDs and Normalizers.

Normalizer

The name of a normalizer you want applied to charge unit's calculation. A Normalizer name can be up to 16 alphanumeric characters in length.

Pathways

F2

(Create) Takes you to the [Normalizer Entry Panel](#) (see page 145).

F11

(Browse) Takes you to the [Normalizer List Panel](#) (see page 142).

Normalizer List Panel

The Normalizer List panel displays a list of all currently defined normalizers meeting the criteria specified on the Normalizer primary panel. The search criteria are redisplayed as protected fields (see **1** below).

```
USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCNRML  ----- Normalizer List -----+
|   Panel  Exit  Help
|-----|
|   Select a normalizer name. Then Enter.
|
|   Version . : PROD
|   ORD Type . : MBJ          1
|   Normalizer : SYSTEM
|
|   More: - + ____ Row 0001 of 0001
|
|   ORD  Normalizer
|   _ MBJ SYSTEM
|   -
|   -
|   -
|   Enter  F7=Bkwd  F8=Fwd  F11=Expand
+-----+

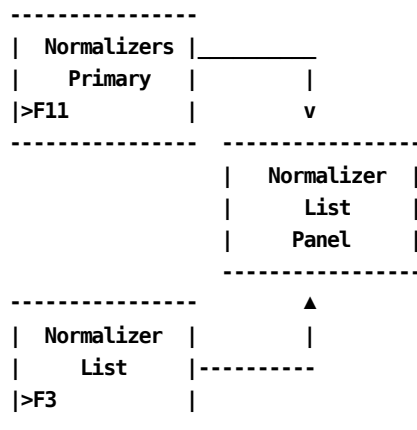
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
```

The following is a description of the Charge Units List panel.

Access

The Normalizer List panel appears when one of these events occurs:

- You press **F11** (Browse) on the [Normalizer Primary Panel](#) (see page 140).
- You return from the Expanded Normalizer List panel.



Scrolling

F7 and F8 let you scroll backward and forward through the Normalizer selection list, or use the scroll bar as described on [Sample List Panel](#) (see page 46).

Pathways

Enter

By placing the cursor next to the required item, and pressing Enter, a selection is made.

F11

(Expand) Gives you an **expanded** (eight-line display) view of the Normalizer List panel.

Expanded Normalizer List Panel

The following panel appears when you press **F11** (Expand) on the [Normalizer List Panel](#) (see page 142). The only difference between the two panels is the Version, ORD Type, and Normalizer protected fields are not displayed. This allows you to view more information on a single panel. The Expanded List panel functions in the same way as the List panel from which it was called.

```

USERID                               CA JARS/OLF                               MM/DD/YY HH:MM:SS
--   Acctdefs Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCNRMX ----- Expanded Normalizer List -----+
      Panel  Exit  Help
      |-----|
      | Select a normalizer name. Then Enter.          |
      |                                               |
      | ORD Normalizer                               |
      | More: - + ____ Row 0001 of 0001              |
      | MBJ SYSTEM                                   |
      | _                                             |
      | _                                             |
      | _                                             |
      | _                                             |
      | _                                             |
      | _                                             |
      | _                                             |
      | _                                             |
      | Enter  F7=Bkwd  F8=Fwd                       |
      +-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```


Normalizer Entry Panel

You use this panel to define or modify a normalizer you named on the [Normalizer Primary Panel](#) (see page 140). Normalizers are **only** associated with charge units and are weighting factors (percentages) that are applied to a **charge unit's** calculated value **before** rates are applied. In the example below, we are providing a definition for a normalizer called SYSTEM.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--- Acctdefs Cbdefs Query Data Period Options Exit Help
+-- CBCNRME ----- Normalizer Entry -----+
| Panel Exit Help |
|-----|
| Type information. Then select an action. |
|-----|
| Version . : PROD |
| ORD Type . : MBJ |
| Normalizer : SYSTEM |
|-----|
| Cmd Qualifier          More: - + ____ Row 0001 of 0002 |
| Percentage |
| @CPUIDA _____ 100 |
| @CPUIDB _____ 530.8 |
| _____ |
|-----|
| F2=Xref F5=Save F6=Delete F7=Bkwd F8=Fwd F11=Expand |
+-----+

Command ==> _____
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp
    
```

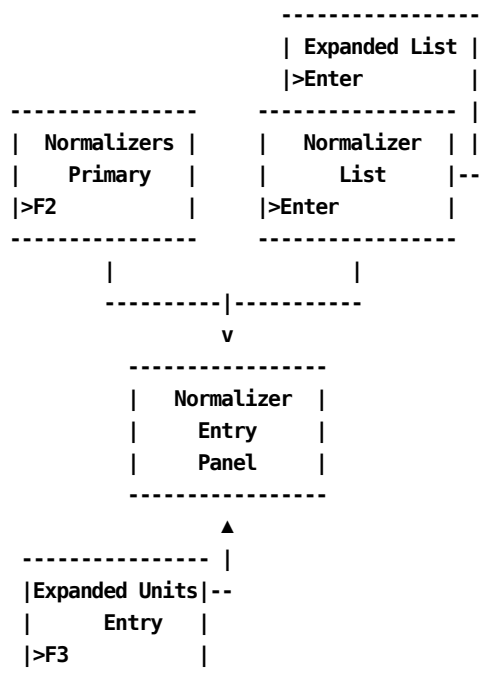
Note: The first time this panel appears, you are in **insert** mode; no lines appear under the Cmd column, the scroll bar does not show a row count, and the only active panel function keys are F2, F5, and F11. When you press **F5** (Save), a message appears telling you the **insert** is successful. At this point, you are in **update** mode. The panel scroll bar provides a row count, the Cmd column is active (lines appear under the column) and **all** panel function keys are active. Pressing F5 (Save) displays a message stating the **update** was successful.

You will find a description of the Normalizer Entry panel on the next page.

Access

The Normalizer Entry panel appears when one of these events occurs:

- You press **F2** (Create) on the [Normalizer Primary Panel](#) (see page 140).
- You make a selection on the Normalizer List or Expanded list panels.
- You return from the Expanded Normalizer Entry panel.



Scrolling

F7 and F8 let you scroll backward and forward through the normalizer entries. You can also use the scroll bar, as explained on [Sample List Panel](#) (see page 46), to move through the normalizer entries.

Input

The Normalizer Entry panel contains the following input fields:

Cmd

Use this column to specify commands. Valid commands include:

- D** Deletes lines from the calculation.
- I** Inserts lines into the calculation using the Normalizer Insert (CBCNRM) pop-up window. Refer to [Sample Entry Panel](#) (see page 52) for information on how to use the insert window.

Qualifier

The user-defined name of a conditional test that is applied to a charge unit.

Percentage

The weighting factor (**a percentage**) you want applied to a charge unit, based on the qualification tests you define. For example, 20%.

To increase a value by 20%, enter 120.

To decrease a value by 20%, enter 80.

The precision for this field is 99999999V99999999.

Actions**F2=Xref**

Gives you a cross-referenced listing of all charge elements that reference this normalizer.

F5=Save

Lets you save the qualification(s).

F6=Delete

Lets you delete the qualification(s).

F7=Bkwd

Lets you scroll backwards through the panel.

F8=Fwd

Lets you scroll forward through the panel.

F11=Expand

Presents you with an eight-line display of the Normalizer List panel.

Expanded Normalizer Entry Panel

The following panel appears when you press **F11** (Expand) on the Normalizer Entry panel. The only difference between the Normalizer Entry and Expanded Entry panels is the Version, ORD Type, and Normalizer protected fields are not displayed. This allows you to view more information on a single panel. The Expanded Entry panel functions in the same way as the Entry panel from which it was called.

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--  CBCNRMV  -----  Expanded Normalizer Entry -----+
      Panel  Exit  Help
+-----+
| Type information. Then select an action. |
+-----+
| Cmd Qualifier                More: - + ____ Row 0001 of 0001 |
|                               Percentage                    |
|  @TEST2_____                200                          |
|  _____                _____                      |
|  _____                _____                      |
|  _____                _____                      |
|  _____                _____                      |
|  _____                _____                      |
|  _____                _____                      |
+-----+
      F2=Xref  F5=Save  F6=Delete  F7=Bkwd  F8=Fwd

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Qualifier Panels

A qualifier establishes a conditional test resulting in a true or false condition. Qualifiers can be used with charge units, modifiers, normalizers, and in the definition of conditional rates. The following panel set is used to define qualifiers directly.

- Qualifiers primary panel
- Qualifiers List panel
- Qualifiers Expanded List panel
- Qualifiers Entry panel
- Qualifiers Entry Insert panel
- Qualifiers Expanded Entry panel

Note: During processing, ORD-specific qualifiers are always applied **before** global qualifiers (those with an ORD type of ALL).

Protected display field areas are preceded by a colon (:).

Qualifiers Primary Panel

The Qualifier Primary panel is used for creating, examining or modifying qualifiers that are ORD specific or global.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--- CBCQALP ----- Qualifiers -----+
      Panel  Exit  Help
+-----+
|
| Type information. Then select an action.
|
| Version . . : PROD
| ORD Type . . MBJ
| Qualifier . %_____
|
| F2=Create  F11=Browse
+-----+

This panel associates an ORD record type, as defined by
the CA JARS/OLF Administrator, with qualifiers

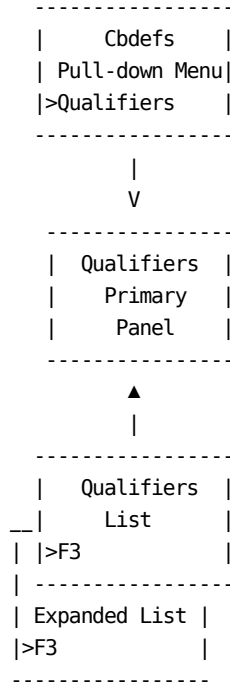
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
  
```

On the next page is a description of the Qualifiers primary panel.

Access

The Qualifiers primary panel appears when one of these events occurs:

- You type CQ in the fast path area of the Primary Panel's action bar.
- You select Cbdefs on the action bar and then choose Qualifiers on the Cbdefs pull-down.
- You return from the Qualifiers List or Entry panel.



Input

The Qualifiers primary panel contains the following input fields:

ORD Type

The three-character name of the output record identifier for which you want to define, view or modify a qualifier.

When using F11=Browse: if you do not know the ORD Type name, you can enter the SQL wildcard character %. This provides you with a list of all ORD Types that match the qualifier you specify in the next field. By entering a % at both the ORD Type and Qualifier prompts you can get a list of all defined ORDs and Qualifiers.

Note: If you enter an ORD Type that is not currently defined to the CA JARS/OLF database, you receive an informational message. You need to speak to the CA JARS/OLF Administrator to arrange for its definition.

Qualifier

The name of a conditional test you want applied globally or associated with the contents of a specific ORD type. A qualifier can be up to 16 alphanumeric characters in length and must be preceded by the @ symbol.

Pathways**F2**

(Create) Takes you to the [Qualifier Entry panel](#) (see page 155).

F11

(Browse) Takes you to the [Qualifier List panel](#) (see page 152).

Qualifier List Panel

The Qualifier List panel displays a list of all currently defined qualifiers that match the criteria specified on the Qualifiers primary panel. The search criteria are redisplayed as protected fields (see **1** below). The following panel shows all qualifiers, currently defined for ORD type MBJ (see **2** below).

```
USERID                      CA JARS/OLF                      MM/DD/YY HH:MM:SS
--  Acctdefs Cbdefs Query Data Period Options Exit Help
   +- CBCQALL ----- Qualifier List -----+
     Panel Exit Help
     -----
     Select qualifier name. Then Enter.

     Version . : PROD
     ORD Type . : MBJ                      1
     Qualifier : %

     More: - + ____ Row 0001 of 0004

     ORD Qualifier
     - MBJ @SHIFT1
     - MBJ @SHIFT2                      2
     - MBJ @SHIFT3
     - MBJ @WEEKEND

     Enter F7=Bkwd F8=Fwd F11=Expand
   +-----+

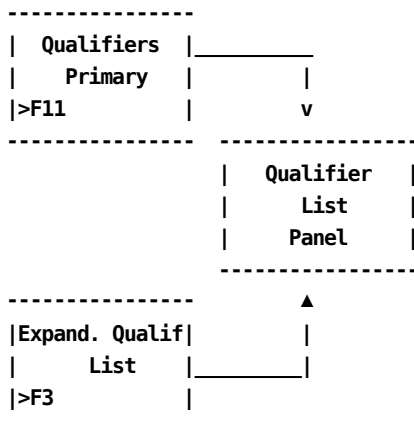
Command ==>
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp
```

The following is a description of the Charge Elements List panel.

Access

The Qualifier List panel appears when one of these events occurs:

- You press **F11** (Browse) on the [Qualifiers primary panel](#) (see page 158).
- You return from the Expanded Qualifier List panel.



Scrolling

F7 and F8 let you scroll backward and forward through the Qualifier selection list, or use the scroll bar as described on page [Sample List Panel](#) (see page 46).

Pathways

Enter

By placing the cursor next to the required item, and pressing Enter, a selection is made.

F11

(Expand) Gives you an **expanded** (eight-line display) view of the Qualifier List panel.

Expanded Qualifier List Panel

The following panel appears when you press **F11** (Expand) on the [Qualifiers List panel](#) (see page 152). The only difference between the two panels is the Version, ORD Type, and Qualifier protected fields are not displayed. This allows you to view more information on a single panel. The Expanded List panel functions in the same way as the list panel from which it was called.

```

USERID                               CA JARS/OLF                               MM/DD/YY HH:MM:SS
--   Acctdefs Cbdefs Query Data Period Options Exit Help
    +-- CBCQALX ----- Qualifier List -----+
        Panel Exit Help
    -----+
        Select qualifier name. Then Enter.
        More: - + ____ Row 0001 of 0004
        ORD Qualifier
        - MBJ @SHIFT1
        - MBJ @SHIFT2
        - MBJ @SHIFT3
        - MBJ @WEEKEND
        -
        -
        -
        Enter F7=Bkwd F8=Fwd
    -----+
Command ==>
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp
    
```

Qualifier Entry Panel

The Qualifiers Entry panel is used to define the range of a qualifier.

Note: You can create global qualifiers by specifying an ORD Type of **ALL**. This means for those conditions you select, you only have to define the qualifier once, rather than defining it over and over for each ORD type. This is very efficient when defining qualifiers for conditions such as SHIFT and WEEKEND.

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
--  Acctdefs Cbdefs Query Data Period Options Exit Help
+-- CBCQALE ----- Qualifier Entry -----+
|   Panel Exit Help
|-----+
|   Type information and save. Then select an action.
|
|   Version . : PROD
|   ORD Type . : MBJ
|   Qualifier : @SHIFT1_____
|
|   ORD                More: - + _____ Row 0001 of 0002
|   Cmd Field/@Qualifier Rop Field/Constant Lop
|   START-HHMM          >= '0800' _____ and
|   START-HHMM          <  '1600' _____
|   _____          _____
|   _____          _____
|
|   F2=Xref F5=Save F6=Delete F7=Bkwd F8=Fwd F11=Expand
+-----+
Command ==> _____
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp
    
```

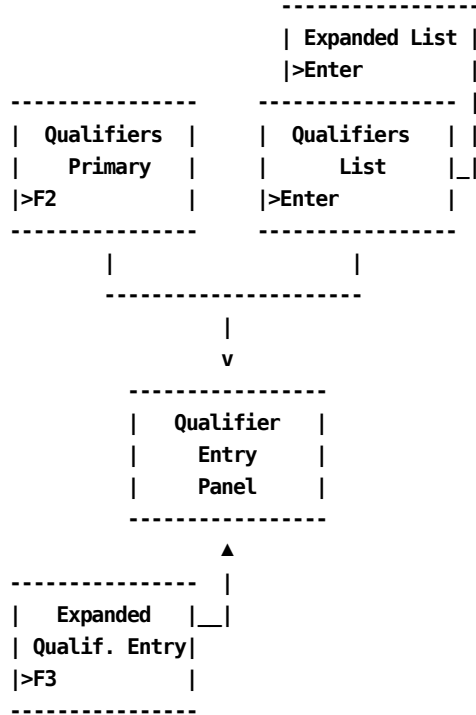
Note: The first time this panel appears, you are in **insert** mode; no lines appear under the Cmd column, the scroll bar does not show a row count, and the only active panel function keys are F2, F5, and F11. When you press **F5** (Save), a message appears telling you the **insert** is successful. At this point, you are in **update** mode. The panel scroll bar provides a row count, the Cmd column is active (lines appear under the column) and **all** panel function keys are active. Pressing F5 (Save) displays a message stating the **update** was successful.

On the next page is a description of the Qualifier Entry panel.

Access

The Qualifier Entry panel appears when one of these events occurs:

- You press **F2** (Create) on the [Qualifiers Primary panel](#) (see page 158).
- You make a selection on the Qualifier List or Expanded List panel.
- You return from the Expanded Qualifier Entry panel shown in [Qualifier Entry Panel](#) (see page 155).



Scrolling

F7 and F8 let you scroll backward and forward through the Qualifiers definition list. You can also use the scroll bar, as explained on [Sample List Panel](#) (see page 46), to move through the entries.

Input

The following Qualifier Entry panel fields are available for input:

Cmd

This column is used to specify commands. Valid commands include:

- D** (Delete) Used to delete individual lines from the conditional test.
- I** (Insert) Used to insert lines into the conditional test using the Qualifier Insert (CBCQALI) pop-up window. Refer to [Sample Entry Panel](#) (see page 52) for information on how to use the insert window.

ORD Element/@Qualifier

You use this column to identify the ORD Element or Qualifier name to be used. The contents of this Element Name is compared with the Field/Constant identifier provided in the Field/Constant column. Defines the qualifier named in the protected display field at the top of the panel.

Note: Also, a qualifier can refer to other qualifiers. Nesting is permitted to any level.

Rop

Relational operator: acceptable entries include: < (less than), > (greater than), = (equal), or combinations, such as =< (equal to or less than) and \neg = (not equal).

Field/Constant

Defines the desired value, either another ORD Element or a specific result, used in the comparison with the ORD Element/@Qualifier.

Lop

(Logical operator) acceptable operators are: **and** and **or**.

Actions**F2=Xref**

Gives you a cross-referenced listing of all charge elements, other qualifiers, modifiers, and so forth that reference this qualifier.

F5=Save

Lets you add and update rows in the table.

F6=Delete

Lets you delete rows from the table.

F7=Bkwd

Lets you scroll backwards through the table.

F8=Fwd

Lets you scroll forward through the table.

F11=Expand

Gives you an eight-line display of the Qualifier Entry panel.

Expanded Qualifier Entry Panel

The following panel appears when you press F11 (Expand) on the [Qualifier Entry Panel](#) (see page 155). The only difference between the two panels is the Version, ORD Type, and Qualifier protected fields are not displayed. This allows you to view more information on a single panel. The Expanded Qualifier Entry panel functions in the same way as the Entry panel from which it was called.

```

USERID                               CA JARS/OLF                               MM/DD/YY HH:MM:SS
--  Acctdefs Cbdefs Query Data Period Options Exit Help
+-- CBCQALV ---- Expanded Qualifier Entry -----+
      Panel Exit Help
      -----+
      Type information and save. Then select an action.
      -----+
      ORD                               More: - + _____ Row 0001 of 0002
      Cmd Field/@Qualifier Rop Field/Constant Lop
      -----+
      - START-HHMM _____ >= '0800' _____ and
      - START-HHMM _____ <  '1600' _____
      - _____
      - _____
      - _____
      - _____
      - _____
      -----+
      F2=Xref F5=Save F6=Delete F7=Bkwd F8=Fwd
      -----+
      Command ==> _____
      F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp
  
```

Qualifier Entry Panel

A qualifier establishes a conditional test resulting in a true or false condition. Qualifiers can be used with qualified rates, normalizers, and modifiers in the definition of conditional rates. The following panel set is used to define qualifiers.

The Qualifiers Entry panel is used to define the range of a qualifier.

You arrived at this panel by pressing **F2** (Qualifier) on the [Qualified Rates Entry Panel](#) (see page 123).

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--            +---+ CBCELMQ ----- Qualifier Entry -----+
                Panel Exit Help
                -----
                Type information. Then select an action.

                Version . : PROD
                ORD Type . : MBJ
                Qualifier : @SHIFT1

                ORD          More: - + ____ Row 0001 of 0002
                Cmd Field/@Qualifier  Rop  Field/Constant  Lop
                -  START-TIME          >=  '0800'          and
                -  START-TIME          <=  '1600'          ___
                -  _____          --  _____          ___
                -  _____          --  _____          ___

                F2=Xref F5=Save F6=Delete F7=Bkwd F8=Fwd F11=Expand
                +-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

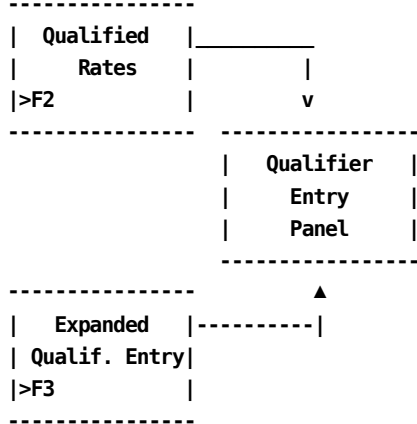
Note: The first time this panel appears, you are in **insert** mode; no lines appear under the Cmd column, the scroll bar does not show a row count, and the only active panel function keys are F2, F5, and F11. When you press **F5** (Save), a message appears telling you the **insert** is successful. At this point, you are in **update** mode. The panel scroll bar provides a row count, the Cmd column is active (lines appear under the column) and **all** panel function keys are active. Pressing F5 (Save) displays a message stating that the **update** was successful.

On the next page is a description of the Qualifier Entry panel.

Access

The Qualifier Entry panel appears when one of these events occurs:

- You press **F2** (Qualifier) on the [Qualified Rates Entry Panel](#) (see page 123).
- You return from the [Expanded Qualifier Entry Panel](#) (see page 162).



Scrolling

F7 and F8 let you scroll backward and forward through the Qualifiers definition list. You can also use the scroll bar, [Sample List Panel](#), (see page 46) to move through the entries.

Input

The following Qualifier Entry panel fields are available for input:

Cmd

This column is used to specify commands. Valid commands include:

- D** Deletes individual lines from the conditional test.
- I** Inserts lines into the conditional test using the Qualifier Insert (CBCQALI) pop-up window. Refer to [Sample Entry Panel](#) (see page 52) for information on how to use the insert window.

ORD Field/@Qualifier

You use this column to identify the ORD Field or Qualifier name to be used. The contents of this Field Name is compared with the Field/Constant identifier provided in the Field/Constant column. Defines the qualifier named in the protected display field at the top of the panel.

Note: A qualifier can refer to other qualifiers. Nesting is permitted to any level.

Rop

Relational operator: acceptable entries include: < (less than), > (greater than), = (equal), or combinations, such as =< (equal to or less than) and \neq (not equal).

Field/Constant

Defines the desired value, either another ORD Field or a specific result, that is used in the comparison with the ORD Field/@Qualifier.

Lop

(Logical operator) acceptable operators are: **and** and **or**.

Actions**F2=Xref**

Gives you a cross-referenced listing of all charge elements, other qualifiers, modifiers, and so forth that reference this qualifier.

F5=Save

Lets you add and update rows in the table.

F6=Delete

Deletes the entire qualifier.

F7=Bkwd

Lets you scroll backwards through the table.

F8=Fwd

Lets you scroll forward through the table.

F11=Expand

Gives you an eight-line display of the Qualifier Entry panel.

Expanded Qualifier Entry Panel

The following panel appears when you press **F11** (Expand) on the [Qualifier Entry Panel](#) (see page 158). The only difference between the two panels is the Version, ORD Type, and Qualifier protected fields are not displayed. This allows you to view more information on a single panel. The Expanded Qualifier Entry panel functions in the same way as the entry panel from which it was called.

```

USERID                               CA JARS/OLF                               MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCELMT ---- Expanded Qualifier Entry -----+
      Panel  Exit  Help
      -----
      Type information. Then select an action.
      ORD          More: - + _____ Row 0001 of 0002
      Cmd  Field/@Qualifier  Rop  Field/Constant  Lop
      -  START-TIME_____ >= '0800' _____ and
      -  START-TIME_____ =< '1600' _____
      -  _____
      -  _____
      -  _____
      -  _____
      -  _____
      F2=Xref  F5=Save  F6=Delete  F7=Bkwd  F8=Fwd
+-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Examples: Defining Qualifiers

Using the Extended Charging Example:

Thus far, we have:

- **named:**
 - A charge element
 - A complex charge unit
 - A normalizer
- **provided**
 - A default rate
 - Minimum and maximum charge values
- **defined**
 - A complex unit
 - Conditional rates

We must now:

- Define qualifiers
- Define a normalizer

The examples in [Example 1: Qualifying an ORD by Start Time](#) (see page 163) and [Example 2: Qualifying an ORD by Day of Week & Start Time](#) (see page 85) show you how to define qualifiers.

Example 1: Qualifying an ORD by Start Time

This example shows the definition of @SHIFT1. It represents a true condition when the field START-TIME of MBJ ORD Types is greater than or equal to '800' and less than or equal to '1600'. When this condition is **true**, the rate used in the calculation comes from the @SHIFT1 qualified rate defined on the [Qualified Rates Entry Panel](#) (see page 123).

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
---  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCELMQ ----- Qualifier Entry -----+
|   Panel  Exit  Help
|-----|
|   Type information. Then select an action.
|
|   Version . : PROD
|   ORD Type . : MBJ
|   Qualifier : @SHIFT1
|
|   ORD                More: - + ____ Row 0001 of 0002
|   Cmd Field/@Qualifier  Rep  Field/Constant  Lop
|-----|-----|-----|-----|
|   START-TIME          >=  '0800'          and
|   START-TIME          <  '1600'          ___
|-----|-----|-----|-----|
|
|   F2=Xref F5=Save F6=Delete F7=Bkwd F8=Fwd F11=Expand
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

In Example 1 in [Example 1: Defining Conditional Rates by Qualifier](#) (see page 128), we created qualifier names for two more shifts, @SHIFT2 and @SHIFT3, which also have to be defined.

Note: Their definition is shown on the next page.

Qualifier Definition of @SHIFT2 & @SHIFT3

```

+-----+
| Version . : PROD |
| ORD Type . : MBJ |
| Qualifier : @SHIFT2 |
| |
| ORD More: - + Row 0001 of 0002 |
|Cmd Field/@Qualifier Rop Field/Constant Lop |
| |
| _ START-TIME_____ >= '1600'_____ and |
| _ START-TIME_____ < '2400'_____ |
+-----+
| Qualifier : @SHIFT3 |
| |
| ORD More: - + _____ Row 0001 of 0002 |
|Cmd Field/@Qualifier Rop Field/Constant Lop |
| |
| _ START-TIME_____ >= '0000'_____ and |
| _ START-TIME_____ < '0800'_____ |
+-----+

```

Example 2: Qualifying an ORD by Day of Week & Start Time

This example shows how to continue the definition of shift qualifiers to include the definition of @SHIFT1W as shown in [Example 2: Defining Conditional Rates by Qualifier](#) (see page 129).

The same logic applies to these definitions as that used in earlier examples. @SHIFT1W represents a true condition when the field START-TIME is less than or equal to 1600, and START-TIME is greater than or equal to 0800, **and** the day of week is greater than or equal to 6 (Saturday) for MBJ ORD Types. When this condition is **true**, the rate used in the calculation comes from the algorithm for @SHIFT1 W shown in [Example 2: Defining Conditional Rates by Qualifier](#) (see page 129).

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--            +---+ CBCELMQ ----- Qualifier Entry -----+
|             | Panel Exit Help |
|             |-----|
|             | Type information. Then select an action. |
|             |
|             | Version . : PROD |
|             | ORD Type . : MBJ |
|             | Qualifier : @SHIFT1W |
|             |
|             | ORD          More: - + ____ Row 0001 of 0003 |
|             | Cmd Field/@Qualifier  Rop  Field/Constant  Lop |
|             |-----|
|             | _ START-TIME_____ >= '0800'_____ and |
|             | _ START-TIME_____ <= '1600'_____ and |
|             | _ DAY-OF-WEEK_____ >= '6'_____ |
|             |-----|
|             | F2=Xref F5=Save F6=Delete F7=Bkwd F8=Fwd F11=Expand |
|             |-----|
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command F10=Action Bar  F12=Cancel  PA1=Susp
    
```

In [Example 2: Defining Conditional Rates by Qualifier](#) (see page 129), we created qualifier names for two more shifts, @SHIFT2W and @SHIFT3W, which also have to be defined. Their definition is shown below.

Qualifier Definition of @SHIFT2W & @SHIFT3W

```

+-----+
| Version . : PROD |
| ORD Type . : MBJ |
| Qualifier : @SHIFT2W |
| |
| ORD          More: - + ____ Row 0001 of 0003 |
| Cmd Field/@Qualifier  Rop  Field/Constant  Lop |
|-----|
| _ START-TIME_____ >= '1600'_____ and |
| _ START-TIME_____ < '2400'_____ and |
| - DAY-OF-WEEK_____ = '6'_____ |
+-----+
| Qualifier : @SHIFT3W |
| |
| ORD          More: - + ____ Row 0001 of 0003 |
| Cmd Field/@Qualifier  Rop  Field/Constant  Lop |
|-----|
| _ START-TIME_____ >= '0000'_____ and |
| _ START-TIME_____ < '0800'_____ and |
| _ DAY-OF-WEEK_____ >= '6'_____ |
+-----+
    
```

Example 3: Defining a Qualifier Using Other Qualifiers

This example shows you how to define a qualifier named @NONPRIME using two other qualifiers.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCELMQ ----- Qualifier Entry -----+
|   Panel  Exit  Help
|-----|
|   Type information. Then select an action.
|
|   Version . : PROD
|   ORD Type . : MBJ
|   Qualifier : @NONPRIME
|
|   ORD          More: - + _____ Row 0001 of 0001
|   Cmd Field/@Qualifier  Rop  Field/Constant  Lop
|
|   - @SHIFT2_____  --  _____  or_
|   - @SHIFT3_____  --  _____  ___
|   - _____  --  _____  ___
|   - _____  --  _____  ___
|
|   F2=Xref F5=Save F6=Delete F7=Bkwd F8=Fwd F11=Expand
+-----+
Command ==>
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp
    
```

Example 4: Qualifying a Normalizer

This is a continuation of the Normalizer example started in [Example 4: Qualifying a Normalizer](#) (see page 166). It shows how to define qualifiers for a normalizer named SYSTEM. On the Normalizer Entry panel, we provided two qualifier names: @CPUIDA and @CPUIDB and a normalization factor (a percentage) associated with each qualifier.

Note: In order to define qualifiers for a normalizer, you must invoke Qualifiers from the Cbdefs pull-down and follow the path to the Qualifier Entry panel.

The panel below shows you how to provide the conditions for which the qualifier is valid.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCELMQ ----- Qualifier Entry -----+
|   Panel  Exit  Help
|-----|
|   Type information. Then select an action.
|
|   Version . : PROD
|   ORD Type . : MBJ
|   Qualifier : @CPUIDA
|
|   ORD          More: - + _____ Row 0001 of 0001
|   Cmd Field/@Qualifier  Rop  Field/Constant  Lop
|
|   -  SYSID_____ = 'IP01' _____
|   -  _____ = _____
|   -  _____ = _____
|   -  _____ = _____
|
|   F2=Xref F5=Save F6=Delete F7=Bkwd F8=Fwd F11=Expand
+-----+
Command ==> _____
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp
    
```

Note: You must also define a qualifier for @CPUIDB stating the conditions under which it is valid. Its definition would be as follows:

```

+-----+
|   Qualifier : @CPUIDB
|
|   ORD          More: - + _____ Row 0000 of 0000
|   Cmd Field/@Qualifier  Rop  Field/Constant  Lop
|
|   -  SYSID_____ = 'IP02' _____
|
+-----+
    
```

Normalizer Entry Panel

You use this panel to define and qualify a normalizer you named on a [Charge Elements Entry Panel](#) (see page 110). Normalizers are **only** associated with charge units and are weighting factors (percentages) that are applied to a **charge unit's** calculated value **before** rates are applied. In the example below, we are providing a definition for a normalizer called SYSTEM.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--            +---+ CBCELMN ----- Normalizer Entry -----+
                Panel Exit Help
                -----+
                Type information. Then select an action.
                -----+
                Version . : PROD
                ORD Type . : MBJ
                Normalizer : SYSTEM
                -----+
                Cmd Qualifier          More: - + _____ Row 0000 of 0000
                Percentage
                @CPUIDA_____         100_____
                @CPUIDB_____         530.8_____
                _____
                _____
                F2=Xref F5=Save F6=Delete F7=Bkwd F8=Fwd F11=Expand
                -----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

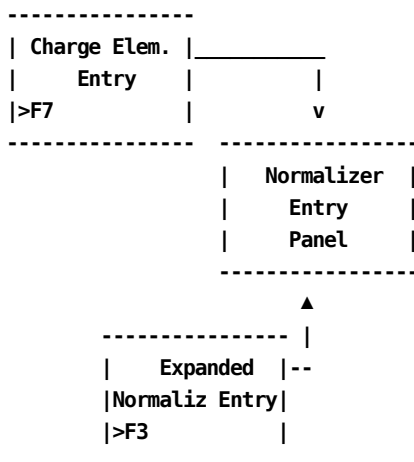
Note: The first time this panel appears, you are in **insert** mode; no lines appear under the Cmd column, the scroll bar does not show a row count, and the only active panel function keys are F2, F5, and F11. When you press **F5** (Save), a message appears telling you the **insert** is successful. At this point, you are in **update** mode. The panel scroll bar provides a row count, the Cmd column is active (lines appear under the column) and **all** panel function keys are active. Pressing F5 (Save) displays a message stating the **update** was successful.

On the next page is a description of the Normalizer Entry panel.

Access

The Normalizer Entry panel appears when one of these events occurs:

- When **F8** (Norm) is pressed on the [Charge Elements Entry panel](#) (see page 110).
- You return from the Expanded Normalizer Entry panel.



Scrolling

F7 and F8 let you scroll backward and forward through the Qualifier and Percentage columns. You can also use the scroll bar, as explained [Sample List Panel](#) (see **page 46**) to move through the list.

Input

The Normalizer Entry panel contains the following input fields:

Cmd

Used to specify commands. Valid commands include:

- D** Deletes Qualifiers from the qualification.
- I** Inserts Qualifiers into the qualification.

Qualifier

The user-defined name of a conditional test that is applied to a charge unit.

Percentage

The weighting factor (**a percentage**) you want applied to a charge unit, based on the qualification tests you define. For example, 20%.

To increase a value by 20%, enter 120.

To decrease a value by 20%, enter 80.

The precision for this field is 99999999V99999999.

Actions

F2=Xref

Gives you a cross-referenced listing of all charge elements that reference this normalizer.

F5=Save

Lets you save the qualification(s).

F6=Delete

Lets you delete the qualification(s).

F7=Bkwd

Lets you scroll backwards through the panel.

F8=Fwd

Lets you scroll forward through the panel.

F11=Expand

Presents you with an eight-line display of the Normalizer List panel.

Expanded Normalizer Entry Panel

The following panel appears when you press **F11** (Expand) on the Normalizer Entry panel. The only difference between the Normalizer Entry and Expanded Entry panels is the Version, ORD Type, and Normalizer protected fields are not displayed. This allows you to view more information on a single panel. The Expanded Entry panel functions in the same way as the Entry panel from which it was called.

```

USERID                                CA JARS/OLF                                MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCELM0  ----- Expanded Normalizer Entry -----+
|  Panel  Exit  Help  |
|-----|
|  Type information. Then select an action.  |
|  More: - + ____ Row 0001 of 0002          |
|  Cmd Qualifier          Percentage         |
|  @CPUIDA_____ 100_____                |
|  @CPUIDB_____ 530.8_____              |
|  _____                |
|  _____                |
|  _____                |
|  _____                |
|  _____                |
|-----|
|  F2=Xref  F5=Save  F6=Delete  F7=Bkwd  F8=Fwd  |
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Examples: Defining a Normalizer

Using the Extended Charging Example:

Thus far, we have:

- **named:**
 - A charge element
 - A complex charge unit
 - A normalizer
- **provided**
 - A default rate
 - Minimum and maximum charge values
- **defined**
 - A complex unit
 - Conditional rates
 - Qualifiers

We must now:

- Define a normalizer

The example on the next page shows you how to define a normalizer named SYSTEM.

Example: Normalizing a Complex Charge Unit

Charge	-----								
Unit	Normalizer								Charge Element
CPU-TIME *	SYSTEM	*	Condit'l Rate =						CPU-CHARGE

Continuing with the Extended Charge Example, using the panel below we indicated all MBJ ORD records' CPUID field should be tested to determine if:

- CPU ID = 'A': Then, multiply the calculated charge units by a factor of 1.000%
- CPU ID = 'B': Then multiple the calculated charge units by a factor of 5.308%

Thereby, normalizing the charge unit's calculation.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--            +---+ CBCELMN ----- Normalizer Entry -----+
                Panel Exit Help
                -----
                Type information. Then select an action.
                Version . : PROD
                ORD Type . : MBJ
                Normalizer : SYSTEM
                -----
                Cmd Qualifier          More: - + ____ Row 0000 of 0000
                                     Percentage
                @CPUIDA                100
                @CPUIDB                530.8
                _____
                _____
                F2=Xref F5=Save F6=Delete F7=Bkwd F8=Fwd F11=Expand
                -----
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

We must now define the normalizer's qualifiers, @CPUIDA and @CPUIDB. Example 4 in [Example 4: Qualifying a Normalizer](#) (see page 166) shows you how to do this.

Other Examples

Charging a Flat Rate

You can charge a flat charge, or define a surcharge for a resource by specifying *ONE* in the Charge Unit field and providing a default rate, as shown on the panel below. Then using our charge algorithm (charge unit * rate = charge element):

***ONE* * 5.00 = SURCHARGE**

The *ONE* makes the charge unit's value equal to one. It is then multiplied by the default rate. So, using the panel below, each MBJ ORD record generates a surcharge of 5.00.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--            +---+ CBCELME ----- Charge Elements Entry -----+
                Panel Exit Help
                -----+
                Type information. Then select an action.
                -----+
                Version . . . : PROD
                ORD Type . . . : MBJ
                Charge Element : SURCHARGE_____
                -----+
                Charge Unit . . *ONE*_____
                Normalizer . . . _____
                Default Rate . . 5.000000_____
                Maximum Charge . _____
                Minimum Charge . _____
                -----+
                F5=Save  F6=Delete  F7=Unit  F8=Norm  F11=Rate

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Bringing in Preexisting Charges

CA JARS/OLF allows you to bring in preexisting charges from CA JARS, CA NETMAN, CA JASPER, and VS CHARGE.

In other words, you create a charge element that has the **same** name as a field that exists in an ORD. Then enter the same field name for the charge unit with a rate of 1.00. The **key** is the fact that the *charge element* name is the same name as the ORD field name.

The panel below shows you how to do this.

```
USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--            Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCELME ----- Charge Elements Entry -----+
|   Panel  Exit  Help
|-----|
|   Type information. Then select an action.
|
|   Version . . . : PROD
|   ORD Type . . . : MBJ
|   Charge Element : PROCESSOR-CHARGE
|
|   Charge Unit . . PROCESSOR_CHARGE
|   Normalizer . . .
|   Default Rate . . 1.00000
|   Maximum Charge .
|   Minimum Charge .
|
|   F5=Save  F6=Delete  F7=Unit  F8=Norm  F11=Rate
+-----+

Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
```

Caution: Do not press F7 (Unit) or F8 (Norm), because these functions allow you to modify rates that invalidate the rate structure you are preserving.

Defining Modifiers

Modifiers are the CA JARS/OLF method of enabling you to modify, either globally or by a specific ORD Type, charge elements calculated charge based on user-defined qualifiers. Examples include adjusting charges for:

- Holidays
- Weekends
- A specific class or priority
- A specific department

These conditions can obviously be coded within the algorithm for a charge element, but being more general in nature, they warrant specific handling. Modifiers also reduce the number of qualifiers and qualified rates required. When charges are applied, the charge is computed and a record is written to the CCCTAB. At the same time, an additional **modified** record is also written to the CCCTAB. This lets you maintain an effective audit trail.

Note: To create a global modifier, specify an ORD Type of **ALL** on the Modifiers primary panel. This means for those conditions specified, you only have to define the modifier once, rather than defining it over and over for each ORD type. This is very efficient when defining modifiers that relate to conditions such as SHIFT and WEEKEND.

The algorithm for applying a modifier is:

Charge Element * Modifier = Modified Charge Element

The Modifiers panel set is made up of the following panels:

- Modifiers primary panel
- Modifiers List panel
- Expanded Modifiers List panel
- Modifiers Entry panel

Note: Protected display field areas are preceded by a colon (:).

Modifiers Primary Panel

The Modifiers primary panel is used for creating, examining or updating a modifier. A modifier name can be up to 16 alphanumeric characters, while the modifier itself can be either an amount or a percentage that is applied to the charge element **after** it has been calculated. Modifiers generate a **modified** charge element record, thereby ensuring that the original charge element record maintains its integrity. This allows you to maintain an effective audit trail.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCMODP ----- Modifiers -----+
|   Panel  Exit  Help
|-----|
|   Type information. Then select an action.
|
|   Version . : PROD
|   ORD type . . ____
|   Modifier . . _____
|
|   F2=Create  F11=Browse
+-----+

This panel associates an ORD version, as defined by
the CA JARS/OLF Administrator, with a modifier.

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

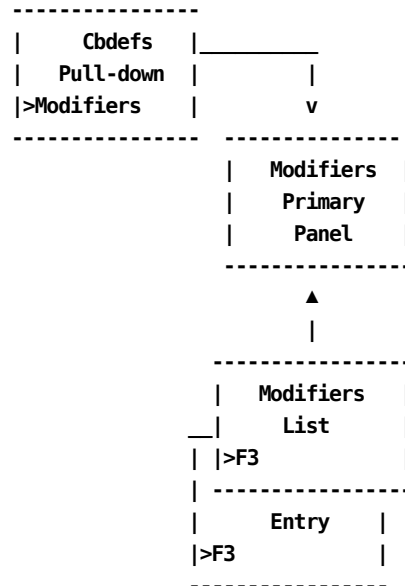
Note: If you enter the SQL wildcard character % in the Modifier and ORD Type entry fields and then press **F11** (Browse): you will see a list of all currently defined modifiers.

On the next page is a description of the Modifiers primary panel.

Access

The Modifiers primary panel appears when one of these events occurs:

- You type CM in the fast path area of the CA JARS/OLF Primary Panel's action bar.
- You choose Modifiers on the Cbdefs pull-down.
- You return from the Modifier List or Entry panel.



Input

The Modifier primary panel contains the following entry fields:

ORD Type

The three character name of an ORD whose modifiers you want to view, or for which you want to define a modifier.

Modifier

The name (up to 16 alphanumeric characters) of a user-defined modifier that is applied to a specific ORD type's charge elements calculated charges or globally to all charge element records.

Pathways**F2**

(Create) Takes you to the [Modifier Entry panel](#) (see page 179).

F11

(Browse) Takes you to the [Modifier List panel](#) (see page 177).

Modifier List Panel

The Modifier List panel displays a list of all currently defined modifiers that match the criteria specified on the Modifiers primary panel. The search criteria are redisplayed as protected fields (see **1** below). The following panel shows all modifiers, currently defined for Acct Version PROD (see **2** below).

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCMODL ----- Modifier List -----+
|      Panel  Exit  Help                    |
|-----+-----+-----+-----+-----+
| Select Modifier name. Then Enter.         |
| Version . . : PROD                         |
| Modifier . . : %                          1  |
| Ordid. . . : %                             |
|                                         More: - + ____ Row 0001 of 0003 |
| ORD  Modifier                               |
| _ MBJ CLASS                                |
| _ MBJ DEVELOPMENT                          2  |
| _ MBJ SHIFT                                |
| _                                           |
| _                                           |
| Enter  F7=Bkwd  F8=Fwd  F11=Expand        |
+-----+-----+-----+-----+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

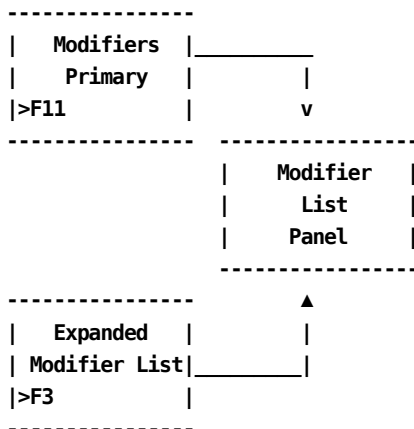
```

The following is a description of the Modifiers List panel.

Access

The Modifier List panel appears when one of these events occurs:

- You press **F11** (Browse) on the [Modifiers primary panel](#) (see page 175).
- You return from the Expanded Modifier List panel using F3.



Scrolling

F7 and F8 let you scroll backward and forward through the Modifier selection list. You can also use the scroll bar, as explained [Sample List Panel](#) (see page 46), to move through the list.

Pathways

Enter

By placing the cursor next to the required item, and pressing **Enter** you can go to the [Modifier Entry panel](#) (see page 179) to examine and optionally update the item.

F11

(Expand) Provides you with an **expanded** (eight-line display) view of the Modifier List panel.

Expanded Modifier List Panel

The following panel appears when you press **F11** (Expand) on the Modifiers List panel shown in (crossref). The only difference between the two panels is the Version and Modifier protected fields are not displayed. This allows you to view more information on a single panel. The Expanded List panel functions in the same way as the list panel from which it was called.

```

USERID                      CA JARS/OLF                      MM/DD/YY HH:MM:SS
--  Acctdefs Cbdefs  Query  Data  Period  Options  Exit  Help
--- +-- CBCMODX ----- Expanded Modifier List -----+
      Panel  Exit  Help
      -----
      Select Modifier name. Then Enter.
      More: - + ____ Row 0001 of 0004
      ORD Modifier
      - MBJ CLASS
      - MBJ DEVELOPMENT
      - MBJ SHIFT
      - MBJ WEEKEND
      -
      -
      -
      Enter  F7=Bkwd  F8=Fwd
+-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

Modifier Entry Panel

The Modifier Entry panel defines the criteria to be applied, as well as the modification to be made to the charge elements. The modification may be by:

- percentage
- amount

You can use a negative (-) amount for a discount and a positive (+) amount for a surcharge.

The algorithm for modifiers is:

```

Charge      Modifier
Element     WEEKEND
-----
CPU-CHARGE * |-.10| = Modified CPU-CHARGE
-----

```

The following panel shows how to apply a 10 percent discount on all resources used on either a Saturday or a Sunday. The discount is applied without regard to Charge Element, Qualifier criteria or accounting level.

```
USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--            +---+
Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+---+ CBCMODE -----+-----+-----+-----+-----+
| Panel  Exit  Help
|-----+-----+-----+-----+
| Version . . . . : PROD      Modifier : WEEKEND
| ORD Type . . . . : MBJ
|
| Element criteria . . . . : _____
| Qualifier criteria . . . . : _____
| Modify Amount . . . . : -10.00000 or % P Exit on true Y
| Qualifier . . . . . : @WEEKEND _____
| Sequence number . . . . : 00001
| DIVISION . . . . . : _____
| DEPARTMENT . . . . . : _____
| SECTION. . . . . : _____
| GROUP-ID . . . . . : _____
| TEAM . . . . . : _____
|
| F5=Save  F6=Delete
+-----+-----+-----+-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
```

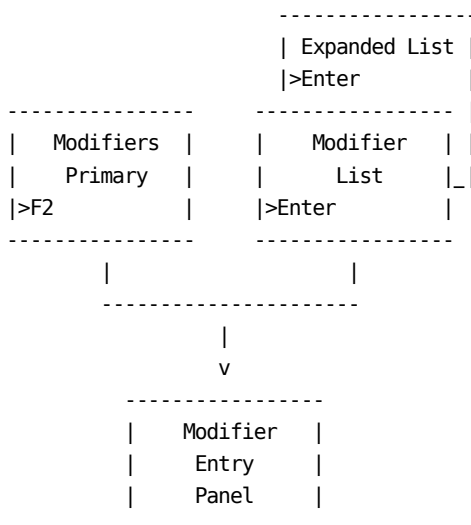
If you have not already created the qualifier you want associated with the modifier, you can now do so by invoking the Cbdefs pull-down and selecting Qualifiers. The Qualifiers primary panel appears; you can proceed to the [Qualifier Entry panel](#) (see page 158) by pressing F2=Create.

On the next page is a description of the Modifier Entry panel.

Access

The Modifier Entry panel appears when one of these events occurs:

- When **F2** is pressed on the [Modifiers primary panel](#) (see page 175) shown in [Modifier Entry Panel](#) (see page 179).
- You make a selection on the Modifiers List or Expanded List panel.
- You return from the Modifiers List, Expanded List or Expanded Entry panel.



Input

The Modifier Entry panel contains the following entry fields:

Note: The default for the following fields (unless otherwise noted) is **GLOBAL**. Remember, if you leave an entry field blank the default value is used.

Element criteria

The name of an **existing** charge element you want to use in the selection of **incoming records** for modification. The default is to apply the modifier globally to all charge elements. You can also use entries like @SHIFT%.

Qualifier criteria

The name of an **existing** qualifier you want to use in the selection of **incoming records** for modification. You can also use entries like @SHIFT%.

Modify Amount (Required)

A numeric dollar amount or a percentage you want the calculated charge modified by. Both the amount or percentage can be a plus or minus value.

%

Enter either F (Fixed) or P (Percent) in the space to the right of the % to indicate if the modification amount is a percentage or a fixed value. Default: None.

Exit on True (Required)

Y(es) or N(o); if Y, after the first true condition is encountered, all further processing of modifiers is stopped. If N, processing continues with the next modifier sequence number. This process continues until a modifier is encountered that contains Exit on True=Y.

Qualifier

The qualifier name that defines the conditional test(s) that determine when the modifier is applied.

Sequence Number

Used to assign a **search order number** for the modifier you are defining on this panel. Sequence numbers determine the order in which rules are executed. See :spotref refid=mrules. for a description of modifier rules.

Note: Assign sequence numbers in increments of 10. Doing so provides you with flexibility should you decide to add additional modifiers at a later date.

This example uses the following entry fields to indicate the accounting entities you want the modifier applied to (only defined accounting levels are displayed on the panel) the default is to apply the modifier globally:

Division

A specific user-defined group, or a qualifier containing a list of conditions that can be used to specify groups within this level.

Department

A specific user-defined group, or a qualifier containing a list of conditions that can be used to specify groups within this level.

Section

A specific user-defined group, or a qualifier containing a list of conditions that can be used to specify groups within this level.

Group-id

A specific user-defined group, or a qualifier containing a list of conditions that can be used to specify groups within this level.

Team

A specific user-defined group, or a qualifier containing a list of conditions that can be used to specify groups within this level.

Actions

F5=Save

Lets you save the Modifier entry.

F6=Delete

Lets you delete the modifier entry.

Examples

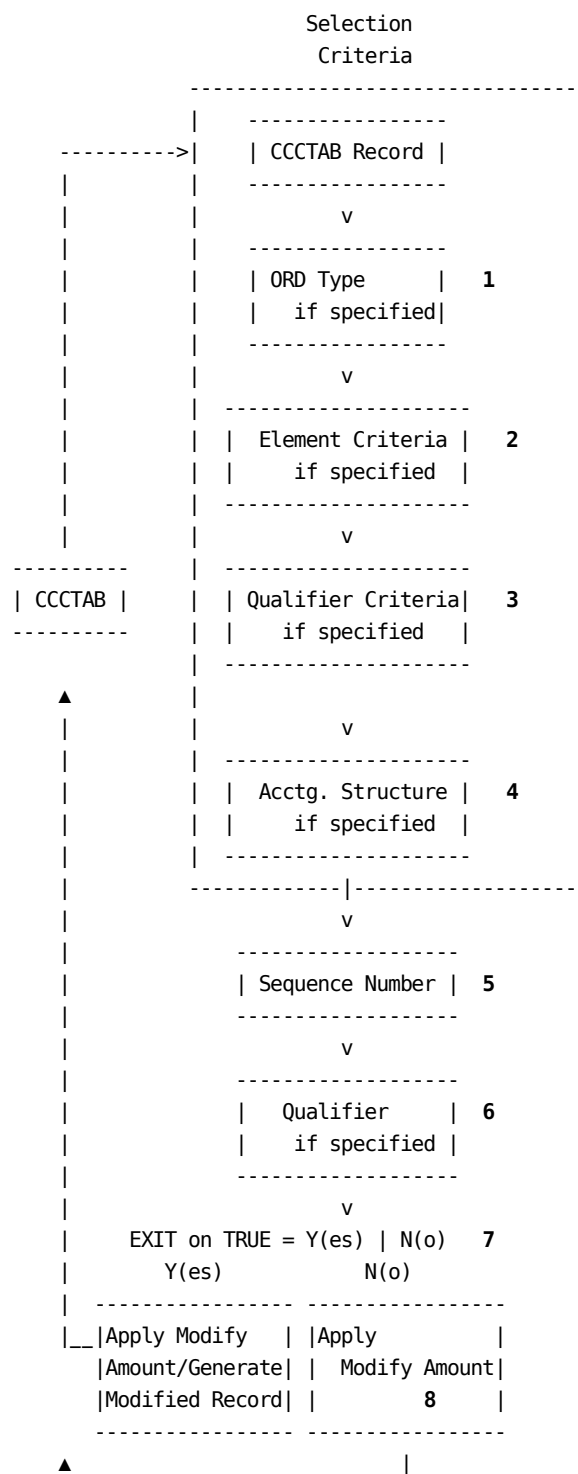
The following entry fields are used as selection criteria for modifier processing:

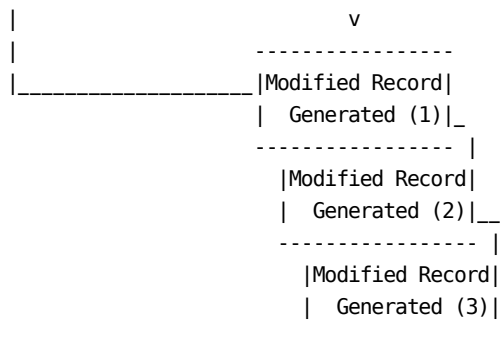
- ORD Type specified on the Modifiers primary panel
- Element criteria
- Qualifier criteria
- Structure

Selection criteria testing starts at ORD Type. Any records not meeting conditions ORD Type through Acctg. Structure are rejected from modification at the point they fail.

Sequence Number is used to specify the order in which modifier rules are executed. This is especially critical when Exit on true=N. A record meeting tests *ORD Type* through *Qualified* is specified. The **calculated** charge units and costs are modified to reflect the application of the modified amount. The record continues on to the next modifier test based on the remaining modifiers' Sequence Numbers. If at any point the record does not meet a criterion or conditional test, that modifier is not applied. If, on the other hand, it meets all the tests for another modifier, an additional *modified* record is generated. Processing continues in this manner until all records have been processed and all modifiers tested.

The processing flow is shown below.





Modifier Rules

	Processing Order	Example 1 Modifier X	Example 2 Modifier Y	Example 3 Modifier Z
1	ORD	MBJ	ALL	ALL
2	Element Criteria	CPU-CHARGE		
3	Qualifier Criteria			
4	Structure		EAST	
5	Sequence	100	200	300
6	Qualifier	@WEEKEND		@SHIFT3
7	Exit on True	Y	N	Y
8	Modify Amount	+10%	-10%	-20%

Let us assume that shifts end at: 0800, 1600, and 2400 and we have the following records to be processed:

Record	ORD	Charge Element	Field 1	Field 2	Struct
1	MBJ	CPU-CHARGE	Saturday	2359	EAST
2	MBJ	IO-CHARGE	Monday	1200	EAST
3	MBJ	PRT-CHARGE	Monday	2359	North
4	MBJ	X-CHARGE	Thursday	1900	EAST

Record 1 only has a type X modifier applied because it meets the qualifier @WEEKEND (this job ran on Saturday). Since EOT=T, further processing of modifiers stops here. A 10% surcharge is applied.

Record 2 only meets modifier Y's rules: Structure = EAST. Since the job ran on Monday (not the weekend) modifier X does not apply. It ran at 1200 (the middle of SHIFT2); therefore, modifier Z does not apply). Only modifier Y applies resulting in a discount of 10%.

Record 3 meets only modifier Z's rules: it ran in SHIFT3. Therefore, a 20% discount is applied.

Record 4 meets **both** modifier Y's and Z's rules: the structure is EAST and it ran during SHIFT3. Therefore, this record gets a 10% discount from modifier Y and a 20% discount from modifier Z. At invoice time, this record's calculated charges will show a net discount of 30%.

Now let's take another look at Example 1, changing its Exit on True to No. We apply the following rules:

	Processing Order	Example 1 Modifier X	Example 2 Modifier Y	Example 3 Modifier Z
1	ORD	MBJ	ALL	ALL
2	Element Criteria	CPU-CHARGE		
3	Qualifier Criteria			
4	Structure		EAST	
5	Sequence	100	200	300
6	Qualifier	@WEEKEND		@SHIFT3
7	Exit on True	N	N	Y
8	Modify Amount	+10%	-10%	-20%

Note: If Example 1 Exit on True is No, then the following rules are applied:

Record	ORD	Charge Element	Field 1	Field 2	Struct
1	MBJ	CPU-CHARGE	Saturday	2359	EAST

Because Exit on True=N for modifier X, modifiers Y and Z are now tested. Because this record also meets the rules for Modifier Y and Z, two additional modified records are generated. This gives us a total of three modified records whose results are stored on the CCCTAB: (1) with a surcharge of +10%, (2) with a discount of 10%, and (3) with a discount of 20%. At invoice time, this record's calculated charges show a net discount of 20%.

The examples on the following pages show you how to enter the modifier rules on Modifier Entry panels.

Example 1: Modifying Charges Using ORD & Element Criteria

The panel below shows how to modify MBJ CPU-CHARGE charge element records for work performed on weekends. The selection criteria is ORD Type: MBJ and Element criteria: CPU-CHARGE.

In this example, we are adding a 10 percent surcharge for all MBJ CPU-CHARGES meeting the test @WEEKEND (Saturday or Sunday). We will Exit on True. The surcharge is applied **without** regard to accounting level. The algorithm for modifiers is:

```

Charge          Modifier
Element         WEEKEND
-----
CPU-CHARGE *  |+.10 | = Modified CPU-CHARGE
-----
    
```

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
---            +---+-----+-----+-----+-----+-----+
+-- CBCMODE ----- Modifier Entry -----+
|      Panel  Exit  Help      |
|-----|
| Version . . . : PROD      Modifier : X |
| ORD Type . . . : MBJ      |
|-----|
| Element criteria . . CPU-CHARGE_____ |
| Qualifier criteria . . _____ |
| Modify Amount . . . . . +10.00000 or % P Exit on true Y |
| Qualifier . . . . . @WEEKEND_____ |
| Sequence number . . 00100 |
| DIVISION . . . . . _____ |
| DEPARTMENT . . . . . _____ |
| SECTION . . . . . _____ |
| GROUP-ID . . . . . _____ |
| TEAM . . . . . _____ |
|-----|
|      F5=Save  F6=Delete |
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Example 2: Modifying Charges by Structure

In this example, we are giving all users in the EAST accounting entity a 10 percent discount on all resources used. This discount is applied **without** regard to the ORD, Element, or Qualifier.

```

USERID                               CA JARS/OLF                               MM/DD/YY HH:MM:SS
---  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--  CBCMODE  -----  Modifier Entry -----+
|      Panel  Exit  Help
|-----+
|  Version . . . : PROD      Modifier : Y
|  ORD Type . . . : ALL
|
|  Element criteria . . _____
|  Qualifier criteria . _____
|  Modify Amount . . .      -10.00000 or % P  Exit on true N
|  Qualifier . . . . . _____
|  Sequence number . . 00200
|  DIVISION . . . . . EAST_____
|  DEPARTMENT . . . . . _____
|  SECTION. . . . . _____
|  GROUP-ID . . . . . _____
|  TEAM . . . . . _____
|
|      F5=Save  F6=Delete
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Note: Modifiers greatly reduce the number of qualifiers and qualified rates required.

Example 3: Modifying Charges by Qualifier

In this example, all records meeting modifier Z's @SHIFT3 qualifier test has their calculated units and costs reduced by 20 percent.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCMODE ----- Modifier Entry -----+
|   Panel  Exit  Help
|-----+
| Version . . . : PROD      Modifier : Z
| ORD Type . . . : ALL
|
| Element criteria . . _____
| Qualifier criteria . _____
| Modify Amount . . . -20.00000 or % P Exit on true Y
| Qualifier . . . . . @SHIFT3_____
| Sequence number . . 00300
| Division . . . . . _____
| Department . . . . . _____
| Section . . . . . _____
| Group-id . . . . . _____
| Team . . . . . _____
|
| F5=Save  F6=Delete
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Example 4: Using a Wildcard with Selection Criteria

In this example, we are selecting all records that meet the @SHIFT% criteria for modifier testing, those records that also meet the @CPUIDA test have their calculated units and charges reduced by 50 percent.

```

USERID                                CA JARS/OLF                                MM/DD/YY HH:MM:SS
---  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--  CBCMODE  -----  Modifier Entry -----+
|
|  Panel  Exit  Help
|-----+
|  Version . . . : PROD      Modifier : SPECIAL
|  ORD Type . . . : ALL
|
|  Element criteria . . _____
|  Qualifier criteria . @SHIFT%_____
|  Modify Amount . . .      -50.00000 or % P  Exit on true Y
|  Qualifier . . . . . @CPUIDA_____
|  Sequence number . . 02000
|  DIVISION . . . . . _____
|  DEPARTMENT . . . . . _____
|  SECTION . . . . . _____
|  GROUP-ID . . . . . _____
|  TEAM . . . . . _____
|
|  F5=Save  F6=Delete
+-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Defining Split Resources

CA JARS/OLF enables you to split charges calculated for a specific accounting level across its entities. The charge distribution capability is useful because:

- The cost of a job can be split among the specific entities responsible for its use
- The total cost for an accounting level can be summarized and an invoice produced
- Resource statistics are retained even if its cost is split

Split processing occurs **after** charges are calculated for a given Consolidated Calculated Charge (CCC). If the record is associated with a split, then the charge is prorated and new records are created.

The Split definition is very similar to the Modifier definition, in that:

- Processing takes place at Detail function time (after the charges are calculated for a given CCC detail record)
- Additional CCC detail records are created

If the record is associated with a Split, then the CCC detail record is prorated and new CCC detail records are created and passed to the Summarization process for writing to the CCCTAB table.

The following panels make up the Split Charges panel set:

- Split Charges primary panel
- Split Charges List panel
- Expanded Split Charges List panel
- Split Charges Entry panel

Note: Protected display field areas are preceded by a colon (:).

Split Charges Primary Panel

The Split Charges primary panel is used for creating, examining or modifying a Split Charge. A Split Charge name can be up to 16 alphanumeric characters.

The following panel shows a request to browse or create a Split Charge named PAYROLL for ORD Type MBJ.

```

USERID                                CA JARS/OLF                                MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCSPLP ----- Split Charges -----+
|      Panel  Exit  Help                    |
+-----+
|      Type information. Then select an action.      |
|                                                    |
|      Version . . . : PROD                          |
|      ORD Type . . . : MBJ                          |
|      Split Charge . : PAYROLL                      |
|                                                    |
|      F2=Create  F11=Browse                        |
+-----+

This panel associates an ORD type, as defined by
the CA JARS/OLF Administrator, with a split charge.

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

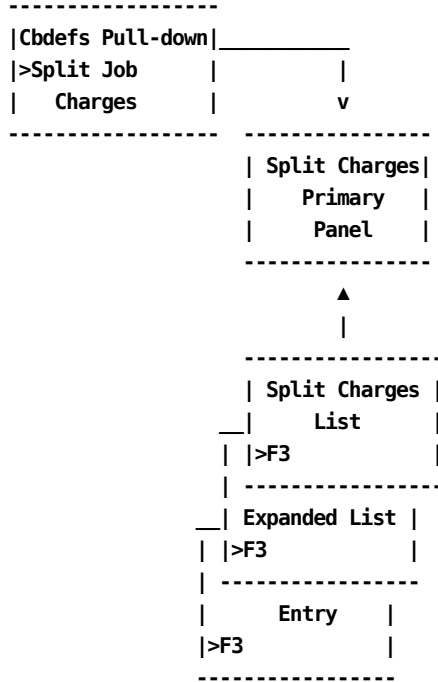
Remember, you can enter the SQL wildcard character % at either or both prompts to display a full browse list of all currently defined ORDs and/or Split Charges.

On the next page is a description of the Split Charges primary panel.

Access

The Split Charges primary panel appears when one of these events occurs:

- You type CS in the fast path area of the CA JARS/OLF Primary Panel's action bar.
- You select Cbdefs from the CA JARS/OLF Primary Panel's action bar and then choose Split Job Charges.
- You return to this panel from the Split Charges List, Expanded List, or Entry panel using **F3**.



Input

The Split Charges primary panel contains the following entry field:

ORD Type

A three-character name of the output record identifier you want to define, view or modify.

When using F11 (Browse): if you do not know the ORD Type name, enter the SQL wildcard character %. This gives you a list of all ORD Types meeting the Split Charge you specify in the next field. Or you can enter a % at both the ORD Type and Split Charge prompts to get a list of all defined ORDs and Split Charges.

Split Charge

The name (up to 16 alphanumeric characters) of the Split Charge you want to create, view, or modify.

Pathways**F2**

(Create) Takes you to the [Split Charges Entry Panel](#) (see page 195).

F11

(Browse) Takes you to the [Split Charges List Panel](#) (see page 193).

Split Charges List Panel

The Split Charges List panel displays a list of all currently defined Split Charges meeting the criteria specified on the Split Charges primary panel. The search criteria are redisplayed as protected fields (see **1** below). The following panel shows all Split Charge definition names, currently defined for ORD MBJ(See **2** below).

```

USERID                      CA JARS/OLF                      MM/DD/YY HH:MM:SS
--  Acctdefs Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCSPLL ----- Split Charges List -----+
|                                     Panel  Exit  Help
|-----+-----+-----+-----+-----+
| Select Split Charge name. Then Enter.
|
| Version . . . : PROD
| ORD Type . . . : MBJ          1
| Split Charge : %
|
|                                     More: - + ____ Row 0001 of 0002
|
| Ord  Split Charge
|
| MBJ  PAYROLL
| MBJ  INVENTORY          2
|
| Enter  F7=Bkwd  F8=Fwd  F11=Expand
+-----+-----+-----+-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

The following is a description of the Split Charges List panel.

Access

The Split Charges List panel appears when one of these events occurs:

- You press **F1** (Browse) on the [Split Charges Primary Panel](#) (see page 191).
- You return from the Expanded Split Charges List panel.

