

CA-7[®]

Reports Guide 3.3

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Contents

Chapter 1. Introduction	1-1
1.1 Summary of Revisions	1-2
1.1.1 Product Changes	1-2
1.1.2 Documentation Changes	1-5
Chapter 2. Automated Performance Analysis	2-1
2.1 Graph Formats	2-2
2.1.1 Standard Graph	2-3
2.1.2 Graphs Using Averages	2-4
2.1.3 Graphs Using Percentages	2-5
2.2 Some Practical Uses	2-6
2.2.1 System Graphs	2-6
2.2.2 Network Graphs	2-6
2.2.3 Job Graphs	2-7
2.2.4 Database Graphs	2-8
2.3 Customizing Graphs	2-9
2.4 APA Graph Descriptions	2-10
2.5 GRAPHD - Database Graph Descriptions	2-11
2.6 GRAPHJ - Job Graph Descriptions	2-15
2.7 GRAPHN - Network Graph Descriptions	2-32
2.8 GRAPHS - System Graph Descriptions	2-35
Chapter 3. History Reporting	3-1
3.1 SASSHIS8 History Reporting	3-3
3.1.1 SASSHIS8 File Descriptions	3-4
3.1.2 SASSHIS8 Available Outputs	3-4
3.1.3 SASSHIS8 Control Statement Descriptions	3-5
3.1.4 SASSHIS8 Date/Time Ranges	3-5
3.1.4.1 SASSHIS8 Explicit Ranges	3-5
3.1.4.2 SASSHIS8 Range Literals	3-6
3.1.4.3 SASSHIS8 Sample Ranges	3-7
3.1.4.4 Reporting Periods, Days, or Hours	3-7
3.1.4.5 SASSHIS8 Scheduling Considerations	3-8
3.1.4.6 Reporting Quarter Definition	3-8
3.1.4.7 Reporting Day Definition	3-8
3.1.5 SASSHIS8 Control Record Formats	3-9
3.1.5.1 Report 01 - Scheduled Jobs Not Run	3-9
3.1.5.2 Report 02 - Transaction Detail	3-11
3.1.5.3 Report 03 - Log Dump	3-14
3.1.5.4 Report 04 - Scheduled Versus Actual Job	3-17
3.1.5.5 Report 05 - Scheduled Versus Actual Station Report	3-20
3.1.5.6 Report 06 - Job Processing Activity Report	3-23
3.1.5.7 Report 07 - Workstation Activity Report	3-25
3.1.5.8 Report 08 - Master Station Activity	3-27
3.1.5.9 Report 30 - Security Exceptions	3-29
3.1.5.10 Report 50 - Recovery Aid Output	3-31

3.1.5.11 Report 70 - Internal Activity Trace	3-33
3.1.6 Differential Severity Scale	3-35
3.1.7 Sample History Reporting JCL	3-36
3.2 Control Statement Edit Report SASSHIS8	3-37
3.3 SASSHIS8 History Reports	3-38
3.3.1 Scheduled Jobs Not Run Report SASSHR01	3-39
3.3.2 Transaction Detail Report SASSHR02	3-41
3.3.3 Log Dump Report SASSHR03	3-44
3.3.4 Scheduled Versus Actual Job Report SASSHR04	3-45
3.3.5 Scheduled Versus Actual Station Report SASSHR05	3-47
3.3.6 Job Processing Activity Report SASSHR06	3-49
3.3.7 Workstation Activity Report SASSHR07	3-51
3.3.8 Master Station Activity Report SASSHR08	3-52
3.3.9 Security Exception Report SASSHR30	3-53
3.3.10 Internal Activity Trace Report SASSHR70	3-56
3.3.11 Last Logged Status of Jobs Report SASSRA01	3-59
3.3.12 Generated Batch Terminal Interface Commands Report SASSRA02	3-65
3.3.13 Simulated LQ Display of Jobs Report SASSRA03	3-67
3.4 SASSXTRK Log Extract Program	3-70
3.4.1 SASSXTRK Control Statement Description	3-70
3.4.2 SASSXTRK Program	3-71
Chapter 4. Workload Planning	4-1
4.1 Using Workload Planning	4-2
4.1.1 Common Uses	4-2
4.1.2 Special Uses	4-3
4.1.3 Data Flow	4-4
4.1.4 Limitations On Use	4-6
4.2 Workload Planning Reports	4-7
4.2.1 Card Input Edit Report - WLP01	4-8
4.2.2 Hourly INIT Usage Projection Report WLP02	4-10
4.2.3 Hourly TP1 Usage Projection Report WLP03	4-12
4.2.4 Hourly TP2 Usage Projection Report WLP04	4-14
4.2.5 Hourly CPU Usage Projection Report WLP05	4-16
4.2.6 Resource Summary Projection Report WLP06	4-18
4.2.7 Job Summary - Projection Report WLP07	4-19
4.2.8 Job Summary - Actual Report WLP07	4-21
4.2.9 Detailed Resource Utilization - Projection Report WLP07	4-23
4.2.10 Detailed Resource Utilization - Actual Report WLP07	4-25
4.3 WLP Online Data Generator	4-27
4.3.1 FWLP Command	4-27
4.3.2 Data Statement File	4-28
4.3.2.1 RES Statements	4-28
4.3.2.2 JOB Statements	4-32
4.4 WLP Control Statements	4-36
4.4.1 Format Rules	4-36
4.4.2 WLP1 Control Statement	4-37
4.4.2.1 Syntax	4-37
4.4.3 WLP2 Control Statement	4-42
4.4.3.1 Syntax	4-42

4.5	Using Workload Planning	4-44
4.5.1	Projections	4-44
4.5.1.1	FWLP Control Statement Example	4-44
4.5.2	Sample WLP Projections JCL	4-47
4.5.3	Actuals	4-48
4.5.3.1	WLP2 Control Statement Example	4-48
4.5.4	Sample WLP Actuals JCL	4-49
4.5.5	Sample WLP Combined JCL	4-50
Chapter 5.	CA-Earl and CA-Easytrieve Plus Reporting	5-1
5.1	Using CA-Earl and CA-Easytrieve Plus Reporting	5-2
5.1.1	Producing Reports	5-2
5.1.2	Reports Available	5-2
5.1.3	Reports Available from Log History Data	5-3
5.1.4	Reports Available from Database Backup	5-4
5.2	Selecting Reports	5-5
5.2.1	CA-Earl Sample Log History Report JCL	5-6
5.2.2	CA-Easytrieve Plus Sample Log History Report JCL	5-7
5.2.3	Possible PULL Step Condition Codes	5-8
5.2.4	Specifying Log History Pull Options	5-8
5.2.5	Sample Log History Pull Options	5-9
5.2.6	Database Report JCL	5-10
5.2.7	JCL Considerations for SORT (CA-Earl only)	5-10
5.2.8	User-defined Reports	5-10
5.2.9	Record Definitions for CA-Earl	5-11
5.2.10	Record Definitions for CA-Easytrieve Plus	5-11
5.3	Report Descriptions	5-12
5.3.1	Log Record Profile	5-12
5.3.2	CA7xx001 Job Completion Profile	5-14
5.3.3	CA7xx002 Request Queue Activity Profile	5-15
5.3.4	CA7xx003 Ready Queue Activity Profile	5-16
5.3.5	CA7xx004 Active Queue Activity Profile	5-17
5.3.6	CA7xx005 Preprocessing Queue Activity Profile	5-18
5.3.7	CA7xx006 Postprocessing Queue Activity Profile	5-19
5.3.8	CA7xx007 Prior-Run Queue Activity Profile	5-20
5.3.9	CA7xx008 Database DSD/DSM Record Activity Profile	5-21
5.3.10	CA7xx009 Database JBD/JBM Record Activity Profile	5-23
5.3.11	CA7xx010 Database NWD/NWM Record Activity Profile	5-25
5.3.12	CA7xx011 Database PPD/PPM Record Activity Profile	5-27
5.3.13	CA7xx012 Database SID/SIM Record Activity Profile	5-29
5.3.14	CA7xx013 Database SJD/SJM Record Activity Profile	5-31
5.3.15	CA7xx014 Database SOD/SOM Record Activity Profile	5-33
5.3.16	CA7xx015 Database Type I Record Activity Profile	5-34
5.3.17	CA7xx016 Composite Database Activity Profile	5-35
5.3.18	CA7xx017 Composite Queue Activity Profile	5-37
5.3.19	CA7xx018 Queue Posting Activity	5-39
5.3.20	CA7xx019 Job Scheduling/Completion Activity	5-43
5.3.21	CA7xx020 Tape Data Set Activity	5-44
5.3.22	CA7xx021 DASD Data Set Activity	5-45
5.3.23	CA7xx022 Workstation Network Scheduling Activity	5-46

5.3.24	CA7xx023	Input Network Performance Profile	5-47
5.3.25	CA7xx024	Output Network Performance Profile	5-48
5.3.26	CA7xx025	Communications Data Set Activity	5-49
5.3.27	CA7xx026	Schedule Scan Activity	5-50
5.3.28	CA7xx027	Queue Allocation Usage Profile	5-51
5.3.29	CA7xx028	Job Termination Posting Dwell Time	5-53
5.3.30	CA7xx029	Job Completion Dwell Time	5-55
5.3.31	CA7xx030	Queue Entry Dwell Time	5-57
5.3.32	CA7xx031	Transaction Response Time Profile	5-59
5.3.33	CA7xx032	/LOG Command Detail	5-60
5.3.34	CA7xx033	Trailer Queue Activity Profile	5-61
5.3.35	CA7xx034	CA-7 In-Storage Trailer Queue Profile	5-62
5.3.36	CA7xx035	Performance Statistics Information Job Report	5-63
5.3.37	CA7xx036	Performance Statistics Information System Report	5-65
5.3.38	CA7xx037	Job Completion Table Data	5-67
5.3.39	CA7xx701	Data Sets with No Associated Jobs	5-69
5.3.40	CA7xx702	Workstation Networks with No Associated Jobs	5-71
5.3.41	CA7xx703	Roster for Prose Type: SYSTEM	5-72
5.3.42	CA7xx704	Roster for Prose Type: JOB	5-73
5.3.43	CA7xx705	Roster for Prose Type: DATASET	5-74
5.3.44	CA7xx706	Roster for Prose Type: NETWORK	5-75
5.3.45	CA7xx707	Roster for Prose Type: USER	5-76
5.3.46	CA7xx708	Roster for Prose Type: DD	5-77
5.3.47	CA7xx709	CPU Job Schedules with Current SCHDMOD	5-78
5.3.48	CA7xx710	Input Network Schedules with Current SCHDMOD	5-79
Index			X-1

Chapter 1. Introduction

The *CA-7 Reports Guide* presents reports available to users of CA-7. This manual describes automated performance analysis, history reporting, workload planning, and reporting with CA-Earl and CA-Easytrieve Plus.

1.1 Summary of Revisions

This topic explains changes to both CA-7 and to the documentation.

1.1.1 Product Changes

CA-7 Version 3.3 contains the following major enhancements:

- Parallel Sysplex Exploitation

CA-7 can optionally maintain a memory structure in the Coupling Facility in which participating ICOMs record tracking data. One or more Host ICOM(s) read from the memory structure and write to the Communication data set. This can significantly reduce I/O contention and increase feedback throughput.

- UNIX System Services Interface

The OS/390 UNIX System Services (USS) CA-7 interface allows communication with CA-7 from the USS environment. The interface can be called directly from the UNIX shell or from the IBM USS batch interface (BPXBATCH).

- CA-7 CCI Interface

The CA-7 CCI interface allows two-way communication with CA-7 from other address spaces and environments. The interface can be engaged in a batch mode, in a REXX address environment or it can be called directly from a user program. It accepts single or stacked commands as input and returns the CA-7 output from the commands as if they had been executed in batch mode.

- Critical Path Monitoring

Through integration with CA-OPS/MVS II, Unicenter TNG and Unicenter TNG MVS Event Manager Option (MEMO), CA-7 can support the definition and monitoring of critical job flows within the CA-7 workload. CA-OPS/MVS II provides management and administration of critical path displays.

- Mixed Case Support in CA-7 Editor

Character translation controls can be set in the CA-7 Editor. New Editor subcommands 'UPPER' and 'MIXED' determine whether editor data is translated to uppercase or left "as is."

These subcommands are enabled with a new initialization file option. If this option is not coded, then all edit data is translated to uppercase.

- Job Completion Tracking Precision

CA-7 records job completion times in hundredths of seconds. This allows job completions to be discriminated with a high degree of precision, thus reducing the likelihood of requirement posting ambiguities where jobs complete within the same minute.

- Display Duplicate Days for RESOLVE

CA-7 can optionally display the duplicate RESOLV day(s) in new message SRC1-137. This occurs when a job is scheduled to execute the same day under two or more different Schedule IDs. With this information one can more quickly and efficiently determine the source of the scheduling conflict.

- VRM Device Control

Virtual Resource Management (VRM) Device Control provides an alternative to Workload Balancing control of job submission based on tape drive availability. VRM resource count resources representing the number and type of storage devices used by the job are defined dynamically during CA-7 LOAD processing.

Workload Balancing only permits two types of tape drives. With VRM Device Control, the number and structure of device groups is determined by the user.

- CA-7 Command Retrieval

Command line input for CA-7 VTAM terminals is recorded in storage and may be retrieved with the /FETCH command. When the /PFnn command is used to associate /FETCH with a PF key, the CA-7 user can conveniently retrieve the last five CA-7 commands entered at an online terminal.

- CA-7 Base Calendar Security

CA-7 security can allow clients to define CA-7 base calendar names to an external security product and secure user access to individual base calendars.

- REXX Address Environment

Using the new CA-7 CCI interface, CA-7 allows REXX programs to pass commands to CA-7 and take action based on the output from those commands.

- Job 'Purge' Function

The DB.1 (Job) panel provides a new function, PURGE, which deletes all CA-7 database records related to a job. In addition to the standard delete processes, the PURGE function deletes incoming trigger definitions, requirement successor definitions, and the CA-11 CMT member for the job.

- Suppress LATE Designation

Through an Initialization File option, the PROMPTS field on the DB.1 (Job) panel can be used to indicate certain jobs should never be marked as LATE on status displays. This means operations and production control staff will not be distracted when test or non-critical jobs do not complete on time.

- CSA Chains Above the 16M Line

CA-7 CSA SMF and Trailer chains now reside in extended CSA (above-the-line), thereby reducing utilization of this critical resource.

- Automated Recovery Facility (ARF) Enhancements

CA-7 can optionally add a LOGON parameter to the ARF TSO SEND command to cause messages to be retained until the user logs on to TSO. Also, support for ARF has been added to the Database Transportability facility.

- Prior Run Queue Expansion

The maximum size of the Prior Run Queue is now approximately twice as large as in prior releases.

- CA-7 JCLCheck Common Component

The CA-JCLCheck Common Component is provided in place of the CA-7 JCL syntax checker.

- Documentation Files on Tape

The current CA-7 documentation files are provided in IBM Book Manager and PDF format on the product tape.

- Other Enhancements:

- SMF Purge records may optionally be sent to a test copy of CA-7. This allows detection of pre-execution JCL Errors by the test copy.
- The Scratch and Disk Queue Table queues can be formatted during a CA-7 ERST start which facilitates use of VIO to improve performance.
- The LJOB command provides a new option, LIST=RQEXCP, that lists only those requirements with a SKIP or ONLY indication.
- The reverse forecast commands, FRJOB and FRQJOB, have a new option, LIST=HDRS. This will limit the display to only the target job and all 'header' jobs.
- Database Transportability now supports a new keyword, NODSNS, for SASSDT30 which prevents the generation of data set definitions.
- The LQ family of commands (LREQ, LRDY, LACT, and so forth) now support a Schedule ID filter, SCHID=.
- The LRLOG command has a new sequence option, SEQ=REV, which causes entries to be displayed in reverse date/time sequence (most recent first).
- The OPTIONS initialization file statement has a new keyword DPROCCOM= to enable comment statements in CA-Driver procedures.
- The OPTIONS initialization file statement has a new keyword EXTSCHID= to set a default schedule ID for externally tracked jobs that are not assigned a non-zero schedule ID from the SASSEXTT table.
- The CA-7 CAIRIM initialization module now accepts a new reinitialization parameter (REINIT=UTABS) to reload only user defined table modules.
- The /DISPLAY command has a new STATUS option (/DISPLAY,ST=CA7) to describe the current copy of CA-7 (VTAM application ID and so forth).

1.1.2 Documentation Changes

The documentation for CA-7 Version 3.3 differs from previous releases as follows:

- The documentation set has been engineered to take advantage of the latest technology for online viewing, keyword searching, book marking, and printing. The set consists of a hard copy *CA-7 Getting Started* guide and Version 3.3 of CA-7 for OS/390 documentation in both IBM BookManager and Adobe Acrobat Reader format on the tape.
- Unicenter TNG Framework for OS/390 is composed of the services formerly known as CA90s and Unicenter TNG Framework.
- Reading Syntax Diagrams in the *CA-7 Commands Guide* explains how to read the command syntax used in all guides.

Technical changes are identified by a revision bar (|) in the left margin. Revision bars are not used for editorial changes and new manuals.

Chapter 2. Automated Performance Analysis

Automated Performance Analysis (APA) is a management reporting system. Information is reported online or in batch for any time period specified from current time of day back to two years prior. APA can give up-to-the-second information displayed in graphic format to provide quick and easy access to information about data center and workload processing performance.

Over four hundred predefined performance graphs are provided with the system. User exits may be used to selectively capture additional performance information not supplied through these predefined options. Macros are also provided for defining additional graphs to be displayed using user-defined counters. Graphs are selected individually and are completely optional.

Since APA captures and displays timely information, it is an invaluable tool for identifying and correcting production bottlenecks and problems. This system also provides the type of information critical to making decisions affecting data center operations.

Graphs can be helpful at shift turnover times or at anytime that current status information is desired.

Data center management may want to review selected graphs every morning to immediately have an accurate report of what transpired the previous day. Management may also want to periodically request certain graphs during the day to detect problems that otherwise may not have been perceived.

The ability to report the last two years' activities provides the data necessary for trend analysis and can be a basis for a certain level of capacity planning.

Requesting graphs: You can request APA graphs through top line commands or menu selection. The top line requests use the GRAPHx commands. The menu selection is requested through the APA command. You can find more information on these commands in the *CA-7 Commands Guide*.

2.1 Graph Formats

Each graph is presented with the title and 4-digit number listed as the graph name. Users must provide a CUST statement in the CA-7 initialization file to identify their company name in 44 characters or less. The customer ID in that statement appears on the report immediately above the report title.

Any activity within a day causes that data to be shown on the graph. Nonprocessing days (days on which CA-7 was not up) are not shown at all.

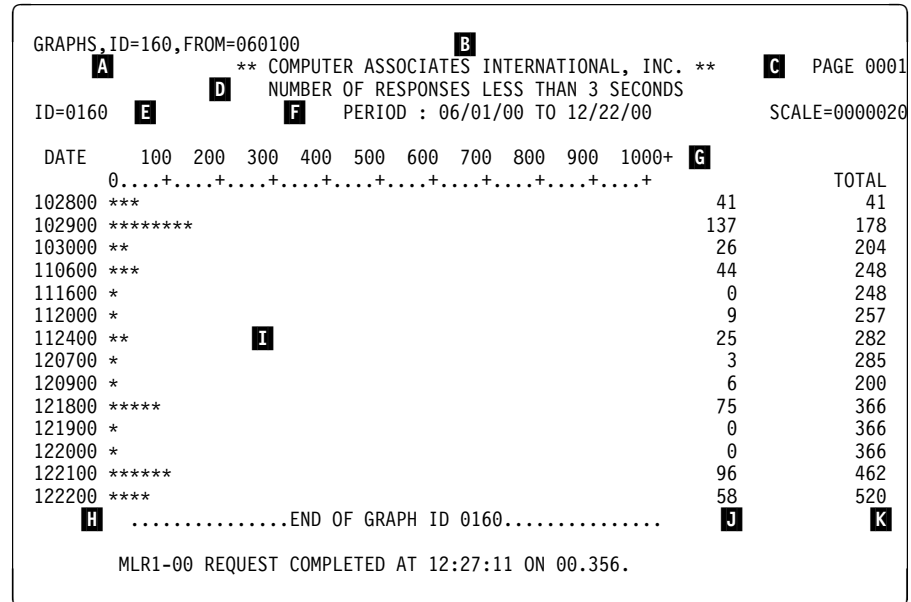
An ENDDAY option on the SCHEDULE statement in the initialization file is also available. It allows the user to specify a 24-hour range for APA reporting other than the default of midnight-to-midnight.

Page numbers are used to take care of data that caused the report to exceed one page. A message appears at the end of the graph.

2.1.1 Standard Graph

This is an example of a standard APA graph.

Standard Graph Example



Item Description

- A** Echo of the top line command
- B** Customer name from initialization file
- C** Page number
- D** Graph title
- E** Specific ID for the graph
- F** Period of time the data represents
- G** Value per increment on horizontal scale
- H** Date activity occurred (mmddy format)
- I** Graphic depiction of column to the right (below numeric scale)
- J** Number of activities for that day
- K** Running total of number of activities on this graph

The graph format shown in 2.1.1, “Standard Graph” is a standard format throughout most of the graph types. However, some variances are shown on the following pages.

2.1.2 Graphs Using Averages

This is a comparison graph using averages in depicting the data.

Simple Graph Using Averages

```

GRAPHS, FROM=060100, ID=150
** COMPUTER ASSOCIATES INTERNATIONAL, INC. ** PAGE 0001
AVERAGE NUMBER OF TRANSACTIONS PER LOGON
ID=0150 PERIOD : 06/01/00 TO 12/22/00 SCALE=0000002
DATE 10 20 30 40 50 60 70 80 90 100+
0.....+.....+.....+.....+.....+.....+.....+.....+.....+
102800 ***** 41 5 8.20
102900 ***** 137 8 17.12
103000 ***** 26 2 13.00
110600 ***** 48 3 16.00
111600 * 0 0 0.00
112000 **** 16 3 5.33
112400 ***** 31 1 31.00
120700 *** 3 1 3.00
120900 **** 6 1 6.00
121800 ***** 123 13 9.46
121900 * 0 0 0.00
122000 * 0 0 0.00
122100 ***** 116 4 29.00
122200 ***** 78 8 9.75
.....END OF GRAPH ID 0150.....
D TOTALS: 625 49 12.75
MLR1-00 REQUEST COMPLETED AT 12:27:31 ON 00.356.
    
```

The standard graph fields are the same as those in 2.1.1, “Standard Graph” on page 2-3. The following fields are unique to this type of graph:

Item Description

- A** Primary counter. Total number of all items for that day. (In this case, total number of transactions for that day.)
- B** Secondary counter. Total number of items being compared for that day. (In this case, total number of logons for that day.)
- C** Calculated value. (In this case, average number of transactions per logon.)
- D** Report totals. The totals of columns 1, 2, and 3.

2.1.3 Graphs Using Percentages

This is a comparison graph using percentages of a total in depicting the data.

Sample Graph Using Percentages

```

GRAPHS, FROM=060100, ID=170
                ** COMPUTER ASSOCIATES INTERNATIONAL, INC. **      PAGE 0001
PERCENTAGE OF TRANSACTIONS WITH RESPONSE TIME LESS THAN 3 SECONDS
ID=0170          PERIOD : 06/01/00 TO 12/22/00          SCALE=0000002
DATE            10  20  30  40  50  60  70  80  90 100+
0.....+.....+.....+.....+.....+.....+.....+.....+.....+
102800 ***** 41  41 100.00
102900 ***** 137 137 100.00
103000 ***** 26  26 100.00
110600 ***** 48  44  00.66
111600 *          0   0  0.00
112000 ***** 16   9  56.25
112400 ***** 31  25  80.64
120700 *****  3   3 100.00
120900 *****  6   6 100.00
121800 ***** 123  75  60.97
121900 *          0   0  0.00
122000 *          0   0  0.00
122100 ***** 116  96  82.75
122200 *****  78  58  74.35
                D TOTALS: 625 520 83.20
.....END OF GRAPH ID 0170.....
MLR1-00 REQUEST COMPLETED AT 12:27:51 ON 00.356.

```

The standard graph fields are the same as in 2.1.1, “Standard Graph” on page 2-3 where they are described. The following fields are unique to this type of graph:

Item Description

- A** Primary Counter. Total number of all items for that day. (In this case, total number of transactions.)
- B** Secondary Counter. Number of items under study. (In this case, the number of transactions less than three seconds.)
- C** Calculated value. (In this case, the percentage of transactions less than three seconds.)
- D** Report totals. The totals of columns 1, 2, and 3.

2.2 Some Practical Uses

2.2.1 System Graphs

The graphs available through this command are intended to assist Computer Associates Technical Support and your installation's technical support personnel in tuning or isolating bottlenecks that may develop. However, some of the graphs can be very meaningful to management level personnel.

A measurement of CA-7's overall performance can be determined from these graphs. Reports on other components of the total operating environment (if available) can help to put this performance information into perspective and further achieve an optimum level.

The number of times that a LOGON was performed may be of some interest. Certainly any security violations should be closely examined. This can be reviewed periodically throughout the day to enable prompt action on any violations.

