CA Workload Automation Restart Option for z/OS Schedulers

Release Notes

r11

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CA Technologies Product References

This document references the following CA Technologies products:

- CA Workload Automation Restart Option for z/OS Schedulers (CA WA Restart Option)
- CA Datacom/DB® (CA Datacom/DB)
- CA Workload Automation EE

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Chapter 1: New Features

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ABENDER Program Support

CA WA Restart Option now treats steps that execute certain programs as not restartable. Use the ABENDPGM keyword in the DBAS configuration file to designate the programs as nonrestartable.

Audit Capabilities

The online interfaces and certain batch jobs include a built-in audit for all changes made. A new module is callable to determine whether you want auditing. A new module is callable with “OLD” and “NEW” records to create the audit elements.

CA Datacom Database Space Monitor

This release creates a CA Datacom space monitor for CA WA Restart Option. The space monitor adds two new options:

- The first option specifies the system DBID if not the default of DBID=1000.
- The second option specifies a warning percentage so that CA WA Restart Option can issue a warning message when an area reaches the specified percentage.

Dynamically Allocated Data Sets

CA WA Restart Option detects dynamically allocated data sets and adds them to the CA WA Restart Option database. These data sets are maintained the same as the data sets that are allocated in the JCL.

Flexible Restart Step Selection

CA WA Restart Option permits the selection of multiple individual steps or step ranges for restart. In previous releases, you could specify only a single range. This change creates more flexibility in selecting the portions of a job to run and prevents the need to rerun the job multiple times to process the steps required.

Note: To enable this feature, the ISPF Restart panel has been changed to require that you enter a SAVE or SV command to commit the changes to the database. To discard the changes before saving, enter the CANCEL or CAN command.

JOBLOG Creation When SUB=MSTR

In previous releases, when CA WA Restart Option is brought up before JES, no JOBLOG is available for problem determination. CA WA Restart Option now issues a “Request JOB” SSI call to establish a JOB LOG after JES initializes.

NJE Support

The CA WA Restart Option ISPF interface permits the specification of an NJE node name from which to retrieve JOB information. The NJE job's restart information is displayed and can be altered to permit the submitting system to control the restart of NJE jobs in the same way that they control the restart of local jobs. This change eliminates the need to log on to the NJE system to set up a job for restart. This enhancement uses CA Generalized Transaction Server (CA GTS) to communicate between NJE systems.

Packaging and Installation Changes

The following topics outline changes for packaging and installation of this release.

Mainframe 2.0

Starting with this release, the installation process changed to conform to CA Mainframe 2.0 standards. Mainframe 2.0 is an initiative to make it easier to obtain, install, and configure a mainframe CA product. You can install this release with Mainframe Software Manager (MSM), which automates the steps necessary to allocate the SMP data sets, RECEIVE, APPLY, and ACCEPT the product. You can also obtain the product in "pax" file format through Electronic Software Delivery (ESD) and install with SMP, or you can order a tape and install with SMP.

Product Name Changes

This release contains numerous naming convention changes.

- The name of the product is now CA WA Restart Option.
- The SMP CSI data set now ends with GLOBAL.CSI.
- SMP target and distribution zones are now CAIT and CAID respectively.
- The target and distribution data sets now include the product code AL7 preceded by a C for target and an A for distribution as follows:
  - CAL7CLS0
  - CAL7LOAD
  - CAL7MAC
  - CAL7MSG0
  - CAL7OPTN
  - CAL7PNL0
  - CAL7SAMP
  - CAL7SRC
  - AAL7LOAD
  - AAL7MAC
  - AAL7SAMP
  - AAL7SRC

Packaging Updates

The data sets required by SMP are now defined with DDDEFs during the SMP CSI initialization.

The SMP PROC has been deleted.

SAMPJCL is now under SMP control, and the member names include the product code. An index, AL7$INDX, contains a brief description of each member. A cross reference, AL7$XREF, relates the new names to the old names when possible.

The installation jobs are now located on file 1 of the distribution tape.

APPLY processing now ends with RC=0.

The ISPF Interface is now invoked with a REXX named C11ILIBD. C11IEXEC is still available for backward compatibility issues, but C11IEXEC has been rewritten to call C11ILIBD.

With this release, CA General Transaction Server (CA GTS) is installed during the installation of CA WA Restart Option. Because several CA products use CA GTS, it may have been installed already. If you decide not to install CA GTS, make the appropriate changes in the RECEIVE, APPLY, and ACCEPT jobs. Each job contains instructions to accomplish the changes.

U11RMS SYSIN Parameters

Specifying parameters to U11RMS in a SYSIN data set has changed slightly. The following are the new rules:

- The SYSIN parameters are appended to the ones specified on the EXEC statement. The result is a continuous series of parameters that U11RMS uses to control processing for the job.
- SYSIN parameters cannot override the positional parameters such as processing code or starting/ending steps that are specified as parameters on the EXEC statement.
- Parameters specified on SYSIN can continue to additional lines in two different ways.
  - A parameter ending with a comma and a space indicates additional parameters follow on the next line starting in column 1.
  - A nonblank character in column 72 indicates that the current parameter is continued starting in column 1 of the next line.
- An asterisk in column 1 indicates a comment line unless a nonblank character was found in column 72 of the previous line.

RD=NR JCL Parameter

Steps with the JCL parameter RD=NR specified on the EXEC statement are treated as nonrestartable steps.

Scheduling Product Condition Code Support

A new module lets you set a job for restart from any scheduling package. Called with input of job name and step number, AUTO-SETUP is performed for the job. A new RMS parameter is available to deactivate CA WA Restart Option condition code processing.