```
-----  
|Split Charges | _____  
|   Primary   |           |  
|>F11        |           | v  
-----  
                                     | Split Charges |  
                                     |   List       |  
                                     |   Panel     |  
-----  
                                     ▲  
|Split Charges | _____  
| Expand. List | _____  
|>F3          |  
-----
```

Scrolling

F7 and F8 let you scroll backward and forward through the Split Charge selection list. You can also use the scroll bar, as explained [Sample List Panel](#) (see page 46), to move through the list.

Pathways

Enter

Select: by placing the cursor next to the selected item, and pressing **Enter**.

F11

(Expand) Provides you with an **expanded** (eight-line display) view of the Split Charges List panel.

Split Charges Expanded List Panel

The following panel appears when you press **F11** (Expand) on the [Split Charges List Panel](#) (see page 193). The only difference between the two panels is the Version, ORD Type, and Split Charge protected fields are not displayed. This allows you to view more information on a single panel. The Expanded List panel functions in the same way as the panel from which it was called.

```

USERID                                CA JARS/OLF                                MM/DD/YY HH:MM:SS
---  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--  CBCSPLX  ----- Expanded Split Charges List -----+
      Panel  Exit  Help
      -----
      Select Split Charge name. Then Enter.
      More: - + ____ Row 0001 of 0001
      ORD Split Charge
      _ MBJ PAYROLL
      -
      -
      -
      -
      -
      -
      Enter  F7=Bkwd  F8=Fwd
+-----+

Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Split Charges Entry Panel

The Split Charges Entry panel is used to define how you want to split the cost of resources among your accounting entities. When you create a split charge definition, the Original, New and Percent columns are blank. A split charge always requires at least 2 entry panels for definition as shown in Example 1 in "[Example 1: Splitting a Resource Charge Between Two Accounting Levels](#) (see page 198)" in example 2 in "[Example 2: Splitting a Resource Charge Among Four Accounting Levels](#) (see page 200)".

The panel below shows how to create a Split Charge, named PAYROLL. After you enter original information, press **F5** to save the data. Examples 1 and 2 show you how to continue the split charge definition.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--- CBCSPLE ----- Split Charges Entry -----+
|   Panel  Exit  Help  |
|-----|
| Type Original information. Then select an action. |
| Version . . . : PROD |
| Ord Type . . . : MBJ |
| Split Charge : PAYROLL |          Percent Used:  0.00% |
|          Original          New          Percent |
| Division . . . . DEVELOPMENT |          |          |
| Department . . . . EAST COAST |          |          |
| Section . . . . ACCOUNTING |          |          |
| Group-id . . . . QA |          |          |
| Team . . . . . CHARGEBACK |          |          |
| F5=Save  F6=Delete  F7=Prev  F8=Next  F11=Insert |
+-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

On the next page is a description of the Split Charges Entry panel.

Access

The Split Charges Entry panel appears when one of these events occurs:

- When you press **F2** (Create) on the [Split Charges Primary Panel](#) (see page 191).
- You make a selection on the Split Charges List or Expanded List panel.

```

-----
| Split Charges |
| Expanded List |
|>Enter       |
-----
| Split Charges |
| Primary      |
|>F2          |
-----
-----
| Split Charges |
| List         |
|>Enter       |
-----
      |
      |
      v
-----
| Split Charges |
| Entry        |
| Panel       |
-----

```

Input

The Split Charges entry panel contains the following entry fields:

Percent Used

Upon initial entry to this panel, the value displayed is 0. After the first *new* structure is defined, the defined percentage is reflected in this field. Note that the panel instruction line changes from original to new. Continue entering new information until Percent Used equals 100%.

Note: Percent Used **must** equal 100.00% Any attempt to save this panel when Percent Used does not equal 100% will fail

The following entry fields are used to indicate the accounting levels you want the debits and credits applied to:

Note: Only defined accounting levels are displayed.

Original

Lists the original accounting entities to which the resource is attributed.

New

Use this column to list the names of the accounting entities you want the charges split to.

Note: You also have the option of typing the word **PRESERVE** in this column. PRESERVE allows you to retain the original entity without having to retype the entity name.

Percent

The percentage amount of the charge you want attributed to the *new* entity.

Actions

F5=Save

Lets you save the information on the panel.

F6=Delete

Deletes the Split Charge definition.

F7=Previous

Takes you to any previous Split Charge Entry panels used to define the split.

F8=Next

Takes you to the next panel where you can continue to define or view the split charge. You can use as many panels as necessary to define the split. However, the combined percentages of the split must equal 100%.

F11=Insert

Only valid when you are in update mode and percent does not equal 100%.

Note: Update mode is active only after first defining a split charge completely (Percent Used=100.00). Once defined, split charges may be updated by overtyping the percent fields. F5 to save updated data may cause Percent Used to be less than 100%. By pressing the F11 key, the New information area will be cleared, allowing you to 'insert' new split information (to set Percent Used back to 100%).

Example 1: Splitting a Resource Charge Between Two Accounting Levels

In the following example, panel **1** shows the original split charge definition we created and saved in [Split Charges Entry Panel](#) (see page 195). We now define a split charge (PAYROLL) that attributes 60% of the charge to the Princeton Department panel **1** and 40% to the Reston Department. We do this by:

1. Modifying the New column as shown below (note the use of the PRESERVE option)
2. Saving the entry by pressing F5 (Save)

Note: If you are in **input** mode, after you press F5 the New column automatically blanks out so that new data can be entered. F8 (Next) is only active in **update** mode.

Next, we modify the New column as shown on panel 2 to reflect that 40% of the charge should be against the Reston Department.

```

+-- CBCSPLE ----- Split Charges Entry
-----+
|          Panel  Exit  Help      2          |
+-- CBCSPLE ----- Split Charges Entry -----+
|          Panel  Exit  Help      1          |
|-----+
| Type Original information. Then select an action. |
| Version . . . : PROD                               |
| Ord Type . . . : MBJ                               |
| Split Charge : PAYROLL          Percent Used 60.00% | Percent Used: 100.00%
|
|          Original      New          Percent | New          Percent
|-----+-----+-----+-----+-----+
| Division . . . . DEVELOPMENT  PRESERVE      60.00% | DEVELOPMENT  40.00%
| Department . . . . EAST COAST  PRINCETON          | RESTON
| Section . . . . ACCOUNTING     PRESERVE          | ACCOUNTING
| Group-id . . . . QA            PRESERVE          | QA
| Team . . . . . CHARGEBACK      PRESERVE          | CHARGEBACK
|-----+-----+-----+-----+
| F5=Save  F6=Delete  F7=Prev  F8=Next  F11=Insert  |
+-----+

```

Example 2: Splitting a Resource Charge Among Four Accounting Levels

In the following example, panel 1 shows the original split charge definition we created and saved in "[Split Charges Entry Panel](#) (see page 195)". We will now define a split charge (PAYROLL) that attributes 25% of the charge to the Princeton Department panel 1, 25% to the Reston Department panel 2, 25% to the Garden City Department panel 3, and 25% to the Maitland Department panel 4. We do this by:

1. Modifying the New column as shown below
2. Saving the entry by pressing F5 (Save). See note on previous page.

We then modify the New column on panel 2. to reflect that 25% of the charge should be against the Princeton Department. We continue in this manner until we have completed the split among all entities and the Percentage Used equals 100%.

```

+-- CBCSPLE ----- Split Charges Entry
-----+
|           | Panel Exit Help  2 |
+-- CBCSPLE ----- Split Charges Entry -----+
| Panel Exit Help  1 |_____+
|-----+
| Type Original information. Then select an action. |
|
| Version . . . : PROD |
| Ord Type . . . : MBJ |
| Split Charge : PAYROLL          Percent Used: 25.00% | Percent Used 50.00%
|
|           Original      New          Percent | New          Percent
|
| Division . . . . DEVELOPMENT  DEVELOPMENT  25.00% | DEVELOPMENT  25.00%
|
| Department . . . EAST COAST    PRINCETON   | RESTON
| Section . . . . ACCOUNTING    ACCOUNTING  | ACCOUNTING
| Group-id . . . . QA           QA           | QA
| Team . . . . . CHARGEBACK     CHARGEBACK | CHARGEBACK
|
| F5=Save F6=Delete F7=Prev F8=Next F11=Insert |
+-----+
+-- CBCSPLE ----- Split Charges Entry
-----+
|           | Panel Exit Help  4 |
+-- CBCSPLE ----- Split Charges Entry -----+
| Panel Exit Help  3 |_____+
|-----+
| Type new information and save. Or select an action. |
|
| Version . . . : PROD |

```



```

| Ord Type . . . : MBJ | |
| Split Charge : PAYROLL          Percent Used: 75.00% | Percent Used: 100.00%
|
|           Original          New          Percent | New          Percent
|
| Division . . . . DEVELOPMENT  DEVELOPMENT  25.00% | DEVELOPMENT  25.00%
|
| Department . . . EAST COAST    GARDEN CITY          | MAITLAND
| Section . . . . ACCOUNTING     ACCOUNTING            | ACCOUNTING
| Group-id . . . . QA             QA                    | QA
| Team . . . . . CHARGEBACK      CHARGEBACK           | CHARGEBACK
|
|-----+
| F5=Save  F6=Delete  F7=Prev  F8=Next  F11=Insert  |
+-----+

```

Shift Chop Definition

To allow equitable allocation and calculation of charges to ORD records that *span* shifts, we implement a shift chop definition. The reason for using Shift Chop definitions is illustrated by the following example. Suppose no Shift Chops were defined and a five hour job started one minute before the end of the first shift. The entire five hours would be charged at the first shift's rate, even though 99% of the job executed during the second shift. As you can see, using Shift Chop definitions ensure equitable allocation and calculation of charges.

This function is activated at the Detail function time, and is similar to split processing, since it creates multiple records from a single input. However, unlike split processing, the interval chop routines are performed **before** creation of the CCC detail record, at ORD reception time. It is as if multiple ORD records were presented to the detail function routines. Up to four **chop times** can be specified. In the example below, we have specified three.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCCHPE ---- Shift Chop -----+
|   Panel  Exit  Help  |
|-----|
|   Type information. Then select an action.   |
|   Version : PROD                             |
|                                               |
|               Start                          |
|               HH:MM                          |
|                                               |
|   First shift . 08:00                        |
|   Second shift . 16:00                       |
|   Third shift . 24:00                        |
|   Fourth shift . _____                  |
|                                               |
|   F5=Save   F6=Delete                       |
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

On the next page is a description of the Shift Chop Entry panel.

Access

The Shift Chop entry panel appears when one of these events occurs:

- You type CB in the fast path area of the CA JARS/OLF Primary Panel's action bar.
- You select Shift Chop on the Cbdefs pull-down.

```

-----
|   Cbdefs   | _____ |
| Pull-down  |           |
|>Shift Chop|         v  |
-----
|           |           |
|   Shift Chop   |
|   Entry       |
|   Panel       |
|           |           |
-----
    
```

Input

The Shift Chop panel contains the following input field:

Start HH:MM

This field is used to specify the time at which you want a shift interval chopped or *started* (format is HH MM).

Actions**F5=Save**

Lets you save your entries.

F6=Delete

Deletes all entries.

Example: Defining a Shift Chop

Up to four *Chop* times can be specified. We have specified three on the sample panel below:

- 8 AM (08 00)
- 4 PM (16 00)
- midnight (24 00)

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help

+-- CBCCHPE ---- Shift Chop -----+
|                                     |
|      Panel  Exit  Help              |
|-----|                             |
|      Type information and save. Or delete.      |
|      Version : PROD                        |
|                                     |
|                                     |
|                                     |
|                                     |
|      Start                               |
|      HH:MM                               |
|      First shift . 08:00                 |
|      Second shift . 16:00                |
|      Third shift . 24:00                 |
|      Fourth shift . ____                 |
|      F5=Save  F6=Delete                  |
|-----+-----|

```

Command ==> _____
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel

Example:

If an ORD record has a Start Time of 07:00 and a Stop Time of 17:00, it spans multiple intervals. Interval records would be created for the following:

- 07:00 -> 07:59 Start Time to next Interval Boundary
- 08:00 -> 15:59 Interval Boundary to next Interval Boundary
- 16:00 -> 17:00 Interval Boundary to Stop Time

This splitting should, in most cases, match the user-defined Shift qualifiers.

Note: If shift qualifiers have been defined, there is no checking against Shift Chop to ensure that the defined shift times are the same.

Chapter 5: Defining Adjustments

The Cbdefs options discussed in this chapter, like those in Chapter 4, are executed when you select **Cbdefs** from the CA JARS/OLF Primary Panel's action bar by placing the cursor next to the Cbdefs keyword and pressing Enter. You see the same Cbdefs Pull-down.

While all of the choices are available to you, the following choices are **not** discussed in this chapter: Choices 1 through 7 are used in rate definition and are discussed in Chapter 8.

With CA JARS/OLF you can perform adjustments such as Cost Recovery and Overhead Distribution when charging for resources, using the following Cbdefs options which are discussed in this chapter:

- 8 Cost Recovery (T)
- 9 Overhead Distribution

On the next page is a table of the choices available to you when defining adjustments.

Cbdefs Pull-Down

USERID	CA JARS/OLF				MM/DD/YY HH:MM:SS
__	Acctdefs	Cbdefs	Query	Data	Period Options Exit Help
	CB Definitions A 1. Charge Elements 2. Charge Units (U) 3. Qualifiers 4. Normalizer 5. Modifiers 6. Split Job Charges 7. Shift Chop (B) 8. Cost Recovery (T) 9. Overhead Distribution ----- F12=Cancel				<p>A A 1-character field that allows you to make a selection using a mnemonic that can be either a number or the first letter of an action. Notice that when actions have duplicate first letters, you can use either the number or the letter provided in the parentheses.</p> <p>You can also make your selection by tabbing the cursor next to the action you want to perform and pressing Enter.</p>
Command ==> _____ F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp					

The following choices are discussed in this chapter:

8. Cost Recovery

Gives you the ability to recover costs for a specific resource and specify the recovery amount.

9. Overhead Distribution

Lets you distribute charges for a shared resource.

Both Cost Recovery and Overhead Distribution are performed **after** record summarization has occurred for the period in which you want these adjustments applied.

Adjustments operate on the **actual** charges found in CCCTAB not the units. This means that the charge may be the result of either a minimum or maximum charge being applied to a element rather than the charge being the product of charge units multiplied by the rate. Therefore, when an adjustment is applied, a new record is created in CCCTAB which may have values for the units and rate that when multiplied together do **not equal** the charge, but, the charge divided by the rate equals the units.

Cost Recovery Panels

Cost Recovery enables you to:

- Recover costs for a specific resource
- Specify the amount you want to recover
- Provide allocation targets based on user-defined criteria
- Prorate the recovery amount based on current charges contained in CA JARS/OLF records
- Create cost recovery charge records to maintain auditability (summary modifiers)

The following panels make up the Cost Recovery panel set:

- Cost Recovery primary panel
- Cost Recovery List panel
- Expanded Cost Recovery List panel
- Cost Recovery Entry panel

Cost Recovery Primary Panel

Cost recovery enables you to recover a specific amount for a resource from the entities using the resource. The Cost Recovery primary panel is used for creating, examining or modifying a Cost Recovery definition. A cost recovery name can be up to 16 alphanumeric characters.

```

USERID                                CA JARS/OLF                                MM/DD/YY HH:MM:SS
---  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--- CBCRECP ----- Cost Recovery -----+
|                                     |
|   Panel  Exit  Help                 |
|-----|
|   Type information. Then select an action.
|
|   Version . . : PROD
|   ORD Type . . MBJ
|   Recovery . . %
|
|   F2=Create  F11=Browse
|-----+

```

This panel optionally associates an ORD record type, as defined by the CA JARS/OLF Administrator, with a Recovery name.

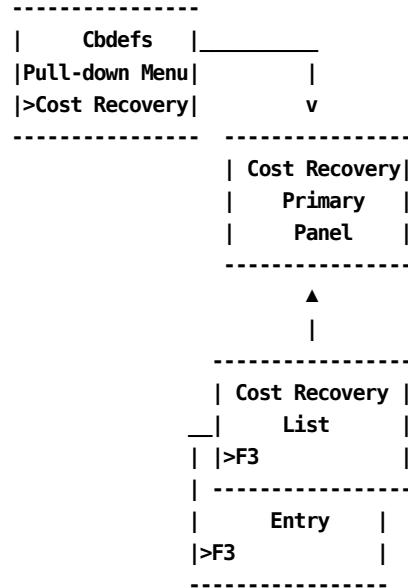
Command ==> _____
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp

The following is a description of the Cost Recovery primary panel.

Access

The Cost Recovery primary panel appears when one of these events occurs:

- You type CT in the fast path area of the CA JARS/OLF Primary Panel's action bar.
- You choose Cost Recovery on the Cbdefs pull-down.
- You return from the Cost Recovery List or Entry panel.



Input

The Cost Recovery primary panel contains the following input fields:

ORD Type

The three-character name of the output record identifier for which you want to define, view or modify a Recovery amount.

Recovery

The name (up to 16 alphanumeric characters) of the recovery you want to define, view, or modify.

Pathways

F2

(Create) Takes you to the [Cost Recovery Entry Panel](#) (see page 211).

F11

(Browse) Takes you to the [Cost Recovery List Panel](#) (see page 209).

Cost Recovery List Panel

The Cost Recovery List panel displays a list of all currently defined cost recovery definitions meeting the criteria specified on the Cost Recovery primary panel (see 1 below). The search criteria are redisplayed as protected display fields. The following panel shows all Recovery definitions (see 2 below) currently defined for Version PROD.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--- Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--- CBCRECL ----- Cost Recovery List -----+
|   Panel    Exit  Help  |
|-----|
| Select a recovery name. Then Enter. |
|                                         |
| Version . : PROD                      |
| ORD Type . : MBJ                      1 |
| Recovery . : CPU-ADJUSTMENT           |
|                                         |
|   ORD  Recovery Name                   More: - + ____ Row 0001 of 0002 |
|   MBJ  CPU-ADJUSTMENT                   |
|   MBJ  DISKIO-MOUNTS                    2 |
|                                         |
| Enter  F7=Bkwd  F8=Fwd  F11=Expand    |
+-----+

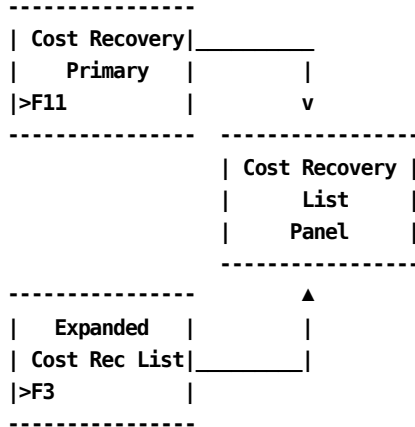
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

On the next page is a description of the Cost Recovery List panel.

Access

The Cost Recovery List panel appears when one of these events occurs:

- You press **F11** (Browse) on the [Cost Recovery Primary Panel](#) (see page 207).
- You return from the Expanded Cost Recovery List panel using F3.



Scrolling

F7 and F8 let you scroll backward and forward through the Recovery Name selection list. You can also use the scroll bar, as explained on [Sample List Panel](#) (see page 46), to move through the list.

Pathways

Enter

By placing the cursor next to the required item and pressing **Enter**, you can go to the [Cost Recovery Entry Panel](#) (see page 211) to examine and optionally update the item.

F11

(Expand) Provides you with an **expanded** (eight-line display) view of the Cost Recovery List panel.

Expanded Cost Recovery List Panel

The following panel appears when you press **F11** (Expand) on the Cost Recovery List panel. The only difference between the two panels is the Version, ORD Type and Recovery protected fields are not displayed. This allows you to view more information on a single panel. The Expanded List panel functions in the same way as the panel from which it was called.

```

USERID                               CA JARS/OLF                               MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--  CBCRECX  -----  Expanded Cost Recovery List -----+
|      Panel    Exit   Help
|-----|
|      Select a Recovery name. Then Enter.
|
|      ORD  Recovery Name                               More: - + ____ Row 0001 of 0002
|
|      MBJ  CPU-ADJUSTMENT
|      MBJ  DISKIO-MOUNTS
|
|
|      Enter   F7=Bkwd   F8=Fwd
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Cost Recovery Entry Panel

The Cost Recovery Entry panel is used to define the amount you want to recover for a resource, the effected period, and the accounting entities you want billed.

The panel below shows how to create a Cost Recovery definition called CPU-ADJUSTMENT for MBJ ORD types:

- For the third billing period
- With a recovery amount of 5000
- To be allocated to users of CPU-CHARGE
- For all Divisions, Departments, and Qualifiers

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--  CBCRECE  -----  Cost Recovery Entry -----+
|  Panel  Exit  Help
|-----|
|  Type information. Then select an action.
|
|  Version . . . : PROD          ORD Type : MBJ
|  Recovery . . . : CPU-ADJUSTMENT
|
|  Charge Element . CPU-CHARGE_____  Recovery Amt .      5000.00000
|  Qualifier . . . : _____
|  Period Number . 003
|  Division . . . : _____
|  Department . . . : _____
|
|  F5=Save  F6=Delete
+-----+

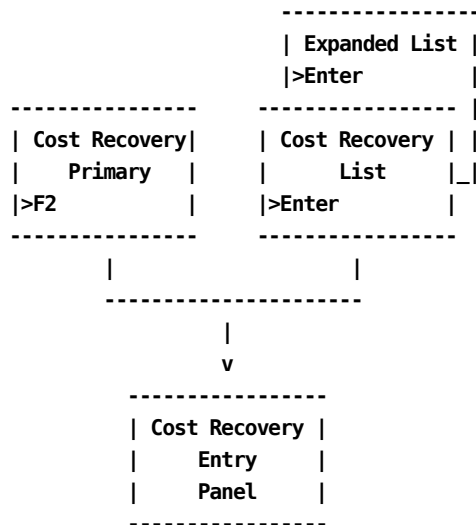
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

On the next page is a description of the Cost Recovery Entry panel.

Access

The Cost Recovery Entry panel appears when one of these events occurs:

- When **F2** (Create) is pressed on the [Cost Recovery Entry Panel](#) (see page 211).
- You make a selection on the Cost Recovery List or Expanded List panel.



Input

The Cost Recovery Entry panel contains the following input fields:

Charge Element

The name of the charge element (up to 16 alphanumeric characters) whose result you want adjusted to ensure recovery of the amount specified in the Recovery Amt field.

Recovery Amt

The amount you want to recover.

Qualifier

The name of a qualifier (up to 16 alphanumeric characters) you want to use in the selection of records.

Period Number

The period number from which the recovery amount should be captured. If this Cost Recovery pertains to all periods, enter a value of 0. This causes the recovery amount to be applied per period for all open periods.

The following entry fields are used to indicate the accounting levels from which you want to recover the amount specified:

This example uses the following accounting levels:

Division**Department****Actions****F5=Save**

Saves the Cost Recovery entry.

F6=Delete

Deletes the Cost Recovery entry.

Example 1: Cost Recovery From a Single Accounting Level

The panel below shows how to create a Cost Recovery definition called CPU-ADJUSTMENT for MBI ORD types:

- With a recovery amount of \$100
- For the third billing period
- For all departments in the East Coast Division

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--  CBCRECE  -----  Cost Recovery Entry -----+
|      Panel  Exit  Help
|-----+
|  Type information. Then select an action.
|
|  Version . . . : PROD          ORD Type : MBI
|  Recovery . . . : CPU-ADJUSTMENT
|
|  Charge Element . CPU-CHARGE_____  Recovery Amt .      100.00000
|  Qualifier . . . _____
|  Period Number . 003
|  Division . . . . EAST COAST_____
|  Department . . . _____
|
|      F5=Save  F6=Delete
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Example 2: Cost Recovery from All Accounting Levels using a Qualifier

The panel below shows how to create a Cost Recovery definition called CPU-ADJUSTMENT for MBI ORD types:

- For the fifth billing period
- With a recovery amount of 5000
- From all @SHIFT1 definitions
- For all Divisions and Departments

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--- Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CCRECE  ----- Cost Recovery Entry -----+
      Panel  Exit  Help
      -----
      Type information. Then select an action.
      -----
      Version . . . : PROD          ORD Type : MBI
      Recovery . . . : CPU-ADJUSTMENT
      -----
      Charge Element . CPU-CHARGE_____ Recovery Amt .      5000.00000
      Qualifier . . . @SHIFT1_____
      Period Number . 005
      Division . . . . _____
      Department . . . _____
      -----
      F5=Save  F6=Delete
      -----
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

Performing Overhead Distribution

Overhead distribution gives you the ability to:

- Distribute charges for a shared resource
- Retrieve an overhead amount from existing CA JARS/OLF database records
- Distribute overhead charges in relation to the current charges in the targeted summary record
- Debit the original CA JARS/OLF records accordingly
- Select distribution targets based on user-defined criteria

while maintaining auditability based on the creation of Overhead Charge records.

The Overhead Distribution algorithm used to accomplish the above objectives is:

$$\text{Overhead Charge} = \text{Overhead Amount} / \text{Sum of Charges} * \text{Current Charge}$$

The following panels make up the Overhead Distribution panel set:

- Overhead Distribution primary panel
- Overhead Distribution List panel
- Expanded Overhead Distribution List panel
- Overhead Distribution Entry panel

Overhead Distribution Primary Panel

The Overhead Distribution primary panel is used for creating, modifying, or examining an Overhead Distribution definition.

The following panel shows you how to request a list of all Overhead entries for MBJ ORD types.

```
USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--  CBCOVHP  -----  Overhead Distribution  -----+
|                                     |
|   Panel  Exit  Help                |
|-----|
|   Type information. Then select an action.
|
|   Version . : PROD
|   Target ORD . MBJ
|   Overhead . . %
|
|   F2=Create  F11=Browse
|-----+

This panel associates an ORD record type, as defined by
the CA JARS/OLF Administrator, with an Overhead name

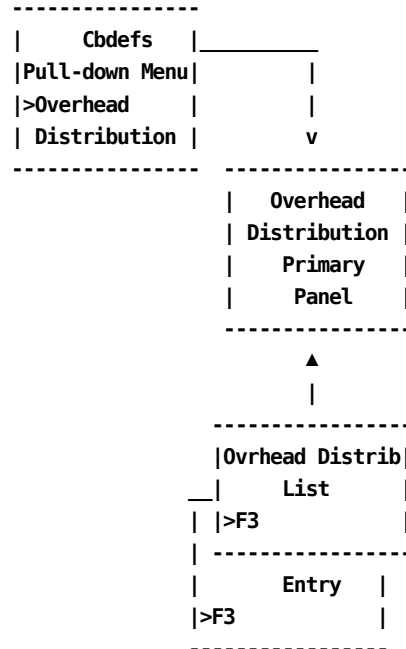
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
```


On the next page as a description of the Overhead Distribution primary panel.

Access

The Overhead Distribution primary panel appears when one of these events occurs:

- You type CO in the fast path area of the Primary Panel's action bar.
- You choose Overhead Distribution on the Cbdefs pull-down.
- You return from the Overhead Distribution List or Entry panel.



Input

The Overhead Distribution primary panel contains the following input fields:

Target ORD

The three-character name of the output record identifier for which you want to define, view or modify an Overhead Distribution definition.

When using F11=Browse: if you do not know the ORD Type name, you can enter the SQL wildcard character %. This provides you with a list of all ORD Types meeting the Overhead name you specify in the next field. Or you can enter a % in both the ORD Type and Overhead prompts to get a list of all defined ORDs and Overhead names.

Overhead

The name (up to 16 alphanumeric characters) of the Overhead you want to define, view, or modify.

Pathways

F2

(Create) Takes you to the [Overhead Distribution Entry Panel](#) (see page 220).

F11

(Browse) Takes you to the [Overhead Distribution List Panel](#) (see page 218).

Overhead Distribution List Panel

The Overhead Distribution List panel displays a list of all currently defined Overhead names meeting the criteria specified on the Overhead Distribution primary panel. The search criteria are redisplayed as protected fields (see **1** below). The following panel shows a list of Overhead Distribution definitions currently defined for ORD type MBJ (see **2** below).

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--  CBCOVHL  -----  Overhead Distribution List -----+
      Panel  Exit  Help
-----+-----
      Select an overhead name. Then Enter.

      Version . : PROD
      Target ORD : MBJ                1
      Overhead . : %

      ORD Overhead
      MBJ OPERATING-OVRH
      MBJ PERSONNEL-OVRH                2
      MBJ DATA-CTR-OVRH
      MBJ JES-OVERHEAD

      Enter  F7=Bkwd  F8=Fwd  F11=Expand
-----+-----

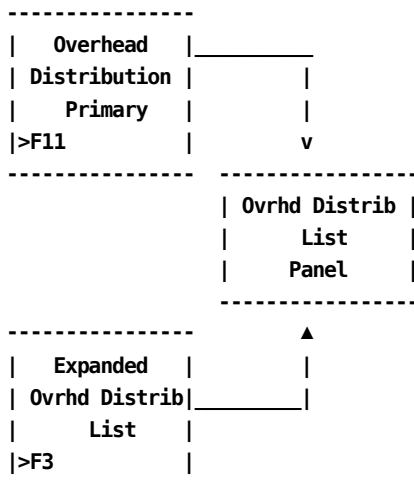
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

The following is a description of the Overhead Distribution List panel.

Access

The Overhead Distribution List panel appears when one of these events occurs:

- You press **F11** (Browse) on the [Overhead Distribution Primary Panel](#) (see page 216).
- You return from the Expanded Overhead Distribution List panel using F3.



Scrolling

F7 and F8 let you scroll backward and forward through the Overhead selection list. You can also use the scroll bar, as explained on [Sample List Panel](#) (see page 46), to move through the list.

Pathways

Enter

By placing the cursor next to the required item and pressing **Enter**, you can go to the Overhead Distribution Entry panel (section [Modifier Entry Panel](#) (see page 179)) to examine and optionally update the item.

F11

(Expand) Provides you with an **expanded** (eight-line display) view of the Overhead Distribution List panel.

Expanded Overhead Distribution List Panel

The following panel appears when you press **F11** (Expand) on the Overhead Distribution List panel. The only difference between the two panels is the ORD Type, and Overhead protected fields are not displayed. This allows you to view more information on a single panel. The Expanded List panel functions in the same way as the panel from which it was called.

```
USERID                      CA JARS/OLF                      MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--  CBCOVHX  ----- Expanded Overhead Distribution List -----+
      Panel    Exit    Help
-----+-----
      Select an overhead name. Then Enter.
                                     More: - + ____ Row 0001 of 0004
      ORD  Overhead
      MBJ  OPERATING-OVRH
      MBJ  PERSONNEL-OVRH
      MBJ  DATA-CTR-OVRH
      MBJ  JES-OVERHEAD
      Enter  F7=Bkwd  F8=Fwd
+-----+-----
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
```

Overhead Distribution Entry Panel

The Overhead Distribution Entry panel is used to specify a definition for overhead recovery for a resource, for a specific period, as well as the accounting levels among which you want this overhead distributed.

The panel below shows how to create an Overhead Distribution definition called JES-OVERHEAD that is applied to MBJ ORD type records:

- For the CPU-CHARGE charge element
- With an Ovhd ORD Type of JES
- For the Ovhd Element: JES-OVHD-CHARGE
- For the third billing period
- Overhead distribution is across all Division and Department entities using the CPU-CHARGE resource

The following panel is actually the **rule** that governs the Overhead Distribution charge. The Ovhd ORD Type and Ovhd Element tell CA JARS/OLF where (or who) the charge is coming from. The other entry fields tell CA JARS/OLF where (or to which entities) the charge is to be distributed. Overhead Distribution prorates each level's charge(s). When overhead distribution is performed via CAKRSUM, new records are created: one record for each entity contributing to the original charge in a ratio that is proportional to its usage. The original record is retained with an adjusted charge of 0.

Note: Period Number is used as a criterion of the rule, but is not used in record selection.

```

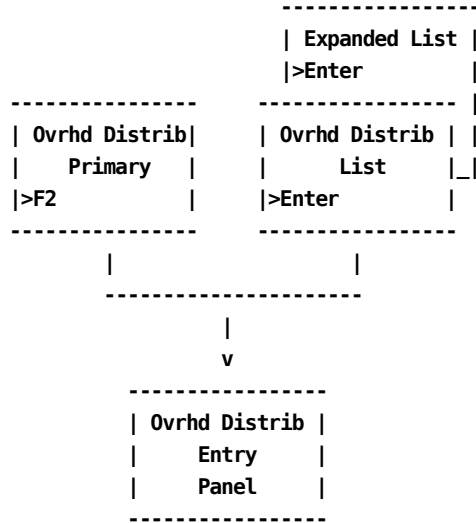
USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
---  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--  CBCOVHE  -----  Overhead Distribution Entry -----+
|
|  Panel  Exit  Help
|-----|
|  Type information. Then select an action.
|
|  Version . . . : PROD                Target ORD : MBJ
|  Overhead . . . : JES-OVERHEAD
|
|  Charge Element . CPU-CHARGE_____ Ovhd ORD Type  JES
|  Qualifier . . . _____          Ovhd Element . JES-OVHD-CHARGE_
|  Period Number . 003
|  Division . . . _____
|  Department . . . _____
|
|
|  F5=Save  F6=Delete
+-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
  
```

On the next page is a description of the Overhead Distribution Entry panel.

Access

The Overhead Distribution Entry panel appears when one of these events occurs:

- When **F2** is pressed on the [Overhead Distribution Primary Panel](#) (see page 216).
- You make a selection on the Overhead Distribution List or Expanded List panel.



Input

The following Overhead Distribution Entry panel fields are available for input:

Charge Element

The name of the charge element (up to 16 alphanumeric characters) whose result you want adjusted to reflect the overheard distribution.

Ovhd ORD Type

The three-character name of the Ovhd ORD Type. It indicates where the overhead is coming from.

Qualifier

The name of a qualifier (up to 16 alphanumeric characters) you want to use in record selection. You can also specify DEFAULT which causes the default rate to be applied.

Ovhd Element

The name (up to 16 alphanumeric characters) of the charge element that contains the result of the distribution.

Period Number

The period number for which the overhead should be calculated and distributed. (Not used in record selection) If the overhead is to be applied to all periods, specify 0 as the Period Number.

The following entry fields are used to indicate the accounting levels to which the overhead is distributed. This example uses the following accounting levels:

Note: When distributing overhead globally among the levels using the resource, these fields are left blank.

Division

Enter the name of a defined accounting level to which you want overhead charges distributed.

Department

Enter the name of a defined accounting level to which you want overhead charges distributed.

Actions**F5=Save**

Lets you save the Overhead entry.

F6=Delete

Lets you delete the Overhead entry.

Example 1: Distributing Overhead Globally Across Accounting Levels that Have a @SHIFT1 Qualification

The panel below shows how to create an Overhead Distribution definition called OVERHEAD for MBJ ORD types:

- For the CPU-CHARGE charge element
- To all @SHIFT1 records
- With an Ovhd ORD Type of XXX (This can be any ORD type your desire)
- With an Ovhd Charge Element name of DATA-CTR-OVRHD
- For the second billing period

```
USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
-- Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBCOVHE ----- Overhead Distribution Entry -----+
|   Panel  Exit  Help
|-----|
| Type information. Then select an action.
|
| Version . . . : PROD          Target ORD : MBJ
| Overhead . . . : OVERHEAD
|
| Charge Element . CPU-CHARGE_____ Ovhd ORD Type  XXX
| Qualifier . . . @SHIFT1_____ Ovhd Element . DATA-CTR-OVRHD__
| Period Number . 002
| Division . . . _____
| Department . . . _____
|
| F5=Save  F6=Delete
+-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar
```


Example 2: Distributing Overhead Among an Accounting Level

The panel below shows how to **modify** an Overhead Distribution definition called OVERHEAD for MBJ ORD types (created in [Example 1: Distributing Overhead Globally Across Accounting Levels that Have a @SHIFT1 Qualification](#) (see page 223)) so that overhead is distributed among all EAST COAST entities that used the resource during the second accounting period (002).

We will change the following input fields:

- Space over the Qualifier field input area so that @SHIFT1 is removed
- Type in EAST COAST at the Division prompt

```

USERID                                CA JARS/OLF                                MM/DD/YY HH:MM:SS
---  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--  CBCOVHE  -----  Overhead Distribution Entry  -----+
      Panel  Exit  Help
+-----+
| Type information. Then select an action.
|
| Version . . . : PROD                                Target ORD : MBJ
| Overhead . . . : OVERHEAD
|
| Charge Element . CPU-CHARGE_____  Ovhd ORD Type  XXX
| Qualifier . . . _____  Ovhd Element . DATA-CTR-OVRHD__
| Period Number . 002
| Division . . . EAST COAST_____
| Department . . . _____
|
| F5=Save  F6=Delete
+-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar
  
```

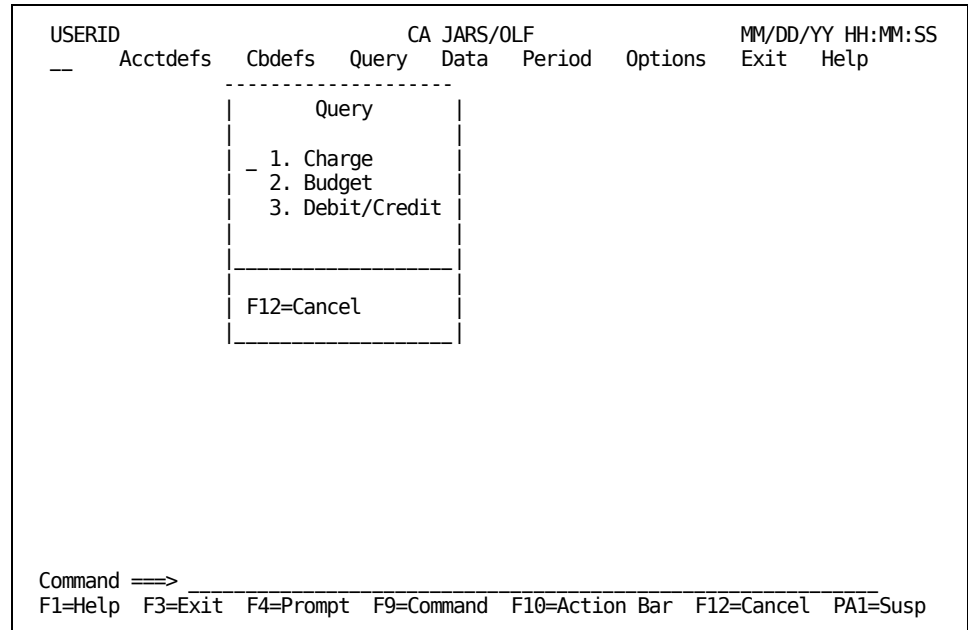

Chapter 6: Performing Query Functions

The CA JARS/OLF Query option enables you to request information about the data in the:

- CCCTAB (Consolidated Calculated Charges Table)
- CCCMOD (Consolidated Calculated Charges Modified Table)
- BUDTAB (Budget Table)
- DBCRTAB (Debit and Credit Table)

CA JARS/OLF, using the information you provide, generates the appropriate SQL (Structured Query Language) commands to retrieve the requested data. The Query functions allow you to save, update, and reexecute those queries you use most frequently.

The Query option discussed in this chapter is executed when you select **Query** from the CA JARS/OLF Primary Panel's action bar. The Query pull-down shown on the next page then appears. Make other selections by placing your cursor next to the function you want to perform and pressing the **Enter** key. You can also make selections by entering the mnemonic (either the first letter or the number) of the function in the fast path area of the Query pull-down.



The Query pull-down enables you to perform the following queries:

1. Charge

Used to display data from the:

CCCTAB

Consists of fields such as ORD Type, Charge Element, and Qualifier

CCCMOD

Similar to the CCCTAB table in structure but generated by the batch forecast process

BUDTAB

Consists of budget information, such as Budget Amount and description

DBCRTAB

Consists of debit and credit information

Charge query also allows you to save favorite queries for reuse.

Note: It is important to remember that the CCCTAB is a **summary** table of detail records. The results of query execution are, therefore, also summary data.

2. Budget

Use this function to query only the contents of the BUDTAB.

3. Debit/Credit

Use this function to query only the contents of the DBCRTAB table.

Note: To see a complete listing of all the fields in the CCCTAB, CCCMOD, BUDTAB, and DBCRTAB tables, refer to Appendix A.

The remainder of this chapter describes each of these functions.

Charge Query Panels

Charge Query panels allow you to query the contents of the CCCTAB, CCCMOD, BUDTAB, and DBCRTAB tables. Using the prompts provided on each panel, you can:

- Create an SQL query by simply filling in a panel
- Execute and receive the results of the query
- Optionally save the query for later use

The Charge Query panel set consists of the following:

- Charge Query Primary panel
- Charge Query List panel
- Charge Query Expanded List panel
- Charge Query Specifications panel

You can create or browse a query by using the Charge Query primary panel. This panel allows you to name and describe the query you want to create or browse. The name and description are important for later retrieval.

The Charge Query List panels allow you to select existing queries for update or reexecution.

You can specify query selection criteria using the Charge Query Specifications panel. This panel accepts entries and generates the outcome on different Results panels. The following processing options, located on the [Charge Query Specifications Panel](#) (see page 235), determine the format of results.

- Summarize
- Break
- Bud/DBCR

The table on the next page shows valid selections and the types of Results panel generated.

The following table shows valid combinations for processing options and descriptions of the reports panels generated. A complete discussion of these options and sample Results panels are in [Charge Query Specifications panel](#) (see page 235).

Summarize	Break	Bud/DBCR	Results
N	N	N	Detail report of those records that meet any criteria specified on the Charge Query Specifications panel. CA JARS/OLF displays each record separately.
Y	N	N	One page summary report of the records that meet any criteria specified on the Charge Query Specifications panel.

Summarize	Break	Bud/DBCR	Results
Y	Y	N	Summary report of records that meet any criteria specified on the Charge Query Specifications panel. Result records are broken into groups based on the Brk fields you select. CA JARS/OLF displays each group of records separately.
N	N	Y	Detail report displaying charge, budget, debit, and credit information.
Y	N	Y	Summary report of charge, budget, debit, and credit information.
Y	Y	Y	Summary-with-breaks report of charge, budget, debit, and credit information. CA JARS/OLF summarizes results based on the fields selected in the Brk column.

Charge Query Primary Panel

You use this panel to specify a charge query that you want to define, browse or modify. The panel below shows how to create a new query **CPUCOST** (see **1** below) with description **CPU COST FOR PER. 1-3** (see **2** below). When you press **F2** (Create), you go to the [Charge Query Specifications Panel](#) (see page 235) where you can define the charge query.

Note: All user entries are converted to uppercase by CA JARS/OLF.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__  Acctdefs   Cbdefs   Query   Data   Period   Options   Exit   Help

+-- CBQQRYP ---- Charge Query -----+
|                                     |
|   Panel   Exit   Help               |
|-----|-----|-----|-----|
| Type information. Then select an action. |
|-----|-----|-----|-----|
| Query . . . . CPUCOST           1      |
| Description . CPU COST FOR PER.1-3    2  |
|-----|-----|-----|-----|
|   F2=Create   F11=Browse           |
|-----|-----|-----|-----|

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

If you want to browse **all** existing queries, enter the SQL wildcard character (%) in the Query field and press **F11**. This displays a list of available queries and their descriptions. You can then select an item for further examination.

If you want to browse existing queries that meet a specific criteria, you can specify selection criteria in the Query field and press F11. This displays a list of only those query names that meet the specified criteria. You can select the query names for further processing.

Note: In any user entry field, you can use the SQL wildcard character % to represent characters that are not known.

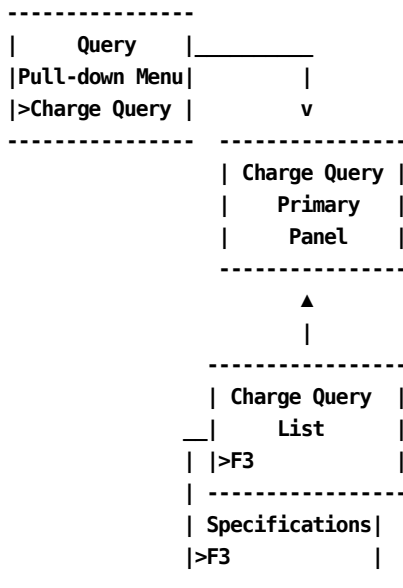
On the next page is a description of the Charge Query primary panel.

The following is a description of the Charge Query primary panel.

Access

The Charge Query primary panel appears when one of these events occur:

- You type QC in the fast path area of the Primary Panel's action bar.
- You choose Charge Query on the Query pull-down.
- You return from the Charge Query List, or Charge Query Specifications panels.



Input

The following Charge Query primary panel fields are available for input:

Query

The browse criteria or the name of a new query you want to create. Entries consist of up to 8 alphanumeric characters.

Description

A field (up to 20 alphanumeric characters) used to describe what the query does. If the query already exists and you want to browse or reexecute it, you can leave the field blank.

Pathways

F2

(Create) Takes you to the [Charge Query Specifications panel](#) (see page 235).

F11

(Browse) Takes you to the [Charge Query List panel](#) (see page 233).

Charge Query List Panel

The Charge Query List panel displays a list of query names and descriptions that already exist (see **1** below). These queries can be executed, browsed, or updated. You make a selection by placing the cursor next to the query name you want to view and pressing the **Enter** key. If you specified a query browse criterion on the Charge Query primary panel, CA JARS/OLF redisplay it as a protected field (see **2** below).

```

USERID                               CA JARS/OLF                               MM/DD/YY HH:MM:SS
--   Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help

+-- CBQRYL -- Charge Query List -----+
|   Panel  Exit  Help                    |
|-----|
| Select a query name. Then Enter.       |
| Query . . . :%           2             |
|                                     |
|           More: - + DATA Row  1 of   5 |
| Charge Query      Query Description    |
| CPUCOST           CPU COST FOR PER.1-3 |
| DEVCOST           COST FOR DIV. DEV.   |
| DISKCHG           CHG FOR DISK USAGE   |
| RESAVG            AVG COST FOR REST    |
|                                     |
| Enter  F7=Bkwd  F8=Fwd  F11=Expand    |
+-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

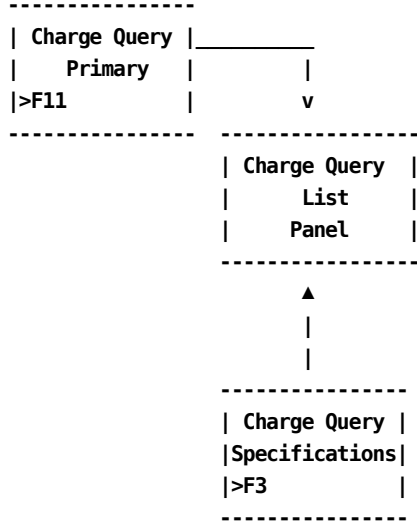
```

The following is a description of the Charge Query List panel.

Access

The Charge Query List panel appears when one of these events occur:

- You press **F11** on the Charge Query Primary panel shown in [Charge Query Primary Panel](#) (see page 230).
- You return from the Expanded Charge Query List or Charge Query Specifications panels.



Scrolling

F7 and F8 let you scroll backward and forward through the Charge Query List panel. The scroll bar can also be used to move throughout the text [Sample List Panel](#) (see page 46).

Pathways

Enter

By placing the cursor next to a specific Charge Query and pressing **Enter**, you go to the [Charge Query Specifications panel](#) (see page 235) to examine and optionally update the query.

F11

(Expand) Provides you with an **expanded** (eight-line display) view of the Charge Query List panel.

Expanded Query List Panel

CA JARS/OLF displays the following panel when you press **F11** (Expand) on the [Charge Query List panel](#) (see page 233). The only difference between these two panels is that the Expanded Query List panel does not display the Query protected field. This allows you to view more information on a single panel.

```

USERID                      CA JARS/OLF                      MM/DD/YY HH:MM:SS
----- Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBQORYX - Expanded Query List -----+
      Panel  Exit  Help
+-----+
| Select a query name. Then Enter.
|
|           More: - + DATA  Row   1 of   5
| Charge Query      Query Description
| CPU COST          CPU COST FOR PER.1-3
| DEVCOST           COST FOR DIV. DEV.
| DISKCHG           CHG FOR DISK USAGE
| RESAVG            AVG COST FOR REST
| TAPECHG           CHG FOR TAPE USAGE
|
| Enter  F7=Bkwd  F8=Fwd
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

Charge Query Specifications Panel

The Charge Query Specifications panel allows you to formulate new queries or change/execute existing ones. You specify the query selection criteria and the manner in which you want results displayed.

The following sample Charge Query Specifications panel shows the default values that appear when you select the panel for the first time for a new query. CA JARS/OLF displays the name of the query and its description as entered in the Charge Query Primary panel, or as retrieved from a saved definition on the first line after the panel action bar (see **1**).

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBQQRY5 ----- Charge Query Specifications -----|
      Panel  Exit  Help
|-----|
| Type information for Query CPUCOST  Desc CPU COST FOR PER.1-3  Table TAB
| 1
| Summarize N Break N Bud/DBCR N          Version : PROD PROD
| A
| ORD Type . . . . .          N  D  Srt          Rec Count          B          E F
| Charge Element .          N          Units . .          > SUM
| Qualifier . . .          N          Rate . .          > AVG
| Period Number .          thru  B  N          Charge . .          C          > SUM
| DIVISION . . .          N
| DEPARTMENT . . .          N
|
| F2=Exec  F5=Save  F6=Delete  F11=Refresh
|-----|
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

The Version field displays the CA JARS/OLF version in use. Only the last four characters of the version field are available for entry. The default is the version specified on the Primary Panel's Option function. All other fields are available for entry.

Once you specify the query requirements, CA JARS/OLF displays results on one of three different types of Charge Query Results panels:

- Summary
- Summary-with-Breaks
- Detail

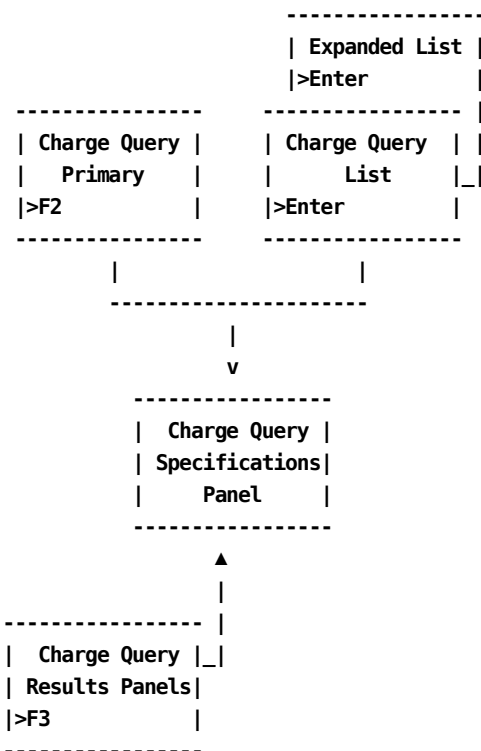
See [Charge Query Specifications Processing Options](#) (see page 242) for more information about the Charge Query Results panels.

The following is a description of the Charge Query Specifications panel.

Access

The Charge Query Specifications panel appears when one of these events occur:

- You create a new query on the [Charge Query Primary panel](#) (see page 230).
- You make a selection on the Charge Query List or Expanded List panel.
- You return from any of the Charge Query Results panels.



Input:

The following Charge Query Specification panel fields are available for input. These input fields refer to the sample panel in [Charge Query Specifications Panel](#) (see page 235).

Note: The following discusses input fields by the function they perform and **not** in the order the cursor moves.

A

Display Options

Summarize

A one-character field that works with the Break field to determine the format of results. Valid entries for this field are N(no) and Y(yes). The default value is N and appears when you first select the panel.

When you set the Summarize option to N, results display in detail form (see [Charge Query Specifications Processing Options](#) (see page 242)).

When you set the Summarize option to Y, results display in summary form, or in summary-with-breaks form (see [Charge Query Specifications Processing Options](#) (see page 242)).

Break

A one-character field that works with the Summarize field to determine result format. Valid entries for this field are N and Y. The default value is N and appears when you first select the panel.

When you set the Break field to Y, the Brk column becomes active (see **D**).

Note: At least one field in the Brk column must be set to Y when you select the Break option. Otherwise, CA JARS/OLF returns an error message.

If you do not set the Break field to Y, CA JARS/OLF ignores any value entered in the Brk column.

The Break field cannot be set to Y without setting the Summarize field to Y. The application returns an error message if you attempt this action.

Bud/DBCR

A one-character flag that allows CA JARS/OLF to display budget, debit, and credit, as well as charge information based on any criteria you specify (see [Charge Query Specifications Processing Options](#) (see page 242)). Valid entries for this field are Y and N. The default value is N and appears when you first select the panel.

Srt

CA JARS/OLF displays results in the order specified by the selected fields. To select a field, enter a Y in the Srt column next to the field.

B**Selection Criteria**

Note: You can use the SQL wildcard character % alone or with any alphanumeric character string as selection criteria for these fields. If a field is left blank, then all values for the field are accepted.

Version

The last four characters of this field are available for data entry. Specify the version of CA JARS/OLF you want to query.

ORD

Type The three-character name of the output record identifier used as selection criteria. CA JARS/OLF processes only those records with the ORD Type you specify.

Charge Element

The name (up to 16 alphanumeric characters) of the Charge Element used for selection criteria. Only those records with the Charge Element you specify display.

Qualifier

The name (up to 16 alphanumeric characters) of the conditional test applied to the charge unit, used for selection criteria. CA JARS/OLF selects only those records to which the qualifier applies.

Period Number

The start of the range of accounting periods or the accounting period from which CA JARS/OLF selects records.

thru

The end of the range of accounting periods from which CA JARS/OLF selects records.

Entering data in these fields in the following manner provides you with the following results:

From	thru	To	Result
___		___	List of all budget entries that meet the rest of the criteria specified
001		006	List of all budget entries in periods 001 thru 006 that meet the criteria specified
001		___	List of all budget entries in period 001 that meet the criteria specified

From	thru	To	Result
—		006	Invalid; you will get an error message

Table

The table from which CA JARS/OLF retrieves records. Valid entries are TAB for the CCCTAB table, or MOD for the CCCMOD table.

Note: When you request information from the MOD table, the Bud/DBCR option is invalid.

The following entry fields indicate the accounting structures you want to query.

Note: CA JARS/OLF displays only defined accounting structures. The examples displayed in this chapter show an accounting structure with two levels. The accounting structures you define can be different.

Division Department

Enter the name of a defined accounting level whose charge, budget, debit or credit information you want to query.

C

Selection Criteria/Display Options

The Rec Count, Units, Rate, and Charge fields allow you to specify:

- Any query criteria
- The valid SQL summary options (**Sum, Min, Max, Avg**) performed on result records

When specifying query selection criteria, enter only **numeric** values in these fields. You must specify a comparison operator (<, >, =) in the Op column (see **E** in [Charge Query Specifications Panel](#) (see page 235)).

- If you do not specify query criteria within the Rec Count, Units, Rate, or Charge fields, the Op column is invalid.
- If you do not specify an operator in the Op column, CA JARS/OLF uses the default > for comparisons.

If you request a summary, or a summary-with-breaks report, CA JARS/OLF activates the Sum column (see **F** in [Charge Query Specifications Panel](#) (see page 235)). This allows you to specify a SQL summary option to be performed on result records.

Rec Count**Units****Rate****Charge**

Enter a numeric value and an arithmetic operator, and/or change the default SQL function if Summarize is Y.

The following table gives examples of how selection criteria specified within the Rec Count, Units, Rate and Charge fields work. The table also shows how specifying valid SQL functions in the Sum column for these fields affects results.

Fields	Criteria	Op	SQL Functions	Results
Rec Count	2	>	AVG	CA JARS/OLF averages the values within the Rec Count field for those records where Rec Count > 2.
Units	50	=	SUM	CA JARS/OLF sums the values within the Units field for those records where Units = 50.
Rate	.5	<	MIN	CA JARS/OLF computes the minimum rate of those records where Rate < .5.
Charge	200	>	MAX	CA JARS/OLF computes the maximum charge of those records where Charge > 200.
Charge			SUM	CA JARS/OLF sums all charge values for the selected records.

Actions

F2=Exec

Executes the query for the requested selections from the panel.

F5=Save

Saves all query information on the panel.

F6=Delete

Lets you delete data from the saved query table.

F11=Refresh

Resets the screen to the original entry state for existing queries.

Charge Query Specifications Processing Options

Located on the second line of the Charge Query Specifications Panel are three processing options:

- Summarize
- Break
- Bud/DBCR

These options determine the type of report that CA JARS/OLF generates. The Summarize and Break fields work in unison and allow results to be displayed in three different types of formats:

- Summary
- Summary-with-Breaks
- Detail

The Bud/DBCR field, when set to Y, allows budget, debit, and credit information to display along with charge results. CA JARS/OLF displays budget, debit, and credit results in one of the above formats. If Bud/DBCR is set to N, CA JARS/OLF displays the budget, debit, and credit fields without any data.

1. **Summary Report (Summarize=Y, Break=N)**

When you set the summarize option to Y and the Break option to N in the Charge Query Specifications panel, CA JARS/OLF summarizes the result fields of the records which meet query criteria. It then displays these results as a one-page summary report.

CA JARS/OLF determines the values of the result fields: Rec Count, Units, Rate, and Charge by using the SQL functions specified in the Sum column of the Charge Query Specifications panel. The result fields can hold a summation, average, minimum, or maximum of the selected records. To change the default SQL functions for these result fields, specify a new function for the default displayed on the Charge Query Specifications panel. Valid choices are:

- SUM
- AVG
- MIN
- MAX

To select a summary report set the Summarize option to Y as shown on the panel below.

```

+--- CBOQRYS ----- Charge Query Specifications -----+
| Panel  Exit  Help                                     |
+-----+-----+-----+-----+-----+-----+-----+
| Type information for Query CPUCOST  Desc CPU COST FOR PER.1-3  Table TAB |
| Summarize Y  Break N  Bud/DBCR N                               Version : PROD PROD |
| Brk Srt                                                    Op Sum |
| ORD Type . . . . . N      Rec Count                          > SUM |
| Charge Element . . . . . N      Units . . . . .             > SUM |
| Qualifier . . . . . N      Rate . . . . .                   > AVG |
| Period Number . . . . . thru N      Charge . . . . .       > SUM |
| DIVISION . . . . . N                                             |
| DEPARTMENT . . . . . N                                             |
+-----+-----+-----+-----+-----+-----+-----+
  
```

After pressing F2 (Exec), the following Charge Query Results panel appear.

Notes:

- The first column reiterates the values on the Charge Query Specifications panel.
- The values in the Record Count, Units, and Charge fields are summations of the Record Count, Units, and Charge of the records meeting the criteria specified in the Charge Query Specifications panel (see **A**, **B**, and **D** below).
- The Rate field is an average Rate of the records meeting the criteria specified in the Charge Query Specifications panel (see **C** below).
- Since there is no query criteria, CA JARS/OLF selects and summarizes **all** records from the CCCTAB. See [Example 1: Entering Selection Criteria Within the Charge Element Field](#) (see page 255) for an example of a summary report with selection criteria.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
_  Acctdefs    Cbdefs  Query  Data  Period  Options  Exit  Help

+-- CBQQRZY ----- Charge Query Results -----+
|
| Table . . . . . : TAB
| Version . . . . . : PROD PROD          Record Count :          177   A
| ORD Type . . . . . :                   Units . . . . . :          91.16665  B
| Charge Element . . . . . :              Rate . . . . . :          185.95238  C
| Qualifier . . . . . :                   Charge . . . . . :          22861.99500  D
| Period Number . . . . . :              thru          Debit Amt . . . . . :
| DIVISION . . . . . :                   Credit Amt . . . . . :
| DEPARTMENT . . . . . :                 Adjust Charge:
|                                         Budget . . . . . :
|                                         % of Budget :
|
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

2. **Summary-with-Breaks Report (Summarize=Y Break=Y)**

If you select both the Summarize and Break options, CA JARS/OLF displays the result fields of the selected records in summary format. However, in contrast to a Summary report, result records are broken into **groups**. CA JARS/OLF groups the records with identical values in the fields selected in the Brk column of the Charge Query Specifications panel. It displays the result fields for each group separately.

Depending upon the function you specify in the Sum column, CA JARS/OLF:

- Summarizes
- Averages
- Minimizes
- Maximizes

The result fields Rec Count, Units, Rate, and Charge for each group of records. The scroll bar denotes the number of groups available for viewing.

Remember: If you set the Break option to Y, you **must** set at least one field in the Brk column to Y.

To generate a summary-with-breaks report and change the default SQL function SUM, to AVG within the Units field do the following:

- a. Set the Summarize and Break fields to Y (see **A** below)
- b. Select Brks for ORD Type and Charge Element (see **B** below) by entering Y in the Brk column
- c. Change SUM to AVG in the Sum column (see **C** below)

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
_  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help

+-- CBQQRYS ----- Charge Query Specifications -----+
| Panel  Exit  Help |
+-----+
| Type information for Query CPUCOST  Desc CPU COST FOR PER.1-3  Table TAB |
|           A |
| Summarize Y  Break Y  Bud/DBCR N          Version : PROD PROD |
| ORD Type . . . .          Brk Srt          Op Sum |
| Charge Element .          Y  B  Units . . .  > SUM |
| Qualifier . . .          N  Rate . . .      > AVG  C |
| Period Number .          thru  N  Charge . .  > SUM |
| DIVISION . . .          N |
| DEPARTMENT . . .        N |
|
| F2=Exec  F5=Save  F6=Delete  F11=Refresh |
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

The panel on the next page shows the results of this query.

The panel below shows two rows of results (see **1** and **2**).

Notes:

- CA JARS/OLF summarizes and displays each unique combination of ORD Type and Charge Element separately. **Three** groups of records result (see **A** below).
- Values within the Record Count and Charge fields are total Record Count and Charge values for the records in the group (see **B** and **D** below).
- Values within the Units and Rate fields are an average of the units and rates of the records in the group (see **C** below).

Note: In a summary-with-breaks report, CA JARS/OLF displays any SQL function applied to the Record Count, Units, Rate, or Charge fields, other than SUM (see **C** below).

```

+-- CBQORYB ----- Charge Query Results -----+
|   Panel  Exit  Help                               1   |
|-----|
|                                     More: + - 1   Row: 0001 of 0003 |
| Table . . . . . : TAB                               A   |
| Version . . . . . : PROD PROD       Record Count :   B       134 |
| ORD Type . . . . . : MBJ           Units . . . . . :   C       4.00980 AVG |
| Charge Element . : CPU-CHARGE      Rate . . . . . :       159.05882 AVG |
| Qualifier . . . . . :              Charge . . . . . :   D 14459.99500 |
| Period Number . . :              Debit Amt . . . : |
| DIVISION . . . . . :              Credit Amt . . . : |
| DEPARTMENT . . . . :              Adjust Charge: |
|                                     Budget . . . . : |
|                                     % of Budget . . : |
+-- CBQORYB ----- Charge Query Results -----+
|   Panel  Exit  Help                               2   |
|-----|
|                                     More: + - 1   Row: 0002 of 0003 |
| Table . . . . . : TAB                               A   |
| Version . . . . . : PROD PROD       Record Count :   B        42 |
| ORD Type . . . . . : MBJ           Units . . . . . :   C       7.00000 AVG |
+--| Charge Element . : CPX-CHARGE      Rate . . . . . :       400.00000 AVG |
| Qualifier . . . . . :              Charge . . . . . :   D  8400.00000 |
| Period Number . . :              Debit Amt . . . : |
| DIVISION . . . . . :              Credit Amt . . . : |
| DEPARTMENT . . . . :              Adjust Charge: |
|                                     Budget . . . . : |
|                                     % of Budget . . : |
|                                     F7=Bkwd  F8=Fwd |
+-----+
  
```

3. Detail Report (Summarize=N, Break=N)

If you do **not** select the Summarize and Break options, you receive a detail report of the records within the CCCTAB or CCCMOD tables that meet any selection criteria. CA JARS/OLF displays all fields of the selected records individually. The scroll bar denotes the number of records available for viewing.

In the example below, CA JARS/OLF displays all the fields of the CCCTAB table since this is a detail report. CA JARS/OLF displays all of the records of the CCCTAB table because there is no query criteria. The CCCTAB contains 21 rows. The example below shows two of these records.

Note the two additional fields on the Detail Charge Query Results panel:

A

If a value appears for the **Modifier** field, the record is a modified record.

B

Split/Modified is a two-character flag. The first character indicates whether the record has a split charge associated with it. The second character indicates whether the record has been modified

```

+-- CBQQRYD ----- Charge Query Results -----+
|   Panel  Exit  Help                               1   |
|-----|
| Table . . . . . : TAB                               More: + - 1   Row: 0001 of 0021 |
| Version . . . . . : PROD PROD                      |
| ORD Type . . . . . : MBJ                           Record Count :           1 |
| Charge Element . . : CPU-CHARGE                     Units . . . . . :       1.00000 |
| Qualifier . . . . . : SHIFT1                       Rate . . . . . :         .50000 |
| Period Number . . : 1                              Charge . . . . . :         .50000 |
| A Modifier . . . . . : WEEKEND                     Debit Amt . . . :           |
| B Split/Modified . . : NY                          Credit Amt . . . :           |
| DIVISION . . . . . : RESTON                         Adjust Charge:         |
| DEPARTMENT . . . . : TECHWRIT                      Budget . . . . . :           |
|                                                    % of Budget :           |
| +-- CBQQRYD ----- Charge Query Results -----+
| |   Panel  Exit  Help                               2   |
| |-----|
| | Table . . . . . : TAB                               More: + - 1   Row: 0002 of 0021 |
| | Version . . . . . : PROD PROD                      |
| | ORD Type . . . . . : MBJ                           Record Count :           1 |
| | Charge Element . . : CPU-CHARGE                     Units . . . . . :       2.00000 |
| | Qualifier . . . . . : SHIFT1                       Rate . . . . . :         .50000 |
| | Period Number . . : 2                              Charge . . . . . :         1.00000 |
| | A Modifier . . . . . : WEEKEND                     Debit Amt . . . :           |
| | B Split/Modified . . : NY                          Credit Amt . . . :           |
| | DIVISION . . . . . : RESTON                         Adjust Charge:         |
| | DEPARTMENT . . . . : TECHWRIT                      Budget . . . . . :           |
| |                                                    % of Budget :           |
| | F7=Bkwd   F8=Fwd                                  |
+-----+

```

4. **Bud/DBCR**

The Bud/DBCR option displays budget, debit and credit information in the format specified using the Summarize and Break fields. If you specify selection criteria on the Charge Query Specifications panel, CA JARS/OLF displays budget, debit, and credit information for only those records that meet the criteria.

Note: Using the Bud/DBCR option adds to the processing requirements of the query, and should not be used as a matter of course.

The following fields contain budget, debit, and credit information on the Result panels.

Debit Amt

The amount by which CA JARS/OLF reduces the Charge value.

Credit Amt

The amount by which CA JARS/OLF increases the Charge value.

Adjust Charge

The charge derived by subtracting the Debit Amt and adding the Credit Amt to the Charge value.

Budget

The budget amount allocated for the specified record.

% of Budget

The percentage of budget used up to this point.

The example below shows how to select budget, debit, and credit information in a detail report:

- a. Set the Summarize and Break fields to N
- b. Set the Bud/DBCR option to Y

```

+-----+
+
| Type information for Query CPU COST   Desc CPU COST FOR PER.1-3   Table TAB |
| Summarize N   Break N   Bud/DBCR Y           Version : PROD PROD |
|                               Brk Srt |                               Op Sum |
| ORD Type . . . .           N   Rec Count |                               > SUM |
| Charge Element .           N   Units . . |                               > SUM |
| Qualifier . . .           N   Rate . . . |                               > AVG |
| Period Number .           thru   N   Charge . . |                               > SUM |
| DIVISION . . . .           N |
| DEPARTMENT . . .           N |
| F2=Exec   F5=Save   F6=Delete   F11=Refresh |
+-----+
    
```


The panel on the next page shows the results of this query.

The result of this query is a detail report with the Debit Amt, Credit Amt, Adjust Charge, Budget, and % of Budget fields displaying values based on the result records selected during query execution.

Notes:

- CA JARS/OLF displays all the **fields** of the CCCTAB table, since this is a detail report. Because we did not specify selection criteria, CA JARS/OLF displays all of the **records** of the CCCTAB table. The example below shows two of these records.
- For Period Number 1 (see **A** below), the application applied no debits or credits. Therefore, the adjusted charge value is equal to the charge value (see **B** below).
- The Budget amount for the Techwrit department for the Period 1 and Charge Element CPU-CHARGE is –50 (see **C** below). Department Techwrit used only .01% of their budget allocation (see **D** below).