Response time graphs are available to show not only transaction totals but also percentages of the total in various response time increments. The accumulated response time graph yields the total terminal operator idle time.

The transaction totals, number per LOGON, and average response time quickly provide a profile of terminal activity.

2.2.2 Network Graphs

The graphs in this category are designed to inform data center management on performance of areas other than the computer room.

The use of workstation networks enables the system to schedule and sequence tasks for pre- or postprocessing activities. How much progress has been made toward defining networks and using them in production can be easily determined.

Some graphs indicate the performance numbers and percentages for each segment or type of work. The number of networks on-time or late, number of workstations on-time or late and the resulting on-time performance percentages are easily obtained. This applies to both input and output workstation networks.

2.2.3 Job Graphs

The graphs in this category are designed to provide informative data related to the magnitude and success of a data center at the job unit level. Workload characteristics and performance data are readily available and trends can be easily reviewed.

Job characteristics such as total number of jobs run, what portion was submitted by CA-7, average number of data sets by type, average elapsed time and CPU times are all available. An example might be to evaluate time spent in JES prior to execution to isolate a possible bottleneck.

Performance or success trends can be analyzed by the following:

- Reporting and reviewing ABEND ratios
- Number of jobs late or early
- Completions with and without abnormal events (abnormal completions are categorized into groups)
- Zero completion code percentage
- Number of attempts to run

The number of problems related to jobs containing overrides can be of significant interest. Since the use of an override actually represents a variation of the job, some may want to identify that use and replace the version containing the override with another version of the job and schedule them accordingly. Success using overrides can be easily reviewed and the results quantified.

Information on the total activity of disk and tapes by media type and per job may be helpful in establishing shop profiles. It may dictate future decisions on a large scale as to whether more disk or tape activity should be recommended. The ability to determine what techniques are being used to submit or invoke work can quantify how automated this portion of the total task really is. Decisions regarding relative effectiveness of each technique can be easily determined.

If CA-11 is installed, the number or percentage of jobs with automated generation of a restart step can be compared to the total number of jobs to measure the amount of use. Number of restarts that were late can also be considered here.

The quantifying of disk and tape GDGs (generation data groups) can be of value to those concerned with catalog activity and space requirements. The percentage of each type of data set that is a GDG can show the extent of that technique in a data center.

2.2.4 Database Graphs

GRAPHD or database graphs offer data center management and technical support personnel information related to database activity. These graphs can be of great value to both areas as these graphs provide a profile of the total workload defined to CA-7.

The GRAPHD function reports additions or deletions to the CA-7 database by keeping track of database activity, such as job, prose, schedule and network additions/deletions.

Technical support personnel can monitor the database maintenance activity and avoid surprise needs for more space. This monitoring capability can supply the direct answer to why more space is required. Disk space requirements seem to grow without a clear reason in many data centers. It is very common to find data centers with expanding disk requirements and no reasonable explanation as to why. With this information, it becomes obvious where the activity has been concentrated and provides a trail back to the cause.

Data center management can use the GRAPHD facility for the same purpose as technical support personnel. Additionally, they can use each of the graphs to provide a quantitative work measurement tool for those activities in a production control department.

Production control may be performing all of the database maintenance functions. The graphs by individual task can pinpoint not only the types of activities in progress, but also the quantity of each activity at a very detailed level.

These graphs can assist data center management during the conversion of work to run under CA-7. If conversion begins with an inventory of jobs to be placed in the CA-7 database, progress can be monitored and the amount of work not completed can be readily defined.

If it is desired that only CPU work be placed in the database as the first step, any activity in prose members or networks represents time spent on something other than the main objective. If it is determined that documentation should be added when the job is added, comparison of those two graphs can determine whether this is being done. As input and output networks are to be implemented, this database maintenance activity can also be monitored. It may be necessary to provide these numbers on networks to support recommendations for terminals in the appropriate areas for workstations.

The graphs in this category can collectively demonstrate how sophisticated or complex the total production requirement is (with all functions formerly done manually). They also reveal information when all the work has been converted and it appears that the task of getting production work done is totally a function of the computer (or, in this case, CA-7).

The quantified implementation goals or objectives and progress can be readily identified through the use of this reporting facility. The results are accurate and timely, facilitating the management of the implementation process.

2.3 Customizing Graphs

APA uses default values for the scale on each graph. The parameter, SCALE, can be supplied in the graph request to dynamically specify user-desired values. If after reviewing a graph, it is determined that the activity for the period reviewed did not match the scale, the graph can immediately be displayed again with an adjusted scale and adjusted bars to correspond to the new scale. Values from one graph can then be put into another graph to provide a comparison of two distinct events.

For detailed procedures on customizing new graphs, refer to the Changing Graph Definitions topic in the *CA-7 Systems Programmer Guide*.

2.4 APA Graph Descriptions

The remainder of this chapter contains brief descriptions of all graph reports available through the Automated Performance Analysis (APA) facility.

The descriptions are divided into four graph categories:

- Database Graphs
- Job Graphs
- Network Graphs
- System Graphs

Graphs are listed in numerical order within each category.

2.5 GRAPHD - Database Graph Descriptions

These graphs reflect Database Maintenance (DBM) activities performed. Numerous types of activities are reported with data reflecting the amount of activity for the period of time which the user specifies. Batch transactions may have been used instead of the online screens referenced in these descriptions.

0010 NO. OF IDS ENTRIES ADDED

This reflects the number of entries added to the index data set (IDS).

0020 NO. OF IDS ENTRIES DELETED

This reflects the number of entries deleted from the index data set.

0030 NO. OF JOBS ADDED

This reflects the number of jobs added to the database with the ADD function of the DB.1 screen.

0040 NO. OF JOBS DELETED

This reflects the number of jobs deleted from the database with the DELETE function of the DB.1 screen.

0050 NO. OF DATA SETS ADDED

This reflects the number of data sets added to the database with the ADD function of the DB.6 screen.

0060 NO. OF DATA SETS DELETED

This reflects the number of data sets deleted from the database with the DELETE function of the DB.6 screen.

0070 NO. OF NETWORKS ADDED

This reflects the number of networks added to the database with the ADD function of the DB.5 screen.

0080 NO. OF NETWORKS DELETED

This reflects the number of networks deleted from the database with the DELETE function of the DB.5 screen.

0090 NO. OF PROSE MEMBERS ADDED

This reflects the number of prose members added to the database with the SAVE function of a PROSE screen.

0100 NO. OF PROSE MEMBERS DELETED

This reflects the number of prose members deleted from the database with the DELETE function of:

- a workload documentation screen
- the DB.1 screen for an associated job
- the DB.6 screen for an associated data set name
- the DB.5 screen for an associated network

0110 NO. OF INPUT SCHEDULES ADDED

This reflects the number of input workstation network schedules added to the database with the SAVE function of the DB.2.2 screen.

0120 NO. OF INPUT SCHEDULES DELETED

This reflects the number of input workstation network schedules deleted from the database with the DELETE function of the DB.2.2 screen or the DELETE function of the DB.5 screen for an associated input network.

0130 NO. OF JOB SCHEDULES ADDED

This reflects the number of job schedules added to the database with the SAVE function of the DB.2.1 screen.

0140 NO. OF JOB SCHEDULES DELETED

This reflects the number of job schedules deleted from the database with the DELETE function of the DB.2.1 screen or the DELETE function of the DB.1 screen for an associated job.

0150 NO. OF OUTPUT SCHEDULES ADDED

This reflects the number of output workstation network schedules added to the database with the SAVE function of the DB.2.3 screen.

0160 NO. OF OUTPUT SCHEDULES DELETED

This reflects the number of output workstation network schedules deleted from the database with the DELETE function of the DB.2.3 screen or the DELETE function of the DB.5 screen for an associated output network.

0170 DATABASE LOCK-OUTS

This reflects the number of times that a database update had to wait for completion of another update already in process.

0180 JOB CONNECTS

This reflects the number of job connections added to the database with the C (CONNECT) option of the DB.3.2 screen.

0190 JOB DISCONNECTS

This reflects the number of job connections deleted from the database with the D (DISCONNECT) option of the DB.3.2 screen or the DELETE function of the DB.1 screen for an associated job.

0200 DATA SET CONNECTS

This reflects the number of data set connections added to the database with the C (CONNECT) option of the DB.3.1 screen.

0210 DATA SET DISCONNECTS

This reflects the number of data set connections deleted from the database with the D (DISCONNECT) option of the DB.3.1 screen or the DELETE function of the DB.6 screen for an associated data set.

0220 INPUT NETWORK CONNECTS

This reflects the number of input workstation network connections added to the database with the C (CONNECT) option of the DB.3.1 screen.

0230 INPUT NETWORK DISCONNECTS

This reflects the number of input workstation network connections deleted from the database with the D (DISCONNECT) option of the DB.3.4 screen or the DELETE function of the DB.5 screen for an associated input network.

0240 OUTPUT NETWORK CONNECTS

This is the same as 0220 except it is for output workstation networks.

0250 OUTPUT NETWORK DISCONNECTS

This is the same as 0230 except it is for output workstation networks.

0260 USER CONNECTS

This reflects the number of user requirement connections added to the database with the C option of the DB.3.6 screen.

0270 USER DISCONNECTS

This reflects the number of user requirement connections deleted from the database with the D option of the DB.3.6 screen or the DELETE function of the DB.1 screen for an associated job.

0280 JOB TRIGGERS ADDED

This reflects the number of job trigger schedules added to the database with the A option of the DB.2.4 screen.

0290 JOB TRIGGERS DELETED

This reflects the number of job trigger schedules deleted from the database with the D option of the DB.2.4 screen or the DELETE function of the DB.1 screen for an associated job.

0300 DATASET TRIGGERS ADDED

This reflects the number of data set trigger schedules added to the database with the A option of the DB.2.6 screen.

0310 DATASET TRIGGERS DELETED

This reflects the number of data set trigger schedules deleted from the database with the D option of the DB.2.6 screen or the DELETE function of the DB.6 screen for an associated job.

0320 NETWORK TRIGGERS ADDED

This reflects the number of input workstation network trigger schedules added to the database with the A option of the DB.2.5 screen.

0330 NETWORK TRIGGERS DELETED

This reflects the number of input workstation network trigger schedules deleted from the database with the D option of the DB.2.5 screen or the DELETE function of the DB.5 screen for an associated network.

2.6 GRAPHJ - Job Graph Descriptions

These graphs reflect performance and characteristics of jobs processed in the CA-7 environment.

0010 TOTAL NUMBER OF JOBS SCHEDULED BY CA-7

This reflects the total number of jobs scheduled by triggers, DEMAND, RUN or LOAD commands or date/time schedules through schedule scan.

0020 TOTAL NUMBER OF JOBS SCHEDULED SUCCESSFULLY

This reflects the number of scheduled jobs (from 0010) which made it to the request queue successfully. Unavailable CA-7 job numbers, LOCK conditions, NXTCYC commands, DEMAND, SET=SKP, and so forth, may prevent successful scheduling.

0025 AVERAGE NUMBER OF EXPIRED JOB SCHEDULES PER SCAN

This reflects the average number of expired job schedules per schedule scan.

0030 PERCENTAGE OF JOBS SCHEDULED SUCCESSFULLY

This reflects the percentage of jobs scheduled (from 0010) that were successfully scheduled (from 0020).

0040 TOTAL JOBS COMPLETED NORMALLY

This reflects the number of jobs which completed without an ABEND and also passed, if specified, condition code tests defined on the DB.1 screen. This would include restarted jobs whose restart ran successfully and completed normally. Only the successful run of the job is counted.

0050 NO. OF JOBS RUN W/JCL OVERRIDES

This reflects the number of jobs which were run whose JCL had been updated using the QJCL command. Refer to graphs 1060 and 1070 for other types of overrides.

0060 NORMAL COMPLETION REQUIRING NO RESTART

This reflects the number of normal job completions (from 0040) which did not require a restart through the QM.4 screen or RESTART command.

0070 NUMBER OF JOBS RESTARTED ONCE

This reflects the number of jobs which completed normally (from 0040) and required a single restart through the QM.4 screen or RESTART command.

0080 NUMBER OF JOBS RESTARTED MORE THAN ONCE

This reflects the number of jobs which completed normally (from 0040) and required more than one restart through the QM.4 screen or RESTART command.

0090 TOTAL NUMBER OF RESTARTS

This reflects the total number of jobs restarted once (from 0070) plus jobs restarted more than once (from 0080).

0100 NUMBER OF JOBS LATE

This reflects the total number of jobs which completed after the specified due-out time.

0110 NUMBER OF JOBS > HOUR LATE

This reflects the number of late jobs (from 0100) which completed one hour or more after the due-out time.

0120 NUMBER OF JOBS > 1 HOUR EARLY

This reflects the number of jobs which completed prior to the specified due-out time by one hour or more.

0130 NUMBER OF RESTARTS LATE

This reflects the number of late jobs (from 0100) which were restarted through the QM.4 screen at least once.

0140 NORMAL COMPLETION W/NON-ZERO CONDITION CODE

This reflects the number of normal job completions (from 0040) which completed with an acceptable condition code other than zero.

0150 NORMAL COMPLETIONS W/ZERO CONDITION CODE

This reflects the number of jobs that completed successfully with a condition code of zero. Calculated from 0040 minus nonzero from 0140.

0160 ACCUMULATED CPU TIME FOR NORMALLY COMPLETED JOBS IN MINUTES

This reflects the aggregate CPU time consumed by jobs completing normally (from 0040). Accumulated from SMF job completion records.

0170 ACCUMULATED ELAPSED TIME FOR NORMALLY COMPLETED JOBS IN MINUTES

This reflects the aggregate elapsed time consumed by jobs completing normally (from 0040). Accumulated from SMF job initiation and job completion records.

0180 ACCUMULATED JES DWELL TIME FOR NORMALLY COMPLETED JOBS IN MINUTES

This reflects the aggregate JES dwell time for CA-7 submitted jobs measured as the difference between submit time by CA-7 and generation of the SMF job initiation record.

0190 PERCENTAGE OF JOBS W/JCL OVERRIDES

This reflects the percentage of normal completions (from 0040) which were run with JCL overrides (from 0050).

0200 PERCENTAGE OF NORMAL COMPLETIONS REQUIRING NO RESTART

This reflects the percentage of normal completions (from 0040) which did not require a restart (from 0060).

0210 PERCENTAGE OF NORMAL COMPLETIONS REQUIRING A RESTART

This reflects the percentage of normal completions (from 0040) which did require at least one restart. Calculated from 0040 minus no restarts (from 0060).

0220 PERCENTAGE OF JOBS RESTARTED ONCE

This reflects the percentage of normal completions (from 0040) which required a single restart (from 0070).

0230 PERCENTAGE OF JOBS RESTARTED MORE THAN ONCE

This reflects the percentage of normal completions (from 0040) which required more than one restart (from 0080).

0240 PERCENTAGE OF JOBS RUN LATE

This reflects the percentage of normal completions (from 0040) which completed after the due-out time (from 0100).

0250 PERCENTAGE OF JOBS > 1 HOUR LATE

This reflects the percentage of normal completions (from 0040) which completed more than one hour beyond the due-out time (from 0110).

0260 PERCENTAGE OF JOBS > 1 HOUR EARLY

This reflects the percentage of normal completions (from 0040) which completed more than one hour before the due-out time (from 0120).

0270 PERCENTAGE OF NON-ZERO CONDITION CODES

This reflects the percentage of normal completions (from 0040) which completed with a nonzero condition code (from 0140).

0280 PERCENTAGE OF ZERO CONDITION CODES

This reflects the percentage of normal completions (from 0040) which completed with a condition code of zero (from 0040 minus nonzeros from 0140).

0290 AVERAGE CPU TIME FOR NORMALLY COMPLETED JOBS IN SECONDS

This reflects the average amount of CPU time used by normally completing jobs (from 0040). Calculated from 0160 divided by job count from 0040.

0300 AVERAGE ELAPSED TIME FOR NORMALLY COMPLETED JOBS IN MINUTES

This reflects the average amount of elapsed time required for normal job completions (from 0040). Calculated from 0170 divided by job count from 0040.

0310 AVERAGE JES DWELL TIME FOR NORMALLY COMPLETED JOBS IN MINUTES

This reflects the average amount of JES dwell time for normal job completions (from 0040). Calculated from 0180 divided by job count from 0040.

0320 TOTAL JOBS SUBMITTED BY CA-7

This reflects a count of all jobs written to either the internal reader or a submit data set by CA-7.

0330 TOTAL JOBS RUN (CA-7 OR OTHER)

This reflects a count of the total SMF type 26 records encountered in the SMF exits whether or not the job was submitted by CA-7. Does not include started tasks or TSO sessions.

0335 TOTAL EXT. JOBS TRACKED BY CA-7

This reflects a count of the total jobs submitted outside of CA-7 but tracked using SMF data.

0340 PERCENTAGE OF TOTAL JOBS SUBMITTED BY CA-7

This reflects the percentage of the total jobs run (from 0330) that were submitted by CA-7 (from 0320).

0350 PERCENTAGE OF CA-7 SUBMITTED JOBS WHICH COMPLETED NORMALLY

This reflects the percentage of jobs submitted by CA-7 (from 0320) which ran to normal completion (from 0040).

0360 NUMBER OF JCL ERRORS

This reflects the total number of CA-7 jobs which terminated with a JCL error as determined from SMF job termination records.

0370 TOTAL NUMBER OF ABENDS

This reflects the total number of steps in CA-7 jobs which terminated with either a system or user abend as determined from SMF step termination records.

0380 NUMBER OF USER ABENDS

This reflects the number of abends (from 0370) which were user abends.

0390 NUMBER OF SYSTEM ABENDS

This reflects the number of abends (from 0370) which were system abends.

0400 NUMBER OF CONDITION CODE FAILURES

This reflects the number of jobs which failed the DB.1 screen condition code test.

0410 NUMBER OF JCL ERRORS W/JCL OVERRIDES

This reflects the number of jobs with JCL errors (see 0360) which included JCL overrides (see 0050).

0420 NUMBER OF ABENDS W/JCL OVERRIDES

This reflects the number of jobs which abended (see 0370) and were run with JCL overrides (see 0050).

0430 NUMBER OF JOB STEPS RUN

This reflects the total number of job steps run in CA-7 controlled jobs as measured by SMF step termination records.

0440 TOTAL NUMBER OF JOBS RUN UNSUCCESSFULLY

This reflects the total number of jobs which completed with a JCL error (from 0360), an abend (from 0370) or a condition code failure (from 0400).

0450 NUMBER OF INPUT DATASETS

This reflects the number of data sets used in CA-7 controlled jobs with a DISP parameter of OLD or SHR.

0460 NUMBER OF OUTPUT DATASETS

This reflects the number of data sets used in CA-7 controlled jobs with a DISP parameter of NEW or MOD.

0470 TAPE REFERENCE COUNT

This reflects the number of tape data sets, either input or output, which were accessed by jobs run under control of CA-7.

0480 NUMBER OF INPUT TAPE DATASETS

This reflects the number of tape data sets (from 0470) which were accessed as input (see 0450).

0490 NUMBER OF OUTPUT TAPE DATASETS

This reflects the number of tape data sets (from 0470) which were accessed as output (see 0460).

0500 TAPE GDG COUNT

This reflects the number of tape data sets, either input or output (see 0470), which were GDGs.

0510 TAPE EXCP COUNT (UNIT=100 EXCPS)

This reflects the number of EXCPS for tape data sets (see 0470), either input or output, in units of 100.

0520 DASD REFERENCE COUNT

This reflects the number of DASD data sets, either input or output, which were accessed by jobs run under control of CA-7.

0530 NUMBER OF INPUT DASD DATASETS

This reflects the number of DASD data sets (from 0520) which were accessed as input (see 0450).

0540 NUMBER OF OUTPUT DASD DATASETS

This reflects the number of DASD data sets (from 0520) which were accessed as output (see 0460).

0550 DASD GDG COUNT

This reflects the number of DASD data sets, either input or output (see 0520), which were GDGs.

0560 DASD EXCP COUNT (UNIT=100 EXCPS)

This reflects the number of EXCPs for DASD data sets (see 0520), either input or output, in units of 100.

0570 AVERAGE NO. OF INPUT DATASETS PER CA-7 JOB

This reflects the average number of input data sets used in jobs submitted by CA-7. Calculated from 0450 divided by count from 0320.

0580 AVERAGE NO. OF OUTPUT DATASETS PER CA-7 JOB

This reflects the average number of output data sets used in jobs submitted by CA-7. Calculated from 0460 divided by job count from 0320.

0590 AVERAGE NO. OF TAPE DATASETS PER CA-7 JOB

This reflects the average number of tape data sets used in jobs submitted by CA-7. Calculated from 0470 divided by job count from 0320.

0600 AVERAGE NO. OF INPUT TAPE DATASETS PER CA-7 JOB (UNIT=100 EXCPS)

This reflects the average number of input tape data sets used in jobs submitted by CA-7. Calculated from 0480 divided by job count from 0320.

0610 AVERAGE NO. OF OUTPUT TAPE DATASETS PER CA-7 JOB

This reflects the average number of output tape data sets used in jobs submitted by CA-7. Calculated from 0490 divided by job count from 0320.

0620 AVERAGE NO. OF DASD DATASETS PER CA-7 JOB

This reflects the average number of DASD data sets used in jobs submitted by CA-7. Calculated from 0520 divided by job count from 0320.

0630 AVERAGE NO. OF INPUT DASD DATASETS PER CA-7 JOB

This reflects the average number of input DASD data sets used in jobs submitted by CA-7. Calculated from 0530 divided by job count from 0320.

0640 AVERAGE NO. OF OUTPUT DASD DATASETS PER CA-7 JOB

This reflects the average number of output DASD data sets used in jobs submitted by CA-7. Calculated from 0540 divided by job count from 0320.

0650 AVERAGE NO. OF INPUT DATASETS PER STEP

This reflects the average number of input data sets used per job step in jobs submitted by CA-7. Calculated from 0450 divided by step count from 0430.

0660 AVERAGE NO. OF OUTPUT DATASETS PER STEP

This reflects the average number of output data sets used per job step in jobs submitted by CA-7. Calculated from 0460 divided by step count from 0430.

0670 AVERAGE NO. OF TAPE EXCPS PER CA-7 JOB (UNIT=100 EXCPS)

This reflects the average number of I/Os (EXCPS) for tape data sets used in jobs submitted by CA-7. Calculated from 0510 divided by job count from 0320.

0680 AVERAGE NO. OF DASD EXCPS PER CA-7 JOB (UNIT=100EXCPS)

This reflects the average number of I/Os (EXCPS) for DASD data sets used in jobs submitted by CA-7. Calculated from 0560 divided by job count from 0320.

0690 PERCENTAGE OF JOBS SCHEDULED W/JCL ERRORS

This reflects the percentage of jobs submitted by CA-7 (from 0320) which terminated with a JCL error. Calculated from 0360 divided by job count from 0320.

0700 PERCENTAGE OF JOBS SCHEDULED THAT ABENDED

This reflects the percentage of jobs submitted by CA-7 (from 0320) which terminated with some type of abend. Calculated from 0370 divided by job count from 0320.

0710 PERCENTAGE OF JOBS SCHEDULED W/USER ABENDS

This reflects the percentage of jobs submitted by CA-7 (from 0320) which terminated with a user abend. Calculated from 0380 divided by job count from 0320.

0720 PERCENTAGE OF JOBS SCHEDULED W/SYSTEM ABENDS

This reflects the percentage of jobs submitted by CA-7 (from 0320) which terminated with a system abend. Calculated from 0390 divided by job count from 0320.

0730 PERCENTAGE OF JOBS SCHEDULED W/CONDITION CODE FAILURES

This reflects the percentage of jobs submitted by CA-7 (from 0320) which terminated with an unacceptable condition code. Calculated from 0400 divided by job count from 0320.

0740 PERCENTAGE OF CA-7 JOBS RUN UNSUCCESSFULLY

This reflects the percentage of jobs submitted by CA-7 (from 0320) which terminated unsuccessfully for any reason. Calculated from 0440 divided by job count from 0320.

0750 PERCENTAGE OF UNSUCCESSFUL JOBS W/JCL ERRORS

This reflects the percentage of jobs which failed (from 0440) and terminated with a JCL error (from 0360).

0760 PERCENTAGE OF UNSUCCESSFUL JOBS W/ABENDS

This reflects the percentage of jobs that failed (from 0440) and terminated with some type of abend (from 0370).

0770 PERCENTAGE OF UNSUCCESSFUL JOBS W/USER ABENDS

This reflects the percentage of jobs that failed (from 0440) and terminated with a user abend (from 0380).

0780 PERCENTAGE OF UNSUCCESSFUL JOBS W/SYSTEM ABENDS

This reflects the percentage of jobs that failed (from 0440) and terminated with a system abend (from 0390).

0790 PERCENTAGE OF UNSUCCESSFUL JOBS W/CONDITION CODE FAILURES

This reflects the percentage of jobs that failed (from 0440) and terminated with an unacceptable condition code (from 0400).

0800 PERCENTAGE OF JCL ERRORS W/JCL OVERRIDES

This reflects the percentage of jobs that failed due to a JCL error (from 0360) and also contained JCL overrides (from 0410).