Chapter 2: Changes to Existing Features

This section contains the following topics:

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Attributes for PURGE and Report Files

The Maintenance task includes the SPACE parameter in the definitions for the PURGE and REPORT files and does not require the UNIT parameter when SMS parameters are specified.

Condition Codes Propagatation

During a restart, you have the option not to propagate the condition codes that executed before the restart step

Disaster Recovery

CA WA Restart Option tracking changed so that the job is set for restart, and the step executing currently is maintained in the Job record as the restart step. This method helps ensure that in the event of a catastrophic system failure, the job is set for restart in the appropriate step.

Fewer Redundant Steps in Rerun

A new database table can determine which steps depend on other steps for data set creation and use. This table can decide which steps execute during a rerun or restart.

High Availability Tasks and SUSPEND

U11PDSCL and U11VSMIO macros accept a new parameter indicating SUSPEND=NO. The CRQE and JRQE are flagged to indicate the request must complete. U11D8500 recognizes this flag and if the request causes DBAS to suspend, posts the CRQE complete with a “SUSPENDED" return code. U11D6300 and U11D7300 recognize SUSPEND status and while DBAS is suspended, move incoming CRQEs and JRQEs to a suspend queue. Those marked SUSPEND=NO are posted complete with a SUSPENDED return code. During RESUME processing, U11D6300 and U11D7300 process the requests on the suspend queue before processing those requests on the incoming CRQE queue.

HSM Volume Parameter Increases

In previous releases, the HSMVOL parameter could specify only one parameter. In this release, you can specify up to eight volumes as shown in this example:

```
HSMVOL=(VOL001,VOL002,VOL003,...)
```

ISPLINK Requirement for ISPF

Previous releases of CA WA Restart Option required a step during the installation to link ISPLINK into CA WA Restart Option. In this release, ISPLINK is loaded instead of the required link with ISPLINK. Remember that ISPLINK must be link listed.

New Format for Non-Deletable Messages

The non-deletable messages now have the name of the subsystem (SSN) that issued the message appended at the end of the message. The following is a sample changed message:

U11-002 CA-11 ENTER PARM INFORMATION FOR JOB *jobname* SSN=*xxxx*

New Parameters in the DBAS Configuration File

The DBAS configuration file contains the following new parameters:

ABENDPGM

Designates programs as "abender" programs. Job steps executing these programs are flagged as nonrestartable.

AUDITAGE

Specifies the number of days to compare against an audit record's creation date to determine whether to delete and audit record.

AUDITSUP

Specifies whether auditing support is available.

DBWARN

Specifies the warning level that the Space Monitor task uses to display database usage when over the value specified.

HONORCC

Specifies whether evaluation of the conditional step execution honors the condition codes of all previous steps.

LOCALGTS

Specifies the node name that executes on the same LPAR as this instance of CA WA Restart Option DBAS.

PURGSPACE

Specifies the amount of space to allocate for PURGE data set.

RPRTSPACE

Specifies the amount of space to allocate for REPORT data set.

STEPDEP

Specifies whether to create step dependency table entries for this job.

RIMPARM SVC Behavior

The RIMPARM determines the SVC number used. If it is not specified as a RIMPARM, the SVC number specified in U11OPT is used as a default.

Service Pack Number

The service pack number is available in the “Initialization Complete” message and in the main menu for the ISPF interface.

Size of the Job Execution History File (JEHF) Database Area

This release introduces the ability to audit changes to CA WA Restart Option. A new database table has been defined to contain the audit information. This new audit table resides in the JEHF database area. If you decide to enable auditing, it is sometimes necessary to enlarge the size of the JEHF database area. The amount of additional space depends on the number of updates that users make to CA WA Restart Option information. For example, updates include setting a job for restart, performing preprocessing, changing the starting or ending steps for a job, and so on. Updates to information as a normal part of RMS processing are not considered "user changes" and therefore are not audited.

If you are not currently using JEHF processing, you may have defined a JEHF database area of minimal size-perhaps one cylinder or one track. If so and you want to enable auditing, plan to increase the size of the JEHF database area. If you are currently using JEHF processing, determine whether the current size of the JEHF database area is adequate for your current history needs plus your estimated auditing needs. If necessary, increase the size. For planning purposes, one 3390 cylinder contains approximately 2100 audit records. Because an audit record is written for each field that is changed, a single change generally results in several audit records.

Step Level Backout

U11PRE now permits data set maintenance for a single step.

Subsystem Selection and ISPF

This release improves the use of subsystems with the CA WA Restart Option ISPF dialog. On the main menu, you can change subsystems by choosing from a list of active subsystems.

Using the LOGRCV Option and Backup/Restore

The default value for the CA Datacom/AD LOGRCV option is LOGRCV=NEVER. Specifying LOGRCV=NEVER or accepting the default value causes the log (LXX) to be reused and never spilled to a recovery file (RXX). Consequently, this setting does not allow complete forward recovery of the CA WA Restart Option database. Therefore, we strongly recommend specifying LOGRCV=NO. This setting enables the LXX to spill to an RXX periodically as the LXX fills. These RXX files can then be used with a database backup to perform forward recovery up to the most recent transaction that was written to the RXX.

Additionally, we recommend performing regular backups of the database.

Note: For more information about recommended backup and restore procedures, see the *CA WA Restart Option Programming Guide.*

WTOR at Shutdown

A new SHUTDOWN command option (NOW) alleviates the normal “are you sure” shutdown question, but the WTOR still prompts the operator when jobs are currently using CA WA Restart Option services. Issue the command from the OS console.