```

+-- CBQQRYD ----- Charge Query Results -----+
|      Panel  Exit  Help                      1      |
+-----+
| Table . . . . . : TAB                      More: + - 1   Row: 0001 of 0021 |
| Version . . . . . : PROD PROD
| ORD Type . . . . . : MBJ                    Record Count :      1
| Charge Element . . : CPU-CHARGE             Units . . . . :    1.00000
| Qualifier . . . . . : SHIFT1                Rate . . . . . :    .50000
| Period Number .A: 1                         Charge . . . . :    .50000
| Modifier . . . . . : WEEKEND                Debit Amt . . :    0.00000
| Split/Modified . . : NY                     Credit Amt B :    0.00000
| DIVISION . . . . . : RESTON                 Adjust Charge:    0.50000
| DEPARTMENT . . . . : TECHWRIT              Budget . . .C:    50.00000
|                                           % of Budget :D    .01000
+-- CBQQRYD ----- ChargeQueryResults-----+
|      Panel  Exit  Help                      2      |
+-----+
| Table . . . . . : TAB                      More: + - 1   Row: 0002 of 0021 |
| Version . . . . . : PROD PROD
| ORD Type . . . . . : MBJ                    Record Count :      1
| Charge Element . . : CPU-CHARGE             Units . . . . :    2.00000
+--| Qualifier . . . . . : SHIFT1                Rate . . . . . :    .50000
| Period Number A. : 2                         Charge . . . . :    1.00000
| Modifier . . . . . : WEEKEND                Debit Amt . . :    0.50000
| Split/Modified . . : NY                     Credit Amt B :    0.00000
| DIVISION . . . . . : RESTON                 Adjust Charge:    0.50000
| DEPARTMENT . . . . : TECHWRIT              Budget . . .C:    50.00000
|                                           % of Budget :D    .01000
| F7=Bkwd  F8=Fwd
+-----+

```

Charge Query Specifications Entry Field Options

CA JARS/OLF supports standard SQL queries. The format of the SQL query is:

SELECT fieldname **FROM** tablename **WHERE** (condition) {**ORDER BY** fields}

The following sections discuss how to use the various entry fields with the processing options to generate SQL queries that:

- **SELECT** fields from the CCCTAB or CCCMOD tables (see **A** below)
- Choose a table to retrieve information **FROM** (see **B** below)
- Choose only select records for viewing **WHERE (HAVING)** certain conditions are true (see **C** and **D** below)
- Optionally view results in a particular order (see **E** below)

```

USERID                               CA JARS/OLF                               MM/DD/YY HH:MM:SS
--   Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help

+-- CBQQRYS ----- Charge Query Specifications -----+
|   Panel  Exit  Help
|-----B-----
| Type information for Query CPUCOST  Desc CPU COST FOR PER.1-3  Table TAB
| Summarize N  Break N  Bud/DBCR N  A  E  Version : PROD PROD
|                               Brk Srt
| ORD Type . . . .             N      Rec Count                Op Sum
| Charge Element .             N      Units . .             D    > SUM
| Qualifier . . .              N      Rate . . .             > AVG
| Period Number .             thru  C N      Charge . .       > SUM
| DIVISION . . .              N
| DEPARTMENT . . .            N
|
| F2=Exec  F5=Save  F6=Delete  F11=Refresh
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

In the following sections, each entry option is discussed and then followed by usage example(s).

Entry Field Options: **SELECT (fieldname)**

You can select fields for viewing from the CCCTAB or CCCMOD tables in one of two ways:

- Detail report
- Summary-with-breaks report

If you select a detail report, CA JARS/OLF displays all fields of the records from the CCCTAB or CCCMOD tables that meet query criteria. To generate a detail report, set the Summarize field to Y and the Break field to N.

If you select a summary-with-breaks report, CA JARS/OLF groups results based on the fields you select in the Brk column. To select the fields CA JARS/OLF groups records from the CCCTAB or CCCMOD tables, enter Y in the appropriate row in the Brk column. The default value is N. Make sure you set the Break field to Y. Otherwise, CA JARS/OLF ignores values entered in the Brk column.

Note: You **cannot** select the Break option without also selecting the Summarize option. Attempting such an action results in an error message.

Example 1: Grouping CCCTAB or CCCMOD fields

To select fields for viewing in a summary-with-breaks report:

1. Set the Summarize and Break fields to Y (see **A** below)
2. Enter Y in the Brk column for the ORD Type and Charge Element fields (see **B** below)

```
+-----+
+
| Type information for Query CPUCOST   Desc CPU COST FOR PER.1-3   Table TAB |
| Summarize Y   Break Y   Bud/DBCR N           Version : PROD PROD |
|           A                                     Brk Srt                               Op Sum |
| ORD Type . . . .                Y   Rec Count                               > SUM |
| Charge Element .                B Y   Units . . .                               > SUM |
| Qualifier . . .                 N   Rate . . .                               > AVG |
| Period Number . thru            N   Charge . .                               > SUM |
| DIVISION . . .                 N                                           |
| DEPARTMENT . . .               N                                           |
|
| F2=Exec   F5=Save   F6=Delete   F11=Refresh |
+-----+
```

The panel below shows the results of selecting fields ORD Type and Charge Element for viewing.

Notes:

- There are three distinct combinations of ORD Type and Charge Element (see **A** below). CA JARS/OLF displays each group separately. The groups shown below are those records where ORD Type = MBJ and Charge Element = CPU-CHARGE (see **B** and **C** below).
- The Record Count, Units, and Charge fields **D**, **E**, and **G** below are summations of the Record Count, Units, and Charge values for those records where ORD Type = MBJ and Charge Element = CPU-CHARGE.
- The Rate field (see **F** below) is an average rate of those records where ORD Type = MBJ and Charge Element = CPU-CHARGE.

```

+-- CBQORYB ----- Charge Query Results -----+
| Panel  Exit  Help                                     |
|-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|                                     More: + - 1   Row: 0001 of 0003   A-----|
| Table . . . . . : TAB                                     Record Count :          134   D|
| Version . . . . . : PROD PROD                           Units . . . . . :       68.16665   E|
| ORD Type . . . . . : MBJ   B                             Rate . . . . . :       159.05882   AVG F|
| Charge Element . . : CPU-CHARGE   C                       Charge . . . . . :       14459.99500   G|
| Qualifier . . . . . :                                     Debit Amt . . . :|
| Period Number . . :                                     Credit Amt . . . :|
| DIVISION . . . . . :                                     Adjust Charge:|
| DEPARTMENT . . . . :                                     Budget . . . . . :|
|                                                         % of Budget :|
|                                                         |
| F7=Bkwd  F8=Fwd                                     |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

Entry Field Options: FROM (tablename)

The CCCTAB and the CCCMOD tables contain the charge query information. The CCCMOD table mirrors the CCCTAB table in format. However, CA JARS/OLF generates the CCCMOD table during **batch** forecasting.

You select one of the two tables by specifying TAB for CCCTAB or MOD for CCCMOD in the Table field of the [Charge Query Specifications panel](#) (see page 235). If you do not specify a value, CA JARS/OLF uses the default: TAB.

Note: When you select the CCCMOD table, the Bud/DBCR option is invalid.

Entry Field Options: WHERE (condition)

If you wish to select only those records that meet a specific criteria, you can add a conditional test next to any of the panel fields. This test can be a predefined user name, a number, or a number to be used with a comparison operator (<, >, =) specified in the Op column. The following table shows valid criteria for each of the entry fields:

Entry Field	Type of Criteria
ORD Type	Predefined user name
Charge Element	Predefined user name
Qualifier	Predefined user name
Period Number	Number (up to 3 digits)
Accounting Structure (1 - 5)	Predefined accounting level
Rec Count	Number and comparison operator in Op column
Units	Number and comparison operator in Op column
Rate	Number and comparison operator in Op column
Charge	Number and comparison operator in Op column

Note: If you request a summary or a summary-with-breaks report, specifying selection criteria within the Rec Count, Units, Rate, and Charge fields causes the generation of a SQL **HAVING** clause instead of a WHERE clause. The SQL HAVING clause is similar to SQL WHERE clause, but qualifies groups rather than individual fields.

CA JARS/OLF can display results in any format, regardless of the criteria you specify. The examples that follow show summary and summary-with-breaks reports.

Example 1: Entering Selection Criteria Within the Charge Element Field

To select the records that meet the criterion Charge Element = CPU-CHARGE and display results in a summary report:

1. Set the Summarize field to Y (see **A** below)
2. Specify CPU-CHARGE in the area next to Charge Element (see **B** below)

```

+-- CBQQRYS ----- Charge Query Specifications -----+
|   Panel  Exit  Help                                     |
+-----+
| Type information for Query CPUCOST  Desc CPU COST FOR PER.1-3  Table TAB |
| Summarize Y  Break N  Bud/DBCR N                               Version : PROD PROD |
|           A                               Brk Srt                                     Op Sum |
| ORD Type . . . . . N      Rec Count                               > SUM |
| Charge Element . CPU-CHARGE  B  N      Units . . . . .           > SUM |
| Qualifier . . . . . N      Rate . . . . .                       > AVG |
| Period Number . . . . . thru  N      Charge . . . . .           > SUM |
| DIVISION . . . . . N                                             |
| DEPARTMENT . . . . . N                                           |
+-----+
  
```

The panel below shows the **results** of entering CPU-CHARGE in the Charge Element field.

Notes:

- CA JARS/OLF summarizes only those records in the CCCTAB table where Charge Element = CPU-CHARGE.
- The Record Count, Units, and Charge fields show the total amount of record count, units, and charges of those records where Charge Element = CPU-CHARGE (see **A**, **B**, and **D** below).
- The Rate field shows the average rate of the resulting records (see **C** below).

```

+-- CBQQRYS ----- Charge Query Results -----+
|   Panel  Exit  Help                                     |
+-----+
|                                     More: + - 1  Row: 0001 of 0001 |
| Table . . . . . : TAB                                           Record Count :           134  A |
| Version . . . . . : PROD PROD                                     Units . . . . . :           68.16665  B |
| ORD Type . . . . . :                                           Rate . . . . . :           159.05882  C |
| Charge Element . . CPU-CHARGE                                     Charge . . . . . :          14459.99500  D |
| Qualifier . . . . . :                                           Debit Amt . . . : |
| Period Number . . . :                                           Credit Amt . . . : |
| DIVISION . . . . . :                                           Adjust Charge: |
| DEPARTMENT . . . . . :                                           Budget . . . . . : |
|                                     % of Budget : |
|                                     |
| F7=Bkwd  F8=Fwd |
+-----+
  
```

Example 2: Entering Selection Criteria within the Period Number Field

To select the records that meet the criterion Period Number >= 001 and < 003 in a summary-with-breaks report:

1. Set the Summarize and Break fields to Y (see **A** below)
2. Enter 001 in the first field for Period Number and 003 in the second field (see **B** below)
3. Set the Brk field next to Period Number to Y, so that results display by period number (see **C** below)

```

+-----+
| Type information for Query CPUCOST   Desc CPU COST FOR PER.1-3   Table TAB |
|           A |
| Summarize Y Break Y Bud/DBCR N           Version : PROD PROD |
|           |
| ORD Type . . . . N Rec Count           Op Sum |
| Charge Element . N Units . . . . . > SUM |
| Qualifier . . . . N Rate . . . . . > AVG |
| Period Number . 001 thru 003 Y C Charge . . > SUM |
| DIVISION . . . . N |
| DEPARTMENT . . . . N |
|           |
| F2=Exec F5=Save F6=Delete F11=Refresh |
+-----+
    
```


The panel below shows the **results** of entering a numeric value in the Period Number field.

- Three groups of records meet the criteria specified: Period Number > or = 001 and Period Number < or = 003 (see &coA. below). Row 1 on the panel below shows the group of records that fall within period 1. Rows 2 and 3 (not shown) contain those records that fall within periods 2 and 3, respectively.
- The Record Count, Units, and Charge fields show the total amount of record count, units, and charges of those records that fall in period 1 (see **B**, **C**, and **E** below).
- The Rate field shows the average rate of the resulting records (see **D** below).

```

+-- CBQORYB ----- Charge Query Results -----+
| Panel  Exit  Help                                     A-----|
|----- More: + - 1   Row: 0001 of 0003 |
| Table . . . . . : TAB                               Record Count :      2      B |
| Version . . . . . : PROD PROD                       Units . . . . . : 2.00000  C |
| ORD Type . . . . . :                               Rate . . . . . : .50000  AVG  D |
| Charge Element . . :                               Charge . . . . . : 1.00000  E |
| Qualifier . . . . . :                               Debit Amt . . . :      |
| > Period Number . . : 1                             Credit Amt . . . :      |
| DIVISION . . . . . :                               Adjust Charge :      |
| DEPARTMENT . . . . :                               Budget . . . . . :      |
|                                                    % of Budget :      |
|                                                    |
| F7=Bkwd  F8=Fwd                                     |
+-----+
  
```

Example 3: Entering Multiple Selection Criteria

If you specify restrictions in more than one field on the Charge Query Specifications panel, a compound condition results. In order for CA JARS/OLF to select a record for display, the record must meet **all** the criteria requirements.

To construct a compound condition using the entries for examples 2a and 2b:

1. Set the Summarize and Break fields to Y (see **A** below)
2. Enter CPU-CHARGE in the area next to Charge Element (see **B** below)
3. Enter 001 in the first field for Period Number and 003 in the second field (see **C** below)
4. Set the Brk field for Period Number and Charge Element to Y. This allows CA JARS/OLF to display results by period and Charge Element (see **D** below).

+-----+-----+-----+-----+-----+-----+									
Type information for Query CPUCOST Desc CPU COST FOR PER.1-3 Table TAB									
A									
Summarize	Y	Break	Y	Bud/DBCR	N	Version :	PROD	PROD	
						Brk	Srt		Op Sum
ORD Type					N		Rec Count	> SUM
Charge Element	. CPU-CHARGE					B	Y	Units . .	> SUM
Qualifier	. . .			C		N		Rate . . .	> AVG
Period Number	. 001 thru 003					Y		D Charge . .	> SUM
DIVISION					N			
DEPARTMENT	. . .					N			
+-----+-----+-----+-----+-----+-----+									

The panel below shows the **results** of entering multiple criteria on the Charge Query Specifications panel.

Notes:

- Three groups of records meet the criteria specified (see **A** below). CA JARS/OLF displays each group, representing one accounting period for Charge Element CPU-CHARGE, separately.
- The Record Count, Units, and Charge fields show totals for those records that fall in Period 1 where Charge Element = CPU-CHARGE (see **B**, **C**, and **E** below).
- The Rate field shows the average rate of the resulting records that fall in Period 1 where Charge Element = CPU-CHARGE (see **D** below).

```

+-- CBQQRYB ----- Charge Query Results -----+
| Panel  Exit  Help                                     |
|-----+-----+-----+-----+-----+-----+-----+
|                                     More: + - 1   Row: 0001 of 0003   A-----|
| Table . . . . . : TAB                                         Record Count :          2   B |
| Version . . . . . : PROD PROD                                Units . . . . . :    2.00000   C |
| ORD Type . . . . . :                                         Rate . . . . . :    .50000   AVG D |
| Charge Element . . : CPU-CHARGE                               Charge . . . . . :    1.00000   E |
| Qualifier . . . . . :                                         Debit Amt . . . :           |
| Period Number . . : 1                                         Credit Amt . . . :           |
| DIVISION . . . . . :                                         Adjust Charge:         |
| DEPARTMENT . . . . :                                         Budget . . . . . :         |
|                                     % of Budget :           |
+-----+-----+-----+-----+-----+-----+

```

Entry Field Options: Order By

CA JARS/OLF supports the SQL **Order By** operation. When selected, this option presents result records in the order specified by the selected Srt fields. If you select more than one field, CA JARS/OLF gives priority to the field located higher on the Charge Query Specifications panel. To select this option, specify a Y in the Srt column corresponding to the field(s) by which you want result records displayed. If you do not make a selection, CA JARS/OLF displays results in the same order as the fields appear on the [Charge Query Specifications panel](#) (see page 235).

Example 1: Using the Srt Option

To display the contents of the CCCTAB by Period Number:

1. Set the Summarize and Break fields to N (see **A** below)
2. Specify Y in the Srt column next to Period Number (see **B** below)

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
_  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help

+-- CBQQRYS ----- Charge Query Specifications -----+
| Panel  Exit  Help |
+-----+
| Type information for Query CPUCOST  Desc CPU COST FOR PER.1-3  Table TAB |
|           A |
| Summarize N  Break N  Bud/DBCR N          Version : PROD PROD |
|           |           |           |           |           |           |
| ORD Type . . . .          N      Rec Count          Op Sum |
| Charge Element .          N      Units . .          > SUM |
| Qualifier . . .          N      B Rate . . .          > AVG |
| Period Number .          thru  N  Y Charge . .          > SUM |
| DIVISION . . .          N |
| DEPARTMENT . . .          N |
|           |           |           |           |           |
| F2=Exec  F5=Save  F6=Delete  F11=Refresh |
+-----+
| Command ==> |
| F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp |

```

The panel on the following page shows the results of query execution.

The panel below shows the **results** of specifying a Y in the Srt column for the Period Number field. Note the following:

- CA JARS/OLF displays the entire contents of the CCCTAB (see **A** below) since there is no query criteria.
- The panel below shows the fields contained in one record of the CCCTAB table.
- CA JARS/OLF sorts all records by Period Number. The row shown below is the first record in the CCCTAB that falls within Period 1 (see **B** below).

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help

+-- CBQQRYD ----- Charge Query Results -----+
| Panel  Exit  Help                                     A-|
|-----+-----+-----+-----+-----+-----+
| Table . . . . . : TAB                               More: + - 1   Row: 0001 of 0021|
| Version . . . . . : PROD PROD                       |
| ORD Type . . . . . : MBJ                             Record Count :      1|
| Charge Element . . : CPU-CHARGE                     Units . . . . . : 1.00000|
| Qualifier . . . . . : SHIFT1                         Rate . . . . . : .50000|
| Period Number . . . : 1   B                         Charge . . . . . : .50000|
| Modifier . . . . . : WEEKEND                         Debit Amt . . . :      |
| Split/Modified . . : NY                             Credit Amt . . . :      |
| DIVISION . . . . . : RESTON                          Adjust Charge:    |
| DEPARTMENT . . . . : TECHWRIT                       Budget . . . . . :      |
|                                                    % of Budget :      |
|
| F7=Bkwd  F8=Fwd
+-----+-----+-----+-----+-----+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

Budget Query Specifications Panel

The Budget Query Specifications panel allows you to query the contents of the BUDTAB. Using the prompts provided, you can:

- Create an SQL query by simply filling in a panel
- Execute and view the results of the query

You specify query criteria and the manner in which you want results displayed. The following processing options, located on the Budget Query Specifications panel, determine result format.

- Summarize
- Break

These two options work together to display the following results.

Summarize	Break	Results
N	N	Detail report of the records that meet any criteria specified in the Budget Query Specifications panel. CA JARS/OLF displays each record separately. For each record, CA JARS/OLF provides values for the additional fields Budget Amt and Desc.
Y	N	Summary report of the records that meet any criteria specified in the Budget Query Specifications panel. Result fields Budget Amt and Count appear directly on the Budget Query Specifications panel. Budget Amt and Count hold summary information.
Y	Y	Summary report of the records that meet any criteria specified in the Budget Query Specifications panel. Result records are broken into groups based on the Brk fields you select. CA JARS/OLF displays each group separately. For each group of records, CA JARS/OLF provides values for the additional fields Budget Amt and Count.

The following panel shows the Budget Query Specifications panel upon entry to Budget Query. The values shown are the defaults.

```

USERID                      CA JARS/OLF                      MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBQBGTS -- Budget Query Specifications -----+
| Panel  Exit  Help                                     |
|-----|
| Type information for budget query. Then Execute.    |
| A Summarize N  Break N                               C   Version : PROD PROD |
|                                     Brk               B   |
| ORD Type . . . . .                                N   |
| Charge Element . . . . .                           N   |
| Qualifier . . . . .                               B   N   |
| Period Number . . . thru                          N   |
| DIVISION . . . . .                                N   |
| DEPARTMENT . . . . .                              N   |
|
| F2=Exec
+-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

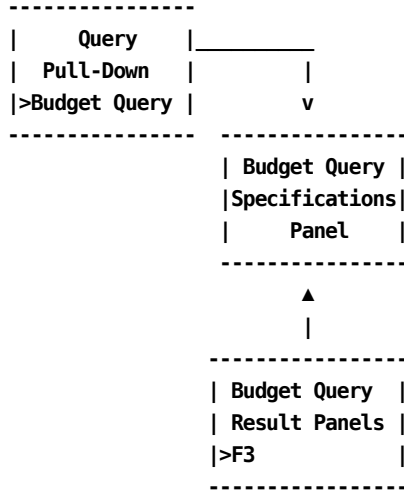
```

The Version field specifies the version of the CA JARS/OLF application being used. Only the last four characters of the version field are available for entry. The default is the version specified using CA JARS/OLF's Option function. All other fields are available for entry.

Access

The Budget Query Specifications panel appears when one of these events occur:

- You type QB in the fast path area of the Primary Panel's action bar.
- You select Budget on the Query pull-down.
- You return from the one of the Budget Query Result panels.



Input:

The following Budget Query Specification panel fields are available for input. These input fields refer to the sample panel in [Budget Query Specifications Panel](#) (see page 261).

A

Display Options

Summarize

A one-character field that works with the Break option to determine the format of results. Valid entries for this field are N and Y. The default value is N and appears when you first select the panel.

When you set the Summarize option to Y, results display in summary form, or in summary-with-breaks form (see [Budget Query Specifications Processing Options](#) (see page 266)).

Break

A one-character field that works with the Summarize field, to determine result format. Valid entries for this field are N and Y. The default value is N and appears when you first select the panel.

When the Break option is Y, the Brk column is active (see **C**).

Note: At least one field in the Brk column must be set to Y, when you select the Break option. Otherwise, CA JARS/OLF returns an error message.

CA JARS/OLF ignores any values entered in the Brk column, if the Break option is not set to Y.

The Break field is valid **only** with the Summarize option.

B**Selection Criteria**

Note: You can use the SQL wildcard character % alone or with any alphanumeric character string as selection criteria for these fields.

Version

The last four characters of this field are available for data entry. Specify the version of CA JARS/OLF you want to query.

ORD Type The three-character name of the output record identifier used for selection criteria. CA JARS/OLF processes only those records with the ORD Type you specify.

Charge Element

The name (up to 16 alphanumeric characters) of the Charge Element used for selection criteria. Only those records with Charge Element you specify display.

Qualifier

The name (up to 16 alphanumeric characters) of the conditional test applied to the charge unit, used for selection criteria. CA JARS/OLF selects only those records for which the qualifier applies.

Period Number

The start of the range of accounting periods or the accounting period from which CA JARS/OLF selects records.

thru

The end of the range of accounting periods from which CA JARS/OLF selects records.

The following entry fields indicate the accounting structures you want to query.

Note: CA JARS/OLF displays only defined accounting structures. The examples presented in this chapter show an accounting structure with two levels. The accounting structures you define can be different.

Division Department

Enter the name of a defined accounting level whose budget information you want to query.

Action

F2=Exec

Executes the query with the selections made.

Budget Query Specifications Processing Options

Located on the second line of the Budget Query Specifications Panel are two processing options:

- Summarize
- Break

These options determine the type of output report that CA JARS/OLF generates. The Summarize and Break fields work together to display results in three different types of formats:

- Summary
- Summary-with-breaks
- Detail

1. **Summary Report (Summarize=Y, Break=N)**

When you set the Summarize option to Y and the Break option to N in the Budget Query Specifications panel, CA JARS/OLF returns result fields Budget Amt and Count directly on the panel.

Budget Amt

The total budget allocated for the records meeting query criteria.

Count

The number of records meeting the query criteria.

To generate a summary report:

- a. Set the Summarize option to Y
- b. Set the Break option to N

```

+-- CBQBGTS -- Budget Query Specifications -----+
| Panel Exit Help                                |
+-----+
| Type information for budget query. Then Execute. |
| Summarize Y Break N                            |
| Version : PROD PROD                           |
|>|
| ORD Type . . . . . Brk                        |
| Charge Element . . . . . N                   |
| Qualifier . . . . . N                       |
| Period Number . . thru . . . . . N          |
| DIVISION . . . . . N                       |
| DEPARTMENT . . . . . N                     |
| F2=Exec                                       |
+-----+
  
```

After pressing F2 (Exec), fields Budget Amt and Count appear on the Budget Query Specifications panel.

Notes:

- The value within the Budget Amt field is the total budget for all records that meet the criteria specified in the Budget Query Specifications panel (see **A** below).
- The count field displays the number of budgets meeting query specifications.
- Since there is no query criteria, a display of all records of the BUDTAB table result. In this example, the BUDTAB table contains 21 rows (see **B** below).

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
_ Acctdefs Cbdefs Query Data Period Options Exit Help
+-- CBQBGTS -- Budget Query Specifications -----+
| Panel Exit Help                                |
+-----+
| Type information for budget query. Then Execute. |
| Summarize Y Break N                            |
| Version : PROD PROD                           |
|>|
| ORD Type . . . . . Brk                        |
| Charge Element . . . . . N Budget Amt :      2200.00000  A|
| Qualifier . . . . . N Count . . :           21          B|
| Period Number . . thru . . . . . N          |
| DIVISION . . . . . N                       |
| DEPARTMENT . . . . . N                     |
| F2=Exec                                       |
+-----+
| Command ==>                                  |
| F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp |
  
```

2. **Summary-with-Breaks Report (Summarize=Y, Break=Y)**

If you select both the Summarize and Break options, CA JARS/OLF displays results in summary format on results panel (CBQBGTB). However, in contrast to a Summary report, result records are broken into **groups**. CA JARS/OLF groups the records with identical values in the fields selected in the Brk column of the [Budget Query Specifications panel](#) (see page 261).

Each row of panel CBQBGTB represents one **group of records** meeting the criteria specified in the Budget Query Specifications entry fields. The scroll bar denotes the number of groups available for viewing.

To generate a summary-with-breaks report with results grouped by ORD Type and Charge Element:

- a. Set the Summarize and Break options to Y
- b. Set the Brk fields for ORD Type and Charge Element to Y (see **A** below)

```
+-- CBQBGTS -- Budget Query Specifications -----+
| Panel  Exit  Help                               |
+-----+
| Type information for budget query. Then Execute. |
| Summarize Y  Break Y                            |
| Version : PROD PROD                             |
|>                                                 |
|          Brk      A                             |
| ORD Type . . . . . Y                             |
| Charge Element . . Y                             |
| Qualifier . . . . . N                             |
| Period Number . . thru N                         |
| DIVISION . . . . . N                             |
| DEPARTMENT . . . . N                             |
+-----+
```

After pressing F2 (Exec), the following results panel appears.

Notes:

- CA JARS/OLF summarizes and displays each unique combination of ORD Type and Charge Element separately. Two groups of records result (see **A** below).
- The **Budget Amt** field is the total budget amount for the group of records meeting the criteria on the Budget Query Specifications panel (see **B** below).
- The **Count** field holds the total number of records that make up the group shown (see **C** below).

```

+-- CBQBGTB ----- Budget Query Results -----+
| Panel  Exit  Help                                     |
|-----+-----+-----+-----+-----+-----+-----+
|                                         More: + - 0001 Row: 1 of 2
|
| Version . . . . : PROD PROD          Budget Amt . :   1100.00000   A
| ORD Type . . . . : MBJ              Count. . . . :           7   B
| Charge Element . : CPU-CHARGE
| Qualifier . . . . :
| Period Number . . :
| DIVISION . . . . :
| DEPARTMENT . . . . :
|
| F7=Bkwd  F8=Fwd
+-----+-----+-----+-----+-----+-----+

```

3. **Detail Report (Summarize=N, Break=N)**

If you do not select the Summarize and Break options, a **detail** report of the records within the BUDTAB appears on result panel (CBQBGTD). CA JARS/OLF selects only those records that meet query criteria. It displays **all fields** for each selected record as a separate row. The scroll bar denotes the number of rows available for viewing.

The following is a sample detail report.

- CA JARS/OLF displays all records of the BUDTAB table, since there is no query criteria (see **A** below).
- The Budget Amt field specifies the budget for each record of the table meeting the query selection criteria (see **B** below).
- The Description field describes each selected record (see **C** below).

```

+--- CBQBGTD ----- Budget Query Results -----+
|      Panel  Exit  Help                                     1 |
|-----+-----+-----+-----+-----+-----+-----+
|                                                                 A|
|                                                                 More: + - 0001 Row: 1   of 0021|
|                                                                 |
| Version . . . . : PROD PROD          Budget Amt . :      600.00000  B
|
| ORD Type . . . . : MBJ                Description. : BUDFORPER1      C
| Charge Element . : CPU-CHARGE
| Qualifier . . . . : SHIFT1
| Period Number . . : 1
| DIVISION . . . . : RESTON
| DEPARTMENT . . . . : TECHWRIT
|
+--- CBQBGTD ----- Budget Query Results -----+
|      Panel  Exit  Help                                     2 |
|-----+-----+-----+-----+-----+-----+
|                                                                 |
|                                                                 More: + - 0001 Row: 2   of 0021|
|                                                                 |
|                                                                 A
|
+---| Version . . . . : PROD PROD          Budget Amt . :      500.00000  B
|
|   | ORD Type . . . . : MBJ                Description. : BUDFORPER2      C
|   | Charge Element . : CPU-CHARGE
|   | Qualifier . . . . : SHIFT1
|   | Period Number . . : 2
|   | DIVISION . . . . : RESTON
|   | DEPARTMENT . . . . : TECHWRIT
|   |
|   | F7=Bkwd  F8=Fwd
|
+-----+-----+-----+-----+-----+-----+

```

Budget Query Specifications Entry Field Options

CA JARS/OLF supports standard SQL queries. The format of the SQL query is:

SELECT fieldname **FROM** tablename **WHERE** (condition) {ORDER BY fields}

The following sections discuss how to use the various entry fields with processing options to generate SQL queries.

SELECT (fieldname).....

You can select fields for viewing from the BUDTAB table in one of two ways:

- Detail report
- Summary-with-breaks report

If you select a detail report, the Summarize and Break option are **both** set to N. This displays all fields of the records from the BUDTAB table meeting any selection criteria.

If you select a summary-with-breaks report, the Summarize and Break options are **both** set to Y. CA JARS/OLF groups results based on the fields you select in the Brk column. To select the fields you want results grouped by, enter Y in the appropriate row in the Brk column.

Note: Make sure the Break field is set to Y, otherwise CA JARS/OLF ignores the values entered in the Brk column.

The Break option **cannot** be selected without also selecting the Summarize option.

from (tablename).....

The Budget Query Specifications panel allows access to information contained in the BUDTAB. This is the default value and **cannot** be changed.

WHERE (condition).....

If you wish to select only those records that meet specific criteria, you can add a conditional test next to any of the panel fields. This test can be a previously defined user name, or a number. The Period Number field accepts numeric values. All other entry fields accept **only** predefined user names.

Note: You can specify query criteria, regardless of the result format you select.

Example 1: Specifying Selection Criteria within the ORD Type Field

The following panel shows how to generate a detail report of the records in the BUDTAB where ORD Type = MBJ.

1. Set the Summarize and Break options to N.
2. Enter MBJ in the area next to ORD Type (see **A** below).

```
+-- CBOBGT5 -- Budget Query Specifications -----+
|   Panel  Exit  Help                               |
+-----+
| Type information for budget query. Then Execute.  |
| Summarize N Break N      Version : PROD PROD     |
| >                                                  |
|           A           Brk                         |
| ORD Type . . . . . MBJ                          N |
| Charge Element . . . . .                          N |
| Qualifier . . . . .                              N |
| Period Number . . . thru                          N |
| DIVISION . . . . .                               N |
| DEPARTMENT . . . . .                             N |
+-----+
```


The panel below shows the results of specifying selection criteria within the ORD Type field.

Notes:

- The number of records that meet the criteria ORD Type = MBJ is 11 (see **A** below).
- This panel shows the first of the records selected from the BUDTAB table.
- The application displays all fields for each record.

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
  _   Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBOBGTD ----- Budget Query Results -----+
| Panel  Exit  Help                                     A-----|
|                                                    More: + - 0001 Row: 1  of 0011|
| Version . . . . : PROD PROD          Budget Amt . :      600.000000|
| ORD Type . . . . : MBJ              Description. : BUDFORPER1|
| Charge Element . : CPU-CHARGE|
| Qualifier . . . . : SHIFT1|
| Period Number . . : 1|
| DIVISION . . . . : RESTON|
| DEPARTMENT . . . . : TECHWRIT|
|
| F7=Bkwd  F8=Fwd|
+-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

DB/CR Query Specifications Panel

The DB/CR Query Specifications panel allows you to query the contents of the DBCRTAB. Using the prompts provided, you can:

- Create an SQL query by simply filling a panel
- Execute and receive the results of the query

You specify query criteria and the manner in which you want results displayed. The following processing options, located on the DB/CR Query Specifications panel, determine result format.

- Summarize
- Break

These two options work together to display the following results. A complete discussion on these options with sample Results panels is in [DB/CR Query Specifications Processing Options](#) (see page 278) through [DB/CR Query Specifications Processing Options](#) (see page 278).

Summarize	Break	Results
N	N	Detail report of the records that meet any criteria specified in the DB/CR Query Specifications panel. CA JARS/OLF displays each record separately. For each record, CA JARS/OLF provides values for the additional fields Debit Amt, Credit Amt, and Desc.
Y	N	Summary report of those records that meet any criteria specified in the DB/CR Query Specifications panel. Result fields Debit Amt, Credit Amt, and Count appear on the DB/CR Query Specifications panel. Fields Debit Amt, Credit Amt, and Count hold summary information.
Y	Y	Summary report of those records that meet any criteria specified in the DB/CR Query Specifications panel. Result records are broken into groups based on the Brk fields you select. CA JARS/OLF displays each group separately. For each group of records, CA JARS/OLF provides values for the additional fields Debit Amt, Credit Amt, and Count.

The following panel shows the DB/CR Query Specifications panel on entry of Debit/Credit Query. The values shown are the default ones.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help

+-- CBQCRDS ----- DB/CR Query Specifications -----+
| Panel  Exit  Help |
+-----+
| Type information for debit/credit query. Then Execute. |
| A Summarize N Break N          C Version : PROD PROD |
|                               Brk                               B |
| ORD Type . . . . .           N |
| Charge Element . .         N |
| Qualifier . . . . .         B N |
| Period Number . . thru     N |
| DIVISION . . . . .         N |
| DEPARTMENT . . . . .       N |
|
| F2=Exec
+-----+
Command ==>
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp

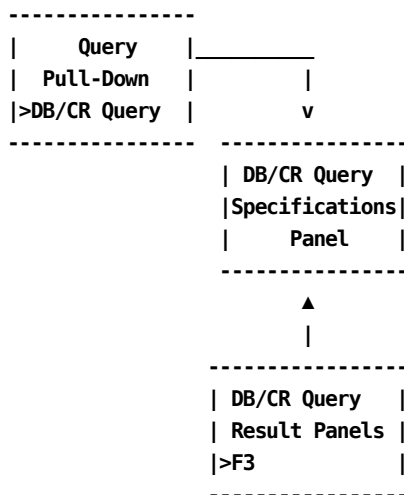
```

The Version field specifies the version of the CA JARS/OLF application being used. Only the last four characters of the Version field are available for entry. The default is the Version specified using CA JARS/OLF's Option function. All other fields are available for entry.

Access

The DB/CR Query Specifications panel appears when one of these events occur:

- You type QD in the fast path area of the Primary Panel's action bar.
- You select Debit/Credit on the Query pull-down.
- You return from one of the DB/CR Query Result panels.



Input:

The following DB/CR Query Specification panel fields are available for input. These input fields refer to the sample panel on [DB/CR Query Specifications Panel](#) (see page 273).

A

Display Options

Summarize

A one-character field that works with the Break option, to determine the format of results. Valid entries for this field are N and Y. The default value is N and appears when you first select the panel.

When you set the Summarize option to Y, results display in summary form, or in summary-with-breaks form (see [DB/CR Query Specifications Processing Options](#) (see page 278)).

Break

A one-character field that works with the Summarize field to determine result format. Valid entries for this field are N and Y. The default value is N and appears when you first select the panel.

When the Break option is Y, the Brk column is active (see **C**).

Note: At least one field in the Brk column must be set to Y when you select the Break option. Otherwise, CA JARS/OLF returns an error message.

CA JARS/OLF ignores any values entered in the Brk column, if Break is N.

The Break field is valid only with the Summarize option.

B**Selection Criteria**

Note: You can use the SQL wildcard character % alone or with any alphanumeric character string as selection criteria for these fields.

Version

The last four characters of this field are available for data entry. Specify the version of CA JARS/OLF you want to query.

ORD

Type The three-character name of the output record identifier used for selection criteria. CA JARS/OLF processes only those records with the ORD Type you specify.

Charge Element

The name (up to 16 alphanumeric characters) of the Charge Element used for selection criteria. Only those records with the Charge Element you specify display.

Qualifier

The name (up to 16 alphanumeric characters) of the conditional test, applied to the charge unit, used for selection criteria. CA JARS/OLF selects only those records for which the qualifier applies.

Period Number

The start of the range of accounting periods or the accounting period from which CA JARS/OLF selects records.

thru

The end of the range of accounting periods from which CA JARS/OLF selects records.

The following entry fields indicate the accounting structures you want to query.

Note: CA JARS/OLF displays only defined accounting structures. The examples displayed in this chapter show an accounting structure with two levels. The accounting structures you define can be different.

Division Department

Enter the name of a defined accounting level whose debit and credit information you want to query.

Action

F2=Exec

Executes the query with the selections you have made.

DB/CR Query Specifications Processing Options

Located on the second line of the DB/CR Query Specifications Panel are two processing options:

- Summarize
- Break

These options determine the type of output report that CA JARS/OLF generates. The Summarize and Break fields work together to display results in three different types of formats:

- Summary
- Summary-with-Breaks
- Detail

1. **Summary Report (Summarize=Y, Break=N)**

When you set the Summarize option to Y and the Break option to N on the DB/CR Query Specifications panel, CA JARS/OLF returns result fields Debit Amt, Credit Amt, and Count directly on the panel.

Debit Amt

The total debit value for all records meeting query criteria.

Credit Amt

The total credit value for all records meeting query criteria.

Count

The number of records meeting the query criteria.

To generate a summary report on the panel below:

- a. Set the Summarize option to Y
- b. Set the Break option to N

```

+-- CBQCRDS ----- DB/CR Query Specifications -----+
| Panel Exit Help                                     |
|-----|
| Type information for debit/credit query. Then Execute. |
|-----|
|> Summarize Y Break N                               |
|                                         Version : PROD PROD |
|                                         Brk                |
| ORD Type . . . . .                          N                |
| Charge Element . . . . .                     N                |
| Qualifier . . . . .                          N                |
| Period Number . . . thru                    N                |
| DIVISION . . . . .                           N                |
| DEPARTMENT . . . . .                         N                |
|-----|
| F2=Exec                                         |
+-----+
    
```

After pressing F2 (Exec), fields Debit Amt, Credit Amt, and Count appear on the DB/CR Query Specifications panel. Note the following:

- The value within the Debit Amt and Credit Amt fields are total debit and credit amounts for those records which meet the criteria specified (see **A** below).
- The Count field specifies the number of records meeting the criteria specified.
- Since there is no query criteria, all records of the DBCRTAB table result. In this example, the DBCRTAB table contains 21 rows (see **B** below).

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__ Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBQCRDS ----- DB/CR Query Specifications -----+
| Panel Exit Help                                     |
|-----|
| Type information for debit/credit query. Then Execute. |
|-----|
| Summarize Y Break N                               |
|                                         Version : PROD PROD |
|                                         Brk                |
| ORD Type . . . . .                          N                |
| Charge Element . . . . .                     N Debit Amt :      1500.00000  A |
| Qualifier . . . . .                          N Credit Amt:       750.00000  |
| Period Number . . . thru                    N Count . . :           21  B |
| DIVISION . . . . .                           N                |
| DEPARTMENT . . . . .                         N                |
|-----|
| F2=Exec                                         |
+-----+
Command ==>
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp
    
```

2. **Summary-with-Breaks Report (Summarize=Y, Break=Y)**

If you select both the Summarize and Break options, CA JARS/OLF displays results in summary format on results panel (CBQCRDB). However, in contrast to a Summary report, result records are broken into **groups**. CA JARS/OLF groups the records with identical values in the fields selected in the Brk column of the DB/CR Query Specifications panel. It displays the result fields Debit Amt, Credit Amt, and Count for each group, separately.

Each row of panel CBQCRDB represents one **group of records** meeting the criteria specified in the DB/CR Query Specifications entry fields. The scroll bar denotes the number of groups available for viewing.

To generate a summary-with-breaks report and group results by ORD Type and Charge Element:

- a. Set the Summarize and Break options to Y
- b. Set the Brk fields for ORD Type and Charge Element to Y

```
+-- CBQCRDS ----- DB/CR Query Specifications -----+
| Panel  Exit  Help                                     |
+-----+
| Type information for debit/credit query. Then Execute. |
|                                                       |
| > Summarize Y  Break Y                               |
|                                                       |
| ORD Type . . . . . Brk                               |
| Charge Element . . Y      A                         |
| Qualifier . . . . . N                               |
| Period Number . . thru N                           |
| DIVISION . . . . . N                               |
| DEPARTMENT . . . . N                               |
|                                                       |
| F2=Exec                                             |
+-----+

```


After pressing F2 (Exec), the following results panel appears. Note the following:

- CA JARS/OLF summarizes and displays each unique combination of ORD Type and Charge Element separately. **Four** groups of records result (see **A** below).
- Values within the Debit Amt and Credit Amt fields are total debit and credit values for the records in the group (see **B** below).
- The Count field holds the number of records that make up the group (see **C** below).

+-- CBQCRDB ----- Debit/Credit Query Results -----+			
Panel		Exit	Help
		More: + - 1	Row: 1 of 4
Version	PROD PROD	Debit Amt . . :	250.00000 A
ORD Type	MBJ	Credit Amt . . :	150.00000 B
Charge Element . . :	CPU-CHARGE	Count.	5 C
Qualifier			
Period Number . . :			
DIVISION			
DEPARTMENT :			
F7=Bkwd	F8=Fwd		

3. Detail Report (Summarize=N, Break=N)

If you do not select the Summarize and Break options, a **detail** report of the fields within the DBCRTAB appears on panel (CBQCRDD). CA JARS/OLF selects only those records which meet query criteria. It displays **all fields** of each selected record on a separate row. The scroll bar denotes the number of rows available for viewing.

The following is a sample detail report.

Notes:

- CA JARS/OLF displays all records of the DBCRTAB table, since no there is no query criteria (see **A** below).
- CA JARS/OLF displays all fields of each record.
- The additional fields Debit Amt and Credit Amt hold debit and credit information for each record (see **B** below).
- The Desc field describes the information in the record (see **C** below).

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
_  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help

+-- CBQCRDD ----- Debit/Credit Query Results -----+
| Panel  Exit  Help |
|-----|
|                                     More: + - 1   Row: 1   of 0021 |
| Version . . . . . : PROD PROD          Debit Amt . . :      250.00000  A |
| ORD Type . . . . . : MBJ                Credit Amt . . :      150.00000  B |
| Charge Element . . : CPU-CHARGE         Desc . . . . . : DB/CR for Per1  C |
| Qualifier . . . . . : SHIFT1            |
| Period Number . . . : 1                  |
| DIVISION . . . . . : RESTON              |
| DEPARTMENT . . . . : TECHWRIT           |
|
| F7=Bkwd  F8=Fwd                         |
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

DB/CR Query Specifications Entry Field Options

CA JARS/OLF supports standard SQL queries. The format of the SQL query is:

SELECT fieldname **FROM** tablename **WHERE** (condition) [ORDER BY fields]

The following sections discuss how to use the various entry fields with the processing options to generate SQL queries.

SELECT (fieldname).....

You can select fields from the DBCRTAB table for viewing in one of two ways:

- Detail report
- Summary-with-breaks report

If you select a detail report, the Summarize and Break options are both set to N. CA JARS/OLF displays all fields of the DBCRTAB table for those records which meet any selection criteria specified.

If you select a summary-with-breaks report, the Summarize and Break options are both set to Y. CA JARS/OLF groups results based on the fields you select in the Brk column. To select the fields you want results grouped by, enter Y in the appropriate space in the Brk column. The default value is N.

Note: Make sure the Break field is set to Y, otherwise CA JARS/OLF ignores the values entered in the Brk column.

The Break option **cannot** be selected without also selecting the Summarize option.

from (tablename).....

The DB/CR Query Specifications panel allows access to information contained in the DBCRTAB. This is the default value and **cannot** be changed.

WHERE (condition).....

If you wish to select only those records which meet specific criteria, you can add a conditional test next to any of the panel fields. This test can be a previously defined user name, or a number. The Period Number field accepts numeric values. All other entry fields accept only predefined user names.

Note: You can specify query criteria, regardless of the result format you select.

Example 1: Specifying Selection Criteria within the Charge element field

To generate a query with selection criteria and display results in a detail report:

1. Set the Summarize and Break options to N (see **A** below)
2. Enter the selection criteria CPU-CHARGE in the area next to Charge Element (see **B** below)

```

+-- CBQCRDS ---DB/CR Query Specifications-----+
|   Panel  Exit  Help  |
+-----+
| Type information for debit/credit query. Then execute. |
| Summarize N Break N      Version : PROD PROD          |
|           A              Brk                          |
| ORD Type . . . . . N                                  |
| Charge Element . . CPU-CHARGE   B N                  |
| Qualifier . . . . . N                                  |
| Period Number . . thru          N                    |
| DIVISION . . . . . N                                  |
| DEPARTMENT . . . . . N                                |
+-----+

```

The panel below shows the results of specifying selection criteria within the Charge Element field. Note the following:

- The number of records which meet the criteria is 5 (see **A** below). This panel shows the first of the records selected from the DBCRTAB table.
- CA JARS/OLF selects only those records with Charge Element = CPU-CHARGE (see **B** below).

```
USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
_  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBQCRDD ----- Debit/Credit Query Results -----+
|   Panel  Exit  Help                                     A-----|
|-----+-----+-----+-----+-----+-----+-----+-----+
|                                     More: + - 1   Row: 1   of 5
|
| Version . . . . : PROD PROD          Debit Amt . :      250.00000
| ORD Type . . . . : MBJ                Credit Amt . :      150.00000
| Charge Element . : CPU-CHARGE   B   Desc . . . . : DB/CR for Per1
| Qualifier . . . . : SHIFT1
| Period Number . . : 1
| DIVISION . . . . : RESTON
| DEPARTMENT . . . : TECHWRIT
|
| F7=Bkwd  F8=Fwd
+-----+-----+-----+-----+-----+-----+-----+-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
```

Chapter 7: Performing Data Functions

You invoke Data functions by selecting **Data** from the CA JARS/OLF Primary Panel's action bar. The following Data Entry pull-down appears. You perform further selections by placing your cursor next to the function you want to perform and pressing Enter.

USERID	CA JARS/OLF				MM/DD/YY HH:MM:SS			
--	Acctdefs	Cbdefs	Query	Data	Period	Options	Exit	Help
			-			1. Budgets		
			-			2. Debits/Credits		
			-			F12=Cancel		
Command ==>								
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp								

On the next page is a description of these choices.

1. Budgets

Assigns budgets to your accounting structures. Budgets can be assigned at multiple levels.

2. Debits/Credits

Manually adjusts charges at any level of detail.

Note: You indicate your selection by entering a number in the entry field or by using the Enter key:

1

Takes you to the [Budget Entry Panel](#) (see page 299).

2

Takes you to the [Debit/Credit Primary panel](#) (see page 312).

Enter

Takes you to the function where the cursor is placed.

Budgets Panels

Budgets are entered based on the organizational hierarchy defined by your CA JARS/OLF Administrator using the Acctdefs function described in Chapter 3.

Budgets can be set up at any organizational level and further defined down to the:

- Charge element level
- Qualifier level

for one or more accounting periods.

Budgets also enable you to compare **actual** charges versus budget categories.

The following panels make up the Budgets panel set:

- Budgets Primary panel
- Budget Browse Criteria panel
- Budget List panel
- Expanded Budget List panel
- Budget Entry panel

Budgets Primary Panel

You use this panel to specify the budget function you want to perform. You can either:

- Enter budgets for your accounting structures, or
- Browse currently defined budgets

```

USERID                               CA JARS/OLF                               MM/DD/YY HH:MM:SS
--   Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDBGTP ----- Budgets -- -----+
|                                     |
|   Panel  Exit  Help                 |
|-----|
| Select a function. Then Enter. Or select an action. |
|
| Version . : PROD PROD
|
| _ 1. Data Entry
|   2. Browse
|
| Enter  F2=Data Entry  F11=Browse
|-----|
+-----+

Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

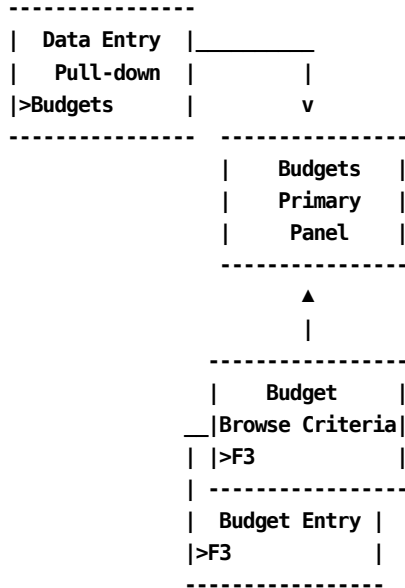
```

On the next page is a description of the Budgets primary panel.

Access

The Budgets primary panel appears when one of these events occurs:

- You type DB in the fast path area of the Primary Panel's action bar.
- You select Budgets on the Data Entry pull-down.
- You return from the Budget List or Budget Entry panel.



Pathways

Enter

Type a 1 or 2 in the entry area and then press **Enter**.

1.
Takes you to the Budgets Entry panel.
2.
Takes you to the Budget Browse Criteria panel.

F2

(Data Entry) Takes you to the [Budget Entry Panel](#) (see page 299).

F11

(Browse) Takes you to the [Budget Browse Criteria Panel](#) (see page 289).

Budget Browse Criteria Panel

You use this panel to specify the Budget entries you want to view or update.

Note:

1. You can leave all entry fields blank and press **F2** (Execute) to view all currently defined budget entries.
2. Only **defined** accounting structure names are displayed on the panel (see **1** below).

The panel below shows that two accounting structures have been defined by the CA JARS/OLF Administrator: Division and Department.

USERID	CA JARS/OLF	MM/DD/YY HH:MM:SS
Acctdefs Cbdefs Query Data Period Options		Exit Help
+--- CDBGTB -- Budget Browse Criteria -----+		
Panel Exit Help		

Type browse criteria. Then Execute.		
Version : PROD PROD		
Period Number . . ___ thru ___		
ORD Type ___		
Charge Element . . _____		
Qualifier _____		
DIVISION _____		
DEPARTMENT _____		
F2=Exec		

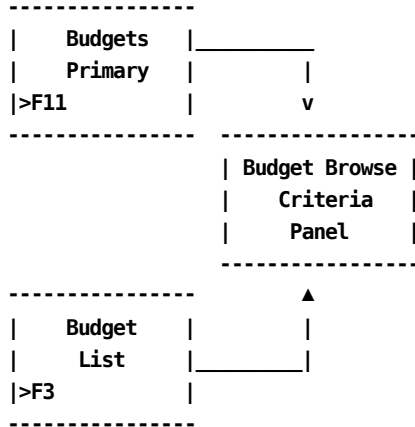
Command ==> _____		
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp		

On the next page is a description of the Budget Browse Criteria panel.

Access

The Budget Browse Criteria panel appears when one of these events occurs:

- You press **F11** (Browse) on the [Budgets Primary Panel](#) (see page 287).
- You return from the [Budget List Panel](#) (see page 294).



Input

The following Budget Browse Criteria panel fields are available for input:

Period Number thru

Two, three-character numeric fields used to enter the range for which you want to view or update budgets. Use the first entry field to enter the start (from) of the range and the second entry field for the end of the range (to). Entering data in these fields in the following manner provide you with the following results:

From	thru	To	Result
___		___	List of all budget entries that meet the rest of the criteria specified
001		006	List of all budget entries in periods 001 thru 006 that meet the criteria specified
001		___	List of all budget entries in period 001 that meet the criteria specified
___		006	Invalid; you will get an error message

ORD Type

The three-character name of the output record identifier for which you want to define a budget category.

Charge Element

The name of the charge element (up to 16 alphanumeric characters) associated with the ORD type used to define the budget category.

Qualifier

The name of a conditional test specifically associated with the Charge Element. Examples of qualifier names are: @SYSTEM, @SHIFT, and so forth.

Note: Only defined accounting structures appear. Furthermore, these entry fields only accept the number of characters used to define the structure length on the Accounting Structure panel. If you enter an incorrect number of characters, an informational message appears when you press **F2=Exec**.

Use the following entry field to indicate the accounting levels you want the budget applied to.

This example uses the following accounting structures:

Division

Enter the name of a defined subaccounting structure whose Budget you want to Browse or Update.

Department

Enter the name of a defined subaccounting structure whose Budget you want to Browse or Update.

Pathway**F2**

(Execute) Executes the search and displays the [Budget List panel](#) (see page 294) that contains a list of budget entries meeting the search criteria.

Example 1: Specifying Budget Browse Criteria by ORD Type & Period

The following panel shows how to specify Budget Browse Criteria by ORD Type and period. In this example, we are requesting a browse list of all budgets in periods 3 through 6 for ORD Type: MBJ.

```

USERID                      CA JARS/OLF                      MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDBGTB -- Budget Browse Criteria -----+
|   Panel  Exit  Help  |
|-----|
|   Type browse criteria. Then Execute.
|
|   Version . . . . . : PROD PROD
|
|   Period Number . . 003 thru 006
|   ORD Type . . . . . MBJ
|   Charge Element . . _____
|   Qualifier . . . . . _____
|   DIVISION . . . . . _____
|   DEPARTMENT . . . . _____
|
|
|   F2=Exec
|-----+
|
| Command ==> _____
| F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

After we press **F2** (Execute), we are presented with a Budget Browse List containing all records meeting our specifications. Section [Example 1: Selecting a Browse List Entry By ORD Type for a Specific Period](#) (see page 297), shows the Browse List.

Example 2: Specifying Budget Browse Criteria by Qualifier

The following panel shows how to specify Budget Browse Criteria by Qualifier. In this example, we are requesting a browse list of all budgets for all periods, levels, and ORD types whose Charge Elements are associated with the Qualifier: @SHIFT1.

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDBGTB -- Budget Browse Criteria -----+
| Panel  Exit  Help                               |
|-----|
| Type browse criteria. Then Execute.             |
| Version . . . . : PROD PROD                     |
| Period Number . . ___ thru ___                 |
| ORD Type . . . . : ___                         |
| Charge Element . . _____                 |
| Qualifier . . . . : @SHIFT1_____             |
| DIVISION . . . . : _____                 |
| DEPARTMENT . . . . : _____                 |
|
| F2=Exec                                         |
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

After we press **F2** (Execute), we are presented with a Budget Browse List containing all records that met our specifications. Section [Example 2: Selecting a Browse List Entry By Qualifier for a Specific Period](#) (see page 298), shows the Browse List.

Budget List Panel

The Budget List panel provides you with a list of all currently defined Budgets meeting the search criteria specified on the Budget Browse Criteria panel. The search criteria are redisplayed as protected display fields at the top of the panel.

Note: As you can see on the sample panel below, providing a meaningful description on the Budget Entry panel takes the guess work out of entry selection.

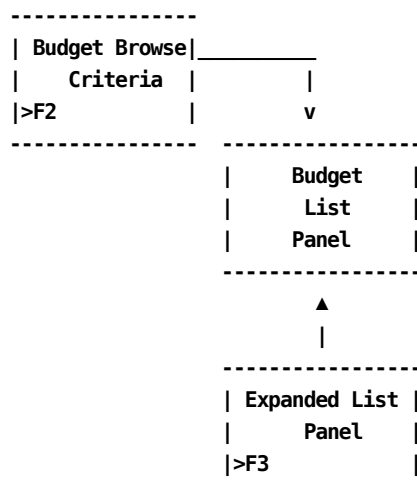
```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDBGTL ----- Budget List -----+
| Panel  Exit  Help |
|-----|
| Select a budget entry. Then select an action. |
| Version . . . : PROD PROD      DIVISION . . . : |
| Period Number :      thru      DEPARTMENT . . . : |
| ORD Type . . . : |
| Charge Element : |
| Qualifier . . . : |
|
|          Amount  Description  More: - + ____  Row 0001 of 0018 |
| -          10.00000 |
| -          10.00000 RESTON05 |
| -          10.00000 MBJPER5 |
| Enter  F7=Bkwd  F8=Fwd  F11=Expand |
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
  
```

Access

The Budget List panel appears when one of these events occurs:

- When **F2** (Execute) is pressed on the [Budget Browse Criteria Panel](#) (see page 289).
- You return from the Expanded Budget List panel.



Scrolling

F7 and F8 let you scroll backward and forward through the Budget selection list. You can also use the scroll bar, as explained on [Sample List Panel](#) (see page 46), to move through the list.

Pathways

Enter

By placing the cursor next to the item you want to view and pressing **Enter**, you can go [Budget Entry Panel](#) (see page 299) to examine and optionally update its contents.

F11

(Expand) Gives you an **expanded view** (eight-line display) of the Budget List panel.

Expanded Budget List Panel

The following panel appears when you press **F11** (Expand) on the [Budget List Panel](#) (see page 294). The only difference between the two panels is the protected fields are not displayed. This allows you to view more information on a single panel. The Expanded List panel functions in the same way as the list panel from which it was called.

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--- CBDBGTX ----- Expanded Budget List -----+
  Panel  Exit  Help
-----
Select a budget entry. Then Enter.
                                     More: - + ____ Row 0004 of 0018
      Amount  Description
-----
-          10.00000
-          10.00000
-          10.00000  TEST005
-          29.00000  TEST 001
-          10.00000
-         1000.00000  CHANGE DESC
-         1000.00000  REMOVE PAYROLL
-           5.00000  XXXXXXXX
Enter  F7=Bkwd  F8=Fwd
-----
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
  
```


Example 1: Selecting a Browse List Entry By ORD Type for a Specific Period

In [Example 1: Specifying Budget Browse Criteria by ORD Type & Period](#) (see page 292), we specified that we wanted to see a Budget list for:

- All MBJ ORDs
- For periods 3 through 6
- For all Division and Department substructures

```
+-- CBDBGTB -- Budget Browse Criteria -----+
| Panel Exit Help
|-----|
| Type browse criteria. Then Execute.
|
| Version . . . . : PROD PROD
|
| Period Number . . 003 thru 006
| ORD Type . . . . : MBJ
| Charge Element . . _____
| Qualifier . . . . _____
| DIVISION . . . . _____
| DEPARTMENT . . . . _____
+-----+
```

After pressing F2 (Execute), the following Budget List panel appears.

```
USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
___ Acctdefs  Cbdefs  Query Data Period  Options  Exit  Help
+-- CBDBGTL ----- Budget List -----+
| Panel Exit Help
|-----|
| Select a budget entry. Then select an action.
|
| Version . . . : PROD PROD          DIVISION . . . . :
| Period Number : 3 thru 6          DEPARTMENT . . . . :
| ORD Type . . . : MBJ
| Charge Element :
| Qualifier . . . :
|
|          Amount Description  More: - + ____ Row 0001 of 0007
|
| -          10.00000 MBJ-003
| -          10.00000 MBJ-004
| -          10.00000 MBJ-005
|
| Enter  F7=Bkwd  F8=Fwd  F11=Expand
+-----+
```

Command ==>

F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp

Example 2: Selecting a Browse List Entry By Qualifier for a Specific Period

In Example 2: Specifying Budget Browse Criteria by Qualifier in [Example 2: Specifying Budget Browse Criteria by Qualifier](#) (see page 293), we specified that we wanted to see a Budget list for all entries whose charge elements use the qualifier @SHIFT1.

```

+-- CBDBGTB -- Budget Browse Criteria -----+
| Panel Exit Help |
|-----|
| Type browse criteria. Then Execute. |
| Version . . . . : PROD PROD |
| Period Number . . ___ thru ___ |
| ORD Type . . . . : ___ |
| Charge Element . . : _____ |
| Qualifier . . . . : @SHIFT_____ |
| DIVISION . . . . : _____ |
| DEPARTMENT . . . . : _____ |
+-----+
    
```

After pressing F2 (Execute), the following Budget List panel appears.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
___ Acctdefs Cbdefs Query Data Period Options Exit Help
+-- CBDBGTL ----- Budget List -----+
| Panel Exit Help |
|-----|
| Select a budget entry. Then select an action. |
| Version . . . . : PROD PROD          DIVISION . . . . : |
| Period Number : thru          DEPARTMENT . . . . : |
| ORD Type . . . : |
| Charge Element : |
| Qualifier . . . : @SHIFT1 |
| |
| Amount Description More: - + ___ Row 0001 of 0018 |
| -          10.00000 MBJ-001 |
| -          10.00000 MBJ-003 |
| -          10.00000 MBJ-005 |
| |
| Enter F7=Bkwd F8=Fwd F11=Expand |
+-----+

Command ==> _____
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp
    
```

Budget Entry Panel

Use this panel to create, view, or update budgets for the defined accounting structures and substructures in your organization. The Budget key is composed of:

- Version
- ORD Type
- Period Number
- Description
- Accounting level

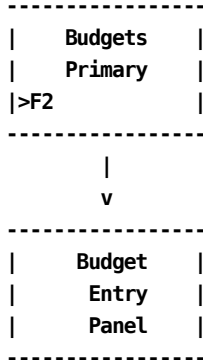
If you come to this panel via a List panel, the Mode display field indicates you are in **UPD** (update) mode. This means that you can type over any information you want to change, or add new data. **F6** (Delete) is only valid when you are in UPD mode.

```

-----
|   Budgets   |
|   Primary   |
|>F11        |
-----
| Budget Browse |
|   Criteria   |
|>F2         |
-----
| Budget List  |
|or Expand List|
|>Enter      |
-----
|
| v
-----
|   Budget    |
|   Entry    |
|   Panel    |
-----

```

If you come to this panel via **F2** (Data Entry) from the Budget primary panel, the Mode display field indicates you are in **INS** (insert) mode. You can do mass entries in this mode. Simply create your first entry, press **F5** (Save), wait until the informational message tells you the entry is *inserted*, type over any fields that need to be changed for your next entry and press F5. Continue in this manner until you have completed all your entries. **Remember**, F6 (Delete) is not valid when you are in INS mode. Therefore, if you make a mistake and the entry is inserted, you must perform the following steps to delete the entry:



1. Exit out to the Budgets primary panel.
2. Press **F11** (Browse) which takes you to the Budgets Browse Criteria panel.
3. Enter your criteria and press **F2** (Execute) which presents you with the Budget List panel.
4. Select the entry you want to delete using the Enter key.
5. When the Budget Entry panel is displayed for the selected entry, you are in UPD mode. You can then press **F6** (Delete) to delete the record.
6. An informational message appears telling you the record was deleted and Mode changes to **EXIT**.
7. Press **any** key to return to the Budget List panel where you can continue selecting other records to update or delete.

