CA Workload Automation SE

Release Notes

r11.3

Second Edition

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CA Technologies Product References

This document references the following CA Technologies products:

- CA Workload Automation SE, formerly CA 7® Workload Automation
- CA Mainframe Software Manager (CA MSM)
- CA OPS/MVS® Event Management and Automation (CA OPS/MVS EMA)
- CA Workload Automation Restart Option for z/OS Schedulers (CA WA Restart Option), formerly CA 11™ Workload Automation Restart and Tracking
- CA Workload Control Center (CA WCC)

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Documentation Changes

A number of enhancements and small programming changes occurred in r11.3 after it was announced as Generally Available (GA). This topic is a brief summary of these enhancements. For more information, see the CA 7 page in Support Online.

Performance Metrics (RO46400)

The enhancement introduces the gathering of specific CA Workload Automation SE data to capture metrics about how the online system (CA7ONL) address space is performing work. Writing new log records to the log files is part of this data gathering. These records are then used as input to a new SASSHIS8 report 25. Also, refer to the initialization file INIT statement, METRICS= keyword, and the /DISPLAY,PERF= command.

Web Client (RO30845 RO32830, RO37930, RO47077, RO49540, RO51291, and RO51292)

The CA 7 Web Client is designed to enable a customizable management by exception approach to managing the flow of work on multiple systems. By letting you visualize and respond to business critical events rapidly, the CA 7 Web Client supports your ability to respond to business critical issues quickly. The CA 7 Web Client continues to further the process of aligning workload automation functions with IT business services and providing a self-service management model.

Predictive CPM (RO52585, RO52586, and RO53740 for CPM)

This enhancement lets CPM track critical path flows even when the starting job of the flow fails to reach the ready queue. This feature is referred to as Predictive CPM. The feature requires using the JFM component with the new PREDICTFLOWS option enabled.

Initialization File CALENDAR Statement Order (RO48651)

During the initialization file processing, we were not checking the correct placement of the CALENDAR statement. The CALENDAR statement must come after the CPU statements.

CA7TOUNI to XPJOB to AGJOB Conversion Utilities (RO53097)

The CA7TOUNI preconversion utility has multiple enhancements. These enhancements include accepting JCL INCLUDE and SET statements that span lines or SET statements containing multiple name and value pairs on a single line.

Support for CA WA Agent for HP Integrity NonStop (RO55172, RO55173, and IAS RO54616)

This enhancement provides compatibility with the CA WA Agent for HP Integrity NonStop. You can now create job definitions for the HP Integrity NonStop jobs using the NONSTOP_JOB agent job type.

CA IAS AES256-bit support for agents (RO52578, RO52577)

Communication with CA WA Agents using AES 256-bit encryption is supported. The encryption definitions in the IASCRYPT DD can now have 64-character keys and specify TYPE(AES256) to indicate to use the larger encryption type. You can change your agent definitions to point to these new encryption definitions.

ARF and Service Desk Ticket Generation (RO48632)

This enhancement provides a method for ARF (ARFOVER=) to determine whether to generate a Service Desk ticket when using the CA Service Desk interface.

Job name added to SP07-21 (RO47522)

This enhancement now places the job name at the end of the SP07-21 message.

/DISPLAY,DB=LOG (RO55983)

This enhancement now displays the names of the log files.

Display XU83 table (RO55904)

With an ICOM modify command or reply to the WTOR, you can display the XU83 table with the command D=XU83.

ADDAGENT Parameter for CA IAS (RO56523)

The ADDAGENT keyword is new on the MANAGER statement of the IASAGENT agent definition file. ADDAGENT lets you specify a potential number of agents to add between the recycling of the scheduling manager. The default value lets you add five agents.

Note: For more information, see the *CA Integrated Agent Services Implementation Guide*.

Jobflow Monitor corrections and improvements (RO55212, RO55213)

These enhancements implement support for queries that components other than CPM use.

Last Run Date Update (RO58316)

This enhancement provides tools to transfer the last run date and time for selected jobs from one CA 7 database (remote) to the corresponding job names in another CA 7 database (primary).

Contents

Chapter 1: New Features

The *Release Notes* for CA Workload Automation SE documents both new features and changes to existing features for r11.3. The chapter, titled "Changes to Existing Features," describes changes made to existing features.

This section contains the following topics:

CA Mainframe Software Manager

CA Mainframe Software Manager is an application that simplifies and unifies the management of CA Technologies mainframe products on z/OS systems.

CA Mainframe Software Manager provides services that make it easier for you to do the following:

- Acquire, install, and deploy products
- Automatically obtain and apply maintenance

These services enable you to easily manage your software based on industry accepted best practices. A web-based interface makes the look and feel of the environment friendly and familiar, enabling you to install and maintain your products faster and with less chance of error.

You can acquire CA Mainframe Software Manager from the CA Support website.

Note: For more information, see your product's installation instructions and the CA Mainframe Software Manager online help.

Interface to CA Workload Automation Agents (Agent Jobs)

With this release, CA Workload Automation SE supports a variety of job types that can be submitted to CA Workload Automation Agents. These job types include several platforms such as UNIX (LINUX, Sun, and HP) and business applications, such as Data Base, SAP, PeopleSoft, and Oracle. Because each job type requires different information, you must define the job type in the job definition. These new job types are known as AGJOBs. To permit the definition and submission of these job types, specify the keyword AGENTJOB=YES on the initialization file XPDEF statement (the default is NO).

Note: For more information about system initialization and options, see the *Systems Programming Guide.* For more information about setting up the agent interface, see the *Interface Reference Guide*.

Working with CA Integrated Agent Services (CA IAS), CA Workload Automation SE invokes CA IAS to build and send the appropriate communication message to execute the job at the agent. CA IAS has several new files in the CA Workload Automation SE JCL procedure to define agent information. Also, you must define a new VSAM file, CA7AGNT, which contains agent job feedback information.

Note: For more information about the new CA IAS files and setup, see the *CA IAS Implementation Guide*.

The Database Menu panels are updated to let a user select the job type to define. An advanced user can go directly to the job definition panel by entering DB.11 or AGJOB and entering the job type. Here, information about the job's job type and destination is entered. The actual data to send to the destination is defined in a required PARMLIB member, using a control language (C-LANG). C-LANG indicates what to execute and any additional parameters and options to use during the job's execution.

Note: For more information about C-LANG, see the *CA Integrated Agent Services User Guide*. For more information about agent job and agent password definitions, see the *Database Maintenance Guide.*

Agent jobs are scheduled and have their requirements and triggers set up like any other CA Workload Automation SE job. You can forecast and manipulate agent jobs like other jobs. When looking at agent jobs in the CA Workload Automation SE panels, the job has its job type denoted in the MAINID or CPU SPEC column as a four-character job type (such as WIN for Windows job type and FTP for an FTP job).

When the agent job is submitted (attached) to the request queue, the agent job stays in that queue until all requirements are met (MCNT=0). Next, the agent job moves into the ready queue until submission occurs. This process is no different from regular jobs. If CA IAS is not available when the job is selected, the job remains in the ready queue with an N-IAS job status. If CA IAS is available, the job is submitted to CA IAS for transmission to the agent. If the agent is not immediately available, CA IAS queues the message until the agent is available. The job shows the status W-AGENT until the agent has received the job.