0810 PERCENTAGE OF JCL ERRORS WITHOUT JCL OVERRIDES

This reflects the percentage of jobs that failed due to a JCL error (from 0360) and did not contain JCL overrides. Calculated as failures (from 0360) minus overrides (from 0410) divided by failures (from 0360).

0820 PERCENTAGE OF ABENDS W/JCL OVERRIDES

This reflects the percentage of jobs that failed with an abend (from 0370) and also contained JCL overrides (from 0420).

0830 PERCENTAGE OF ABENDS WITHOUT JCL OVERRIDES

This reflects the percentage of jobs that failed with an abend (from 0370) and did not contain JCL overrides. Calculated as abends (from 0370) minus overrides (from 0420) divided by abends (from 0370).

0840 AVERAGE NO. OF STEPS PER CA-7 JOB

This reflects the average number of job steps (from 0430) in jobs submitted by CA-7 (from 0320).

0850 JOBS SUBMITTED VIA SCHEDULE SCAN

This reflects the number of jobs with date/time schedules which were scheduled for execution by schedule scan.

0860 NUMBER OF JOB TRIGGERS

This reflects the number of successful job triggers handled whether they triggered one or more other jobs for execution.

0870 NUMBER OF NETWORK TRIGGERS

This is the same as 0860 except it reflects triggers by input workstation networks.

0880 NUMBER OF DATASET TRIGGERS

This is the same as 0860 except it reflects triggers by data set creations.

0890 NUMBER OF AUTO TRIGGERS

This reflects the total number of jobs scheduled by some form of trigger.

Note: Unless each trigger definition only triggers one job, this count is unlikely to total against 0860, 0870 and 0880.

0900 DEMANDED JOBS

This reflects the number of jobs scheduled through CA-7 with the DEMAND or DEMANDH commands.

0910 TOTAL JOBS LOADED

This reflects the total number of jobs using the CA-7 LOAD function as a result of a LOAD or LOADH command or flagged with the DB.1 screen RELOAD option. The RELOAD option may also be set by using the DB.7 screen REPL or SAVE functions. Prior to Version 2.9, nonexecutable jobs were counted here. They are no longer counted even if there is no job profile in the database.

0920 NUMBER OF JOBS MARKED AS -LOAD ONLY-

This reflects the total number of jobs from 0910 which were loaded as a result of a LOAD or LOADH command.

0930 NUMBER OF -RUN- COMMANDS

This reflects the number of jobs run as a result of a RUN or RUNH command.

0940 NUMBER OF RUNS FROM JCL SCREEN (RUNH)

This reflects the number of jobs run as the result of the RUN or RUNH functions of the DB.7 screen.

0950 NO. OF JOB REQUIREMENTS

This reflects the number of job dependency requirements, defined with the DB.3.2 screen, which were encountered while jobs were being scheduled.

0960 NO. OF JOB REQUIREMENTS INITIALLY SATISFIED

This reflects the number of job requirements (from 0950) which were satisfied at the time that the dependent job entered the request queue.

0970 NO. OF NETWORK REQUIREMENTS

This is the same as 0950 except it is for requirements defined with the DB.3.4 screen.

0980 NO. OF NETWORK REQUIREMENTS INITIALLY SATISFIED

This is the same as 0960 except it is for network requirements from 0970.

0990 NO. OF DATASET REQUIREMENTS

This is the same as 0950 except it is for requirements defined with the DB.3.1 screen.

1000 NO. OF DATASET REQUIREMENTS INITIALLY SATISFIED

This is the same as 0960 except it is for data set requirements from 0990.

1010 NO. OF USER REQUIREMENTS

This is the same as 0950 except it is for requirements defined with the DB.3.6 screen.

1020 NO. OF JOBS W/VERIFY REQUIREMENT

This reflects the number of jobs entering the request queue with a #VER command or having VERIFY indicated on the DB.1 screen.

1030 NO. OF JOBS W/OVERRIDE REQUIREMENT

This reflects the number of jobs which entered the request queue with an override requirement specified with a #Jx or #Xx command, the DB.1 screen JCL-OVRD or DB.1 screen USE-OVRD-LIB indicators.

1040 NO. OF JOBS MARKED AS NON-EXECUTABLE

This reflects the number of jobs scheduled which were marked nonexecutable with either a #NOX command or the EXEC option of the DB.1 screen.

1050 NO. OF JOBS W/AUTO RMS STEP GENERATION

This reflects the number of jobs run with the DB.1 screen option RESTART equal to Y, causing CA-7 to insert a CA-11 RMS step.

1060 NO. OF JOBS W/ OVERRIDES FROM JCL LIBRARY

This reflects the number of jobs scheduled which had been flagged by the DB.1 screen USE-OVRD-LIB function.

1070 NO. OF JOBS W/ # OVERRIDES

This reflects the number of jobs scheduled which included #Jx or #Xx statements.

1080 NO. OF FORCE COMPLETES

This reflects the number of jobs forced to completion with the FORCE COMPLETION option of the QM.4 screen or RESTART command.

1090 NO. OF MAINTENANCE JOBS

This reflects the number of jobs run with either MAINT=Y on the DB.1 screen or with a #MNT command.

1100 NO. OF UPDATES TO OVERRIDE LIBRARY

This reflects the number of times that a REPL or SAVE function of the DB.7 screen was used with a JCL-ID of 254.

1110 NO. OF UPDATES TO JCL LIBRARY

This is the same as 1100 except it reflects activity for all JCL-ID values other than 254 or the use of the DSN and VOLSER options on the DB.7 screen.

1120 NEXT CYCLE SKIP

This reflects the number of jobs skipped as a result of the SET=SKP option of the NXTCYC or DEMAND commands.

1130 NEXT CYCLE OFF

This reflects the number of jobs skipped as a result of the SET=OFF option of the NXTCYC command.

1140 NO. OF LOG DUMP JOBS SUBMITTED

This reflects the number of log dump jobs (see the DBASE statement JOB parameter in the initialization file) which were automatically submitted by CA-7 to dump either the primary or secondary log data sets.

1150 NO. OF JCL ATTACH FAILURES

This reflects the number of jobs not successfully scheduled for which the JCL could not be attached from the JCL library or the override library.

1170 NO. OF LOCKED JOBS

This reflects the number of jobs not successfully scheduled which were found to have unresolved calendar schedules or had not been successfully LOADED by CA-7.

1180 NO. OF JOBS CANCELLED

This reflects the number of jobs scheduled but then canceled with a CANCEL command or the C option of the QM.1 screen.

1190 PERCENTAGE OF JOBS SCHEDULED VIA SCHEDULE SCAN

This reflects the percentage of jobs scheduled successfully (from 0020) which were scheduled by schedule scan (from 0850).

1200 PERCENTAGE OF JOBS SCHEDULED VIA JOB TRIGGERS

This reflects the percentage of jobs scheduled successfully (from 0020) which were scheduled by job triggers (from 0860).

1210 PERCENTAGE OF JOBS SCHEDULED VIA NETWORK TRIGGERS

This reflects the percentage of jobs scheduled successfully (from 0020) which were scheduled by network triggers (from 0870).

1220 PERCENTAGE OF JOBS SCHEDULED VIA DATASET TRIGGERS

This reflects the percentage of jobs scheduled successfully (from 0020) which were scheduled by data set triggers (from 0880).

1230 PERCENTAGE OF JOBS SCHEDULED VIA AUTO TRIGGERS

This reflects the percentage of jobs scheduled successfully (from 0020) which were scheduled by auto triggers (from 0890).

1240 PERCENTAGE OF JOBS DEMANDED

This reflects the percentage of jobs scheduled successfully (from 0020) which were scheduled by a DEMAND command (from 0900).

1250 PERCENTAGE OF JOBS LOADED

This reflects the percentage of jobs scheduled successfully (from 0020) which used the CA-7 LOAD function (from 0910).

1260 PERCENTAGE OF -LOAD ONLY- JOBS

This reflects the percentage of jobs using the LOAD function (from 0910) which executed only the LOAD function (from 0920).

1270 PERCENTAGE OF -LOAD AND EXECUTE- JOBS

This reflects the percentage of jobs using the LOAD function (from 0910) which executed the normal job steps. Calculated as (LOAD jobs from 0910 minus LOAD-only jobs from 0920) divided by total LOAD job count from 0910.

1280 JOBS SCHEDULED VS. RUN COMMANDS

This compares the number of jobs scheduled successfully (from 0020) with the number scheduled with a RUN or RUNH command (from 0930). Calculated from 0930 divided by job count from 0020.

1290 JOBS SCHEDULED VS. RUN FROM JCL SCREEN (RUNH)

This compares the number of jobs scheduled successfully (from 0020) with the number scheduled with the RUN or RUNH options of the DB.7 screen (from 0940). Calculated from 0940 divided by job count from 0020.

1300 AVERAGE NO. OF JOB REQUIREMENTS PER JOB

This reflects the average number of job requirements (from 0950) for jobs scheduled successfully by CA-7 (from 0020).

1310 PERCENTAGE OF JOB REQUIREMENTS INITIALLY SATISFIED

This reflects the percentage of job requirements (from 0950) which were initially satisfied (from 0960).

1320 AVERAGE NO. OF NETWORK REQUIREMENTS PER JOB

This reflects the average number of input network requirements (from 0970) per job scheduled successfully by CA-7 (from 0020).

1330 PERCENTAGE OF NETWORK REQUIREMENTS INITIALLY SATISFIED

This reflects the percentage of network requirements (from 0970) which were initially satisfied (from 0980).

1340 AVERAGE NO. OF DATASET REQUIREMENTS PER JOB

This reflects the average number of data set requirements (from 0990) per job scheduled successfully by CA-7 (from 0020).

1350 PERCENTAGE OF DATASET REQUIREMENTS INITIALLY SATISFIED

This reflects the percentage of data set requirements (from 0990) which were initially satisfied (from 1000).

1360 AVERAGE NO. OF USER REQUIREMENTS PER JOB

This reflects the average number of user requirements (from 1010) per job scheduled successfully by CA-7 (from 0020).

1370 PERCENTAGE OF JOBS W/VERIFY REQUIREMENT

This reflects the percentage of jobs scheduled successfully by CA-7 (from 0020) which had a verify requirement (from 1020).

1380 PERCENTAGE OF JOBS W/OVERRIDE REQUIREMENT

This reflects the percentage of jobs scheduled successfully by CA-7 (from 0020) which had a JCL override requirement (from 1030).

1390 PERCENTAGE OF JOBS MARKED AS NON-EXECUTABLE

This reflects the percentage of jobs scheduled successfully by CA-7 (from 0020) which were marked as nonexecutable (from 1040).

1400 PERCENTAGE OF JOBS W/AUTO RMS STEP GENERATION

This reflects the percentage of jobs scheduled successfully by CA-7 (from 0020) which had the CA-11 RMS step inserted by CA-7 (from 1050).

1410 PERCENTAGE OF JOBS W/OVERRIDE FROM JCL LIBRARY

This reflects the percentage of jobs scheduled successfully by CA-7 (from 0020) which had JCL overrides included from the CA-7 override library (from 1060).

1420 JOBS SCHEDULED VS. # OVERRIDES

This compares the number of jobs scheduled successfully by CA-7 (from 0020) with the number of jobs using the # override technique (from 1070). Calculated as number of # jobs divided by jobs scheduled.

1430 PERCENTAGE OF JOBS FORCED COMPLETE

This reflects the percentage of jobs scheduled successfully by CA-7 (from 0020) which were forced complete (from 1080).

1440 PERCENTAGE OF MAINTENANCE JOBS

This reflects the percentage of jobs scheduled successfully by CA-7 (from 0020) which were jobs marked as MAINT jobs (from 1090).

1450 PERCENTAGE OF -NEXT CYCLE SKIP-

This reflects the percentage of jobs scheduled (from 0010) which were not scheduled successfully since they were marked as skip-next-cycle (from 1120).

1460 PERCENTAGE OF -NEXT CYCLE OFF-

This reflects the percentage of jobs scheduled (from 0010) which were not scheduled successfully since they were marked as next-cycle-off (from 1130).

1470 PERCENTAGE OF JOBS CANCELLED

This reflects the percentage of jobs scheduled successfully by (from 0020) that were subsequently canceled (from 1180).

1480 PERCENTAGE OF JOBS -LOCKED-

This reflects the percentage of jobs scheduled (from 0010) which were not scheduled successfully because of a LOCK condition (from 1170).

1490 PERCENTAGE OF JCL ATTACH FAILURES

This reflects the percentage of jobs scheduled (from 0010) which were not scheduled successfully due to JCL attach failures (from 1150).

2.7 GRAPHN - Network Graph Descriptions

These graphs reflect activity volumes and performance data for preprocessing and postprocessing workstation networks.

0010 POST/PROCESS NETWORKS SCHEDULED

This is a simple count of the number of times that CA-7 scheduled an output workstation network. Multiple schedule occurrences of the same network are counted separately.

0020 PRE/PROCESS NETWORKS SCHEDULED

This is the same as 0010 except it is for input workstation networks.

0025 AVERAGE NUMBER OF EXPIRED NETWORK SCHEDULES PER SCAN

This reflects the average number of expired network schedules per schedule scan.

0030 POST/PROCESS STATIONS SCHEDULED

Each time that an output workstation network is scheduled, the number of workstations in the network are accumulated.

0040 PRE/PROCESS STATIONS SCHEDULED

This is the same as 0030 except it is for input workstation networks.

0050 POST/PROCESS CANCELLED

This reflects the number of scheduled output workstation networks that were canceled with a CANCEL command or the C option on the QM.7 screen.

0060 PRE/PROCESS CANCELLED

This reflects the number of scheduled input workstation networks that were canceled with a CANCEL command or the C option on the QM.6 screen.

0070 OUTPUT NETWORKS LATE

This reflects the number of times that the last station in an output workstation network was logged out after the due-out time.

0080 INPUT NETWORKS LATE

This is the same as 0070 except it is for input workstation networks.

0090 INPUT STATIONS LOGGED IN LATE

This reflects the number of times that an input workstation was logged in after the scheduled start time (due-out minus lead time).

0100 OUTPUT STATIONS LOGGED IN LATE

This is the same as 0090 except it is for output workstations.

0110 INPUT STATIONS LOGGED OUT LATE

This reflects the number of times that an input workstation was logged out after the due-out time.

0120 OUTPUT STATIONS LOGGED OUT LATE

This is the same as 0110 except it is for output workstations.

0130 NO. OF INPUT STATIONS LOGGED IN ON-TIME, BUT LOGGED OUT LATE

This reflects the number of times that an input workstation was logged in on or before the scheduled start time but was not logged out until after the due-out time.

0140 NO. OF OUTPUT STATIONS LOGGED IN ON-TIME, BUT LOGGED OUT LATE

This is the same as 0130 except it is for output workstations.

0150 PERCENTAGE OF OUTPUT NETWORKS ON-TIME

This reflects the percentage of scheduled output networks (from 0010) that were not completed late (from 0070). Calculated as scheduled minus late divided by scheduled.

0160 PERCENTAGE OF OUTPUT NETWORKS LATE

This reflects the percentage of scheduled output networks (from 0010) that were completed late (from 0070). Calculated as late divided by scheduled.

0170 PERCENTAGE OF INPUT NETWORKS ON-TIME

This reflects the percentage of scheduled input networks (from 0020) that were not completed late (from 0080). Calculated as scheduled minus late divided by scheduled.

0180 PERCENTAGE OF INPUT NETWORKS LATE

This reflects the percentage of scheduled input networks (from 0020) that were completed late (from 0080). Calculated as late divided by scheduled.

0190 PERCENTAGE OF OUTPUT NETWORKS CANCELLED

This reflects the percentage of scheduled output networks (from 0010) that were canceled (from 0050). Calculated as canceled divided by scheduled.

0200 PERCENTAGE OF INPUT NETWORKS CANCELLED

This reflects the percentage of scheduled input networks (from 0020) that were canceled (from 0060). Calculated as canceled divided by scheduled.

0210 PERCENTAGE OF OUTPUT STATIONS LOGGED IN ON-TIME

This reflects the percentage of scheduled output workstations (from 0030) which were not logged in late (from 0100). Calculate scheduled minus late divided by scheduled.

0220 PERCENTAGE OF OUTPUT STATIONS LOGGED IN LATE

This reflects the percentage of scheduled output workstations (from 0030) which were logged in late (from 0100). Calculated as late divided by scheduled.

0230 PERCENTAGE OF INPUT STATIONS LOGGED IN ON-TIME

This reflects the percentage of scheduled input workstations (from 0040) that were not logged in late (from 0090). Calculated as scheduled minus late divided by scheduled.

0240 PERCENTAGE OF INPUT STATIONS LOGGED IN LATE

This reflects the percentage of scheduled input workstations (from 0040) which were logged in late (from 0090). Calculated as late divided by scheduled.

2.8 GRAPHS - System Graph Descriptions

These graphs reflect system performance data in terms of the volume of activities performed and the amount of time required to perform the activities.

0010 CA-7 ACTIVE TIME IN MINUTES

This reflects the amount of time that CA-7 was resident in the system as accumulated by CA-7 from the system clock.

0020 CA-7 UP TIME VS. OS WAIT TIME IN SECONDS

This compares the CA-7 active time (from 0010) with the OS wait time (from 0030). Calculated as OS wait time divided by CA-7 active time.

0030 TOTAL OS WAIT TIME IN MINUTES

This reflects the amount of time that CA-7 was in a wait state, waiting completion of an OS function, or was idle due to lack of any activity.

0040 NUMBER OF WRITES TO STATISTICS FILE

This reflects the number of physical writes to the UCC7STAT data set.

0050 COMM. TASK WAIT TIME IN MINUTES

This reflects the aggregate amount of time that the communications task either had nothing to do or was waiting completion of I/O activity on the communications data set.

0060 CA-7 UP TIME VS. COMM. TASK ACTIVE TIME IN SECONDS

This compares the CA-7 active time (from 0010) to the communications task active time (from 0050). Comparison (in seconds) calculated as communications task active time divided by CA-7 active time.

0070 NUMBER OF LOGONS

This reflects the number of successful log ons with the /LOGON command.

0080 SECURITY VIOLATIONS

This reflects the number of times that attempts were made to violate any CA-7 security parameters.

0090 TERMINAL ERRORS

This reflects the number of hardware related errors that were encountered for any terminal communicating directly with CA-7.

0100 NUMBER OF RESPONSES GREATER THAN 10 MINUTES

This reflects the number of CA-7 terminal responses which took longer than 10 minutes between receipt of the input and queueing of the output message.

0110 NUMBER OF RESPONSES GREATER THAN 60 SECONDS

This reflects the number of CA-7 terminal responses which took longer than 60 seconds between receipt of the input and queueing of the output message.

0120 ACCUMULATED RESPONSE TIME IN MINUTES

This is the aggregate response time for all messages to all terminals.

0130 TOTAL NO. OF TRANSACTIONS PROCESSED

This reflects the number of times that CA-7 processed input received from a terminal.

0140 AVERAGE RESPONSE TIME PER TRANSACTION IN 1/10 SECONDS

This reflects the average response time per CA-7 transaction (from 0130) in 1/10th of a second increments. Calculated as total response time from 0120 divided by transaction count from 0130.

0150 AVERAGE NUMBER OF TRANSACTIONS PER LOGON

This reflects the average number of CA-7 transactions (from 0130) per logon to CA-7 (from 0070).

0160 NUMBER OF RESPONSES LESS THAN 3 SECONDS

This reflects the number of CA-7 responses which took less than 3 seconds between receipt of the input and queueing of the output message.

0170 PERCENTAGE OF TRANSACTIONS WITH RESPONSE TIME LESS THAN 3 SECONDS

This reflects the percentage of CA-7 transactions (from 0130) which had a response time of less than 3 seconds (from 0160).

0180 NUMBER OF RESPONSES LESS THAN 10 SECONDS

This reflects the number of CA-7 responses which took less than 10 seconds between receipt of the input and queueing of the output message.

0190 PERCENTAGE OF TRANSACTIONS W/RESPONSE TIME LESS THAN 10 SECONDS

This reflects the percentage of CA-7 transactions (from 0130) which had a response time of less than 10 seconds (from 0180).

0200 NUMBER OF RESPONSES LESS THAN 60 SECONDS

This reflects the number of CA-7 responses which took less than 60 seconds between receipt of the input and queueing of the output message.

0210 PERCENTAGE OF TRANSACTIONS W/RESPONSE TIME LESS THAN 60 SECONDS

This reflects the percentage of CA-7 transactions (from 0130) which had a response time of less than 60 seconds (from 0200).

0220 PERCENTAGE OF TRANSACTIONS W/RESPONSE TIME GREATER THAN 60 SECONDS

This reflects the percentage of CA-7 transactions (from 0130) which had a response time greater than 60 seconds (from 0110).

0230 SCHEDULE SCAN TASK WAKE-UPS

This reflects the total number of task wake-ups for schedule scan, prompting, LOAD or job completion processing.

0240 PROMPTING TASK WAKE-UPS

This reflects the total number of task wake-ups for prompting activity. The count is included on 0230.

0250 JOB COMPLETION TASK WAKE-UPS

This reflects the total number of task wake-ups for CA-7 job completion processing. The count is included on 0230.

0260 JOB LOAD TASK WAKE-UPS

This reflects the total number of task wake-ups for CA-7 LOAD processing. The count is included on 0230.

0270 NUMBER OF ACTUAL SCHEDULE SCANS

This reflects the total number of task wake-ups for scanning calendar scheduled tasks. The count is included on 0230.

0280 SUBMIT TASK WAKE-UPS

This reflects the number of times that the submit task was awakened to scan for jobs to submit.

0290 SUBTASK WAKE-UPS

This reflects the number of times that one or more OS macros were performed under control of the OS subtask.

0300 OS MACRO SUBTASK FUNCTIONS

This reflects the total number of OS macro functions performed by the OS subtask. Can be more than the number of task wake-ups on 0290.

0310 SMF WAKE-UPS

This reflects the number of times that CA-7 received and processed SMF feedback for jobs under the control of CA-7.

0320 SCHEDULE SCAN TASK ACTIVE TIME IN SECONDS

This reflects an accumulation of total time required for the schedule scan task to perform any of its functions.

0330 PROMPTING TASK ACTIVE TIME IN SECONDS

This reflects an accumulation of total time required for the schedule scan task to perform its prompting function.

0340 JOB COMPLETION TASK ACTIVE TIME IN SECONDS

This reflects an accumulation of total time required for the schedule scan task to perform job completion processing.

0350 JOB LOAD TASK ACTIVE TIME IN SECONDS

This reflects an accumulation of total time required for the schedule scan task to perform CA-7 LOAD processing.

0360 ACTUAL SCHEDULE SCAN TASK ACTIVE TIME IN SECONDS

This reflects an accumulation of total time required for the schedule scan task to perform scans of calendar scheduled work.

0370 SUBMIT TASK ACTIVE TIME IN SECONDS

This reflects an accumulation of total time required for the submit task to submit jobs.

0380 SUBTASK ACTIVE TIME IN SECONDS

This reflects an accumulation of total time required for the subtask to perform all of its functions. See 0390 also.

0390 OS MACRO SUBTASK ACTIVE TIME IN SECONDS

This reflects an accumulation of total time required for the subtask to perform only the OS macro functions. See 0380 also.

0400 SMF ACTIVE TIME IN SECONDS

This reflects an accumulation of total time required for processing SMF feedback data.

0410 AVERAGE TIME PER SCHEDULE SCAN TASK WAKE-UP IN 1/10 SECONDS

This reflects the average active time of the schedule scan task (from 0320) per task wake-up (from 0230) in 1/10th of a second increments.

0420 AVERAGE TIME PER PROMPTING TASK WAKE-UP IN 1/10 SECONDS

This reflects the average active time of the prompting task (from 0330) per task wake-up (from 0240) in 1/10th of a second increments.

0430 AVERAGE TIME PER JOB COMPLETION TASK WAKE-UP IN 1/10 SECONDS

This reflects the average active time of the job completion task (from 0340) per task wake-up (from 0250) in 1/10th of a second increments.

0440 AVERAGE TIME PER JOB LOAD TASK WAKE-UP IN 1/10 SECONDS

This reflects the average active time of the job load task (from 0350) per task wake-up (from 0260) in 1/10th of a second increments.

0450 AVERAGE TIME PER ACTUAL SCHEDULE SCAN IN SECONDS

This reflects the average active time of schedule scan (from 0360) per actual scan (from 0270) in terms of seconds.

0460 AVERAGE TIME PER SUBMIT TASK WAKE-UP IN 1/10 SECONDS

This reflects the average active time of the submit task (from 0370) per task wake-up (from 0280) in 1/10th of a second increments.

0470 AVERAGE TIME PER SUBTASK WAKE-UP IN 1/10 SECONDS

This reflects the average subtask active time (from 0380) per task wake-up (from 0290) in 1/10th of a second increments.

0480 AVERAGE TIME PER OS MACRO SUBTASK IN 1/10 SECONDS

This reflects the average OS macro subtask active time (from 0390) per function performed (from 0300) in 1/10th of a second increments.

0490 AVERAGE TIME PER SMF TASK WAKE-UP IN SECONDS

This reflects the average active time of the SMF task (from 0400) per task wake-up (from 0310) in terms of seconds.