The following Budget Entry panel shows that we are in INS mode (we are creating an entry) for ORD: MBJ, for Period 5, for Division B, with a budget allocation of \$10. Furthermore, we have provided a description of this entry: MBJ-5-B.

```

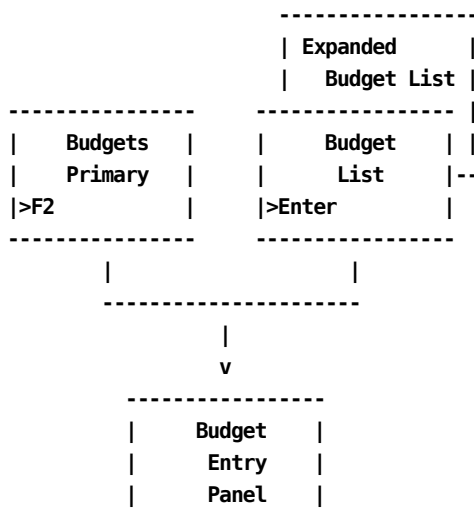
USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDBGTE ----- Budget Entry -----+
|  Panel  Exit  Help  |
|-----|
|  Type information. Then select an action.  |
|  Version . . . . : PROD PROD          Mode . . . . : INS  |
|  ORD Type . . . . : MBJ                Period Number . 005  |
|  Charge Element . . . .                Budget Amount .    10.00  |
|  Qualifier . . . .                    Description . . MBJ-5-B  |
|  DIVISION . . . . : B _____      |
|  DEPARTMENT . . . . _____      |
|-----|
|  F5=Save  F6=Delete  |
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Access

The Budget Entry panel appears when one of these events occurs:

- When **F2** (Data Entry) is pressed on the [Budgets Primary Panel](#) (see page 287).
- You make a selection [Budget List Panel](#) (see page 294) or [Expanded Budget List Panel](#) (see page 296).



Input:

The following Budget Entry panel fields are available for input:

ORD Type

A three-character name of the output record identifier for which you want to define a budget category.

Period Number

A three-character numeric field defining the period number to which a budget amount is applied.

Charge Element

The name of the charge element (up to 16 alphanumeric characters) you want associated with the ORD type to further define the budget category.

Budget Amount

Enter the amount you are allocating as the budget for the line item that is defined by ORD type, Charge Element and Qualifier for the accounting structures you name below.

Qualifier

The name of a conditional test specifically associated with the Charge Element, or a global test you want applied. Examples of qualifier names are: @SYSTEM, @SHIFT, and so forth.

Description

A 20-character alphanumeric field used to provide a meaningful description of the budget item. This field appears on the List and Expanded List panels to make item selection easier.

Use the following entry field to indicate the accounting levels whose budgets you want to update:

Note: Only defined accounting structures are displayed. Furthermore, these entry fields only accept the number of characters used to define the structure length on the [Accounting Structure panel](#) (see page 71). If you enter an incorrect number of characters, an informational message appears when you execute the save (F5=Save).

This example uses the following accounting structures:

Division

Enter the name of a defined accounting level whose budget you want to Browse or Update.

Department

Enter the name of a defined accounting level whose budgets you want to Browse or Update.

Actions**F5=Save**

Depending upon **mode**, lets you add (INS) or update (UPD) records to the table.

F6=Delete

UPD (update) mode only: lets you delete a record from the table.

Example 1: Defining a Budget by ORD Type for an Accounting Level

The following panel shows you how to create a budget for a specific ORD type: MBJ for the East Coast Division. We want to define this budget for six periods: 1 - 6.

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help

+-- CBDBGTE ----- Budget Entry -----+
| Panel  Exit  Help |
|-----|
| Type information. Then select an action. |
| Version . . . : PROD PROD      Mode . . . . : INS |
| ORD Type . . . : MBJ          Period Number . 001 |
| Charge Element . . .          Budget Amount .   15000.00 |
| Qualifier . . .               Description . . MBJ-001_____ |
| DIVISION . . . : EAST COAST_____ |
| DEPARTMENT . . . _____ |
|
| F5=Save  F6=Delete |
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

After completing the entry:

1. Press **F5** (Save)
2. Wait until the informational message tells you the record is inserted
3. Change the Period Number to 2
4. If required, revise the Budget Amount
5. Revise the Description to MBJ-002
6. Press **F5** (Save)

You continue in this manner: entering and saving data, until you have entered your budget figures for all six periods. If you have no further entries to create, exit out using F3 (Exit).

Example 2: Defining a Budget for an Accounting Level

The following panel shows you how to create a budget for the East Coast Division. We want to define this budget for six periods: 1 - 6, with each period's budget as \$20,000.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDBGTE ----- Budget Entry -----+
|   Panel  Exit  Help
|-----|
| Type information. Then select an action.
|
| Version . . . : PROD PROD          Mode . . . . : INS
|
| ORD Type . . . : ____              Period Number . 001
| Charge Element . . . : _____ Budget Amount .   20000.00
| Qualifier . . . : _____       Description . . EAST-COAST-001
| DIVISION . . . : EAST COAST_____
| DEPARTMENT . . . : _____
|
|
| F5=Save  F6=Delete
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

After completing the entry:

1. Press **F5** (Save)
2. Wait until the informational message tells you the record is inserted
3. Change the Period Number to 2
4. Revise the Description to EAST-COAST-002
5. Press **F5** (Save)

You continue in this manner: entering and saving data, until you have entered your budget figures for all six periods. If you have no further entries to create, exit out using F3 (Exit).

Example 3: Updating a Budget

The following example shows you how to update a budget amount for the EAST-COAST Division for Period 1. To update an existing Budget entry you must:

1. Use the Budget Browse Criteria panel (shown on the next page) to specify the Budget entries for which you want a listing
2. The Budget List panel appears. Position the cursor next to the entry you want to update and press **Enter**
3. The Budget Entry panel for the selected entry appears
 - Mode is UPD (update)
 - Make your correction to the Budget Amount field
4. Press **F5** (Save)
5. Press **F3** (Exit) to continue with the next function you wish to perform

```

-----
|   Budgets   |
|   Primary   |
|>F11        |
-----
| Budget Browse |
|   Criteria   |
|>F2         |
-----
| Budget List  |
|or Expand List|--
|>Enter      |
-----
|
| v
-----
|   Budget    |
|   Entry     |
|   Panel     |
-----

```

Note: While in UPD mode, it is not recommended that you change any **Budget key(s)**:

- Version
- ORD Type
- Period Number
- Accounting level

If you do so, the updated record overwrites the original and you lose your audit trail.

Following the path outlined on [Example 3: Updating a Budget](#) (see page 305) at the Budgets primary panel, indicate you want to perform a Browse by pressing **F11**. Next, fill in the Budget Browse Criteria panel as shown below.

```
+-- CBDBGTB -- Budget Browse Criteria -----+
|      Panel  Exit  Help
|-----|
|      Type browse criteria. Then Execute.
|
|      Version . . . . : PROD PROD
|
|      Period Number . . 001 thru 001
|      ORD Type . . . . : ____
|      Charge Element . . _____
|      Qualifier . . . . : _____
|      DIVISION . . . . : EAST-COAST____
|      DEPARTMENT . . . . : _____
|-----|
```

After pressing **F2** (Execute), the following Budget List panel appears. Place the cursor next to the first entry and press **Enter**.

```
USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__ Acctdefs  Cbdefs   Query  Data  Period  Options  Exit  Help
+-- CBDBGTL ----- Budget List -----+
|      Panel  Exit  Help
|-----|
|      Select a budget entry. Then select an action.
|
|      Version . . . . : PROD PROD          DIVISION . . . . : EAST-COAST
|      Period Number : 001 thru 001        DEPARTMENT . . . . :
|      ORD Type . . . . :
|      Charge Element :
|      Qualifier . . . . :
|
|      Amount  Description  More: - + ____  Row 0001 of 0002
|
|      -          20000.00  MBJ-001
|      -          20000.00  EAST-COAST-001
|      -
|
|      Enter  F7=Bkwd  F8=Fwd  F11=Expand
|-----|
|      Command ==> _____
|      F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
```

The Budget Entry panel appears and indicates you are in UPD mode. You can now make the required changes as shown on the following panel.

On the panel below, we have changed the Budget Amount from 20000 to 15000.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__ Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDBGTE ----- Budget Entry -----+
|   Panel  Exit  Help
|-----|
|   Type information. Then select an action.
|
|   Version . . . : PROD PROD          Mode . . . . : UPD
|                                     ↑
|   ORD Type . . . : _____        Period Number . 001
|   Charge Element . _____        Budget Amount .   15000.00
|   Qualifier . . . : _____        Description . . EAST-COAST-001
|   DIVISION . . . : EAST COAST_____
|   DEPARTMENT . . . : _____
|
|   F5=Save  F6=Delete
|-----|
|
| Command ==> _____
| F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
+-----+

```

Once you have completed the update, press **F5** (Save). You exit out by pressing **F3** (Exit). As you exit out, you can view the result of your update on the Budget List panel.

```

+-- CBDBGTL ----- Budget List -----+
|   Panel  Exit  Help
|-----|
|   Select a budget entry. Then select an action.
|
|   Version . . . : PROD PROD          DIVISION . . . . : EAST-COAST
|   Period Number : 001 thru 001      DEPARTMENT . . . :
|   ORD Type . . . :
|   Charge Element :
|   Qualifier . . . :
|
|           Amount  Description  More: - + ____  Row 0001 of 0001
|
|           -      15000.00  MBJ-001
|           -
|           -
|   Enter  F7=Bkwd  F8=Fwd  F11=Expand
+-----+

```

Example 4: Deleting a Budget Record

Assume that you have created a Budget entry while in INS (insert) mode, successfully *inserted* it into the table and then realized you made a mistake and must delete the record.

Example:

you incorrectly entered a **Budget key** (one of the following fields)

- Version
- ORD Type
- Period Number
- Accounting level

and rather than doing an update that overwrites the original record and result in the loss of your audit trail; you want to delete the incorrect record and create a new one.

```
-----  
|   Budgets   |  
|   Primary   |  
|>F11        |  
-----  
| Budget Browse |  
|   Criteria   |  
|>F2         |  
-----  
| Budget List  |  
|or Expand List |  
|>Enter      |  
-----  
|  
| v  
-----  
|   Budget    |  
|   Entry     |  
|   Panel     |  
-----
```

You must:

1. Exit out to the Budgets primary panel using F3 (Exit).
2. Press **F11** (Browse) which takes you to the Budgets Browse Criteria panel.
3. Enter your criteria and press **F2** (Execute). This displays the Budget List panel.
4. Select the entry you want to delete using the Enter key.

5. When the Budget Entry panel appears for the selected entry, you are in UPD mode. Press **F6** (Delete) to delete the record.
6. An informational message appears telling you the record was deleted and the Mode changes to **EXIT**.
7. Press **any** key to return to the Budget List panel where you can continue selecting other records to update or delete.

Following the path outlined in [Example 4: Deleting a Budget Record](#) (see page 308) at the Budgets primary panel, indicate you want to do a Browse by pressing F11. Next, fill in the Budget Browse Criteria panel as shown below.

```
+-- CDBGTB -- Budget Browse Criteria -----+
|      Panel  Exit  Help                    |
|-----+-----|
| Type browse criteria. Then Execute.      |
|                                           |
| Version . . . . : PROD PROD              |
| Period Number . . 001 thru 001          |
| ORD Type . . . . . ____                  |
| Charge Element . . _____            |
| Qualifier . . . . . _____           |
| DIVISION . . . . . EAST-COAST_____     |
| DEPARTMENT . . . . _____            |
|-----+-----|
```

After pressing F2 (Execute), the following Budget List panel appears.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDBGTL ----- Budget List -----+
| Panel  Exit  Help |
|-----|
| Select a budget entry. Then select an action. |
| Version . . . : PROD PROD          DIVISION . . . : EAST-COAST |
| Period Number : 001 thru 001      DEPARTMENT . . . : |
| ORD Type . . . : |
| Charge Element : |
| Qualifier . . . : |
| |
| Amount  Description  More: - + ____  Row 0001 of 0002 |
| -      15000.00  MBJ-001 |
| -      100.00   MBP-001 |
| - |
| Enter  F7=Bkwd  F8=Fwd  F11=Expand |
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Place the cursor next to the first entry and press **Enter**. The [Budget Entry panel](#) (see page 299), shown on the next page, appears and indicates you are in UPD (update) mode.

To delete the record shown below, simply press **F6** (Delete).

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDBGTE ----- Budget Entry -----+
| Panel  Exit  Help |
|-----|
| Type information. Then select an action. |
| Version . . . : PROD PROD          Mode . . . . . : UPD |
| ORD Type . . . : ____              Period Number . 001 |
| Charge Element . _____        Budget Amount . 15000.00 |
| Qualifier . . . _____         Description . . EAST-COAST-001 |
| DIVISION . . . : EAST COAST_____ |
| DEPARTMENT . . . _____ |
| |
| F5=Save  F6=Delete |
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Note: You will receive a message informing you the record is deleted. The Mode field indicates you are now in EXIT mode.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
  ___ Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDBGTE ----- Budget Entry -----+
|   Panel  Exit  Help
|-----|
|   Type information. Then select an action.
|
|   Version . . . : PROD PROD          Mode . . . . : EXIT
|                                     ↑

```

You exit out by pressing **any** key.

Note: As you exit out, you should verify that the entry has been deleted from the Budget List panel. That is, the total number of rows displayed on the scroll bar has been decreased by one (as shown below).

The following Budget List panel no longer displays the MBJ-001 entry which we deleted.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
  ___ Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDBGTL ----- Budget List -----+
|   Panel  Exit  Help
|-----|
|   Select a budget entry. Then select an action.
|
|   Version . . . : PROD PROD          DIVISION . . . . : EAST-COAST
|   Period Number : 001 thru 001      DEPARTMENT . . . :
|   ORD Type . . . :
|   Charge Element :
|   Qualifier . . . :
|
|           Amount  Description  More: - + ____  Row 0001 of 0001
|   -           100.00  MBP-001
|   -
|   -
|   Enter  F7=Bkwd  F8=Fwd  F11=Expand
|-----|
| Command ==>
| F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

Debits/Credits Panels

The Debits/Credits selection gives you the ability to manually adjust charges to any level of detail, providing the period they pertain to has not been closed. That is, processed and applied to an invoice. If the selected period is closed, any browse performed does not reflect the closed entries. Closed entries can be viewed using the Query function.

Debits/Credits Primary Panel

You use this panel to specify the Debit/Credit function you want to perform. You can:

- Enter credits or debits for your accounting structures
- Browse currently defined credits and debits

```
USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help

+-- CBDCRDP ----- Debits/Credits -----+
|      Panel  Exit  Help                    |
|-----|
| Select a function. Then Enter. Or select an action. |
| Version . : PROD PROD                             |
| _ 1. Data Entry                                   |
|   2. Browse                                       |
| Enter  F2=Data Entry  F11=Browse                 |
+-----+

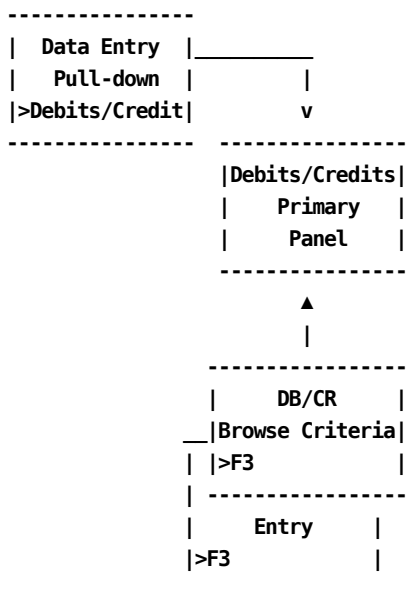
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
```

On the next page is a description of the Debits/Credits primary panel.

Access

The Debits/Credits primary panel appears when one of these events occurs:

- You type DC in the fast path area of the Primary Panel's action bar.
- You choose Debits/Credits on the Data Entry pull-down.
- You return from the Debits/Credits Browse Criteria, or Entry panel.



Pathways

Enter

Type a 1 or 2 in the entry area and then press **Enter**.

1. Takes you to the Debits/Credits Entry panel.
2. Takes you to the Debit/Credit Browse Criteria panel.

F2

(Create) Takes you to the Debit/Credit Entry panel (on [Accessing the Debit/Credit Entry Panel Via the Primary Panel](#) (see page 325)).

F11

(Browse) Takes you to the DB/CR Browse Criteria panel (on [DB/CR Browse Criteria Panel](#) (see page 314)).

DB/CR Browse Criteria Panel

You use this panel to specify the Debit and Credit entries you want to view or update.

Note:

1. You can leave all entry fields blank and press **F2** (Execute) to view all currently defined debit and credit entries.
2. Only **defined** accounting structure names appear on the panel (see **1** below).

The next panel shows that two accounting levels have been defined by the CA JARS/OLF Administrator: Division and Department (see **1** on the next page).

```
USERID                      CA JARS/OLF                      MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help

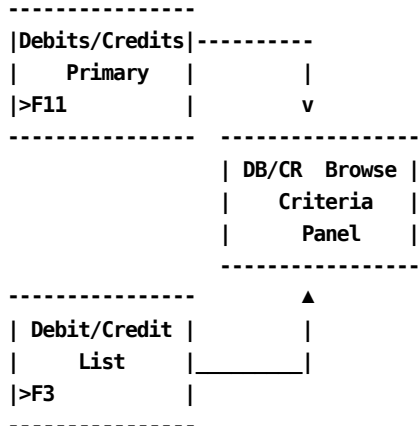
+-- CBDCRDB --- DB/CR Browse Criteria -----+
| Panel  Exit  Help                               |
|-----|
| Type browse criteria. Then Execute.            |
| Version . . . . : PROD PROD                    |
| Period Number . . ___ thru ___                 |
| ORD Type . . . . . ___                         |
| Charge Element . . _____                 |
| Qualifier . . . . _____                 |
| DIVISION . . . . _____                   |
| DEPARTMENT . . . . _____                 |
|
| F2=Exec                                        |
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
```

On the next page is a description of the DB/CR Browse Criteria panel.

Access

The DB/CR Browse Criteria panel appears when one of these events occurs:

- You press **F11** on the [Debits/Credits Primary Panel](#) (see page 312).
- You return from the [Debit/Credit List Panel](#) (see page 319).



Input

The following DB/CR Browse Criteria panel fields are available for input:

Period Number thru

Two, three-character numeric fields used to enter the range for which you want to view or update Debits/Credits. Use the first entry field to enter the start of the range and the second entry field to define the end of the range. Entering data in these fields in the following manner provides you with the results listed below:

- Both entry fields blank: a list of all debit and credit entries meeting the rest of the criteria specified
- First entry field blank: a list of all debit and credit entries up to and including the ending period entered meeting the rest of the criteria specified
- Second entry field blank: a list of all debit and credit entries starting with the period specified

ORD Type

The three-character name of the output record identifier for which you want to define a debit or credit.

Charge Element

The name of the charge element (up to 16 alphanumeric characters) associated with the ORD type used to define the debit/credit category.

Qualifier

The name of a conditional test specifically associated with the Charge Element. Examples of qualifier names are: @SYSTEM, @SHIFT, and so forth.

The following entry fields are used to indicate the accounting levels you want the debits and credits applied to:

Note: Only defined accounting structures appear. Furthermore, these entry fields only accept the number of characters that was used to define the structure length on the [Accounting Structure panel](#) (see page 71). If you enter an incorrect number of characters, an informational message appears when you press **F2=Exec**.

This example uses the following accounting structures:

Division

Enter the name of a defined accounting entity whose debits and credits you want to Browse or Update.

Department

Enter the name of a defined accounting entity whose debits and credits you want to Browse or Update.

Actions

F2=Exec

Executes the search for items meeting the criteria you specified and takes you to the [Debit/Credit List Panel](#) (see page 319).

Example 1: Specifying Debit/Credit Browse Criteria by ORD Type & Period

The following panel shows how to specify Debit Credit Browse Criteria by ORD Type and period. In this example, we are requesting a browse list of all debits/credits in periods 3 through 6 for ORD Type: MBJ.

```

USERID                      CA JARS/OLF                      MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDCRDB --- DB/CR Browse Criteria -----+
| Panel  Exit  Help |
|-----|
| Type browse criteria. Then Execute. |
| Version . . . . : PROD PROD |
| Period Number . . 003 thru 006 |
| ORD Type . . . . : MBJ |
| Charge Element . . _____ |
| Qualifier . . . . _____ |
| DIVISION . . . . _____ |
| DEPARTMENT . . . . _____ |
|
| F2=Exec |
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

After we press F2 (Execute), we are presented with a Debit/Credit Browse List containing all records meeting our specifications. Section [Example 1: Selecting a Browse List Entry By ORD Type for a Specific Period](#) (see page 322), shows the Browse List.

Example 2: Specifying DB/CR Browse Criteria by Qualifier

The following panel shows how to specify Debit/Credit Browse Criteria by Qualifier. In this example, we are requesting a browse list of all budgets for all periods, levels, and ORD types whose Charge Elements are associated with the Qualifier: @SHIFT1.

```
USERID                      CA JARS/OLF                      MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDCRDB --- DB/CR Browse Criteria -----+
| Panel  Exit  Help |
|-----|
| Type browse criteria. Then Execute. |
| Version . . . . : PROD PROD |
| Period Number . . ___ thru ___ |
| ORD Type . . . . . ___ |
| Charge Element . . _____ |
| Qualifier . . . . @SHIFT1_____ |
| DIVISION . . . . . _____ |
| DEPARTMENT . . . . _____ |
|
| F2=Exec |
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
```

After we press **F2** (Execute), we are presented with a Debit/Credit Browse List containing all records meeting our specifications. Section [Example 2: Selecting a Browse List Entry By Qualifier for a Specific Period](#) (see page 323), shows the Browse List.

Debit/Credit List Panel

The Debit/Credit List panel provides you with a list of all currently defined credits and debits meeting the search criteria specified on the DB/CR Browse Criteria panel. The search criteria are redisplayed as protected display fields at the top of the panel.

Note: As you can see on the next sample panel, providing a meaningful description on the Debit/Credit Entry panel takes the guess work out of entry selection. Also note that CA JARS/OLF returns an indicator telling you whether the entry is a Debit or a Credit (see **1** below).

```

USERID                               CA JARS/OLF                               MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDCRDL ----- Debit/Credit List -----+
| Panel  Exit  Help |
|-----|
| Select a budget entry. Then select an action. |
| Version . . . : PROD PROD          DIVISION . . . . : |
| Period Number : thru              DEPARTMENT . . . . : |
| ORD Type . . . :                  |
| Charge Element :                  |
| Qualifier . . . :                  |
|                                     |
|          Amount  Description  More: - + ____ Row 0001 of 0025 |
|                                     |
| -          5.00000          CREDIT          1 |
| -          5.00000          CREDIT          |
| -          5.00000          DEBIT          |
|                                     |
| Enter  F7=Bkwd  F8=Fwd  F11=Expand |
+-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

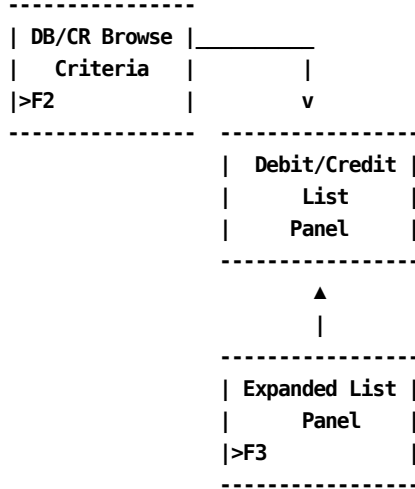
```

On the next page is a description of the Debit/Credit List panel.

Access

The Debit/Credit List panel appears when one of these events occurs:

- When **F2** (Execute) is pressed on the [DB/CR Browse Criteria Panel](#) (see page 314).
- You return from the Expanded List panel.



Scrolling

F7 and F8 let you scroll backward and forward through the Debit/Credit selection list. You can also use the scroll bar, as explained on [Sample List Panel](#) (see page 46), to move through the list.

Pathways

Enter

By placing the cursor next to the item you want to view and pressing **Enter**, you can go to the Debits/Credits Entry panel (shown on [Accessing the Debit/Credit Entry Panel Via the Primary Panel](#) (see page 325)) to examine and optionally update its contents.

F11

(Expand) Gives you an eight-line display of the Debit/Credit List panel.

Debit/Credit Expanded List Panel

The following panel appears when you press **F11** (Expand) on the [Debit/Credit List Panel](#) (see page 319). The only difference between the two panels is the protected fields are not displayed. This allows you to view more information on a single panel. The Expanded List panel functions in the same way as the list panel from which it was called.

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDCRDx ----- Expanded Debit/Credit List -----+
| Panel  Exit  Help |
|-----|
| Select a budget entry. Then Enter. |
|                                     |
|                                     | More: - + ____ Row 0009 of 0025
|          Amount  Description          |
|-----|
| -           50.00000  CRE50             CREDIT |
| -           50.00000  CRE50             DEBIT  |
| -           50.00000  DEB50             DEBIT  |
| -           50.00000  DEB50X           DEBIT  |
| -           50.00000  N02               DEBIT  |
| -           50.00000  TEST1-DEBIT       DEBIT  |
| -           60.00000  TEST2-CREDIT      CREDIT |
| -           150.00000  DEBIT            CREDIT |
|                                     |
| Enter  F7=Bkwd  F8=Fwd |
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

Example 1: Selecting a Browse List Entry By ORD Type for a Specific Period

In [Example 1: Specifying Debit/Credit Browse Criteria by ORD Type & Period](#) (see page 317), we specified we wanted to see a Debit/Credit list for:

- All MBJ ORDs
- For periods 3 through 6
- For all Division and Department substructures

```
+-- CBDCRDB --- DB/CR Browse Criteria -----+
| Panel Exit Help
|-----|
| Type browse criteria. Then Execute.
|
| Version . . . . : PROD PROD
|
| Period Number . . 003 thru 006
| ORD Type . . . . : MBJ
| Charge Element . . _____
| Qualifier . . . . _____
| DIVISION . . . . _____
| DEPARTMENT . . . . _____
|-----+
+-----+
```

After pressing F2 (Execute), the following Debit/Credit List panel appears.

```
USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__ Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help

+-- CBDCRDL ----- Debit/Credit List -----+
| Panel Exit Help
|-----|
| Select a budget entry. Then select an action.
|
| Version . . . . : PROD PROD          DIVISION . . . . :
| Period Number : 003 thru 006        DEPARTMENT . . . . :
| ORD Type . . . . : MBJ
| Charge Element :
| Qualifier . . . :
|
|          Amount  Description  More: - + ____  Row 0001 of 0025
|
| -          5.00000
| -          5.00000          CREDIT
| -          5.00000          CREDIT
|                               DEBIT
|
| Enter  F7=Bkwd  F8=Fwd  F11=Expand
|-----+
| Command ==>
| F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
```

Example 2: Selecting a Browse List Entry By Qualifier for a Specific Period

In Example 2: Specifying Debit/Credit Browse Criteria by Qualifier,

we indicated we wanted to see a Debit/Credit list for all entries whose ORDs use the qualifier @SHIFT1.

```
+-- CBDCRDB --- DB/CR Browse Criteria -----+
| Panel Exit Help
|-----|
| Type browse criteria. Then Execute.
|
| Version . . . . : PROD PROD
|
| Period Number . . ___ thru ___
| ORD Type . . . . : ___
| Charge Element . . : _____
| Qualifier . . . . : @SHIFT1_____
| DIVISION . . . . : _____
| DEPARTMENT . . . . : _____
|-----|
```

After pressing **F2** (Execute), the following Debit/Credit List panel appears.

```
USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__ Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDCRDL ----- Debit/Credit List -----+
| Panel Exit Help
|-----|
| Select a budget entry. Then select an action.
|
| Version . . . . : PROD PROD          DIVISION . . . . :
| Period Number :      thru          DEPARTMENT . . . . :
| ORD Type . . . . :
| Charge Element :
| Qualifier . . . . : @SHIFT1
|
|          Amount  Description  More: - + ____  Row 0001 of 0025
|
| -          5.00000
| -          5.00000          CREDIT
| -          5.00000          CREDIT
|                               DEBIT
|
| Enter  F7=Bkwd  F8=Fwd  F11=Expand
|-----|
| Command ==> _____
| F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
```

Debits/Credits Entry Panel

You use this panel to create, view, or update Debits and Credits for the defined accounting structures and substructures in your organization. The Debit/Credit key is composed of:

- Version
- ORD Type
- Period Number
- Description
- Accounting level

Accessing the Debit/Credit Entry Panel Via the List Panel

If you come to this panel via the Debit/Credit List panel, the Mode display field (see **A** on [Accessing the Debit/Credit Entry Panel Via the Primary Panel](#) (see page 325)) indicates you are in **UPD** (update) mode. This means that you can type over any information you want to change, or add new data. F6 (Delete) is only valid when you are in UPD mode.

Notes:

- The Amount Field **B** on [Accessing the Debit/Credit Entry Panel Via the Primary Panel](#) (see page 325)) reflects whether the entry is a Debit or a Credit.
- We do not recommend changing any **Debit/Credit key(s)** while in UPD mode. If you do so, the updated record overwrites the original record.

```
-----  
| Debits/Credits |  
|   Primary   |  
|>F11         |  
----- |  
| DB/CR Browse | |  
|   Criteria   | |  
|>F2         | |  
----- |  
| Debit/Credit | |  
|   List      | |  
| or Expand List| |  
|>Enter      | |  
-----  
|  
| v  
-----  
| Debit/Credit |  
|   Entry     |  
|   Panel     |  
-----
```

Accessing the Debit/Credit Entry Panel Via the Primary Panel

If you come to this panel via F2 (Data Entry) from the Debits/Credits primary panel, the **Mode** display field (see **A** on [Accessing the Debit/Credit Entry Panel Via the Primary Panel](#) (see page 325)) indicates you are in **INS** (insert) mode. You can do mass entries in this mode. Note that the default display for **Amount** see **B** on [Accessing the Debit/Credit Entry Panel Via the Primary Panel](#) (see page 325) is **DEBIT**. To enter a credit, just type over the word DEBIT, making it CREDIT. Simply create your first entry, press **F5** (Save), wait until the informational message tells you the entry is *inserted*, type over any fields that need to be changed for your next entry and press **F5**. **Remember, if you are mixing debit and credit definitions in one session, to check the Amount prompt.** Continue in this manner until you have completed all your entries.

Note: F6 (Delete) is not valid when you are in INS (insert) mode. Therefore, if you make a mistake and the entry is inserted, you must perform the following steps to delete the entry:

```

-----
| Debit/Credits |
|   Primary    |
|>F2          |
-----
      |
      v
-----
| Debit/Credit |
|   Entry      |
|   Panel      |
-----

```

1. Exit out to the Debits/Credits primary panel.
2. Press **F11** (Browse) which takes you to the DB/CR Browse Criteria panel.
3. Enter your criteria and press **F2** (Execute). This displays the Debit/Credit List panel.
4. Select the entry you want to delete using the Enter key.
5. When the Debit/Credit Entry panel appears for the selected entry you are in UPD mode. Press **F6** (Delete) to delete the record.
6. An informational message appears telling you the record is deleted and Mode changes to **EXIT**.
7. Press **any** key to return to the Debit/Credit List panel where you can continue selecting other records to update or delete.

On the next page is a description of the Debit/Credit Entry panel.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help

+-- CBDCRDE ----- Debit/Credit Entry -----+
| Panel  Exit  Help |
|-----|
| Type information and save. Or Delete. |
| Version . . . : PROD PROD      A  Mode . . . . : UPD |
| ORD Type . . . . MBJ          Period Number . 001 |
| Charge Element . CPU-CHARGE   CREDIT Amount .  B   05.00 |
| Qualifier . . . .            Description . . CPU-CHARGE CREDIT |
| DIVISION . . . . AA_____ |
| DEPARTMENT . . . . _____ |
|-----|
| F5=Save  F6=Delete |
+-----+

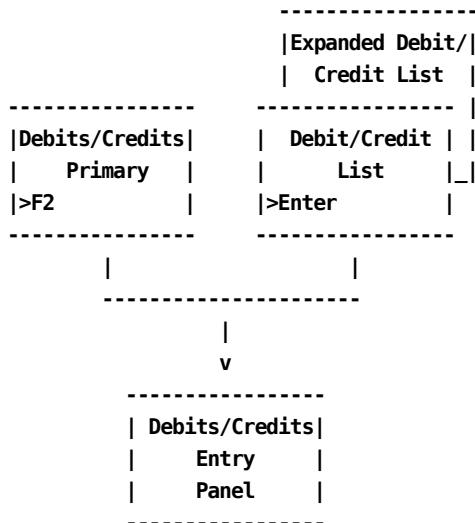
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

The following is a description of the Debit/Credit Entry panel.

Access

The Debits/Credits Entry panel appears when one of these events occurs:

- When **F2** is pressed on the Debits/Credits primary panel.
- You make a selection on the Debit/Credit List or Expanded List panel.



Input:

The Debit/Credits Entry panel contains the following input fields:

ORD Type

A three-character name of the output record identifier to which you want to apply a debit or credit.

Period Number

A three-character numeric field defining the period number for which the credit or debit amount is applicable.

Charge Element

The name of the charge element (up to 16 alphanumeric characters) you want to associate with the ORD type to further define the debit or credit category.

Debit Amount or Credit Amount

The default display is Debit when in INS (insert) mode. You can type over this field to change it to Credit.

Qualifier

The name of a conditional test specifically associated with the Charge Element, or a global test you want applied. Examples of qualifier names are: @SYSTEM, @SHIFT, and so forth.

Description

A 20-character alphanumeric field used to provide a meaningful description of the budget item. This field appears on the List and Expanded List panels to ease item selection.

The following entry fields are used to indicate the accounting levels to which you want debit/credits applied:

Note: Only defined accounting structures appear. Furthermore, these entry fields only accept the number of characters used to define the structure length on the [Accounting Structure panel](#) (see page 71). If you enter an incorrect number of characters, an informational message appears when you execute a save (F5=Save).

Division

Enter the name of a defined subaccounting structure whose debits/credits you want to Browse or Update.

Department

Enter the name of a defined subaccounting structure whose debit/credits you want to Browse or Update.

Actions

F5=Save

Depending upon **mode**, lets you add (INS) or update (UPD) records to the table.

F6=Delete

UPD (update) mode only: lets you delete a record from the table.

Example 1: Creating a Credit

From the Debit/Credits primary panel, select **F2** (Create). The Debit/Credit Entry panel appears.

The following panel shows you how to create a Credit for the East Coast Division.

We want to enter:

- A credit of \$5.00
- For ORD Type MBJ
- For CPU-CHARGE charge elements
- For periods 001 through 003

- With a record description of E-COAST-CPU-CRED-001
- For Division: East Coast

Note: Remember, when this panel first displays, the CREDIT/DEBIT Amount field displays as **DEBIT**, the default. Therefore, the first thing we should do is type over the field to make it read **CREDIT**.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help

+-- CBDCRDE ----- Debit/Credit Entry -----+
| Panel  Exit  Help |
|-----|
| Type information and save. Or Delete. |
| Version . . . . : PROD PROD          Mode . . . . . : INS |
| ORD Type . . . . : MBJ              Period Number . 001 |
| Charge Element . : CPU-CHARGE       credit Amount .   5.00 |
| Qualifier . . . . :                 Description . . E-COAST-CPU-CRED-001 |
| DIVISION . . . . : EAST COAST_____ |
| DEPARTMENT . . . : _____ |
|
| F5=Save  F6=Delete |
+-----+

Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

After completing the entry:

1. Press **F5** (Save)
2. Wait until the informational message tells you the record is inserted
3. Change the Period Number to 002
4. Revise the Description to E-COAST-CPU-CRED-002
5. Press **F5** (Save)

You continue in this manner: entering and saving data, until you have entered your amounts for all three periods. If you have no further entries to create, exit out using F3 (Exit).

Example 2: Creating a Debit

From the Debit/Credits primary panel, select **F2** (Create). The Debit/Credit Entry panel appears.

The following panel shows you how to create a Debit for the West Coast Division.

We want to enter:

- A Debit of \$10.00
- For ORD Type MBJ
- For CPU-CHARGE charge elements
- For period 006
- With a record description of W-COAST-CPU-DEB-006
- For Division: West Coast

Note: Remember, when this panel first displays, the CREDIT/DEBIT Amount field displays as **DEBIT**, the default. Therefore, you do **not** have to type over the field.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__  Acctdefs   Cbdefs   Query   Data   Period   Options   Exit   Help
+-- CBDCRDE ----- Debit/Credit Entry -----+
|   Panel   Exit   Help   |
|-----|
| Type information and save. Or Delete. |
| Version . . . : PROD PROD           Mode . . . . : INS |
| ORD Type . . . : MBJ                 Period Number . 006 |
| Charge Element . CPU-CHARGE           DEBIT Amount .    10.00 |
| Qualifier . . . .                     Description . . W-COAST-CPU-DEB-006 |
| DIVISION . . . . WEST COAST_____ |
| DEPARTMENT . . . _____ |
|
| F5=Save   F6=Delete |
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

After completing the entry:

1. Press **F5** (Save)
2. Wait until the informational message tells you the record is inserted

You can continue creating Debits and Credits until you have entered all amounts. Remember to check the Amount field to verify whether you are doing a debit or a credit. When you have no further entries to create, exit out using F3 (Exit).

Example 3: Updating a Credit

The following example shows you how to update a credit amount for the EAST-COAST Division for Period 1.

1. Use the DB/CR Browse Criteria panel to specify the Credit entries you for which you want a list
2. The Debit/Credit List panel appears. Position the cursor next to the entry you want to update and press **Enter**
3. When the Budget Entry panel for the selected entry appears:
 - Mode is UPD (update)
 - Amount field reads: Credit Amount
4. Press **F5** (Save)
5. Press **F3** (Exit) to continue with the next function you want to perform

Note: While in UPD mode, do **not** change any **Debit/Credit key(s)**

- Version
- ORD Type

- Period Number
- Description
- Accounting level

If you do so, the updated record overwrites the original.

```

-----
| Debits/Credits |
|   Primary     |
|>F11          |
-----
| DB/CR Browse |
|   Criteria   |
|>F2          |
-----
| Debit/Credit |
|or Expand List|
|>Enter       |
-----
|
| v
-----
| Debit/Credit |
|   Entry     |
|   Panel     |
-----
    
```

Following the path outlined in [Example 3: Updating a Credit](#) (see page 331) at the Debits/Credits primary panel, indicate you want to perform a Browse by pressing F11. Next, fill in the Budget Browse Criteria panel as shown below.

```

+-- CBDCRDB --- DB/CR Browse Criteria -----+
| Panel Exit Help |
+-----+
| Type browse criteria. Then Execute. |
| Version . . . . : PROD PROD |
| Period Number . . 001 thru 001 |
| ORD Type . . . . . ___ |
| Charge Element . . _____ |
| Qualifier . . . . . _____ |
| DIVISION . . . . . EAST COAST_____ |
| DEPARTMENT . . . . . _____ |
+-----+
    
```

After pressing F2 (Execute), the following Debit/Credit List panel appears. Place the cursor next to the first entry and press **Enter**.

```
USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help

+-- CBDCRDL ----- Debit/Credit List -----+
| Panel  Exit  Help |
|-----|
| Select a budget entry. Then select an action. |
| Version . . . : PROD PROD          DIVISION . . . : EAST COAST |
| Period Number : 001 thru 001      DEPARTMENT . . . : |
| ORD Type . . . : |
| Charge Element : |
| Qualifier . . . : |
| |
|          Amount  Description  More: - + ____  Row 0001 of 0005 |
| -          5.00000  E COAST-CPU-CRED-001  CREDIT |
| -          5.00000  E COAST-DIO-CRED-001  CREDIT |
| -          5.00000  E COAST                DEBIT |
| |
| Enter  F7=Bkwd  F8=Fwd  F11=Expand |
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
```

The Debit/Credit Entry panel appears and indicates you are in UPD mode. You can then make the required changes as shown on the following panel.

On the panel below, we have changed the Credit Amount from 5.00 to 50.00.

```
USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__  Acctdefs   Cbdefs   Query   Data   Period   Options   Exit   Help

+-- CBDCRDE ----- Debit/Credit Entry -----+
| Panel  Exit  Help |
|-----|
| Type information and save. Or Delete. |
| Version . . . : PROD PROD           Mode . . . . : UPD |
|                               |         ^ |
| ORD Type . . . : MBJ               Period Number . 001 |
| Charge Element . CPU-CHARGE        CREDIT Amount .   50.00 |
| Qualifier . . . :                  Description . . E-COAST-CPU-CRED-001 |
| DIVISION . . . : EAST COAST_____ |
| DEPARTMENT . . . : _____ |
|-----|
| F5=Save  F6=Delete |
+-----+

Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
```

Once you have completed the update, press **F5** (Save). Exit out by pressing **F3** (Exit). You see the result of your update on the Debit/Credit List panel.

Example 4: Updating a Debit (Changing a Debit to a Credit)

To update a debit, follow the same procedure used for updating a credit. However, in this example we are changing a **debit** EAST-COAST Division for Period 1 to a **credit**.

1. You must use the DB/CR Browse Criteria panel to specify the Credit entries for which you want a listing
2. The Debit/Credit List panel appears. Position the cursor next to the entry you want to update and press **Enter**
3. When the Debit/Credit Entry panel for the selected entry appears:
 - Mode is UPD (update)
 - Amount field reads: Debit Amount
4. Press **F5** (Save)
5. Press **F3** (Exit) to continue with the next function you want to perform

Note: While in UPD mode, do **not** change any **Debit/Credit key(s)**

- Version
- ORD Type
- Period Number
- Description
- Accounting level

If you do so, the updated record overwrites the original.

```
-----  
| Debits/Credits |  
| Primary       |  
|>F11          |  
-----  
| DB/CR Browse |  
| Criteria     |  
|>F2          |  
-----  
| Debit/Credit |  
| or Expand List |  
|>Enter       |  
-----  
|  
v  
-----  
| Debit/Credit |  
| Entry        |  
| Panel        |  
-----
```

Caution: While this action is possible, from an accounting viewpoint it is **not** recommended.

Following the path outlined in [Example 4: Updating a Debit \(Changing a Debit to a Credit\)](#) (see page 334) at the Debits/Credits primary panel, indicate you want to perform a Browse by pressing **F11**. Next, fill in the DB/CR Browse Criteria panel as shown below.

```

+-- CBDCRDB --- DB/CR Browse Criteria -----+
|      Panel  Exit  Help                      |
|-----|
| Type browse criteria. Then Execute.         |
|                                             |
| Version . . . . : PROD PROD                |
| Period Number . . 001 thru 001            |
| ORD Type . . . . : ____                    |
| Charge Element . . _____             |
| Qualifier . . . . : _____             |
| DIVISION . . . . : EAST COAST _____    |
| DEPARTMENT . . . . : _____           |
+-----+
    
```

After pressing F2 (Execute), the following Debit/Credit List panel appears. Place the cursor next to the first entry and press **Enter**.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__ Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDCRDL ----- Debit/Credit List -----+
|      Panel  Exit  Help                      |
|-----|
| Select a budget entry. Then select an action. |
|                                             |
| Version . . . . : PROD PROD          DIVISION . . . . : EAST COAST |
| Period Number : 001 thru 001        DEPARTMENT . . . . :          |
| ORD Type . . . . :                   |
| Charge Element :                     |
| Qualifier . . . . :                   |
|                                             |
|          Amount  Description  More: - + ____  Row 0001 of 0005 |
| -          50.0000  E COAST-CPU-DEB-001  CREDIT |
| -          5.00000  E COAST-DIO-CRED-001  CREDIT |
| -          5.00000  E COAST              DEBIT |
|                                             |
| Enter  F7=Bkwd  F8=Fwd  F11=Expand |
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

The Debit/Credit Entry panel appears and indicates you are in UPD mode. You can now make the required changes as shown on the following panel.

On the panel below, we have **typed over** the Debit Amount to make it a **CREDIT**.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help

+-- CBDCRDE ----- Debit/Credit Entry -----+
| Panel  Exit  Help |
|-----|
| Type information and save. Or Delete. |
| Version . . . : PROD PROD          Mode . . . . : UPD |
| ORD Type . . . : MBJ              Period Number . 001 |
| Charge Element . CPU-CHARGE      credit Amount .   50.00 |
| Qualifier . . .                  Description . . E COAST |
| DIVISION . . . : EAST COAST_____ |
| DEPARTMENT . . . : _____ |
|-----|
| F5=Save  F6=Delete |
+-----+

Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

Once you have completed the update, press **F5** (Save). Exit out by pressing **F3** (Exit). You see the result of your update on the Debit/Credit List panel.

```

+-- CBDCRDL ----- Debit/Credit List -----+
| Panel  Exit  Help |
|-----|
| Select a budget entry. Then select an action. |
| Version . . . : PROD PROD          DIVISION . . . . : EAST COAST |
| Period Number : 001 thru 001      DEPARTMENT . . . : |
| ORD Type . . . : |
| Charge Element : |
| Qualifier . . . : |
| Amount  Description  More: - + ____  Row 0001 of 0005 |
| -      50.0000  E COAST-CPU-CRED-001  CREDIT |
| -      5.00000  E COAST-DIO-CRED-001  CREDIT |
| -      5.00000  E COAST                CREDIT |
| Enter  F7=Bkwd  F8=Fwd  F11=Expand |
+-----+

```

Example 5: Deleting a Debit or a Credit Entry

Assume that you have created a Debit or a Credit entry while in INS (insert) mode, successfully *inserted* it into the table and then realized you made a mistake and must delete the record.

Example:

You incorrectly entered a **Debit/Credit key**

- Version
- ORD Type
- Period Number
- Description
- Accounting level

and rather than do an update which overwrites the original record; you want to delete the incorrect record and then create a new one.

```
-----  
| Debits/Credits |  
|   Primary     |  
|>F11          |  
-----  
| DB/CR Browse | |  
|   Criteria   |_|  
|>F2          |  
-----  
|Debit/Cred List| |  
|or Expand List|_|  
|>Enter       |  
-----  
|  
| v  
-----  
| Debit/Credit |  
|   Entry     |  
|   Panel    |  
-----
```

You must:

1. Exit out to the Debits/Credits primary panel using **F3** (Exit).
2. Press **F11**(Browse) which takes you to the DB/CR Browse Criteria panel.
3. Enter your criteria and press **F2** (Execute). This displays the Debit/Credit List panel.
4. Select the entry you want to delete using the Enter key.

5. When the Debit/Credit Entry panel appears for the selected entry, you are in UPD mode. Press **F6** (Delete) to delete the record.
6. An informational message appears telling you the record is deleted and the Mode changes to **EXIT**.
7. Press **any** key to return to the Debit/Credit List panel where you can continue selecting other records to update or delete.

Following the path outlined in [Example 5: Deleting a Debit or a Credit Entry](#) (see page 338) at the Debits/Credits primary panel, indicate you want to perform a Browse by pressing F11. Fill in the DB/CR Browse Criteria panel as shown below.

```
+-- CBDCRDB --- DB/CR Browse Criteria -----+
|      Panel  Exit  Help
|-----|
| Type browse criteria. Then Execute.
|
| Version . . . . : PROD PROD
|
| Period Number . . 001 thru 001
| ORD Type . . . . . ___
| Charge Element . . _____
| Qualifier . . . . . _____
| DIVISION . . . . . EAST COAST_____
| DEPARTMENT . . . . _____
|-----|
```

After pressing F2 (Execute), the following Debit/Credit List panel appears. Place the cursor next to the third entry and press **Enter**.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDCRDL ----- Debit/Credit List -----+
|  Panel  Exit  Help  |
|-----|
| Select a budget entry. Then select an action. |
| Version . . . : PROD PROD          DIVISION . . . : EAST COAST |
| Period Number : 001 thru 001      DEPARTMENT . . . : |
| ORD Type . . . : |
| Charge Element : |
| Qualifier . . . : |
| |
|          Amount  Description  More: - + ____  Row 0002 of 0005 |
| -          5.00000  E COAST-DIO-CRED-001  CREDIT |
| -          5.00000  E COAST                DEBIT |
| -          1.00000  E COAST-DIO-CRED-001  DEBIT |
| |
| Enter  F7=Bkwd  F8=Fwd  F11=Expand |
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

The Debit/Credit Entry panel, shown on the next page, appears and indicates you are in UPD (update) mode.

To delete the record shown below, simply press **F6** (Delete).

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDCRDE ----- Debit/Credit Entry -----+
|  Panel  Exit  Help  |
|-----|
| Type information and save. Or Delete. |
| Version . . . : PROD PROD          Mode . . . . : UPD |
| ORD Type . . . : MBJ                Period Number . 001 |
| Charge Element : DISK-IO_____  DEBIT Amount .      1.00 |
| Qualifier . . . :                    Description . . E COAST-DIO-CRED-001 |
| DIVISION . . . : EAST COAST_____ |
| DEPARTMENT . . . : _____ |
| |
| F5=Save  F6=Delete |
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

Note: You receive a message informing you the record was successfully deleted. The Mode field now indicates you are in EXIT mode.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDCRDE ----- Debit/Credit Entry -----+
| Panel  Exit  Help                                     |
|-----|
| Type information. Then select an action.              |
|-----|
| Version . . . : PROD PROD          Mode . . . . : EXIT |
|                                     ↑                 |
    
```

You exit out by pressing **any** key.

Note: As you exit out, you should verify that the entry was deleted from the Debit/Credit List panel. That is, the total number of rows reflected on the scroll bar is decreased by one (as shown on the next panel).

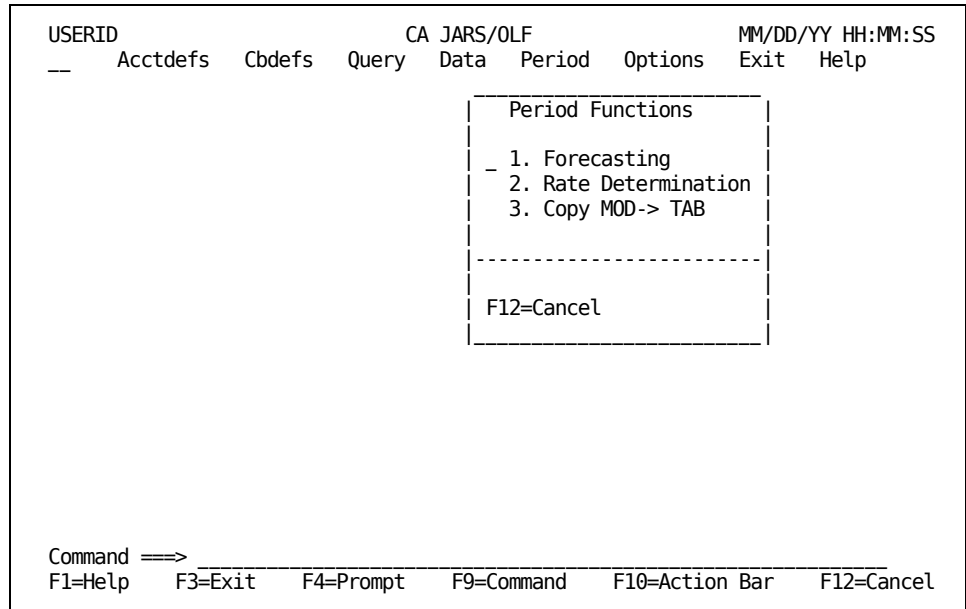
The following Debit/Credit List panel no longer displays the E COAST-DIO-CRED-001 entry which we deleted.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBDCRDL ----- Debit/Credit List -----+
| Panel  Exit  Help                                     |
|-----|
| Select a budget entry. Then select an action.        |
|-----|
| Version . . . : PROD PROD          DIVISION . . . . : EAST-COAST |
| Period Number : 001 thru 001      DEPARTMENT . . . . :          |
| ORD Type . . . :                   |
| Charge Element :                   |
| Qualifier . . . :                   |
|-----|
|          Amount  Description  More: - + ____  Row 0002 of 0004 |
|-----|
| -           5.00000  E COAST-CPU-CRED-001  CREDIT |
| -           5.00000  E COAST                DEBIT |
| -           1.00000  E COAST-CPU-DEB-001    DEBIT |
|-----|
| Enter  F7=Bkwd  F8=Fwd  F11=Expand |
|-----|
| Command ==> |
| F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp |
    
```


Chapter 8: Using Period Functions

You invoke Period functions by selecting **Period** from the CA JARS/OLF Primary Panel's action bar or by entering **P** in the fast path area of the Primary Panel's action bar. The following Period Functions pull-down then appears. You make selections by placing your cursor next to the function you want to perform and pressing **Enter**.



On the next page is a description of these selections.

The Period function enables you to perform the following:

1. Forecasting

Allows you to view and optionally modify the contents of the CCCMOD table generated during batch processing.

2. Rate Determination

Enables you to establish or determine accurate rates for future accounting periods based on forecasted utilization levels and cost recovery goals.

3. Copy MOD -> TAB

Copies the contents of the CCCMOD table to the CCCTAB table-if you used a copy command to create the CCCMOD table.

Forecast Panels

The CA JARS/OLF forecast process projects future unit and charge consumption. You perform forecasting in two steps:

- **Batch:** The forecast batch process is the first step. It generates a CCCMOD table based on the contents of the CCCTAB table, and the type of forecast method you specify. You can customize the forecast generated to suit your particular needs. Numerous control parameters allow you to do so. **Online:** Once CA JARS/OLF successfully generates the CCCMOD table, you can view its contents using the Period function's forecast option.

The Forecast panel set allows you to view and optionally modify the CCCMOD table. The following panels make up the forecast panel set:

- Overall Forecast Results panel
- Forecast Elements List panel
- Forecast Element panel
- Forecast Qualifiers List panel
- Forecast Qualifier panel

You perform forecasting on the contents of the CCCMOD table to ensure the integrity of the CCCTAB table. On entry to the Forecast function, CA JARS/OLF checks if a CCCMOD table exists.

- If a CCCMOD table does **not** exist, CA JARS/OLF presents you with the following panel.

```
+-- CBOFCTP --- Forecast Primary -----+
|
|
| No Records were found on the CCCMOD Table. |
|
| You must create the CCCMOD Table in Batch. |
|
| Press Enter to exit this Panel. |
|
| Enter |
+-----+
```


- If a CCCMOD table exists:

CA JARS/OLF verifies that the version used in creating the CCCMOD table is the same as the version specified in the Options function. If the two versions match, you can continue to view forecast results. If not, the following panel appears.

```
+-- CBOFCTS -- Period Specifications ----+
|
| Press Enter to exit.                    |
|
| Version found on CCCMOD = PRODABCD      |
|
| does not match                          |
|
| Version found in Options = PROD         |
|
| Enter                                    |
+-----+-----+-----+-----+-----+
```

To view forecast results, you must:

- Exit the Forecast function
- Select Options from the Primary panel's action bar
- Change the existing version to the one named on the CCCMOD table
- Return to the Forecast function

You can now view forecast results.

For more information:

[Batch Processing & Reporting](#) (see page 401)

Overall Forecast Results Panel

The Overall Forecast Results panel allows you to view the **total** charges for all elements, for **both** forecasted and existing periods. Hence, CA JARS/OLF joins and displays records from the CCCTAB and CCCMOD tables on the Overall Forecast Results panel.

Note:

- You can distinguish periods from the CCCMOD table from those in the CCCTAB table by the * symbol to the left of the Prd column (see **A** below).
- The Amount column shows the total charge for each period. The amount can be in units (U), thousands (K), millions (M), billions (B), or trillions (T). The S column specifies the factor of a thousand used for each forecasted period (see **B** below).
- The first value of the scale represents the smallest charge. The last value of the scale represents the largest charge plus ten percent (see **C** below).

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
___ Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBOFCTO ----- Overall Forecast Results -----+
|
| Panel  Exit  Help
|-----+
|
| View information. Then select an action.
|
| More: - + ____ Row 0001 of 0003
| Prd Charge -----> Amount S  B
|  A
| * 003 *****                               52.3394 K
| 002 *****                               261.737
| 001 *                                       11.5957
|
|
|      |      |      |      |      |
|      C 11.5957 | 66.8587 | 122.121 | 177.384 | 232.647 | 287.911
|
| F7=Bkwd  F8=Fwd  F11=Elements
|-----+
|
| Command ==> _____
| F1=Help   F3=Exit   F4=Prompt   F9=Command   F10=Action Bar   F12=Cancel

```

On the next page is a description of the Overall Forecast Results panel.

Access

The Overall Forecast Results panel appears when one of these events occurs:

- You type PF in the fast path area of the Primary Panel's action bar.
- You choose Forecasting on the Period Functions pull-down.

```

-----
| Period Funct. | _____
| Pull-Down    |         |
|>Forecasting  |         v
-----
                | Overall |
                | Forecast |
                | Results Panel|
                -----
                    ^
                    |
                -----
                | Forecast |
                | Elements List|
                |>F3         |
                -----
                | Element  |
                |>F3         |
                -----
                | Qual. List |
                --|>F3       |
                -----
                | Qualifier  |
                |>F3         |
                -----

```

Scrolling

F7 and F8 let you scroll backward and forward through the Overall Forecast Results panel. You can also use the scroll bar, as explained on [Sample List Panel](#) (see page 46) to move through the panel.

Pathway**F11**

(Elements) Provides you with a listing of all the ORD types and charge elements which make up the Overall Results panel. CA JARS/OLF displays ORD Types and Charge Elements by period number.

Example 1: Performing a Manual Adjustment (Results)

Periods on the Overall Forecast Results panels appear differently, depending on the forecast method you use to create the CCCMOD table. The following set of examples demonstrate this.

If you submit the following *batch* control statements, CA JARS/OLF copies periods 001 and 002 from the CCCTAB table to the CCCMOD table. You can use the outcome of this forecast to perform *What if analysis*.

For more information on using the batch process for forecasting, see [Batch Forecasting \(CAKRFCBSB\)](#) (see page 446).

```
VERSION = PRODABCD
ALGORITHM = COPY
START_PERIOD = 1
END_PERIOD = 2
KEEP_STRUCTURE = 1
MODIFIER = NO
```

After you submit the above control statements, CA JARS/OLF generates the CCCMOD table. The panel below shows the results of the above forecast. Data from Periods 1 and 2 in the CCCTAB have been copied to the CCCMOD table.

```

USERID              CA JARS/OLF              MM/DD/YY HH:MM:SS
  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBOFCTO ----- Overall Forecast Results -----+
  Panel  Exit  Help
-----
View information. Then select an action.

More: - + ____ Row 0001 of 0004
Prd Charge -----> Amount S
* 002 *****
002 *****
001 *
* 001 *
                                285.732 U
                                285.732
                                7.43417
                                7.43417

      |      |      |      |      |      |
      7.43417  68.8085  130.182  191.556  252.930  314.306

F7=Bkwd  F8=Fwd  F11=Elements
-----
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

Example 2: Forecasting Using the Line Algorithm (Results)

This example shows how to forecast one period using the *Line* algorithm based on periods 001 and 002 from the CCCTAB table. You use the following batch control statements to produce the display shown below.

```
VERSION = PRODABCD
ALGORITHM = LINE
START_PERIOD = 1
END_PERIOD = 2
KEEP_STRUCTURE = 1
MODIFIER = NO
NUMBER_TO_FORECAST = 1
```

After you submit these control statements, CA JARS/OLF generates a CCCMOD table. The following Overall Forecast Results panel displays the outcome.

- CA JARS/OLF displays existing periods, 1 and 2 along with the forecasted period (period 3) for comparisons purposes.
- You can distinguish the forecasted period by the asterisk to the left of the period number.
- The scale (S) used is in thousands (K).

```

USERID                                CA JARS/OLF                                MM/DD/YY HH:MM:SS
  ___ Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBOFCT0 ----- Overall Forecast Results -----+
|
| Panel Exit Help
|-----+
| View information. Then select an action.
|
| Prd Charge -----> Amount S
| * 003 ***** 181.607 K
| 002 ***** 261.737
| 001 * 11.5957
|
|      |      |      |      |      |
| 11.5957 66.8587 122.121 177.384 232.647 287.911
|
| F7=Bkwd  F8=Fwd  F11=Elements
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp.
```

Example 3: Forecasting Using the Smooth Algorithm (Results)

This example shows how to forecast one period using the *SMOOTH* algorithm based on periods 001 and 002 in the CCCTAB table.

The following are the control statements you specify during batch processing:

```
VERSION = PRODABCD
ALGORITHM = SMOOTH
START_PERIOD = 1
END_PERIOD = 2
KEEP_STRUCTURE = 1
MODIFIER = NO
NUMBER_TO_FORECAST = 1
ALPHA = .1
DELTA = .1
```

After you submit the above control statements, CA JARS/OLF generates the CCCMOD table. The results of the batch process display on the Overall Forecast Results panel shown on the next page.

```

USERID              CA JARS/OLF              MM/DD/YY HH:MM:SS
---  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBOFACTO ----- Overall Forecast Results -----+
|  Panel  Exit  Help  |
|-----|
|  View information. Then select an action.  |
|-----|
|  Prd Charge ----- More: - + ____ Row 0001 of 0003  |
|  * 003 ***** 52.3394 K  |
|  002 ***** 261.737  |
|  001 * 11.5957  |
|-----|
|          |          |          |          |          |          |
|    11.5957  66.8587  122.121  177.384  232.647  287.911  |
|-----|
|  F7=Bkwd  F8=Fwd  F11=Elements  |
+-----+

Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

The following shows the Overall Forecast Results panel using the different Forecast methods.

Forecast Periods Using COPY Algorithm

```

+-----+
| View information. Then select an action.                    |
|                                                            |
|                                More: - + ____ Row 0001 of 0004 |
| Prd Charge -----> Amount S                             |
| * 002 *****                                          261.737 K |
| 002 *****                                          285.737   |
| 001 *                                              11.5957  |
| * 001 *                                              11.5957  |
|                                                            |
| 11.5957  66.8587  122.121  177.384  232.647  287.911 |
|                                                            |
| F7=Bkwd  F8=Fwd  F11=Elements                           |
+-----+

```

Forecast Periods Using Line Algorithm

```

+-----+
| View information. Then select an action.                    |
|                                                            |
|                                More: - + ____ Row 0001 of 0003 |
| Prd Charge -----> Amount S                             |
| * 003 *****                                          181.607 K |
| 002 *****                                          261.737   |
| 001 *                                              11.5957  |
|                                                            |
| 11.5957  66.8587  122.121  177.384  232.647  287.911 |
|                                                            |
| F7=Bkwd  F8=Fwd  F11=Elements                           |
+-----+

```

Forecast Periods Using Smooth Algorithm

```

+-----+
| View information. Then select an action.                    |
|                                                            |
|                                More: - + ____ Row 0001 of 0003 |
| Prd Charge -----> Amount S                             |
| * 003 *****                                          52.3394 K |
| 002 *****                                          261.737   |
| 001 *                                              11.5957  |
|                                                            |
| 11.5957  66.8587  122.121  177.384  232.647  287.911 |
|                                                            |
| F7=Bkwd  F8=Fwd  F11=Elements                           |
+-----+

```

Forecast Elements List Panel

The Forecast Elements List panel displays a list of the ORD Types and Charge Elements used in the forecast (see **1** below). CA JARS/OLF displays each combination of ORD Type and Charge Element by period number. Initially, the panel displays values for the first period forecasted (see **A** below).

Each display amount is a breakdown of the total amount (see **B** below) for the period shown on the Overall Forecast Results panel. If you change the Fcast in field from CHARGES to UNITS, CA JARS/OLF automatically presents **unit** values in the Amount column.

A Y in the Mod column indicates that CA JARS/OLF applied a modifier to the Charge Element. The following panel shows the ORD Types and Charge Elements that make up forecast period 3. Results from the Overall Forecast Results panel remain for comparison purposes (see **2** below).

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
---  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBOFCTE ---- Forecast Elements List -----+-----+
|      Panel Exit Help                               1 | 2 |
|-----+-----+-----+-----+-----+-----+
| View forecast information. Then select an action. |   |
| More: < - + > ____ Row 0001 of 0005             |   |
|      A                                             | Row 0001 of 0003 |
| Period = 003                                     | --> Amount S    |
|      B                                             |   |
| C Ord Element          Mod Amount                | 52.3394 K       |
| - MBJ CPU-CHARGE      36.5789                   | 261.737         |
| - MBJ DISK-CHARGE     265.5270                   | 11.5957         |
| - MBJ PRINT-CHARGE    1.1960                     |                 |
| - MBJ SPEC-CHARGE     52009.9000                  |                 |
| - MBJ TAPE-CHARGE     26.2000                     |                 |
| -                                                             |                 |
| -                                                             |                 |
| -                                                             |                 |
| -                                                             |                 |
| F5=<Per  F6=>Per  F7=Bkwd  F8=Fwd                |                 |
+-----+-----+-----+-----+-----+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

On the next page is a description of the Forecast Elements List panel.

Access

The Forecast Elements List panel appears when one of these events occurs:

- You press **F11** (Elements) on the [Overall Forecast Results Panel](#) (see page 345).
- You return from the Forecast Element, the Forecast Qualifiers List, or the Forecast Qualifier panels.

```

-----
|Overall Fore. | _____
|Results Panel |           |
|>F11         |           v
-----
                | Forecast |
                |Elements List|
                |   Panel   |
                -----
                |         ▲
                |         |
                -----
                |Forecast Elem.|
                |   Panel   |
                |>F3         |
                |-----|
                | Qual. List |
                |-->F3       |
                |-----|
                | Qualifier |
                |>F3         |
                -----

```

Scrolling

F7 and F8 let you scroll backward and forward through the Forecast Elements List panel. You can also use the scroll bar, as explained on [Sample List Panel](#) (see page 46), to move through the list.

You can also scroll left and right, by period number, through the Forecast Elements List panel using F5 and F6 or by placing the cursor on the < or > symbol on the scroll bar and pressing **Enter**.

Input

The following Forecast Elements List panel fields are available for input:

Note: CA JARS/OLF uses the following fields for display as well as input purposes. When you first select the panel, these fields contain the values displayed on the Overall Forecast Results panel for the first forecasted period. You can enter new values by typing over existing values.

Period

A three-character numeric field used to specify the projected period for which CA JARS/OLF displays elements. Initially, CA JARS/OLF presents the first projected period in this field. You can change this value by specifying another projected period and pressing **Enter**. CA JARS/OLF automatically presents charge information for the new period.

Fcast in

A field used to specify whether the panel presents charges or units. The default value is **CHARGES**. If you change the default to **UNITS**, CA JARS/OLF adjusts the values in the Amount column to display units.

C

(Command column) The following are acceptable commands:

P:(Plot) Provides a new forecast projection in charges or in units, for the charge element selected.

C:(Calculate) Prorates all qualifiers associated with a charge element for the period based on the value you specify. **UNITS** must be specified in the Fcast in field, otherwise an error message results.

Example:

If you change the unit amount for a charge element and enter C in the C (command) column, CA JARS/OLF computes the percentage of change between the projection and the value you specify. It then applies this percentage to all subordinate qualifiers for the given period. CA JARS/OLF also calculates the charge for the specified charge element.

Q:(Qualifiers) Provides a listing of all the qualifiers associated with the specified charge element.

Amount

Specifies the forecasted amount of units or charges for a given charge element for the period displayed.

Forecast Element Panel

The Forecast Element panel presents future usage of a charge element by charges or by units for **all** forecasted periods. For comparison purposes, the panel also displays the charges or units for existing periods.

Note:

- You can distinguish periods from the CCCMOD table from those in the CCCTAB table by the * symbol to the left of the Prd column (see **A** below).
- The Amount column shows the total charges or units for each period. The amount can be in units (U), thousands (K), millions (M), billions (B), or trillions (T). The S column displays the factor used for each forecasted period (see **B** below).
- The first value of the scale represents the smallest charge. The last value of the scale represents the largest charge plus ten percent (see **C** below).

The following panel displays both forecast and actual data.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
  ___  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBOFCTD ----- Forecast Element -----+
|
| Panel Exit Help
|-----+
| View Element MBJ CPU-CHARGE      in CHARGES
|
| More: - + ____ Row 0001 of 0003
|
| A Prd Amount                               S  B
| * 003 *                                     3.65789 U
| 002 *****
| 001 *****
|
|
|
|
| C | 3.65789 | 10.4259 | 17.1939 | 23.9619 | 30.7299 | 37.4981
|
| F7=Bkwd  F8=Fwd  F11=Qualifiers
+-----+

Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

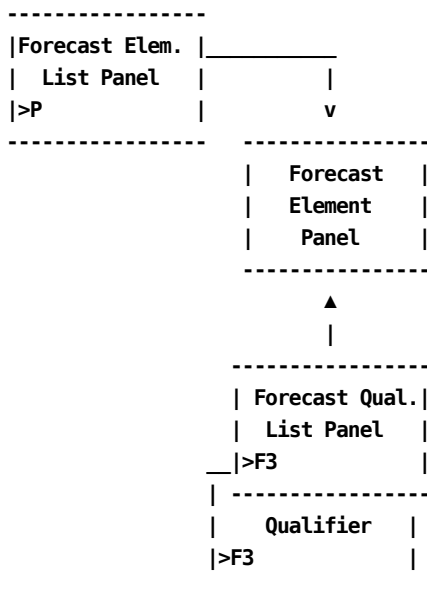
```

On the next page is a description of the Forecast Element panel.

Access

The Forecast Element panel appears when one of these events occurs:

- You enter P for Plot in the C column next to an element, on the [Forecast Elements List Panel](#) (see page 352).
- You return from the Forecast Qualifiers List, or the Forecast Qualifier panels.