When the job starts execution at the agent, CA Workload Automation SE receives a job initiation message (through CA IAS) and creates a pseudo-SMF job initialization record. When CA Workload Automation SE processes this record, the agent job is then moved to the active queue. The job stays in the active queue until a job termination record is received, whereby the agent job moves back to the request queue, either in a job failure or job complete status. If the job is successfully completed, CA Workload Automation SE examines any requirements, triggers, or both and takes appropriate action before moving the job to the prior run queue. If the job fails, the job stays in the request queue until the job is restarted or is forced complete.

The CA Workload Automation Agent determines job success or failure. Agent jobs have no CA WA Restart Option restart abilities, and all agent jobs have only one step. The C-LANG statement, EXITCODE, can set the success or failure for agent jobs. Agent jobs have no job definition CONDCODE/RO (condition code/relational operator). Again, the CA Workload Automation Agent determines the success or failure of an agent job execution.

Several commands, such as CANCEL, HOLD, and RELEASE, are updated to interact with CA IAS and the CA Workload Automation Agents. If you enter a CANCEL command for an agent job, CA Workload Automation SE determines where the job is in the queues. If the job is already submitted to CA IAS or to the CA Workload Automation Agent, the CANCEL command builds an appropriate message to cancel the job from the IAS queue or from the CA Workload Automation Agent. A few job types let you enter a HOLD action while the job is executing on the CA Workload Automation Agent (as reflected in the active queue). The RELEASE command removes the hold action.

Also, the LJCK command is updated to verify an agent job to verify that the C-LANG data specified in the PARMLIB can build an appropriate message for the CA Workload Automation Agent. As with XPJOBs, we highly recommend using the LJCK command before sending a job to an agent to verify its correctness.

A number of new commands perform actions to CA IAS or to the CA Workload Automation Agent. The /IAS command performs actions to the CA IAS interface like reconfiguring the agent definition or starting and stopping the CA IAS TCP/IP communications interface.

The /AGENT command communicates with the agents. With this command, for example, you can clear agent log files or shut down the agent. The LAGENT command (List Agents) inquires CA IAS for a list of defined agents and their status. The /DELAGNT command removes data from the CA Workload Automation SE Agent VSAM file based on a specified number of days. All these commands have a new security interface. Secure these commands to the appropriate group.

Note: Because the CA WA Agent is not active on the target platform, CA Workload Automation SE cannot start an agent. If an agent should be started, the operator must start the CA WA Agent on the platform itself.

With agent jobs, you can retrieve the spool files generated by the execution of the job back to CA Workload Automation SE using the AGFILE command. Not all job types have spool file data. This command also lets you see the job feedback data stored in the new CA7AGNT VSAM file.

Note: For more information about commands, see the *Command Reference Guide.*

Various utilities and reports are updated to support the new agent jobs. For example, the SASSHR11 report now shows the data that was sent to the CA WA Agent, just as it shows the data sent to a Unicenter Agent for XPJOBs.

Note: For more information about reports, see the *Report Reference Guide*.

A conversion utility can move XPJOBs to AGJOBs for Windows and UNIX job types. This utility is designed to facilitate upgrading a CA universal agent to the new CA WA Agent for UNIX, Linux, or Windows. The conversion utility uses the LJOB command to find all XPJOB jobs defined in the database. With additional input, the utility converts the XPJOB database definition to an AGJOB database definition and builds the appropriate PARMLIB member.

Note: For more information about the conversion process, see the *Interface Reference Guide*.

Jobflow Monitor

Jobflow Monitor (JFM) provides an ongoing current and forecasted view of the CA Workload Automation SE workload. Jobflow Monitor uses CA7LOG events that CA Workload Automation SE generates to track the flow and status of the workload.

Jobflow Monitor addresses the need for the CA Workload Automation SE critical path monitoring to incorporate job and data set dependencies into the calculation of possible paths. When a CA Workload Automation SE FLOW is initiated, CA CPM can optionally interface with Jobflow Monitor to get the list of jobs, both triggers and dependencies, which determine the critical path. Jobflow Monitor issues the CAIENF events to CA CPM as these jobs start and stop execution.

To reduce overhead in the CA Workload Automation SE address space, Jobflow Monitor executes in its own address space. Jobflow Monitor can monitor multiple instances of CA Workload Automation SE in the same JFM address space. Jobflow Monitor must execute on the same z/OS image as the CA Workload Automation SE instances that it is monitoring.

Requests for Jobflow Monitor data are through XML documents and TCP/IP.

Note: For more information, see the *Interface Reference Guide*.

Time Zone Normalization

When SMF data is processed, SMF uses the timestamp in the record. That timestamp reflects the time zone where the record was produced (called EXEC time) and may or may not match the time zone of the CA Workload Automation SE where the job is processed (called CA7 time). This mismatch may cause jobs to appear out of sequence, or a data set creation time may be later than the system current time.

The time zone normalization (TZN) enhancement keeps track of time zones and data in certain SMF extract records and some log records. The data kept is the Time Zone Offset (TZO) of the system in which the job executed. TZO is the difference between that system's time zone and Coordinated Universal Time (UTC), which is also called Greenwich Mean Time (GMT).

When TZN processing is in effect, the execution time zone offset (EXEC TZO) is compared with the CA Workload Automation SE time zone offset (CA7 TZO). If there is a difference, the execution time is normalized to the CA Workload Automation SE time. TZO is *not* the difference between EXEC time and CA7 time.

Execute the /DISPLAY,ST=CA7 command to display the CA7 TZO. The results of the following commands can show TZN data: LCTLG, LDSN, LJOB, LPRRN, LQ, and LRLOG.

Note: For more information, see the *Command Reference Guide*.

The following SASSHIS8 reports can contain TZN data: HR04, HR06, HR09, HR13, and HR50. Report control statements have changed to report either CA7 time or EXEC time.

Note: For more information, see the *Report Reference Guide*.

A new statement, SMF, has been added to the initialization file. For TZN, the SMF statement has the following two new keywords:

TZDISPLAY=EXEC|CA7

Specifies the default option for those commands that have a TZ= keyword. The TZ= keyword is new to the previously mentioned commands.

TZPREDS=EXEC|CA7

Specifies the time zone used to satisfy the lead (look back) time that can be used to satisfy initial requirements when a job enters the request queue.

Because EXEC is the current method of operation, both TZDISPLAY and TZPREDS default to operate in the same manner as pre-r11.3 releases. The TZO data is maintained in the records regardless of the keyword settings.

Note: For more information, see the *Systems Programming Guide*.

Improved Job Feedback Notification

The Improved Job Feedback Notification enhancement lets customers use the IBM Cross-System Coupling Facility (XCF) to send SMF feedback data from ICOM to CA Workload Automation SE instead of using the communications data set (COMMDS). The following are the benefits of using XCF:

- Reduced DASD contention on the volume where the COMMDS resides. This reduction becomes increasingly important as the number of ICOMs increases.
- Decreased time in getting the SMF data from ICOM to CA Workload Automation SE for processing.

An alternative use of XCF is the Notify Option. This feature uses the COMMDS to send SMF data to CA Workload Automation SE, but uses XCF to notify CA Workload Automation SE that SMF data is waiting in the COMMDS. This wakes up CA Workload Automation SE more frequently to read waiting data.

Only SMF extract data is currently sent through XCF. Trailer data and NCF data must be communicated through the COMMDS.