0500 CA-7 UP TIME VS. SCHEDULE SCAN TASK TIME

This compares the CA-7 active time (from 0010) with the schedule scan task time (from 0320). Calculated as schedule scan task time divided by CA-7 active time.

0510 CA-7 UP TIME VS. PROMPTING TASK TIME

This compares the CA-7 active time (from 0010) with the prompting task time (from 0330). Calculated as prompting task time divided by CA-7 active time.

0520 CA-7 UP TIME VS. JOB COMPLETION TASK TIME

This compares the CA-7 active time (from 0010) with the job completion task time (from 0340). Calculated as job completion task time divided by CA-7 active time.

0530 CA-7 UP TIME VS. JOB LOAD TASK TIME

This compares the CA-7 active time (from 0010) with the job load task time (from 0350). Calculated as job load task time divided by CA-7 active time.

0540 CA-7 UP TIME VS. ACTUAL SCHEDULE SCAN TIME

This compares the CA-7 active time (from 0010) with the actual schedule scan active time (from 0360). Calculated as schedule scan active time divided by CA-7 active time.

0550 CA-7 UP TIME VS. SUBMIT TASK TIME

This compares the CA-7 active time (from 0010) with the submit task active time (from 0370). Calculated as submit task active time divided by CA-7 active time.

0560 CA-7 UP TIME VS. SUBTASK TIME

This compares the CA-7 active time (from 0010) with the subtask time (from 0380). Calculated as subtask time divided by CA-7 active time.

0570 CA-7 UP TIME VS. OS MACRO SUBTASK TIME

This compares the CA-7 active time (from 0010) with the OS macro subtask time (from 0390). Calculated as OS macro subtask time divided by CA-7 active time.

0580 CA-7 UP TIME VS. SMF TASK TIME

This compares the CA-7 active time (from 0010) with the SMF task time (from 0400). Calculated as SMF task time divided by CA-7 active time.

0590 TOTAL SUBTASKS VS. OS MACRO CALLS

This compares the OS macro subtask functions performed (from 0300) with the subtask service requests (from 0760). Calculated as service requests divided by subtask functions.

0600 TOTAL SUBTASK TIME VS. OS MACRO TIME

This compares the subtask active time (from 0380) with the OS macro subtask active time (from 0390). Calculated as OS macro subtask time divided by subtask active time.

0610 TOTAL MODULE LOAD REQUESTS

This reflects the number of requests to load modules for any of the CA-7 applications.

0620 ACTUAL DASD MODULE LOADS

This reflects the number of module load requests (from 0610) which resulted in actually having to load the modules because the modules were not already in core.

0630 LOAD REQUESTS VS. DASD LOADS REQUIRED

This compares module load requests (from 0610) with actual DASD loads (from 0620). Calculated as DASD loads divided by load requests.

0640 MEMORY RECOVERY CONDITIONS

This reflects the number of times that CA-7 had to reclaim memory from a previously used function to service a request.

0650 QUEUE LOCK-OUTS

This reflects the number of times that a queue access had to await completion of a function already in process with exclusive control of the queues.

0660 DATABASE LOCK-OUTS

This reflects the number of times that a database update had to await completion of another database update that was already in process.

0670 RECORDS WRITTEN TO LOG DATASET

This reflects the number of records written to the log data set.

0680 TOTAL NO. OF BLOCKS WRITTEN TO LOG DATASET

This reflects the number of blocks written to the log data set.

0690 RECORDS PER BLOCK IN LOG DATASET

This reflects the records per block in the log data set calculated as records written (from 0670) divided by blocks written (from 0680).

0700 CHECKPOINT RECORDS WRITTEN

This reflects the number of records written to the checkpoint data set.

0710 COMMUNICATION DATASET READS

This reflects the number of read accesses to the CMDS (communications) data set by CA-7.

0720 COMMUNICATION DATASET BUSY CONDITIONS

This reflects the number of times that CA-7 could not access the CMDS data set due to in-process activities that had exclusive control.

0730 COMMUNICATION DATASET WRITES

This reflects the number of times that CA-7 wrote data to the CMDS (communications) data set.

0740 COMMUNICATION DATASET READ VS. WRITES

This compares communications data set reads (from 0710) with communications data set writes (from 0730). Calculated as number of reads divided by number of writes.

0750 COMMUNICATION DATASET READS VS. BUSY CONDITIONS

This compares communications data set reads (from 0710) with communications data set busy conditions (from 0730). Calculated as number of reads divided by number of busy conditions.

0760 SUBTASK SERVICE REQUESTS

This reflects a simple count of the number of requests which required subtask service.

0770 REQUESTS SERVICED PER SUBTASK POST

This reflects the average number of subtask service requests (from 0760) per subtask wake-up (from 0290).

0780 SMF LOCATES DONE VIA MAIN SUBTASK

This reflects the number of locates done for an index data set in OS CVOL catalog format.

0790 SMF LOCATES DONE VIA SMF SUBTASK

This reflects the number of locates done, during SMF feedback with PERFORM option 2, for an index data set in OS CVOL catalog format.

0800 AVERAGE TIME PER SMF LOCATE IN MAIN SUBTASK (1/10 SECS)

This reflects the average time required for locates reported on 0780.

0810 AVERAGE TIME PER SMF LOCATE IN SMF SUBTASK (1/10 SECS)

This reflects the average time required for locates reported on 0790.

0820 CA-7 UP TIME VS. SMF SUBTASK TIME

This compares the CA-7 active time (from 0010) to the time required for locates from 0790. Calculated as task time divided by CA-7 active time.

0900 AVERAGE TIME PER BLDL on JOB DS IN 1/10 SECONDS

This is the average time required for a BLDL function on the Job data set portion of the database if in PDS format.

0901 AVERAGE TIME PER BLDL on DATASET DS IN 1/10 SECONDS

This reflects the average time required for a BLDL function on the dataset data set portion of the database if in PDS format.

0910 AVERAGE TIME PER STOW on JOB DS IN 1/10 SECONDS

This is the same as 0900 except it is for the STOW functions if in PDS format.

0911 AVERAGE TIME PER ADD STOW on JOB DS IN 1/10 SECONDS

This is the same as 0900 except it is for Add STOW functions if in PDS format.

0912 AVERAGE TIME PER RPL STOW on JOB DS IN 1/10 SECONDS

This is the same as 0900 except it is for Replace STOW functions if in PDS format.

0913 AVERAGE TIME PER DLT STOW on JOB DS IN 1/10 SECONDS

This is the same as 0900 except it is for Delete STOW functions if in PDS format.

0920 AVERAGE TIME PER STOW on DATASET DS IN 1/10 SECONDS

This is the same as 0910 except it is for the dataset data set if in PDS format.

0921 AVERAGE TIME PER ADD STOW on DATASET DS IN 1/10 SECONDS

This is the same as 0911 except it is for the dataset data set if in PDS format.

0922 AVERAGE TIME PER RPL STOW on DATASET DS IN 1/10 SECONDS

This is the same as 0912 except it is for the dataset data set if in PDS format.

0923 AVERAGE TIME PER DLT STOW on DATASET DS IN 1/10 SECONDS

This is the same as 0913 except it is for the dataset data set if in PDS format.

0930 AVERAGE TIME PER IDS LOCATE IN 1/10 SECONDS

This reflects the average time required to do any locate on the IDS. See 0780 and 0790 also.

0931 PERCENTAGE OF IDS LOCATES OVER 1/2 SECOND

This reflects the percentage of locates (from 0780 and 0790) which required more than 1/2 second to complete.

0932 IDS LOCATES DONE PER REQUEST

This reflects the average number of actual locates performed for each locate request.

0933 AVERAGE TIME PER IDS JDEP LOCATE IN 1/10 SECONDS

This reflects the average time required to do a locate for a JDEP entry.

0934 PERCENTAGE IDS JDEP LOCATES OVER 1/2 SECOND

This reflects the percentage of JDEP type locates which required more than 1/2 second to complete.

0940 AVERAGE TIME PER INDEX ADD REQUEST IN 1/10 SECONDS

This reflects the average elapsed time required to add an entry to the index data set.

0941 AVERAGE TIME PER INDEX CHANGE REQUEST IN 1/10 SECONDS

This reflects the average elapsed time required to update an entry in the index data set.

0942 AVERAGE TIME PER INDEX DELETE REQUEST IN 1/10 SECONDS

This reflects the average elapsed time required to delete an entry from the index data set.

1030 NUMBER OF DB ACCESSES FOR DATA TYPE DSD ADDS

This reflects the number of database adds for data type DSD records in the database.

1040 NUMBER OF DB ACCESSES FOR DATA TYPE DSD DELETES

This reflects the number of database deletes for data type DSD records in the database.

1050 NUMBER OF DB ACCESSES FOR DATA TYPE DSD READS

This reflects the number of database reads for data type DSD records in the database.

1060 NUMBER OF DB ACCESSES FOR DATA TYPE DSD REPLACES

This reflects the number of database replaces for data type DSD records in the database.

1070 NUMBER OF DB ACCESSES FOR DATA TYPE DSM ADDS

This reflects the number of database adds for data type DSM records in the database.

1080 NUMBER OF DB ACCESSES FOR DATA TYPE DSM DELETES

This reflects the number of database deletes for data type DSM records in the database.

1090 NUMBER OF DB ACCESSES FOR DATA TYPE DSM READS

This reflects the number of database reads for data type DSM records in the database.

1100 NUMBER OF DB ACCESSES FOR DATA TYPE DSM REPLACES

This reflects the number of database replaces for data type DSM records in the database.

1110 NUMBER OF DB ACCESSES FOR DATA TYPE I ADDS

This reflects the number of database adds for data type I records in the database.

1120 NUMBER OF DB ACCESSES FOR DATA TYPE I DELETES

This reflects the number of database deletes for data type I records in the database.

1130 NUMBER OF DB ACCESSES FOR DATA TYPE I READS

This reflects the number of database reads for data type I records in the database.

1140 NUMBER OF DB ACCESSES FOR DATA TYPE I REPLACES

This reflects the number of database replaces for data type I records in the database.

1150 NUMBER OF DB ACCESSES FOR DATA TYPE JBD ADDS

This reflects the number of database adds for data type JBD records in the database.

1160 NUMBER OF DB ACCESSES FOR DATA TYPE JBD DELETES

This reflects the number of database deletes for data type JBD records in the database.

1170 NUMBER OF DB ACCESSES FOR DATA TYPE JBD READS

This reflects the number of database reads for data type JBD records in the database.

1180 NUMBER OF DB ACCESSES FOR DATA TYPE JBD REPLACES

This reflects the number of database replaces for data type JBD records in the database.

1190 NUMBER OF DB ACCESSES FOR DATA TYPE JBM ADDS

This reflects the number of database adds for data type JBM records in the database.

1200 NUMBER OF DB ACCESSES FOR DATA TYPE JBM DELETES

This reflects the number of database deletes for data type JBM records in the database.

1210 NUMBER OF DB ACCESSES FOR DATA TYPE JBM READS

This reflects the number of database reads for data type JBM records in the database.

1220 NUMBER OF DB ACCESSES FOR DATA TYPE JBM REPLACES

This reflects the number of database replaces for data type JBM records in the database.

1230 NUMBER OF DB ACCESSES FOR DATA TYPE NWD ADDS

This reflects the number of database adds for data type NWD records in the database.

1240 NUMBER OF DB ACCESSES FOR DATA TYPE NWD DELETES

This reflects the number of database deletes for data type NWD records in the database.

1250 NUMBER OF DB ACCESSES FOR DATA TYPE NWD READS

This reflects the number of database reads for data type NWD records in the database.

1260 NUMBER OF DB ACCESSES FOR DATA TYPE NWD REPLACES

This reflects the number of database replaces for data type NWD records in the database.

1270 NUMBER OF DB ACCESSES FOR DATA TYPE NWM ADDS

This reflects the number of database adds for data type NWM records in the database.

1280 NUMBER OF DB ACCESSES FOR DATA TYPE NWM DELETES

This reflects the number of database deletes for data type NWM records in the database.

1290 NUMBER OF DB ACCESSES FOR DATA TYPE NWM READS

This reflects the number of database reads for data type NWM records in the database.

1300 NUMBER OF DB ACCESSES FOR DATA TYPE NWM REPLACES

This reflects the number of database replaces for data type NWM records in the database.

1310 NUMBER OF DB ACCESSES FOR DATA TYPE PPD ADDS

This reflects the number of database adds for data type PPD records in the database.

1320 NUMBER OF DB ACCESSES FOR DATA TYPE PPD DELETES

This reflects the number of database deletes for data type PPD records in the database.

1330 NUMBER OF DB ACCESSES FOR DATA TYPE PPD READS

This reflects the number of database reads for data type PPD records in the database.

1340 NUMBER OF DB ACCESSES FOR DATA TYPE PPD REPLACES

This reflects the number of database replaces for data type PPD records in the database.

1350 NUMBER OF DB ACCESSES FOR DATA TYPE PPM ADDS

This reflects the number of database adds for data type PPM records in the database.

1360 NUMBER OF DB ACCESSES FOR DATA TYPE PPM DELETES

This reflects the number of database deletes for data type PPM records in the database.

1370 NUMBER OF DB ACCESSES FOR DATA TYPE PPM READS

This reflects the number of database reads for data type PPM records in the database.

1380 NUMBER OF DB ACCESSES FOR DATA TYPE PPM REPLACES

This reflects the number of database replaces for data type PPM records in the database.

1390 NUMBER OF DB ACCESSES FOR DATA TYPE SID ADDS

This reflects the number of database adds for data type SID records in the database.

1400 NUMBER OF DB ACCESSES FOR DATA TYPE SID DELETES

This reflects the number of database deletes for data type SID records in the database.

1410 NUMBER OF DB ACCESSES FOR DATA TYPE SID READS

This reflects the number of database reads for data type SID records in the database.

1420 NUMBER OF DB ACCESSES FOR DATA TYPE SID REPLACES

This reflects the number of database replaces for data type SID records in the database.

1430 NUMBER OF DB ACCESSES FOR DATA TYPE SIM ADDS

This reflects the number of database adds for data type SIM records in the database.

1440 NUMBER OF DB ACCESSES FOR DATA TYPE SIM DELETES

This reflects the number of database deletes for data type SIM records in the database.

1450 NUMBER OF DB ACCESSES FOR DATA TYPE SIM READS

This reflects the number of database reads for data type SIM records in the database.

1460 NUMBER OF DB ACCESSES FOR DATA TYPE SIM REPLACES

This reflects the number of database replaces for data type SIM records in the database.

1470 NUMBER OF DB ACCESSES FOR DATA TYPE SJD ADDS

This reflects the number of database adds for data type SJD records in the database.

1480 NUMBER OF DB ACCESSES FOR DATA TYPE SJD DELETES

This reflects the number of database deletes for data type SJD records in the database.

1490 NUMBER OF DB ACCESSES FOR DATA TYPE SJD READS

This reflects the number of database reads for data type SJD records in the database.

1500 NUMBER OF DB ACCESSES FOR DATA TYPE SJD REPLACES

This reflects the number of database replaces for data type SJD records in the database.

1510 NUMBER OF DB ACCESSES FOR DATA TYPE SJM ADDS

This reflects the number of database adds for data type SJM records in the database.

1520 NUMBER OF DB ACCESSES FOR DATA TYPE SJM DELETES

This reflects the number of database deletes for data type SJM records in the database.

1530 NUMBER OF DB ACCESSES FOR DATA TYPE SJM READS

This reflects the number of database reads for data type SJM records in the database.

1540 NUMBER OF DB ACCESSES FOR DATA TYPE SJM REPLACES

This reflects the number of database replaces for data type SJM records in the database.

1550 NUMBER OF DB ACCESSES FOR DATA TYPE SOD ADDS

This reflects the number of database adds for data type SOD records in the database.

1560 NUMBER OF DB ACCESSES FOR DATA TYPE SOD DELETES

This reflects the number of database deletes for data type SOD records in the database.

1570 NUMBER OF DB ACCESSES FOR DATA TYPE SOD READS

This reflects the number of database reads for data type SOD records in the database.

1580 NUMBER OF DB ACCESSES FOR DATA TYPE SOD REPLACES

This reflects the number of database replaces for data type SOD records in the database.

1590 NUMBER OF DB ACCESSES FOR DATA TYPE SOM ADDS

This reflects the number of database adds for data type SOM records in the database.

1600 NUMBER OF DB ACCESSES FOR DATA TYPE SOM DELETES

This reflects the number of database deletes for data type SOM records in the database.

1610 NUMBER OF DB ACCESSES FOR DATA TYPE SOM READS

This reflects the number of database reads for data type SOM records in the database.

1620 NUMBER OF DB ACCESSES FOR DATA TYPE SOM REPLACES

This reflects the number of database replaces for data type SOM records in the database.

1630 TOTAL NUMBER OF DB ACCESSES FOR DATA TYPE DSD

This reflects database accesses of all kinds for data type DSD records in the database.

1640 TOTAL NUMBER OF DB ACCESSES FOR DATA TYPE DSM

This reflects database accesses of all kinds for data type DSM records in the database.

1650 TOTAL NUMBER OF DB ACCESSES FOR DATA TYPE I

This reflects database accesses of all kinds for data type I records in the database.

1660 TOTAL NUMBER OF DB ACCESSES FOR DATA TYPE JBD

This reflects database accesses of all kinds for data type JBD records in the database.

1670 TOTAL NUMBER OF DB ACCESSES FOR DATA TYPE JBM

This reflects database accesses of all kinds for data type JBM records in the database.

1680 TOTAL NUMBER OF DB ACCESSES FOR DATA TYPE NWD

This reflects database accesses of all kinds for data type NWD records in the database.

1690 TOTAL NUMBER OF DB ACCESSES FOR DATA TYPE NWM

This reflects database accesses of all kinds for data type NWM records in the database.

1700 TOTAL NUMBER OF DB ACCESSES FOR DATA TYPE PPD

This reflects database accesses of all kinds for data type PPD records in the database.

1710 TOTAL NUMBER OF DB ACCESSES FOR DATA TYPE PPM

This reflects database accesses of all kinds for data type PPM records in the database.

1720 TOTAL NUMBER OF DB ACCESSES FOR DATA TYPE SID

This reflects database accesses of all kinds for data type SID records in the database.

1730 TOTAL NUMBER OF DB ACCESSES FOR DATA TYPE SIM

This reflects database accesses of all kinds for data type SIM records in the database.

1740 TOTAL NUMBER OF DB ACCESSES FOR DATA TYPE SJD

This reflects database accesses of all kinds for data type SJD records in the database.

1750 TOTAL NUMBER OF DB ACCESSES FOR DATA TYPE SJM

This reflects database accesses of all kinds for data type SJM records in the database.

1760 TOTAL NUMBER OF DB ACCESSES FOR DATA TYPE SOD

This reflects database accesses of all kinds for data type SOD records in the database.

1770 TOTAL NUMBER OF DB ACCESSES FOR DATA TYPE SOM

This reflects database accesses of all kinds for data type SOM records in the database.

2010 NUMBER OF REQ QUEUE ADDS

This reflects the number of add accesses on the request queue whether the queue is memory-resident in units of 100.

2020 NUMBER OF REQ QUEUE DELETES

This reflects the number of delete accesses on the request queue whether the queue is memory-resident in units of 100.

2030 NUMBER OF REQ QUEUE READS

This reflects the number of read accesses on the request queue whether the queue is memory-resident in units of 100.

2040 NUMBER OF REQ QUEUE REPLACES

This reflects the number of replace accesses on the request queue whether the queue is memory-resident in units of 100.

2050 NUMBER OF REQ QUEUE ACCESSES

This reflects the total number of accesses on the request queue whether the queue is memory-resident in units of 100.

2060 NUMBER OF RDY QUEUE ADDS

This reflects the number of add accesses on the ready queue whether the queue is memory-resident in units of 100.

2070 NUMBER OF RDY QUEUE DELETES

This reflects the number of delete accesses on the ready queue whether the queue is memory-resident in units of 100.

2080 NUMBER OF RDY QUEUE READS

This reflects the number of read accesses on the ready queue whether the queue is memory-resident in units of 100.

2090 NUMBER OF RDY QUEUE REPLACES

This reflects the number of replace accesses on the ready queue whether the queue is memory-resident in units of 100.

2100 NUMBER OF RDY QUEUE ACCESSES

This reflects the total number of accesses on the ready queue whether the queue is memory-resident in units of 100.

2110 NUMBER OF ACT QUEUE ADDS

This reflects the number of add accesses on the active queue whether the queue is memory-resident in units of 100.

2120 NUMBER OF ACT QUEUE DELETES

This reflects the number of delete accesses on the active queue whether the queue is memory-resident in units of 100.

2130 NUMBER OF ACT QUEUE READS

This reflects the number of read accesses on the active queue whether the queue is memory-resident in units of 100.

2140 NUMBER OF ACT QUEUE REPLACES

This reflects the number of replace accesses on the active queue whether the queue is memory-resident in units of 100.

2150 NUMBER OF ACT QUEUE ACCESSES

This reflects the total number of accesses on the active queue whether the queue is memory-resident in units of 100.

2160 NUMBER OF PRE QUEUE ADDS

This reflects the number of add accesses on the preprocessing queue whether the queue is memory-resident in units of 100.

2170 NUMBER OF PRE QUEUE DELETES

This reflects the number of delete accesses on the preprocessing queue whether the queue is memory-resident in units of 100.

2180 NUMBER OF PRE QUEUE READS

This reflects the number of read accesses on the preprocessing queue whether the queue is memory-resident in units of 100.

2190 NUMBER OF PRE QUEUE REPLACES

This reflects the number of replace accesses on the preprocessing queue whether the queue is memory-resident in units of 100.

2200 NUMBER OF PRE QUEUE ACCESSES

This reflects the total number of accesses on the preprocessing queue whether the queue is memory-resident in units of 100.

2210 NUMBER OF POST QUEUE ADDS

This reflects the number of add accesses on the postprocessing queue whether the queue is memory-resident in units of 100.

2220 NUMBER OF POST QUEUE DELETES

This reflects the number of delete accesses on the postprocessing queue whether queue is memory-resident in units of 100.

2230 NUMBER OF POST QUEUE READS

This reflects the number of read accesses on the postprocessing queue whether the queue is memory-resident in units of 100.

2240 NUMBER OF POST QUEUE REPLACES

This reflects the number of replace accesses on the postprocessing queue whether the queue is memory-resident in units of 100.

2250 NUMBER OF POST QUEUE ACCESSES

This reflects the total number of accesses on the postprocessing queue whether the queue is memory-resident in units of 100.

2260 NUMBER OF PRRN QUEUE ADDS

This reflects the number of add accesses on the prior-run queue in units of 100.

2270 NUMBER OF PRRN QUEUE DELETES

This reflects the number of delete accesses on the prior-run queue in units of 100.

2280 NUMBER OF PRRN QUEUE READS

This reflects the number of read accesses on the prior-run queue in units of 100.

2290 NUMBER OF PRRN QUEUE REPLACES

This reflects the number of replace accesses on the prior-run queue in units of 100.

2300 NUMBER OF PRRN QUEUE ACCESSES

This reflects the total number of accesses on the prior-run queue in units of 100.

2310 NUMBER OF TRLR QUEUE ADDS

This reflects the number of add accesses on the trailer queue in units of 100.

2320 NUMBER OF TRLR QUEUE DELETES

This reflects the number of delete accesses on the trailer queue in units of 100.

2330 NUMBER OF TRLR QUEUE READS

This reflects the number of read accesses on the trailer queue in units of 100.

2340 NUMBER OF TRLR QUEUE REPLACES

This reflects the number of replace accesses on the trailer queue in units of 100.

2350 NUMBER OF TRLR QUEUE ACCESSES

This reflects the total number of accesses on the trailer queue in units of 100.

2360 PERCENT OF REQ QUEUE ACCESSES WHICH WERE INPUT ONLY

This reflects the percentage of request queue accesses that were reads, calculated as the number of database reads divided by the total number of accesses.

2370 PERCENT OF RDY QUEUE ACCESSES WHICH WERE INPUT ONLY

This reflects the percentage of ready queue accesses that were reads, calculated as the number of database reads divided by the total number of accesses.

2380 PERCENT OF ACT QUEUE ACCESSES WHICH WERE INPUT ONLY

This reflects the percentage of active queue accesses that were reads, calculated as the number of database reads divided by the total number of accesses.

2390 PERCENT OF PRE QUEUE ACCESSES WHICH WERE INPUT ONLY

This reflects the percentage of preprocessing queue accesses that were reads, calculated as the number of database reads divided by the total number of accesses.

2400 PERCENT OF POST QUEUE ACCESSES WHICH WERE INPUT ONLY

This reflects the percentage of postprocessing queue accesses that were reads, calculated as the number of database reads divided by the total number of accesses.

2410 PERCENT OF PRRN QUEUE ACCESSES WHICH WERE INPUT ONLY

This reflects the percentage of prior-run queue accesses that were reads, calculated as the number of database reads divided by the total number of accesses.

2420 PERCENT OF TRLR QUEUE ACCESSES WHICH WERE INPUT ONLY

This reflects the percentage of trailer queue accesses that were reads, calculated as the number of database reads divided by the total number of accesses.