Scrolling

F7 and F8 let you scroll backward and forward through the Forecast Element panel. You can also use the scroll bar, as explained on [Sample List Panel](#) (see page 46), to move through the panel.

Input

The following Forecast Element panel field is available for input:

in

Acceptable entries are:

- Units
- Charges

Pathway

F11

(Qualifiers) Gives you a listing of the Qualifiers associated with the charge element displayed on the Forecast Element panel. CA JARS/OLF displays qualifiers by period number.

Forecast Qualifiers List Panel

The Forecast Qualifiers List panel provides you with a listing of the qualifiers associated with a given charge element (see **1** below). CA JARS/OLF presents each qualifier by period number. When you first select the panel, it displays values for the first period forecasted.

A Y in the Mod column indicates that CA JARS/OLF applied a modifier to the qualifier. For comparison purposes, results from the Forecast Element Panel remain (see **2** below).

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
----- Acctdefs Cbdefs Query Data Period Options Exit Help
+--- CBOFCTQ -----Forecast Qualifiers List-----+
| Panel Exit Help | 1 | 2 |
|-----|-----|-----|
| View forecast information. Then select an action. |
| More: < - + > ____ Row 0001 of 0001 |
|
| Period = 0003 Element MBJ CPU-CHARGE |
|
| C Qualifiers Mod Amount Fcast in CHARGES |
| _ SHIFT1 3.65789 | 3.65789 U |
| _ | 22.2562 |
| _ | 34.0892 |
| _ |
| _ |
| _ |
| _ |
| F5=<Per F6=>Per F7=Bkwd F8=Fwd |
+-----+-----+-----+
Command ==>
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp

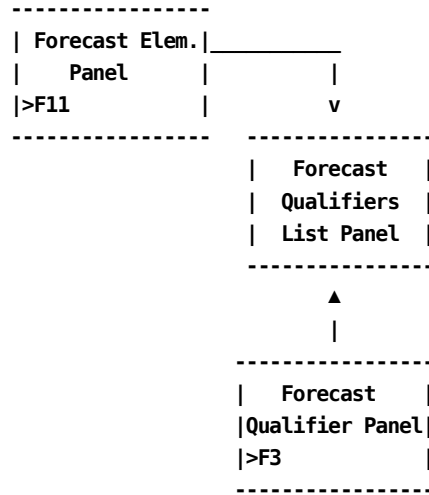
```

On the next page is a description of the Forecast Qualifiers List panel.

Access

The Forecast Qualifiers List panel appears when one of these events occurs:

- You press **F11** (Qualifiers) on the Forecast Element panel.
- You return from the Forecast Qualifier panel.



Scrolling

F7 and F8 let you scroll backward and forward through the Forecast Qualifiers List. You can also use the scroll bar, as explained on [Sample List Panel](#) (see page 46), to move through the list.

You can also scroll left and right, by period number, through the Forecast Qualifiers List panel using F5 and F6 or by placing the cursor on the < or > symbol on the scroll bar and pressing **Enter**.

Input

The following Forecast Qualifiers List panel fields are available for input:

Note: CA JARS/OLF uses the following fields for display purposes as well as input. When you first select the panel, these fields display qualifiers for the first projected period of the charge element on the Forecast Element panel. You can overwrite this value with one of your own.

Period

A three-digit numeric field that specifies the projected period for which CA JARS/OLF displays qualifiers. Initially, CA JARS/OLF displays the first projected period within this field. You can change the period by specifying another projected period and pressing **Enter**.

Fcast in

Acceptable values are:

- Units
- Charges

C

(Command column) Valid commands are:

P:(Plot) Displays a new forecast projection in charges or in units, for the qualifier selected.

C:(Calculate) Prorates the projected unit amount for a given element based on the value you specify. When using this command, you must specify UNITS in the Fcast in field.

Example:

If you change the unit amount for a qualifier and specify C in the C (command) column, CA JARS/OLF calculates the percentage of change between the projection and the value you specify. It then applies this percentage to the total unit amount for the given element for the specified period. CA JARS/OLF also changes the projected charge for the element for the period.

Amount

Specifies the forecasted amount of units or charges for the qualifier for the period displayed.

Forecast Qualifier Panel

The Forecast Qualifier panel projects the future charge or unit usage of a charge element's qualifier for **all** forecasted periods. The panel also presents the qualifier's charge or unit usage for existing periods.

Note:

- You can distinguish forecast periods from existing periods by the* symbol to the left of the Prd column (see **A** below).
- The Amount column shows the total charges or units for each period. The amount can be in units (U), thousands (K), millions (M), billions (B), or trillions (T). The S column shows the factor used for each forecasted period (see **B** below).
- The first value of the scale represents the smallest charge. The last value of the scale represents the largest charge plus ten percent (see **C** below).

The panel below shows qualifier information for both forecasted and existing periods.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
___ Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBOFCTG ----- Forecast Qualifier -----+
|
| Panel Exit Help
|-----+
| View Element MBJ CPU-CHARGE      Qual @SHIFT1      in CHARGES
|
| More: - + ____ Row 0001 of 0003
|
| A Prd Amount
| * 003 *                               S  B
| 002 *****                               3.65789 U
| 001 **                               9.25621
|                               4.0892
|
|
|
|
|
| C | 3.65789 | 4.96267 | 6.26745 | 7.57223 | 8.87701 | 10.1818
|
| F7=Bkwd  F8=Fwd
|-----+
Command ==>
F1=Help   F3=Exit   F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel
    
```

Next is a description of the Forecast Qualifier panel.

Access

The Forecast Qualifier panel appears when you enter P for Plot in the C column next to a qualifier on the [Forecast Qualifiers List Panel](#) (see page 357).

```

-----
|Forecast Qual. | _____ |
| List Panel   |         |
|>P           |         |
-----
                | Forecast |
                | Qualifier |
                | Panel   |
                -----

```

Scrolling

F7 and F8 let you scroll backward and forward through the Forecast Qualifier panel. You can also use the scroll bar, as explained on [Sample List Panel](#) (see page 46), to move through the panel.

Input

The following Forecast Qualifier panel field is available for input:

in

Acceptable values are:

- Units
- Charges

Example 1: Adjusting the Amount of the SHIFT1 Qualifier

You can make manual adjustments to the unit amount of any of the Forecast Qualifiers List elements by:

- Changing the **Fcast in** field from CHARGES to UNITS
- Specifying a new qualifier amount by keying over the amount generated by the system
- Entering a C (calculate) in the C command column next to the element and pressing **Enter**

Once CA JARS/OLF performs all calculations, it redisplay the screen. The value in the Amount column for the qualifier may be different than the value you originally specified. This is due to rounding.

To adjust the amount of the Shift1 qualifier on the panel below:

1. Change the **Fcast in** field from CHARGES to UNITS (see **A** below). When you do this, CA JARS/OLF automatically presents unit amounts for the qualifiers on the panel.
2. Change the unit amount of the SHIFT1 qualifier from 2.00000 to 1.50000 units (see **B** below)
3. Enter **C** (Calculate) in the C command column for qualifier SHIFT1 (see **C** below)

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
___ Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+--- CBOFCTQ -----Forecast Qualifiers List-----+
|   Panel  Exit  Help  |
|-----|
| View forecast information. Then select an action. |
| More: < - + > ____ Row 0001 of 0002             |
|
| Period = 003  Element MBJ CPU-CHARGE                S |
| C Qualifiers      Mod Amount  Fcast in UNITS__  A | 3.65789 U |
| C C SHIFT1        B 1.50000_____  | 22.2562 |
|
| - |
| - |
| - |
| - |
| - |
| - |
|
| F5=<Per  F6=>Per  F7=Bkwd  F8=Fwd                | 37.4981 |
|-----+-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel
    
```

When you press **Enter**, CA JARS/OLF performs the following computations.

- It computes the difference between the initial value for the qualifier and the new adjusted value.
- CA JARS/OLF applies this difference to the unit amount of the charge element to which the qualifier belongs
- It recomputes the charge associated with the element using the new unit amount.

The panel below shows the new values generated on the Forecast Elements List panel after you change the unit amount of the SHIFT1 qualifier and CA JARS/OLF recomputes the charge amount. Note that the charge amount displayed for element CPU-CHARGE is different than the original value displayed in [Forecast Elements List Panel](#) (see page 352).

USERID	CA JARS/OLF	MM/DD/YY	HH:MM:SS
---	Acctdefs Cbdefs Query Data Period Options	Exit	Help
+--	CBOFCTE ---- Forecast Elements List -----		
	Panel Exit Help		

View forecast information. Then select an action.			
More: < - + > ____ Row 0001 of 0001			
	Period = 003	Fcast in CHARGES	Row 0001 of 0003
			--> Amount S
C	Ord Element	Mod Amount	52.3394 K
_	MBJ CPU-CHARGE	27.43418	261.737

Rate Determination Panels

Rate Determination panels enable you to establish rates for recovery purposes. Rate determination can only be performed if a CCCMOD table exists, otherwise an error message results. The Rate Determination panel set consists of:

- Rate Determination (Elements) Entry panel
- Rate Determination (Qualifiers) Entry panel

Rate Determination (Elements) Entry Panel

The Rate Determination (Elements) Entry panel acts like a spreadsheet. It provides data entry and data display capabilities for rate information.

On entry to the panel, CA JARS/OLF displays rates generated from forecasting. These rates can be overridden with values you specify. If you enter C (calculate) in the C (command) column, CA JARS/OLF uses any entry you make to recompute all displayed values for the charge element and any subordinate qualifiers.

- CA JARS/OLF uses the Cost column exclusively for entry purposes (see **D** on the next page). This column works with the C (command) column to recompute the values displayed based on any entries you specify.
- The Ord and Elements columns list the names of the ORD Types and Charge Elements for which CA JARS/OLF displays rate information (see **A** on the next page)
- The M column indicates whether or not the application applied a modifier to an element (see **B** below)

- CA JARS/OLF uses the Units column and Totals for Units field for display purposes. These fields can only be set by the Forecasting function (see C and E below)
- All numeric display/entry fields, except %Of-Tot can be in units (U), thousands (K), millions (M), billions (B) or in trillions (T). The factor used for each display/entry field is shown next to the field.

On the next page is a sample Rate Determination (Elements) Entry panel.

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBORTEE ----- Rate Determination Entry -----+
| Panel  Exit  Help |
|-----|
| Enter rate determination data. Then select an action or Enter. |
|   Period : 005                More: < - + > ____ Row 0001 of 0001 |
|       A                        B      C                               D |
| C Ord Elements                M Units  Avg-Rate  Proj-Chg  %Of-Tot  Cost  S |
|  _ MBJ CPU-CHARGE                6.99999 U 4.16666 U 28.3333 U 100.000  _____ |
|  _                               _____ |
|  _                               _____ |
|  _                               _____ |
|  _                               _____ |
|       E Totals                6.99999 U                28.3333 U |
| Enter  F5=<Per  F6=>Per  F7=Bkwd  F8=Fwd  F11=Generate |
+-----+
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel
    
```

The following is a description of the Rate Determination (Elements) Entry panel.

Access

The Rate Determination (Elements) Entry panel appears when one of these events occurs:

- You type **PR** in the fast path area of the Primary Panel's action bar.
- You choose Rate Determination on the Period Functions pull-down.
- You return from the Rate Determination (Qualifiers) Entry panel.

```

-----
|Period Funct. | _____
| Pull-Down   | |
|>2. Rate Deter| |
-----
                             v
                               |
                               | Rate Deter. |
                               | (Elements) |
                               | Entry Panel |
                               |-----|
                               | ^         |
                               |         |
                               |-----|
                               | Rate Deter. |
                               | (Qual) Entry |
                               |>F3         |
                               |-----|

```

Scrolling

F7 and F8 let you scroll backward and forward through the Rate Determination (Elements) Entry panel. You can also use the scroll bar, as explained on [Sample List Panel](#) (see page 46), to move through the panel.

You can also scroll left and right, by period number, through the Rate Determination (Elements) Entry panel using F5 and F6 or by placing the cursor on the < or > symbol on the scroll bar and pressing **Enter**.

Input

The following Rate Determination (Elements) Entry panel fields are available for input:

Period

A three-digit numeric field used to specify the period for which CA JARS/OLF displays rate information. If you want rate information for another period, specify the new period in place of the one displayed and press **Enter**. Values within all fields also change.

C

(Command column) Valid entries are:

C:(Calculate) Calculate any changes you specify for the column entries. CA JARS/OLF prorates changes across all subordinate qualifiers for the period.

Q:(Qualifiers) Displays any qualifiers associated with a given charge element.

Cost

An entry field used to specify the charge to be recovered. The system automatically adjusts the rates to recover this amount.

S

A scale which indicates whether the cost for each charge element is in thousands (K), units (U), millions (M), billions (B), or in trillions (T).

Pathways

Enter

By entering a C(Calculate), or a Q(Qualifiers) in the C command column next to an element and pressing **Enter** you can perform the function specified.

F11

(Generate) Replaces the existing rates in the development set of the RATETAF and ELEM TAF tables to the ones generated on the Rate Determination panels.

Note:

- If the records in the CCCMOD table do not match the records in the rate tables, rate generation fails.
- When you select **F11** to automatically generate rates, you **must** commit the new rates before you use them.
- You can enter Rates on the rate table automatically using **F11** or manually using the Cbdefs option. If you use **F11** CA JARS/OLF deletes any rates you enter manually. You should therefore use this option with caution.

Rate Determination (Qualifiers) Entry Panel

The Rate Determination (Qualifiers) Entry panel works the same way as the [Rate Determination \(Elements\) Entry Panel](#) (see page 363). The panel allows you to override existing rate information with your own values. It recalculates the values of the display/entry fields based on the changes you specify.

The panel below is a sample Rate Determination (Qualifiers) Entry Panel.

Note:

- The Qualifiers column lists the name of the qualifiers for which CA JARS/OLF displays rate information (see **A** below)
- The Mod column indicates whether CA JARS/OLF applied a modifier to the qualifier record or not (see **B** below)
- The application uses the Units column and Totals for Units fields for display purposes. These fields can only be set by using the Forecasting function (see **C** and **D** below)
- All numeric display/entry fields, except %Of-Tot can be in units (U), thousands (K), millions (M), billions (B), or in trillions (T). The factor used for each display field is shown next to the field.

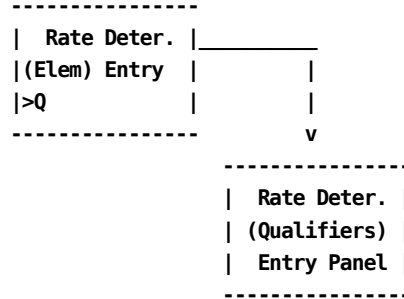
```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
__  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBORTEQ ----- Rate Determination Entry -----+
| Panel  Exit  Help |
|-----|
| Enter rate determination data for MBJ CPU-CHARGE . |
|   Period : 005                More: < - + > ____ Row 0001 of 0002 |
|   A                B                C |
| C  Qualifiers                Mod Units                Rate  Proj-Chg  %Of-Tot  Cost  S |
|   @DEFAULT                3.00000 U 4.99999 U 14.9999 U 52.941  _____ |
|   @SHIFT1                3.99999 U 3.33333 U 13.3333 U 47.058  _____ |
|   _____ |
|   _____ |
|   _____ |
|   _____ |
|   D Totals                6.99999 U                28.3333 U |
| Enter  F5=<Per  F6=>Per  F7=Bkwd  F8=Fwd |
+-----+
Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel
    
```

On the following page is a description of the Rate Determination (Qualifiers) Entry panel.

Access

The Rate Determination (Qualifiers) Entry panel appears when you enter **Q** for Qualifiers in the C column next to an element on the Rate Determination (Elements) Entry panel.



Scrolling

F7 and F8 let you scroll backward and forward through the Rate Determination Entry panel. You can also use the scroll bar, as explained on [Sample List Panel](#) (see page 46), to move through the panel.

You can also scroll left and right, by period number, through the Rate Determination Entry panel using F5 and F6 or by placing the cursor on the < or > symbol on the scroll bar and pressing **Enter**.

Input

The following Rate Determination Entry panel fields are available for input:

Period

A three-digit numeric field used to specify the period for which CA JARS/OLF displays rates. If you want rate information for another period, specify the new period in place of the one displayed and press **Enter**.

C

(Command column) used to calculate **C** any changes you specify for the column entries. Changes made to qualifier values affect the value of the associated charge element for the given period.

Cost

Field used to specify the charge to be recovered. The system automatically adjusts rates to recover this amount.

S

(Scale) Field used to indicate whether the cost for each qualifier is in thousands (K) , units (U), millions (M), billions (B), or in trillions (T).

Pathway**Enter**

By entering a **C** in the command column next to a qualifier, and pressing **Enter** CA JARS/OLF recalculates the values for all numeric fields using any entries you specify.

Example 1: Recovering Charges for Element CPU-CHARGE

The following example shows how to specify charges to be recovered on the Rate Determination (Elements) Entry panel. CA JARS/OLF computes the rates needed to achieve this result. CA JARS/OLF prorates any subordinate qualifiers for a charge element according to the value you specify in the Cost column.

Once CA JARS/OLF performs all calculations, it resets the panel with new values. Due to rounding factors, the new charge value may be slightly different than the value you specify in the Cost column.

To recover charges:

- Enter 35 in the Cost column and U in the S column for element CPU-CHARGE (see **A** and **B** below)
- Enter C (calculate) in the C command column next to the element (see **C** below)

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
__ Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBORTEE ----- Rate Determination Entry -----+
|   Panel  Exit  Help
|-----|
| Enter rate determination data. Then select an action or Enter.
|
|   Period : 005                More: < - + > ____ Row 0001 of 0001
|
| C Ord Elements                M Units    Avg-Rate  Proj-Chg  %Of-Tot Cost  S
| C C MBJ CPU-CHARGE           6.99999 U  4.16666 U  28.3333 U  100.000 35A__ U B
| -                               ----- -
| -                               ----- -
| -                               ----- -
| -                               ----- -
|
|           Totals                6.99999 U                28.3333 U
|
| Enter  F5=<Per  F6=>Per  F7=Bkwd  F8=Fwd  F11=Generate
+-----+
|
| Command ==>
| F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel

```

The panel below shows the **new** rates generated for the Rate Determination (Elements) Entry panel when you press **Enter**.

Note:The Proj-Chg field displays a close approximation of the value you entered in the Cost column (see **A** below).

New Rates for CPU-CHARGE

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
__ Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBORTEE ----- Rate Determination Entry -----+
|   Panel  Exit  Help
|-----|
| Enter rate determination data. Then select an action or Enter.
|
|   Period : 005                More: < - + > ____ Row 0001 of 0001
|
| C Ord Elements                M Units    Avg-Rate  Proj-Chg  %Of-Tot Cost  S
| _ MBJ CPU-CHARGE           6.99999 U  5.14705 U  34.9999 U  100.000 _____ -
|

```

The panel below shows the **new** prorated values of the subordinate qualifiers for element CPU-CHARGE for period 5. Compare this panel to the one shown in [Rate Determination \(Qualifiers\) Entry Panel](#) (see page 366).

Prorated Values for Subordinate Qualifiers

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
__ Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBORTEQ ----- Rate Determination Entry -----+
|  Panel  Exit  Help
|-----|
| Enter rate determination data for MBJ CPU-CHARGE .
|
|   Period : 005                      More: < - + > ____ Row 0001 of 0002
|
| C  Qualifiers          Mod Units      Rate   Proj-Chg  %Of-Tot Cost   S
|  @DEFAULT              3.00000 U  6.17646 U  18.5294 U  52.941  _____ -
|  @SHIFT1               3.99999 U  4.11764 U  16.4705 U  47.058  _____ -
|  _____ -
|  _____ -
|  _____ -
|
| Totals                  6.99999 U          34.9999 U
|
| Enter  F5=Left  F6=Right  F7=Bkwd  F8=Fwd
|-----|
Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel
    
```

Copy MOD -> TAB

The Copy MOD to TAB panel allows you to copy the contents of the CCCMOD table to the CCCTAB table. This function should only be used if you used **copy** to create the CCCMOD table. The following confirmation panel appears. You **must** select either YES or NO.

Caution Selecting YES on the panel above **deletes** the information on the *live* CCCTAB table. Therefore, it should be used carefully.

USERID	CA	JARS/OLF	MM/DD/YY	HH:MM:SS				
--	Acctdefs	Cbdefs	Query	Data	Period	Options	Exit	Help

+-- CBOCOPE - Copy CCCMOD to CCCTAB -----+

ARE YOU SURE ?

YES NO

+-----+

Command ==> _____

F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel

The following is a description of the Copy CCCMOD to CCCTAB panel.

Access

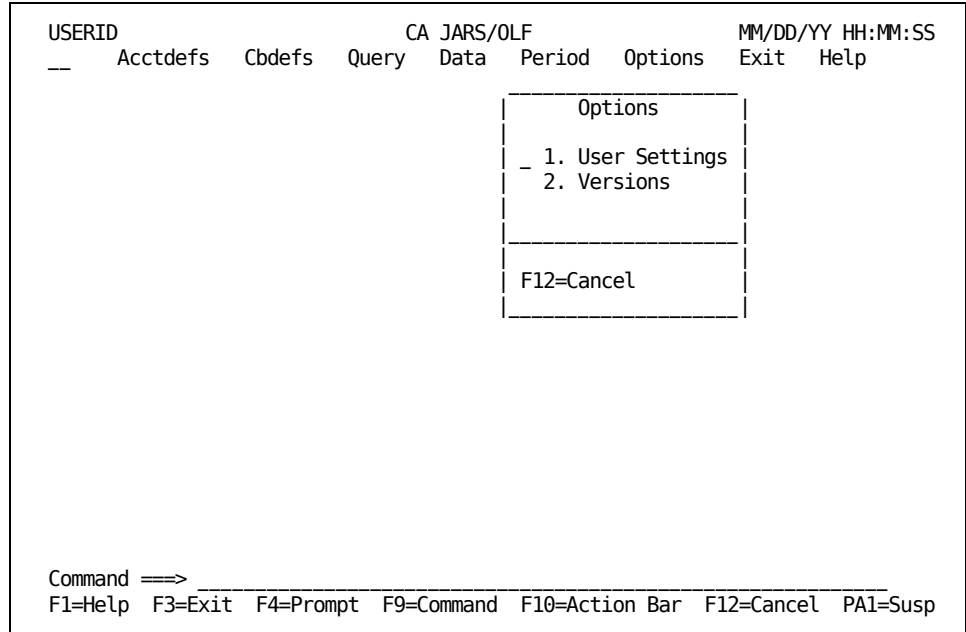
The Copy CCCMOD to CCCTAB panel appears when one of these events occurs:

- You choose Copy MOD -> TAB on the Period Functions pull-down.
- You type **PC** in the fast path area of the Primary Panel's action bar.

```
-----  
| Period Funct. | _____  
| Pull-down   |         |  
|>Copy MOD->TAB|         v  
-----  
| Copy CCCMOD |  
| to CCCTAB  |  
| Panel      |  
-----
```


Chapter 9: Setting CA JARS/OLF Options

The CA JARS/OLF Options are executed when you select **Options** from the CA JARS/OLF Primary Panel's action bar. The following Options pull-down appears. You perform further selections by placing the cursor next to the function you want to perform and pressing Enter, or entering the mnemonic in the pull-down's entry field.



On the next page is a description of these choices.

1. User Settings

Used to assign the options you want in effect for your userid.

2. Versions

Used to specify the table version you want your input validated against.

Note: You indicate your selection by entering the number or mnemonic for the desired selection in the pull-down entry area and pressing Enter. You can also tab the cursor to action you want to perform and press **Enter**.

1

Takes you to the User Settings panel shown in [User Options Panel](#) (see page 376).

2

Takes you to the Versions panel shown on [Versions](#) (see page 379).

Enter

Takes you to the function where the cursor is placed.

User Options Panel

This panel gives individual users the ability to change the default settings (for their userid) for the options listed.

```
USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--            Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBOPTNS ----- User Options -----+
|                                     |
|   Panel  Exit  Help                |
|-----|
| Update options. Then Save.         |
| Warning Msgs . . . . YES   Mnemonics . . . . YES
| Info Msgs   . . . . YES   Action Bar . . . . NOREV
| Save/Delete Prompt . BOTH  DataBase Depth . . 00500
| PF13-24 = PF1-12 . . YES
|                                     |
|   F5=Save                          |
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
```

The following is a description of the Options panel.

Access

The User Options panel appears when:

- You type OV in the fast path area of the Primary Panel's action bar.
- You select User Settings on the Options pull-down.

```

-----
|  Options  | _____
|  Pull-down| |
|>User Settings|          v
-----
                | User Settings|
                |               |
                |       Panel   |
                |               |
                -----

```

Input

The User Settings panel displays default values (specified in your profile). This panel lets you change them for your userid. Because you have the ability to change the information by typing over the displayed values, the following fields are considered input areas:

Warning Msgs

Default: YES. This entry field specifies whether or not *warning* messages display.

Mnemonics

Default: YES. This option allows you to remove the fast path entry fields by specifying Mnemonics. . . NO; thus, **removing** the fast path underscore display characters from the CA JARS/OLF Primary Panel (see **A** below) and action bar pull-downs (see **B** below). Therefore, all selections from the Primary Panel and pull-downs are performed by tabbing the cursor to the appropriate selection and pressing Enter.

USERID	CA JARS/OLF				MM/DD/YY HH:MM:SS			
A	Acctdefs	Cbdefs	Query	Data	Period	Options	Exit	Help

	CB Definitions							
B	1. Charge Elements							

Info Msgs

Default: YES. This entry field specifies whether or not *informational* messages appear.

Action Bar

Default: NOREV. Use this option to indicate whether or not the Action Bar displays in reverse video (REV or NOREV).

Save/Delete Prompt

Default (BOTH). A four position entry field indicating whether or not the Save and Delete prompts display. Options include:

SAVE Only the SAVE prompt is displayed

DEL Only the DElete prompt is displayed

BOTH Both the SAVE and DElete prompts are displayed

OFF Suppresses save and delete messages.

DataBase Depth

Default: 500. A five position entry field defining the maximum number of records returned for a database access (used for online Query). A minimum of 10 rows is required.

PF13-24 = PF1-12

Default: Yes. This option allows you to assign function key settings 13-24 to be equivalent to settings 1-12.

Action

F5

(Save) Saves these options.

The Are You Sure? Window

The SAVE/DELETE prompt on the User Options panel lets you tell the CA JARS/OLF system whether or not you want the Save and Delete windows to appear during your online session.

| **Save/Delete Prompt . BOTH**

The list below explains every valid value for the Save/Delete Prompt field. The default is BOTH. The value you specify determines whether or not the Delete prompt (also known as the **Are You Sure ?** window) displays.

SAVE

Only the SAVE prompt is displayed.

DEL

Only the DELeTe prompt is displayed.

BOTH

Both the SAVE and DELeTe prompts are displayed.

OFF

Suppresses save and delete messages.

```

-----
| Are you sure ? |
|                 |
| YES    NO     |
|                 |
-----
    
```

To view **Are You Sure ?** windows during this session, select DEL or BOTH. Let's assume you kept the default value, BOTH. Whenever you attempt to delete fields or records, CA JARS/OLF displays this window so you can cancel the delete if it was a mistake. To cancel a delete, tab to NO and press **Enter**. To authorize a delete, just press **Enter**.

Caution: By default, the cursor is positioned at **Yes**.

Versions

Throughout this guide, we have stressed the definition and the importance of the term **version**. It is critical when creating data that CA JARS/OLF validates its definitions against the correct version of Acct tables. The same holds true for performing queries.

The information displayed on this panel is obtained from the CAIKRPAR parameter file. However, this panel gives each user the ability to change the default version of Acct and CA JARS/OLF used for an online session.

Note: You **cannot** change a version if other dialogs or panels are active.

```

USERID                               CA JARS/OLF                MM/DD/YY HH:MM:SS
--   Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBOPTVE -- Versions -----+
|   Panel  Exit  Help
|-----|
|   Update options. Then Save.
|   Acct / CB Version . . TEST ____
|   F5=Save
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```

On the next page is a description of the Options panel.

Access

The Versions panel appears when:

- You type OV in the fast path area of the Primary Panel's action bar.
- You select Versions on the Options pull-down.

```

-----
|   Options   | _____
|   Pull-down |         |
|>Versions   |         v
-----
|   Versions  |
|             |
|   Panel    |
|             |
-----
    
```

Input

The Versions panel displays default values that you can change for your userid. Because you have the ability to change the information by typing over the displayed values, the following fields are considered input areas:

Acct / CB Version

This field consists of two, four-character entry areas. The first area, **Acct**, relates to the committed Acct version used in validating CA JARS/OLF entries. This entry **must** be either PROD or TEST.

The second four positions (5-8), **CB** define the CA JARS/OLF version to be used when displaying data.

Note: When defining new entries, this value **must** be blank.

To view committed CA JARS/OLF definitions, specify the four-character CA JARS/OLF version used during commit processing. This gives you the full eight-character version.

Action**F5**

(Save) Saves these options for your userid.

Examples

Example 1: Using the Versions Panel to Create a Construct

The following panel shows you how to enter Version options so that you can create CA JARS/OLF constructs using the Accounting Structure, Accounting Sources, Accounting Sources Lookup, and Accounting Periods panels. These panels use only a four-character version. This version is equivalent to the Acct version they are committed to.

```

USERID                               CA JARS/OLF                               MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CBOPTVE -- Versions -----+
| Panel  Exit  Help
| -----
| Update options. Then Save.
| Acct / CB Version . . TEST ____
| F5=Save
+-----+

Command ==> _____
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp

```

Example 2: Using the Versions Panel to View Committed ChargeBack Definitions

The following panel specifies we want to view CA JARS/OLF definitions for the CA JARS/OLF TESTPROD version.

We specified:

1. TEST as the committed DM version we want to use since TEST was the DM used when these definitions were committed.
2. PROD for the CB version since this was the CB (CA JARS/OLF version) used during commit processing.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--            +---+
Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+---+ CBOPTVE -- Versions -----+
|   Panel  Exit  Help               |
|-----|
| Update options. Then Save.         |
| Acct / CB Version . . TEST PROD    |
| F5=Save                            |
+-----+

```

Command ==> _____
F1=Help F3=Exit F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1 Susp

Example 3: Using the Versions Panel to View/Update (Development) CA JARS/OLF Definitions

The following panel shows how to specify you want to view CA JARS/OLF **Development** (in process) definitions. Development definitions can be viewed and updated. Committed versions **cannot** be updated.

Using the sample panel below, specify:

1. TEST as the committed DM version we want to use since TEST was the DM used when these definitions were committed.
2. Leave the CB Version blank. Blanks indicate the Development version.

```

USERID          CA JARS/OLF          MM/DD/YY HH:MM:SS
--  Acctdefs  Cbdefs  Query  Data  Period  Options  Exit  Help
+-- CB0PTVE -- Versions -----+
|   Panel  Exit  Help             |
|-----|
| Update options. Then Save.      |
| Acct / CB Version . . . TEST ____|
|   F5=Save                       |
+-----+

Command ==>
F1=Help  F3=Exit  F4=Prompt  F9=Command  F10=Action Bar  F12=Cancel  PA1=Susp
    
```


Chapter 10: Using Help

All CA PMA Chargeback applications provide you with an extensive Help facility that is available to you from the moment you log on to an application. This chapter:

- explains how to request help
- describes the About window
- summarizes what these help panels have in common
- describes the different types of help that are available
- tells you how to leave Help

Requesting Help

You can request Help in the following ways:

To Get	Do This
Panel Help	Press F1 when a panel appears; make sure the cursor is not positioned on a field.
Field Help	Tab the cursor to the field you want specific information for and press F1.
Help pull-down	Select the Help option from an action bar.

To request Help from an action bar, tab the cursor to the **Help** keyword and press **Enter**. The following Help pull-down appears:

USERID	CA JARS/OLF	MM/DD/YY HH:MM:SS					
__ Acctdefs Cbdefs Query Data Period Options Exit Help							
A 1-character field that allows you to make a selection using a mnemonic that can be either a number or the first letter of an action.	<table border="1"><thead><tr><th>Help</th></tr></thead><tbody><tr><td>1. Index</td></tr><tr><td>2. Table of Contents</td></tr><tr><td>3. Help for Help</td></tr><tr><td>4. About JARS/OLF</td></tr></tbody></table>	Help	1. Index	2. Table of Contents	3. Help for Help	4. About JARS/OLF	
Help							
1. Index							
2. Table of Contents							
3. Help for Help							
4. About JARS/OLF							
You can also make your selection by tabbing the cursor to the action you want to perform and pressing Enter.	F12=Cancel						

Command ==> _____
F1=Help F3=End F4=Prompt F9=Command F10=Action Bar F12=Cancel PA1=Susp

An overview of Help pull-down choices is provided below.

1. Index

Displays a list of items, in alphabetical order, for which Help is available.

2. Table of Contents

Displays a list of topics for which Help is available.

3. Help for Help

Gives you information on how to use the Help system.

4. About

Displays a pop-up window telling you the **genlevel** of the CA JARS/OLF component you are using.

The About Window

To verify the **genlevel** of the CA JARS/OLF component you are using, you must select the Help keyword from the **Primary Panel's** action bar and then select **About**. A pop-up window appears telling you the genlevel of your component.

```
+-- OLABOUT ----- About JARS/OLF -----+
|
|          CA JARS/OLF
|          Genlevel = 9111WF100
|
+-----+
```

Access

The About window appears when you choose Help from an action bar. Then select **4. About** from the Help pull-down.

```
-----
| Primary   | _____
| Panel    |         |
|         >Help|         v
-----
| Help      |
| Pull-Down|
|         >4 |
-----
|         |
|         v
-----
| About     |
| Window    |
|         |
-----
```

Action

End

Press F3 to return to the last product panel that CA JARS/OLF displayed.

Help Panel Areas

Overview

The following sample panel is the Help panel for the Input pull-down. The top line of the panel provides you with the following information:

A

panelid: Displays the Help panelid. The panelid closely resembles the product panelid and always ends with the letter H.

B

panel name: Tells you either the topic or the panel that is being discussed.

C

HELP: Identifies the panel as a Help panel.

Area **D** tells you the function key settings that are valid for the panel. A description of these settings is provided in [Help Function Key Settings](#) (see page 389).

```

USERID                      CA JARS/OLF                      MM/DD/YY HH:MM:SS
A+-- CBONLNEH _ -----B PERIOD FUNCTIONS ----- CHELP +
|
|   The Period Functions pull-down menu (CBONLNE) presents three
|   items for your selection:
|
|       __ 1. Forecasting
|       __ 2. Rate Determination
|       __ 3. Copy MOD --> TAB
|
|   Tab to the function you want and press ENTER.
|   You will be taken to the first panel of the function you select.
|
|D   F1=Help   F2=Topic   F3=End   F5=Cont   F7=Prev   F8=Next   F9=Index|
+-----+
    
```

Help Function Key Settings

Function key settings let you move efficiently through CA PMA Chargeback Help facilities.

	F1=Help	F2=Topic	F3=End	F5=Cont	F7=Prev	F8=Next	F9=Index	
+-----+								

F1=Help

Displays the Help for Help panel.

F2=Topic

Takes you to the Table of Contents.

F3=End

Returns you to the resident product panel from which you called Help.

F5=Cont

Takes you to the next logical panel (Field Help takes you to the Index; Topic Help takes you to the Table of Contents).

F7=Prev

Takes you to the previously viewed panel.

F8=Next

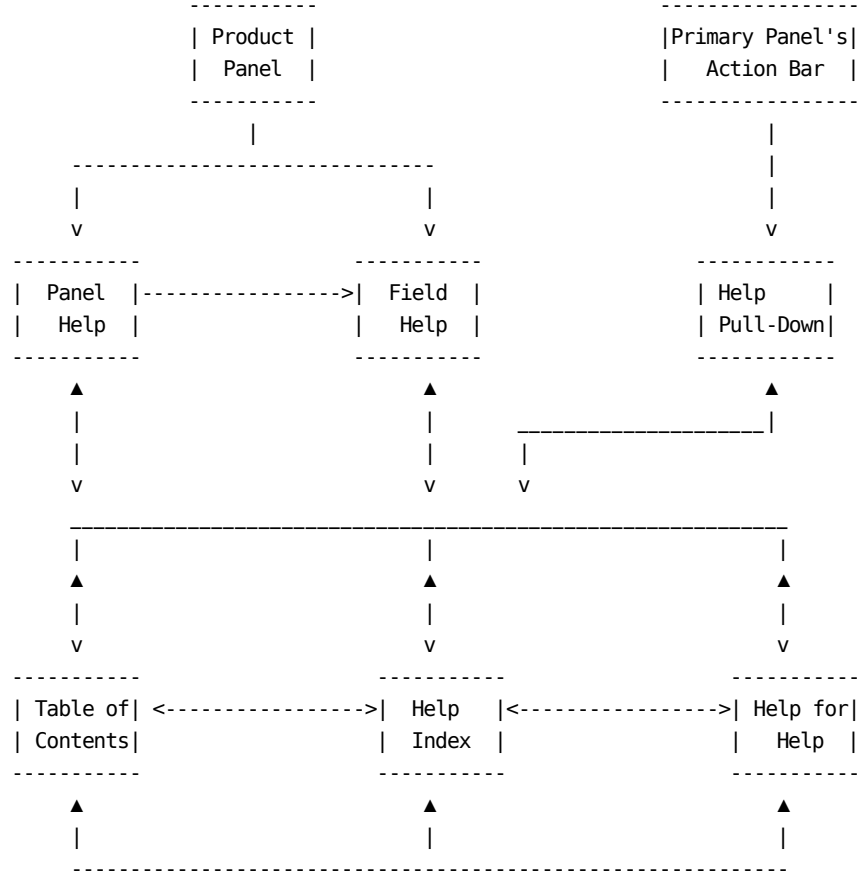
Takes you to the next *topic* discussed.

F9=Index

Provides you with a list of entries for which Help is available.

Moving Through Help

The following diagram gives you an overview of how you can access and move through the CA JARS/OLF Help facility, when you request Help from a product panel.



Exiting Help

To exit the CA JARS/OLF Help facility, simply press **F3**.

Help Panels

Panel Helps

Panel Help is available for every product panel. These Help panels also list fields from the product panel for which there is Help.

```

USERID                CA JARS/OLF                MM/DD/YY HH:MM:SS
+-- CBOFCTOH _ ----- OVERALL FORECAST RESULTS ----- HELP -----+
|
| The Overall Forecast Results panel (CBOFCTO) graphically presents a
| view of the total charges for all elements for both forecasted and
| existing periods. Thus, records from the CCCMOD table and the CCCTAB
| table are joined in the Overall Forecast Results panel.
|
| The first value of the scale represents the smallest charge. The
| last value of the scale represents the largest charge plus ten
| percent.
|
| To view information on any of the panel items, select one of the
| following:
|
|   __ Charge          __ Prd          __ Amount          __ S (Scale)
|   __ Bkwd           __ Fwd          __ Elements
|
| F1=Help  F2=Topic  F3=End  F5=Cont  F7=Prev  F8=Next  F9=Index
+-----+
    
```

Access

Panel Helps appear when you press **F2** and the cursor is not positioned on a field.

```

-----
| Product          |
| Panel           | _____
|                 |>Help|
|                 |
|                 |
-----
                                     v
                                     -----
                                     | Panel          |
                                     | Help           |
                                     |                 |
                                     -----
    
```

Actions

F1=Help

Displays an explanation on how to use the Help facility.

F2=Topic

Displays the Help Table of Contents.

F3=End

Returns you to the resident product panel from which you called Help.

F5=Cont

Takes you to the next logical panel.

F7=Prev

Takes you to the previously viewed panel.

F8=Next

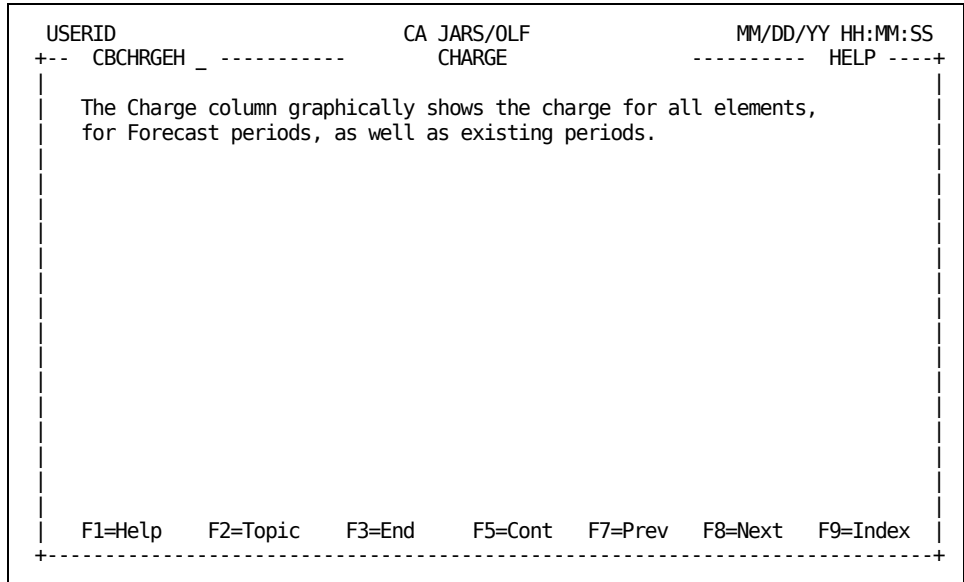
Takes you to the next *topic* discussed.

F9=Index

Displays the Help Index.

Field Helps

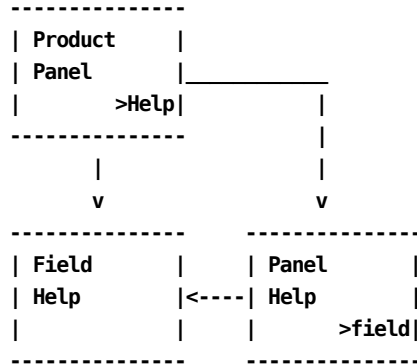
Field Helps contain information about a specific field on a product panel. It appears when you tab to a product panel's field you want Help with and press **F1**. You can also get Help with a field when it is listed as a selection on a Panel Help.



Access

Field Helps appear when one of the following events occurs:

- You press **F1** and the cursor is positioned on a field.
- You select a field listed on a panel help.

**Actions****F1=Help**

Displays an explanation on how to use the Help facility.

F2=Topic

Displays the Help Table of Contents.

F3=End

Returns you to the resident product panel from which you called Help.

F5=Cont

Takes you to the next logical panel.

F7=Prev

Takes you to the previously viewed panel.

F8=Next

Takes you to the next *topic* discussed.

F9=Index

Displays the Help Index.

The Table of Contents Panel

This panel displays a list of topics for which Help is available. Simply tab to the topic you are interested in viewing and press Enter. Topic panels, in turn, allow you to make further selections.

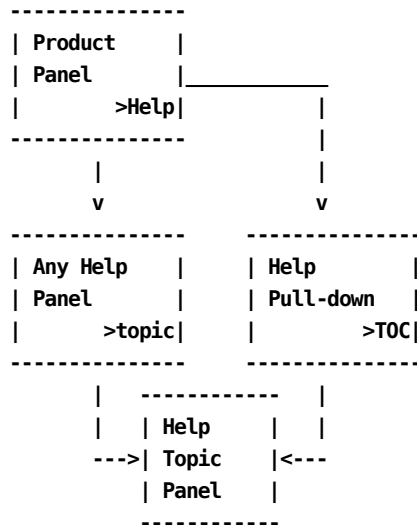
USERID	CA JARS/OLF	MM/DD/YY HH:MM:SS
+-- CBTOPICH _ -----	TABLE OF CONTENTS (TOPICS)	----- HELP -----+
-- Account Definition (ACCTDEFS)		-- DATA
-- Accounting Structure		-- Budget
-- Accounting Sources		-- Debit/Credit
-- Period Tables		-- PERIOD
-- CBDEFS		-- Forecasting
-- Charge Elements		-- Rate Determination
-- Charge Units		-- Copy MOD --> TAB
-- Qualifiers		-- OPTIONS
-- Normalizers		-- User Settings
-- Modifiers		-- Versions
-- Split Job Charges		-- EXIT
-- Cost Recovery		-- HELP With HELP
-- Overhead Distribution		-- INDEX
-- QUERY		
-- Charge Query Selection		
-- Budget Query Selection		
-- DB/CR Query Specifications		

F1=Help F2=Topic F3=End F5=Cont F7=Prev F8=Next F9=Index

Access

Topic Help panels appear when one of the following events occurs:

- You select **2. Table of Contents** from the Help pull-down.
- You press the Topic function key on any Help panel.

**Actions****F1=Help**

Displays an explanation on how to use the Help facility.

F2=Topic

Displays the Help Table of Contents.

F3=End

Returns you to the resident product panel from which you called Help.

F5=Cont

Takes you to the next logical panel.

F7=Prev

Takes you to the previously viewed panel.

F8=Next

Takes you to the next *topic* discussed.

F9=Index

Displays the Help Index.

Actions

F1=Help

Displays an explanation on how to use the Help facility.

F2=Topic

Displays the Help Table of Contents.

F3=End

Returns you to the resident product panel from which you called Help.

F5=Cont

Takes you to the next logical panel.

F7=Prev

Takes you to the previously viewed panel.

F8=Next

Takes you to the next *topic* discussed.

F9=Index

Displays the Help Index.

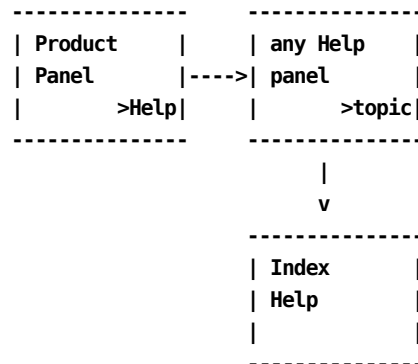
Index Help Panels

Index panels provide you with an alphabetical list of items for which Help is available. To make a selection, tab to the item you want information for and press **Enter**. This takes you to the Help panel that contains pertinent information.

USERID	CA JARS/OLF	MM/DD/YY HH:MM:SS
+-- CBINDEXH -----	INDEX	HELP -----+
Tab to the item below and press ENTER or press CONTINUE		
-- Account Definitions	-- Command	-- Lookup
-- Accounting Periods	-- Constant	-- Lop
-- Accounting Sources	-- Cost	-- Modifiers
-- Accounting Structure	-- Count	-- Max-Min Charge
-- Amount	-- Create	-- Normalizer
-- Arithmetic Operators	-- Credit Amount	-- Normalizer Entry
-- Average Rate	-- Debit Amount	-- Norm
-- Backward	-- Debit/Credit	-- Options
-- Break	-- Delete	-- ORD Type
-- Browse	-- Exit	-- Overhead
-- Budget	-- Expand	-- Panel
-- Budget Amount	-- Field Constant	-- Period
-- Budget Query	-- Forecasting	-- Qualifier
-- CBCDEFS	-- Forward	-- Rate
-- Charge	-- Function Keys	-- Record Count
-- Charge Element	-- Field Qualifier	-- Rop
-- Charge Unit	-- HELP with HELP	-- Save
+-----+		
F1=Help F2=Topic F3=Exit F5=Cont F7=Prev F8=Next F9=Index		

Access

The Index Help panel appears when you press the Index function key on any Help panel.



Actions**F1=Help**

Displays an explanation on how to use the Help facility.

F2=Topic

Displays the Help Table of Contents.

F3=End

Returns you to the resident product panel from which you called Help.

F5=Cont

Takes you to the next logical panel.

F7=Prev

Takes you to the previously viewed panel.

F8=Next

Takes you to the next *topic* discussed.

F9=Index

Displays the Help Index.

The Help for Help Panel

The following panel gives you Help with Help. It provides you with information about the Help facility.

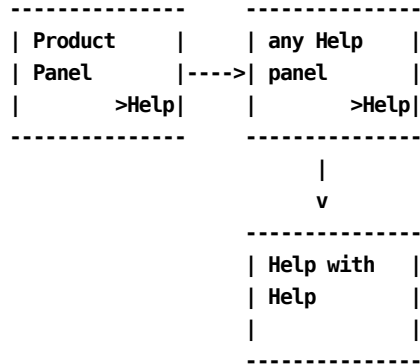
```

USERID                      CA JARS/OLF                      MM/DD/YY HH:MM:SS
+-- CBHELP1H _ ----- HELP WITH HELP ----- HELP -----+
|
| This product has a complete HELP system available to you at any point in
| the dialog.
|
| Call HELP from any panel for information about the panel, or call
| HELP from a field for information about that field.
|
| Once you are in HELP you can access other HELP panels through menu
| selections, through the INDEX or through the Table of Contents panels.
|
| You can also move from topic to topic (NEXT), go to the previously viewed
| panel (PREV), or continue to the next logical panel (CONT).
|
|
| F1=Help  F2=Topic  F3=End  F5=Cont  F7=Prev  F8=Next  F9=Index
+-----+

```

Access

CA JARS/OLF displays Help with Help when you press the HELP function key on any Help panel.



Actions

F1=Help

Displays an explanation on how to use the Help facility.

F2=Topic

Displays the Help Table of Contents.

F3=End

Returns you to the resident product panel from which you called Help.

F5=Cont

Takes you to the next logical panel.

F7=Prev

Takes you to the previously viewed panel.

F8=Next

Takes you to the next *topic* discussed.

F9=Index

Displays the Help Index.

Chapter 11: Batch Processing & Reporting

This chapter discusses CA JARS/OLF utilities, CA JARS/OLF batch processing, and batch reporting with CA Earl.

The first part of the chapter describes the batch jobs (utilities) you must submit to:

- Copy a CA JARS/OLF version
- Commit a live CA JARS/OLF version
- Archive (Backup) tables
- Restore tables

The second part of this chapter discusses CA JARS/OLF:

- Daily Processing
- Summary Processing
- Period Processing

The third part of the chapter describes CA JARS/OLF reporting using CA Earl.

The following table summarizes the programs and program options used for batch processing, as well as associated PROCs and parameter files.

Program Name	What does	C A I K S P A R	C A I K S R P A R	PROC Name	CAI SAMPJCL Member Name
CAKSARCH	Archives existing CA JARS/OLF tables (BACKUP option)	X		CAKSARES	CAKRARCH
	Restores the backed up version of CA JARS/OLF tables (RESTORE option)	X		CAKSARES	CAKREST

Program Name	What does	C A I K S P A R	C A I K R	PROC Name	CAI SAMPJCL Member Name
	Commits finalized CA JARS/OLF definitions (COMMIT option)	X		CAKSARES	CAKRCOMT
	Copies CA JARS/OLF production version of records into the DEVELOPMENT version for editing (COPY option)	X		CAKSARES	CAKRCPY
CAWFLOAD	Processes CA JARS/OLF input data using committed definitions	X	X	None	CAWFLOAD
CAKRPLCS	Closes a CA JARS/OLF period(PeriodB)	X	X	None	CAKRPLCS
CAKRPOPEN	Opens a CA JARS/OLF previously closed period	X	X	None	CAKRPOPEN
CAKRBREC	Recovers and distributes charges to all nonmodified CCCTAB records for the requested periods	X		None	CAKRSUM
Earl	Creates CA JARS/OLF Reconciliation reports	X		CAKSEarl	CAKRECON

Program Name	What does	C A I K S P A R	C A I K S P A R	PROC Name	CAI SAMPJCL Member Name
	Creates CA JARS/OLF Invoices	X		CAKSEarl	CAKRINVC
CAKRFCSB	CA JARS/OLF Forecasting	X		None	CAKRFCST

Note: The CAI.SAMPJCL members referenced in the above table are contained in file 9, which was unloaded from the installation tape.

To run a SAMPJCL member that uses a PROC, customize the PROC and either add the PROC to the USER.PROCLIB or copy the PROC instream.

The online component and each of these batch jobs references a file called CAIKSPAR. This parameter file is discussed on the next page.

Caution: It is recommended that **before** you make any changes to Acct or CA JARS/OLF tables using the online component, you make a backup using the Archive/Backup function of the CAKSARCH program. Refer to [the Archive/Restore Program\(CAKSARCH\)](#) (see page 409) for details.

The Parameter Files

Two parameter files or sequential data sets are used to define information required for CA JARS/OLF online and batch processing. The CAIKSPAR and CAIKRPAR files are used by CA JARS/OLF. The parameter files are accessed via the online dialogs and batch processes by the following ddnames: CAIKSPAR and CAIKRPAR.

Note: Both of these files are allocated and customized during installation.

CAIKSPAR Parameter File

The CAIKSPAR file provides CA JARS/OLF with specific information about the database system your installation uses, as well as defining the Company Name that appears on your reports.

Note: The order in which you specify CAIKSPAR parameters is **unimportant**. You can abbreviate each keyword using the fewest characters that make it unique.

Database-Related Keywords

The following five parameters are used to specify the database product your installation uses. CA JARS/OLF supports CA Datacom and IBM's DATABASE2. Note that DATABASE_NAME is defined during installation and that the following values are defaults. Use the table below as a guide in specifying the following parameters:

Parameter	DATABASE2	CA Datacom
DATABASE_NAME =	PMACB	CBASEPMA
PLAN_ID =	_____	N/A
SQL_TYPE =	DB2	Datacom
SUBSYSTEM_ID =	DB23	executing
EURODB2 =	<u>NO</u> YES	N/A

DATABASE_NAME =

This parameter tells CA JARS/OLF which database to use for documentation purposes only. Up to eight characters are permitted.

PLAN_ID =

This is a DB2 1-8 character parameter which is site dependent.

- If you are using DB2 and require the PLAN_ID, uncomment the PLAN_ID and enter the 1-8 character PLAN_ID.

- If you are using DB2, but do not use the PLAN_ID, the PLAN_ID must remain as a comment.
- If you are using Datacom, the PLAN_ID must remain as a comment.

SQL_TYPE =

This parameter tells CA JARS/OLF the type of SQL statements that will be used.

SUBSYSTEM_ID =

This 1-4 character SSID or driver is used when DB2 links to data. For CA Datacom, the SUBSYSTEM_ID should be any executing userid.

EURODB2 =

This parameter applies only to DB2 databases and determines what value DB2 uses for the decimal point indicator.

- If NO is specified or defaulted to, a period (.) is used as the decimal point indicator and a comma (,) is used to separate large whole numbers so they are presented in a more readable form.
- If YES is specified, a comma (,) is used as the decimal point indicator and a period (.) is used to separate large whole numbers so they are presented in a more readable form.

Keywords Used by CA JARS/OLF

The following keywords are used for CA JARS/OLF online functions (options).

CUSTOMER_NAME =

The company name (up to 25 characters) you want to appear on your invoices and reports.

BASE_VERSION = (required)

This four character required field must be either TEST or PROD. It specifies the Acct version that CA JARS/OLF validates its online data against.

Example:

```
BASE_VERSION = TEST
```

CA JARS/OLF Related Keywords

The following three parameters control CA JARS/OLF decimal precision. Precision affects calculations, as well as the populating of the database. Therefore, its effect is system wide.

With the exception of Budget, Debit/Credit, and Query calculations and value display which are **fixed** at five decimal places, you can define up to 15 (significant digits and decimals). CA JARS/OLF's default is 9999999999V99999 (10 digits followed by five decimal places).

CHARGE_PREC =

Specifies the precision: the number of decimal places used in the calculation and display of charges. Default: five decimal places.

RATE_PREC =

Specifies the precision: the number of decimal places used in the calculation and display of rates. Default: five decimal places.

UNIT_PREC =

Specifies the precision: the number of decimal places used in the calculation and display of units. Default: five decimal places.

Note: We do **not** recommend using more than five decimal places. Using more than five decimal places can result in data overflow with significant digits being lost.

CAIKSPAR Usage Considerations

Using more

than one

CAIKSPAR file

You may want to have two CAIKSPAR files. One for production and a second file that you can change as required.

Caution: Precision definitions should be defined only **once** - during implementation. They should then remain **static**.

Precision:

Do **not** change precision values after CA JARS/OLF is installed. **You will invalidate all CA JARS/OLF data and definitions.** If you do change precision values, you have to clear the CA JARS/OLF data tables.

The following are the recommended precisions for the previously discussed parameters: .

CHARGE_PREC = 5

RATE_PREC = 5

UNIT = 5

CAIKRPAR Parameter File

The CA JARS/OLF parameter file (CAIKRPAR) defines the specific control information required for CA JARS/OLF batch processing. Some of its keywords are used by all CA JARS/OLF batch job streams while others are only specific to the CA JARS/OLF load process (CAWFLOAD). This data set is allocated and customized during installation.

Note: You can abbreviate each keyword using the fewest characters that make it unique.

PERIOD_VERSION =

This **optional** parameter allows you to specify a CBLOAD Version that is associated with a period. (If you use the PERIOD_VERSION = parameter you must have at least one period defined. You can use up to four characters to specify a period.) The following example shows you how to specify period 2 for CBLOAD version TEST:

	Start		
	Period		
		End	
		Period	
			CBLOAD
			Version
	v	v	v
PERIOD_VERSION=	2	2	TEST

Usage Considerations:

- You can omit leading zeros when specifying period versions.
- You can have multiple period versions, as shown below. However, periods **cannot** overlap.

```

PERIOD_VERSION = 101 120 PROD
PERIOD_VERSION = 121 130 TEST
PERIOD_VERSION = 141 150 WXYZ
    
```

- It is strongly recommended that once a period is closed, you delete the specification in order to save memory usage in the batch run.
- If you do not specify the PERIOD_VERSION parameter, the four-character CB_VERSION is used as the PERIOD_VERSION. In this case, the application version prints on the CAWFLOAD.

Summary Report, shown on 11-44 as CB_VERSION (default). When this is the case, both starting and ending periods are reported as 0. Therefore, it is recommended you use the PERIOD_VERSION parameter.

Examples

1. In the following example, we have overlapping periods (1-5 and 5-10).

```

BASE = PROD
RECON = N
CBLOAD = ABCD
PERIOD_VER = 1 5 EFGH    } This will give you an error
PERIOD_VER = 5 10 IJKL  } message and program will
PERIOD_VER = 11 20 WXYZ  } halt
    
```


- In the following example, we did not specify a PERIOD-VERSION, CA JARS/OLF defaults to the CBLOAD version. In this case ABCD:

Note: If you do not specify a CBLOAD version, records are not billed.

```
BASE = PROD
RECON = N
CBLOAD = ABCD
```

- If you do not specify a CBLOAD = parameter, using the following example, CA JARS/OLF does not calculate charges for periods greater than 20.

```
BASE = PROD
RECON = N
PERIOD_VER = 1 5 EFGH
PERIOD_VER = 6 10 IJKL
PERIOD_VER = 11 20 WXYZ
```

- In this example we want to bill for period 21. However, version defaults to PRODABCD.

```
BASE = PROD
RECON = N
CBLOAD = ABCD
PERIOD_VER = 1 5 EFGH
PERIOD_VER = 6 10 IJKL
PERIOD_VER = 11 20 WXYZ
```

The Archive/Restore Program (CAKSARCH)

The CAKSARCH program is a multi-purpose program that performs specific CA JARS/OLF table maintenance functions, depending on the program option specified. The options include:

- Archiving or backing up definition and/or data tables (BACKUP option)
- Restoring definition and/or data tables (RESTORE option)
- Committing the Development version of CA JARS/OLF definition tables so that these definitions can be used in processing (COMMIT option)
- Copying committed definition tables to the Development version so that modifications can be made via the online facility (COPY option)

Note: All maintenance functions can be performed within a *single* execution of the program. When multiple options are executed in this manner, table maintenance control statements are executed in the order they are specified.

The Archive/Restore program's sole purpose is to archive specific tables used in CA JARS/OLF processing. It is **not** intended to replace full database backups or restores.

The next page contains a sample of the CAKSARES PROC, followed by a discussion of each program option.

If you use the CAKSARES PROC, you **must** customize it and either copy it to your system or user PROCLIB, or use it instream within each of the JCL members. Refer to the [table](#) (see page 401) for a listing of JCL members.

CAKSARES Procedure

```

//*****
//* CAKSARES ARCHIVE/RESTORE PROC
//*
//* THIS PROC IS USED DURING:
//*
//* 1. ARCHIVING (BACKUP) OF TABLES
//* 2. RESTORING OF ARCHIVED TABLES
//* 3. COMMIT PROCESSING
//* 4. COPY PROCESSING
//*
//* REFER TO FOLLOWING CAJRJCL MEMBERS FOR DETAILS:
//*
//* 1. CAKRARCH - CA JARS/OLF ARCHIVE
//* 2. CAKREST - CA JARS/OLF RESTORE
//* 3. CAKRCOMT - CA JARS/OLF COMMIT
//* 4. CAKRCPY - CA JARS/OLF COPY TABLES
//*
//* ** IF YOUR DATABASE IS DB2, REMOVE THE Datacom LIBRARIES AND **
//* ** THE DCIND SYMBOLIC, AND UNCOMMENT THE DB2 LIBRARY. **
//*
//*****
//CAKSARES PROC INDEX='CAI', /* DATA SET HIGH LEVEL QUALIFIER
// DCIND='CAI', /* Datacom HIGH LEVEL QUALIFIER
// SYSOUT='*' /* SYSOUT CLASS
//*
//STEP010 EXEC PGM=CAKSARCH
//STEPLIB DD DSN=&INDEX..CAJRLOAD,DISP=SHR
// DD DSN=&INDEX..CAICICS,DISP=SHR
// DD DSN=&DCIND..USERLOAD,DISP=SHR <-- Datacom LIBRARY
// DD DSN=&DCIND..INFOCAI.LOAD,DISP=SHR <-- Datacom LIBRARY
// DD DSN=&DCIND..LOAD,DISP=SHR <-- Datacom LIBRARY
//* DD DSN=SYS2.DSNLOAD,DISP=SHR <-- DB2 LIBRARY
//CAIKSPAR DD DSN=&INDEX..CAIKSPAR,DISP=SHR
//CAIKRPAR DD DSN=&INDEX..CAIKRPAR,DISP=SHR
//SYSPRINT DD SYSOUT=&SYSOUT.
//SYSUDUMP DD SYSOUT=&SYSOUT.
//SYSIN DD DDNAME=SYSIN
```

The BACKUP Option

Archiving/Backup of CA JARS/OLF tables is performed using the BACKUP option of the CAKSARCH program described below.