This release introduces two new data sets used for recoverability:

- The XCF data set (XCFDS), one for each individual ICOM, contains copies of records sent through XCF to CA Workload Automation SE.
- The XCF checkpoint data set (XCFCKPT), used by CA Workload Automation SE, keeps track of the XCF records processed from each ICOM.

The installation process generates and formats these data sets. They must be formatted before the first use.

The SMF initialization file statement is new. To invoke XCF when starting CA Workload Automation SE, code the keyword SMFXCF=Y|YES on the SMF statement.

To invoke XCF when starting ICOM, perform one of the following:

- Set the value of the new X parameter to X=',XCF=SMF' if you are using the ICOM PROC generated during an r11.3 SYSGEN (CA7ICOM).
- Add the keyword parameter XCF=SMF to the initialization parameter list if you already have ICOM JCL.

The new online command, LXCF, displays the XCF group and member name of the running CA Workload Automation SE. As a list option, the SMF records from the XCFCKPT data set can be displayed.

The new online command, /XCF, deletes records from the XCFCKPT data set.

The CAL2ENVR environment report displays active CA Workload Automation SE XCF group and member names running on the system.

For more information about the new commands /XCF and LXCF, see the *Command Reference Guide*.

For more information about the SMF initialization file statement, the changes to ICOM and the environment report, and the CA Workload Automation SE XCF group and member names, see the *Systems Programming Guide*.

For more information about formatting the new XCFDS and XCFCKPT data sets, see the *Installation Guide*.

For more information about the new security rules for the /XCF and LXCF commands, see the *Security Reference Guide*.

External System State Monitors

This release adds interfaces to support external system state monitoring systems to optimize CA Workload Automation SE task availability. The following are the new interface options:

- IBM Automatic Restart Management (ARM)
- CA OPS/MVS EMA System State Monitor (SSM)
- IBM Health Checker

IBM Automated Restart Management

IBM's Automated Restart Management (ARM) service can restart failed tasks without operator intervention to provide improved program availability. This can reduce the impact when unexpected errors occur. CA Workload Automation SE now provides interfaces to ARM for the CA Workload Automation SE online, ICOM, and NCF tasks.

The CA Workload Automation SE online, ICOM, and NCF tasks register with ARM when their associated initialization options are set to enable the ARM interface. ARM can then restart the task in the event that the task, and in some cases, the system, fails. ARM will not restart a task if it fails as the result of a CANCEL or FORCE command unless specific options are used on the command to request the restart.

The following control the ARM interface:

CA Workload Automation SE online

Contains a new initialization file statement: STATEMGR,ARM={NO|YES}

ICOM

Contains a new EXEC parameter: ARM={NO|YES}

NCF

Contains a new EXEC parameter: ARM=ARM={NO|YES}

Note: For more information, see the *Interface Reference Guide*, the *Systems Programming Guide*, and the *Command Reference Guide*.

CA OPS/MVS System State Manager

An additional interface has been added to CA OPS/MVS for its System State Manager. The interface is supported by the CA Workload Automation SE online, ICOM, and NCF tasks. These tasks can provide information directly to CA OPS/MVS without having to issue messages to the console. The tasks' state (UP, DOWN, and so forth) is passed to the System State Manager (SSM) in CA OPS/MVS. These tasks set their status in SSM automatically when the associated initialization options are set to enable the CA OPS/MVS interface.

These tasks issue the following states:

STARTING

Issued at the beginning of the task's initialization.

UP

Issued after the task initialization is complete.

STOPPING

Issued when termination is requested.

DOWN

Issued just before the task ends.

The following control the SSM interface:

CA Workload Automation SE online

Contains a new initialization file statement: STATEMGR,OPSSSM={NO|YES}

ICOM

Contains a new EXEC parameter: OPSSSM={NO|YES}

NCF

Contains a new EXEC parameter: OPSSSM={NO|YES}

Note: For more information, see the *Interface Reference Guide,* the *Systems Programmer Guide*, and the *Command Reference Guide*.

IBM Health Checker

IBM Health Checker for z/OS provides a central location for IBM and other vendors, such as CA, to scan the z/OS system for potential problems. It reports on its findings and suggests possible actions to take. IBM Health Checker for z/OS runs in a separate started task. This task is made up of many individual checks that can run either local (in the IBM Health Checker for z/OS address space) or remote (in the calling program's address space). The checks for CA Workload Automation SE are local checks.

The CA Workload Automation SE interface to IBM Health Checker for z/OS monitors the availability of the CA Workload Automation SE online and ICOM tasks at a user-specified interval. In addition, for the CA Workload Automation SE online task, it verifies that activity has taken place since the prior check iteration.

A new CAIRIM L2OPTS HEALTHCHECK keyword on the GLOBAL INIT/INITC/UPDATE statement controls this check. For more information about the HEALTHCHECK keyword, see the *Systems Programming Guide*.

The CAL2ENVR report has been updated to show interfaces with the IBM Health Checker. For more information, see the *Systems Programming Guide*.

Note: For more information, see the *Interface Reference Guide* and the *Systems Programming Guide.*

/COID Command

A new command, /COID, lets an authorized user list the correspondence IDs (COIDs) associated with a user ID (UID). The default lists all UIDs that have a corresponding COID group, but specifying a specific ID is also permitted through the ID keyword.

Note: For more information, see the *Command Reference Guide*.

TCP/IP Terminal Interface

The CA Workload Automation SE TCP/IP terminal interface uses TCP/IP to send batch commands to, and receive command output from, the CA Workload Automation SE address space. The interface can be executed from batch, from a REXX address environment, or in a program-to-program mode. The program-to-program interface also includes Java and C program interfaces, which are downloadable from the CA Support Online CA Workload Automation SE Product Page. The interface is similar to the existing CA Workload Automation SE CAICCI terminal interface except that it uses TCP/IP to communicate with CA Workload Automation SE instead of CAICCI.

If a new TCPTPORT=*nnnnn* keyword is on the UCC7VTAM initialization file statement, CA Workload Automation SE initializes a TCP/IP server at startup. TCP/IP must be running on the same operating environment where CA Workload Automation SE is running. The TCPTPORT keyword specifies the port assigned to the instance of CA Workload Automation SE. Each instance of CA Workload Automation SE running on the same operating environment (that has the same TCP/IP address) requires a unique port number. The person at your installation who is responsible for maintaining TCP/IP assigns ports.

Both CAICCI and TCP/IP share the GROUP/LINE/TERM definitions in the CA Workload Automation SE initialization file. Verify that you have sufficient TERM (DEVICE=CCI) definitions for the number of concurrent CAICCI and TCP/IP users you anticipate.

Online commands that display terminal status (for example, /DISPLAY,T=ALL) show a unique identifier that specifies the port, socket, and TCP/IP address of the connection for a terminal in session using the TCP/IP terminal interface.

The following messages have been changed to new message numbers, and in some cases, new message text. Ensure that any automation on these messages is updated.

CA-7.XTM0 SASSXTM0 Initialization in progress

CAL2C050I XTM initialization in progress

CA-7.XTM0 SASSXTM0 Initialization complete

CAL2C051I XTM initialization complete

CA-7.XTM0 CCI Interface initialized

CAL2C052I CCI Interface initialized

CA-7.XTM0 CTI RECEIVER IS: *receiver*

CAL2C053I CTI RECEIVER IS: #*nnnnnnn* **CA-7 XTM** *xxxx*

CA-7.XTM0 CCI Interface initialization failed

CAL2C054I CCI Interface initialization failed

CA-7.XTRM *text*

CAL2C055I *text*

CA-7.XTM0 Exceeded max num of RPLs

CAL2C056I Exceeded max num of RPLs.