7000 NUMBER OF LOAD SEGMENTS READ

This reflects the number of trailer queue reads which were done for LOAD data.

7010 NUMBER OF JCL SEGMENTS READ

This reflects the number of trailer queue reads which were done for JCL data.

7020 NUMBER OF I/O SEGMENTS READ

This reflects the number of trailer queue reads which were done for I/O segments (including requirement records, #SCC records, and so forth).

7030 NUMBER OF LOAD SEGMENTS WRITTEN

This reflects the number of trailer queue writes which were done for LOAD data.

7040 NUMBER OF JCL SEGMENTS WRITTEN

This reflects the number of trailer queue writes which were done for JCL data.

7050 NUMBER OF I/O SEGMENTS WRITTEN

This reflects the number of trailer queue writes which were done for I/O segments (including requirement records, #SCC records, and so forth).

Chapter 3. History Reporting

CA-7 creates log data set records which are used by the history reporting facility to create reports on system activity. History Reporting consists of three major programs:

- SASSHIS5 History Management
- SASSHIS6 Archives Purge
- SASSHIS8 History Reporting

Programs SASSHIS5 and SASSHIS6 are used to maintain the log history and log archive files which provide the data source for history reporting. That process is discussed in the *CA-7 Systems Programmer Guide* under "Log and History Data Set Management." See Figure 3-1 on page 3-2 for a flowchart of the history reporting facility provided by the program SASSHIS8.

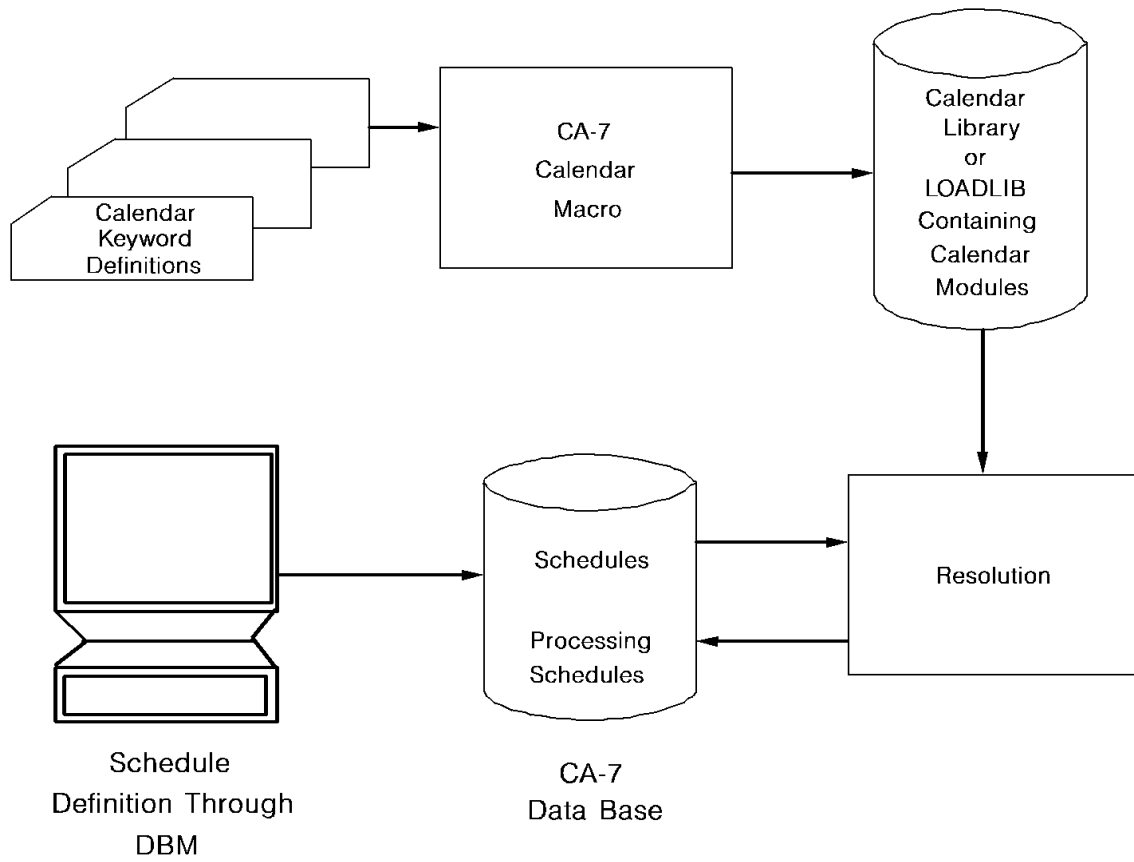


Figure 3-1. History Reporting Flowchart

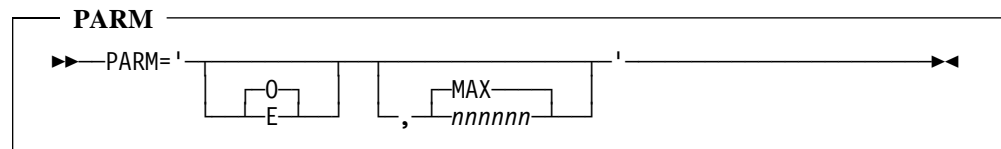
3.1 SASSHIS8 History Reporting

SASSHIS8 extracts CA-7 log records from the log history and log archives files based on control statements. The system uses this data to create history and recovery aid reports based on user specifications. SASSHIS8 can also produce a file of batch terminal interface commands to be used as a recovery aid in the event of a system failure where one or more of the CA-7 queues are lost.

Input: Control statements
CA-7 log history file
CA-7 log archives file (optional)

Output: Control Statement Edit report
History reports
Recovery aid reports
Generated batch terminal interface commands

The optional PARM operand of the EXEC statement controls execution conditions and memory requirements as follows:



Where:

O|E

This positional parameter is an alpha character which indicates whether to proceed if there are any errors. Possible values are O and E.

O

Indicates to run only if no errors are found on the control statements. If no value is supplied, O is the default.

E

Indicates to run even if errors are found on the control statements.

MAX|nnnnnn

This positional parameter requires a 6-digit decimal number with leading zeros or the literal MAX to specify the amount of memory available to the sort. MAX is the default.

3.1.1 SASSHIS8 File Descriptions

DDNAME	Description
UCC7HIST	The CA-7 log history file created by either SASSHIS5 or SASSHIS6 (required).
UCC7ARCH	Optional CA-7 log archive file created by either SASSHIS5 or SASSHIS6.
SYSIN	The data that controls production of history reports.
COMMANDS	Optional recovery commands produced by the recovery aid for input to the batch terminal interface facility.
SYSLIST	CA-7 history reports.

3.1.2 SASSHIS8 Available Outputs

SASSHIS8 produces output as requested by the user. The available outputs are:

Output Description	Report ID Number	DDNAME
Scheduled Jobs Not Run report	01	SYSLIST
Transaction Detail report	02	SYSLIST
Log Dump report	03	SYSLIST
Scheduled Versus Actual Job report	04	SYSLIST
Scheduled Versus Actual Station report	05	SYSLIST
Job Processing Activity report	06	SYSLIST
Workstation Activity report	07	SYSLIST
Master Station Activity report	08	SYSLIST
Security Exception report	30	SYSLIST
Internal Activity Trace report	70	SYSLIST
Last Logged Status of Jobs report	50	SASSRA01
Generated Batch Terminal Interface Commands report	50	SASSRA02
Simulated LQ Display of Jobs report	50	SASSRA03
Recovery Aid Batch Commands file	50	COMMANDS

3.1.3 SASSHIS8 Control Statement Descriptions

Creation of these outputs is requested by control record input. The control records specify the actual sequence and contents of the desired output. There is one control record for each output. Multiple outputs may be requested in a single execution of SASSHIS8, although there is a limit of 50 outputs in a single run. Multiple requests for the same report ID may be made in a single execution of SASSHIS8 (provided the request IDs are unique).

3.1.4 SASSHIS8 Date/Time Ranges

Each report is produced by values on a control record which must specify, among other things, the boundaries for the time period to be reported. This is necessary since the history data on the input file may contain much more data than is desired for the report.

Two techniques are available for specifying range boundaries.

3.1.4.1 SASSHIS8 Explicit Ranges

One technique is to provide specific Julian dates and time-of-day for both the beginning and end of a reporting period. These are specified as a from and thru set of Julian dates and time-of-day. For example, 00009 0000 and 00009 2400 could be specified to report on January 9, 2000 activity. (Refer to the individual control record descriptions for date and time-of-day default values.)

This technique requires the user to not only determine and specify the Julian date(s) desired, but also requires that the control record be changed each time a report is requested for a different period of time. Although cumbersome, this technique can be very helpful in many situations.

3.1.4.2 SASSHIS8 Range Literals

The second technique allows the user to prepare the control records, for most reporting requirements, with a single literal. This causes the date and time fields to be dynamically determined by the program at execution time. It also eliminates the need for changing the control record for each run.

Whenever a literal is used, it is entered in the From Date field and **no date/time** values are entered in the From Time and Thru Date and Thru Time fields. These are determined by the program based on the literal specified and the **current system date**.

There are two types of literal groups available. One group is used to request to-date reports such as week-to-date, month-to-date, and so forth. The other group is used to request reports for reporting periods which have already ended.

Literals for to-date reporting and their meanings are as follows:

- TODAY** - Indicates all data with the current date.
- TWEEK** - Indicates all data produced this calendar week, last Sunday's date through today.
- TMNTH** - Indicates all data produced this calendar month, beginning with the date of the first day of the current month through today.
- TQRTR** - Indicates all data produced this quarter, beginning with the date of the first day of the month two months ago, plus the current month through today. (**Not** calendar quarter.)
- nnHRS** - Indicates nn hours. (This is particularly useful for the Recovery aid reports.)
- nnDAY** - Indicates nn days through current date/time.

Literals for prior reporting periods (whose end times have already passed) and their meanings are as follows:

- nDAY** - Indicates the previous n 24-hour periods. This generates a control statement with a beginning time of 0000 and an ending time of 2400, encompassing the number of days specified by n (where ending date/time is yesterday at midnight).
- LWEEK** - Indicates the previous Sunday through Saturday.
- LMNTH** - Indicates the previous calendar month.
- LQRTR** - Indicates the previous three consecutive months.

3.1.4.3 SASSHIS8 Sample Ranges

Any of the following could be used on Sunday, January 3, 2000 to define the first week of the month.

```
00001 00007 (uses defaults of 0000 and 2400 for time-of-day values)
000010000000072400
000010000000080000
LWEEK
```

The same could be accomplished on Saturday, January 2, after all other processing was completed, with TWEEK (by itself, instead of LWEEK) or the other examples above.

If the definition of a reporting day was 8:00 AM to 8:00 AM, the first situation would be specified as either of the following:

```
000010800000080800
LWEEK0800
```

If the reporting job was to be run on Saturday, January 2, the literal in this second example would also have to be TWEEK instead of LWEEK.

3.1.4.4 Reporting Periods, Days, or Hours

The simple use for **nnDAY** is to obtain a report for nn days up to today. Similarly, the simple use for **nnHRS** is for getting reports for the preceding nn hours. For example:

```
48HRS
```

(with no from or to date and time) generates a report covering 48 hours to the present time. But from and to dates and time can be used to get reports covering nn hour or day periods ending in the past rather than today. For example:

```
02DAY97001
```

generates a report covering two days beginning the first day of 1997.

If **to** date and time are also given, the period reported is backed off from the **to** date and time. Basically, the **from** date and time are ignored if necessary to conform to the period of time designated. Thus:

```
24HRS970010001972022400
```

generates a 24 hour report from midnight, July 21, 1997 to midnight the next day. The from date and time are ignored.

3.1.4.5 SASSHIS8 Scheduling Considerations

Since literals for specifying reporting periods are relative to the current system date, care must be taken when scheduling report runs.

If a weekly report is to be produced every week using a control record with the LWEEK literal, the job must be scheduled to run after midnight on Saturday to ensure that the correct period is reported. Similarly, for monthly reports with the LMNTH literal, the job would have to run on the first day of the following month (or anytime during that month).

If a weekly report is to be produced after all work has been completed, but before midnight Saturday, the TWEEK literal must be used. For this same situation for a monthly report, the literal TMNTH would be used.

The same beginning (or From) date considerations apply also to daily and quarterly reports.

3.1.4.6 Reporting Quarter Definition

It is important to note that the definition of a quarter with these facilities, LQRTR and TQRTR, is **any** three consecutive months. If reports must correspond to any particular range of three months, the reporting job has to be run either in the next month following completion of those months whenever LQRTR is used, or before the end of the third month whenever TQRTR is used. Of course, specific values could always be provided for From Date, From Time, Thru Date, and Thru Time to define the desired reporting boundaries.

3.1.4.7 Reporting Day Definition

It is also important to note that the definition of a day, with all available literal options, is a 24-hour period from midnight-to-midnight. Weeks, months, and quarters are also based on midnight of the days included.

If the user wishes to report on a different definition of a day, such as 8:00 AM to 8:00 AM, the From Time-of-day field is used to specify the appropriate beginning of a day. For example, LWEEK0800 would indicate that the previous week was to be reported, from Sunday at 8:00 AM through the following Sunday at 8:00 AM. It is implied that the day is still 24 hours in length no matter when it begins. Therefore, **no Thru** Time-of-day is allowed in the control record when any of the literals are specified in the From Date field. This is not true for explicit ranges, only for the literals.

3.1.5 SASSHIS8 Control Record Formats

The following are the formats for each of the control records in report ID number sequence.

3.1.5.1 Report 01 - Scheduled Jobs Not Run

Report ID Identifies requested report as Scheduled Jobs Not Run.

Positions: 01-02
 Value: 01
 Required: yes
 Default: none

Request ID

Identifies a literal which is printed on burst pages in front of the report. Additional burst pages with the literal END PAGE are printed at the back of the report. This code, in combination with the Report ID field, must be a unique, 10-character combination within a given run of SASSHIS8.

Positions: 03-10
 Value: alphanumeric
 Required: no
 Default: blanks

From Date

Indicates either the start of the reporting period for the report or one of the reserved literals for defining the reporting period boundaries.

Positions: 11-15
 Value: numeric (in yyddd format) or reserved literal
 Required: no
 Default: earliest date on files

From Time

Indicates the starting time-of-day on From Date of the reporting period.

Positions: 16-19
 Value: numeric (hhmm)
 Required: no
 Default: earliest time-of-day for From Date (above)

Thru Date

Indicates the end of the reporting period for the report.

Positions: 20-24
 Value: numeric (yyddd)
 Required: no
 Default: latest date on files

Thru Time

Indicates the ending time-of-day for Thru Date of the reporting period.

Positions: 25-28
Value: numeric (hhmm)
Required: no
Default: latest time-of-day on Thru Date

Reserved

Position: 29
Reserved for CA use.

Main ID Specifies the system ID as defined to CA-7 (a value of 1 would imply SY1).

Position: 30
Value: numeric
Required: no
Default: all systems

Sort Contains 3 digits whose order controls the sequence of the report. Any combination of the following digits may be specified:

Digit	Description
1	Date/time
2	Job name
3	System ID

Positions: 31-33
Value: numeric
Required: no
Default: 231

User Comments

Free space for user comments.

Positions: 34-80
Value: alphanumeric
Required: no
Default: none

3.1.5.2 Report 02 - Transaction Detail

Report ID Identifies the requested report as Transaction Detail.

Positions: 01-02
 Value: 02
 Required: yes
 Default: none

Request ID

Identifies a literal which is printed on burst pages in front of the report. Additional burst pages with the literal END PAGE are printed at the back of the report. This code, in combination with the Report ID field, must be a unique, 10-character combination within a given run of SASSHIS8. This is also used within the sort key to separate multiple requests for the same report ID.

Positions: 03-10
 Value: alphanumeric
 Required: no
 Default: blanks

From Date

Indicates either the start of the reporting period for the report or one of the reserved literals for defining the reporting period boundaries.

Positions: 11-15
 Value: numeric (in yyddd format) or reserved literal
 Required: no
 Default: earliest date on files

From Time

Indicates the starting time-of-day for From Date of the reporting period.

Positions: 16-19
 Value: numeric (hhmm)
 Required: no
 Default: earliest time-of-day on From Date (above)

Thru Date

Indicates the end of the reporting period for the report.

Positions: 20-24
 Value: numeric (yyddd)
 Required: no
 Default: latest date on files

Thru Time

Indicates the ending time-of-day for Thru Date of the reporting period.

Positions: 25-28
 Value: numeric (hhmm)
 Required: no
 Default: latest time-of-day on Thru Date

Reserved Any nonblank in this column causes the report to not show formatted screen images.

Position: 29

Value: blank or any character

Screen Paging

Specifies where formatted screen images are to appear on the page.

Position:

30

Value: O - Midscreen page overflow is acceptable; this is the default.

S - Put entire screen on the same page.

T - Start each screen at the top of a new page.

Blank Lines

Specifies whether blank lines on formatted screens are wanted.

Position:

31

Value: Y - Blank lines are printed; this is the default.

N - Blank lines not printed.

Terminal ID

Specifies the terminal from which the transactions in this report originated.

Positions: 32-38

Value: alphanumeric

Required: no

Default: all terminals on CA-7

Sort

The order of the digits (left-justified) controls the sequence of this report. Any combination of the following digits may be specified:

Digit	Description
--------------	--------------------

1	Date/time the log record was written
----------	--------------------------------------

2	Operator ID
----------	-------------

3	Terminal ID
----------	-------------

Positions: 39-40

Value: numeric

Required: no

Default: 31

Reserved

Position: 41

Reserved for CA use.

Operator ID

Specifies the operator whose transactions are to be selected for this report. The Operator ID may be used in combination with Terminal ID. The value of *ALL* may be entered to request all operator names be selected and listed. The value of *NA* or blanks may be used to request that all operator names be selected but none listed. If LOGOPID=N is specified in the initialization file, no sorting or selection by Operator ID is possible and *NA* is indicated in reporting.

Position: 42-49

Value: alphanumeric

Required: no

Default: blank -- all operators are selected, but *NA* is listed on the report as the operator ID

User Comments

Free space for user comments.

Positions: 50-80

Value: alphanumeric

Required: no

Default: none

3.1.5.3 Report 03 - Log Dump

Report ID Identifies the requested report as Log Dump.

Positions: 01-02
Value: 03
Required: yes
Default: none

Request ID

Identifies a literal which is printed on burst pages in front of the report. Additional burst pages with the literal END PAGE are printed at the back of the report. This code, in combination with the Report ID field, must be a unique, 10-character combination within a given run of SASSHIS8. This is also used within the sort key to separate multiple requests for the same report ID.

Positions: 03-10
Value: alphanumeric
Required: no
Default: blanks

From Date

Indicates either the start of the reporting period for the report or one of the reserved literals for defining the reporting period boundaries.

Positions: 11-15
Value: numeric (in yyddd format) or reserved literal
Required: no
Default: earliest date on files

From Time

Indicates the starting time-of-day for From Date of the reporting period.

Positions: 16-19
Value: numeric (hhmm)
Required: no
Default: earliest time-of-day on From Date

Thru Date

Indicates the end of the reporting period for the report.

Positions: 20-24
Value: numeric (yyddd)
Required: no
Default: latest date on files

Thru Time

Indicates the ending time-of-day for Thru Date of the reporting period.

Positions: 25-28
Value: numeric (hhmm)
Required: no
Default: latest time-of-day on Thru Date

Record Type

Positions: 29-30

Value: hexadecimal representation of record type

Required: no

Default: all log records on CA-7

Code	Log Record Type
blanks	All Log Records
04	Step Termination
05	Job Termination
0E	Input Data Set (EOF)
0F	Output Data Set (EOF)
14	Job Start
1A	Job Purge
43	Master Station Messages
64	CA-7 Start
65	CA-7 End
67	Schedule Scan
68	JCL Creation
69	Queue Movement
72	Input Transaction
73	Close Pass/End of Output (EM Call)
75	POST Transactions
76	JCL Error from IEFUJV
81	/LOG Command
82	Scheduled Jobs Not Run
83	VRM Post
84	VRM Error
85	VRM Eval
8A	ARF Activity
90	Job Data for Load
91	Step Data for Load
92	DD Data for Load
93	Requirement Data for Load

94	DSRECD Data for Load
98	SVC Close (Similar to 05 for a job)
99	SVC Post (Similar to 0F for a job)
A1	Statistics Interval
A2	Control Block Status
A3	SASSXX10 Modified Job Data
AF	ARF Statistics
C1	Security Exception
C9	Autorequeue IPL

Sort The order of the digits (left-justified) controls the sequence of this report. Any combination of two of the following three digits may be specified:

Digit	Description
1	Date/time log record was written
2	Record type
3	SCT address (terminal)

Positions: 31-32
Value: numeric
Required: no
Default: 1

User Comments

Free space for user comments.

Positions: 33-80
Value: alphanumeric
Required: no
Default: none

3.1.5.4 Report 04 - Scheduled Versus Actual Job

Report ID Identifies the requested report as Scheduled Versus Actual Job.

Positions: 01-02
 Value: 04
 Required: yes
 Default: none

Request ID

Identifies a literal which is printed on burst pages in front of the report. Additional burst pages with the literal END PAGE are printed at the back of the report. This code, in combination with the Report ID field, must be a unique, 10-character combination within a given run of SASSHIS8. This is also used within the sort key to separate multiple requests for the same report ID.

Positions: 03-10
 Value: alphanumeric
 Required: no
 Default: blanks

From Date

Indicates either the start of the reporting period for the report or one of the reserved literals for defining the reporting period boundaries.

Positions: 11-15
 Value: numeric (in yyddd format) or reserved literal
 Required: no
 Default: earliest date on files

From Time

Indicates the starting time-of-day for From Date of the reporting period.

Positions: 16-19
 Value: numeric (hhmm)
 Required: no
 Default: earliest time-of-day on From Date

Thru Date

Indicates the end of the reporting period for the report.

Positions: 20-24
 Value: numeric (yyddd)
 Required: no
 Default: latest date on files

Thru Time

Indicates the ending time-of-day on Thru Date of the reporting period.

Positions: 25-28
 Value: numeric (hhmm)
 Required: no
 Default: latest time-of-day on Thru Date

Job Name Specifies the name of the job to be reported. An asterisk (*) denotes a generic request.

Positions: 29-36
Value: alphanumeric
Required: no
Default: all job names in CA-7

CA-7 Job Number

Indicates the CA-7 job number of the job to be reported.

Positions: 37-40
Value: numeric
Required: no
Default: all CA-7 numbers

Severity Scale ID

Name of the module providing a scale to graph the report. The module must be link edited as SASSDSxx, where xx is the Severity Scale ID. Module SASSDS is the CA-7 default module. (Refer to 3.1.6, "Differential Severity Scale" on page 3-35.)

Positions: 41-42
Value: alphanumeric (in xx format - CR must **not** be used)
Required: no
Default: SASSDS

Sort Controls the sequence of the report. Any combination (left-justified) of the following may be used:

Digit	Description
1	Date/time the log record was written
2	Job name
3	CA-7 job number

Positions: 43-46
Value: numeric
Required: no
Default: 231

SUM Indicates only the last page of the report is created, showing percentage totals by severity level. (Refer to 3.1.6, “Differential Severity Scale” on page 3-35.)

Positions: 47-49

Value: SUM

Required: no

Default: none

User Comments

Free space for user comments.

Positions: 50-80

Value: alphanumeric

Required: no

Default: none

3.1.5.5 Report 05 - Scheduled Versus Actual Station Report

Report ID Identifies the requested report as Scheduled Versus Actual Station.

Positions: 01-02

Value: 05

Required: yes

Default: none

Request ID Identifies a literal which is printed on burst pages in front of the report. Additional burst pages with the literal END PAGE are printed at the back of the report. This code, in combination with the Report ID field, must be a unique, 10-character combination within a given run of SASSHIS8. This is also used within the sort key to separate multiple requests for the same report ID.

Positions: 03-10

Value: alphanumeric

Required: no

Default: blanks

From Date Indicates either the start of the reporting period for the report or one of the reserved literals for defining the reporting period boundaries.

Positions: 11-15

Value: numeric (in yyddd format) or reserved literal

Required: no

Default: earliest date on files

From Time Indicates the starting time-of-day on From Date of the reporting period.

Positions: 16-19

Value: numeric (hhmm)

Required: no

Default: earliest time-of-day on From Date

Thru Date Indicates the end of the reporting period for the report.

Positions: 20-24

Value: numeric (yyddd)

Required: no

Default: latest date on files

Thru Time Indicates the ending time-of-day on Thru Date of the reporting period.

Positions: 25-28

Value: numeric (hhmm)

Required: no

Default: latest time-of-day on Thru Date

Workstation Name

Specifies the workstation to be reported. An asterisk (*) in any position after the first character denotes a generic request.

Positions: 29-36
 Value: alphanumeric
 Required: no
 Default: all workstations

Job Name Specifies the job to be reported. An asterisk (*) in any position after the first character denotes a generic request.

Positions: 37-44
 Value: alphanumeric
 Required: no
 Default: all jobs

Network Name

Specifies the network to be reported. An asterisk (*) in any position after the first character denotes a generic request.

Positions: 45-52
 Value: alphanumeric
 Required: no
 Default: all networks

Sub-ID Name

Specifies the sub-ID to be reported. An asterisk (*) in any position after the first character denotes a generic request.