```
BACKUP TBL=tableid,DD=ddname[,where_clause;]
```

where:

TBL=

The name of the table to be backed up. For example, PERTAB, QUALTAB, and so forth. All versions stored in each table are backed up.

DD=

References the JCL ddname that is used. This must be unique for each table BACKUP statement. A corresponding DD statement must also be defined.

where_clause (optional)

It is recommended that you always backup an entire table, which means you would not use a WHERE clause. However, if used, the WHERE clause **must** end with a semicolon (;). WHERE clauses can be continued using spaces and commas.

- If a where_clause is used, CA JARS/OLF backs up the records that meet the where_clause's selection criteria.
- If a where_clause is omitted, CA JARS/OLF backs up **all** records stored in the specified table.

Rules

1. Never use a where_clause to backup data tables.
2. Never archive tables by their synonym name. **Always** specify the fully qualified table name or you are not able to properly restore the tables.

Examples

To backup the ACCSTTAB (Accounting Structures table), code the BACKUP control statement as shown below:

```
BACKUP TBL=CAI.ACCSTTAB,DD=BACKTAB1
```

To backup the QUALTAB (Qualifier table), code the BACKUP control statement as shown below:

```
BACKUP TBL=CAI.QUALTAB,DD=BACKTAB8
```

where: CAI is the table owner.

BACKUP Option JCL (CAKRARCH)

```
//CAKRARCH JOB (ACCTINFO), 'PMGR', CLASS=A, REGION=4M, MSGCLASS=X
//*****
//* USE THIS JCL TO ARCHIVE CA JARS/OLP TABLES *
//*                                           *
//* INSTRUCTIONS:                             *
//* 1. THIS JCL USES THE CAKSARES PROC      *
//*    PROVIDED IN THE SAMPLE JCL. EITHER COPY *
//*    THE PROC TO THIS JCL OR ADD TO YOUR  *
//*    SYSTEM USER PROCLIB.                 *
//* 2. MODIFY THE JOB CARD ACCORDING TO    *
//*    YOUR INSTALLATION STANDARDS.        *
//* 3. CHANGE THE HIGH LEVEL QUALIFIERS TO *
//*    REFLECT THE CORRECT VALUES.        *
//* 4. MODIFY THE STEP010.SYSIN CONTROL    *
//*    STATEMENTS TO REFLECT THE TABLE(S) *
//*    WHICH ARE TO BE ARCHIVED OR BACKED  *
//*    UP. BE SURE THAT A UNIQUE DD NAME IS *
//*    INDICATED ON EACH STATEMENT.        *
//* 5. FOR EACH DD NAME THAT HAD BEEN     *
//*    DEFINED FOR STEP010.SYSIN, BE SURE  *
//*    THAT COMPARABLE DD STATEMENTS ARE  *
//*    DEFINED.                             *
//*****
//*
//BACKUP EXEC PROC=CAKSARES,
//          INDEX='CAI',
//          DCIND='CAI',
//          SYSOUT='*'
//*
//*****
//* THE CONTROL STATEMENTS ARE PASSED TO THE *
//* CAKSARES PROC BY THE STEP010.SYSIN DD.  *
//* MODIFY AS OUTLINED IN STEP 5.          *
//*****
//*
//STEP010.SYSIN DD *
  BACKUP TBL=CAI.ACSTTAB,DD=BACKTAB1
  BACKUP TBL=CAI.ACSTRTAB,DD=BACKTAB2
  BACKUP TBL=CAI.ACCTLOOK,DD=BACKTAB3
  BACKUP TBL=CAI.PERTAB,DD=BACKTAB4
  BACKUP TBL=CAI.CHOPTAB,DD=BACKTAB5
  BACKUP TBL=CAI.ELEMTAB,DD=BACKTAB6
  BACKUP TBL=CAI.NORMTAB,DD=BACKTAB7
  BACKUP TBL=CAI.QUALTAB,DD=BACKTAB8
  BACKUP TBL=CAI.RATETAB,DD=BACKTAB9
  BACKUP TBL=CAI.SPLITTAB,DD=BACKTABA
  BACKUP TBL=CAI.SUMTAB,DD=BACKTABB
  BACKUP TBL=CAI.UNITTAB,DD=BACKTABC
```

```
//*  
  
//*****  
//* ADD THE APPROPRIATE NUMBER OF DD STATEMENTS*  
//*****  
//*  
//BACKTAB1 DD DSN=&INDEX . .ACCSSTAB .ARCH, DISP=(NEW, CATLG, DELETE) ,  
//          DCB=(DSORG=PS, RECFM=VB, LRECL=4096, BLKSIZE=9192) ,  
//          UNIT=DISK, SPACE=(TRK, (10, )) ,VOL=SER=DSKVOL  
//BACKTAB2 DD DSN=&INDEX . .ACCSRTAB .ARCH, DISP=(NEW, CATLG, DELETE) ,  
//          DCB=(DSORG=PS, RECFM=VB, LRECL=4096, BLKSIZE=9192) ,  
//          UNIT=DISK, SPACE=(TRK, (10, )) ,VOL=SER=DSKVOL  
//BACKTAB3 DD DSN=&INDEX . .ACCTLOOK .ARCH, DISP=(NEW, CATLG, DELETE) ,  
//          DCB=(DSORG=PS, RECFM=VB, LRECL=4096, BLKSIZE=9192) ,  
//          UNIT=DISK, SPACE=(TRK, (10, )) ,VOL=SER=DSKVOL  
//BACKTAB4 DD DSN=&INDEX . .PERTAB .ARCH, DISP=(NEW, CATLG, DELETE) ,  
//          DCB=(DSORG=PS, RECFM=VB, LRECL=4096, BLKSIZE=9192) ,  
//          UNIT=DISK, SPACE=(TRK, (10, )) ,VOL=SER=DSKVOL  
//BACKTAB5 DD DSN=&INDEX . .CHOPTAB .ARCH, DISP=(NEW, CATLG, DELETE) ,  
//          DCB=(DSORG=PS, RECFM=VB, LRECL=4096, BLKSIZE=9192) ,  
//          UNIT=DISK, SPACE=(TRK, (10, )) ,VOL=SER=DSKVOL  
//BACKTAB6 DD DSN=&INDEX . .ELEMENTAB .ARCH, DISP=(NEW, CATLG, DELETE) ,  
//          DCB=(DSORG=PS, RECFM=VB, LRECL=4096, BLKSIZE=9192) ,  
//          UNIT=DISK, SPACE=(TRK, (10, )) ,VOL=SER=DSKVOL  
//BACKTAB7 DD DSN=&INDEX . .NORMTAB .ARCH, DISP=(NEW, CATLG, DELETE) ,  
//          DCB=(DSORG=PS, RECFM=VB, LRECL=4096, BLKSIZE=9192) ,  
//          UNIT=DISK, SPACE=(TRK, (10, )) ,VOL=SER=DSKVOL  
//BACKTAB8 DD DSN=&INDEX . .QUALTAB .ARCH, DISP=(NEW, CATLG, DELETE) ,  
//          DCB=(DSORG=PS, RECFM=VB, LRECL=4096, BLKSIZE=9192) ,  
//          UNIT=DISK, SPACE=(TRK, (10, )) ,VOL=SER=DSKVOL  
//BACKTAB9 DD DSN=&INDEX . .RATETAB .ARCH, DISP=(NEW, CATLG, DELETE) ,  
//          DCB=(DSORG=PS, RECFM=VB, LRECL=4096, BLKSIZE=9192) ,  
//          UNIT=DISK, SPACE=(TRK, (10, )) ,VOL=SER=DSKVOL  
//BACKTABA DD DSN=&INDEX . .SPLITAB .ARCH, DISP=(NEW, CATLG, DELETE) ,  
//          DCB=(DSORG=PS, RECFM=VB, LRECL=4096, BLKSIZE=9192) ,  
//          UNIT=DISK, SPACE=(TRK, (10, )) ,VOL=SER=DSKVOL  
//BACKTABB DD DSN=&INDEX . .SUMTAB .ARCH, DISP=(NEW, CATLG, DELETE) ,  
//          DCB=(DSORG=PS, RECFM=VB, LRECL=4096, BLKSIZE=9192) ,  
//          UNIT=DISK, SPACE=(TRK, (10, )) ,VOL=SER=DSKVOL  
//BACKTABC DD DSN=&INDEX . .UNITTAB .ARCH, DISP=(NEW, CATLG, DELETE) ,  
//          DCB=(DSORG=PS, RECFM=VB, LRECL=4096, BLKSIZE=9192) ,  
//          UNIT=DISK, SPACE=(TRK, (10, )) ,VOL=SER=DSKVOL
```

BACKUP Option Output

Upon completion of the CAKSARCH program, you receive printed output that looks like this:

```
CA          - 0  ARCHIVE/RESTORE PROGRAM          PAGE   1
CA JARS/OLF 1.0 9110WF100          REPORT          FRI JAN 25 16:32:27 1991
                USING: DATABASE=, SUBSYS=DB23, WHATSQL=DB2

                A          B
INPUT:
BACKUP TBL=QAHRDN1.ACCSTTAB,DD=BACKTAB1

SQL: SELECT * FROM QAHRDN1.ACCSTTAB
CAKS639I - NUMBER OF ROWS PROCESSED=2
CAKS607I - BACKUP PROCESSING COMPLETED SUCCESSFULLY
```

A

SUBSYS=DB23:

This parameter is defined in CA JARS/OLF CAIKSPAR parameter file and provides your database's SUBSYSTEM_ID. This example uses DATABASE2 - DB23.

B

WHATSQL=DB2:

This parameter is defined in CA JARS/OLF CAIKSPAR parameter file and identifies the type of SQL you are using: either DB2 or Datacom. This example uses DB2.

The RESTORE Option

Caution If you run backups using a where_clause, be extremely careful when restoring tables. The contents of the designated table are deleted before processing, and only archived records are restored.

Restoration of CA JARS/OLF tables is performed using the RESTORE option of the CAKSARCH program described below.

RESTORE [TBL=qualifier.tablename,] DD=ddname, [,INS]

where:

TBL= (optional)

Tells CA JARS/OLF which table to restore. If omitted, the table named in the BACKUP statement (from the run that created the backup) is used.

DD=

Specifies the ddname of the backup dataset. The information from this dataset is copied into the TBL file specified in the RESTORE control statement.

INS (optional)

If specified, CAKREST output lists the INSERT statements processed during this run. Omit INS to suppress this printed output.

Rules

You should **not** restore a table that has been backed up by its synonym name.

Examples

The following example shows you how code a control statement for the ELEM TAB table.

```
RESTORE TBL=userid.ELEMTAB,DD=BACKTAB
```

Remember, you **must** have a statement for each table that is to be restored.

RESTORE Option JCL (CAKREST)

```
//CAKREST JOB (ACCTINFO) , 'PMGR' , CLASS=B,MSGCLASS=X,REGION=4M
//*****
//*  PURPOSE: RESTORE JARS/OLF
//*
//*  MODIFICATIONS:
//*
//*  1. THIS JCL USES THE CAKSARES PROC PROVIDED IN THE SAMPLE JCL.
//*     EITHER COPY THE PROC TO THIS JCL OR ADD TO YOUR SYSTEM
//*     USER.PROCLIB.
//*  2. MODIFY THE JOB CARD ACCORDING TO YOUR INSTALLATION STANDARDS.
//*  3. CHANGE THE PARM STATEMENT ON THE EXEC STATEMENT TO REFLECT
//*     THE APPROPRIATE DATABASE TO BE RESTORED TO. IF NOT DEFINED,
//*     THE JOB DEFAULTS TO THE CURRENT DATABASE.
//*  4. CHANGE THE HIGH LEVEL QUALIFIERS TO REFLECT THE CORRECT
//*     VALUES.
//*  5. MODIFY THE STEP010.SYSIN DD STATEMENT TO REFLECT THE TABLE(S)
//*     THAT YOU WANT TO RESTORE.
//*  6. FOR EACH DD NAME THAT IS DEFINED TO THE STEP010.SYSIN, BE
//*     SURE THAT COMPARABLE DD STATEMENT(S) HAVE ALSO BEEN DEFINED.
//*****
//*
//*****
//* IF THE TABLE IS TO BE RESTORED TO ANOTHER  DATABASE, BE SURE TO
//* CHANGE THE PARM NAME ON THE EXECUTE STATEMENT.
//*****
//*
//RESTORE EXEC PROC=CAKSARES,PARM=' ,DSNDB04' ,      <-- CUSTOMIZE PARM
//          INDEX='CAI' ,                             <-- CUSTOMIZE
//          DCIND='CAI' ,                             <-- CUSTOMIZE
//          SYSOUT='*'                               <-- CUSTOMIZE
//*
//*****
//* A RESTORE STATEMENT MUST BE PRESENT FOR  *
//* EACH TABLE TO RESTORED.                  *
//*****
//*
//STEP010.SYSIN DD *
RESTORE TBL=USERID.ELEMTAB,DD=BACKTAB
//*
//*****
//* ADD THE APPROPRIATE NUMBER OF DD STATEMENTS*
//*****
//*
//BACKTAB DD DSN=&INDEX..ELEMTAB.ARCH,DISP=SHR      <-- CUSTOMIZE
```


RESTORE Option Output

When the Archive/Restore program successfully restores your tables, you receive printed output that looks like this:

```

CA                - 0  ARCHIVE/RESTORE PROGRAM                PAGE   1
CA JARS/OLF 1.0 9110WF100          REPORT          FRI JAN 25 16:58:41 1991
                USING: DATABASE=DSNDB04, SUBSYS=DB23, WHATSQL=DB2

                A                B                C
INPUT:
RESTORE TBL=QAHRDN1.ELEMTAB,DD=BACKTAB

FILE HEADER LINE=** TABLE=QAHRDN1.ELEMTAB COLS=9 on 1/18/1991 4:33:49 PM

SQL:
CREATE TABLE QAHRDN1.SHIRL
(VERSION CHAR(8),
ORDID CHAR(3),
ELEMENT CHAR(16),
UNIT CHAR(16),
NORMAL CHAR(16),
DEFRATE DECIMAL(15,0),
MINCHG DECIMAL(15,0),
MAXCHG DECIMAL(15,0),
COST DECIMAL(15,0)) IN DATABASE DSNDB04

CAKS632I - TOTAL NUMBER OF ROWS PROCESSED=8
CAKS611I - RESTORE PROCESSING COMPLETED SUCCESSFULLY

```

A

DATABASE=DSNDB04:

This parameter is defined in CA JARS/OLF CAIKSPAR parameter file and identifies the database you want information restored to. In this example, the database is DSNDB04.

B

SUBSYS=DB23:

This parameter is defined in CA JARS/OLF CAIKSPAR parameter file and provides your database's SUBSYSTEM_ID. This example uses DATABASE2 - DB23.

C

WHATSQL=DB2:

This parameter is defined in CA JARS/OLF CAIKSPAR parameter file and identifies the type of SQL you are using: either DB2 or Datacom. This example uses DB2.

The COMMIT Option

Committing of CA JARS/OLF tables is completed by executing the Archive/Restore program (CAKSARCH) using the COMMIT control statement described on the next page.

Modification of CA JARS/OLF definitions is accomplished by editing the Development version of the CA JARS/OLF definition tables via its Online facility. The Development version of definition tables are **not available** for processing until they are committed or frozen.

The commit process performs the following functions:

- **Freezes** all of the associated CA JARS/OLF product's (product code, *pc*) Development version definition tables.
- **Deletes** any existing CA JARS/OLF committed tables for the specified CA JARS/OLF product and version. (Defined as the four-character *fromver* **plus** the four-character *tover* on the COMMIT control statement.)
- **Changes** the version of the CA JARS/OLF Development definitions, specified in the COMMIT control statement **plus** four blanks to an eight-character CA JARS/OLF version (the four-character *fromver* plus *tover* specified in the COMMIT control statement).

For more information about *version*, see [CA JARS/OLF Terms & Related Concepts](#) (see page 20).

The COMMIT Control Statement

The following control statement is used to commit a CA JARS/OLF version whose first four characters must be TEST or PROD to a user-defined version.

```
      --Acct version
      |
COMMIT pc fromver tover
      |
      -- CB version
```

where:**PC**

The two-character identifier of the CA JARS/OLF product for which commit will be performed. Use **CB** for CA JARS/OLF.

fromver

The four-character identifier of the CA JARS/OLF Development version that will be committed. This value is either TEST or PROD.

tover

A four-character identifier defining the second four characters of the CA JARS/OLF version. The first four characters are taken from the value specified in the *fromver*.

Examples

The following example shows you how to commit a CA JARS/OLF Development definition currently existing as TEST to TESTWXYZ.

```

          ---> TARGET (tover)
          | (second four characters
          | of CA JARS/OLF version)
          | The value indicated on the
          | fromver is assumed
          |
FROM <-- |
(fromver)| |
COMMIT CB TEST WXYZ
          |
          -->Product code CB for CA JARS/OLF

```

The diagram on the next page shows you how different CA JARS/OLF definition tables are referenced before and after Commit processing.

The following diagram shows you how different CA JARS/OLF definition tables are referenced before and after Commit processing.

	Before Commit	After Commit
Table	Version	Version
ACCSRTAB		TEST
ACCSTTAB		TEST
ACCTLOOK		TEST
PERTAB		TEST

	Before Commit	After Commit
Table	Version	Version
CHOPTAB	TEST	TESTWXYZ
ELEMTAB	TEST	TESTWXYZ
MODTAB	TEST	TESTWXYZ
NORMTAB	TEST	TESTWXYZ
QUALTAB	TEST	TESTWXYZ
QUERYTAB	TEST	TESTWXYZ
RATETAB	TEST	TESTWXYZ
SPLITTAB	TEST	TESTWXYZ
SUMTAB	TEST	TESTWXYZ
UNITTAB	TEST	TESTWXYZ

Processing Considerations

The corresponding Acct version must be committed **prior** to processing the CA JARS/OLF commit.

COMMIT Option JCL (CAKRCOMT)

```
//CAKRCOMT JOB (ACCTINFO), 'PMGR', CLASS=B, REGION=4M, MSGCLASS=X
//*****
//* USE THIS JCL TO COMMIT JARS/OLF      *
//* TABLES.                            *
//*                                     *
//* INSTRUCTIONS:                        *
//* 1. THIS JCL USES THE CAKSARES PROC   *
//*    PROVIDED IN THE SAMPLE JCL. EITHER COPY *
//*    THE PROC TO THIS JCL OR ADD TO YOUR *
//*    SYSTEM USER PROCLIB.             *
//* 2. MODIFY THE JOB CARD ACCORDING TO  *
//*    YOUR INSTALLATION'S STANDARDS.    *
//* 3. CHANGE THE HIGH LEVEL QUALIFIERS TO *
//*    REFLECT THE CORRECT VALUES.      *
//* 4. MODIFY THE STEP010.SYSIN CONTROL  *
//*    STATEMENTS TO REFLECT THE APPROPRIATE*
//*    PARAMETERS FOR PROCESSING.        *
//*****
//COMMIT EXEC CAKSARES,
//      INDEX='CAI',
//      DCIND='CAI',
//      SYSOUT='*'
//*****
//* BE SURE TO CHANGE THE COMMIT STATEMENT TO *
//* REFLECT THE APPROPRIATE VERSION TO BE    *
//* COMMITTED.                               *
//*****
//*
//STEP010.SYSIN DD *
COMMIT CB TEST XXXX
```

COMMIT Option Output

When Archive/Restore program successfully commits your tables, you receive printed output that looks like this:

```
CA          - 0 ARCHIVE/RESTORE PROGRAM          PAGE 1
CA JARS/OLF 1.0 9110WF100          REPORT          FRI JAN 25 17:12:08 1991
          USING: DATABASE=, SUBSYS=DB23, WHATSQL=DB2

          A          B

INPUT:
COMMIT CB TEST XXXX

          CHARGEBACK COMMIT          PAGE 1_ñ
CA JARS/OLF 1.0 9110WF100          CONTROL REPORT          FRI JAN 18 17:12:09 1991

CAKS689I - COMMIT TYPE: CB
CAKS689I - FROM VERSION: TEST
CAKS689I - TO VERSION: TESTXXXX
CAKS668I - CHARGEBACK CHECKING COMPLETE.
CAKS690I - DATABASE COMMIT BEING PERFORMED.
CAKS613I - COMMIT PROCESSING COMPLETED SUCCESSFULLY
```

A

SUBSYS=DB23:

This parameter is defined in CA JARS/OLF CAIKSPAR parameter file and provides your database's SUBSYSTEM_ID. This example uses DATABASE2 - DB23.

B

WHATSQL=DB2:

This parameter is defined in CA JARS/OLF CAIKSPAR parameter file and identifies the type of SQL you are using: either DB2 or Datacom. This example uses DB2.

The COPY Option

During Commit processing, the version of **all** existing definitions contained within the specified Development version are changed. In order to modify **any** definitions contained within the committed version, add new record definitions, delete any record definitions, it is necessary to **copy** the committed record definitions to one of the Development versions.

Copying of definitions is accomplished by executing the COPY option of the Archive/Restore program.

```
COPY CB fromver tover { REFRESH }
```

where:

fromver

The CA JARS/OLF eight-character version to be copied from. The first four characters refer to the Acct version and must be PROD or TEST and up to four characters that complete the CA JARS/OLF version identifier.

tover

The four-character field which must be PROD or TEST (identifies Acct version).

REFRESH

Deletes all Development definitions currently contained in the *tover* prior to copying the requested committed version's definitions to the specified Development version.

Example

To copy CA JARS/OLF committed definitions TESTABC to the Development TEST version use the following control statement:

```
COPY CB TESTABC TEST REFRESH
```

The following diagram shows you how different CA JARS/OLF definition tables are referenced before and after use of the COPY option.

Table	Before Copy	After Copy	
	Version	New Dev. Develop.	Existing Committed
ACCSRTAB	TEST		TEST
ACCSTTAB	TEST		TEST
ACCTLOOK	TEST		TEST
PERTAB	TEST		TEST

Table	Before Copy	After Copy	
	Version	New Dev. Develop.	Existing Committed
CHOPTAB	TESTABC	TEST	TESTABC
ELEMTAB	TESTABC	TEST	TESTABC
MODTAB	TESTABC	TEST	TESTABC
NORMTAB	TESTABC	TEST	TESTABC
QUALTAB	TESTABC	TEST	TESTABC
QUERYTAB	TESTABC	TEST	TESTABC
RATETAB	TESTABC	TEST	TESTABC
SPLITTAB	TESTABC	TEST	TESTABC
SUMTAB	TESTABC	TEST	TESTABC

UNITTAB	TESTABC	TEST	TESTABC
	_____	_____	_____

COPY Option JCL (CAKRCPY)

```
//CAKRCPY JOB (ACCTINFO), 'PMGR', CLASS=B, REGION=4M, MSGCLASS=X
//*****
/* PURPOSE: THIS JOB COPIES A COMMITTED VERSION OF THE CA JARS/OLF
/*          TABLES TO A WORKING SET.
/*
/* INSTRUCTIONS:
/* 1. THIS JCL USES THE CAKSARES PROC PROVIDED IN THE SAMPLE JCL.
/*    EITHER COPY THE PROC TO THIS JCL OR ADD TO YOUR SYSTEM USER
/*    PROCLIB.
/* 2. MODIFY THE JOB CARD ACCORDING TO YOUR INSTALLATION STANDARDS.
/* 3. CHANGE THE HIGH LEVEL QUALIFIERS TO REFLECT THE CORRECT VALUES.
/* 4. MODIFY THE STEP010.SYSIN CONTROL STATEMENTS TO REFLECT THE
/*    APPROPRIATE PARAMETERS FOR PROCESSING.
//*****
//COPY EXEC PROC=CAKSARES,
//      INDEX='CAI',           <--- CUSTOMIZE
//      DCIND='CAI',          <--- CUSTOMIZE
//      SYSOUT='*'            <--- CUSTOMIZE
//*****
/* THE CONTROL STATEMENTS ARE PASSED TO THE *
/* CAKSARCH PROC BY THE STEP010.SYSIN DD.  *
/* MODIFY AS OUTLINED IN STEP 4           *
//*****
/*
//STEP010.SYSIN DD *
COPY CB TESTTEST TEST REFRESH
```

Copy Option Output

When the Archive/Restore program successfully copies your tables, you receive printed output that looks like this:

```
CA                - Q ARCHIVE/RESTORE PROGRAM                PAGE  1
CA JARS/OLF 1.0 9110WF100                REPORT                FRI JAN 18 17:07:02 1991
                USING: DATABASE=, SUBSYS=DB23, WHATSQL=DB2

                A                B
INPUT:
COPY CB TESTTEST TEST REFRESH
CAKS563I Processing Table: PERTAB
CAKS564I Processing Complete for: PERTAB
CAKS563I Processing Table: ACCSRTAB
CAKS564I Processing Complete for: ACCSRTAB
CAKS563I Processing Table: ACCSTTAB
CAKS564I Processing Complete for: ACCSTTAB
CAKS563I Processing Table: ACCTLOOK
CAKS564I Processing Complete for: ACCTLOOK
CAKS563I Processing Table: ELEMENTAB
CAKS564I Processing Complete for: ELEMENTAB
CAKS563I Processing Table: RATETAB
CAKS564I Processing Complete for: RATETAB
CAKS563I Processing Table: UNITTAB
CAKS564I Processing Complete for: UNITTAB
CAKS563I Processing Table: QUALTAB
CAKS564I Processing Complete for: QUALTAB
CAKS563I Processing Table: NORMTAB
CAKS564I Processing Complete for: NORMTAB
CAKS563I Processing Table: MODTAB
CAKS564I Processing Complete for: MODTAB
CAKS563I Processing Table: SPLITTAB
CAKS564I Processing Complete for: SPLITTAB
CAKS563I Processing Table: CHOPTAB
CAKS564I Processing Complete for: CHOPTAB
CAKS563I Processing Table: SUMTAB
CAKS564I Processing Complete for: SUMTAB
CAKS575I END OF PROCESSING (0)
CAKS615I - COPY PROCESSING COMPLETED SUCCESSFULLY
```

A

SUBSYS=DB23:

This parameter is defined in CA JARS/OLF CAIKSPAR parameter file and provides your database's SUBSYSTEM_ID. This example uses DATABASE2 - DB23.

B

WHATSQL=DB2:

This parameter is defined in CA JARS/OLF CAIKSPAR parameter file and identifies the type of SQL you are using: either DB2 or Datacom. This example uses DB2.

CA JARS/OLF Processing

CA JARS/OLF Daily Processing

The CA JARS/OLF program, CAWFLOAD, reads the ORD Data file and uses the committed version of the CA JARS/OLF definitions to apply charges to the CCCTAB (Consolidated Calculated Charges data table) and, if specified, create a Reconciliation file. This process uses two interdependent parameter files to process the ORD file:

- CAIKSPAR parameter provides global parameters for processing
- CAIKRPAR parameter provides specific control parameters for CA JARS/OLF batch processing

The CAWFLOAD can *optionally* produce a disk dataset of any invalid records and/or a reconciliation file.

Two optional User Exit points, CA\$KRLD and CA\$KREX, are provided for your convenience. Refer to [u](#) (see page 438) for a detailed discussion of this feature.

Caution: Daily processing does not perform checking for duplicate input.

CA JARS/OLF Record Processing Overview

Record processing is performed in the following order:

Record processing commences in the following order:

1. If a Shift Chop has been defined, any record meeting the defined criteria is **chopped** into the appropriate number of shifts.
2. Charge unit calculations are performed.
3. If normalizers have been defined, those records meeting the specified criteria have their charge units adjusted to reflect the appropriate normalization factor.
4. Rate selection is performed. This includes determining whether qualified rates, or maximum or minimum rates should be applied.
5. Charges are calculated (rate * units).
6. Split Charges are applied to the calculated charges.

7. Modifiers are applied to the calculated charges.
8. User exit is called if specified.

```
-----  
| Shift Chop |  
-----  
  |  
  v  
-----  
|   Unit   | Base Unit  
-----|-----  
          | Calculated  
  |  
  v  
-----  
| Normalizers| Normalizers applied  
-----|-----  
          | applied to unit  
          | calculation  
  |  
  v  
-----  
|Rate Select.| Qualifiers  
-----|-----  
          | checked  
  |  
  v  
-----  
|Charges    |  
| Calculated|  
-----  
  |  
  v  
-----  
|Splits     |  
| Applied   |  
-----  
  |  
  v  
-----  
|Modifiers  |  
| Applied   |  
-----  
  |  
  v  
-----  
| User      |  
| Exit      |  
-----
```

Processing Requirements

Memory Requirements

Provide as much storage as possible for the CAWFLOAD process. All referenced definitions are loaded into memory during the initial startup phase of CAWFLOAD. If the region size is too small, the CAWFLOAD process terminates. Termination happens because of performance considerations: A larger region results in fewer DASD accesses which yields faster throughput. Therefore, limit the OUTREC control statement to only those definitions that are required.

Temporary Work Area

The amount of temporary work area needed on DASD units varies depending on the volume of data to be processed and the type of DASD units used.

Permanent Disk Space

The amount of permanent disk space needed for the reconciliation data file also varies depending on the volume of data to be processed and the type of DASD units used.

Processing Recommendations

- If you plan to use the Reconciliation data file, establish Generation Data Groups to define its data set names. This allows you to avoid continual JCL modifications to CAWFLOAD.

Example:

```
//RECON DD DSN=OLF.RECON.DATA.FILE(+1)
```

This JCL outputs a new Reconciliation file each time CAWFLOAD is processed.

CAWFLOAD Statements and Parameters

CAWFLOAD uses a combination of control statements and parameter files in processing. The control statements relate to the processing of the JARS history files while the parameter files provide specific information about CCCTAB processing.

Control Statements

The control statements determine:

- Which input files are to be processed
- Which ORD names are to be selected from the input file(s) for processing and written to the output data file
- Which error handling procedures to follow

There are seven different kinds of control statements which are summarized below.

	Statement Type	Control Type	Purpose
Required	Input	INPUT	Defines data sets containing input data.
	Output	OUTREC	Selects which ORD names are to be processed and retained on the output data file.
Optional	Output File	OUTPUT	Defines the JCL DDNAME of the output data file.
	Error Handling	RECYCLE OUTPUT	Writes invalid records found during processing to a sequential file.
		RECYCLE INPUT	Processes corrected RECYCLE OUTPUT records.
		ERRORS	Defines the error threshold before processing terminates. Required when you RECYCLE OUTPUT.
Reporting	LINES	Defines the number of lines per page for the CAWFLOAD control reports.	

Each of these statements are discussed in detail later in this section.

Combine these control statements according to these guidelines:

- Put each statement on a separate line.
- When listing ddnames or ORD names, use a comma to separate entries.
- If a control statement doesn't fit on one line, end that line with a dash (-) to indicate continuation on the next line.

Required Statements

INPUT Statement

Defines the ddnames of *data sets* from which CA JARS/OLF acquires input data. Use as many INPUT control statements as necessary. Default: none

```
INPUT internal-ddname{ =JCL-ddname          }
                      { =(JCL-ddname- ,JCL-ddname- ,...)  }
```

where:

internal-ddname

Specifies the seven-character **internal DDNAME** that you define online via the Input Record Description panel (below). All predefined records that are provided with CA JARS/OLF use an internal ddname of JARS.

JCL-ddname

Specifies the seven-character JCL DDNAME that points to the data set containing this input.

Example	Explanation
INPUT JARS = CAIKSJR	Processes all IRDs with an internal ddname of JARS. The input data that corresponds to these IRDs has the JCL ddname of CAIKSJR.

Note:Each output record specified with an OUTREC statement includes a field called **IRD Name**.Therefore, each output record you specify with OUTREC implicitly references its IRDId. Omitting the input file where such an IRDId is stored causes errors.

OUTREC Statement

Selects all input records that correspond to the specified ORD names within the version indicated. Only use one control statement per run.

```
OUTRECS= { ALL          }
          { ord-name     }
          { (ord-name1,ord-name2,...) }
```

where:

ord-name

Specifies one or more ORD Names that CA JARS/OLF includes in the output data file. Default: none.

Note: The OUTREC statement defines the ORD name while the INPUT statement defines the internal and JCL ddnames. CA JARS/OLF implicitly references the ORD tables to identify which IRDs go with these ORDs.

Example	Explanation
OUTREC=ALL	Outputs all records specified on the INPUT statement to the output data file.
OUTREC=MBJ	Selects the input record which corresponds to the ORD Name MBJ
OUTREC=(MBJ, MBS, MBI, - MCT)	Outputs these four ORD names to the output data file.

For more information:

[Predefined CA JARS History Records](#) (see page 511)

Optional Statements

LINES Statement	CAWFLOAD produces printed output. This control statement tells how many lines per page to print.(25-99) Omitting a LINES statement assigns LINES a default value of 56. Default: LINES 56	LINES= {25-99}
OUTPUT Statement	When executing CAWFLOAD, the OUTPUT statement either must be set to CAIKSOP or must default to CAIKSOP. Default: OUTPUT=CAIKSOP	OUTPUT=ddname

The next three control statements determine how CAWFLOAD handles IRD records that contain invalid data. Such records are always printed and can optionally be written to a file for correction at a later time. This file of corrected records can be read back in during a later run.

RECYCLE OUTPUT Statement	Specify the ddname of a data set where CAWFLOAD should write records that cause errors. Omitting a ddname with RECYCLE OUTPUT invokes the default value. Omitting the entire statement prevents CA JARS/OLF from writing errors to the CAIKSRO file. Default: RECYCLE OUTPUT=CAIKSRO	RECYCLE OUTPUT [=ddname] [CAIKSRO]
ERRORS Statement	The maximum number of errors allowed before processing terminates. Any errors found are written on page 2 of CAWFLOAD output. When the RECYCLE OUTPUT statement is specified, the value for ERROR must be greater than zero (1-99). If the ERRORS statement is omitted, CA JARS/OLF assumes a default value of zero. Default: ERRORS=0	ERRORS= { 1-99 }
RECYCLE INPUT Statement	The ddname of the data set that contains corrected input data from a previous run. Omitting a ddname on the RECYCLE INPUT statement invokes the default value. Omitting the entire control statement prevents CA JARS/OLF from processing corrections. Default: RECYCLE INPUT=CAIKSRI	RECYCLE INPUT [=ddname] [=CAIKSRI]

Examples

Example	Explanation
OUTREC=ALL INPUT JARS=CAIKSJR	These control statements process input data stored in data sets with internal ddnames of JARS. ERRORS defaults to zero which means the run terminates the first time it encounters an error. Most users set ERRORS > 0.
OUTREC=ALL INPUT JARS=CAIKSJR ERRORS=20	This run processes data stored in the data set with JCL ddname of CAIKSJR. The first twenty errors are printed out. Any more errors make CAWFLOAD terminate. To correct definitions, you must work from this printout.

Example	Explanation
OUTREC=ALL INPUT JARS=CAIKSJR ERRORS=20 RECYCLE INPUT RECYCLE OUTPUT	The first twenty errors are printed out and written to the file whose ddname is CAIKSRO. Now you can correct these errors online. More than twenty errors causes the run to abend. This run also processes corrected records that were errors in some previous run. The file with the corrected records uses the default ddname of CAIKSRI.

How JCL DD Statements Relate to Control Statements

File Description	These CAWFLD Control Statements	Relate to JCL DDNAME	With These Required DCB Attributes
Input Data Files	INPUT internal-ddname=JCL-	ddname ddnames ddnames (no defaults)	
Output Data	OUTPUT=ddname	ddname	RECFM=VB LRECL=32000
	OUTPUT=CAIKSOP	CAIKSOP (required)	BLKSIZE=32760 DSORG=PS
	OUTPUT omitted	CAIKSOP (default)	
	OUTREC uses this OUTPUT data set.		
Recycle Output	RECYCLE OUTPUT=ddname2	ddname2	
	RECYCLE OUTPUT=CAIKSRO	CAIKSRO (default)	
	RECYCLE OUTPUT	CAIKSRO (default)	
Corrected Error File	RECYCLE INPUT=ddname·	ddname·	
	RECYCLE INPUT=CAIKSRI	CAIKSRI (default)	
	RECYCLE INPUT	CAIKSRI (default)	

ERRORS= and LINES= aren't related to specific data sets.

Parameter Files

Two parameter files, CAIKSPAR and CAIKRPAR, are utilized during processing. Refer [CAIKSPAR Parameter File](#) (see page 404) for additional information.

Setup Checklist

It is recommended that you perform the following steps to ensure that correct Acct and CA JARS/OLF versions are specified for processing:

1. Check the contents of the data set used by CAIKSPAR to verify that the BASE_VER parameter is set to the correct version.
2. Check the contents of the data set used by CAIKRPAR to verify that:
 - BASE_VER and CB_LOAD parameters are set to the correct eight-character CA JARS/OLF version.
 - Any special processing you want is defined.
 - If you want to retain detail charge segments, specify RECON = Y.
 - PERIOD_VERSION is defined.
 - Review the CAWFLOAD JCL. If RECON =Y was specified in the CAIKRPAR data set:
 - A CAIKRREC DD statement is required in the CAWFLOAD JCL
 - The following DCB attributes are required:

```
RECF= V
LRECL= 32000
BLKSIZE= 32004
DSORG=PS
```

Daily Processing JCL (CAWFLOAD)

```

//CAWFLOAD JOB (ACCTINFO), 'PMGR', CLASS=B, REGION=4M, MSGCLASS=X
//*****
//* PURPOSE: THIS JOB STREAM WILL USE A JARS HISTORY FILE *
//*           AS INPUT AND UPDATE THE CA JARS/OLF DATABASE *
//*
//* INSTRUCTIONS: *
//* 1. CUSTOMIZE THE INSTREAM SYMBOLICS. *
//* 2. IF YOUR DATABASE IS DB2, REMOVE THE Datacom *
//*    LIBRARIES AND UNCOMMENT THE DB2 LIBRARY. *
//* 3. CUSTOMIZE DD STATEMENTS PER INSTRUCTIONS *
//*****
//CAWFLOAD PROC INDEX='CAI',          /*DATASET
//      DCIND='CAI',                  /*Datacom
//      DVOL='CAIVOL',                /*VOL SER OF DASD
//      PERMDA='DISK',                /*PERM DASD NAME
//      WORK='SYSDA',                 /*PERM DASD NAME
//      SYSOUT='*'                    /*SYSOUT CLASS
//STEP1 EXEC PGM=CAWFLOAD
//STEPLIB DD DSN=&INDEX. .CAJRLoad, DISP=SHR
//      DD DSN=&INDEX. .CAICICS, DISP=SHR
//      DD DSN=&DCIND. .USERLOAD, DISP=SHR      <-- Datacom
//      DD DSN=&DCIND. .INFOCAI.LOAD, DISP=SHR  <-- Datacom
//      DD DSN=&DCIND. .LOAD, DISP=SHR        <-- Datacom
//      DD DSN=SYS2.DSNLOAD, DISP=SHR        <-- DB2
//SYSPRINT DD SYSOUT=&SYSOUT.
//SORTMSG DD SYSOUT=&SYSOUT.
//SORTWK01 DD UNIT=&WORK., SPACE=(CYL,(20,5),RLSE)
//SORTWK02 DD UNIT=&WORK., SPACE=(CYL,(20,5),RLSE)
//SORTWK03 DD UNIT=&WORK., SPACE=(CYL,(20,5),RLSE)
//SORTWK04 DD UNIT=&WORK., SPACE=(CYL,(20,5),RLSE)
//SORTWK05 DD UNIT=&WORK., SPACE=(CYL,(20,5),RLSE)
//SORTWK06 DD UNIT=&WORK., SPACE=(CYL,(20,5),RLSE)
//SYSUDUMP DD SYSOUT=&SYSOUT.
//SYSOUT DD SYSOUT=&SYSOUT.
//*****
//* CAIKSPAR AND CAIKRPAR DD STATEMENTS DEFINE THE *
//* CA JARS/OLF PARAMETER FILES *
//*****
//CAIKSPAR DD DSN=&INDEX. .CAIKSPAR, DISP=SHR
//CAIKRPAR DD DSN=&INDEX. .CAIKRPAR, DISP=SHR
//*****
//* THE CAIKSOP DD STATEMENT REFERS TO THE ORD FILE. THIS *
//* FILE IS CREATED BY THE CAWFIVP JCL DURING IVP PROCESSING *
//* AND MUST BE PRESENT BEFORE RUNNING. *
//*****
//CAIKSOP DD DSN=&INDEX. .OLF.ORD.DATA.FILE, DISP=OLD <-- CUSTOMIZE
//*****
//* CAIKRREC DD STATEMENT DEFINES THE RECONCILIATION *

```

```

/* FILE. THIS STATEMENT IS REQUIRED IF THE CAIKRPAR      *
/* PARM FILE CONTAINS RECON=YES.                        *
/******
//CAIKRREC DD DSN=&INDEX..OLF.OUTPUT.RECONC,          <-- CUSTOMIZE
//          UNIT=&PERMDA.,DISP=(NEW,CATLG,DELETE),
//          SPACE=(CYL,(1,1)),VOL=SER=&DVOL.,
//          DCB=(RECFM=VB,LRECL=32000,BLKSIZE=32004,DSORG=PS)
/******
/* CAIKSJR DD STATEMENT DEFINES THE INPUT DATASET. THE *
/* DDNAME MUST MATCH THE FOLLOWING CONTROL STATEMENT: *
/*      INPUT JARS =                                     *
/* IF THIS FILE WILL BE FROM TAPE, BE SURE TO INCLUDE *
/* THE DCB PARAMETERS.                                 *
/******
//CAIKSJR DD DSN=CAI.JARS.HISTORY,DISP=SHR           <-- CUSTOMIZE
/******
/* CAIKSRI DD STATEMENT DEFINES THE INPUT DATASET FOR *
/* CORRECTED ERROR FILE TO BE INPUT TO THIS PROCESS. *
/* USE THIS WITH THE FOLLOWING CONTROL STATEMENT:     *
/*      RECYCLE INPUT                                   *
/******
/*CAIKSRI DD DSN=&INDEX..OLF.ERROR.FILE,DISP=SHR     <-- CUSTOMIZE
/******
/* CAIKSRO DD STATEMENT DEFINES THE OUTPUT DATASET FOR *
/* THE ERROR FILE.                                    *
/* USE THIS WITH THE FOLLOWING CONTROL STATEMENT:     *
/*      ERRORS =                                       *
/******
/*CAIKSRO DD DSN=&INDEX..OLF.ERROR.FILE,              <--CUSTOMIZE
/*          UNIT=&PERMDA.,DISP=(NEW,CATLG,DELETE),
/*          SPACE=(TRK,(10,10)),VOL=SER=&DVOL.,
/*          DCB=(RECFM=VB,LRECL=3200,BLKSIZE=32760,DSORG=PS)
//SYSIN DD DDNAME=SYSIN
// PEND
//STEP01 EXEC CAWFLOAD
//STEP1.SYSIN DD *
INPUT JARS = CAIKSJR
OUTRECS   = MBJ

```

CAWFLOAD User Exits

This user exit provides a means of manipulating output data records before they are written to disk. Therefore, this exit point can modify the construct.

The following information describes the detail linkage conventions for interfacing to CA JARS/OLF's user exit.

- This user exit should be written in Assembler Language.
- The user exit uses standard IBM linkage conventions.
- The exit routine, CA\$KREX, must reside in a LNKLST library or in the library in which CA JARS/OLF resides, as indicated by the STEPLIB DD statement, or in a library concatenated to the STEPLIB DD statement.
- It is not necessary to link edit an exit routine with any part of CA JARS/OLF. The exit routine is compiled and linked independently of CA JARS/OLF. CA JARS/OLF uses a *late binding* technique of exit name specification.
- Every call to any exit point by CA JARS/OLF is identical, except for EOF on input. That is, there is no *first time* flag or signal to the exit.
- Please note that this exit doesn't have to be reentrant (RENT) or reusable (REUS).
- The name of the exit **must** be CA\$KREX.

A sample user exit, CA\$KREX can be found in the CAJRSAMP library.

The CA\$KRLD User Exit for CAWFLOAD

The following information describes the detail linkage conventions for interfacing to CA JARS/OLF's user exit.

To accommodate installation accounting and reporting requirements not supported by CA JARS/OLF standard features, a user exit routine is provided to augment or modify the actions normally taken. This user exit should be written in Assembler Language, although any language with standard IBM linkage is acceptable, such as COBOL.

The exit routine, CA\$KRLD must reside in a LNKLST library or in the library in which CA JARS/OLF resides, as indicated by the STEPLIB DD statement, or in a library concatenated to the STEPLIB DD statement.

It is not necessary to link edit an exit routine with any part of CA JARS/OLF. The exit routines are compiled and linked independently of CA JARS/OLF. CA JARS/OLF uses a *late binding* technique of exit name specification.

The user exits use standard IBM linkage conventions. Upon entry from CA JARS/OLF, the registers are as follows:

Register	Description
15	Address of exit routine's entry point
14	Return address
13	Address of register save area
1	Address of parameter list as defined on the next page

- Each call to any exit point by CA JARS/OLF is identical, except the case of EOF on input. That is, there is no *first time* flag or signal to the exit.
- Please note that these exits do not have to be reentrant (RENT) nor reusable (REUS).
- The name of the exit **must** be CA\$KRLD.

A sample user exit is provided as member name CA\$KRLD in the CAJRSAMP library.

```

CA$KRLD  CSECT
*
*****
*
*      CA$KRLD
*
* THIS ROUTINE SHOULD BE REPLACED BY THE USER IF AN EXIT ROUTINE IS
* NEEDED. IT MUST FOLLOW STANDARD IBM LINKAGE CONVENTIONS. THIS
* ROUTINE TAKES ONE PARAMETER WHICH IS A POINTER TO THE E15 PROCESS
* DATA BUFFER.
*
* THIS DUMMY ROUTINE RETURNS WITH A RETURN CODE OF ZERO.
*
* THE USER WRITTEN ROUTINE SHOULD:
*
*      RETURN ZERO MEANING WRITE, DO NOT CALL AGAIN
*          FOUR      WRITE, CALL AGAIN
*          EIGHT     DO NOT WRITE, DONE WITH EXIT PROCESSING
*
*      ANY OTHER RETURN CODE WILL CAUSE CAWFLOAD TO TERMINATE
*
*      FIELD          LENGTH  PARMAMETER  TYPE
*                      LIST +
*
*      VERSION          8        0        CHARACTER
*      ORCID            3        8        CHARACTER
*      STRUCTURE 1     16       11       CHARACTER
*      STRUCTURE 2     16       27       CHARACTER
*      STRUCTURE 3     16       43       CHARACTER
*      STRUCTURE 4     16       59       CHARACTER
*      STRUCTURE 5     16       75       CHARACTER
*      PERIOD NUMBER   4        91       BINARY
*      ELEMENT         16       95       CHARACTER
*      QUALIFIER       16      111       CHARACTER
*      MODIFIER        16      127       CHARACTER
*      RATE            8        143      PACKED
*      SPLIT FLAG      1        151      CHARACTER
*      MODIFIED FLAG   1        152      CHARACTER
*
*
*                      END OF THE SORT KEY
*
*      COUNT           4        153      BINARY
*      PERIODBILLED    4        157      BINARY
*      UNITS           8        161      PACKED
*      CHARGE          8        169      PACKED
*
*
*

```



```
*****
*
R1      EQU   1
R2      EQU   2
R3      EQU   3
R4      EQU   4
R5      EQU   5
R6      EQU   6
R7      EQU   7
R8      EQU   8
R9      EQU   9
R10     EQU  10
R11     EQU  11
R12     EQU  12
R13     EQU  13
R14     EQU  14
R15     EQU  15
*
          USING *,R15          ESTABLISH BASE REGISTER
          L      2,0(1)        LOAD REG WITH CALLER'S PARM LIST
*
*****
*
*      EXIT CODE GOES HERE
*
*****
*
          SLR   R15,R15          RETURN CODE ZERO FOR THIS STUB
          BR    R14
          LTORG
          END
```

Daily Processing Output

The output of CAWFLOAD processing consists of two separate sets of reports, JARS/OLF Input Processing Reports and the JARS/OLF Input Processing Summary Report. Output samples from each set of reports are provided on the next page.

Input Processing Reports

COMPANY NAME		JARS/OLF INPUT PROCESSING		PAGE 1
CA JARS/OLF 1.0 109110WF100				02 OCT 1990 14.00.07
-----CONTROL STATEMENT LISTING-----				
STATEMENT	*-----CONTROL STATEMENTS-----*			
NUMBER	*.../...1.../...2.../...3.../...4.../...5.../...6.../...7.../...8*			
001	* INPUT JARS = CAIKSJ			
002	* OUTRECS = MBJ *			
A	003	* RECYCLE OUTPUT *		
004	* ERRORS = 20 *			
.../...1.../...2.../...3.../...4.../...5.../...6.../...7.../...8				
-----CONTROL STATEMENT ERROR MESSAGES-----				
STATEMENT	MESSAGE	CODE	*-----MESSAGE TEXT-----*	
B	NUMBER			
-----DEFINITIONS DATABASE LOAD ERROR MESSAGES-----				
STATEMENT	MESSAGE	CODE	*-----MESSAGE TEXT-----*	
C	NUMBER			

COMPANY NAME		JARS/OLF INPUT PROCESSING		PAGE 2
CA JARS/OLF 1.0 109110WF100				02 OCT 1990 14.00.07
D AKS100I NORMAL TERMINATION.				

COMPANY NAME		JARS/OLF INPUT PROCESSING		PAGE 3
CA JARS/OLF 1.0 109110WF100				02 OCT 1990 14.00.07
-----INPUT STATISTICS-----				
E DATASET	F DDNAME	G READ	H IRDID	I RECORDS GENERATED
JARS	CAIKSJ	544	MBJ	213
		544		213
** TOTALS **		544		213
-----OUTPUT STATISTICS-----				
J DDNAME	ORDID	K	L	RECORDS WRITTEN
CAIKSOP	MBJ			213
				213
-----RECYCLE STATISTICS-----				
M DDNAME	N RECORDS	O DDNAME	P	OUTPUT RECORDS
		CAIKSRO		0

A

CONTROL STATEMENT LISTING lists the control statements CA JARS/OLF processed while running this job.

B

CONTROL STATEMENT ERROR MESSAGES explain errors detected within CAWFLOAD control statements.

C

DEFINITION DATABASE LOAD ERROR MESSAGES explain errors detected in input record definitions.

D

Messages should include a CAKS100I NORMAL TERMINATION message that verifies that the job ran successfully.

E

DATASET shows the values to the left of the equal sign on INPUT control statements. These are internal ddnames used exclusively by CA JARS/OLF.

F

DDNAME specified the JCL ddname associated with this data set. These values appear to the right of the equal sign in INPUT control statements.

G

RECORDS READ shows the number of input records this data set contains.

H

IRDID lists the ORD record types selected for generating output.

I

RECORDS GENERATED tells the number of records generated from this input.

J

DDNAME reports the ddname of the data set where these output records were written.

K

ORDID lists the ORD types CA JARS/OLF generated as output.

L

RECORDS WRITTEN tells the number of records written to this data set.

M

INPUT DDNAME gives the ddname of the data set containing corrected errors processed during this run.

N

INPUT RECORDS tells the number of corrections processed.

O

OUTPUT DDNAME specifies the ddname of the data set where errors detected during this run were written.

P

OUTPUT RECORDS tells the number of bad input records written to the error data set.

Input Processing Summary Report

When CA JARS/OLF successfully loads your tables, you receive printed output that looks like this:

PAGE 1		CA RESTON QA	JARS/OLF INPUT PROCESSING	
CA JARS/OLF 1.0	109110WF100		SUMMARY REPORT	SAT JAN 13 17:08:57 1991
A	RECORDS READ:		397	
B	SPLIT RECORDS CREATED:		0	
	ORIGINAL RECORDS CREATED:	C	1985	
D	MODIFIED RECORDS CREATED:		0	
E	TOTAL NUMBER OF RECORDS CREATED:		1985	
	RECORDS INSERTED INTO CCCTAB:	F	15	
G	RECORDS UPDATED IN CCCTAB:		5	
H	ACCT VERSION: PROD			
I	APPLICATION VERSION	STARTING PERIOD	ENDING PERIOD	RECORDS READ IN
J	ABCD (default)	0	0	397
K	UNIT PRECISION: 3			
L	RATE PRECISION: 8			
M	CHARGE PRECISION: 4			

A

Records Read: The number of records read from the ORD Data file.

B

Split Records Created: If record is split according to SPLITTAF.

C

Original Records Created: Records to which Shift Chop or Modifiers have been applied.

D

Modified Records Created: If modifiers are applied to any ORD data records, this field reflects the number of modified records created.

E

Total Number of Records Created: This is the total of B + C + D. The total number of charge elements.

F

Records Inserted into CCCTAB: New, uniquely keyed records that have been added to the CCCTAB.

G

Records Updated in CCCTAB: Existing records with matching keys. Updates count, units and charge.

H

Acct Version: The CA JARS/OLF BASE_VERSION contained in the CAIKRPAR during processing.

I

All PERIOD_FILE parameters are listed. However, the record count of the number of records read in pertains only to the version to which the data applies.

J

The PERIOD_VERSION specified in the CAIKRPAR file did **not** specify a CBLOAD_VERSION. Therefore, the period processed defaulted to CB_VERSION specified. In this case, ABCD.

K

UNIT_PREC: Displays the value specified in the CAIKSPAR parameter file.

L

RATE_PREC: Displays the value specified in the CAIKSPAR parameter file.

M

CHARGE_PREC: Displays the value specified in the CAIKSPAR parameter file.

Batch Forecasting (CAKRFCSB)

Future unit and charge consumption values can be projected or forecasted via the CAKRFCSB program (member name CAKRFCST). The process uses the contents of the CCCTAB table to generate a CCCMOD table. The CCCMOD table is comprised of:

- data extracted from the CCCTAB
- forecast data based on the contents of the CCCTAB

You specify the forecast selection criteria and information needed to generate the CCCMOD table through the use of control statements.

Note: Each time you submit control statements for the batch forecast process, CA JARS/OLF replaces the contents of the existing CCCMOD table with new forecasted data.

Once the CCCMOD table is generated, you can view detail unit and charge consumption values using the online Period functions facility. Do the following:

1. Select **Options**, make sure that the Base and CB Version are equal to the version used in creating the CCCMOD table.
2. Select **Period**
3. Select **Forecasting**

The following defines CA JARS/OLF forecast control statements. There are two types of control statements. These provide the forecast selection criteria and the information needed to create a CCCMOD table.

CAKRFCST Control Statements

You enter the batch statements via the SYSIN DD statement of the CAKRFCST CAJRJCL member.

The following keywords define CA JARS/OLF Forecast control statements. The format is: **keyword** = value. If no value is specified for the control statement, all records from the CCCTAB table are applicable.

ORD_TYPE =

Records from the CCCTAB table are selected based on this three-character output record identifier name.

ELEMENT =

Records from the CCCTAB table are selected based on this charge element (up to 16 alphanumeric characters).

START_PERIOD =

The start of the range of records which are selected from the CCCTAB table. Selections for this control statement should be three-character numerics.

END_PERIOD =

The end of the range of records which are selected from the CCCTAB table. Selections for this control statement should be three-character numerics.

Note: It is recommended that forecasting be performed only on closed periods. This ensures that the data used for forecasting is accurate. Refer to the period closing process for details.

QUALIFIER =

Records from the CCCTAB table are selected based on this conditional test. You can specify up to 16 alphanumeric characters.

STRUCT1 =

Specify the name of the defined accounting level for which records are selected.

STRUCT2 =

Specify the name of the defined accounting level for which records are selected.

STRUCT3 =

Specify the name of the defined accounting level for which records are selected.

STRUCT4 =

Specify the name of the defined accounting level for which records are selected.

STRUCT5 =

Specify the name of the defined accounting level for which records are selected.

The following control statements determine how the CCCMOD table is generated, and the form in which its contents are stored.

AVERAGE=

Determines if the projected periods that result from forecasting is stored individually or as one average projected period in the CCCMOD table. Valid entries are Y or N.

ALGORITHM =

The forecast method or copy function to be performed. Valid entries for this field are:

COPY

Records from the CCCTAB table are copied to the CCCMOD table based on the periods specified for the START_PERIOD and END_PERIOD control statements and any selection criteria.

LINE

The periods specified for the START_PERIOD and END_PERIOD control statements are used by the Line algorithm to compute the weighted moving average. The weighted moving average forecasts the number of periods specified for the NUMBER_TO_FORECAST control statement.

SMOOTH

The Smooth algorithm is an exponential method of forecasting. It is especially useful when recent consumption and charge values predict future values better than those of the more remote past. User-defined control statements Alpha and Delta are used as smoothing constants when Smooth is specified.

ALPHA =

This control statement is applicable only when SMOOTH is specified as the ALGORITHM. Alpha is used to modify or lessen the effects of short term or random changes. There is no default: up to four decimal values are permitted.

Values can be between 0 and 1.

DELTA =

Is applicable only when SMOOTH is selected as the ALGORITHM. Delta is used to determine the level of smoothing and the speed of reaction to differences between forecasts and actual usage. Acceptable values are between 0 and 1.

MODIFIER =

A five-character control statement that determines how modifier records are used during the forecast process. Valid entries include:

YES

Modifier records are treated as separate records for the forecast process. A forecast generated using this option depicts a true financial forecast.

NO

Modifier records are not considered during the forecast process. This option is used when you are concerned with unit utilization.

MERGE

If a given record has a modifier record(s) associated with it, the modifier record(s) is combined with the original record to form one record.

NUMBER_TO_FORECAST =

This control statement specifies the number of periods projected into the future. Acceptable values are three-character numerics.

Note:

- You can forecast up to half the number of completed periods selected from the CCCTAB table.
- No more than six periods can be forecasted.

KEEP_STRUCTURE =

This control statement indicates the accounting levels CA JARS/OLF maintains on the CCCMOD table. You can specify any number between 1 and 5, or 0. Records are grouped and summarized by the accounting level(s) selected.

Example:

Entering a 1 indicates that the highest accounting level will be maintained. Records with similar highest accounting level are grouped and summarized on the CCCMOD table. Entering a 5 indicates that all accounting levels are maintained and no summarization is to take place.

VERSION =

Specifies the full eight-character CA JARS/OLF version name used in the forecast. You can specify multiple versions by using the SQL wildcard character, along with any combination of alphanumeric characters. The VERSION control statement is used for both selection criteria and forecast generation.

Note: Before using the online Period functions to view the CCCMOD table, ensure that the version used in the Options function. is the same as the one specified for this control statement. If you specify the SQL wildcard for this control statement, the CCCMOD table retains only the last version. This is the version that **MUST** be used in the Options function.

Forecast Methods Summary

CA JARS/OLF allows for three types of forecast methods: Manual, LINE and SMOOTH. All of these methods extract actual data from the CCCTAB table and either copies the data, or uses it to forecast data to the CCCMOD table. Once a CCCMOD table is created, the Period functions online facility can be used to perform **what if analysis** on the charge and unit consumption values.

Manual

To perform a manual forecast, specify COPY for the ALGORITHM control statement. Once a copy of the selected records is made, you can adjust the values displayed on the various online forecasting panels.

LINE

The Line algorithm computes the weighted moving average for the periods requested based upon historical data. It computes an average of the range of periods specified by the START_PERIOD and END_PERIOD control statements, giving each period a weight. The more recent the period, the greater the weight it is given. The average computed is then used as a forecast period.

If the value specified for the NUMBER_TO_FORECAST control statement is greater than one, each period forecasted is used to generate subsequent forecast periods. You can forecast up to six periods.

SMOOTH

The Smooth algorithm is an exponential method of forecasting with trending. This method bases its forecast on recent consumption values rather than on remote ones. Two smoothing constants, ALPHA and DELTA are used to compute the forecast.

ALPHA is used to keep up with the changes in demand. It can be any value between 0 and 1. If the charge and unit consumption of the records of the CCCTAB vary slightly from one period to the next, a small value of alpha (<.4) should be used. If the values in the CCCTAB are increasing or decreasing quickly, a larger value of alpha (>.5) should be used.

Often over a period of time, the exponential forecast slightly differs from that of the actual occurrence. This is due to the upward or downward shifts in data. **DELTA**, a smoothing constant is part of a trend adjustment used to counter the affects of these shifts. It can be any value between 0 and 1.

Note: Forecast algorithms use only actual data from the CCCTAB to perform the forecast. Minimum and maximum charge values are **not** applied.

Control Statement Summary

The following table shows which control statements are required (Req) or Optional (Optl) for processing each of the Forecast Algorithms.

FORECAST	FORECAST Methods		
Control Statements	Smooth	Line	Copy
ORD_TYPE	Optl	Optl	Optl
ELEMENT	Optl	Optl	Optl
QUALIFIER	Optl	Optl	Optl
STRUCT# (1 - 5)	Optl	Optl	Optl
START_PERIOD	Req	Req	Req
END_PERIOD	Req	Req	Req
NUMBER_TO_FORECAST	Req	Req	N/A
AVERAGE	Req	Req	Req
ALGORITHM	Req	Req	Req
MODIFIER	Req	Req	N/A
KEEP_STRUCTURE	Req	Req	N/A

FORECAST	FORECAST Methods		
ALPHA	Req	Req	N/A
DELTA	Req	N/A	N/A
VERSION	Req	Req	Req

Once information needed to generate the CCCMOD table is specified, the periods requested from the CCCTAB are used by the SMOOTH and LINE algorithms to project future periods. The first projected period is the period following the period specified for the END_PERIOD control statement. Subsequent periods follow.

Example:

If 001 is specified for the START_PERIOD, 004 is specified for the END_PERIOD, and 002 is specified for the NUMBER_TO_FORECAST control statement, the periods forecasted are periods 5 and 6.

Forecasting JCL (CAKRFCST)

```

//CAKRFCST JOB (ACCTINFO), 'PMGR',CLASS=A,REGION=4M,MSGCLASS=X
//*****
//* SAMPLE JCL TO EXECUTE JARS/OLF BATCH FORECASTING.          *
//*****
//* NOTE: THIS JOB WILL CREATE A NEW CCCMOD TABLE              *
//* NOTE: IF A CCCMOD CURRENTLY EXISTS, IT WILL BE DELETED     *
//* DURING THIS PROCESS.                                       *
//*****
//* THE FOLLOWING MODIFICATIONS WILL NEED TO BE MADE:         *
//*                                                             *
//* 1. CHANGE THE HIGH LEVEL QUALIFIER OF THE STEPLIB DD       *
//*    STATEMENTS TO REFLECT THE CORRECT HIGH LEVEL QUALIFIER. *
//*                                                             *
//* 2. IF YOUR DATABASE IS DB2, REMOVE THE Datacom LIBRARIES  *
//*    FROM THE STEPLIB CONCATENATION AND ENSURE THAT THE     *
//*    APPROPRIATE DB2 DATASET NAME IS INCLUDED IN THE STEPLIB. *
//*                                                             *
//* 3. BATCH FORECASTING CONTROL STATEMENTS ARE PROVIDED VIA THE*
//*    CAFCSPT DD STATEMENT. REFER TO THE CA PMA/CHARGEBACK    *
//*    USER GUIDE FOR DETAILS OF ALL FORECAST CONTROL STATEMENTS*
//*                                                             *
//*****
//*
//*
//STEP001 EXEC PGM=CAKRFCST
//STEPLIB DD DSN=CAI.CAJRLOAD,DISP=SHR <--- CUSTOMIZE
//          DD DSN=CAI.CAICICS,DISP=SHR <--- CUSTOMIZE
//          DD DSN=CAI.USERLOAD,DISP=SHR <--- Datacom LIBRARY
//          DD DSN=CAI.INFOCAI.LOAD,DISP=SHR <--- Datacom LIBRARY
//          DD DSN=CAI.LOAD,DISP=SHR <--- Datacom LIBRARY
//*        DD DSN=SYS2.DSNLOAD,DISP=SHR <--- DB2 LIBRARY
//SYSPRINT DD SYSOUT=*
//*
//CAIKSPAR DD DSN=CAI.PMAPARM,DISP=SHR <--- CUSTOMIZE
//*****
//* DEFINE THE FORECAST CONTROL STATEMENTS AFTER THE*
//* CAFCSPT DD STATEMENT.                                  *
//*****
//CAFCSPT DD *
START_PERIOD = 1 <--- CUSTOMIZE
END_PERIOD = 2 <--- CUSTOMIZE
ALGORITHM= LINE <--- CUSTOMIZE
VERSION = TESTTEST <--- CUSTOMIZE
MODIFIE = NO <--- CUSTOMIZE
NUMBER_TO_FORECAST = 1 <--- CUSTOMIZE
AVERAGE = YES <--- CUSTOMIZE

```

Forecasting Control Reports

The following is a sample control report showing the **successful** generation of a CCCMOD table. The report shows the control statements that were used to create the CCCMOD table.

```

CA RESTON QA                                CHARGEBACK BATCH FORECASTING                PAGE 1
JARS/OLF 1.0 9110WF100                     CONTROL REPORT                               WED JAN 23 14:05:22 1991

CAKR834I PARAMETER LIST IS:
      ALPHA                =>
      AVERAGE              =>
      BETA                  =>
      ELEMENT               =>
      END_PERIOD            => 2
      ALGORITHM_TYPE        => LINE
      KEEP_STRUCTURE         => 0
      MODIFIER               => N
      NUMBER_TO_FORECAST    => 1
      ORCID                  => MBI
      QUALIFIER              =>
      START_PERIOD           => 1
      STRUCT1                =>
      STRUCT2                =>
      STRUCT3                =>
      STRUCT4                =>
      STRUCT5                =>
      VERSION                => PRODABCD

CAKR835I SUCCESSFUL EXECUTION

```

Note: All available control statements are displayed on the report, even if they were not specified.

The following is a control report for a Forecasting job that did not complete successfully.

```

CA RESTON QA                                CHARGEBACK BATCH FORECASTING                PAGE 1
JARS/OLF 1.0 9111WF100                     CONTROL REPORT                               WED JAN 23 14:13:28 1991

CAKR818E - AVERAGE control statement must be YES or NO. MAYBE was specified

```

Summary Processing (CAKRBREC)

The CAKRBREC summary processing program (member name CAKRSUM) should be run **once** per period, **after** all CAWFLOAD processing has been performed.

The Summary job uses the specified committed version's Cost Recovery and Overhead Distribution definitions to recover and/or distribute charges to all nonmodified CCCTAB records for the requested period. Modified records are *excluded* from CAKRBREC processing (for example, records in the CCCTAB with a value in the modifier field). This job uses the CAIKSPAR file. The period and version used in this process is defined via the PARM statement contained on the EXEC statement. The format for these values is shown below:

Summary processing does **not** change the original values contained within CCCTAB records. Instead, **additional** records are written to the CCCTAB, as is the case for modifier and split charge application during daily processing.

Control Parameters

The control parameter value is specified on the EXEC statement.

```
PARM='Version Period'  
      |      |  
      |      -- 4-character period to be processed  
      |  
      -- 8-character version
```

Summary Processing JCL (CAKRSUM)

```
//CAKRSUM JOB (ACCTINFO), 'PMGR', CLASS=B, REGION=4M, MSGCLASS=X
//*****
//* THIS JCL WILL BE USED BY JARS/OLF TO APPLY OVERHEAD      *
//* DISTRIBUTION AND COST RECOVERY ADJUSTMENTS.             *
//*                                                         *
//* INSTRUCTIONS:                                           *
//* 1. USE THIS JOB AFTER ALL DATA FOR THE PERIOD HAS BEEN *
//*   PROCESSED (CAWFLOAD).                                  *
//* 2. CHANGE THE PARM VALUES CONTAINED ON THE EXECUTE STATEMENT *
//*   TO REFLECT THE CORRECT CB VERSION AND THE PERIOD FOR   *
//*   WHICH ADJUSTMENTS ARE TO BE PROCESSED.                 *
//* 3. IF YOUR DATABASE IS DB2, REMOVE THE Datacom LIBRARIES AND *
//*   UNCOMMENT THE DB2 LIBRARY.                              *
//* 4. CHANGE THE HIGH LEVEL INDEX OF THE STEPLIB DD STATEMENTS *
//*   TO REFLECT THE CORRECT VALUES.                         *
//* 5. CHANGE THE CAIKSPAR DD STATEMENT TO REFLECT THE CORRECT *
//*   CAIKSPAR DATA SET NAME.                                *
//* 6. CHANGE THE JOB CARD TO REFLECT YOUR INSTALLATION'S    *
//*   STANDARDS.                                              *
//* 7. RUN THE JOB.                                          *
//*****
//STEP1 EXEC PGM=CAKRBREC, PARM='TESTXXX 0' <-- CUSTOMIZE PARM
//STEPLIB DD DSN=CAI.CAJRLOAD, DISP=SHR <-- CUSTOMIZE DSN
// DD DSN=CAI.CAICICS, DISP=SHR <-- CUSTOMIZE DSN
// DD DSN=CAI.USERLOAD, DISP=SHR <-- Datacom LIBRARY
// DD DSN=CAI.INFOCAI, DISP=SHR <-- Datacom LIBRARY
// DD DSN=CAI.LOAD, DISP=SHR <-- Datacom LIBRARY
//* DD DSN=SYS2.DSNLOAD, DISP=SHR <-- DB2 LIBRARY
//SYSPRINT DD SYSOUT=*
//CAIKSPAR DD DSN=&INDEX.CAIKSPAR, DISP=SHR <-- CUSTOMIZE DSN
```

Summary Processing Report with Cost Recovery Rule

The following report shows information for one rule. Each rule generates its *own* section of this report.