Note: For more information, see the *Command Reference Guide*, *Interface Reference Guide*, *Message Reference Guide*, *Security Reference Guide*, and *Systems Programming Guide*.

Perpetual Calendars

Perpetual calendars let you specify criteria to create base calendars automatically. When criteria are specified, the associated calendar is automatically generated the first time a nonexisting base calendar is referenced.

To use perpetual calendars, a partitioned data set (PDS) must be defined and listed on the PCALDSN parameter of the CALENDAR statement in the CA Workload Automation SE initialization file. This data set contains members named PCALYY*xx*, where the *xx* creates the SCAL*yyxx* members in the CALENDAR DSN. The *yy* portion of the SCAL*yyxx* is the year for which this calendar is generated. After the SCAL*yyxx* calendar has been generated, you can list it using the online Base Calendar option (DB.2.8). Online access to base calendars is a prerequisite for using perpetual calendars. Online access is defined with the DSN parameter on the CALENDAR statement of the initialization file.

Note: For more information about the initialization file, see the *Systems Programming Guide*.

Perpetual Calendars are designed for use as calendars where the scheduling days are constant from year to year. For example, a perpetual calendar can be used where weekdays are always schedule days and weekends are nonprocessing days. In this case, you would set up perpetual calendar criteria stating that weekends are nonscheduled. If all federal holidays are nonprocessing days in several of your base calendars, include a reference to a member that defined federal holidays as nonscheduled days in each of those calendar criteria members.

The perpetual calendar feature includes no new commands. However, when a command is issued that references a base calendar that does not exist, it causes the building of that base calendar when criteria for that calendar are correctly specified.

Note: On a RESOLV command, if you receive error message ‘SRC1-134 JOB *jobname* NOT RESOLVED - CALENDAR SCAL*yyss* NOT AVAILABLE’ and SCAL*yyss* is generated by a perpetual calendar, the calendar is not available because an error occurred while generating it from the perpetual calendar criteria. Use the PRINT command or the LIST function of the CALMOD command to display the specific error.

If a base calendar is not in the CALENDAR DSN, an attempt is made to load the calendar from a load module created from assembling and link editing CALENDAR macros. If no load module is present, the PCALDSN is checked to see if a perpetual calendar criteria member exists for that base calendar suffix. If PCALDSN has no corresponding member, the command issues the same error message as in past releases. If a PCALDSN member exists for that base calendar, that base calendar is generated using the criteria in the PCALDSN member, and saved in the CALENDAR DSN. Once the base calendar is generated, it is available for use by any other process in CA Workload Automation SE. The calendar is not regenerated unless specific action is taken.

When first building criteria, we recommend using the PRINT command to verify that the calendar is built to the intended specifications. If modifications to the criteria are needed, rebuild the calendar from the REFRESH function of the CALMOD command, or delete the existing calendar from the CALENDAR DSN.

Once the perpetual calendar criteria are built and verified, base calendars for that suffix are automatically generated, every following year, the first time the calendar is referenced for that year.

Note: For more information about calendars and scheduling, see the *Database Maintenance Guide*.

New Data Sets for Mainframe 2.0

The deployment phase of CA Mainframe 2.0 requires several new XML members. These members reside in new target and distribution libraries.

The following are the new SMP/E libraries for the XML members:

CAI.AAL2XML

Distribution library

CAI.CAL2XML

Target library

More information:

Mainframe 2.0 (see page 24)

Chapter 2: Changes to Existing Features

This section documents changes made to existing features.

This section contains the following topics:

ICOM Coupling Facility Removal

Starting with r11.3, the coupling facility of ICOM is no longer supported. Customers must use the communication data set (COMMDS) to send data from ICOM to CA Workload Automation SE. A new option for job feedback data exists through XCF.

Prior to this release, SASSICOM startup parameter data could contain a one-byte positional parameter for the ICOM coupling facility. Starting with r11.3, if this parameter is found when ICOM starts, warning message CAL2XC25W is generated. The message states that the coupling facility is no longer supported, the parameter is being ignored, and that the customer should change the startup parameter list. To eliminate this informational WTO requires changing the ICOM execution parameter to remove the CF=N parameter.

Note: For more information, see the *Systems Programming Guide*.

More information:

Improved Job Feedback Notification (see page 14)

Packaging and Installation Changes

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

Mainframe 2.0

Starting with this release, installation changed to conform to Mainframe 2.0 standards. Mainframe 2.0 is an initiative to make it easier to obtain, install, and configure a mainframe CA product. CA Workload Automation SE can be obtained through Electronic Software Delivery (ESD). ESD does not require an installation tape because the files are in a compressed PAX format. The actual installation steps can use these files directly. Also with Mainframe 2.0, the elements are placed into separate data sets, as indicated by the SMP/E DDDEFs.

In this release, SAMPJCL contains only JCL for the SMP/E installation steps, with the install and upgrade note members. All other elements formerly located in the SAMPJCL data set have been moved under SMP/E control and are found in either the CAL2JCL or CAL2OPTN target libraries. This move permits the application of maintenance to these members during the r11.3 lifecycle. The member names now begin with AL2, which is the CA Workload Automation SE product code. For example, the $$INDEX member is now renamed AL2$$IDX. The CAL2OPTN library contains a cross-reference of the old member name to the new member name and the location of the new member in member AL2$$XRF.

The SMP/E global CSI has been renamed to end with ".CSI" instead of ".SMPCSI.CSI". The target and distribution zone names are changed to CAIT0 and CAID0. The target library DDDEFs for are prefixed with CAL2. The distribution library DDDEFs are prefixed with AAL2. This release contains a number of new target and distribution libraries, which are listed in the *Installation Guide*.

Other notable changes to the SMP/E installation include the following:

- The CA Workload Automation SE module library is named CAL2LOAD, which was either CAILOAD or CAILIB in previous releases.
- The EARL and Easytrieve report members have been moved from CAIMAC to either CAL2EARL (Earl reports) or CAL2EZTR (Easytrieve reports). The includes or macros for these reports have been moved to CAL2ECPB (EARL copybook) or CAL2EZTM (Easytrieve macros). Existing user-owned EARL/Easytrieve JCL members must be updated to reflect these new libraries. Refer to CAL2JCL members AL2EARL or AL2EZ.
- The Email Address library, which was previously created as part of the SMP/E installation as CAI.CAIEADDR, has been removed from the SMP/E function because it contained no members. If you are using the SMP/E version of this library, it is removed when you delete the r11.1 environment. You can continue to use it if you do not delete the library, or choose to copy it to another fixed-block, 80-byte PDS. This data set name is referenced on the initialization file EMAIL statement, keyword EADDRLIB, or in the CA7ONL JCL as DDNAME EADDRLIB.
- USERMODs have been renamed to begin with AL2UM*nn* instead of UL2B*rnn*, where *nn* is the USERMOD number and *r* is the r11 release (0 for r11.0, 1 for r11.1).
- The function name has changed format from CL2B*r*00 to CAL2B30.

Packaging Updates

With this release, several components are included when the installation occurs. Previously, on the CA 7 r11.1 tape, CA 7 and CA General Transaction Server (CA GTS) were included together, while CA Critical Path Monitor (CA CPM) was located on file 5 of the tape. CA CPS, required for CA WCC and Jobflow Illustrator, was delivered on a separate tape. This method required several installations to install all of the components together.