Positions: 53-60
 Value: alphanumeric
 Required: no
 Default: all sub-IDs

CA-7 Job Number

Indicates the CA-7 job number to be reported.

Positions: 61-64
 Value: numeric
 Required: no
 Default: all CA-7 numbers

Severity Scale ID

The name of the module providing a scale to graph the report. The module must be link edited as SASSDSxx, where xx is the Severity Scale ID. Module SASSDS is the CA-7 default module. (Refer to 3.1.6, "Differential Severity Scale" on page 3-35.)

Positions: 65-66
 Value: alphanumeric (in xx format - CR must **not** be used)
 Required: no
 Default: SASSDS

Sort Controls the sequence of the report. Any combination (left-justified) of five of the following can be specified:

Digit	Description
1	Date/time the log record was written
2	Station name
3	Job name
4	Network name
5	Sub-ID name
6	CA-7 job number

Positions: 67-71
Value: numeric
Required: no
Default: 31

SUM Indicates only the last page of the report is created, showing percentage totals by severity level. (Refer to 3.1.6, "Differential Severity Scale" on page 3-35.)

Positions: 72-74
Value: SUM
Required: no
Default: none

User Comments

Free space for user comments.

Positions: 75-80
Value: alphanumeric
Required: no
Default: none

3.1.5.6 Report 06 - Job Processing Activity Report

Report ID Identifies the requested report as Job Processing Activity.

Positions: 01-02
 Value: 06
 Required: yes
 Default: none

Request ID

Identifies a literal which is printed on burst pages in front of the report. Additional burst pages with the literal END PAGE are printed at the back of the report. This code, in combination with the Report ID field, must be a unique, 10-character combination within a given run of SASSHIS8. This is also used within the sort key to separate multiple requests for the same report ID.

Positions: 03-10
 Value: alphanumeric
 Required: no
 Default: blanks

From Date

Indicates either the start of the reporting period for the report or one of the reserved literals for defining the reporting period boundaries.

Positions: 11-15
 Value: numeric (in yyddd format) or reserved literal
 Required: no
 Default: earliest date on files

From Time

Indicates the starting time-of-day on From Date of the reporting period.

Positions: 16-19
 Value: numeric (hhmm)
 Required: no
 Default: earliest time-of-day on From Date (above)

Thru Date

Indicates the end of the reporting period for the report.

Positions: 20-24
 Value: numeric (yyddd)
 Required: no
 Default: latest date on files

Thru Time

Indicates the ending time-of-day on Thru Date of the reporting period.

Positions: 25-28
 Value: numeric (hhmm)
 Required: no
 Default: latest time-of-day on Thru Date

Job Name Specifies the job to be reported. An asterisk (*) in any position after the first character denotes a generic request.

Positions: 29-36
Value: alphanumeric
Required: no
Default: all jobs

Reserved

Positions: 37-38
Reserved for CA use.

Sort The order of the digits (left-justified) controls the sequence of the report. Any combination of the following can be used:

Digit	Description
1	Date/time the log record was written
2	Job name
3	System ID

Positions: 39-41
Value: numeric
Required: no
Default: 123

Index Indicates only the first part of the report is produced, showing a one line index entry per job.

Positions: 42-46
Value: INDEX
Required: no
Default: none

CPU ID Indicates the system to be reported. The system ID is the SMFID in the SMF record.

Positions: 47-50
Value: alphanumeric
Required: no
Default: all system IDs

User Comments

Free space for user comments.

Positions: 51-80
Value: alphanumeric
Required: no
Default: none

3.1.5.7 Report 07 - Workstation Activity Report

Report ID	Identifies the requested report as Workstation Activity. Positions: 01-02 Value: 07 Required: yes Default: none
Request ID	Identifies a literal which is printed on burst pages in front of the report. Additional burst pages with the literal END PAGE are printed at the back of the report. This code, in combination with the Report ID field, must be a unique, 10-character combination within a given run of SASSHIS8. This is also used within the sort key to separate multiple requests for the same report ID. Positions: 03-10 Value: alphanumeric Required: no Default: blanks
From Date	Indicates either the start of the reporting period for the report or one of the reserved literals for defining the reporting period boundaries. Positions: 11-15 Value: numeric (in yyddd format) or reserved literal Required: no Default: earliest date on files
From Time	Indicates the starting time-of-day on From Date of reporting period. Positions: 16-19 Value: numeric (hhmm) Required: no Default: earliest time-of-day on From Date (above)
Thru Date	Indicates the end of the reporting period for the report. Positions: 20-24 Value: numeric (yyddd) Required: no Default: latest date on files
Thru Time	Indicates the ending time-of-day on Thru Date of the reporting period. Positions: 25-28 Value: numeric (hhmm) Required: no Default: latest time-of-day on Thru Date

Workstation Name

Specifies the workstation to be reported. An asterisk (*) in any position after the first character denotes a generic request.

Positions: 29-36
Value: alphanumeric
Required: no
Default: all workstations

Network Name

Specifies the network to be reported. An asterisk (*) in any position after the first character denotes a generic request.

Positions: 37-44
Value: alphanumeric
Required: no
Default: all networks

Job Name

Specifies the job to be reported. An asterisk (*) in any position after the first character denotes a generic request.

Positions: 45-52
Value: alphanumeric
Required: no
Default: all jobs

Sort

The order of the digits (left-justified) controls the sequence of the report. Any combination of the following may be used.

Digit	Description
1	Date/time the log record was written
2	Station name
3	Job name
4	Network name

Positions: 53-56
Value: numeric
Required: no
Default: 21

User Comments

Free space for user comments.

Positions: 57-80
Value: alphanumeric
Required: no
Default: none

3.1.5.8 Report 08 - Master Station Activity

Report ID Identifies the requested report as Master Station Activity.

Positions: 01-02
 Value: 08
 Required: yes
 Default: none

Request ID

Identifies a literal which is printed on burst pages in front of the report. Additional burst pages with the literal END PAGE are printed at the back of the report. This code, in combination with the Report ID field, must be a unique, 10-character combination within a given run of SASSHIS8. This is also used within the sort key to separate multiple requests for the same report ID.

Positions: 03-10
 Value: alphanumeric
 Required: no
 Default: blanks

From Date

Indicates either the start of the reporting period for the report or one of the reserved literals for defining the reporting period boundaries.

Positions: 11-15
 Value: numeric (in yyddd format) or reserved literal
 Required: no
 Default: earliest date on files

From Time

Indicates the starting time-of-day for From Date of the reporting period.

Positions: 16-19
 Value: numeric (hhmm)
 Required: no
 Default: earliest time-of-day on From Date (above)

Thru Date

Indicates the end of the reporting period for the report.

Positions: 20-24
 Value: numeric (yyddd)
 Required: no
 Default: latest date on files

Thru Time

Indicates the ending time-of-day for Thru Date of the reporting period.

Positions: 25-28
 Value: numeric (hhmm)
 Required: no
 Default: latest time-of-day on Thru Date

Reserved

Positions: 29-31
Reserved for CA use.

User Comments

Free space for user comments.

Positions: 32-80
Value: alphanumeric
Required: no
Default: none

3.1.5.9 Report 30 - Security Exceptions

Report ID Identifies the requested report as Security Exceptions.

Positions: 01-02
 Value: 30
 Required: yes
 Default: none

Request ID

Identifies a literal which is printed on burst pages in front of the report. Additional burst pages with the literal END PAGE are printed at the back of the report. This code, in combination with the Report ID field, must be a unique, 10-character combination within a given run of SASSHIS8. This is also used within the sort key to separate multiple requests for the same report ID.

Positions: 03-10
 Value: alphanumeric
 Required: no
 Default: blanks

From Date

Indicates either the start of the reporting period for the report or one of the reserved literals for defining the reporting period boundaries.

Positions: 11-15
 Value: numeric (in yyddd format) or reserved literal
 Required: no
 Default: earliest date on files

From Time

Indicates the starting time-of-day for From Date of the reporting period.

Positions: 16-19
 Value: numeric (hhmm)
 Required: no
 Default: earliest time-of-day on From Date (above)

Thru Date

Indicates the end of the reporting period for the report.

Positions: 20-24
 Value: numeric (yyddd)
 Required: no
 Default: latest date on files

Thru Time

Indicates the ending time-of-day for Thru Date of the reporting period.

Positions: 25-28
 Value: numeric (hhmm)
 Required: no
 Default: latest time-of-day on Thru Date

Reserved

Position: 29
Reserved for CA use.

User Comments

Free space for user comments.

Positions: 30-80
Value: alphanumeric
Required: no
Default: none

3.1.5.10 Report 50 - Recovery Aid Output

The recovery aid output consists of the following four separate outputs:

SASSRA01	Last Logged Status of Jobs Report
SASSRA02	Generated Batch Terminal Interface Commands Report
SASSRA03	Simulated LQ Display of Jobs Report
COMMANDS	Recovery Aid Batch Commands

Considerations for generating these outputs are discussed in the "Backup and Recovery Considerations" chapter of the *CA-7 Systems Programmer Guide* under the topic "Disaster Recovery."

Report ID Identifies the requested output as recovery aid reports.

Positions: 01-02
 Value: 50
 Required: yes
 Default: none

Request ID

Identifies a literal which is printed on burst pages in front of the report. Additional burst pages with the literal END PAGE are printed at the back of the report. This code, in combination with the Report ID field, must be a unique, 10-character combination within a given run of SASSHIS8. This is also used within the sort key to separate multiple requests for the same report ID.

Positions: 03-10
 Value: alphanumeric
 Required: no
 Default: none

From Date

Indicates either the start of the reporting period for the report or one of the reserved literals for defining the reporting period boundaries.

Positions: 11-15
 Value: numeric (yyddd) or reserved literal
 Required: yes
 Default: earliest date on files

From Time

Indicates the starting time-of-day for From Date of the reporting period. The beginning date/time should never be older than the last COLD or FORM start. This causes some data to be selected unnecessarily and to be discarded in the reporting phase. If the selected log data includes a startup record for FORM or COLD start, the following message appears on the report: LAST COLD OR FORM START PERFORMED ON mm-dd-yy AT hh:mm.

Positions: 16-19
Value: numeric (hhmm)
Required: no
Default: earliest time-of-day on From Date (above)

Thru Date

Indicates the end of the reporting period for the report.

Positions: 20-24
Value: numeric (yyddd)
Required: no
Default: latest date on files

Thru Time

Indicates the ending time-of-day on the Thru Date of the reporting period.

Positions: 25-28
Value: numeric (hhmm)
Required: no
Default: latest time-of-day on Thru Date

Command Type

The entry of DEMAND or DEMANDH causes the generation of commands into the COMMANDS data set (for use with the Batch Terminal Interface facility) and the SASSRA02 report. If this field is blank, the commands are not generated and the SASSRA02 report is **not** produced.

Positions: 29-35
Value: alpha (DEMAND or DEMANDH)
Required: no
Default: none

Reserved

Position: 36

User Comments

Free space for user comments.

Positions: 37-80
Value: alphanumeric
Required: no
Default: none

3.1.5.11 Report 70 - Internal Activity Trace

Report ID Identifies the requested report as Internal Activity Trace.

Positions: 01-02
 Value: 70
 Required: yes
 Default: none

Request ID

Identifies a literal which is printed on burst pages in front of the report. Additional burst pages with the literal END PAGE are printed at the back of the report. This code, in combination with the Report ID field, must be a unique, 10-character combination within a given run of SASSHIS8. This is also used within the sort key to separate multiple requests for the same report ID.

Positions: 03-10
 Value: alphanumeric
 Required: no
 Default: blanks

From Date

Indicates either the start of the reporting period for the report or one of the reserved literals for defining the reporting period boundaries.

Positions: 11-15
 Value: numeric (in yyddd format) or reserved literal
 Required: no
 Default: earliest date on files

From Time

Indicates the starting time-of-day for From Date of the reporting period.

Positions: 16-19
 Value: numeric (hhmm)
 Required: no
 Default: earliest time-of-day on From Date (above)

Thru Date

Indicates the end of the reporting period for the report. Not used if From Date contains one of the reserved literals.

Positions: 20-24
 Value: numeric (yyddd)
 Required: no
 Default: latest date on files

Thru Time

Indicates the ending time-of-day for Thru Date of the reporting period. Not used if From Date contains one of the reserved literals.

Positions: 25-28

Value: numeric (hhmm)

Required: no

Default: latest time-of-day on Thru Date

Reserved

Positions: 29-31

Reserved for CA use.

User Comments

Free space for user comments.

Positions: 32-80

Value: alphanumeric

Required: no

Default: none

3.1.6 Differential Severity Scale

The Differential Severity Scale provides a graphic breakdown, on reports SASSHR04 and SASSHR05, of the difference between scheduled and actual start and completion times for jobs and workstations. The scale consists of 80-character statements assembled and link edited as SASSDSxx, where xx is a unique, 2-character ID other than CR. There are 13 levels in the scale which rate actual versus scheduled times from the earliest to the latest.

Following is the Differential Severity Scale in the CA-7 default module, SASSDS. Refer to member L23331 in SAMPJCL for a sample SMP update of SASSDS.

Differential Severity Scale

SASSDS	CSECT			
	DC	C' '	(severity scale ID)	1
	DC	C'-99998'		2
	DC	C'-00500'		3
	DC	C'-00100'		4
	DC	C'-00030'		5
	DC	C'-00010'		6
	DC	C'-00002'		7
	DC	C'+00002'		8
	DC	C'+00005'		9
	DC	C'+00010'		10
	DC	C'+00030'		11
	DC	C'+00100'		12
	DC	C'+00500'		13
	DC	C'+99999'		14
	END			15
				16

Statements 3 through 15 contain the scale. The character definition represents the number of hours and minutes early or late, in the following format:

```
C'shhmm'
```

Where:

s
indicates the sign, either early (-) or late (+).

hhh
indicates the number of hours either early or late.

mm
indicates the number of minutes either early or late.

All levels need not be used. Zeros in the s, hhh, and mm fields are required to omit a level.

3.1.7 Sample History Reporting JCL

The following is a sample of the JCL needed to produce history reports. Refer also to cataloged procedure CA7LOG and job N530 from the installation process.

```

//jobname JOB local jobcard statement *
//REPORTS EXEC PGM=SASSHIS8 *
//COMMANDS DD DISP=(,CATLG,DELETE),DSN=user.recovery.commands, *
//          DCB=(RECFM=FB,LRECL=80,BLKSIZE=nnnn), *
//          UNIT=SYSDA,SPACE=(CYL,(1,1),RLSE) *
//SASSRA01 DD SYSOUT=a *
//SASSRA02 DD SYSOUT=a *
//SASSRA03 DD SYSOUT=a *
//SORTWK01 DD UNIT=SYSDA,SPACE=(CYL,(2,2))
//SORTWK02 DD UNIT=SYSDA,SPACE=(CYL,(2,2))
//SORTWK03 DD UNIT=SYSDA,SPACE=(CYL,(2,2))
//SORTWK04 DD UNIT=SYSDA,SPACE=(CYL,(2,2))
//SORTWK05 DD UNIT=SYSDA,SPACE=(CYL,(2,2))
//SORTWK06 DD UNIT=SYSDA,SPACE=(CYL,(2,2))
//STEP LIB DD DISP=SHR,DSN=user.loadlib *
//SYSIN DD *
control records go here <====< *
//SYSLIST DD SYSOUT=a *
//SYSOUT DD SYSOUT=a *
//SYSUDUMP DD SYSOUT=a *
//UCC7ARCH DD DISP=SHR,DSN=user.logarch(0) *
//UCC7HIST DD DISP=SHR,DSN=user.loghist(0) *

* Designates statements that require user-supplied information.
  Lowercase characters within the statement identify the required
  user-defined information.

```

Figure 3-2. SASSHIS8 JCL

3.2 Control Statement Edit Report SASSHIS8

This report lists all control statements input with any detected errors. The report is produced during each run of SASSHIS8.

SASSHIS8										C A - 7 - CONTROL CARD EDIT										01/04/yy 13:11										PAGE 001									
1 0 1 1 2 2 3 3 4 4 5 5 6 6 7 7 8										EDIT COMMENTS										2																			
5...0...5...0...5...0...5...0...5...0...5...0...5...0...5...0...5...0																																							
08BROWSE																				HIS8-09 NO ERRORS WERE DETECTED.																			
08BROWSE 0000000099999999																				HIS8-18 CONTROL CARD EDIT FINAL RESULTS.																			
SASSHIS8										C A - 7 - CONTROL CARD EDIT										01/04/yy 13:11										PAGE 002									
0 1 1 2 2 3 3 4 4 5 5 6 6 7 7 8										EDIT COMMENTS																													
5...0...5...0...5...0...5...0...5...0...5...0...5...0...5...0																																							
3 *** T O T A L S ***										001 CARDS READ.																													
										001 CARDS ACCEPTED.																													
										000 CARDS REJECTED.																													
0001150 ...LOG RECORDS READ:																																							
0000322 ...RECORDS EXTRACTED FOR --- 08 BROWSE																				4																			

Item Description

- 1** Displays the statement in its entirety below an 80-character, positional scale.
- 2** Displays any messages relating to each statement.
- 3** Displays processing totals for this run of SASSHIS8, as follows:
 - Number of CARDS READ
 - Number of CARDS ACCEPTED
 - Number of CARDS REJECTED
- 4** Number of RECORDS EXTRACTED FOR each of the SASSHIS8 history report control statements.

3.3 SASSHIS8 History Reports

This topic discusses each of the history reports, followed by detailed field descriptions. The reports are:

- Scheduled Jobs Not Run
- Transaction Detail
- Log Dump
- Scheduled Versus Actual Job
- Scheduled Versus Actual Station
- Job Processing Activity
- Workstation Activity
- Master Station Activity
- Internal Activity Trace
- Security Exception
- Recovery Aid Reports
 - Last Logged Status of Jobs
 - Generated Batch Terminal Interface Commands
 - Simulated LQ Display of Jobs

3.3.1 Scheduled Jobs Not Run Report SASSHR01

This report displays all jobs scheduled by CA-7 that did not run and the reasons for job failures.

SASSHR01	C A - 7 - SCHEDULED JOBS NOT RUN										03/14/yy 15:51		PAGE 001			
JOB NAME	CA-7 NO	SCHD ID	MAIN ID	REQUIREMENTS				DUE-OUT		DEAD-LINE		SUBMIT		FLAGS	COMMENTS	
				E	I	EN	IN	MC	DATE	TIME	DATE	TIME	DATE	TIME		
PKFIS587	0678	103	SY0	00	01	00	00	01	02/01/yy	11:32	02/01/yy	11:17	02/01/yy	11:12	18 08 00 01 10 10 40	CANCEL REQ
PPDTC500	0739	002	SY0	00	01	00	01	01	02/01/yy	20:00	02/01/yy	19:51			00 08 00 01 00 00 00	CANCEL REQ
PPMGK711	0647	001	SY0	03	04	00	01	01	02/01/yy	11:20	02/01/yy	11:09	02/01/yy	10:45	10 48 00 01 00 00 00	CANCEL REQ
PPPTR901	0000	001	SY0	00	00	00	00	00	02/01/yy	14:00	02/01/yy	13:53	02/01/yy	12:00	00 00 08 00 00 10 00	NXT CY OFF
	1	2	3	4	5				6		7		8		9	10
SASSHR01 C A - 7 - SCHEDULED JOBS NOT RUN 03/14/yy 15:51 PAGE 002																
JOB NAME	CA-7 NO	SCHD ID	MAIN ID	REQUIREMENTS				DUE-OUT		DEAD-LINE		SUBMIT		FLAGS	COMMENTS	
				E	I	EN	IN	MC	DATE	TIME	DATE	TIME	DATE	TIME		
*** T O T A L S ***																
	14	13	12	11	>	00004										JOB NOT RUN.
					>	0000:42										WORK ON HAND.
					>	0000298										JOB RUN.
					>	001.34										PERCENTAGE NOT RUN.
*** E N D O F R E P O R T ***																

Item Description

- 1** CA-7 job name.
- 2** CA-7 job number.
- 3** CA-7 schedule ID.
- 4** CA-7 system ID.
- 5** The status of the job requirements subdivided as follows:
 - E** External requirements satisfied
 - I** Internal requirements satisfied
 - EN** External requirements not satisfied
 - IN** Internal requirements not satisfied
 - MC** Master requirements count
- 6** Date and time by which the job must be complete.
- 7** Date and time by which the job must start.
- 8** Date and time the job was submitted.
- 9** Job status flags from the JQREC control block. Refer to fields JQFLG1, JQFLG2, and JQJFLG1 through JQJFLG5 (in that order) in the JQREC macro for details on these flag bytes.

10 Comments explaining why the job did not run, according to the following:

Comment	Description
BEFORE/AFTER	Job did not meet the DONT SCHEDULE BEFORE/AFTER CRITERIA.
CANCEL xxx	Job was scheduled but canceled in the xxx queue.
DUPLICATE	Job was considered to have already run earlier. This can occur when the SSCAN command is used and the PERSTART command is used to set the time backwards.
LOCKED	Job schedule was locked.
NXT CY OFF	Job set off for next cycle.
Q ERROR	A CA-7 queue error occurred. The log data should be checked for a more detailed error message at the time the job was to be scheduled.
SKIP NXTCY	Job set to skip next cycle.

11 The total number of jobs that were not run for some reason.

12 The forecasted elapsed time required to complete the jobs which have not yet executed as of the end of the reporting period.

13 The total number of jobs that were run during this reporting period.

14 The percentage of total jobs that were not run. Calculated as JOBS NOT RUN divided by JOBS RUN count.

3.3.2 Transaction Detail Report SASSHR02

This report displays all of the CA-7 input transactions.

SASSHR02		CA - 7 - TRANSACTION DETAIL			01/04/yy 11:13	PAGE 001
TERMINAL ID	OPERATOR ID	DATE	TIME	TRANSACTION		
BT1	*NA*	12/31/yy	10:54:18	/LOGON		
BT1	*NA*	12/31/yy	10:54:18	PRINT, SCAL=03, YEAR=yy		
BT1	*NA*	12/31/yy	10:54:18	PRINT, SCAL=03, YEAR=yy		
BT1	*NA*	12/31/yy	10:54:18	LSCHD, DSNBR=SJ*		
BT1	*NA*	12/31/yy	10:54:19	LJOB, JOB=*		
BT1	*NA*	12/31/yy	10:54:21	FALL, SYS=*, JOB=*, FROM=(1221yy,0800), SPAN=24		
BT1	*NA*	12/31/yy	10:54:25	/LOGOFF		
BT1	*NA*	12/31/yy	12:57:32	/LOGON		
BT1	*NA*	12/31/yy	12:57:32	PRINT, SCAL=03, YEAR=yy		
BT1	*NA*	12/31/yy	12:57:32	PRINT, SCAL=03, YEAR=yy		
BT1	*NA*	12/31/yy	12:57:32	LSCHD, DSNBR=SJ*		
BT1	*NA*	12/31/yy	12:57:33	LJOB, JOB=*		
BT1	*NA*	12/31/yy	12:57:36	FALL, SYS=*, JOB=*, FROM=(1221yy,0800), SPAN=24		
BT1	*NA*	12/31/yy	12:57:40	/LOGOFF		
BT1	*NA*	12/31/yy	13:09:04	/LOGON		
BT1	*NA*	12/31/yy	13:09:05	PRINT, SCAL=03, YEAR=yy		
BT1	*NA*	12/31/yy	13:09:05	PRINT, SCAL=03, YEAR=yy		
BT1	*NA*	12/31/yy	13:09:05	LSCHD, DSNBR=SJ*		
BT1	*NA*	12/31/yy	13:09:06	LJOB, JOB=*		
BT1	*NA*	12/31/yy	13:09:09	FALL, SYS=*, JOB=*, FROM=(1221yy,0800), SPAN=24		
BT1	*NA*	12/31/yy	13:09:13	/LOGOFF		

1
 2
 3
 4
 5

*** END OF REPORT ***

Item Description

- 1** Terminal from which the input transaction was entered.
- 2** ID of operator logged on to CA-7 when the transaction was entered at the terminal identified. If the operator ID was not being logged or had logged on before the time period being reported, this field shows *UNKNOWN.

The field may also show *TBLFULL which indicates overflow of an internal table. When *TBLFULL occurs, rerun the report for a shorter time frame. If operator selection was not requested, this field shows *NA*.
- 3** Date the input transaction was entered.
- 4** Time the input transaction was entered.

- 5** Image of the transaction as reconstructed from the type 114 (X'72') Input Transaction log record. Refer to the SASS7LOG macro for a description of those records.

Top Line and Batch Transactions

Up to 92 characters per line are printed. Multiple line commands entered in batch are logged as one continuous command. If longer than 92 characters, they are divided into multiple lines on the report.

If a command is entered on the top line of a formatted screen, only the top line appears on the report.

/LOGON Commands

/LOGON commands only show the command portion of what was entered. Operator ID and password are NOT shown.

Trailer Step Commands

Commands entered through the CA-7 Trailer Step, except for /LOGON, show keywords TRJOB and TRSTEP which indicate the name of the batch job and step name of the Trailer Step which issued the commands.