```
CA RESTON QA                                CA JARS/OLF LOAD PROCESSING
CA JARS/OLF 1.0 9110WF100                   OVERHEAD ALLOCATION AND COST RECOVERY REPORT

-----
CAKR887I FOR THE FOLLOWING RULE
RULE NAME: CPU-ADJUSTMENT
-----
          C          D          E          F
VERSION: PRODABCD  ORCID: MBJ  ELEMENT: CPU_CHARGE  QUALIFIER: NONE SPECIFIED  PERIOD: 2
STRUCTURES:
G IVISION          NONE SPECIFIED DEPARTMENT  NONE SPECIFIED GROUP  NONE SPECIFIED
H
SOURCE AMOUNT: 1000.0000          I
          529.4732 WAS ALLOCATED.          J
CAKR888I          999.9927 CURRENT DATABASE VALUE.
-----
CAKR893I END OF PROCESSING
```

A

RULE NAME:

The Recovery name defined on the [Cost Recovery primary panel](#) (see page 207).

B

VERSION:

The committed CA JARS/OLF version name that contains the definition or the version to which it should be applied.

C

ORDID:

The output record identifier associated with the charge element whose result you want adjusted.

D

ELEMENT:

The charge element whose result you want adjusted to ensure the recovery of the specified amount.

E

QUALIFIER:

The name of a qualifier, if any, used in record selection.

F

PERIOD:

The period for which the rule applies. In other words, the period from which the recovery amount should be captured.

G

STRUCTURES:

Displays the names of the structures used in the recovery.

H

SOURCE AMOUNT:

The amount defined for the rule. This amount is entered on the Cost Recovery Entry panel as Recovery Amount, [Cost Recovery Primary Panel](#) (see page 207).

I

WAS ALLOCATED:

Shows the *additional* charge amount generated that meets the cost recovery amount specified on the Cost Recovery Entry panel, [Cost Recovery Primary Panel](#). (see page 207)

J

CURRENT DATABASE VALUE:

Displays the value *after* application of the rule.

Period Processing Programs

Period Close Processing (CAKRPCLS)

After the completion of period processing final invoice generation, it is recommended that the period be closed. CCCTAB records contain a field, PERIODB (period billed) that is updated during Period Close processing.

Period Close processing freezes the **current** summarized CCCTAB entries for the period just invoiced or closed. Period Close processing provides auditability of the invoice by preventing this period's summarized CCCTAB entries from being updated by any incoming ORD data.

Control Parameters

The following control statement is input via the CAIKRINP DD statement:

```
VERSION=PRODXXXX,PERIOD=9999,PERIODB=9999
|           |           |
|           | - period number - |
-- 8-character
   committed version
   name
```

where:

VERSION

The name of the eight-character **committed** version.

PERIOD

The four-character period number defining the period for which the PERIODB value is applied.

PERIODB

The four-character period number defining the value with which the PERIODB field is updated.

Note: PERIODB should be the period in which this run was made (PERIODBilled).

Setup Checklist

It is recommended that you perform the following steps to ensure that correct Acct and CA JARS/OLF versions are specified for processing:

1. Check the contents of the data set used by CAIKSPAR to verify that the BASE_VER parameter is set to the correct version.
2. Check the contents of the data set used by CAIKRPAR to verify that:
BASE_VER and CB_LOAD parameters are set to the correct eight-character CA JARS/OLF version.
3. PERIOD_VERSION is defined.

CAKRPCLS JCL

```

//CAKRPCLS JOB (ACCTINFO), 'PMGR', CLASS=A, MSGCLASS=X
//*****
//* THIS JCL IS USED TO CLOSE A PERIOD. ALL CCCTAB *
//* RECORDS FOR THE SPECIFIED PERIOD WILL BE CLOSED BY UPDATING *
//* THE VALUE IN THE PERIODB FIELD. *
//* *
//* INSTRUCTIONS: *
//* *
//* 1. IF YOUR DATABASE IS DB2, REMOVE THE Datacom LIBRARIES AND *
//* UNCOMMENT THE DB2 LIBRARY. *
//* 2. CHANGE THE INDEX OF THE STEPLIBS TO REFLECT THE CORRECT *
//* HIGH LEVEL QUALIFIER. *
//* 3. CHANGE THE CAIKSPAR AND CAIKRPAR DD STATEMENTS TO REFLECT *
//* THE CORRECT HIGH LEVEL QUALIFIER. *
//* 4. CHANGE THE VERSION CONTROL STATEMENT TO REFLECT THE *
//* CORRECT, CB VERSION, PERIOD TO BE CLOSED AND THE PERIODB *
//* VALUE. *
//* 5. CHANGE THE JOB CARD TO REFLECT YOUR INSTALLATION'S *
//* STANDARDS. *
//* 6. RUN THE JOB. *
//*****
//*
//STEP1 EXEC PGM=CAKRPCLS
//STEPLIB DD DSN=CAI.CAJRLOAD, DISP=SHR <-- CUSTOMIZE
// DD DSN=CAI.CAICICS, DISP=SHR <-- CUSTOMIZE
// DD DSN=CAI.USERLOAD, DISP=SHR <-- Datacom LIBRARY
// DD DSN=CAI.INFOCAI.LOAD, DISP=SHR <-- Datacom LIBRARY
// DD DSN=CAI.LOAD, DISP=SHR <-- Datacom LIBRARY
//* DD DSN=SYS2.DSNLOAD, DISP=SHR <-- DB2 LIBRARY
//CAIKSPAR DD DSN=CAI.CAIKSPAR, DISP=SHR
//CAIKRPAR DD DSN=CAI.CAIKPAR, DISP=SHR <-- CUSTOMIZE
//SYSPRINT DD SYSOUT=*
//*****
//* MODIFY THE VERSION CONTROL STATEMENT TO REFLECT THE DESIRED *
//* CB VERSION, PERIOD AND PERIODB VALUES. *
//*****
//CAIKRINP DD *
VERSION=TESTTEST, PERIOD=0001, PERIODB=0002

```


where:

VERSION

The name of the eight-character **committed** version.

PERIOD

The four-character period number defining which records on the CCCTAB is affected.

PERIODB

The four-character period number defining which records on the CCCTAB is updated.

The following control parameters are used in the CAKRPOP process and are defined in the CAKRPAR parameter file:

BASE
CBLOAD
VERSION

Note: You will find a detailed discussion of these parameters starting at [CAKRPAR Parameter File](#) (see page 404).

Period Open JCL (CAKRPOPJ)

```

//CAKRPOPJ JOB (ACCTINFO), 'PMGR', CLASS=A, MSGCLASS=X
//*****
//* THIS JCL WILL BE USED TO OPEN A CLOSED PERIOD. ALL CCCTAB *
//* RECORDS FOR THE SPECIFIED PERIOD WILL BE OPEN BY UPDATING *
//* THE VALUE IN THE SPECIFIED PERIODB FIELD TO BLANKS. *
//* *
//* INSTRUCTIONS: *
//* *
//* 1. IF YOUR DATABASE IS DB2, REMOVE THE Datacom LIBRARIES AND *
//* UNCOMMENT THE DB2 LIBRARY. *
//* 2. CHANGE THE INDEX OF THE STEPLIBS TO REFLECT THE CORRECT *
//* HIGH LEVEL QUALIFIER. *
//* 3. CHANGE THE CAIKSPAR AND CAIKRPAR DD STATEMENTS TO REFLECT *
//* THE CORRECT HIGH LEVEL QUALIFIER. *
//* 4. CHANGE THE VERSION STATEMENT TO REFLECT THE CORRECT *
//* CB VERSION, PERIOD AND PERIODB VALUES. *
//* 5. CHANGE THE JOB CARD TO REFLECT YOUR INSTALLATION'S *
//* STANDARDS. *
//* 6. RUN THE JOB. *
//*****
//*
//STEP1 EXEC PGM=CAKRPOPJ
//STEPLIB DD DSN=CAI.CAJRLOAD, DISP=SHR <-- CUSTOMIZE
// DD DSN=CAI.CAICICS, DISP=SHR <-- CUSTOMIZE
// DD DSN=CAI.USERLOAD, DISP=SHR <-- Datacom LIBRARY
// DD DSN=CAI.INFOCAI.LOAD, DISP=SHR <-- Datacom LIBRARY
// DD DSN=CAI.LOAD, DISP=SHR <-- Datacom LIBRARY
//* DD DSN=SYS2.DSNLOAD, DISP=SHR
//CAIKSPAR DD DSN=CAI.CAIKSPAR, DISP=SHR <-- CUSTOMIZE
//CAIKRPAR DD DSN=CAI.CAIKPAR, DISP=SHR <-- CUSTOMIZE
//SYSPRINT DD SYSOUT=*
//*****
//* MODIFY THE VERSION STATEMENT THAT FOLLOWS THE CAIKRINP DD *
//* STATEMENT. *
//*****
//CAIKRINP DD *
VERSION=TESTTEST, PERIOD=0001, PERIODB=0002

```

Period Open Processing Summary

CA RESTON QA CA JARS/OLF 1.0 9110WF100	CA JARS/OLF PERIOD OPEN PROCESSING SUMMARY REPORT	PAGE 1 FRIDAY 1/18/1991
Options in effect		
Version = PRODABCD Period = 0001 PeriodB = 0002 DataBase = 3 SSID = DB23		
CAKR967I - Processing completed		

Reporting with CA Earl

The Earl program is used in generation of **all** reports. Refer to the CA Earl documentation for information on how to customize reports and invoices.

The CAKSEARL Procedure

The CAKSEARL procedure uses CA Earl to:

- Print ORD Data File for CA JARS/OLF
- Generate the following CA JARS/OLF reports:
 - Reconciliation reports
 - Invoices

Report Control Statements

The CAJRJCL library contains JCL members that execute the CAKSEARL PROC to generate various sample reports. Each of the sample JCL members use specific CAJREARL members containing CA Earl report control statements. If you want to customize the CA Earl Report statements, copy the supplied samples and create new members.

You **must** customize the CAKSEARL PROC (contained in the CAJRPROC) and **must** either copy it to your system or user PROCLIB, or use it instream within each of the JCL members. Be sure to change the SSID to reflect the correct name of the database subsystem identifier.

On the next page you will find a sample of the CAKSEARL PROC.

CAKSEARL Procedure

```

//*****
/* PROCEDURE CAKSEARL
/* USE FOR PRINTING CA JARS/OLF ORD DATA FILE AND
/* RECONCILIATION FILE, AND GENERATING OF INVOICES
/*
/* MODIFICATIONS:
/* 1. UPDATE THE INSTREAM PROCEDURE PER THE INSTALLATION WORSHEET.
/* 2. IF YOUR DATABASE IS DB2, REMOVE THE Datacom LIBRARIES AND
/* UNCOMMENT THE DB2 LIBRARY AND REMOVE DCIND
/* 3. BE SURE TO CUSTOMIZE THE PARM='SSID=' TO REFLECT THE OWNER'S
/* ID FOR Datacom, OR DB23 FOR DB2.
/*
/* NOTE: YOU MAY MOVE THIS PROCEDURE TO A PROCLIB, OR USE IT
/* INSTREAM.
/*
//*****
//CAKSEARL PROC INDEX='CAI', /* DATA SET HIGH LEVEL QUALIFIER
// DCIND='CAI', /* Datacom HIGH LEVEL QUALIFIER
// SYSOUT='*', /* SYSOUT CLASS
// WORK='SYSDA' /* UNIT NAME FOR TEMP DATA SETS
//EARL EXEC PGM=Earl,PARM='SSID=DB23',TIME=1440
//STEPLIB DD DISP=SHR,DSN=&INDEX..CAJRLOAD
// DD DISP=SHR,DSN=&INDEX..CAICICS
// DD DISP=SHR,DSN=&DCIND..USERLOAD <-- Datacom LIBRARY
// DD DISP=SHR,DSN=&DCIND..INFOCAI.LOAD <-- Datacom LIBRARY
// DD DISP=SHR,DSN=&DCIND..LOAD <-- Datacom LIBRARY
/* DD DISP=SHR,DSN=SYS2.DSNLOAD <-- DB2 LIBRARY REL. 1.3
//EARLLIB DD DISP=SHR,DSN=&INDEX..CAJREARL
/*
//CAIKSPAR DD DISP=SHR,DSN=&INDEX..CAIKSPAR
//SYSPRINT DD SYSOUT=&SYSOUT.
//SYSOUT DD SYSOUT=&SYSOUT.
//SYSUDUMP DD SYSOUT=&SYSOUT.
//SORTMSG DD SYSOUT=&SYSOUT.
//SYSEARL DD SYSOUT=&SYSOUT.

//EARLOBJ DD UNIT=&WORK.,SPACE=(CYL,(10,5))
//WORK1 DD UNIT=&WORK.,SPACE=(CYL,(1,1))
//SYSUT1 DD UNIT=&WORK.,SPACE=(CYL,(1,1))
//SYSUT2 DD UNIT=&WORK.,SPACE=(CYL,(1,1))
//SYSUT3 DD UNIT=&WORK.,SPACE=(CYL,(1,1))
//SYSUT4 DD UNIT=&WORK.,SPACE=(CYL,(9,1))
//SYSUT5 DD UNIT=&WORK.,SPACE=(CYL,(9,1))
//SYSUT6 DD UNIT=&WORK.,SPACE=(CYL,(9,1))
//SORTIN DD DSN=&.&TMPFL1.,UNIT=SYSSQ,DISP=(NEW,DELETE),
// SPACE=(CYL,(10,1))
//SORTOUT DD DSN=&.&TMPFL2.,UNIT=SYSSQ,DISP=(NEW,DELETE),
// SPACE=(CYL,(10,1))

```



```
//SORTWK01 DD UNIT=SYSSQ,SPACE=(TRK,(100))  
//SORTWK02 DD UNIT=SYSSQ,SPACE=(TRK,(100))  
//SORTWK03 DD UNIT=SYSSQ,SPACE=(TRK,(100))
```

The CA Earl Print Job

The CAKSORDS member in the CAJRJCL library executes the CA Earl program to generate reports on the output data file. The CA Earl PROC, CAKSEARL, is included in the CAJRPROC library. This PROC uses two CAJREARL members. The first member contains the CA Earl record definitions (DEF statements). The second member contains CA Earl source statements needed to produce the report.

Before running the CA Earl program, complete the following steps:

1. Customize the CAKSEARL PROC. Be sure to change the SSID to reflect the correct database system identified.
 2. CAJREARL members CAKSORD1 and CAKSORD2 contain sample CA Earl source statements. Copy one of these members to a user library.
 3. Modify your copied member created above as follows:
 - a. Change the COPY CBDEF3 statement to reflect the ORD name that the report is based on. During installation, the CA Earl record definitions were loaded to CAJREARL. The member names are equal to the ORD names.
 - b. Modify the Report Title statements.
 - c. Modify the Control statements.
 - d. Modify the PRINT statements.
- Note:** Review the desired CAJREARL member for the available field names to be used.
4. Modify the CAKSORDS member from CAJRJCL. Change the SYSIN DD statement to reflect the correct report control statement member name (created in step 2). If necessary, change the CAKSORD DD statement so that the data set name agrees with the name of the ORD data set which was output from CA JARS/OLF.

JCL for ORD Reports

The following JCL contains numbered instructions that tell you what to do.

```
//CAKSORDS JOB (ACCTINFO), 'PMGR', CLASS=A, MSGCLASS=X, REGION=2000K
//*****
/* PURPOSE: THIS JCL WILL BE USED TO PRINT THE CA JARS/OLF ORD
/*          DATA FILE.
/*
/* INSTRUCTIONS:
/* 1. THE CAKSEARL PROCEDURE INVOKED IN THIS JCL MEMBER MAY BE
/*    RUN INSTREAM OR FROM A SYSTEM OR USER PROCEDURE LIBRARY.
/* 2. UNCOMMENT THE CAIKSORD DD STATEMENT TO REFLECT THE CORRECT ORD
/*    DATA FILE DATA SET NAME TO BE PROCESSED. IF RUNNING,
/*    CA PMA/CHARGEBACK:
/*      UNCOMMENT THE CAIKSORD DSN=&INDEX..DM.ORD.DATA.FILE AND
/*      DELETE THE COMMENTED CAIKSORD DSN=&INDEX..OLF.ORD.DATA.FILE
/*    CA JARS:
/*      UNCOMMENT THE CAIKSORD DSN=&INDEX..OLF.ORD.DATA.FILE
/*      DELETE THE COMMENTED CAIKSORD DSN=&INDEX..DM.ORD.DATA.FILE
/* 3. CHANGE THE HIGH LEVEL QUALIFIER OF THE SYSIN DD STATEMENT
/*    TO REFLECT THE CORRECT MACLIB.
/* 4. CHANGE THE JOB CARD TO REFLECT YOUR INSTALLATION STANDARDS
/* 5. RUN THE JOB.
//*****
/*
//EARL      EXEC CAKSEARL
//SYSEARL   DD SYSOUT=*
/*CAIKSORD DD DISP=SHR,DSN=&INDEX..DM.ORD.DATA.FILE <- PMA/ChargeBack
/*CAIKSORD DD DISP=SHR,DSN=&INDEX..OLF.ORD.DATA.FILE <- MVS JARS/OLF
//SYSIN    DD DSN=&INDEX..CAJRJCL(CAKSORD1),DISP=SHR
/*
```

Sample output generated by this jobstream appears on the next page.

CA Earl Output

When CA JARS/OLF successfully produces a report, you will receive printed output like this:

15/02/91		ORD REPORT EXAMPLE 1			PAGE 1		
ORD RECORDS BY RUN DATE							
A	MBJ_RUN_DATE	MBJ_START_TIME	MBJ_JOBNAME	MBJ_JOB_NUMBER	MBJ_CLASS	B MBJ_STOP_TIME	
						MBJ_CPU_T	
	19850526	1703140000	ACSSPC01	*****	C	1338000000	166.32000
	19850526						
	19850528	1000580000	WENDYM	*****	A	1003260000	6.69600
	19850528	1000070000	SMFDMP	*****		1003420000	15.40800
	19850528	0954110000	FKMANGLE	*****	B	1001340000	31.71600
	19850528	1053340000	QARICHF	*****	B	1101480000	41.50800
	19850528	1047210000	QARICHE	*****	T	1051220000	9.03600
	19850528	1045480000	CPXLNK1	*****	B	1046320000	0.82800
	19850528	1044130000	TWSHRLYO	*****	A	1044260000	0.72000
	19850528	1042380000	CPXC0B1	*****	B	1044140000	26.96400
	19850528	1042340000	QARICHD	*****	B	1042500000	0.64800
	19850528	1019520000	CPXJDLNK	*****	B	1025270000	16.20000
	19850528	1017160000	WENDYM	*****	A	1020080000	7.38000
	19850528	1010430000	DBC1201	*****	}	1121170000	91.11600
	19850528	1009060000	QARICHZ	*****	T	1009340000	0.43200
	19850528	1006100000	QARICHZ	*****	T	1006510000	0.25200
	19850528	1004010000	QARICHI	*****	A	1004140000	0.21600
	19850528	1258450000	ROBTC	*****	B	1259260000	0.25200
	19850528	1257530000	QARICHL	*****	A	1258000000	0.36000
	19850528	1257010000	ROBTB	*****	B	1257160000	0.03600
	19850528	1255460000	QARICHC	*****	B	1256240000	2.30400
	19850528	1255010000	TWSHRLYO	*****	A	1255060000	0.25200
	19850528	1254170000	SCOTTFA	*****	A	1255350000	5.72400
	19850528	1253390000	QARICHA	*****	A	1254110000	1.58400
	19850528	1250500000	NORMANX	*****	B	1251060000	0.79200
	19850528	1250400000	SCOTTFA	*****	A	1251590000	4.75200
	19850528	1247190000	TAPECPY2	*****		1258520000	6.33600
	19850528	1246170000	SCOTTFA	*****	A	1246410000	1.51200
	19850528	1244370000	QARICHA	*****	A	1245200000	1.33200
	19850528	1244270000	SCOTTFA	*****	A	1244510000	1.54800
	19850528	1244230000	QARICHC	*****	B	1245150000	1.36800
	19850528	1241430000	SCOTTFA	*****	A	1242150000	1.33200
	19850528	1238080000	SCOTTFA	*****	A	1238250000	0.64800
	19850528	1235240000	NORMANB	*****	B	1235320000	0.39600
	19850528	1234550000	TWSHRLYP	*****	A	1235250000	1.08000
	19850528	1228230000	CICSUV16	*****	}	1228280000	0.21600
	19850528	1228090000	DBC1201	*****	}	1238060000	81.82800
	19850528	1226050000	QARICHI	*****	A	1226080000	0.14400
	19850528	1222170000	WENDYM	*****	A	1242010000	43.81200
	19850528	1213100000	QARICHK	*****	A	1213120000	0.21600
	19850528	1205270000	WENDYM	*****	A	1220010000	19.18800
	19850528	1202550000	NORMANA	*****	B	1203070000	0.43200
	19850528	1158390000	QARICHL	*****	A	1158430000	0.36000
	19850528	1157140000	CPXJDSYX	*****	B	1200360000	9.86400
	19850528	1153280000	CPXJDSYN	*****	B	1158290000	9.64800
	19850528	1150030000	CPXC0B1	*****	B	1152130000	27.25200
	19850528	1148390000	NORMANZ	*****	B	1148460000	1.00800
	19850528	1143040000	WENDYM	*****	A	1155110000	19.11600
	19850528	1141580000	QARICHA	*****	A	1142260000	1.58400

A

MBJ_RUN_DATE tells you the day these records relate to.

B

MBJ_CPU_TIME is computed from MBJ_START_TIME and MBJ_STOP_TIME.

Note: You can modify this report layout by specifying different CA Earl control statements. See the *CA Earl 6.0 User Guide* for details.

Reconciliation Reports

The CAKRECON member in the CAJRJCL executes the CAKSEARL procedure in order to produce the following Reconciliation reports:

- Detail Reconciliation Report, shown on [Detailed Charges by STRUCT3, Period, Jobstep & Element \(CAKRECN1\)](#) (see page 472), uses CAJREARL member CAKRECN1
- Summary Reconciliation Report, shown on [Charges by STRUCT3, Period, Jobstep, Summed by Element \(CAKRECN2\)](#) (see page 474), uses CAJREARL member CAKRECN2

Reconciliation Reports allow you to view input data **after** performing a CAWFLOAD. These reports are useful for audit purposes, especially if questions arise concerning charges. The reconciliation reports provide the detail information that is used in creating the CCCTAB.

Note: In order to produce reconciliation reports, you must create the Reconciliation file in CAWFLOAD.

The Reconciliation report allows you to view the detail of all charges in segments for every ORD contained on the ORD data file. The sample reports shown on the following pages reflect the detail charge segment of an ORD data file.

CAKRECON JCL

```
//CAKRECON JOB (ACCTINFO), 'PMGR', CLASS=A, MSGCLASS=X
//*****
//* THIS JCL WILL BE USED TO PRINT THE CA JARS/OLF RECON FILE.      *
//*                                                                *
//* INSTRUCTIONS:                                                *
//* 1. THE CAKSEARL PROCEDURE INVOKED IN THIS JCL MEMBER MAY BE   *
//*    RUN INSTREAM OR FROM A SYSTEM OR USER PROCEDURE LIBRARY.  *
//* 2. CHANGE THE CAIKREC DD STATEMENT TO REFLECT THE CORRECT     *
//*    DATASET NAME.                                             *
//* 3. SELECT THE TYPE OF RECON REPORT DESIRED. UNCOMMENT THE     *
//*    SYSIN DD STATEMENT AND COMMENT THE REMAINING SYSIN DD     *
//*    STATEMENTS.                                              *
//*    CAJREARL(CAKRECN1) WILL PRODUCE A DETAIL RECON REPORT.    *
//*    CAJREARL(CAKRECN2) WILL PRODUCE A SUMMARIZED RECON REPORT.*
//* 4. MAKE SURE THE HIGH LEVEL QUALIFIERS HAVE BEEN CUSTOMIZED   *
//*    IN THE PROC.                                             *
//* 5. CHANGE THE JOB CARD TO REFLECT YOUR INSTALLATION STANDARDS *
//* 6. RUN THE JOB.                                             *
//*****
//*
//EARL      EXEC CAKSEARL
//SYSEARL   DD SYSOUT=*
//CAIKREC   DD DISP=SHR, DSN=&INDEX. .CB.OUTPUT.RECONC    <--- CUSTOMIZE
//SYSIN     DD DSN=&INDEX. .CAJREARL(CAKRECN1), DISP=SHR
//*SYSIN    DD DSN=&INDEX. .CAJREARL(CAKRECN2), DISP=SHR
/*
```

Sample CAJREARL Member: CAKRECN1

```
OPTION PRINTER = 132 NODUMP
!
! THIS JOB ILLUSTRATES THE USE OF Earl TO PRINT RECORDS FROM
! THE RECON FILE USING THE CAKRERL1 GET ROUTINE.
! THIS EXAMPLE PRINTS EACH DETAILED CHARGE RECORD, FOR EACH
! ELEMENT, FOR EACH PERIOD, FOR EACH STRUCT3
!
USER 'CA JARS/OLF RECON EXAMPLE 1'
RECON: FILE CAKRERL1 RECORD=1500
COPY CBDEF1
!
REPORT 'DETAILED CHARGES BY GROUP BY PERIOD, JOBNAME, ELEMENT'
TITLE 'GROUP = ' STRUCT3
TITLE 'PERIOD =' PERIOD
CONTROL
    (STRUCT3 ) SKIP
    (PERIOD ) SKIP
    (JOBNAME )
    ELEMENT
PRINT
    JOBNAME
    STARTSTAMP
    ELEMENT
    QUAL
    MODIFIER
    UNITS
    RATE
    (CHARGE)
END
```

All of the Reconciliation reports have similar headings as described below.

26/09/90	A CA JARS/OLF RELEASE 1.0 RECON EXAMPLE 1	PAGE	2
B	C DETAILED CHARGES BY STRUCT3 BY PERIOD, JOBSTEP, ELEMENT	D	
	LOCATION = DALLAS		
	PERIOD = 2		
	-----E-----		
	F		

- A**
Displays the name of the report.
- B**
Displays the date the report was printed.
- C**
Displays the report title.

D

Displays the page number.

E

Displays the Accounting Structure and the entity within the structure to which the information on page refers. In this case, the entity is a structure named location for an entity named Dallas. Accounting structure information is defined using CA JARS/OLF's online Cbdefs facility. The structure and entity names are derived from the Accounting Structure, Accounting Sources and Accounting Sources Lookup tables.

Note: Information for each entity within the structure prints on a separate page.

F

Tells you the **period** for which the information is valid. This period number was defined using CA JARS/OLF's online Cbdefs facility.

Detailed Charges by STRUCT3, Period, Jobstep & Element (CAKREC�1)

This job illustrates the use of CA Earl to print records from the RECON file using the CAKRERL1 GET routine. This example prints each detailed charge record, for each Charge Element, for each period, for each STRUCT3.

CA JARS/OLF RELEASE 1.0 RECON EXAMPLE 1							
DETAILED CHARGES BY STRUCT3 BY PERIOD, JOBSTEP, ELEMENT							
LOCATION = DALLAS							
PERIOD = 2							
A	B						
JOBNAME	STARTSTAMP	ELEMENT	QUAL	MODIFIER	UNITS	RATE	CHARGE
		C	D	E	F	G	
26/09/90							PAGE 2
ACCCHEK	198505281338260000	CPU_CHARGE	DEFAULT		31.464	0.27777000	8.7398
ACCCHEK	198505281338260000	DISK_CHARGE	DEFAULT		0.525	9.00000000	4.7250
ACCCHEK	198505281338260000	PRINT_CHARGE	DEFAULT		0.000	2.00000000	0.0000
ACCCHEK	198505281338260000	TAPE_CHARGE	DEFAULT		0.000	5.00000000	0.0000
ACCCHEK							13.4648I
ALLOCATE	198505281323250000	CPU_CHARGE	DEFAULT		0.072	0.27777000	0.0200
ALLOCATE	198505281323250000	DISK_CHARGE	DEFAULT		0.000	9.00000000	0.0000
ALLOCATE	198505281323250000	PRINT_CHARGE	DEFAULT		0.000	2.00000000	0.0000
ALLOCATE	198505281323250000	TAPE_CHARGE	DEFAULT		0.000	5.00000000	0.0000
ALLOCATE							0.0200
ALLOCD5	198505281050210000	CPU_CHARGE	DEFAULT		0.036	0.27777000	0.0100
ALLOCD5	198505281050210000	DISK_CHARGE	DEFAULT		0.000	9.00000000	0.0000
ALLOCD5	198505281050210000	PRINT_CHARGE	DEFAULT		0.000	2.00000000	0.0000
ALLOCD5	198505281050210000	TAPE_CHARGE	DEFAULT		0.000	5.00000000	0.0000
ALLOCD5							0.0100
BALCONV	198505281103350000	CPU_CHARGE	DEFAULT		3.168	0.27777000	0.8800
BALCONV	198505281103350000	DISK_CHARGE	DEFAULT		0.104	9.00000000	0.9360
BALCONV	198505281103350000	PRINT_CHARGE	DEFAULT		0.000	2.00000000	0.0000
BALCONV	198505281103350000	TAPE_CHARGE	DEFAULT		0.000	5.00000000	0.0000
BALCONV							1.8160
BLOC4	198505281154320000	CPU_CHARGE	DEFAULT		4.428	0.27777000	1.2300
BLOC4	198505281329520000	CPU_CHARGE	DEFAULT		0.864	0.27777000	0.2400
BLOC4	198505281329520000	DISK_CHARGE	DEFAULT		0.061	9.00000000	0.5490
BLOC4	198505281154320000	DISK_CHARGE	DEFAULT		1.181	9.00000000	10.6290
BLOC4	198505281154320000	PRINT_CHARGE	DEFAULT		0.000	2.00000000	0.0000
BLOC4	198505281329520000	PRINT_CHARGE	DEFAULT		0.000	2.00000000	0.0000
BLOC4	198505281329520000	TAPE_CHARGE	DEFAULT		0.000	5.00000000	0.0000
BLOC4	198505281154320000	TAPE_CHARGE	DEFAULT		0.000	5.00000000	0.0000
BLOC4							12.6480
BSRCH	198505281328040000	CPU_CHARGE	DEFAULT		0.828	0.27777000	0.2300
BSRCH	198505281328040000	DISK_CHARGE	DEFAULT		0.007	9.00000000	0.0630
BSRCH	198505281328040000	PRINT_CHARGE	DEFAULT		0.000	2.00000000	0.0000
BSRCH	198505281328040000	TAPE_CHARGE	DEFAULT		0.000	5.00000000	0.0000
BSRCH							0.2930

A

JOBNAME is obtained from the CA JARS history file used as input to CA JARS/OLF.

B

STARTSTAMP is obtained predefined via its ORD Header Record.

C

ELEMENT is the CA JARS/OLF Charge Element name defined using the CA JARS/OLF's online Cbdefs facility.

D

QUAL indicates if a qualified rate as defined using CA JARS/OLF's online Cbdefs facility is being applied in the charge calculation. In this case, the DEFAULT is used. The default rate is also defined using Cbdefs.

E

MODIFIER indicates if a modifier as defined using CA JARS/OLF's online Cbdefs facility is to be applied to the calculated charge. In this case, no modifier is being applied as indicated by the blank.

F

UNITS displays the calculated charge units (defined using Cbdefs) for each charge element.

G

RATE displays the charge rate (defined using Cbdefs) being applied in the charge calculation.

H

CHARGE displays the calculated charge for the charge element.

I

Displays the total calculated charge for the Jobname: ACCUCHEK.

Charges by STRUCT3, Period, Jobstep, Summed by Element (CAKREC2)

This job illustrates the use of CA Earl to print records from the RECON file using the CAKRERL1 GET routine. This example sums all charges for each element, for each job step, for each period, for each STRUCT3.

19/02/91	CA JARS/OLF RECON EXAMPLE 2			PAGE 30
SUMMARY CHARGES BY GROUP BY PERIOD, JOBNAME, ELEMENT				
GROUP = E DENVER				
PERIOD = 2				
JOBNAME	ELEMENT	CHARGE		
A	B	C		
UNLOAD	PRINT - CHARGE	0.0000		
UNLOAD	SPEC - CHARGE	694.8000		
UNLOAD	TAPE - CHARGE	5.5250		

UNLOAD		701.4356		

VLTABLE	CPU - CHARGE	0.1008		
VLTABLE	DISK - CHARGE	0.0630		
VLTABLE	PRINT - CHARGE	0.0000		
VLTABLE	SPEC - CHARGE	147.6000		
VLTABLE	TAPE - CHARGE	0.0000		

VLTABLE		147.7638		

WENDYM	CPU - CHARGE	10.3320		
WENDYM	DISK - CHARGE	424.4490		
WENDYM	PRINT - CHARGE	0.0000		
WENDYM	SPEC - CHARGE	37324.8000		
WENDYM	TAPE - CHARGE	0.0000		

WENDYM		37759.5810		

ZAP73	CPU - CHARGE	0.0288		
ZAP73	DISK - CHARGE	0.1530		
ZAP73	PRINT - CHARGE	0.0000		
ZAP73	SPEC - CHARGE	39.6000		
ZAP73	TAPE - CHARGE	0.0000		

ZAP73		39.7818		

		97945.0812		

GRAND TOTAL		97945.0812		

A

JOBNAME is obtained from the CA JARS history file used as input to CA JARS/OLF.

B

ELEMENT is the CA JARS/OLF Charge Element name defined using the CA JARS/OLF's online Cbdefs facility.

C

CHARGE displays the calculated charge for each charge element.

D

Displays the total calculated charge for the Jobname.

E

Displays the total charges for period 2.

F

Displays the grand total of charges.

Generating CA JARS/OLF Invoices

The CAKRINVC CAJRJCL member executes the CAKSEARL procedure in order to produce the following invoices:

- Example 1, [Invoice Example 1: Detail by ORD/Element/Qualifier/Modifier \(Paged by Group\)](#) (see page 480), uses CAJREARL member CAKRINV1 to generate a invoice using **only** data from the CCCTAB.
- Example 2, [Invoice Example 2: Summary Charges by Group](#) (see page 481), uses CAJREARL member CAKRINV2 to generate a summary invoice using data from the CCCTAB, BUDTAB and DBCRTAB.
- Example 3, [Invoice Example 3: Charges by Group and Person \(Paged by Structure 2\)](#) (see page 483), uses CAJREARL member CAKRINV3 to generate an invoice using data from the CCCTAB, BUDTAB and DBCRTAB.

The CA Earl source statements required for the generation of these reports reside in the CAJREARL library downloaded during installation.

Note: You **must** customize the sample invoices to reflect your accounting structure and create new members for each report.

You should execute this job stream **after** all data from the period has been processed (CAWFLOAD) and **after** completion of summary processing (CAKRSUM). When you have completed generating the invoice, you may want to close this periods' processing. Refer to CAKRPLS for details.

CAKRINVC JCL

```
//CAKRINVC JOB (ACTINFO), 'PMGR', CLASS=A, MSGCLASS=X
//*
//*****
//* JCL TO PRINT CA JARS/OLF INVOICES. *
//* INSTRUCTIONS: *
//* 1. THIS JCL USES THE CAKSEARL PROC PROVIDED IN *
//* THE JCL. EITHER COPY THE PROC TO THIS JCL OR *
//* ADD TO YOUR USER PROCLIB. CUSTOMIZE THE PROC TO *
//* REFLECT THE CORRECT HIGH LEVEL QUALIFERS. *
//* 2. MODIFY THE JOB CARD ACCORDING TO YOUR INSTALLATION *
//* STANDARDS. *
//* 3. ENSURE THAT THE SYSIN DD STATEMENT IS CHANGED TO *
//* REFLECT THE CORRECT HIGH LEVEL QUALIFIER. *
//* 4. TO PROCESS EXAMPLE 1 - USE THE SYSIN DD WITH CAJREARL *
//* (CAKRINV1). *
//* 5. TO PROCESS EXAMPLE 2 - USE THE SYSIN DD WITH CAJREARL *
//* (CAKRINV2). *
//* 6. TO PROCESS EXAMPLE 3 - USE THE SYSIN DD WITH CAJREARL *
//* (CAKRINV3). *
//* 7. IF CUSTOMIZATION IS REQUIRED, COPY THE PROVIDED *
//* CAI.MACLIB MEMBERS TO NEW MEMBER(S). THEN CUSTOMIZE *
//* THE NEW MACLIB MEMBER(S). *
//*****
//*
//Earl EXEC CAKSEARL
//SYSEarl DD SYSOUT=*
//SYSIN DD DSN=&INDEX..CAJREARL(CAKRINV1),DISP=SHR <-- CUSTOMIZE
//*SYSIN DD DSN=&INDEX..CAJREARL(CAKRINV2),DISP=SHR <-- CUSTOMIZE
//*SYSIN DD DSN=&INDEX..CAJREARL(CAKRINV3),DISP=SHR <-- CUSTOMIZE
/*
```

Sample CAJREARL (CAKRINV1) Member for Invoice Example 1

This example uses CAJREARL member CAKRINV1 to generate a detail invoice using **only** data from the CCCTAB.

```

!
!   INVOICE EXAMPLE #1
!
! THIS JOB ILLUSTRATES THE USE OF Earl TO PRINT RECORDS FROM
! THE CA JARS/OLF CCCTAB, DATABASE TO CREATE
! INVOICES USING THE CAKRERL2 GET ROUTINE.
!
! THIS IS A DETAIL INVOICE, SHOWING COUNT, UNITS, RATE AND CHARGE
! FOR EACH ORDID/ELEMENT/QUALIFIER/MODIFIER, FOR EACH STRUCT3.
!
! SORT ORDER IS VERSION, PERIOD, STRUCT1-STRUCT3, ORDID,
! ELEMENT, QUALIFIER, MODIFIER.
!
! PAGE BREAK IS BY STRUCT3, LINE BREAK IS BY ORD AND ELEMENT,
! AND EACH LINE IS AN ORDID/ELEMENT/QUALIFIER/MODIFIER COMBINATION.
!
USER 'CA JARS/OLF INVOICE EXAMPLE 1'
!
OPTION PRINTER = 132    NODUMP
!
  CBREC:   FILE CAKRERL2 RECORD=2000
  COPY CBDEF2
!
COPY CBGSA
!
COPY CBSET
!
REPORT 'DETAIL BY ORD/ELEMENT/QUALIFER/MODIFIER, PAGE BY GROUP'
TITLE 'VERSION='    PVERSION
TITLE 'PERIOD='     PPERIOD
TITLE 'DIVISION='   PSTRUCT1
TITLE 'DEPARTMENT=' PSTRUCT2
TITLE 'GROUP='      PSTRUCT3
NOTE
NOTE   SELECT ONLY TYPE 1 RECORDS AS THIS REPORT DOES NOT
NOTE   LIST BUDGETS OR DEBITS/CREDITS
NOTE
SELECT PTYPE = 1
CONTROL SKIP
      (PVERSION)
      (PPERIOD)
      (PSTRUCT1 )
      (PSTRUCT2 )
      (PSTRUCT3 ) SKIP
      (PORDID)

```

```

(PLEMENT ) BREAK
PQUAL
Pmodifier
PRATE
PFLAGS
Ptype
SET(D) PCNT= TCNT
SET(D) PUNITS=TUNITS
SET(D) PCHARGE = TCHARGE

NOTE
NOTE SUPPRESS PRINTING CNT AND UNITS TOTALS ABOVE ELEMENT
NOTE LEVEL AS THEY WOULD BE MEANINGLESS
NOTE
IF(T) &CTRLBREAK. = 1
    SET(T) PCNT = TCNT
    SET(T) PUNITS = TUNITS
ELSE
    SET(T) PCNT = 0
    SET(T) PUNITS = 0
ENDIF

NOTE
NOTE SUPPRESS PRINTING TOTALS ABOVE PAGE LEVEL
NOTE
IF(T) &CTRLBREAK. <= 3 THEN SET(T) PCHARGE = TCHARGE
ELSE SET(T) PCHARGE = 0 ENDIF
!
PRINT          PORDID
                PELEMENT
                PQUAL
                Pmodifier
                (PCNT)
                (PUNITS)
                PRATE
                (PCHARGE)

END
    
```

All invoices have similar headings as described below.

22/01/91	A	CA JARS/OLF INVOICE EXAMPLE 1				PAGE	1
B	C	DETAIL BY ORD/ELEMENT/QUALIFER/MODIFIER,	VERSION=	TESTCHAR		D	
	}		PERIOD= 1				
	E }	DIVISION=	C MICRO				
	}	DEPARTMENT=	FE ORDERING	G			
		GROUP=	A DALLAS				

A

Displays the invoice name.

B

Displays the date the invoice was printed.

C

Displays the invoice title.

D

Displays the page number.

E

Tells you the CA JARS/OLF **version** used to generate the invoice.

F

Tells you the **period** that the invoice covers.

G

Displays the accounting structure and entity within the structure to which the invoice applies. In this case, it is for the A Dallas Group within the E Ordering Department, that is part of the C Micro Division. Accounting structure information is defined using CA JARS/OLF's online Cbdefs facility. The structure and entity names are derived from the Accounting Structure, Accounting Sources and Accounting Sources Lookup tables.

Note: Information for each entity within the structure prints on a separate page.

Invoice Example 1: Detail by ORD/Element/Qualifier/Modifier (Paged by Group)

This example uses CAJREARL member CAKRINV1 to generate a invoice using **only** data from the CCCTAB.

CA JARS/OLF INVOICE EXAMPLE 1								
22/01/91	DETAIL BY ORD/ELEMENT/QUALIFIER/MODIFIER, PAGE BY GROUP						PAGE	1
VERSION= TESTCHAR								
PERIOD= 1								
DIVISION= C MICRO								
DEPARTMENT= E ORDERING								
GROUP= A DALLAS								
A	RDID	ELEMENT	QUALIFIER	MODIFIER	COUNT	UNITS	RATE	CHAR
		B	C	D	E	F	G	
MBJ		@SPEC - CHARGE	@SHIFT1	-	3	654.16	\$100.00	\$65,415.60
MBJ		@SPEC - CHARGE			3	654.16		\$65,415.60
			DEFAULT	-	3	498.96	\$0.28	\$138.60
MBJ		CPU - CHARGE			3	498.96		\$138.60
			DEFAULT	-	3	9.38	\$9.00	\$84.43
MBJ		DISK - CHARGE			3	9.38		\$84.43
			DEFAULT	-	3		\$2.00	
MBJ		PRINT - CHARGE			3			
			DEFAULT	-	3		\$5.00	
MBJ		TAPE - CHARGE			3			
MBJ								I \$65,638.63
								\$65,638.63

A

ORDID:

The ORD type for which charges are calculated.

B

ELEMENT:

The charge element used to calculate the charge.

C

QUALIFIER:

Tells you whether the default rate was used or if a rate qualifier was applied during the calculation of the charge element.

D

MODIFIER:

Tells you whether a modifier was applied to the charge element.

E

COUNT:

Displays the number of records that met the conditions in order to calculate the charge.

F

UNITS:

Displays the unit value used in the calculation.

G

RATE:

Displays the rate used to calculate the charge.

H

CHARGE:

Displays the calculated charge for the ORD type and charge element listed in columns A and B.

I

Total:

Displays the total charges. Charge element listed in columns A and B.

Invoice Example 2: Summary Charges by Group

This example uses CAJREARL member CAKRINV2 to generate a summary invoice using data from the CCCTAB, BUDTAB and DBCRTAB.

COUNT A	CHARGE B	CREDIT C	DEBIT D	ADJUSTED E	CHARGE	BUDGET F	PERCENT
5	\$1,164.60			\$1,164.60			*****
5	\$1,164.60			\$1,164.60			*****
5	\$1,164.60			\$1,164.60			*****

A

COUNT:

Displays the number of records used in the calculation.

B

CHARGE:

Displays the charges for the accounting structures printed at the top of the invoice.

C

CREDIT:

When applicable, displays an amount that adjusts the final charge.

D

DEBIT:

When applicable, displays an amount that adjusts the final charge.

E

ADJUSTED CHARGE:

Displays the final charge after all debits and credits have been applied.

F

BUDGET:

Displays the allocated budget amount for the structures and period printed at the top of the invoice.

G

PERCENT BUDGET:

Displays the percentage of the entity's budget that has been spent.

Invoice Example 3: Charges by Group and Person (Paged by Structure 2)

This example uses CAJREARL member CAKRINV3 to generate an invoice using data from the CCCTAB, BUDTAB, and DBCRTAB. Note that this invoice lists all structure3 entities (see **A** below) for the specified version that fall within Structure1 (Division) and Structure2 (Department) with the Invoice paged by Department. There is also a summary line for each structure3 entity.

CA JARS/OLF INVOICE EXAMPLE 3											
22/01/91	CHARGE INVOICE BY GROUP, BY PERIOD, PAGE BY DEPARTMENT									PAGE	1
					VERSION=	TESTCHAR					
					DIVISION=	B SPD					
					DEPARTMENT=	B PROGRAMMING					
STRUCT3	B	PERIOD	COUNT	CHARGE	CREDIT	DEBIT	ADJUSTED	BUDGET	PERCE		
A			C	D	E	F	G CHARGE				
C MIAMI		2	5	\$3,975.95			\$3,975.95		*****		
C MIAMI			5	\$3,975.95			\$3,975.95		*****		
E DENVER		2	25	\$7,297.51			\$7,297.51		*****		
E DENVER			25	\$7,297.51			\$7,297.51		*****		
			30	\$11,273.46		J	\$11,273.46		*****		

A

STRUCT3:

Displays the entities within the specified accounting level and their associated charges covered by the invoice.

B

PERIOD:

Shows the in which the charges were accrued.

C

COUNT:

Displays the number of records used in the calculation.

D

CHARGE:

Displays the charges for the accounting structures printed at the top of the invoice.

E

CREDIT:

When applicable, displays an amount that adjusts the final charge.

F

DEBIT:

When applicable, displays an amount that adjusts the final charge.

G

ADJUSTED CHARGE:

Displays the final charge after all debits and credits have been taken into consideration.

H

BUDGET:

Displays the budget value for the entity and period printed in columns A and B.

I

PERCENT BUDGET:

Displays the percentage of the entity's budget used, after adjustments are applied.

J

Total

Displays the totals for each column containing numeric information.

Generating the General Ledger Interface File

Member CAKRGLIC in CAJRJCL executes the CAKSEAR2 procedure (in CAJRPROC) in order to produce the General Ledger interface file from the CCCTAB Table.

The CA Earl source statements and copy members required for the generation of the General Ledger file reside in the CAJREARL library downloaded during installation. The CAKRGLI program generates a file for input into the Masterpiece General Ledger system that can be easily modified to create records for other General Ledger systems.

Note: You must customize the CAKRGLI program to reflect your accounting structure and to decode CA JARS/OLF accounting structures to General Ledger format account codes.

You should execute this jobstream **after** all data from a period has been processed (CAWFLOAD) and **after** completion of summary processing (CAKRSUM).

CAKRLIC JCL

```
//CAKRLIC JOB (ACTINFO), 'PMGR', CLASS=A, MSGCLASS=X,
//*
//*****
//* JCL TO CREATE CA JARS/OLF GENERAL LEDGER *
//* INTERFACE FILE. *
//* INSTRUCTIONS: *
//* 1. THIS JCL USES THE CAKSEAR2 PROC PROVIDED IN *
//* THE JCL. EITHER COPY THE PROC TO THIS JCL OR *
//* ADD TO YOUR USER PROCLIB. CUSTOMIZE THE PROC TO *
//* REFLECT THE CORRECT HIGH LEVEL QUALIFERS. *
//* 2. MODIFY THE JOB CARD ACCORDING TO YOUR INSTALLATION *
//* STANDARDS. *
//* 3. ENSURE THAT THE SYSIN DD STATEMENT IS CHANGED TO *
//* REFLECT THE CORRECT HIGH LEVEL QUALIFIER. *
//* 4. TO PROCESS EXAMPLE 1 - USE THE SYSIN DD WITH CAJREARL *
//* (CAKRLI). *
//* 7. IF CUSTOMIZATION IS REQUIRED, COPY THE PROVIDED *
//* CAI.MACLIB MEMBERS TO NEW MEMBER(S). THEN CUSTOMIZE *
//* THE NEW MACLIB MEMBER(S). *
//*****
//*
//Earl EXEC CAKSEAR2
//SYSEarL DD SYSOUT=*
//SYSIN DD DSN=&INDEX. .CAJREARL(CAKRLI), DISP=SHR
/*
```

The CAKSEAR2 Procedure

This example uses CAJRJCL member CAKRLIC to generate a detail invoice using **only** data from the CCCTAB.

```

/*****
/*
/* PROCEDURE CAKSEAR2
/* USE FOR CREATING THE GENERAL LEDGER INTERFACE FILE.
/*
/* MODIFICATIONS:
/* 1. UPDATE THE INSTREAM PROCEDURE PER THE INSTALLATION WORKSHEET.
/* 2. IF YOUR DATABASE IS DB2, REMOVE THE Datacom LIBRARIES AND
/* UNCOMMENT THE DB2 LIBRARY.
/* 3. BE SURE TO CUSTOMIZE THE PARM STATEMENT AS FOLLOWS
/*
/* PARM='SSID=DB23      ,
/*       JARS/OLF,
/*       001,
/*       01,
/*       050191'
/*
/* WHERE SSID   = DB23 FOR DB2 USERS OR THE OWNERS ID FOR Datacom
/*       JARS/OLF = THE 6 CHARACTER JOURNAL ENTRY NAME
/*       001     = THE PERIOD FROM THE JARS/OLF DATABASE TO PROCESS
/*       01      = THE PERIOD TO BE ASSIGNED TO JOURNAL ENTRIES
/*       050191 = THE DATE TO BE ASSIGNED TO JOURNAL ENTRIES
/*
/* NOTE: YOU MAY MOVE THIS PROCEDURE TO A PROCLIB, OR USE IT
/*       INSTREAM.
/*
/*****
//CAKSEAR2 PROC INDEX='CAI',          /* DATA SET HIGH LEVEL QUALIFIER
//      DCIND 'CAI',                /* Datacom HIGH LEVEL QUALIFIER
//      SYSOUT='*',                 /* SYSOUT CLASS
//      DVOL='XXXXXX',              /* OUTPUT FILE VOLUME
//      WORK='SYSDA'                 /* UNIT NAME FOR TEMP DATA SETS
//Earl  EXEC PGM=Earl,PARM='SSID=DB23      ,JARS/OLF,001,01,050191'
//STEPLIB DD DISP=SHR,DSN=&INDEX..CAJRLOAD
//      DD DISP=SHR,DSN=&INDEX..CAICICS
//      DD DISP=SHR,DSN=&DCIND..USERLOAD      <--- Datacom LIBRARY
//      DD DISP=SHR,DSN=&DCIND..INFOCAI.LOAD  <--- Datacom LIBRARY
//      DD DISP=SHR,DSN=&DCIND..LOAD         <--- Datacom LIBRARY
/*      DD DISP=SHR,DSN=SYS2.DSNLOAD        <--- DB2 LIBRARY
//EarlLIB DD DISP=SHR,DSN=&INDEX..CAJREARL
/*
//CAIKRGL1 DD DSN=&INDEX..GENERAL.LEDGER,
//      UNIT=&WORK.,DISP=(NEW,CATLG,KEEP),
//      SPACE=(CYL,(1,1)),VOL=SER=&DVOL.,
//      DCB=(RECFM=FB,LRECL=100,BLKSIZE=4000)

```

```
//CAIKSPAR DD DISP=SHR,DSN=&INDEX..CAIKSPAR
//SYSPRINT DD SYSOUT=&SYSOUT.
//SYSOUT DD SYSOUT=&SYSOUT.
//SYSUDUMP DD SYSOUT=&SYSOUT.
//SORTMSG DD SYSOUT=&SYSOUT.
//SYSEarL DD SYSOUT=&SYSOUT.
//EarLOBJ DD UNIT=&WORK.,SPACE=(CYL,(10,5))
//WORK1 DD UNIT=&WORK.,SPACE=(CYL,(1,1))
//SYSUT1 DD UNIT=&WORK.,SPACE=(CYL,(1,1))
//SYSUT2 DD UNIT=&WORK.,SPACE=(CYL,(1,1))
//SYSUT3 DD UNIT=&WORK.,SPACE=(CYL,(1,1))
//SYSUT4 DD UNIT=&WORK.,SPACE=(CYL,(9,1))
//SYSUT5 DD UNIT=&WORK.,SPACE=(CYL,(9,1))

//SYSUT6 DD UNIT=&WORK.,SPACE=(CYL,(9,1))
//SORTIN DD DSN=&.&TMPFL1.,UNIT=SYSSQ,DISP=(NEW,DELETE),
//      SPACE=(CYL,(10,1))
//SORTOUT DD DSN=&.&TMPFL2.,UNIT=SYSSQ,DISP=(NEW,DELETE),
//      SPACE=(CYL,(10,1))
//SORTWK01 DD UNIT=SYSSQ,SPACE=(TRK,(100))
//SORTWK02 DD UNIT=SYSSQ,SPACE=(TRK,(100))
//SORTWK03 DD UNIT=SYSSQ,SPACE=(TRK,(100))
```

Using CAKRINST as a Utility Program

The CAKRINST program is more than an installation vehicle for CA JARS/OLF. It is a general purpose SQL execution program. This program gives experienced SQL users a way to modify tables very quickly. However, this program bypasses CA JARS/OLF normal verification and validation processes.

Setting Up Security Views on CCCTAB

One example of CAKRINST usage is for the establishing of user security. The online query system can be used to access information from the CCCTAB and CCCMOD tables. These tables contain *live* charge information. It is likely that certain users will be required to have access to certain charges, perhaps based on the contents of an accounting structure. Such access can be implemented very easily using the CAKRINST program.

The original SQL statement used to give a user access to the CCCTAB table is:

```
CREATE SYNONYM CCCTAF FOR OWNER.CCCTAB
```

The online system accesses the table using the synonym CCCTAF. To implement a security rule allowing access to **only** the RESTON records we would use CAKRINST to execute the following:

```
DELETE SYNONYM CCCTAF;  
CREATE VIEW CCCTAF AS SELECT * FROM OWNER.CCCTAB  
WHERE STRUCT1 = 'RESTON';
```

Thus, when the online system accesses the table via the name CCCTAB, only RESTON records are made available.

Caution: Great care should be taken when using CAKRINST in this way, since **no** validation/verification of the statements is made.

Chapter 12: CA JARS/OLF Security and Audit

Security for CA JARS/OLF relies upon CA TOP SECRET, CA ACF2, or RACF external security package. Security for all CA JARS/OLF components must be defined with one of the above packages.

The security administrator is responsible for defining and implementing all security in CA JARS/OLF. Users cannot implement security from CA JARS/OLF.

This chapter provides system administrators with information for setting up security for CA TOP SECRET, CA ACF2, or RACF.

Note: Refer to the section that applies to the security used by your installation.

CA TOP SECRET Security

Classes used by CA JARS/OLF must be defined to CA TOP SECRET. This allows CA TOP SECRET to process security calls from CA JARS/OLF.

New classes are defined to CA TOP SECRET by adding them to the Resource Definition Table (RDT) via the TSS command. Once added, they are immediately accessible. No restart, reinitialization, or IPL is required.

The new classes and their associated access levels for CA JARS/OLF are:

CA JARS/OLF Component	Security Class	Access Levels
Dialog	ACDIALOG	READ and WRITE
Panel	ACPANEL	READ and WRITE
SQL	ACSQ	READ and WRITE

Note: Tables, views, indexes, etc., are controlled by the database security. If you *do* have a security package that controls database objects, you must set up security according to the rules of the security package.

You can list your current RDT via the TSS LIST(RDT) command to verify that these classes are not already defined. If they are defined, you may proceed with protecting and permitting these new resources.

To add these classes, you must select eight unused resource codes. These codes must be in the hexadecimal range from 01 to 3F.

The following sample commands show the exact TSS command syntax for defining these new classes. In these examples, the resource codes of 38 through 3F have been selected.

To add resource class:

```
ACDIALOG    TSS ADDTO(RDT) RESCLASS(ACDIALOG) RESCODE(3A) -
            ATTR(LONG) DEFACC(READ=20)
ACPANEL     TSS ADDTO(RDT) RESCLASS(ACPANEL) RESCODE(3D) -
            ACLST(READ=20,WRITE=40,ALL,NONE) -
            ATTR(LONG) DEFACC(READ=20)
ACSQL       TSS ADDTO(RDT) RESCLASS(ACSQL) RESCODE(3F) -
            ACLST(READ=20,WRITE=40,ALL,NONE,) -
            ATTR(LONG) DEFACC(READ=20)
```

CA ACF2 Security

Resource types used by CA JARS/OLF must be defined to CA ACF2. This allows CA ACF2 to process security calls from CA JARS/OLF.

The new resources and their associated CA JARS/OLF components are:

CA JARS/OLF Component	Resource
Dialog	ACD
Panel	ACP
SQL	ACS

Note: Tables, views, indexes, etc., are controlled by the database security. If you *do* have a security package that controls database objects, you must set up security according to the rules of the security package.

RACF Security

Classes used by CA JARS/OLF must be defined to RACF. This allows RACF to process security calls from CA JARS/OLF.

New classes are defined to RACF by adding them to the RACF resource list.

The new classes and their associated access levels for CA JARS/OLF are:

CA JARS/OLF Component	Security Class	Access Levels
Dialog	ACDIALOG	READ and WRITE
Panel	ACPANEL	READ and WRITE
SQL	ACSQL	READ and WRITE

Note: Tables, views, indexes, etc., are controlled by the database security. If you *do* have a security package that controls database objects, you must set up security according to the rules of the security package.

Implementing Security for the CA JARS/OLF Query System

Some users may wish to limit access to the CCCTAB table to specific records. The following discussion tells you how to perform the implementation for this feature.

Access to the CCCTAB table is handled via a synonym called CCCTAF. This synonym is created during the process of granting a user access to the tables. To implement specific record security this synonym must be replaced with a view. The CAKRINST program may be used for this purpose.

Example:

You want user ABCD01 to have access only to records where DEPARTMENT is WEST. The DEPARTMENT is defined as the first level in the accounting structure.

We would change member CAKR84 from:

```
CREATE SYNONYM CCCTAF FOR OWNER.CCCTAB
      TO
CREATE VIEW CCCTAF AS SELECT * FROM OWNER.CCCTAB
WHERE STRUCT1 = 'WEST'
```

Then, user ABCD01 should run member CAKR84 which included input member CAKR84.

This ensures when user ABCD01 accesses the CCCTAB table, only records for WEST are made available due to the view.

Note: If the synonym has already been created, then the statement "DROP SYNONYM CCCTAF;" must be executed before the creation of the view.

To use the CAKRINST program, simply add a PDS member with the required SQL statements and point the CAKRINST program to this PDS member as input.

Appendix A: Chargeback Tables

The following table descriptions are presented in alphabetical order. Each table description consists of:

- the field-names which make up the table
- the data type for each field-name
- the length of each field-name

An asterisk is displayed preceding the field-names which together make up the key of the table. (The key uniquely identifies each record in the table.)

ACCSRTAB (Accounting Sources Table)

The ACCSRTAB table contains the information required to define sources for each accounting structure level. For each type of record used by the CA JARS/OLF application, there exists an ACCSRTAB record, detailing the sources of each entry in the ACCSTTAB record and optional lookup table names.

Key	Field-Name	Type	Length
*	VERSION	CHAR	4
*	ORDID	CHAR	3
*	XSTRUCT	CHAR	16
	STRUCTL	CHAR	2
	SOURCE1	CHAR	16
	BEGIN1	CHAR	2
	LENGTH1	CHAR	2
	SOURCE2	CHAR	16
	BEGIN2	CHAR	2
	LENGTH2	CHAR	2
	SOURCE3	CHAR	16
	BEGIN3	CHAR	2
	LENGTH3	CHAR	2
	LOOKUP	CHAR	8

ACCSTTAB (Accounting Structure Table)

This table defines the organizational hierarchy to be maintained on the CA JARS/OLF database. This table along with the ACCSRTAB, ACCTLOOK, and PERTAB definition tables are used to create the CA JARS/OLF construct.

Another purpose is to allow the CA JARS/OLF application to report in *user* terms. The table simply contains the names, types, and lengths of up to 5 accounting levels such as DIVISION, DEPARTMENT, and GROUP-ID.

Key	Field-Name	Type	Length
*	VERSION	CHAR	4
	STRUCT1	CHAR	16
	STRUCT1L	CHAR	2
	STRUCT2	CHAR	16
	STRUCT2L	CHAR	2
	STRUCT3	CHAR	16
	STRUCT3L	CHAR	2
	STRUCT4	CHAR	16
	STRUCT4L	CHAR	2
	STRUCT5	CHAR	16
	STRUCT5L	CHAR	2

ACCTLOOK (Lookup Table)

Associates raw accounting entity values with meaningful organizational names.

Key	Field-Name	Type	Length
	VERSION	CHAR	4
	LOOKNAME	CHAR	8
	SEQNUM	INT	4
	ACCTFROM	CHAR	25
	ACCTTO	CHAR	25
	ACCTRET	CHAR	16

BU DTAB (Budget Table)

This table is used in conjunction with the CCCTAB table. It contains budget information that is entered online via the Budgets facility and is immediately available via the Query facility. This information is also used for invoice generation.

Key	Field-Name	Type	Length
*	VERSION	CHAR	8
*	ORDID	CHAR	3
*	PERIOD	INT	4
*	PERIODB	INT	4
	ELEMENT	CHAR	16
	QUAL	CHAR	16
	AMOUNT	DEC	15 (scale 5)
	FLAGS	CHAR	2
*	DESCRIPT	CHAR	20
*	STRUCT1	CHAR	16
*	STRUCT2	CHAR	16
*	STRUCT3	CHAR	16
*	STRUCT4	CHAR	16
*	STRUCT5	CHAR	16

CCCMOD (The 'Scratchpad' Table)

This table mirrors the CCCTAB table in format. It is used by the Period functions to generate forecasts and to determine rates and the Query function for displaying data. It exists so that these calculations are not applied directly to the *live* CCCTAB table. Thus, the integrity of the CCCTAB table is preserved. This table can be generated online through Period Processing or by the batch Forecast job stream.

CCCTAB (Consolidated Calculated Charges Table)

This table contains the information used by **all** CA JARS/OLF functions. It is created and maintained by the **Detail** (batch) functions and is a summary table of the output records' processed data. Each item kept in the CCCTAB table is a line item on an invoice. The table is maintained with a unique key comprised of the Accounting Structure, Period, Charge Element, and Qualifier. Information contained is:

- Number of units,
- Rate
- Charge
- Number of ORD records that constitute each CCCTAB record

The CCCTAB table is the **principal** CA JARS/OLF information database.

Key	Field-Name	Type	Length
*	VERSION	CHAR	8
*	ORDID	CHAR	3
*	PERIOD	INT	4
*	PERIODB	INT	4
*	ELEMENT	CHAR	16
*	QUAL	CHAR	16
*	MODIFIER	CHAR	16
	CNT	INT	4
	UNITS	DEC	15 (scale 0)
*	RATE	DEC	15 (scale 0)
	CHARGE	DEC	15 (scale 0)
+	FLAGS	CHAR	2
*	STRUCT1	CHAR	16
*	STRUCT2	CHAR	16
*	STRUCT3	CHAR	16
*	STRUCT4	CHAR	16
*	STRUCT5	CHAR	16

+ Split or Mod

CHOPTAB (Shift Chopper Definition Table)

Defines the times at which records associated with long running tasks are to be chopped and prorated.

Examples:

- When using algorithms to associate a rate with a charge unit for a charge element, it is quite normal to use a time in the qualification. When an ORD record spans a qualifying time, a condition arises that can lead to unfair allocation of charges.
- If a job starts in PRIME shift (the most expensive) but spends most of its time in NON PRIME (cheaper) and is charged PRIME--this could be considered as rather unfair.

The purpose of a Shift Chop is to, in the above case, create two prorated records: the first completely in PRIME, the second completely in NON PRIME. Thus, the charge generated is equitable.

Key	Field-Name	Type	Length
*	VERSION	CHAR	8
	SPLIT1	CHAR	4
	SPLIT2	CHAR	4
	SPLIT3	CHAR	4
	SPLIT4	CHAR	4

DBCRTAB (Credit and Debit Table)

This table is used in conjunction with the CCCTAB table. It contains credit and debit manual adjustments that are entered online via the Data Entry facility and are immediately available via the Query facility. This information is also used for invoice generation.

Key	Field-Name	Type	Length
*	VERSION	CHAR	8
*	ORDID	CHAR	3
*	PERIOD	INT	4
*	PERIODB	INT	4
	ELEMENT	CHAR	16
	QUAL	CHAR	16
	CRAMOUNT	DEC	15 (scale 5)
	DBAMOUNT	DEC	15 (scale 5)
	FLAGS	CHAR	2
*	DESCRIPT	CHAR	20
*	STRUCT1	CHAR	16
*	STRUCT2	CHAR	16
*	STRUCT3	CHAR	16
*	STRUCT4	CHAR	16
*	STRUCT5	CHAR	16

ELEMTAB (Charge Element Definition Table)

Defines the elements used to calculate default charge element values.

Example:

A batch job ORD may have CPUCHARGE, DISKCHARGE, and TAPECHARGE charge elements.

The **default charge** calculation for each element is defined in this table. However, special handling routines, or **algorithms**, are defined elsewhere. A charge element may also have an associated *complex unit*, as well as a set of algorithms. If a charge element is defined, then a specific record is created during the Detail Function process. Conversely, if no definition exists, then no record is generated and the item is never created.

Key	Field-Name	Type	Length
*	VERSION	CHAR	8
*	ORDID	CHAR	3
*	ELEMENT	CHAR	16
	UNIT	CHAR	16
	NORMAL	CHAR	16
	DEFRATE	DEC	15 (scale 0)
	MINCHG	DEC	15 (scale 0)
	MAXCHG	DEC	15 (scale 0)
	COST: (See note)	DEC	15 (scale 0)

Note: For Future Use.

IRDESC Table

This table is maintained by CA.

Key	Field Name	Type	Length
*	VERSION	CHAR	4
	DATASET	CHAR	7
*	IRID	CHAR	8
	DESCRIPT	CHAR	20
	ORIGIN	CHAR	1
	IDBEGPOS	CHAR	5
	IDLENGTH	CHAR	2
	IDHEXVAL	CHAR	20
	LENGTH	CHAR	5

* in the Key column identifies fields used to select specific records.

IRDTAB Table

This table is maintained by CA.

Key	Field Name	Type	Length
*	VERSION	CHAR	4
	DATASET	CHAR	7
*	IRDID	CHAR	8
*	ELEMENT	CHAR	16
	FORMAT	CHAR	2
	ATTRIB	CHAR	2
	BEGINPOS	CHAR	5
	LENGTH	CHAR	2
	PREC	CHAR	2
	DESCRIPT	CHAR	20

* in the Key column identifies fields used to select specific records.

MODTAB (Charge Modifier Table)

Defines conditions that modify the calculated charges for reasons such as vacation discounts, priority weighting, class weighting and so forth.

A condition is specified, as well as a *modifier*. This takes the form of either an amount, or a percentage. If the condition is found to be true, then the modifier is applied to the calculated charge. This table contains modifier definitions.

Key	Field-Name	Type	Length
*	VERSION	CHAR	8
*	ORDID	CHAR	3
*	MODIFIER	CHAR	16
	ELEMCRT	CHAR	16
	QUALCRIT	CHAR	16
	ST1CRIT	CHAR	16
	ST2CRIT	CHAR	16
	ST3CRIT	CHAR	16
	ST4CRIT	CHAR	16
	ST5CRIT	CHAR	16
	MODAMT	DEC	15 (scale 0)
	MODFLAG	CHAR	1
	MODEOT	CHAR	1
	MODQUAL	CHAR	16
	SEQNO	INT	4

NORMTAB (Unit Normalization Table)

Defines a normalization or weighting factors to be applied when calculating charge unit values. It may be the case, in a multiprocessing environment, that you require the ability to normalize certain data such as CPU timings. The NORMTAB is linked to the charge element, even though the Normalization Factor is applied to the calculated unit. You specify a field name to be tested, a condition to be checked, and a factor to be applied to the calculated charge unit.

Key	Field-Name	Type	Length
*	VERSION	CHAR	8
*	ORDID	CHAR	3
*	NORMAL	CHAR	16
*	NORMQUAL	CHAR	16
	FACTOR	DEC	15 (scale 0)
	NORMFLAG	CHAR	1
	SEQNO	INT	4

OPTTAB (Option Settings Definition Table)

This table defines user options, by userid, so that each user's settings can be saved individually.

Key	Field-Name	Type	Length
*	USERID	CHAR	8
	MONIC	CHAR	3
	ACTBAR	CHAR	5
	MSGWRN	CHAR	3
	MSGINF	CHAR	3
	SOD	CHAR	4
	ALTPF	CHAR	3
	DBROWS	CHAR	6
	BASEVER	CHAR	4
	CBVER	CHAR	4

ORDDESC Table

This table is maintained by CA.

Key	Field Name	Type	Length
*	VERSION	CHAR	4
*	ORDID	CHAR	3
	DESCRIPT	CHAR	20
	LENGTH	CHAR	5
	FLAGS	CHAR	1
	RETAIN	CHAR	4

* in the Key column identifies fields used to select specific records.

ORDTAB Table

This table is maintained by CA.

Key	Field Name	Type	Length
*	VERSION	CHAR	4
*	ORDID	CHAR	3
*	ELEMENT	CHAR	16
	TYPE	CHAR	1
	FORMAT	CHAR	1
	BEGINPOS	CHAR	5
	LENGTH	CHAR	2
	PREC	CHAR	2
	SRCNAME1	CHAR	16
	SRCNAME2	CHAR	16
	DESCRIPT	CHAR	20
	CONSTRUC	CHAR	8
	FLAGS	CHAR	2
	SRCIRDID	CHAR	8

* in the Key column identifies fields used to select specific records.

PERTAB (Period Definition Table)

Chargeback is, as a task, performed continuously. However, actual invoicing is normally done on a fixed period basis. There is a requirement to maintain the charges on a periodic basis across the whole system. The purpose of the PERTAB is to define these fixed periods.

Key	Field-Name	Type	Length
*	VERSION	CHAR	4
*	PERIOD	INT	4
	END_DATE	CHAR	8
	END_TIME	CHAR	6

QUALTAB (Algorithm Qualifier Definition Table)

Defines Qualifier definitions that associate a qualifier to an algorithm.

Note: Algorithms are *owned* by charge elements, qualifiers are *owned* by no one.

Qualifiers are normally associated with an ORD record. A qualifier is simply a logical test to establish truth or falsehood.

Key	Field-Name	Type	Length
	VERSION	CHAR	8
	ORDID	CHAR	3
	QUAL	CHAR	16
	QLINK	CHAR	3
	QFIELD	CHAR	16
	QOPER	CHAR	2
	QCONS	CHAR	16
	SEQNO	INT	4

QUERYTAB (Saved Query Definition Table)

Defines queries which are stored by name, for later retrieval and use. This provides a way for nontechnicians to execute queries against the CCCTAB, CCCMOD, BUDTAB, and DBCRTAB tables for *on demand* reporting purposes.

Key	Field-Name	Type	Length
*	VERSION	CHAR	8
*	QNAME	CHAR	8
	SUMFLAG	CHAR	1
	BRFLAG	CHAR	1
	BDFLAG	CHAR	1
	ORDID	CHAR	3
	ORDID_B	CHAR	1
	ORDID_0	CHAR	1
	CNT	CHAR	16
	CNT_OP	CHAR	1
	CNT_S	CHAR	3
	ELEM	CHAR	16
	ELEM_B	CHAR	1
	ELEM_0	CHAR	1
	RATE	CHAR	16
	RATE_OP	CHAR	1
	RATE_S	CHAR	3
	QUAL	CHAR	16
	QUAL_B	CHAR	1
	QUAL_0	CHAR	1
	UNITS	CHAR	16
	UNITS_OP	CHAR	1
	UNITS_S	CHAR	3
	PER_FR	CHAR	4
	PER_TO	CHAR	4
	PER_B	CHAR	1
	PER_0	CHAR	1
	BUDAM	CHAR	16
	BUDAM_OP	CHAR	1
	BUDAM_S	CHAR	3
	ST1	CHAR	16
	ST1_B	CHAR	1
	ST1_0	CHAR	1
	BUDPC	CHAR	16
	BUDPC_OP	CHAR	1
	BUDPC_S	CHAR	3
	ST2	CHAR	16
	ST2_B	CHAR	1
	ST2_0	CHAR	1
	CHG	CHAR	16
	CHG_OP	CHAR	1

	CHG_S	CHAR	3
	ST3	CHAR	16
	ST3_B	CHAR	1
	ST3_0	CHAR	1
	DBAM	CHAR	16
	DBAM_OP	CHAR	1
	DBAM_S	CHAR	3
	ST4	CHAR	16
	ST4_B	CHAR	1
Key	Field-Name	Type	Length
	ST4_0	CHAR	1
	CRAM	CHAR	16
	CRAM_OP	CHAR	1
	CRAM_S	CHAR	3
	ST5	CHAR	16
	ST5_B	CHAR	1
	ST5_0	CHAR	1
	TOT	CHAR	16
	TOT_OP	CHAR	1
	TOT_S	CHAR	3
	DESC	CHAR	20
	DESCRIPT	CHAR	20

RATETAB (Charge Algorithm Definition Table)

An algorithm is a formula that associates a rate with a qualifier. This table contains the **qualified** (conditional) rates.

Key	Field-Name	Type	Length
*	VERSION	CHAR	8
*	ORDID	CHAR	3
*	ELEMENT	CHAR	16
	SEQNO	INT	4
*	QUALNAME	CHAR	16
	RATE	DEC	15 (scale 0)
	COST: (See note)	DEC	15 (scale 0)

Note: For Future Use

SPLITTAB (Split Resource Definition Table)

Defines the conditions under which a charge associated with a given job or task executed on behalf of several users is split. The normal method is to allocate a fixed percentage of the charge to each user; the combined percentages total 100. This table maintains this information, and is used by the Detail functions to perform the split.

Key	Field-Name	Type	Length
*	VERSION	CHAR	8
*	ORDID	CHAR	3
*	SPLIT	CHAR	16
*	ST1CRIT	CHAR	16
*	ST2CRIT	CHAR	16
*	ST3CRIT	CHAR	16
*	ST4CRIT	CHAR	16
*	ST5CRIT	CHAR	16
	PERCENT	DEC	15 (scale 0)

SUMTAB (Summary Function Definition Table)

Defines what records are to be selected at the end of a period. Summary functions are concerned with calculations that can only be made at the end of a period. These fall into two categories: Cost Recovery and Overhead Allocation. In each case, a given set of records (which may be ALL records) from the CCCTAB file are selected. New records are added to the CCCTAB file detailing the modified charges, in both cases.

Key	Field-Name	Type	Length
*	VERSION	CHAR	8
*	RULENAME	CHAR	16
*	ORDID	CHAR	3
	STRUCT1	CHAR	16
	STRUCT2	CHAR	16
	STRUCT3	CHAR	16
	STRUCT4	CHAR	16
	STRUCT5	CHAR	16
	ELEMENT	CHAR	16
	QUAL	CHAR	16
*	PERIOD	INT	4
	SRC_ORDID	CHAR	3
	SRC_ELEMENT	CHAR	16
	SRC_AMOUNT	DEC	15

UNITTAB (Charge Unit Definition Table)

Defines the formula to be used when calculating charge unit values. A *charge unit* can be calculated via any mathematical formula based on the contents of an ORD element or a combination of two or more existing ORD elements.

Key	Field-Name	Type	Length
	VERSION	CHAR	8
	ORDID	CHAR	3
	UNIT	CHAR	16
	ULINK	CHAR	1
	UFIELD	CHAR	16
	UOPER	CHAR	1
	UCONS	CHAR	16
	SEQNO	INT	4

Note: For information on how to get a hard copy of these tables, see your Database Administrator.

Appendix B: CA JARS/OLF Panel Displays: Monochrome vs. Color

The following table summarizes the colors and intensities, by panel element, used by CA JARS/OLF when displaying panels on non-programmable color and monochrome terminals.

Action Bar and Pull-Down

Panel Element	ColorTerminal	Monochrome Terminal
Background	Black	Black
Choices	White	White
Mnemonics	Underscore	Underscore

Panel Body

Panel Element	ColorTerminal	Monochrome Terminal
Background	Black	Black
Protected Information		
Panel Titles	Yellow	High intensity
Panel ID	Blue	Normal intensity
Instructions	Turquoise	Normal intensity
Field Prompts	Turquoise	Normal intensity
Brackets	Turquoise	Normal intensity
Column Headings	Turquoise	High intensity
Group Headings	Turquoise	Normal intensity
Normal Text	Turquoise	Normal intensity
Emphasized Text	Yellow	High intensity
Entry Field Underscore		
Normal Input	Green	Normal intensity
Emphasized Input	Yellow	High intensity
Panel Element	ColorTerminal	Monochrome Terminal
Choices	White	Normal intensity
Unavailable Choices	Blue	Asterisk (*)
Mnemonics	Underscore	Underscore
Entry Field Content		
Normal Input	Green	Normal intensity
Emphasized Input	Yellow	High intensity
Scrolling Information	Blue	Normal intensity
Separator Line	Turquoise	Normal intensity
Pop-up Window Border	Turquoise	Normal intensity

Function Key Area

Panel Element	ColorTerminal	Monochrome Terminal
Background	Black	Black
Choices	Blue	Normal

Selection Emphasis

Panel Element	ColorTerminal	Monochrome Terminal
Selection Cursor		
Choices	Text cursor	Text cursor
Entry Field	Text cursor	Text cursor in field
Selected Emphasis	Yellow	Reverse color
Selected/Cursored	Yellow/Text cursor	Reverse color

Error Emphasis

Panel Element	ColorTerminal	Monochrome Terminal
Error Emphasis	Red	Reverse

Messages

Panel Element	ColorTerminal	Monochrome Terminal
Notification		
Background	Black	Black
Foreground	White	High intensity
Warning		
Background	Black	Black
Foreground	Yellow	High intensity
Critical		
Background	Black	Reverse/Highlight
Foreground	Red	Reverse/Highlight

Appendix C: Predefined CA JARS History Records

Output from CA JARS Related Products and CA JARS Interfaces as Processed by JARS/OLF	JCL DDNAME	Internal DDNAME	IRD and ORD Name	EXTDATA Type	CAJRSQ Member
ADABAS	CAIKSJR	JARS	MAB	n/a	DBASES
CA Datacom/DB	CAIKSJR	JARS	MDB	n/a	DBASES
CA DYNAM/TLMS debits credits	CAIKSJR	JARS	MVD MVC	n/a n/a	TVA
CA IDMS/DB	CAIKSJR	JARS	MIB	n/a	DBASES
CA MAZDAMON debits credits	CAIKSJR	JARS	MND MNC	n/a n/a	NETVIEW
CA Roscoe	CAIKSJR	JARS	MRB	n/a	ROSCOE
CA 1 debits credits	CAIKSJR	JARS	MVD MVC	n/a n/a	TVA
CICS programs transactions	CAIKSJR	JARS	MCP MCT	n/a n/a	MVSCICS
DB2 debits credits	CAIKSJR	JARS	M2D M2C	n/a n/a	DBASES
CA JARS/DSA debits credits	CAIKSJR	JARS	MSD MSC	n/a n/a	JARSDSA
CA JARS/DSA 6.0 Direct Feed File	CAIKSJR	JARS	DSA	SDSA	JARSDSA
IMS	CAIKSJR	JARS	MMB	n/a	DBASES
MVS - Batch step job I/O print	CAIKSJR	JARS	MBS MBJ MBI MBP	n/a n/a n/a n/a	MVSBAT
debit credit			M-D M-C	n/a n/a	MVSDBCR
MVS RJE	CAIKSJR	JARS	MJB	n/a	MVSRJE
MVS TSO I/O job print			MTI MTJ MTP	n/a n/a n/a	MVSTSO

step			MTS	n/a	
NETVIEW debit			MND	n/a	NETVIEW
credit			MNC	n/a	
TVA debits	CAIKSJR	JARS	MVD	n/a	TVA
credits			MVC	n/a	
VM Accounting	CAIKSJR	JARS	IEZ	IEZ	JARINT
VSE (converted from TOPS)					
BATCH step	CAIKSJR	JARS	DBS	n/a	VSEBAT
job			DBJ	n/a	
I/O			DBI	n/a	
print			DBP	n/a	
CICS program	CAIKSJR	JARS	DCP	n/a	VSECICS
transaction			DCT	n/a	
ICCF	CAIKSJR	JARS	DFB	n/a	VSEICCF
IDMS	CAIKSJR	JARS	DIB	n/a	VSEIDMS
POWER RJE	CAIKSJR	JARS	DJR	n/a	VSERJE
MVS Address Space Task	CAIKSJR	JARS	J30	S30	EXTTASK
Step			X30	S30X	EXTSTEP
Interval			I30	S30I	EXTINT
I/O Task			J10	S10	EXTTASK
Step			X10	S10X	EXTSTEP
Interval			I10	S10I	EXTINT
RJE BSC			BSC	SBSC	EXTRJE
RJE SNA			SNA	SSNA	EXTRJE
SYSOUT			S06	S06	EXTWTR
DB2			DB2	S101	EXTDB2
TSO COMMAND			S32	S32	EXTTSOC
Data in Virtual			S41	S41	EXTDIV
APPC Inbound Conversation			I33	S33I	EXTAPPC
Outbound Conversation			O33	S33O	EXTAPPC
Transaction			T33	S33T	EXTAPPC
JES2 Network Transmit	CAIKSJR	JARS	J57	S572	EXTNJE
SMS Dataset Internal			I42	S42I	EXTSMS
Dataset Close			D42	S42D	
Measured Usage					EXTMU
System-Wide			R89	R89	
Address Space Task			JMU	U30	
Step			XMU	U30X	
Interval			IMU	U30I	

OpenEdition						EXT0E
HFS File Usage			HFS	OHFS		
Address Space Task			JOE	030		
Step			XOE	030X		
Interval			IOE	030I		
TCP/IP						EXTTCP
TELNET			TEL	STEL		
SOCKET API			SOC	SAPI		
FTP			FTP	SFTP		
CMF						
(CICS Monitoring Facility)						EXTCMF
Tasks			CMF	CMCC		
<hr/>						
EXTDATA CICS File	CAIKSJR	JARS	CFL	CFIL		MVSECIC
EXTDATA CICS Root	CAIKSJR	JARS	CRT	CRT		
EXTDATA CICS Prog	CAIKSJR	JARS	CPR	CPRG		
EXTDATA CICS Term	CAIKSJR	JARS	CTE	CTRM		
<hr/>						
WebMQ Accounting data	CAIKSJR	JARS	MQS	SMQA		EXTMQR
WebMQ Queue Info	CAIKSJR	JARS	MQQ	SMQQ		EXTMQQ
WebMQ Task Data	CAIKSJR	JARS	MQR	SMQR		EXTMQR
WebSphere						
WebSphere Server	CAIKSJR	JARS	WSA	SWSA		EXTWSA
WebSphere WebContainer			WWA	SWWA		
TCP/IP 119						
Telnet Termination	CAIKSJR	JARS	TCT	STCT		EXT119
FTP Client Completion			CTC	SCTC		
Sockets			UDP	SUDP		
TN3270 Server SNA			SST	SSST		
Telnet Client term			TCC	STCC		
FTP Server Completion			FST	SFST		
JARS Interface Data						
ADABAS Activity Summary	CAIKSJR	JARS	IEA	SIEA		JARINT
Datacom Activity Summary	CAIKSJR	JARS	IED	SIED		JARINT
IMS LOGDATA Accounting	CAIKSJR	JARS	IEI	SIEI		JARINT
NetView Session Summary	CAIKSJR	JARS	IEN	SIEN		JARINT
Roscoe Session Summary	CAIKSJR	JARS	IER	SIER		JARINT
Tape Volume Activity	CAIKSJR	JARS	IET	SIET		JARINT
VM Session Summary	CAIKSJR	JARS	IEZ	SIEZ		JARINT

Glossary

accounting structure

The accounting hierarchy of your organization.

action

One of a set of defined tasks a computer performs. You can request an application to perform an action by:

- typing a command
- pressing a function key
- selecting an action from a menu or action bar

action bar

Appears at the top of a panel; it gives you access to a group of actions that CA JARS/OLF supports. The action bar contains a list of keyword choices.

action bar pull-down

An extension of the action bar that displays a list of options available for the selected action bar choice. The pull-down appears after you make an action bar selection. Additional pop-up windows may appear from pull-down choices to further extend the actions available to you.

action codes

Numbers and mnemonics assigned to actions in a list panel.

algorithm

A series of steps that yield a result (usually a repetitive process). In this case, the formula for calculating charges for resource usage using CA JARS/OLF.

application

A collection of software components that you purchase and install to perform specific types of work on a computer. In other words, the reason programs are written. For example, a payroll application or a chargeback application.

audit facility

An operating system service which reviews and examines the activities of the system. Its purpose is to test data security and data integrity procedures.

batch processing.

A method of processing large amounts of data at one time for jobs too large to execute immediately online. Such jobs do not involve user interaction.

block.

Any kind of grouped data (a string of records, a string of words, a character string) treated as a single unit.

CA ACTIVATOR

The *CA ACTIVATOR* is an interactive program that offers one central source for the management of CA products.

CA EARL

The *CA EARL* is Easy Access Report Language. An optional facility which can be used to generate reports.

cancel

An action that removes the current panel without processing it and returns you to the previous panel.

catalog

A file the computer system maintains as a directory index to the system's files, similar to the card catalog of a standard library.

centralized database

A systemized collection of data for access by a variety of applications that is centrally located.

character string.

One or more alphabetic, numeric, or special characters, usually enclosed in delimiters.

charge element

A user-defined element that holds the result of a chargeback algorithm (the charge).

charge unit

Defines a chargeable resource. A charge unit can be either:

- **Simple:** A numeric field from the incoming ORD record that is used in the chargeback algorithm. Any numeric field in the incoming ORD record can be designated as a charge unit, and thus charged for.
- **Complex:** a user-defined name calculated from two or more existing ORD fields or other complex units.

chargeback

The process of measuring, recording, charging for, and reporting resource usage by cost center.

column

A vertical list of values in a table that correspond to one field. Not a *row*.

command input area

Preceded by the screens ==> indicator on an online data entry panel.Used to enter commands, link, transfers, prompts.

commit

An indication in an application program that a section of work is done and that the data it has modified or created is consistent and complete.

conditional execution

Only some of the steps in a procedure are executed depending on the conditions at the time of the execution.

conditional expansion

Only some of the steps in a procedure are retrieved and expanded depending on the conditions at the time of the expansion.

construct

An identifier that is added by an application.

control field

A portion of records you designate, which are used by the program to sort or merge records into a specific sequence.

control parameters

Parameters which are generally governed by their installation defaults and will only need to be specified in special cases.

control statement

A list of keywords that determine what a batch job will do. Defaults are usually defined during installation.

cost recovery

A method for recovering a specified dollar amount for a designated resource from the accounting entities that used the resource.

data center

A computer room and its support facilities.

data definition table

See definition tables.

data dictionary

A definition of the database files and fields and their attributes.

data management

Controlling the access, storage, and retrieval of data; and the monitoring of input and output devices.

data normalization

The process of removing any potential problems from the design of a relational database.

data reduction

The transformation of raw data into a more useful and compressed form.

data set

A group of logically related records stored together and given a unique name.

data table

Database tables that contain data used or produced by an application.

database

(See also **relational database**)

A systemized collection of data stored for immediate access.

A set of data consisting of at least one file, sufficient for a given purpose or for a given data processing system.

Database Administrator(DBA)

A person who is responsible for a database system, particularly for the rules by which data is accessed and stored. The DBA is usually responsible also for database integrity, security, performance, and recovery.

database archival

Periodic backups of the database as protection against media failure or for future reference.

database load

Transferring data to the database for processing.

default

A value or action automatically supplied by the computer system unless you specify some other alternative.

default option

An option which has already been set for the system according to the way it is assumed to be most generally used. You may change any default option to your own specifications.

definition tables

Tables that contain primarily user-defined input which defines the actual CA JARS/OLF processing environment and controls the logic of the system.

delimiter

A special character that precedes and follows a character string.

development version

The version you can edit. See **commit processing**.

diagnostic message

A message displayed and/or printed by CA JARS/OLF when it detects an error during execution.

display keys

A common dialog action that lets you choose the way function key area will be displayed. Options include: long form, short form, or not at all.

DSG

The *DSG* is Data Set Group. Data sets grouped together because their names begin with the same high-level qualifier(s).

DSN

The *DSN* is Data Set Name. A term or phrase that is the entire, fully-qualified name of a file.

dump

A printout of the data which is currently stored in memory.

element

The space reserved for a data value on a panel. Where CA JARS/OLF displays data or accepts input. Also see **charge element**.

enter

A user action that:

- Submits panel information to the computer for processing
- Tells the computer to perform selected actions on specific objects
- Implies selection of an item

entry panel

A specific panel type containing one or more entry fields (and optionally selection fields and protected information such as headings, prompts, and explanatory text).

exit

An action that terminates the current panel and returns you to a higher level panel. Repeated exit requests return to the highest level in the panel hierarchy.

facility

An operational capability provided to accomplish a particular task.

fast path

An interaction technique that is faster than the usual interaction for moving through panels. This can include typing the number of a choice or using mnemonics.

field

What input and output record layouts consist of. The definition of data values aligned in a column within a table.

fixed length records

These records have the same length as all other records with which they are associated.

function key

A key that causes a specified sequence of operations to be performed when it is pressed. Function keys are usually labeled Fn.

GDG

The *GDG* is Generation Data Group. A collection of data sets kept in chronological order. Each time you make an addition, you create a new "generation."

generic selection

Allows you to display, list or analyze a group of records, tables, or jobs whose names begin with the same characters by coding the common characters with a special character (usually the percent sign).

global parameters

A variable that can be set to an arithmetic, binary, or character value and used as a predecessor condition.

input ID

The unique code that occurs in the same place on all records of the same type.

inquiry/update program

A system application used to interrogate and update one or more tables the system maintains at the same time.

installation option

A value specified on the installation macro when the product is installed.

IRD

An acronym for Input Record Definition.

key

A data item that identifies a data record. For example, product key or customer key.

keyword

Choices within the action bar. Tab to a keyword and press **Enter** to perform that particular action.

list panel

A panel that displays a list of items from which you can select one or more items (choices) and then specify one or more actions to work on those choices.

lookup table

A CA JARS/OLF option used to identify the specific entities within an accounting structure. The lookup name is stored within the database in a lookup table and is available for display when you do queries and print invoices and reports.

maximum charge

The maximum charge that can be assessed for a **charge element**. If the computed charge is greater than or equal to the maximum charge, the maximum charge will be applied.

minimum charge

The minimum charge that can be assessed for a **charge element**. If the computed charge is less than or equal to the minimum charge, the minimum charge will be applied.

modifier

A modifier is used to make special changes to a charge, such as discounts and so forth. A modifier takes the form of either an amount or a percentage. When a conditional test is applied and found to be true, the modifier is applied to the calculated charge (the charge element).

normalizer

Normalizers give you the ability to weight the value of a charge unit. Normalizer are numeric and frequently have qualifiers associated with them.

offset

Where the first character in a element is located within the record (the nth character position).

online

An interactive computer session run from a computer terminal. As opposed to batch and *offline*.

ORD

An acronym for Output Record Definition.

output record header

Since CA JARS/OLF outputs records for Performance Management and Accounting applications, duration of services is of primary importance. For this reason, every output record definition includes a header that specifies the ORD, a start stamp, stop stamp and duration.

overhead allocation

Distribution of charges for a shared or common resource.

panel ID

A set of numbers and letters that identify an online product panel.

period number

Each database record is associated with a different time frame. Period number is the identifier used for each of these time frames.

PMA

An acronym meaning Performance, Measurement and Accounting.

pop-up window

A portion of a screen in which a small panel is displayed.

Note: You must finish interacting with a set of related pop-up windows before continuing with the base panel.

precision

The number of digits to the right of the decimal point.

primary panel

The first panel that appears when you run CA JARS/OLF.

PROC

A job control statement used in cataloged or in-stream procedures.

production (PROD) version

The data used to produce real invoices. As opposed to *test version* or *development version*.

prompt

A word on a screen that reminds you to supply a value.

protection

A method for restricting access to programs, tasks, storage files, and so forth. Does not allow modification.

pull-down

See **action bar pull-down**.

qualified rate

The rate that is selected for application to a unit based on a user-defined test (qualifier). A true or false condition based on the contents or range of a field.

qualifier

The name of a user-defined conditional test that is used in rate selection, as well as with normalizers and modifiers.

record

A group of logically related fields treated as a unit.

reduction

See **data reduction**.

relational database

A database that is organized and accessed according to relationships between data items. These relationships are expressed by means of tables of records and columns. Interdependencies among these tables are expressed by data values (rather than by pointers). Data items are accessed by matching values and not by following predefined paths-- the paths are established at the time of access. This allows a high degree of data independence.

row	A horizontal line of values in a table that correspond to one data record. Not a column.
screen ID	See panel ID.
scroll bar	A line on some CA JARS/OLF panels which gives you several ways to scroll records. For an explanation of how the scroll bar works, see Sample List Panel (see page 46).
shift chop	A CA JARS/OLF option that allows equitable allocation and calculation of charges to ORD records that span shifts. This function creates multiple records from a single input. The interval chop routines are performed before creation of the CCC detail record, at ORD reception.
SMF	The acronym for IBM's System Management Facilities. You can adapt CA JARS/OLF to process SMF data using customization.
source record	The record of origin.
split charge	CA JARS/OLF enables you to split charges calculated for a specific accounting level across its entities. Split processing occurs after charges are calculated for a given Consolidated Calculated Charge (CCC). If the record is associated with a split, then the charge is prorated and new records are created.
start and stop stamps	The date and time fields stored on the ORD. This information specifies when the process described by this record began and ended.
structure	See accounting structure .
suspend	Stops processing a panel but leaves it on the terminal screen for easy reference. Then resumes running the preceding panel.
table maintenance functions	Acctdefs or Cbdefs options that allow you to update/modify definition tables.
TEST version	Allows you to experiment with CA JARS/OLF without impacting your daily production processing.

user exits.

Computer instructions that allow you to modify the software package's code to meet your data center's needs.

variable length records.

Records that are not uniform in length.

Index

A

- Accounting sources
 - creating a lookup table • 90, 91
 - defining • 84, 85
 - examples • 84, 85, 90, 91
 - panels • 74, 78, 80, 86
 - Entry list (CBASRCE) • 80
 - Expanded list (CBASRCX) • 80
 - List (CBASRCL) • 78
 - Lookup insert pop-up (CBASRCI) • 86
 - Lookup panel (CBASRCU) • 86
 - Primary (CBASRCP) • 74
 - table (ACCSRTAB) • 63, 493
 - detail • 493
 - overview • 63
- Accounting structure
 - defining • 69
 - panel (CBASTRE) • 71
 - table (ACCSTTAB) • 63, 494
 - detail • 494
 - overview • 63
- ACCSRTAB (Accounting sources table)
 - detail • 493
 - overview • 63
- ACCSTTAB (Accounting structure table)
 - detail • 494
 - overview • 63
- Acctdefs
 - detail • 69
 - overview • 17
- ACCTLOOK (Lookup table)
 - detail • 494
 - overview • 63
- Action bar
 - function key • 31, 60
 - overview • 31
 - pull-downs • 35, 36, 37, 38
 - Exit pull-down • 37
 - Help pull-down • 38
 - overview • 35
 - Panel pull-down • 36
- Algorithm qualifier definition table (QUALTAB)
 - detail • 502
 - overview • 63

Algorithms

- calculating • 101
- cost recovery • 206
- examples • 114, 115, 121, 122, 128, 129, 163, 164, 166, 171, 172, 173, 187, 188, 190, 206, 214, 215
 - cost recovery • 206, 214, 215
 - defining a complex unit • 121, 122
 - defining a conditional rate • 128, 129
 - defining a modifier • 187, 188, 190
 - defining a normalizer • 166, 171
 - defining a qualifier • 163, 164
 - defining flat rates • 172
 - normalization of charge units • 115
 - overhead distribution • 215
 - preexisting charges • 173
 - simple charge format • 114
- logic used in calculations • 101
- overview • 100

B

- Batch Forecasting
 - CAKRFCST control statements • 446
 - control report • 453
- Batch processing
 - invoicing • 475, 484
 - overview • 401
 - period close • 457
 - period open • 460
 - reconciliation reports • 468
 - summary functions • 454
- Batch reporting
 - Forecasting control report • 453
 - Invoices • 475, 477, 480, 481, 483
 - overview • 463
 - Reconciliation reports • 468
 - using CA Earl • 463
- Budget browse criteria
 - examples • 292, 293
 - browsing by qualifier • 293
 - specifying ORD type & period • 292
 - panel (CBDBGTB) • 289
- Budget list
 - examples • 297, 298
 - panel (CBDBGTL) • 294

Budget panels

- browse criteria (CBDBGTB) • 289
- entry (CBDBGTE) • 299
- expanded list (CBDBGTX) • 296
- list (CBDBGTL) • 294
- primary (CBDBGTP) • 287

Budget query panels • 266

- results (CBQBGTB) • 266
- results (CBQBGTD) • 266

Budget table (BUDTAB)

- detail • 495
- overview • 64

Budgets, examples

- Budget list • 297, 298
- defining a budget • 303, 304
- deleting a record • 308
- updating a record • 305

BUDTAB (Budget table)

- detail • 495
- overview • 64

C

CA Earl

- batch reporting • 463, 468, 475, 484
 - CAJREARL members • 468, 475, 484
 - General Ledger interface file • 484
 - Invoices • 475
 - overview • 463
 - Reconciliation reports • 468
 - report control statements • 463
- CAJREARL members • 470, 477, 486
 - CAKRECN1 • 470
 - CAKRLIC • 486
 - CAKRINV1 • 477

CAIKRPAR parameter file

- detail • 406, 407

CAIKSPAR parameter file

- detail • 404

CAIPROCs

- summary table • 401

CAJREARL library

- General Ledger CAKRLIC • 484
- Invoice members • 475
 - CAKRINV1 • 475
 - CAKRINV2 • 475
 - CAKRINV3 • 475
- Reconciliation report members • 468
 - CAKRECN1 • 468

CAKRECN2 • 468

CAJRSAMP

- CA\$KRLD exit • 438
- CAJREARL members • 470, 477, 486
 - CAKRECN1 • 470
 - CAKRLIC • 486
 - CAKRINV1 • 477
- CAKRARCH member • 412
- CAKRCOMT member • 421
- CAKRCPY member • 425
- CAKRECON member • 469
- CAKREST member • 416
- CAKRFCST member • 446, 452
- CAKRINV1 example • 480
- CAKRINV2 example • 481
- CAKRINV3 example • 483
- CAKRINVC MACLIB member • 476, 485
- CAKRPLS member • 457
- CAKRPOP member • 460, 462
- CAKRSUM member • 455
- CAKSARES PROC • 410
- CAKSEAR2 PROC • 484
- CAKSEARL PROC • 464, 468, 475
 - Invoicing, CAJREARL members • 475
 - overview • 464
 - Reconciliation file, CAJREARL members • 468
- CAKSORDS report job • 465
- CAWFLOAD member • 427
- membername summary • 401

CAKRARCH

- CAJRJCL • 412
 - member • 411
 - output • 414
- ### CAKRCOMT option
- CAJRJCL • 421
 - control statement • 418
 - output • 422

CAKRCPY option

- CAJRJCL • 425
- control statement • 422
- copy table procedure • 422
- output • 426

CAKRECON

- JCL • 469
 - member for executing CAKSEARL • 468
- ### CAKREST option
- CAJRJCL • 416
 - member • 414
 - output • 417

- CAKRPCLS period close program
 - control parameters • 457
 - JCL • 459
 - overview • 457
 - setup checklist • 458
- CAKRPCLS, period close program
 - overview • 457
- CAKRPOPN, period open program
 - control parameters • 460
 - JCL • 462
 - overview • 460
- CAKRSUM job stream
 - control parameters • 454
 - JCL • 455
 - overview • 454
 - reports • 455
- CAKSARCH archive/restore program
 - BACKUP option • 411
 - COMMIT option • 418
 - COPY option • 422
 - RESTORE option • 414
- CAWFLOAD job stream
 - JCL • 436
 - overview • 427
 - processing • 429, 444
 - setup checklist • 435
- CCCMOD (Scratchpad table)
 - detail • 495
 - overview • 64
- CCCTAB (Consolidated calculated charges table)
 - detail • 495
 - overview • 64
- Charge algorithm definition table (RATETAB)
 - detail • 504
 - overview • 63
- Charge element definition table (ELEMTAB)
 - detail • 498
 - overview • 63
- Charge elements
 - defining • 114, 115, 121, 122, 128, 129, 163, 164, 171, 172, 173, 187, 188, 190
 - a complex unit • 121, 122
 - conditional rates • 128, 129
 - flat rate • 172
 - modifiers • 187, 188, 190
 - normalized complex unit with a conditional rate • 115
 - normalizers • 171
 - preexisting charges • 173
 - qualifiers • 163, 164
 - simple charge format • 114
 - surcharge • 172
 - qualifying normalizers • 166
- Charge elements panels
 - entry (CBCELME) • 110
 - expanded list (CBCELMX) • 109
 - list (CBCEMLML) • 107
 - primary (CBCELMP) • 105
- Charge modifier table (MODTAB) • 64, 499
 - detail • 499
 - overview • 64
- Charge query • 230, 233, 235, 242, 253, 259
 - detail report (NN) • 242
 - entry field options • 253, 259
 - panels • 230, 233, 235, 242
 - expanded list (CBQQRXYX) • 235
 - list (CBQQRYL) • 233
 - primary (CBQQRYP) • 230
 - results (CBQQRYP) • 242
 - results (CBQQRYS) • 242
 - specifications (CBQQRYS) • 235
 - summary report (YN) • 242
 - summary with breaks report (YY) • 242
- Charge unit definition table (UNITTAB) • 63, 506
 - detail • 506
 - overview • 63
- Charge units • 117, 130, 131, 133, 135, 136, 163, 164, 166, 171, 187, 188, 190
 - defining • 130
 - defining a modifier • 187, 188, 190
 - defining a normalizer • 171
 - defining a qualifier • 163, 164
 - entry panel (CBCELMU) via charge elements • 117
 - insert window (CBCUNII) via charge elements • 117
 - normalizers • 166
 - defining • 166
 - qualifying • 166
 - panels • 117, 131, 133, 135, 136
 - entry panel (UNIE) • 136
 - entry via charge elements • 117
 - expanded list (CBCUNIX) • 135
 - insert panel (CBCUNII) • 136
 - insert window (CBCUNII) via charge elements • 117
 - list panel (CBCUNIL) • 133

-
- primary (CBCUNIP) • 131
 - Charge units panels • 131, 133, 135, 136
 - entry panel (UNIE) • 136
 - expanded list (CBCUNIX) • 135
 - insert panel (CBCUNII) • 136
 - list (CBCUNIL) • 133
 - list panel (CBCUNIL) • 133
 - primary (CBCUNIP) • 131
 - Chargeback
 - algorithms • 63
 - relational characteristics • 61
 - system flowchart • 15
 - Chargeback algorithms, examples
 - defining a complex unit • 121, 122
 - defining conditional rates • 128, 129
 - defining flat rates • 172
 - defining modifiers • 187, 188, 190
 - defining normalizers • 171
 - defining qualifiers • 163, 164
 - defining qualifiers for normalizers • 166
 - normalized complex unit with conditional rates • 115
 - simple charge format • 114
 - Chargeback tables
 - ACCSRTAB (Accounting sources) • 63, 493
 - detail • 493
 - ACCSTTAB (Accounting structure) • 63, 494
 - detail • 494
 - ACCTLOOK (Lookup) • 63, 494
 - detail • 494
 - BUDTAB (Budget) • 64, 495
 - detail • 495
 - CCCMOD (Scratchpad) • 64, 495
 - detail • 495
 - CCCTAB (Consolidated calculated charges) • 64, 495
 - detail • 495
 - CHOPTAB (Shift chopper definition) • 64, 496
 - detail • 496
 - Consolidated calculated charges table (CCCTAB) • 64, 495
 - detail • 495
 - DBCRTAB (Debit and credit) • 64, 497
 - detail • 497
 - ELEMTAB (Charge element definition) • 63, 498
 - detail • 498
 - IRDDESC • 498
 - detail • 498
 - IRDTAB • 499
 - detail • 499
 - MODTAB (Charge modifier) • 64, 499
 - detail • 499
 - NORMTAB (Unit normalization) • 63, 500
 - detail • 500
 - OPTTAB (Option settings definition table) • 500
 - detail • 500
 - OPTTAB (Option settings definition) • 64
 - ORDDESC • 501
 - detail • 501
 - ORDTAB • 501
 - detail • 501
 - PERTAB (Period definition) • 63, 502
 - detail • 502
 - QUALTAB (Algorithm qualifier definition) • 63, 502
 - detail • 502
 - QUERYTAB (Saved query definition) • 64, 503
 - detail • 503
 - RATETAB (Charge algorithm definition) • 63, 504
 - detail • 504
 - SPLITTAB (Split resource definition) • 64, 505
 - detail • 505
 - SUMTAB (Summary function definition) • 64, 505
 - detail • 505
 - UNITTAB (Charge unit definition) • 63, 506
 - detail • 506
 - Checklists
 - for CAKRPCLS close period • 458
 - for CAWFLOAD daily processing • 435
 - CHOPTAB (Shift chopper definition table)
 - detail • 496
 - overview • 64
 - Color terminal display
 - action bar and pull-down • 507, 508
 - error emphasis • 509
 - function key area • 508
 - messages • 509
 - panel body • 508
 - selection emphasis • 509
 - Commit processing
 - detail • 418
 - overview • 68
 - Concepts
 - CA JARS/OLF version • 22
 - CAIKRPAR parameter file • 27
 - CAIKSPAR parameter • 25
 - commit process • 25
 - Consolidated calculated charges table (CCCTAB)
-

- detail • 495
 - overview • 64
- construct version
 - creating constructs • 382
 - viewing committed versions • 383
- Control parameters
 - CAIKRINP DD statement • 460
 - CAKRPCLS job stream • 457
 - CAKRPOPJ job stream • 460
- Control statements
 - BACKUP • 411
 - CA Earl batch reporting • 463
 - CAKRCPY • 422
 - CAKRFCST (forecasting) • 446
 - COMMIT • 418
 - continuation character • 430
 - INPUT • 431
 - LINES • 432
 - RECYCLE OUTPUT • 434
 - RESTORE • 414
- Conventions
 - entering data • 104
 - entering qualifiers • 104
 - specifying search strings • 190
- Cost recovery panels
 - entry (CBCRECE) • 211
 - expanded list (CBCRECX) • 211
 - list (CBCRECL) • 209
 - primary (CBCRECP) • 207
- D**
- Daily processing (CAWFLOAD)
 - JCL • 436
 - overview • 427
 - requirements • 429
 - setup • 435
- Data functions
 - Budget • 289, 296, 299
 - browse criteria panel (CBDBGTB) • 289
 - entry panel (CBDBGTE) • 299
 - expanded list panel (CBDBGTX) • 296
 - Budget panels • 287, 289, 296, 299
 - browse criteria (CBDBGTB) • 289
 - entry (CBDBGTE) • 299
 - expanded list (CBDBGTX) • 296
 - primary (CBDBGTP) • 287
 - CBDCRDP, Debits/Credits primary panel • 312
 - DB/CR browse criteria panel (CBDCRDB) • 314
 - Debits/Credits panels • 312, 314, 319, 321, 324
 - DB/CR browse criteria (CBDCRDB) • 314
 - entry (CBDCRDE) • 324
 - expanded list (CBDCRDX) • 321
 - list (CBDCRDL) • 319
 - primary (CBDCRDP) • 312
 - Examples • 292, 293, 297, 298, 303, 304, 305, 308, 317, 318, 322, 323, 328, 330, 331, 334, 338
 - Budget list, selecting an entry • 297
 - Budgets list, selecting an item • 298
 - Budgets, browsing by qualifier • 293
 - Budgets, defining a budget • 303, 304
 - Budgets, deleting a record • 308
 - Budgets, specifying ORD type & period • 292
 - Budgets, updating a record • 305
 - Debits/Credits list, selecting an entry • 322
 - Debits/Credits list, selecting an item • 323
 - Debits/Credits, browsing by qualifier • 318
 - Debits/Credits, changing a debit to a credit • 334
 - Debits/Credits, creating a credit • 328
 - Debits/Credits, creating a debit • 330
 - Debits/Credits, deleting an entry • 338
 - Debits/Credits, specifying by ORD type & period • 317
 - Debits/Credits, updating a credit • 331
 - Panels • 287, 289, 294, 296, 299, 312, 314, 319, 321, 324
 - CBDBGTB, Budget browse criteria • 289
 - CBDBGTE, Budget entry • 299
 - CBDBGTL, Budget list • 294
 - CBDBGTP, Budget primary • 287
 - CBDBGTX, Budget expanded list • 296
 - CBDCRDB, DB/CR browse criteria • 314
 - CBDCRDE, Debits/Credits entry • 324
 - CBDCRDL, Debits/Credits list • 319
 - CBDCRDP, Debits/Credits primary • 312
 - CBDCRDX, Debits/Credits expanded list • 321
 - DB/CR browse criteria (CBDCRDB) • 314
 - Debits/Credits primary (CBDCRDP) • 312
 - DB/CR query
 - detail report (NN) • 278
 - entry field options • 282
 - selecting fields • 282
 - selecting tables • 282
 - specifying selection criteria • 282
 - panels • 278
 - results (CBQCRDB) • 278

- results (CBQCRDD) • 278
 - summary report (YN) • 278
 - summary with breaks report (YY) • 278
- DBCRTAB (Debit and credit table)
 - detail • 497
 - overview • 64
- Debit and credit table (DBCRTAB)
 - detail • 497
 - overview • 64
- Debits/Credits
 - entry panel (CBDCRDE) • 324
 - examples • 322, 328, 330, 331, 334, 338
 - changing a debit to a credit • 334
 - creating a credit • 328
 - creating a debit • 330
 - deleting an entry • 338
 - selecting an entry • 322
 - updating a credit • 331
 - updating a debit • 334
 - expanded list panel (CBDCRDY) • 321
 - list panel (CBDCRDL) • 319
 - panels • 319, 321
 - expanded list (CBDCRDY) • 321
 - list (CBDCRDL) • 319
 - primary panel (CBDCRDP) • 312
- Defining
 - a complex unit • 121, 122
 - accounting sources • 84, 85, 90, 91
 - accounting structures • 69
 - adjustments, overview • 205
 - charge elements • 99, 114, 115, 121, 122, 128, 129, 173
 - a complex unit • 121, 122
 - conditional rates • 128, 129
 - flowchart • 99
 - normalized complex unit with a conditional rate • 115
 - preexisting charges • 173
 - simple charge format • 114
 - charge units, normalizers and qualifiers directly • 130
 - charges, overview • 97
 - conditional rates • 128, 129
 - flat rates • 172
 - lookup tables • 84
 - modifiers • 187, 188, 190
 - normalized complex unit with a conditional rate • 115
 - normalizers • 166, 171

- preexisting charges • 173
- qualifiers • 163, 164, 166
- shift chop • 203

Displaying

- choices for prompts • 39
- genlevel • 387
- product genlevel • 39, 387
- prompts • 39

E

ELEMTAB (Charge element definition table)

- detail • 498
- overview • 63

Examples

- Accounting sources • 85, 90, 91
 - creating a lookup table • 90, 91
 - defining sources for a structure with Lookup Table • 85
- Batch processing • 408, 411, 415, 419
 - BACKUP control statement • 411
 - CAKREST control statement • 415
 - Committing a Development version • 419
 - Daily processing (CAWFLOAD) • 408
- Budget Query, specifying selection criteria within the ORD type field • 272
- Budgets • 292, 293, 297, 298, 303, 304, 305, 308
 - browsing by qualifier • 293
 - Budget list • 297, 298
 - defining a budget • 303, 304
 - deleting a record • 308
 - specifying by ORD type & period • 292
 - updating a record • 305
- Charge elements • 114, 115, 121, 122, 128, 129, 163, 164, 165, 166, 171, 172, 173, 187, 188, 190
 - *ONE* usage • 172
 - bringing in preexisting charges • 173
 - charging a flat rate • 172
 - conditional rates, defining • 129
 - defining a complex unit • 121, 122
 - defining conditional rates • 128
 - modifiers, defining • 187, 188, 190
 - normalized complex unit with a conditional rate • 115
 - normalizers, defining • 166, 171
 - preexisting charges, bringing in • 173
 - qualifiers, defining • 163, 164, 165, 166
 - simple charge format • 114

- charge query • 252, 255, 256, 258, 260
- committing a Development version • 418
- Cost recovery • 214, 215
- Creating a lookup table • 90, 91
- DB/CR Query, specifying selection criteria within
 - the charge element field • 283
- Debits/Credits • 317, 318, 322, 328, 330, 331, 334, 338
 - browsing by qualifier • 318
 - changing a debit to a credit • 334
 - creating a credit • 328
 - creating a debit • 330
 - deleting an entry • 338
 - selecting an entry • 322
 - specifying by ORD type & period • 317
 - updating a credit • 331
- Forecast • 349, 350, 361
 - adjusting qualifier amounts • 361
 - forecasting using the line algorithm • 349
 - forecasting using the smooth algorithm • 350
- Lookup table • 85, 90, 91
 - creating entities • 90, 91
 - defining sources for a structure with Lookup Table • 85
- Modifiers, defining • 187, 188, 190
- Normalizers • 166
 - defining • 166
 - qualifying • 166
- Overhead distribution • 223, 225
- Period, performing a manual adjustment • 348
- Qualifiers, defining • 163, 164, 165, 166
- Rate determination, recovering charges • 369
- Split charge • 198, 200
- Versions • 382, 383, 384

Exit

- CA\$KRLD • 438
- from CAWFLOAD job (CA\$KREX) • 438
- function key (F3) • 31
- pull-down • 37

Expanded

- charge units entry panel • 120, 139
- normalizer entry panel • 148, 170
- qualified rates entry panel • 127

F

Flowcharts

- application system • 15
- defining charge elements • 99

- record processing • 427

Forecast

- control statement • 450
- methods • 449
- panels • 345, 352, 355, 357, 360
 - element (CBOFCTD) • 355
 - elements list (CBOFCTE) • 352
 - overall results (CBOFCTO) • 345
 - qualifier (CBOFCTG) • 360
 - qualifiers list (CBOFCTQ) • 357

Forecasting, batch

- CAKRFCSB program • 446
- CAKRFCST • 446
- control report • 453
- reporting • 453

Function key settings

- for Help • 389
- global • 60
- global settings • 31
- Local settings • 61
- summary • 60

H

Help facility

- displaying genlevel • 387
- exiting Help • 390
- field help • 392
- for action bar choices • 385
- function key (F1) • 31
- function key settings • 389
 - function key settings • 389
- help for help • 399
- Index • 398
- overview • 385
- panel help • 391
- panels, overview • 41
- pull-down • 38
- table of contents panel • 394
- topic • 396

I

Insert pop-up windows

- Accounting sources lookup insert, CBASRCI • 86
- Normalizer (CBCELNI) via charge elements • 168
- Normalizer (CBCNRMII) • 145
- Qualified rate insert, CBCQLRI • 123
- Qualifier (CBCQUALI) • 155, 158
- Units (CBCUNII) • 136

Units insert, CBCUNII • 117
Interrelationship between CA JARS/OLF versions
COMMIT • 68
overview • 67

Invoice reports
example 1 (CAKRINV1) • 480
example 2 (CAKRINV2) • 481
example 3 (CAKRINV3) • 483
headings • 477
overview • 475

J

JCL
CA\$KRLD exit • 438
CAJREARL members • 470, 477, 486
CAKRECN1 • 470
CAKRGLIC • 486
CAKRINV1 • 477
CAKARES PROC • 401
CAKRARCH member • 411, 412
CAKRCOMT member • 421
CAKRCPY member • 425
CAKRECON member • 469
CAKRECON member for executing CAKSEARL • 468
CAKREST member • 414, 416
CAKRFCST member • 452
CAKRGLIC MACLIB member • 485
CAKRINVC MACLIB member • 476
CAKRINVn examples • 480
CAKRPLCS • 457, 459
job stream • 459
member • 457
CAKRPOPn • 460, 462
job stream • 462
member • 460
CAKRSUM member • 455
CAKSARES PROC • 410
CAKSEARL PROC • 464, 468, 475
Invoice, CAJREARL members • 475
Reconciliation report, CAJREARL members • 468
CAKSORDS member • 466
CAWFLOAD member • 427
Period close, CAKRPLCS job stream • 459
PROCs • 410, 464, 468, 475, 486
CAKSARES • 410
CAKSEAR2 • 486

CAKSEARL • 464, 468, 475
summary processing, CAKRSUM job stream • 455

K

Keywords
CA JARS/OLF related • 405
CAIKRPAR used by all CA JARS/OLF batch processes • 407
CAIWFPAR used by CAWFLOAD • 408
database related • 404
reporting related • 405

L

Lookup table
creating • 86
detail • 494
examples • 85, 90, 91
overview • 63

M

Modifiers
defining • 187, 188, 190
examples • 187, 188, 190
MODTAB (Charge modifier table)
detail • 499
overview • 64
Monochrome terminal display
action bar and pull-down • 507, 508
error emphasis • 509
function key area • 508
messages • 509
panel body • 508
selection emphasis • 509

N

Normalizer
entry panel (CBCNRME) • 145
entry panel, via charge elements (CBCELMN) • 168
factor decimal precision • 145, 168
insert panel (CBCELNI) via charge elements • 168
insert panel (CBCNRMI) • 145
list panel (CBCNRML) • 142
panels • 140, 142, 144, 145, 168
entry (CBCNRME) • 145
entry via charge elements (CBCELMN) • 168
expanded list (CBCNRMX) • 144
insert (CBCELNI) via charge elements • 168

- insert panel (CBCNRMI) • 145
- list (CBCNRML) • 142
- primary (CBCNRMP) • 140

Normalizers

- defining • 130, 166
- examples • 171
- qualifying • 166

NORMTAB (Unit normalization table)

- detail • 500
- overview • 63

O

OPTION settings definition table (OPTTAB)

- detail • 500
- overview • 64

Options

- panels • 376, 379
 - User options, CBOPTNS • 376
 - Versions, CBOPTVE • 379
- pull-down • 375
- setting • 375

OPTTAB (Option settings definition table)

- detail • 500
- overview • 64

OUTPUT

- RECYCLE control statement • 434

Overhead distribution

- algorithm • 215
- examples • 223, 225

Overhead distribution panels

- entry (CBCOVHE) • 220
- expanded list (CBCOVHX) • 220
- list (CBCOVHL) • 218
- primary (CBCOVHP) • 216

P

Panel displays

- color terminals • 507, 508, 509
 - action bar and pull-down • 507, 508
 - error emphasis • 509
 - function key area • 508
 - messages • 509
 - panel body • 508
 - selection emphasis • 509
- monochrome terminals • 507, 508, 509
 - action bar and pull-down • 507, 508
 - error emphasis • 509
 - function key area • 508

- messages • 509
- panel body • 508
- selection emphasis • 509

Panels

- Accounting periods entry (CBAPERE) • 92
- Accounting sources • 74, 78, 80, 86
 - entry (CBASRCE) • 80
 - expanded list (CBASRCX) • 80
 - list (CBASRCL) • 78
 - lookup (CBASRCU) • 86
 - primary (CBASRCP) • 74
- Accounting structure (CBASTRE) • 71

Budget • 287, 289, 294, 296, 299

- browse criteria (CBDBGTB) • 289
- entry (CBDBGTE) • 299
- expanded list (CBDBGTX) • 296
- list (CBDBGTL) • 294
- query specifications (CBDBGTP) • 287

Budget query • 261, 266

- CBQBGTB • 266
- CBQBGTD • 266
- CBQBGTS • 261

CBAPERE, Accounting periods entry • 92

CBASRCE, Accounting sources • 80

entry • 80

CBASRCI, Accounting sources lookup insert • 86

CBASRCL, Accounting sources list • 78

CBASRCP, Accounting sources primary • 74

CBASRCU, Accounting sources lookup • 86

CBASRCX, Accounting sources expanded list • 80

CBASTRE, Accounting structure • 71

CBCCHPE, Shift chop entry • 201

CBCELME, Charge elements entry • 110

CBCELML, Charge elements list • 107

CBCELMN, Normalizer entry • 168

CBCELMO, Expanded normalizer entry • 170

CBCELMP, Charge elements primary • 105

CBCELMQ, Qualifier entry • 158

CBCELMR, Qualified rates entry • 123

CBCELMS, Expanded qualified rates entry • 127

CBCELMT, Qualifier expanded entry via Charge elements • 162

CBCELMU, Charge units entry • 117

CBCELMV, Expanded charge units entry • 120

CBCELMX, Charge elements expanded list • 109

CBCELNI Normalizer insert via charge elements • 168

CBCNRME, Normalizer entry • 145

CBCNRMI, Normalizer insert • 145

CBCNRML, Normalizer list • 142
 CBCNRMP, Normalizers primary • 140
 CBCNRMV, Expanded normalizer entry • 148
 CBCNRMX, Normalizer expanded list • 144
 CBCOVHE, Overhead distribution entry • 220
 CBCOVHL, Overhead distribution list • 218
 CBCOVHP, Overhead distribution primary • 216
 CBCOVHX, Overhead distribution expanded list • 220
 CBCQALE, Qualifier entry • 155
 CBCQALI, Qualifier insert • 155
 CBCQALL, Qualifier list • 135, 152
 CBCQALV, Qualifier expanded entry • 158
 CBCQLRI, Qualified rate insert • 123
 CBCRECE, Cost recovery entry • 211
 CBCRECL, Cost recovery list • 209
 CBCRECP, Cost recovery primary • 207
 CBCRECX, Cost recovery expanded list • 211
 CBCSPLE, Split charges entry • 195
 CBCSPLL, Split charges list • 193
 CBCSPLP, Split charges primary • 191
 CBCSPLX Split charges expanded list • 195
 CBCUNIE, Charge units entry • 136
 CBCUNIL, Units insert • 136
 CBCUNIL, Charge units list • 133
 CBCUNIP, Charge units primary • 131
 CBCUNIV, Expanded charge units entry • 120, 139
 CBDBGTB, Budget browse criteria • 289
 CBDBGTE, Budget entry • 299
 CBDBGTL, Budget list • 294
 CBDBGTP, Budget primary • 287
 CBDBGTX, Budget expanded list • 296
 CBDCRDB, DB/CR browse criteria • 314
 CBDCRDE, Debits/Credits entry • 324
 CBDCRDL, Debits/Credits list • 319
 CBDCRDP, Debits/Credits primary • 312
 CBDCRDX, Debits/Credits expanded list • 321
 CBOCOPE, Copy mod -> tab copy • 372
 CBOFCTD, Forecast • 355, 360
 CBOFCTE, Forecast elements list • 352
 CBOFCTO, Forecast overall results • 345
 CBOFCTP, Forecast primary • 344
 CBOFCTQ, Forecast qualifiers list • 357
 CBOFCTS, Period specifications • 344
 CBOPTNS, User options • 376
 CBOPTVE, Versions • 379
 CBORTEE, Rate Determination elements entry • 363
 CBORTEQ, Rate Determination qualifiers entry • 366
 CBQBGTB, Budget query results • 266
 CBQBGTD, Budget query results • 266
 CBQBGTS, Budget query specifications • 261
 CBQCRDB, DB/CR query results • 278
 CBQCRDD, DB/CR query results • 278
 CBQCRDS, DB/CR query specifications • 273
 CBQQRYP, Charge query results • 242
 CBQQRYP, Charge query results • 242
 CBQQRYL, Charge query list • 233
 CBQQRYP, Charge query primary • 230
 CBQQRYS, Charge query specifications • 235
 CBQQRYS, Charge query expanded list • 235
 CBQQRYS, Charge query results • 242
 Charge elements • 105, 107, 109, 110
 entry (CBCELME) • 110
 expanded list (CBCELMX) • 109
 list (CBCEMLM) • 107
 primary (CBCELMP) • 105
 Charge query • 230, 233, 235, 242
 expanded list (CBQQRYS) • 235
 list (CBQQRYL) • 233
 primary (CBQQRYP) • 230
 results (CBQQRYP) • 242
 results (CBQQRYP) • 242
 results (CBQQRYS) • 242
 specifications (CBQQRYS) • 235
 Charge units • 117, 131, 133, 135, 136
 entry • 136
 entry via charge elements • 117
 expanded list (CBCUNIX) • 135
 list (CBCUNIL) • 133
 primary (CBCUNIP) • 131
 Copy mod -> tab (CBOCOPE) • 372
 Cost recovery • 207, 209, 211
 entry (CBCRECE) • 211
 expanded list (CBCRECX) • 211
 list (CBCRECL) • 209
 primary (CBCRECP) • 207
 Data entry • 287, 289, 294, 296, 299, 312, 314, 319, 321, 324
 Budget browse criteria (CBDBGTB) • 289
 Budget expanded list (CBDBGTX) • 296
 Budget list (CBDBGTL) • 294
 Budget primary (CBDBGTP) • 287
 Budgets entry (CBDBGTE) • 299
 DB/CR browse criteria (CBDCRDB) • 314
 Debits/Credits entry (CBDCRDE) • 324

- Debits/Credits expanded list (CBDCRDY) • 321
- Debits/Credits list (CBDCRDL) • 319
- Debits/Credits primary (CBDCRDP) • 312
- DB/CR query • 273, 278
 - results (CBQCRDB) • 278
 - results (CBQCRDD) • 278
 - Specifications (CBQCRDS) • 273
- Debits/Credits • 312, 314, 319, 321, 324
 - DB/CR browse criteria (CBDCRDB) • 314
 - entry (CBDCRDE) • 324
 - expanded list (CBDCRDY) • 321
 - list (CBDCRDL) • 319
 - primary (CBDCRDP) • 312
- Expanded charge units entry • 120, 139
- Expanded normalizer entry • 148, 170
- Expanded qualified rates entry • 127
- Forecast • 345, 352, 355, 357, 360
 - element (CBOFCTD) • 355
 - elements list (CBOFCTE) • 352
 - overall results (CBOFCTO) • 345
 - qualifier (CBOFCTG) • 360
 - qualifiers list (CBOFCTQ) • 357
- Forecast primary (CBOFCTP) • 344
- Help • 41, 391, 392, 394, 396, 398, 399
 - Help for help • 399
 - Help with a field • 392
 - Help with a panel • 391
 - Index • 398
 - overview • 41
 - Table of contents • 394
 - topic panel • 396
- Insert windows • 86, 123, 136, 145, 155, 158, 168
 - Accounting sources lookup insert, CBASRCI • 86
 - Normalizer (CBCELNI) via charge elements • 168
 - Normalizer (CBCNRMI) • 145
 - Qualified rate insert, CBCQLRI • 123
 - Qualifier (CBCQALI) • 155, 158
 - Units (CBCUNII) • 136
- Normalizer • 140, 142, 144, 145, 168
 - entry (CBCNRME) • 145
 - entry via charge elements (CBCELMN) • 168
 - expanded list (CBCNRMX) • 144
 - insert (CBCELNI) via charge elements • 168
 - insert (CBCNRMI) • 145
 - list (CBCNRML) • 142
 - primary (CBCNRMP) • 140
- Options • 376, 379
 - User options, (CBOPTNS) • 376
 - Versions, (CBOPTVE) • 379
- Overhead distribution • 216, 218, 220
 - entry (CBCOVHE) • 220
 - expanded list (CBCOVHX) • 220
 - list (CBCOVHL) • 218
 - primary (CBCOVHP) • 216
- Period specifications (CBOFCTS) • 344
- Qualified rate insert • 123
- Qualified rates entry (CBCELMR) • 123
- Qualifiers • 152, 155, 158, 162
 - entry (CBCQALE) • 155
 - expanded entry (CBCELMT) via Charge elements • 162
 - expanded entry (CBCQALV) • 158
 - insert (CBCQALI) • 155
 - list (CBCQALL) • 152
- Rate Determination • 363, 366
 - elements entry (CBORTEE) • 363
 - qualifiers entry (CBORTEQ) • 366
- Sample • 51, 57, 58
 - entry insert • 58
 - expanded entry • 57
 - expanded list • 51
- Shift chop entry (CBCCHPE) • 201
- Split charges • 191, 193, 195
 - entry (CBCSPLE) • 195
 - expanded list (CBCSPLX) • 195
 - list (CBCSPLL) • 193
 - primary (CBCSPLP) • 191
- Unit insert window via charge elements • 117
- Units insert (CBCUNII) • 136
- User settings, (CBOPTNS) • 376
- Versions, (CBOPTVE) • 379
- Parameter files
 - CAIKRPAR • 27, 406, 407
 - detail • 406, 407
 - overview • 27
 - CAIKSPAR • 25, 404
 - detail • 404
 - overview • 25
- Period close
 - CAKRPCLS job stream • 457, 458, 459
 - control parameters • 457
 - JCL • 459
 - setup • 458
 - processing summary report • 460
- Period definition table (PERTAB)
 - detail • 502

- overview • 63
- Period functions
 - examples • 348, 349, 350, 361, 369
 - forecast, adjusting qualifier amounts • 361
 - forecast, performing manual adjustments • 348
 - forecast, using line algorithms • 349
 - forecast, using smooth algorithms • 350
 - rate determination, recovering charges • 369
- PERTAB (Period definition table)
 - detail • 502
 - overview • 63, 92
- Precision
 - Normalizer factor • 145, 168
 - numeric • 110
- Printing
 - CA Earl reconciliation file reports • 468
 - CA JARS/OLF tables • 506
 - Invoices • 475
- Processing
 - batch • 401
 - Options • 228, 242
 - Break • 228, 242
 - Bud/DBCR • 228, 242
 - Summarize • 228, 242
 - period close • 457
 - period open • 460
 - requirements • 429
 - summary • 454
 - summary report (CAWFLOAD) • 444
- Processing Options
 - Break • 261, 266, 273, 278
 - Summarize • 261, 266, 273, 278
- PROCs
 - CAKSARES (archive/restore) • 409, 410
 - CAKSEAR2, CA GENERAL LEDGER interface file • 486
 - CAKSEARL, CA Earl batch reporting • 463, 464
- Programs
 - CAKRBREC summary processing • 454
 - CAKRFCBS batch forecasting • 446
 - CAKRINST • 487
 - overview • 487
 - CAKRPCLS period close • 457
 - CAKRPOPEN, period open • 460
 - CAKSARCH, archive/restore • 409, 411, 414, 418, 422
 - BACKUP option • 411
 - COMMIT option • 418

- COPY option • 422
 - overview • 409
- RESTORE option • 414
- Earl • 463
- SQUL execution (CAKRINST) • 487
- summary table • 401

Q

- Qualifier entry
 - panels • 155, 158
 - (CBCQALE) • 155
 - via Charge elements (CBCELMQ) • 158
- Qualifier expanded
 - entry panels • 158, 162
 - (CBCELMT) via Charge elements • 162
 - (CBCQALV) • 158
- Qualifiers panels
 - entry (CBCELMQ) via charge elements • 158
 - entry (CBCQALE) • 155
 - expanded entry (CBCELMT) via Charge elements • 162
 - expanded entry (CBCQALV) • 158
 - insert (CBCQALI) • 155
 - insert window (CBCQALI) • 155
 - list (CBCQALL) • 152
- QUALTAB (Algorithm qualifier definition table)
 - detail • 502
 - overview • 63
- Query functions
 - Budget query specifications panel (CBQBGTS) • 261
 - budget, debit, and credit information • 242
 - Charge query list panel (CBQQRYL) • 233
 - Charge query primary panel (CBQQRYP) • 230
 - Charge query primary panel (CBQQRYS) • 235
 - DB/CR query specifications panel (CBQCRDS) • 273
 - Examples • 252, 255, 256, 258, 260, 272, 283
 - Budget, specifying the selection criteria within the ORD type field • 272
 - Charge, entering multiple selection criteria • 258
 - Charge, entering selection criteria within the Charge element field • 255
 - Charge, entering selection criteria within the Period number field • 256
 - Charge, grouping CCCTAB or CCCMOD fields • 252

- Charge, using the Srt option • 260
- DB/CR, specifying the selection criteria within the Charge element field • 283
- QUERYTAB (Saved query definition table)
 - detail • 503
 - overview • 64

R

- Rate Determination panels
 - elements entry (CBORTEE) • 363
 - qualifiers entry (CBORTEQ) • 366
- RATETAB (Charge algorithm definition table)
 - detail • 504
 - overview • 63
- Reconciliation reports
 - Detail report (CAKRECN1) • 472
 - Detail report (CAKRECN2) • 474
 - overview • 468
- RECYCLE
 - OUTPUT control statement • 434
- Reporting
 - batch • 453, 468, 472, 474, 475, 477, 480, 481, 483
 - examples • 480, 481, 483
 - Forecasting • 453
 - invoices • 475, 477
 - reconciliation • 468, 472, 474
- CA Earl • 463, 468, 475
 - batch processing overview • 463
 - Invoices • 475
 - Reconciliation reports • 468
- General Ledger interface file • 484
- Reports
 - CAKRARCH output • 414
 - CAKRCOMT output • 422
 - CAKRCPY output • 426
 - CAKREST output • 417
 - CAKRSUM with cost recovery rule • 455
 - CAWFLOAD processing • 441, 444
 - Forecasting, control • 453
 - Invoice example 1, CAKRINV1 • 477, 480
 - Invoice example 2, CAKRINV2 • 481
 - Invoice example 3, CAKRINV3 • 483
 - Period close processing summary • 460
 - Period open processing summary • 463
 - Reconciliation • 468, 472, 474
 - Detail report (CAKRECN1) • 472
 - Detail report (CAKRECN2) • 474

- overview • 468

Rules

- for archiving/backing up tables • 411
- for restoring tables • 415
- how information is displayed • 28

S

- Sample product panels
 - entry insert • 58
 - expanded entry • 57
 - expanded list • 51
- Sample reports
 - Forecasting control • 453
 - Invoices • 477, 480, 481, 483
 - CAKRINV1 • 480
 - CAKRINV2 • 481
 - CAKRINV3 • 483
 - headings • 477
 - Reconciliation • 472, 474
 - CAKRECN1 • 472
 - CAKRECN2 • 474
- Saved query definition table (QUERYTAB)
 - detail • 503
 - overview • 64
- Scratchpad table (CCCMOD)
 - detail • 495
 - overview • 64
- Security
 - CA ACF2 • 490
 - CA JARS/OLF query system • 491
 - CA TOP SECRET • 489
 - for query system • 488
 - overview • 489
 - RACF • 491
 - rule • 488
- see=Chargeunits Units, charge • 136
- see=Datafunctions Data entry functions • 287
- see=Functionkeysettings PF keys • 60
- Setup checklists
 - CAKRPLS close period • 458
 - CAWFLOAD daily processing • 435
- Shift chopper definition table (CHOPTAB)
 - detail • 496
 - overview • 64
- Split charge
 - examples • 198, 200
 - splitting a charge among four levels • 200
 - splitting a charge between two levels • 198

- panels • 191, 193, 195
 - entry (CBCSPLE) • 195
 - expanded list (CBCSPLX) • 195
 - list (CBCSPLL) • 193
 - primary (CBCSPLP) • 191
- Split resource definition table (SPLITTAB)
 - detail • 505
 - overview • 64
- SPLITTAB (Split resource definition table)
 - detail • 505
 - overview • 64
- Summary
 - CAKRSUM • 454
 - control statement • 450
 - forecast methods • 449
 - processing (CAKRBREC) • 454
 - processing (CAKRSUM) • 454, 455
 - control parameters • 454
 - JCL • 455
- SUMTAB (Summary function definition table)
 - detail • 505
 - overview • 64

T

- Table maintenance functions
 - defining adjustments • 205
 - defining charges • 97

U

- Unit normalization table (NORMTAB)
 - detail • 500
 - overview • 63
- UNITTAB (Charge unit definition table)
 - detail • 506
 - overview • 63

W

- Windows
 - About (displays genlevel) • 31, 39, 387
 - Are you sure? • 378
 - Data not saved • 41
 - Entry panel insert pop-up • 40
 - Panel pull-down • 36
 - Prompt pop-up • 39