CA CPS has been moved into the CA Workload Automation SE SMP/E function (FMID). CA CPS is required for CA WCC and for the CA Workload Automation SE feature Jobflow Illustrator Online. Because only CA Workload Automation SE uses CA CPS, placing all elements into the CA Workload Automation SE function reduces the number of STEPLIB data sets needed for the CPS and SCHSRVR tasks.

With CA Workload Automation SE r11.3, you can install a total of five SMP/E functions together:

- CA Workload Automation SE r11.3 – FMID CAL2B30
- Jobflow Monitor – FMID CAL2B31, a dependent function on CA Workload Automation SE
- CA Integrated Agent Services (CA IAS) – FMID CIASB00
- CA CPM – FMID CCPMB00
- CA GTS – FMID CD51B00

We recommend that you install all components in the package during the installation, because these are all new releases. If necessary, a site can comment out any unnecessary functions.

Note: For more information, see the *Installation Guide*.

Product Name Changes

CA has rebranded many products with this release. When searching web sites like Support Online, keep in mind these new names. Although most names are mostly unchanged, the following names have changed significantly:

- CA Workload Automation SE (formerly CA 7 Workload Automation)
- CA Workload Automation AE (formerly CA AutoSys Workload Automation)
- CA WA Restart Option (formerly CA 11 Restart and Tracking)

ARF Changes

The following topics address the changes to ARF for this release.

New ARF Variables

With this release, three new variables are available in the ARF action statements. The following variables can be used in AC and AM action statements:

&SYSTEM

Defines the CA Workload Automation SE system name of the job in ARF recovery.

&JES#

Specifies the JES number of the job in ARF recovery. &JES# is not applicable to cross-platform job types and may not be available for some exception conditions (for example IS, LS, and LA).

&SCHDID

Identifies the schedule ID of the job in ARF recovery.

Note: For more information about ARF and ARF variables, see the *Database Maintenance Guide*.

Late (LA) ARF Exception Changes

Previously, when a job became late in the request queue, the LA exception occurred. Later, if the job returned to the request queue due to a mutually exclusive job, the LA could be taken again in certain conditions. With this release, LA ARF is never taken twice.

Note: For more information about ARF, see the *Database Maintenance Guide*.

High Return Code Test

Automatic Recovery Facility (ARF) definitions can now test against the highest return code (HRC) returned from any of the steps within a job. You can specify recovery responses when any step exceeds or no step reaches an expected condition code. You can also set a range of values to initiate messaging, resubmission, or other responses when the highest return code falls in or out of the range.

Note: For more information about setting your ARFSETs to perform this testing, see the *Database Maintenance Guide*.

CPM Flow Corequisite Resources Changes

Two elements of the resource name defining a CPM FLOW support new formats:

- The SCHID of the ending job of a critical path can now be set to 0 (zero). This automatically sets the ending job SCHID to match the starting job. Setting the ending SCHID to 0 permits the same FLOW resource name to be used for the same job flow executing under different SCHIDs instead of defining separate FLOW resource names for each single SCHID.
- The end time of the ending job specified to support Service Level Agreements can now be relative to the FLOW starting time. Adding a + (plus) before the endtarget element, *+hhmm*, indicates the last job is expected to end before the FLOW starting time plus the *hhmm* value.

Note: For more information, see the *Database Maintenance Guide* and the *Interface Reference Guide*.

CPM Processing

CA Workload Automation SE critical paths were restricted in the past to trigger-only paths.

If you are not using Jobflow Monitor, CPM is not changing.

Jobflow Monitor can include job and data set dependencies that affect the critical path. Using Jobflow Monitor, CA Workload Automation SE critical paths can now include multiple possible paths.

To exploit this feature in CPM, you must have Jobflow Monitor active and specify JFM=YES and CPM=JFM on the CA Workload Automation SE OPTIONS statement. In this mode, CA Workload Automation SE sends job start and end events to Jobflow Monitor.

Also with CPM=JFM, CA Workload Automation SE no longer issues the CPM start and stop events for jobs in the FLOW. Jobflow Monitor then sends the job start and stop events to CPM for all jobs related to the defined flow. CPM queries Jobflow Monitor for status information about the flow.

During installation, a test flow is provided to verify the CPM=JFM interface is correctly configured and functioning. Another new test flow can also verify the CPM=YES interface.

Note: For more information, see the *CA Workload Automation SE Systems Programming Guide*.

More information:

Jobflow Monitor (see page 13)

Disaster Recovery Mode Changes

With this release, CA Workload Automation SE provides a new option on how to classify triggered jobs when starting in Disaster Recovery Mode: TRIGGERS=NONEXEC. The new mode marks triggered jobs as non-executable if the job is marked with an inactive DRCLASS. Both the DRMODE initialization file statement and the /DRMODE system command can specify the option.

The CAL2D004W message was rephrased to be more self-explanatory:

CAL2D004W CA-7 IS STARTING IN DISASTER RECOVERY MODE, PLEASE CONFIRM: (U)SE, (N)ORMAL MODE, (C)ANCEL - RESPOND U, N, OR C

The message represents a WTOR that lets the operator confirm a start of CA Workload Automation SE in disaster recovery mode. Any automation on the existing WTOR may require evaluation.

Note: For more information about DRMODE, see the *Systems Programming Guide*. For more information about non-executable jobs, see the EXEC field description of the job definition panel in the *Database Maintenance Guide*. For more information about the CAL2D004W message, see the *Message Reference Guide*.

Exit Processing

The following are changes to how CA Workload Automation SE processes the SASSXX02 and SASSXX20 exits at initialization time:

- If no APPLCTN statement is present for SASSXX02/SASSXX20, CA Workload Automation SE does not look for the associated load module.
- When PSP=YES, SASSXX02 APPLCTN=YES and SASSXX20 APPLCTN=NO, CA Workload Automation SE overrides PSP to NO and issues Message CAL2S1212 instead of Message CAL2S1213. The issued message states that PSP does not support the SASSXX02 exit.
- If an exit load module is not found, new message CAL2S1214 is issued, listing the load module name and stating that the exit is ignored.

False Duplicate Job

CA Workload Automation SE now ensures that a given job name is not assigned the same CA Workload Automation SE job number on any two successive runs. This prevents situations where CA Workload Automation SE falsely identifies a triggered job as a duplicate because the triggering job was assigned the same CA Workload Automation SE job number on two successive runs.

Security Initialization Changes

With this release, the MULTIJOB keyword can be specified on the SECURITY statement. Possible values are IGNORE, FLUSH, and REQUEUE. With this keyword, CA Workload Automation SE controls the job submission action for jobs found with multiple JOB statements within the JCL member for the job.

Also, a new message CAL2S1512W was added:

CAL2S1512W PSP=YES Required for MULTIJOB=REQUEUE; option reset to MULTIJOB=FLUSH

The EXTERNAL keyword has a new parameter, AGENT, which is used to indicate that any attempt to submit an agent job or command is validated through external security.

Other new keywords are AGCLASS and AGUSER. AGCLASS can specify a resource class for security calls made to validate a user's authority with regard to agent jobs and commands. AGUSER can specify a hierarchy of candidate user ID sources to determine the mainframe user (MFUser) to use for authorizing agent job submission.