Formatted Screen Transactions

An image of the screen framed within a box of asterisks. Each screen requires 26 lines of print (unless blank lines are suppressed through the request control statement).

The screen image seen at the terminal is not duplicated in the logged data. Only "modified" data fields are logged. Some fields then appear at the terminal but NOT on this report. That is, a field's content as seen at the terminal is only shown here if it was either:

- Manually entered on the screen for this transaction.
- Placed on the screen by CA-7 and flagged to be returned to CA-7 even if it is not manually changed.

For edit of JCL, and so forth with the CA-7 editor, only the lines which were changed show. In such cases, the user can see those fields that were changed during the transaction without concern for the fields that were untouched.

All screen titles and field identifiers are reconstructed here so that at least the basic format of the screen is shown whether any of the fields contained any data.

Page numbers and MESSAGE values are some examples of fields that are NOT re-created here. In other situations, job names may be shown on some screens and not be shown on the report. In those cases, CA-Earl report request CA7ER018 is of great value in determining what action was taken and the result of that action. Refer to 5.3.19, "CA7xx018 Queue Posting Activity" on page 5-39 for details on that report.

Function Aliases

Function values shown on the report reflect the native value after function alias resolution was performed. That is, the operator may enter a function of D to delete a job. Alias resolution changes that to the word DELETE before the command is logged and thus appears on the report as if the operator entered the complete word.

Formatting Options

Formatted screen options are available in the control statement to:

- cause each screen to appear at the top of a new page.
- ensure that all of a screen appears on the same page.
- suppress blank lines (if desired to conserve space on the output report).

3.3.4 Scheduled Versus Actual Job Report SASSHR04

This report displays each selected job on the basis of scheduled versus actual start, finish, and elapsed times.

1		2		3		4		5		6		7												
JOB	CA-7#	SCHEDULED		ACTUAL		DIFFERENTIAL		COMMENTS		DIFFERENTIAL SEVERITY LEVELS														
NAME	JES#									01	02	03	04	05	06	07	08	09	10	11	12	13		

8 SEVERITY LEVELS FOR --- SASSDS																								
9																								
01 - -999.98																								
02 - -005.00																								
03 - -001.00																								
04 - -000.30																								
05 - -000.10																								
06 - -000.02																								
07 - +000.02																								
08 - +000.05																								
09 - +000.10																								
10 - +000.30																								
11 - +001.00																								
12 - +005.00																								
13 - +999.99																								

SASSHR04 C A - 7 - SCHEDULED VS. ACTUAL JOB 03/14/yy 15:51 PAGE 002																								
JOB	CA-7#	SCHEDULED		ACTUAL		DIFFERENTIAL		COMMENTS		DIFFERENTIAL SEVERITY LEVELS														
NAME	JES#									01	02	03	04	05	06	07	08	09	10	11	12	13		

PCAIS902	0630	START	yy/032 10:23	yy/032 10:13	000- 00:10-	COMP (0000)								05										
		FINISH	yy/032 10:33	yy/032 10:16	000- 00:17-									05										
		ELAPSED	00/000 00:10	00/000 00:03	000- 00:07-										06									
PCAIS902	0821	START	yy/032 12:45	yy/032 12:43	000- 00:02-	COMP (0012)									06									
		FINISH	yy/032 12:55	yy/032 12:46	000- 00:09-										06									
		ELAPSED	00/000 00:10	00/000 00:03	000- 00:07-										06									
PCAIS902	****	START AVERAGE			000- 00:06-	0002									06									
		FINISH AVERAGE			000- 00:13-										05									
		ELAPSED AVERAGE			000- 00:07-											06								
PCFAR030	0727	START	yy/032 14:18	yy/032 13:46	000- 00:32-	COMP (0500)							04											
		FINISH	yy/032 14:30	yy/032 13:51	000- 00:39-								04											
		ELAPSED	00/000 00:12	00/000 00:05	000- 00:07-										06									
PCHRS305	0711	START	yy/032 12:34	yy/032 11:35	000- 00:59-	COMP (0500)							04											
		FINISH	yy/032 12:34	yy/032 11:40	000- 00:54-								04											
		ELAPSED	00/000 00:00	00/000 00:05	000+ 00:05+												08							
PCHRS310	0835	START	yy/032 13:56	yy/032 12:56	000- 01:00-	COMP (0500)						03												
*** END OF REPORT ***																								

Item Description

- 1 CA-7 job name.
CA-7 job number.
- 2 JES job number (if SMF type 30 records are being used).
- 3 Date and time the job was scheduled to START and FINISH, and the ELAPSED time.
- 4 Date and time the job did actually START and FINISH, and the ELAPSED time.
- 5 Difference between scheduled and actual activities for START, FINISH, and ELAPSED times.

- 6** Job status comments (JCL error,abend, and so forth).
- 7** Thirteen levels that correspond to the differential calculated between START, FINISH and ELAPSED times.
- 8** Differential Severity Scale used on this report. Reflects module SASSDSxx where xx are unique characters. SASSDS is the CA-7 default module.
- 9** Job statistics on a separate line for each category (START, FINISH, ELAPSED) for each of the severity levels. Statistics show the number of jobs in each category and level, and the percentage of these jobs relative to the total number of jobs for this report.

3.3.5 Scheduled Versus Actual Station Report SASSHR05

This report displays each workstation on the basis of scheduled versus actual start, finish, and elapsed times.

SASSHR05											C A - 7 - SCHEDULED VS ACTUAL STATION											03/14/yy 15:09		PAGE 001			
1	2	3	4	5	6	7	8	9	10																		
JOB NAME	NETWORK NAME	SUB ID	CA-7' NO	STATION NAME	SUB NO	SCHEDULED	ACTUAL	DIFFERENTIAL	DIFFERENTIAL SEVERITY LEVELS																		
									01	02	03	04	05	06	07	08	09	10	11	12	13						
											11 SEVERITY LEVELS FOR --- SASSDS																
											12																
											01	-	999.98														
											02	-	005.00														
											03	-	001.00														
											04	-	000.30														
											05	-	000.10														
											06	-	000.02														
											07	-	+000.02														
											08	-	+000.05														
											09	-	+000.10														
											10	-	+000.30														
											11	-	+001.00														
											12	-	+005.00														
											13	-	+999.99														
SASSHR05											C A - 7 - SCHEDULED VS ACTUAL STATION											03/14/yy 15:09		PAGE 002			
JOB NAME	NETWORK NAME	SUB ID	CA-7' NO	STATION NAME	SUB NO	SCHEDULED	ACTUAL	DIFFERENTIAL	DIFFERENTIAL SEVERITY LEVELS																		
									01	02	03	04	05	06	07	08	09	10	11	12	13						
XXFAR030	XXFAR030	FAR030	0792	TXX3	1	START yy/032 13:50	yy/032 13:46	000- 00:04-											06								
						FINISH yy/032 14:00	yy/032 13:46	000- 00:14-											05								
						ELAPSED 00/000 00:10	00/000 00:00	000- 00:10-											05								
XXWEB041	XXWEB041	WEB041	0399	TXX3	1	START yy/032 08:50	yy/032 09:05	000+ 00:15+											10								
						FINISH yy/032 09:00	yy/032 09:05	000+ 00:05+											08								
						ELAPSED 00/000 00:10	00/000 00:00	000- 00:10-											05								
XXWEB042	XXWEB042	WEB042	0485	TXX3	1	START yy/032 10:00	yy/032 10:01	000+ 00:01+											07								
						FINISH yy/032 10:10	yy/032 10:01	000- 00:09-											06								
						ELAPSED 00/000 00:10	00/000 00:00	000- 00:10-											05								
XXWEB052	XXWEB052	WEB052	0432	TXX3	1	START yy/032 09:35	yy/032 09:55	000+ 00:20+											10								
						FINISH yy/032 09:45	yy/032 09:55	000+ 00:10+											09								
						ELAPSED 00/000 00:10	00/000 00:00	000- 00:10-											05								
XXABI010	XXABI010	AUSTRLIA	0478	R616	1	START yy/032 10:00	yy/032 11:38	000+ 01:38+											05								
						FINISH yy/032 12:00	yy/032 11:38	000- 00:22-											05								
						ELAPSED 00/000 02:00	00/000 00:00	000- 02:00-											03								
XXAIS700	XXAIS700	CXXS	0482	MARBK01	1	START yy/032 10:30	yy/032 14:10	000+ 03:40+											12								
						FINISH yy/032 11:00	yy/032 14:10	000+ 03:10+											12								
						ELAPSED 00/000 00:30	00/000 00:00	000- 00:30-											04								
XXCOD070	XXCOD070	CK REG	0403	MARBK09	1	START yy/032 07:50	yy/032 13:48	000+ 05:58+											13								
						FINISH yy/032 08:00	yy/032 13:48	000+ 05:48+											13								
						ELAPSED 00/000 00:10	00/000 00:00	000- 00:10-											05								
XXNOW020	XXNOW020	MAR-TRAN	0558	TXX3	1	START yy/032 11:00	yy/032 14:25	000+ 03:25+											12								
						FINISH yy/032 12:00	yy/032 14:25	000+ 02:25+											12								
						ELAPSED 00/000 01:00	00/000 00:00	000- 01:00-											03								
XXNOW025	XXNOW025	MAR-TRAN	0619	TXX3	1	START yy/032 12:30	yy/032 14:37	000+ 02:07+											12								
						FINISH yy/032 13:00	yy/032 14:37	000+ 01:37+											12								
						ELAPSED 00/000 00:30	00/000 00:00	000- 00:30-											04								
XXOBS090	XXOBS090	MARINEOB	0794	MARBK03	1	START yy/032 14:10	yy/032 14:28	000+ 00:18+											10								
						FINISH yy/032 14:30	yy/032 14:28	000- 00:02-											06								
											*** E N D O F R E P O R T ***																

Item Description

- 1** CA-7 job name.
- 2** Name of the network for which the workstation is scheduled.
- 3** Sub-ID name associated with the network.

- 4** CA-7 job number.
- 5** Name of the workstation.
- 6** Subnumber or order of the workstation.
- 7** Date and time the workstation was scheduled to be logged in and out, and the elapsed time.
- 8** Date and time workstation was actually logged in and out, and the elapsed time.
- 9** Difference between scheduled and actual activities for START, FINISH, and ELAPSED times.
- 10** Thirteen levels that correspond to the differential calculated between START, FINISH, and ELAPSED times.
- 11** Differential Severity Scale used on this report. Reflects module SASSDSxx where xx are unique characters. SASSDS is the CA-7 default module.
- 12** Workstation statistics on a separate line for each category (START, FINISH, ELAPSED) for each of the severity levels. Statistics show number of workstations in each category and level, and percentage these stations are to the total stations for this report.

3.3.6 Job Processing Activity Report SASSHR06

This report chronologically displays the processing activity of a given job(s).

SASSHR06													C A - 7 - JOB PROCESSING ACTIVITY			09/01/yy 14:52		PAGE 001	
1	2	3	4	5	6	7	8	9	10	11	12								
JOBNAME	CPUID		TYPE	TIME	#VOL	DSORG	RECFM	LRECL	BLKSIZE	DDNAME	DATASET-NAME								
		13	14		15		16		17		18		19		20		21		
		STEP(S)	*-----START-----*	*-----FINISH-----*	DURATION		COMP-CD		CPU-TIME		REGION		JES#		#14'S		#15'S		
CA07LOGP	IP01	02	07/21/yy	10:24:26	07/21/yy	10:24:56	00:00:29	0000	00:00:01		3269	5	1						
BTIJCK01	IP01	02	07/21/yy	10:49:07	07/21/yy	10:49:45	00:00:38	0000	00:00:01		3290	2	4						
TRAILER	IP01	01	07/21/yy	10:57:19	07/21/yy	10:57:30	00:00:10	0000	00:00:01		3295	1	0						
ADDRQ	IP01	02	07/21/yy	11:11:07	07/21/yy	11:11:42	00:00:34	0000	00:00:01		3306	2	4						
SASSHR06													C A - 7 - JOB PROCESSING ACTIVITY			09/01/yy 14:52		PAGE 021	
JOBNAME	CPUID	STEP(S)	*-----START-----*	*-----FINISH-----*	DURATION		COMP-CD		CPU-TIME		REGION		JES#		#14'S		#15'S		
CA07LOGP	IP01	***INITIATED***																	
			INPUT	10:24:36	001 PS	VB	01400 01404	UCC7HIST	SSDDEV:UCC07:R280:LOGP										
			INPUT	10:24:36	002 PO	U	04096 32760	STEPLIB	SSDDEV:CA07:R29:LOADLIB										
		HLOGS	07/21/yy	10:24:26	07/21/yy	10:24:41	00:00:14	0000	00:00:01	0000K									
			INPUT	10:24:48	001 PS	VB	01400 01404	LOGIN	SSDDEV:UCC07:R280:LOGP										
			INPUT	10:24:49	001 PS	VB	01400 23476	HISTIN	SSDDEV:CA07:R29:LOGHIST:G0431V00										
			OUTPUT	10:24:49	001 PS	VB	01400 23476	HISTOUT	SSDDEV:CA07:R29:LOGHIST:G0432V00										
			INPUT	10:24:49	002 PO	U	04096 32760	STEPLIB	SSDDEV:CA07:R29:LOADLIB										
		HLOGS	07/21/yy	10:24:41	07/21/yy	10:24:54	00:00:12	0000	00:00:01	0000K									
CA07LOGP	IP01	02	07/21/yy	10:24:26	07/21/yy	10:24:56	00:00:29	0000	00:00:01	0000K	3269	5	1						
BTIJCK01	IP01	***INITIATED***																	
			OUTPUT	10:49:10	001 PS	FB	00080 00400	BATCHIN	SSDDEV:UCC07:R280:BATCHI										
			INPUT	10:49:31	001 PS	VB	00137 00552	BATCHOUT	SSDDEV:UCC07:R280:BATCHO										
			OUTPUT	10:49:32	001 PS	FB	00080 00400	BATCHIN	SSDDEV:UCC07:R280:BATCHI										
			OUTPUT	10:49:38	001 PS	F	01024 01024	UCC7CMDS	SSDDEV:UCC07:R280:COMMDS										
			OUTPUT	10:49:38	001 PS	F	01024 01024	UCC7CMDS	SSDDEV:UCC07:R280:COMMDS										
			INPUT	10:49:38	001 PO	U	04096 32760	JOBLIB	SSDDEV:CA07:R29:LOADLIB										
		JSTEP1	07/21/yy	10:49:07	07/21/yy	10:49:41	00:00:34	0000	00:00:01	0000K									
		JSTEP2	07/21/yy	10:49:41	07/21/yy	10:49:43	00:00:01	0000	00:00:01	0000K									
BTIJCK01	IP01	02	07/21/yy	10:49:07	07/21/yy	10:49:45	00:00:38	0000	00:00:01	0000K	3290	2	4						
TRAILER	IP01	***INITIATED***																	
			INPUT	10:57:24	001 PO	U	04096 32760	STEPLIB	SSDDEV:CA07:R29:LOADLIB										
		CA7TRLR	07/21/yy	10:57:19	07/21/yy	10:57:27	00:00:08	0000	00:00:01	0000K									
TRAILER	IP01	01	07/21/yy	10:57:19	07/21/yy	10:57:30	00:00:10	0000	00:00:01	0000K	3295	1	0						
ADDRQ	IP01	***INITIATED***																	
			OUTPUT	11:11:11	001 PS	FB	00080 00400	BATCHIN	SSDDEV:UCC07:R280:BATCHI										
			INPUT	11:11:34	001 PS	VB	00137 00552	BATCHOUT	SSDDEV:UCC07:R280:BATCHO										
			OUTPUT	11:11:35	001 PS	FB	00080 00400	BATCHIN	SSDDEV:UCC07:R280:BATCHI										
			OUTPUT	11:11:35	001 PS	F	01024 01024	UCC7CMDS	SSDDEV:UCC07:R280:COMMDS										
			OUTPUT	11:11:35	001 PS	F	01024 01024	UCC7CMDS	SSDDEV:UCC07:R280:COMMDS										
			INPUT	11:11:35	001 PO	U	04096 32760	JOBLIB	SSDDEV:CA07:R29:LOADLIB										
		JSTEP1	07/21/yy	11:11:07	07/21/yy	11:11:38	00:00:30	0000	00:00:01	0000K									
		JSTEP2	07/21/yy	11:11:38	07/21/yy	11:11:40	00:00:01	0000	00:00:01	0000K									
ADDRQ	IP01	02	07/21/yy	11:11:07	07/21/yy	11:11:42	00:00:34	0000	00:00:01	0000K	3306	2	4						

Item Description

- 1** CA-7 job name.
- 2** SMF system ID.
- 3** Step name or step number.
- 4** Type of data set used, either INPUT or OUTPUT.

- 5** Time the data set was used.
- 6** Number of volumes associated with the data set.
- 7** Data set organization.
- 8** Record format of the data set.
- 9** Logical record length of the data set.
- 10** Block size of the data set.
- 11** ddname from the JCL statement.
- 12** Name of the data set.
- 13** Date and time job processing began.
- 14** Date and time job processing ended.
- 15** Length of time (clock) required for job processing.
- 16** Completion code of the job or step.
- 17** Amount of CPU time used.
- 18** Largest region reserved for or used by the job.
- 19** JES job number (if SMF type 30 records are being used).
- 20** Number of data sets used as input (that is, SMF record type 14 count).

By default, CA-7 is no longer tracking SMF type 14 records. This means that the report would not show input DDs and their corresponding data set names. Also, the record count for 14s would be zero.

- 21** Number of data sets used as output (that is, SMF record type 15 count).

3.3.7 Workstation Activity Report SASSHR07

This report chronologically displays the processing activity of a given workstation(s).

SASSHR07										C - A 7 - WORKSTATION ACTIVITY REPORT		03/11/yy 12:33		PAGE 001	
STATION NAME	NETWORK NAME	SUB-ID NAME	JOB NAME	CA-7 NO	TYPE	LOG-IN DATE	LOG-IN TIME	LOG-OUT DATE	LOG-OUT TIME	DURATION	COMMENTS				
TXX3	XXWEB050	WEB050	XXWEB050	0364	PRE	02/01/yy	07:10	02/01/yy	07:10	00:00	LATE,				
TXX3	XXTRN115	001	XXTRN115	0392	PRE	02/01/yy	07:16	02/01/yy	07:16	00:00					
TXX3	XXILA117	ILA117	XXILA117	0401	PRE	02/01/yy	07:16	02/01/yy	07:16	00:00					
TXX3	XXWEB051	WEB051	XXWEB051	0368	PRE	02/01/yy	07:51	02/01/yy	07:51	00:00	LATE,				
TXX3	XXFAR025	FAR025	XXFAR025	0402	PRE	02/01/yy	07:55	02/01/yy	07:55	00:00					
TXX3	XXWEB040	WEB040	XXWEB040	0398	PRE	02/01/yy	08:03	02/01/yy	08:03	00:00	LATE,				
UC04	IPSRCT	EXTRACT	XXRCT019	0391	PRE	02/01/yy	08:09	02/01/yy	08:09	00:00					
TXX3	XXLBX120	LBX120	XXLBX120	0393	PRE	02/01/yy	08:32	02/01/yy	08:32	00:00	LATE,				
TXX3	XXECL101	ECL101	XXECL101	0396	PRE	02/01/yy	08:33	02/01/yy	08:33	00:00					
TXX3	XXSHD117	SHD117	XXSHD117	0400	PRE	02/01/yy	08:33	02/01/yy	08:33	00:00					
TXX3	XXSHD120	SHD120	XXSHD120	0397	PRE	02/01/yy	08:37	02/01/yy	08:37	00:00					
FREIGHT	XXPTS010	BALANCE	XXPTS010	0423	PRE	02/01/yy	08:44	02/01/yy	08:44	00:00					
UC04	XXAIS708	EXTRACT	XXAIS708	0394	PRE	02/01/yy	08:50	02/01/yy	08:50	00:00					
UC04	XXCDA010	BALANCE	XXCDA010	0428	PRE	02/01/yy	08:50	02/01/yy	08:50	00:00					
TXX3	XXRCT020	TRANSMIT	XXRCT020	0395	PRE	02/01/yy	08:56	02/01/yy	08:56	00:00					

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*** END OF REPORT ***

Item Description

- 1** CA-7 workstation name.
- 2** Name of the network associated with the workstations.
- 3** Sub-ID of the network name.
- 4** CA-7 job name associated with the workstation.
- 5** CA-7 control number associated with the workstation.
- 6** Type of workstation, either PRE (preprocessing) or POST (postprocessing).
- 7** Date and time workstation processing began.
- 8** Date and time workstation processing ended.
- 9** Length of time required for processing.
- 10** Comments relating to workstation processing.

AUTO-JOB - Job was triggered
 CANC - Network was canceled
 JOB-DEM - Job was demanded
 LATE - Activity is late
 NW-DEM - Network was demanded

3.3.8 Master Station Activity Report SASSHR08

The Master Station Activity report displays messages which were previously written to a browse data set (DEVICE=BSAM in the initialization file).

SASSHR08		CA - 7 - MASTER STATION ACTIVITY		09/13/yy 12:05 PAGE 001	
DATE	TIME	MESSAGE TEXT			
07/20/yy	14:40:05	SCN0-12 NEXT SCHEDULE SCAN WAKE-UP TIME IS hh.mmm AT yy15. ***** FOR A PRE Q PROMPT ***** SCN0-12 NEXT SCHEDULE SCAN WAKE-UP TIME IS hh.mmm AT yy15. ***** FOR A REQ Q PROMPT ***** SCN0-12 NEXT SCHEDULE SCAN WAKE-UP TIME IS hh.mmm AT yy15. ***** FOR A POST Q PROMPT ***** SCN0-12 NEXT SCHEDULE SCAN WAKE-UP TIME IS hh.mmm AT yy15. ***** TO SUBMIT A JOB ***** SCN0-12 NEXT SCHEDULE SCAN WAKE-UP TIME IS hh.mmm AT yy15. ***** TO SCAN NEXT INTERVAL ***** SCN0-12 NEXT SCHEDULE SCAN WAKE-UP TIME IS hh.mmm AT yy15. ***** TO RE-PROMPT USER ***** SCN0-12 NEXT SCHEDULE SCAN WAKE-UP TIME IS hh.mmm AT yy15. ***** FOR A SKELETON RETRY CYCLE *****			
		SJC0-00 SUBMIT PROGRAM STARTED			
		SJC0-00 JCL SUBMIT COMPLETE 00 JOBS SUBMITTED AT 14:40:05 ON yy.202			
		-----14.40.05			
16:52:51		SCN0-12 NEXT SCHEDULE SCAN WAKE-UP TIME IS hh.mmm AT yy15. ***** FOR A PRE Q PROMPT ***** SCN0-12 NEXT SCHEDULE SCAN WAKE-UP TIME IS hh.mmm AT yy15. ***** FOR A REQ Q PROMPT ***** SCN0-12 NEXT SCHEDULE SCAN WAKE-UP TIME IS hh.mmm AT yy15. ***** FOR A POST Q PROMPT ***** SCN0-12 NEXT SCHEDULE SCAN WAKE-UP TIME IS hh.mmm AT yy15. ***** TO SUBMIT A JOB ***** SCN0-12 NEXT SCHEDULE SCAN WAKE-UP TIME IS hh.mmm AT yy15. ***** TO SCAN NEXT INTERVAL *****			
16:52:52		SCN0-12 NEXT SCHEDULE SCAN WAKE-UP TIME IS hh.mmm AT yy15. ***** TO RE-PROMPT USER ***** SCN0-12 NEXT SCHEDULE SCAN WAKE-UP TIME IS hh.mmm AT yy15.			

1**2****3**

Item Description

- 1** Date the message was sent. Only shown at top of page or whenever it changes.
- 2** Time the message was sent. Only shown at top of page or whenever it changes.
- 3** The message text as it was generated.

3.3.9 Security Exception Report SASSHR30

This report displays information on exceptions detected by either external security (that is, CA-ACF2, CA-Top Secret, or IBM RACF) or CA-7.

SASSHR30				CA - 7 SECURITY EXCEPTIONS				03/27/yy 09:46	PAGE 00001
DATE	TIME	TERMINAL	USER	ACCESS TO	DENIED BY	ENTITY	APPL/ ACCESS		
yy.086	09.33.36	A82L903	CA7ROU1	COMMAND	EXTERNAL	XQ	SQM0		
					MSG=TSS974E ACCESS DENIED	PANEL	<L2QM1 >		
yy.086	09.33.52	A82L903	CA7ROU1	COMMAND	EXTERNAL	JOB	SDM0		
					MSG=TSS974E ACCESS DENIED	PANEL	<L2DB1 >		
yy.086	09.34.22	A82L903	CA7ROU1	COMMAND	EXTERNAL	CANCEL	SPO0		
					MSG=TSS974E ACCESS DENIED	PANEL	<L2QPCNCL>		
yy.086	09.37.40	A82L903	CA7ROU1	COMMAND	EXTERNAL	XQ	SQM0		
					MSG=TSS974E ACCESS DENIED	PANEL	<L2QM1 >		
yy.086	09.37.43	A82L903	CA7ROU1	COMMAND	EXTERNAL	JOB	SDM0		
					MSG=TSS974E ACCESS DENIED	PANEL	<L2DB1 >		
yy.086	09.37.46	A82L903	CA7ROU1	COMMAND	EXTERNAL	JCL	SDM0		
					MSG=TSS974E ACCESS DENIED	PANEL	<L2DB7 >		
yy.086	09.38.05	A82L903	CA7DBU1	COMMAND	EXTERNAL	XQ	SQM0		
					MSG=TSS974E ACCESS DENIED	PANEL	<L2QM1 >		
yy.086	09.39.11	A82L903	CA7DBU1	COMMAND	EXTERNAL	LQ	SLI0		
					MSG=TSS974E ACCESS DENIED	PANEL	<L2GILQ >		

1 2 3 4 5 6 7 8

*** E N D O F R E P O R T ****

Each exception may require two lines on the report. The fields on the first line of each exception are identified with column headings. The second line of each exception is reserved for a diagnostic message either from CA-7 or from the external security system. Messages beginning with CAL2 are documented in the *CA-7 Message Guide*.