The LOGOPID keyword now has an additional value of ALL. The keyword format is LOGOPID={YES|NO|ALL}. LOGOPID=ALL indicates that transaction log records for all commands include an operator ID. This change affects processing for SASSHIS8 report SASSHR02, the Transaction Detail Report, and SASSHR12, the Database Update Transaction Detail Report.

The new keyword value LOGOPID=ALL writes the operator ID to type x‘72’ log records, which the SASSHR02 and SASSHR12 reports use. LOGOPID=YES does not write the operator ID to type x‘72’ log records but does write the user ID to the log that is used in the SASSHR02 and SASSHR12 reports.

Note: For more information, see the *Security Reference Guide*.

CA7ONL Procedure Changes

In addition to the new DD statements added for Agent Job and XCF communication implementations, a new DD statement is generated in the CA7ONL JCL procedure. The allocation of the secondary log file is done through the ddname UCC7LOGS. Allocating the secondary log file in the CA Workload Automation SE online procedure produces an enqueue for the LOGS file. This enqueue prevents utilities such as the DFSMS defragmentation process from moving the file while CA Workload Automation SE is active in the system. The SYSGEN process produces the DD statement just after the UCC7LOG statement, and is similar to the following:

```
//UCC7LOGS  DD  DISP-SHR,DSN=cai.ca7.LOGS
```

Although it is optional we recommend that the DD statement is added to prevent any potential problems.

Initialization File INIT Statement

This release makes various options for the CONFIG keyword on the initialization file INIT statement obsolete. The CONFIG statement now only reflects the MVS operating system and the version of JES that is used. If you specify any of the following keywords, a WTO is written indicating that the option is now obsolete and ignored, and thus should be removed from the INIT CONFIG keyword:

- MCPU
- MVT
- VS1
- VS2
- SVS
- MSP
- ASP
- HASP
- JES1

CA OPS/MVS API

An enhancement to the interface to CA OPS/MVS uses the existing Master Station Message Routing (MSMR) logic. MSMR currently sends messages from the browse data set to Unicenter Event Consoles. A MSGRCNTL DD statement points to the MSMR control file.

In the control file, a TO statement identifies the nodes to which CA Workload Automation SE browse messages are sent. To send a message to CA OPS/MVS, the user adds a new pseudo-destination node named *OPSAPI*. When that node is encountered, MSMR sends the message to CA OPS/MVS using that product's Generic Event Application Programming Interface (API). CA OPS/MVS then processes the message according to rules written for that product.

Note: For more information about MSMR, see the *Systems Programming Guide*.

Commands Changes

The following topics address the changes to CA Workload Automation SE commands for this release.

XPJOB REQUEUE Behavior Change

The REQUEUE command for XPJOBs (job destined to execute at a Universal Agent) now issue a cancel (kill) message if the initialization file XPDEF statement has XPKILL=YES (the default). For XPJOBs that are in the active queue, indicating that the job is active at the agent, CA Workload Automation SE generates a cancel command to go to the agent and cancel that process. Thus when the job is restarted from the request queue, the job is not already executing at the agent.

For the new agent jobs, AGJOBs, a REQUEUE command also issues a cancel request. If the agent or the platform is down, the cancel has no effect. If the agent is active, the job is removed from execution.

Note: For more information, see the *Command Reference Guide*.

Long Online Commands

Commands that are entered in a VTAM or TSO/ISPF interface environment are no longer limited to the top line of the screen. In most cases, you can only enter 79 characters on the top line, which is also known as the command line. A command with more than 79 characters is called a long command.

With r11.3, you can enter part of the command followed by the command continuation character (CCC), which is a plus sign (+). When the CCC is the last character on the command line, the following happens when you press ENTER:

- The screen blanks.
- The command that was entered shows without the CCC.
- The cursor positions after the last nonblank character.
- The two top rows, totaling 160 characters, are available for command input.

This happens because the CCC generates the new /CONT command internally. The /CONT command is documented, but we recommend that customers use the CCC instead of the /CONT command when it is necessary to enter a long command.

A plus sign that is not the last character in the command is treated as part of the command. The maximum length command that can be entered is 160 characters.

The CCC is not valid with the following commands:

- /AUTO
- /ECHO
- /FETCH (The command ignores the CCC.)
- /LOGON

When displaying a long command, /FETCH first blanks out the screen.

The CCC is not available in a batch environment.

Note: For more information about long online commands, see the *Command Reference Guide*.

For more information about continuation characters in a CAICCI terminal environment, see the *Interface Reference Guide*.

Additional Changed Commands

For the DEMAND and RUN commands, new keywords are added: EXEC specifies whether to execute the job, and RMS specifies whether to insert CA WA Restart Option RMS step (the keyword is invalid for internal cross-platform jobs).

For the DEMAND, RUN, and LOAD commands, the new LATE keyword specifies whether notification should occur if the job becomes late.

With this release, LQ (LQUE) and LREQ commands display a new job status of R-MJOB for jobs that were requeued because of MULTIJOB=REQUEUE security setting.

For the LJOB, SCHDMOD, and LSCHD commands that involve job schedules, the display now includes a new field, LAST RESOLV. The time and date of the last resolve for this job display on the screen after a resolve command has been executed on the CA Workload Automation SE r11.3 system.

The /WTO command, which issues a WTO to the master console, has the new keyword HI={NO|YES}. The HI keyword controls whether the message, indicated by M=, is highlighted. The default is no highlighting.

Note: For more information, see the *Command Reference Guide*.

The output from the /DISPLAY,ST=SEC contains new information fields for the security environment. The output format for existing fields has not changed. The following are the new information fields:

- PROPAGATE
- BYPASS SECURITY (BYPSEC)
- MIXPW
- PCLASS/RCLASS
- AGENT external security setting
- AGENT userid sources (if the agent is active)

Note: For more information, see the *Security Reference Guide*.

The /DISPLAY,ST=DR command's output changed to display a new option Disaster Recovery Mode option TRIGGERS=NONEXEC. This information is important to those sites that perform screen scraping on the output of the commands.

Note: For more information, see the *Command Reference Guide*.

DSN Table Overflow WTO Message

A CA Workload Automation SE browse log message is written when an internal data set name table overflow condition is detected. The message is as follows:

SVPR-50 TABLE OVERFLOW -- OUTPUT DSN *x*.....*x* NOT CAPTURED

Not all sites have the automation to capture this message that indicates requirement postings may be lost. In addition to issuing the browse message, the following message is written to the CA Workload Automation SE JES job log:

CAL2210E DSN TABLE OVERFLOW; OUTPUT DSN NOT CAPTURED,DSN=*aaaa*

Note: For more information, see the *Message Reference Guide*.

Interface with CA WA Restart Option

CA Workload Automation SE lets users define job or step level condition codes to determine whether a job completes successfully. The interface with CA WA Restart Option, formerly known as CA 11, has been enhanced to synchronize job success/failure criteria between the two products. This enhancement lets CA Workload Automation SE control restart processing for jobs under its control, as opposed to the operating system and CA WA Restart Option database. In other words, CA Workload Automation SE informs CA WA Restart Option of the restart step (ignoring the CA WA Restart Option HIRTCD), but CA WA Restart Option still determines the appropriate step in which to restart the job.

In addition, this enhancement lets CA Workload Automation SE tell CA WA Restart Option the JESNODE where the job ran and the CA WA Restart Option subsystem that controls the job, leading to greater accuracy for job restarts.

By default, this feature is disabled. Sites wanting to use this feature must set the RESTART file initialization statement keyword CONDCHK to YES. This keyword, new to release 11.3, is documented in the *Systems Programming Guide*.

The updated CPU Job in Restart Status panel (QM.4-X) includes two new display only fields, CA-11 (CA WA Restart Option) and JNODE. The CA-11 field contains the CA WA Restart Option subsystem name that controls this job. The JNODE field displays the JESNode where the job executed. These fields display this information only if you are running CA WA Restart Option r11.0 or newer *and* you have selected INSERT-RMS=Y (on the Job Definition panel) for the job you are submitting. If not, both field positions display *NA* (Not Applicable).

Note: For more information, see the *CA WA Restart Option User Guide*.

In previous releases of CA Workload Automation SE, the CA WA Restart Option interface was automatically disabled when it was unable to access the necessary modules. No message was issued indicating that this action occurred. In r11.3, a new message, CA-7.729, is written to the CA Workload Automation SE job log explicitly indicating the interface is disabled.

CA Service Desk Interface

The sample EVENT members are updated with two new variables. &EVENT is replaced with the CAL2EVNT member name used to create the Service Desk ticket. &CA7NAME is replaced with ‘CA Workload Automation SE’ in this release. The sample AL2CNTL member is also updated for the PRODNAME and ASSET parameters.

Note: For more information, see the *Interface Reference Guide*.

Mass Job Rename Utility

With this release, the CA Workload Automation SE Job Rename Facility issues a non-zero return code (RC=4) upon completion if any warning messages are issued.

The CA Workload Automation SE VRM rename processor, CAL2JRXV, now handles Global Variables (GVAR) found in the CA Workload Automation SE VRM file. All altered GVARs are reported along with the job name renaming details.

Also the message CAL2JR73I was updated and a new message CAL2JR76W was added:

CAL2JR73W ARFSET *aaaaaaaa* has unrecognizable condition type

CAL2JR76W Commands within ARFSET can not be expanded beyond the 69-byte limit

Note: For more information about the Mass Job Rename Utility, see the *Database Maintenance Guide*.

Database Transportability

With this release, the CA Workload Automation SE Database Transportability feature includes two new DD statements, AGENTDIV and DT30CR11. If these DD statements are not present, you receive the following message:

IEC130I *xxxxxxxx* DD STATEMENT MISSING where *xxxxxxxx* is AGENTDIV or DT30CR11

This message can be ignored if you are *not* transporting agent jobs. You receive a S000 U0008 ABEND if you attempt to transport agent jobs and either DD statement is missing. You also receive a new message, DT35-02, that is documented in the *Message Reference Guide*.

Note: For more information about Database Transportability, see the *Database Maintenance Guide*.

Format Changes

The following topics address the changes to screens and reports for this release.

Screen Format Changes

With this release, the following screen format changes take effect:

Format Block	Commands	Specific Column Changes
SFMxSCMB	/DISPLAY,T=?	Changed: row 21, col 41, added text "or TCP/IP" If entered through batch, this position has TCP/IP information.
SFMxSCMX	/DISPLAY,ST=CA7	Changed to mixed case Added, row 03, col 35: Level: r11.3 0000 Added, rows 05 – 07, col 41: Information about the System State Manager Interfaces (ARM, OPS/MVS SSM, and Health Checker) Added, row 08, col 41: CA 7 TZ Offset : z*hh:mm* Added, row 09, col 41: TZDISPLAY Value: *xxxx* Added, row 10, col 41: TZPREDS Value : *xxxx* where z is the sign, and *xxxx* is either EXEC or CA7. Added, row 11, col 02: TCP/IP Host Name Added, row 11, col 51: Port Added, row 12, col 2: TCP/IP Host Address
	/DISPLAY,ST=SEC	Added, row 7, column 29. Option (Other/Propagate) Added, row 7, column 71, Mixed password indication Added, row 8, column 71, Command Resource class name Added row 11, column 2, Bypass Security settings if present Added, row 13, col 51: AGENT Changed: row 16, col 51, under User ID Hierarchy, now have two columns, one for JCL and one for Agents Added, row 20, col 02: MULTIPLE JOBCARDS
	/DISPLAY,ST=XPS	Added rows 20-22, column 2, Agent status information

Format Block	Commands	Specific Column Changes
SFMxSLIA	LJOB LJOB,JOB= LJOB,LIST={SCHD|ALL}	If the job last-run date/time is normalized to the EXEC time zone, there is a “+” in column 70. With the JOB= parm, a new line has been added in the blank line before the OWNER= line, starting in column 8: . LAST RUN: CA 7=*yy.ddd hh:mm:ss* EXEC=*yy.ddd hh:mm:ss* EXEC TZO=z*hh:mm* where z is the sign. If LIST=ALL or LIST=SCHD is specified, and the job has a resolved schedule, a new line will appear on the screen under the "---- SCHEDULES ----" line: LAST RESOLV ON *yy.ddd* AT *hh:mm* where *yy.ddd* is the Julian date and *hh:mm* is the hours and minutes the schedule was resolved.
SFMxSLIB	LDSN	A new line has been inserted after the LAST MAINTENANCE ON line. The line starts in column 8, and the text depends on whether the EXEC time zone matches the CA 7 time zone. If they are equal, the line reads as follows: . LAST CREATED D/T: *yy.ddd hh:mm:ss* If they are different, the line reads as follows: . LAST CREATED: CA 7=*yy.ddd hh:mm:ss* EXEC=*yy.ddd hh:mm:ss* EXEC=z*hh:mm* where z is the sign.
SFMxSDM0	DB Menu	Changed, row 07, col 09, from "10" to "A"
SFMxSLID	LCTLG	A new column heading, TZO, starts in column 12 on the same row with DATE, TIME, and GDG#. The time zone offset is displayed for the most recent generation only of the data set starting in column 10 in the z*hh:mm* format, where z is the sign. The time column expanded from *hhmm* to *hhmmss*. If the date/time is normalized to the EXEC time zone, column 35 contains a “+”. **Note:** If the most recent generation is normalized, it is assumed that all generations are normalized.
SFMxSLIF	LQ	If job start date/time (not the submit date/time) is normalized to the EXEC time zone, column 36 contains a “+”.

Format Block	Commands	Specific Column Changes
SFMxSLIG	LSCHD,LIST= BYSID	To this dynamically built screen, a new line added after the “Last Maintenance” and before “---SCHEDULES---” contains the last resolved date for this job. The added line contains the following: .LAST RESOLV ON *yy.ddd* AT *hh:mm*
SFMxSLIR	LPRRN, LRLOG	If job start and complete date/times are normalized to the EXEC time zone, columns 32 and 52 contain a “+”.
SFMxSLIV	LQ,LIST=JOBX	If job start/end date/times are normalized to the EXEC time zone, column 49 contains a “+”.
SFMxSM80	SCHDMOD	Added, row 07, col 49: LAST RESOLV
SFMHQM50	Restart screen	Added, row 03, col 67: CA 11 Added, row 04, Col 53: JNODE
SFMHSM80 DB.2.7	SCHDMOD	The following new field, LAST RESOLV, is added at row 07, column 48: LAST RESOLV: *yy.ddd* AT *hh:mm* The new field displays with information after a resolve has been done under CA Workload Automation SE r11.3.

SASSHIS8 Report Format Changes

This release changes the page numbers on headers of the SASSHIS8 reports in the following ways:

- The positions of PAGE literals and page numbers are standardized.
- The maximum number of pages increased to 99999 positions in reports with smaller numbers, and leading zeros are removed.

The following table further explains the changes:

Report Name	PAGE Literal From Location	PAGE Literal To Location	PAGE Number From Location	PAGE Number To Location
All reports - Control Card Edit	123	122	128-130	127-131
HR01	124	122	130-132	127-131
HR02	125	122	130-132	127-131

Report Name	PAGE Literal From Location	PAGE Literal To Location	PAGE Number From Location	PAGE Number To Location
HR03	124	122	130-132	127-131
HR04	125	122	130-132	127-131
HR05	125	122	130-132	127-131
HR06	125	122	130-132	127-131
HR07	125	122	130-132	127-131
HR08	125	122	130-132	127-131
HR09	125	122	130-132	127-131
HR10	123	122	128-130	127-131
HR11	123	122	128-130	127-131
HR12	125	122	130-132	127-131
HR13	125	122	130-132	127-131
HR16	123	122	128-130	127-131
HR20	123	122	128-130	127-131
HR21	123	122	128-130	127-131
HR22	123	122	128-130	127-131
HR23	122	122	127-131	127-131
HR24	122	122	127-131	127-131
HR30	123	122	128-132	127-131
HR50 - SASSRA01	124	122	129-131	127-131
HR50 - SASSRA02	124	122	129-131	127-131
HR50 - SASSRA03	124	122	129-131	127-131
HR51	122	122	127-131	127-131
HR70	125	122	130-132	127-131

History Report 03, Log Dump, displays the dump in hexadecimal format on the left and the dump translated to printable characters at the right. In previous releases, in the printable characters area, only uppercase letters and numbers were printed, and other characters were translated to periods. In this release, all characters X'40' to X'FF' are printed, and all the other characters are translated to periods.

This release also standardizes the location of the date and time on headers of the SASSHIS8 reports. The following table explains the changes.

Report Name	Date From Location	Date To Location	Time From Location	Time To Location
All reports - Control Card Edit	90-97	102-109	100-104	112-116
HR01	91-98	102-109	101-105	112-116
HR02	99-106	102-109	109-113	112-116
HR03	90-97	102-109	100-104	112-116
HR04	93-100	102-109	103-107	112-116
HR05	93-100	102-109	103-107	112-116
HR06	88-95	102-109	98-102	112-116
HR07	93-100	102-109	103-107	112-116
HR08	106-113	102-109	116-120	112-116
HR09	88-95	102-109	98-102	112-116
HR10	94-101	102-109	104-108	112-116
HR11	93-100	102-109	103-107	112-116
HR12	99-106	102-109	109-113	112-116
HR13	85-92	102-109	95-99	112-116
HR16	106-113	102-109	116-120	112-116
HR20	98-105	102-109	108-112	112-116
HR21	98-105	102-109	108-112	112-116
HR22	99-106	102-109	109-113	112-116
HR23	104-111	102-109	114-118	112-116
HR24	104-111	102-109	114-118	112-116
HR30	104-111	102-109	114-118	112-116

Report Name	Date From Location	Date To Location	Time From Location	Time To Location
HR50 - SASSRA01	8-15	17-21	8-15	17-21
HR50 - SASSRA02	8-15	17-21	8-15	17-21
HR50 - SASSRA03	8-15	17-21	8-15	17-21
HR51	104-111	102-109	114-118	112-116
HR70	106-113	102-109	116-120	112-116

This release changes the titles of the SASSHIS8 reports in the following ways:

- The product name in the title is now CA WORKLOAD AUTOMATION SE instead of CA-7
- All titles are single spaced
- The titles are centered

Customers who use automation tools to key off report titles can change the product name in the title back to CA-7 by using a new positional parameter on the EXEC statement. However, because of title centering, the CA-7 may not be in the same column as before, depending on the individual report.

Note: For more information about reports, see the *Report Reference Guide*.

Level and Service Pack Name Change

Beginning with r11.3, a four-character level identifier follows the release identifier. In prior releases, SP0 identified the original GA release, and service packs were labeled SP1, SP2, and so forth.

Now, 0000 identifies the GA release, and service packs are labeled SP01, SP02, and so on. These level identifiers can be seen on the CA Workload Automation SE logon panels, in the CAL2ENVR environment report, and in various messages.

Workload Planning Report Format Changes

This release changes the report headings from “C A – 7 W O R K L O A D P L A N N I N G” to “CA WORKLOAD AUTOMATION SE WORKLOAD PLANNING.” Customers who use automation to key off report titles can continue to produce the “old” report headings by using the new TITLE parameter on the WLP1 and WLP2 control statements.

Note: For more information about reports, see *Report Reference Guide*.

CA Earl and CA Easytrieve Report Format Changes

This release changes the product name in the CA Earl and CA Easytrieve report headings from "CA-7" to "CA WORKLOAD AUTOMATION SE." The PAGE/REQUEST block at the right of the heading is right justified, as shown in the samples in Report Reference Guide. The title is centered on the page.

Customers who use automation tools to key off report titles can change the product name in the title back to CA-7 by applying usermod AL2UM49 (CA Earl) and AL2UM50 (CA Easytrieve). The new report title is centered. An effort was made so that if the client chooses to use the CA-7 product name in the title, the CA-7 is in the same place as it was before. However, if the previous title was off-center, as some report titles were, the CA-7 may be in a slightly different column in the rebranded version.

This release standardizes the headings on CA Earl and CA Easytrieve reports. Many of the reports were modified to conform to the location of the report date, report time, PAGE literal, page number, and report name fields on the other reports. If you are using automation to check any of these fields, review the table below to determine their current locations.

The following table shows the title row and column numbers for information that is in the CA Earl and CA Easytrieve report headings. The products have slightly different widths for their reports, so the items that are right-justified are in different columns. The table elements are in the format x/y-z, where x is title row 1 or 2, and y-z are the columns containing the information.

Product	Rpt. Date	PAGE literal	Page No.	TIME: literal	Rpt. Time	Report Name
CA Earl	1/1-8	1/121-124	1/128-132	2/1-5	2/7-14	2/125-132
CA Easytrieve	1/1-8	1/121-124	1/127-131	2/1-5	2/7-14	2/124-131

Note: For more information about reports, see *Report Reference Guide*.

Miscellaneous Report Format Changes

CA Workload Automation SE has been placed into the title in the Environment Report produced by CAL2ENVR, replacing CA-7. The PAGE literal is moved from column 111 to column 115. The page number is moved from column 117 to column 121. There is no provision for modifying the report title.

CTIMSG Option

A new initialization file OPTIONS statement keyword, CTIMSG, lets you reduce the number of JES log messages written for each CAICCI terminal session. By coding CTIMSG=NO (the default is YES), the following messages are not written to the JES job log:

CA-7.XTM0 - Session started (*xxxxxxxx*) *xxx...xxx*

CA-7.SCMK - /CLOSE SUCCESSFUL FOR *xxxxxxxx*

CA-7.822 - (*xxxxxxxx*) CLOSED

CA Workload Automation SE continues to issue the following message:

CA-7.XTM0 - Session ended (*xxxxxxxx*) *xxx...xxx*

Note: For more information, see the *Systems Programming Guide*.