Item Description

- 1 Date security exception occurred.
- 2 Time of day security exception occurred.
- 3 If a VTAM terminal, the LUNAME of the terminal where the security exception occurred, otherwise the CA-7 terminal name.
- 4 The USERID logged on when the security exception occurred.
- 5 The security exception record was created because access was denied to one of the following:
 - COMMAND** User attempted a CA-7 command, but the user did not have requisite authority.
 - DATASET** User attempted to access a data set. User did not have requisite authority.
 - FUNCTION** User attempted a function from a CA-7 panel. User did not have authority for the function.

JOB User attempted to access database or queue information for a job. User is not authorized. Two values appear out to the right: OUID=xxx and JUID=xxx. OUID indicates the UID associated with the user. JUID is the UID of the job.

SUBCHECK A security exception record was created for one of the following conditions:

1. User attempted to submit a job whose JCL contained a USERID. The user did not have SUBMIT authority for that USERID.
2. User attempted to modify the OWNER field of the DB.1 screen. The user did not have SUBMIT authority for that change.

TERMINAL A security exception at LOGON.

Note: Refer to the *CA-7 Security Guide* for additional information on SUBCHECK and SUBOWNER.

6 The security exception record was created because access was denied by one of the following:

CA-7 CA-7 native security rejected the access request.

EXIT A user exit rejected the access request.

EXTERNAL External security (such as CA-ACF2, CA-Top Secret, or IBM RACF) rejected the access request.

7 The security exception record was created because the user attempted to access an entity and that attempt failed. The entity field will differ according to the area for which access was denied. In the case of:

COMMAND The entity field should contain the name of the CA-7 command that was attempted.

DATASET The entity field is blank.

FUNCTION The entity field should contain the CA-7 Panel ID for which access was attempted.

JOB Access was denied to database or queue information for a CA-7 job. The entity field should contain the name of the job.

SUBCHECK Access was denied to a USERID. The entity field should contain the USERID.

TERMINAL The entity field is blank.

- 8** In the case of a COMMAND exception this field will contain the name of the CA-7 application. In the case of FUNCTION or DATASET exceptions, this field will contain the type of access attempted. This will be the access type as it is found in SASSDSCR. The access types are:

ADD
DELETE
READ
SUBMIT
UPDATE

3.3.10 Internal Activity Trace Report SASSHR70

This report provides a chronological synopsis of internal events. It provides a condensed picture of the same data shown on the SASSHR03 report. This report can answer many questions with much less print than is produced by SASSHR03. To see the contents of all log record fields still requires the use of SASSHR03.

SASSHR70		CA - 7 - INTERNAL ACTIVITY TRACE				07/14/00 08:26		PAGE 002	
EVENT	HMMSSSTH	DESCRIPTION	LOG DATE: 00058						
43 BROWSE	15584431	-----15:58:44	4						
43 BROWSE	15584431	SIR0-12 INITIAL REQUIREMENTS SCAN COMPLETED AT 15:58:44 ON 00.058.							
43 BROWSE	15584431	-----15:58:44							
43 BROWSE	15584431	SCNJ-13 JOB SCHEDULE SCAN COMPLETED AT 15:58:44 ON 00.058.							
43 BROWSE	15584441	SCN0-13 SCHEDULE SCAN COMPLETED AT 15:58:44 ON 00.058.							
43 BROWSE	15584447	SCN0-12 NEXT SCHEDULE SCAN WAKE-UP TIME IS 00.058 AT 1758.							
43 BROWSE	15584447	***** TO SCAN NEXT INTERVAL *****							
67 SCHED SCAN	15584447	ECF=INITIAL TYP=LOADS							
72 INPUT	15584669	TRM=VTM001 TXT=/DISPLAY,DB=LOG							
73 OUTPUT	15584836	TRM=VTM001							
72 INPUT	15585400	TRM=VTM001 TXT=DEMANDH,JOB=C							
69 JQREC MOVE	15585745	F/T=DEM/SKL JOB=0001/C JCL=00000 #J.=00000 #X.=00000 #..=00000 SCC=00000 MCT=00000							
A1 APA STATS	15590243								
43 BROWSE	15590253								
43 BROWSE	15590253	SP07-10 JOB C (0001) ENTERED INTO REQUEST 'Q',							
43 BROWSE	15590264	DUE-OUT ON 00.058 AT 1658.							
69 JQREC MOVE	15590291	F/T=SKL/REQ JOB=0001/C JCL=00020 #J.=00002 #X.=00002 #..=00001 SCC=00000 MCT=00001							
75 QUEUE POST	15590291	TYP=X'09' JOB=0001/C							
43 BROWSE	15590375								
43 BROWSE	15590375								
43 BROWSE	15590375	SIRD-11 **** JOB=C (0001) EXECUTION REQUIREMENTS **** JCLID=000							
43 BROWSE	15590375	SYSTEM= DESC=							
43 BROWSE	15590380	DUE-OUT 00.058/1658 DEAD-LINE 00.058/1658 MAINID=							
43 BROWSE	15590380	SCHID=001 PROSE#=#NONE** ERQD=000 ENSAT=000 IRQD=000 INSAT=000							
43 BROWSE	15590380	MCNT=001 FLAGS=24/08/20/02/80/1A/02							
43 BROWSE	15590380								
43 BROWSE	15590380	*** REQUIREMENTS ***							
43 BROWSE	15590386								
43 BROWSE	15590386	JOB ON HOLD							
43 BROWSE	15590386	SIRD-12 END OF REQUIREMENTS FOR JOB=C (0001).							
67 SCHED SCAN	15590386	ECF=INITIAL TYP=LOADS							
43 BROWSE	15590386	SCN0-12 NEXT SCHEDULE SCAN WAKE-UP TIME IS 00.058 AT 1658.							
43 BROWSE	15590387	***** FOR A REQ 'Q' PROMPT *****							
67 SCHED SCAN	15590387	ECF=INITIAL TYP=LOADS							
72 INPUT	15590986	TRM=VTM001 TXT=XRQ,JOB=1							
72 INPUT	15591249	TRM=VTM001 TXT=AOC AY0001 C1X C3HLD D# RA R.00000000 RN00							
75 QUEUE POST	15591284	TYP=X'02' JOB=0001/C							
68 START SSM0	15591288								
69 JQREC MOVE	15591366	F/T=REQ/RDY JOB=0001/C							
72 INPUT	15592005	TRM=VTM001 TXT=LQ							
68 SUBMIT START	15592086	JOB=0001/C							
68 SUBMIT START	15592121	JOB=0001/C							
69 SUBMITTED	15592121	F/T=RDY/** JOB=0001/C JCL=00018							
68 SSM0 ENDED	15592246								
72 INPUT	15593346	TRM=VTM001 TXT=/LOG,D=TEST FOR SASSHR70							
81 /LOG	15593369	TRM= TXT=TEST FOR SASSHR70							
72 INPUT	15594111	TRM=VTM001 TXT=/LOGON LEVEL13							
72 INPUT	15594918	TRM=VTM001 TXT=/DISPLAY,0=ALL							
C1 SECURITY	15594906	TRM=VTM001 REJ=COMMAND							

Item Description

- 1** Internal event ID consisting of the hexadecimal record type followed by a brief term for the event that record type represents. Possible values are as follows:

04 STEP TERM
 05 JOB TERM
 0E INPUT DSN
 0F OUTPUT DSN
 14 JOB INIT
 1A JOB PURGE
 43 BROWSE
 64 STARTUP
 65 SHUTDOWN
 67 SCHED SCAN
 68 SSMO ENDED
 68 START SSMO
 69 JQREC MOVE
 69 SUBMITTED
 72 INPUT
 73 OUTPUT
 75 QUEUE POST
 76 UJV CANCEL
 81 /LOG
 82 SCHD NOT RUN
 83 VRM POST
 84 VRM ERROR
 85 VRM EVAL
 8A ARF Activity
 90 LOAD - JOB
 91 LOAD - STEP
 92 LOAD - DD
 93 LOAD - RQMT
 94 LOAD - DSN
 98 SVC CLOSE
 99 SVC POST DSN
 A1 APA STATS
 A2 CONTROL BLK
 A3 SASSXX10 JOB
 C1 SECURITY
 C9 AUTOREQUEUE IPL

Refer to the SASS7LOG macro for a detailed description of each record type.

- 2** Time-of-day at which the log record for this event was written.

- 3** Some of the more commonly referenced fields copied or derived from the log data. Fields shown vary by log record type. For some events, such as A1 APA STATS, nothing is shown in this column. The following may appear in different combinations depending on which event appears in the EVENT column:

#.= see log record JQREC field JQNPOUND description
 #J.= see log record JQREC field JQNJIJO description
 #X.= see log record JQREC field JQNIXO description
 BLK= control block ID
 CUS= customer name
 DSN= data set name
 DWL= dwell time (log record time minus SMF time)
 ECF= see log record field L67ECF description
 F/T= from-ID/to-ID

from-ID and to-ID values may appear as follows:

*** - not applicable
 ACT - Active queue
 AUT - Schedule trigger
 DEM - DEMAND command
 LOA - LOAD command
 PRE - Preprocessing queue
 PRN - Prior-run queue
 PST - Postprocessing queue
 RDY - Ready queue
 REQ - Request queue
 RUN - RUN command
 SCN - Schedule scan
 SKL - Skeleton queue record
 SUB - SUBMIT command

JCL= see log record JQREC field JQNJCL description
 JOB= job name
 MCT= see log record JQREC field JQMCNT description
 REA= reason
 REJ= security rejection
 SCC= see log record JQREC field JQNBRSCC description
 SID= system ID field from SMF
 STN= stationnumber/stationname
 STP= stepnumber/stepname
 TRM= terminal ID
 TXT= text data
 TYP= see log record fields L64ITYPE, L67ECF, L75RECTY descriptions
 QUE= see log record field L64QCNTL description
 UID= user identification field from SMF common exit parameter area
 VER= CA-7 version ID

- 4** Date on which the log records were written. This only appears in the heading, not on each line.

3.3.11 Last Logged Status of Jobs Report SASSRA01

This report indicates the last status of a job as it was logged to the CA-7 log data set. Jobs canceled or cleared from the queues by a COLD, MOVQ, or FORM start are not included. Jobs are listed in job name sequence with duplicate job name entries ordered by CA-7 job number.

SASSRA01-01		C A - 7 R E C O V E R Y A I D				PAGE 001
AS OF: 02-01-yy/15:00 ¹		LAST LOGGED STATUS OF JOBS				
JOBNAME: ² XXAIS902	CA-7#: ³ 0630	SYSTEM-NAME: ⁴ AISC	SCHEDULE-ID: ⁵ 001	PRIORITY: ⁶ 100		
QUEUE/RQMTS: PRIOR-RUN ⁷	DUE-OUT: 02-01-yy/10:33 ¹²	OVERRIDES: N/A ¹⁷	CPU-SPEC/RUN: ²²			
ARRIVED: 02-01-yy/10:16:10 ⁸	DEADLINE: 02-01-yy/10:23 ¹³	VERIFY: NO ¹⁸	JES-JOB-#: N/A ²³			
PREV-QUEUE: REQUEST ⁹	SUBMIT: N/A ¹⁴	JOB-HELD: NO ¹⁹	LAST-STEP: N ²⁴			
LAST-EVENT: COMPLETED ¹⁰	STARTED: 02-01-yy/10:13 ¹⁵	NETWORKS: N/A ²⁰	COMPL-CODE: ²⁵			
ENTRY-MODE: TRIGGERED ¹¹	COMPLETED: 02-01-yy/10:16 ¹⁶	RETAIN-JCL: NO ²¹	INSERT-RMS: ²⁶			

JOBNAME: XXAIS902	CA-7#: 0821	SYSTEM-NAME: AISC	SCHEDULE-ID: 001	PRIORITY: 100		
QUEUE/RQMTS: PRIOR-RUN	DUE-OUT: 02-01-yy/12:55	OVERRIDES: N/A	CPU-SPEC/RUN: ALL-SMF1			
ARRIVED: 02-01-yy/12:46:58	DEADLINE: 02-01-yy/12:45	VERIFY: NO	JES-JOB-#: 7053			
PREV-QUEUE: REQUEST	SUBMIT: N/A	JOB-HELD: NO	LAST-STEP: N/A			
LAST-EVENT: COMPLETED	STARTED: 02-01-yy/12:43	NETWORKS: N/A	COMPL-CODE: N/A			
ENTRY-MODE: TRIGGERED	COMPLETED: 02-01-yy/12:46	RETAIN-JCL: NO	INSERT-RMS: NO			

JOBNAME: XXFAR030	CA-7#: 0727	SYSTEM-NAME: FARC	SCHEDULE-ID: 002	PRIORITY: 100		
QUEUE/RQMTS: PRIOR-RUN	DUE-OUT: 02-01-yy/14:30	OVERRIDES: N/A	CPU-SPEC/RUN: NON-EXEC			
ARRIVED: 02-01-yy/13:51:34	DEADLINE: 02-01-yy/14:18	VERIFY: NO	JES-JOB-#: N/A			

TOTAL JOBS LISTED: 3	²⁷					

Item	Description
¹	Date and time-of-day the status shown was in effect. Corresponds to the Through Date and Thru Time specified in the request control statement or the last log record considered in the reconstruction of the status.
²	Name of the job as defined to CA-7.
³	The number assigned by CA-7 to this execution of the job.
⁴	The user-specified CA-7 system name to which this job was assigned. Same as SYSTEM on the CA-7 DB.1 screen. Shows **NONE** if not used or not available.
⁵	The CA-7 schedule ID for this execution.
⁶	Current CA-7 priority for this job. May be dynamically altered by the WLB facility of CA-7. See PRTY on the CA-7 DB.1 screen for defining initial priority values.

7 Name of the CA-7 queue in which the job resided as of the last milestone. For jobs in the request queue, the number of preexecution requirements is appended to the queue name. If in the request queue with no requirements, the job is in SKELETON status. See field CPU-SPEC/RUN. Name values are one of the following:

ACTIVE
 PRIOR-RUN
 READY
 REQUEST

8 Date and time-of-day the job arrived in the queue (see QUEUE/RQMTS). Taken from the log record generation date and time fields.

9 The name of the queue in which the job resided prior to entering the current queue. On initial entry into the CA-7 system, this appears as N/A and the QUEUE value is REQUEST.

All other records have one of the following queue names:

ACTIVE
 READY
 REQUEST

10 This indicates the last milestone or event in the life of this job. Values and their meanings are:

ABENDED Job terminated due to either a system or user abend.
COMPLETED CA-7 finished analyzing and processing a successful job completion.
COND CODE Job failed a CA-7 condition code acceptability test. (See RO and COND-CODE on the CA-7 DB.1 screen.)
INITIATED Job began to execute (SMF type 20 received).
JCL ERROR Job terminated with a JCL error.
JOB ENDED Job execution ended (SMF type 5 received).
LOADING Job was completing a LOAD-ONLY execution.
REQUEUED Job was manually requeued with a CA-7 REQUEUE command or the Q function of a QM.1 screen.
SATISFIED All preexecution requirements have been satisfied.
SCHEDULED Job just entered the request queue.
SUBMITTED JCL was submitted.

- 11** Indicates the method by which the job was originally scheduled into CA-7. Shows one of the following values:
- DEMANDED** Job was scheduled through a DEMAND(H) command.
- EXTERNAL** Job was submitted outside of CA-7.
- LOAD** Job was scheduled through a LOAD(H) command.
- PS** Job was scheduled using the Submit function from the Personnel Scheduling screen.
- RUN** Job was scheduled through a RUN(H) command.
- SCHD SCAN** Job was scheduled through Schedule Scan based on date and time considerations.
- TRIGGERED** Job was triggered by completion of another job, completion of a network, or creation of a data set.
- X-DEMAND** Job was scheduled from an XPS CLIENT using the DEMAND command.
- X-PLATFRM** Job was scheduled from an XPS CLIENT using the RUN command with the REF option.
- X-RUN** Job was scheduled from an XPS CLIENT using the RUN command.
- Note:** No commands will be generated in the SASSRA02 report for XPS SERVER jobs (jobs whose entry mode begins with "X-").
- 12** Date and time-of-day the job was scheduled to be completed. If this date/time is earlier than the AS OF value shown, two asterisks are appended to indicate late status. Also is flagged as late if the COMPLETED time occurred after the DUE-OUT time.
- 13** Date and time-of-day of the latest start time for this job. Is flagged with asterisks to indicate late status whenever the AS OF value shown is after this value if the job has not STARTED.
- 14** If the job had a required submit time defined to CA-7, this shows the date and time-of-day. Flagged with asterisks to indicate late status whenever the AS OF value shown is after this value. N/A means there is no submit time requirement.
- 15** The most recent date and time-of-day that execution began for those jobs which have started to execute at least once for the current attempt to run the job. If restarted, reflects the date and time-of-day of the most recent job initiation. If the job was never successfully initiated, this field contains N/A unless the first step has completed execution.
- 16** The date and time-of-day execution ended for jobs that reached an execution termination. If no job completion occurred, contains N/A.

- 17** Indicates the status of any JCL overrides that were defined and/or made. After queue entry has passed, the value is one of the following:
- *SKELETON*** Job has only reached queue entry, and has not yet been flagged for usage.
 - APPLIED** The user has already applied overrides to satisfy a previously defined need. See JCL-OVRD on the CA-7 DB.1 screen and the CA-7 JCLOVRD command.
 - N/A** No override requirement of any type was specified for this run of this job.
 - NEEDED** Either the user specified that overrides were required (see APPLIED above) or CA-7 defined this requirement for a job which terminated unsuccessfully.
 - OVRD-LIB** Overrides were defined as being made in the CA-7 override library. See USE-OVRD-LIB on the CA-7 DB.1 screen.
- 18** Indicates a manual verification requirement for the job. See the VERIFY field on the DB.1 screen and the VERIFY command. Shows either YES or NO in this field.
- 19** Indicates if the job was being held for any reason. Value is one of the following:
- *SKELETON*** Job has only reached queue entry, and no data has yet been posted.
 - MANUALLY** A HOLD command was issued.
 - NO** The job was never held.
 - RELEASED** A previously specified HOLD was released.
 - SCHEDULED** DB.1 screen specified HOLD=Y.
- 20** Indicates whether any workstation networks were associated with this job. Value is one of the following:
- *SKELETON*** Job has only reached queue entry, and no data has yet been posted.
 - N/A** No networks associated with the job.
 - POST** Job has only postprocessing networks.
 - PRE** Job has only preprocessing networks.
 - PRE/POST** Job has both preprocessing and postprocessing networks.

- 21** Indicates if the JCL is to be saved in the prior-run queue on successful completion of the job. (See RETAIN-JCL on the CA-7 DB.1 screen.) Value is one of the following:
- *SKELETON*** Job has only reached queue entry, and has not yet been flagged for JCL retention.
 - NO** JCL is not to be saved.
 - YES** JCL is to be saved on successful job completion.
- 22** Indicates CPU values for the job. Value is one of the following:
- *SKELETON*** Job has only reached queue entry, and no data has yet been posted.
 - NON-EXEC** The job has been defined as being nonexecutable. See the EXEC field on the DB.1 screen.
 - rrrr-aaaa(nnnnnnnn)**
For all executable jobs.
 - rrrr** Indicates the requested main ID. See MAINID on the DB.1 screen. Shows ALL, SYn, or /SYn where n is the specified main ID.
 - aaaa** Is the actual CPU ID taken from the SMF feedback, where job execution occurred.
 - nnn..n** Is shown only for jobs running at a remote NJE node with CA-7 NCF support. These jobs have the node name shown here exactly as they appear in the NCF node table. When the node ID cannot be found in the NCF node table or the table cannot be loaded, the node number defined to CA-7 is shown here as NODE xx, where the 2-digit hexadecimal node ID value is given.
- 23** This is the JES job number that was assigned to jobs which have executed or have started execution at least once. For jobs which have not executed, this field shows N/A unless type 30 was installed. If SMF type 30 support has been implemented, this field would contain the value *NONE* if the job is submitted but not yet started.
- 24** For jobs in the request queue immediately following a job termination, this field shows the name of the last job step which executed. If the job was initiated but flushed without executing any steps or if no step termination records have been received, it shows **NONE**. At all other times, this field shows N/A.
- 25** This field contains N/A except for jobs which have just completed executing and are in the request queue for job completion processing. In that case, the highest completion code returned by any of the steps in the job appears here. For abends, this field is in the format Sxxxx and Uxxxx for system and user abends respectively. (See the LAST-EVENT and LAST-STEP field descriptions.)

- 26** This field shows either YES or NO, depending on the value given for the job in the INSERT-RMS field on the CA-7 DB.1 screen. When YES, the JCL for CA-11 is being inserted by CA-7 at job submission time.
- 27** This is a simple count of the number of jobs listed on this report. Each jobname/CA7# is counted separately.

3.3.12 Generated Batch Terminal Interface Commands Report SASSRA02

This report lists the commands generated and written to the COMMANDS data set. A DEMAND(H) command is generated for every job which was in the request, ready, and active queues except those brought in by LOAD(H) or RUN(H) commands. These commands may be useful in restoring the status of the queues following a total system failure which destroyed the contents of one or more of the CA-7 queues.

Note: This report is generated only if DEMAND or DEMANDH is entered into the type 50 control statement. DEMANDH is the recommended value if used.

Item	Description
1	AS OF: 02-01-yy/23:59
2	/LOGON * OPERATOR ID GOES HERE * DEMAND,JOB=XXAIS907,SCHID=001,TYPE=RES DEMAND,JOB=XXCIF004,SCHID=001,TYPE=RES DEMAND,JOB=XXCMS046,SCHID=001 DEMAND,JOB=XXCMS048,SCHID=001 DEMAND,JOB=XXCNA005,SCHID=001 DEMAND,JOB=XXCNA400,SCHID=001 DEMAND,JOB=XXILA105,SCHID=001 DEMAND,JOB=XXILA710,SCHID=001
3	DEMAND,JOB=XXCIF010,SCHID=001 DEMAND,JOB=XXCIF220,SCHID=001,TYPE=RES DEMAND,JOB=XXCIN150,SCHID=001,TYPE=RES DEMAND,JOB=XXFIS045,SCHID=001 DEMAND,JOB=XXCIF010,SCHID=001 DEMAND,JOB=XXCIF285,SCHID=001 DEMAND,JOB=XXCIN010,SCHID=001 DEMAND,JOB=XXCIN015,SCHID=003
4	4
5	5
6	6
7	/LOGOFF
8	TOTAL COMMANDS: 18
9	TOTAL JOBS: 16

Item Description

- 1 Date and time-of-day that corresponds to the through date and time specified in the request control statement or the last log record considered in the reconstruction of the status. This field should agree with the AS OF values on the corresponding SASSRA01 and SASSRA02 reports.
- 2 /LOGON is the required first command in all batch terminal interface input data sets. the command shown is as it appears in the COMMANDS data set and must have the desired operator ID entered by the user prior to executing the commands. The command contains the following character string where the operator ID is required: * OPERATOR ID GOES HERE *.
- 3 The command type generated. It is taken from the request control statement and is either DEMAND or DEMANDH. DEMANDH is the recommended value if used.
- 4 Name of the CPU job which is being requested.
- 5 Schedule ID under which the job is to be run.

- 6** Generated for jobs which were in the active queue **only**. When included, causes reexecution of the job to be handled as a restart. Is not included for jobs that were in the request or ready queues.
- 7** /LOGOFF is the required last command in all batch terminal interface input data sets. This command is generated exactly as shown here.
- 8** A count of the total number of commands generated and listed including the /LOGON and /LOGOFF commands.
- 9** A count of the DEMAND-type commands generated and listed. Should always be two less than TOTAL COMMANDS.

3.3.13 Simulated LQ Display of Jobs Report SASSRA03

This report lists information on all production activity from the request, ready, and active queues. It reflects the same information that would have been available through the CA-7 LQ command if queues had not been lost. It shows the status as of the date and time-of-day appearing in the AS OF field. Jobs are listed in job name sequence with duplicate job name entries ordered by the CA-7 job number.

Note: This report is always generated with report SASSRA01 whenever the type 50 request control statement is used.

JOB NAME	QUEUE NAME	CA-7 NUM	-DAY(DDD) DEADLINE	AND TIME(HHMM)-- SUB/START	CPU SPEC/RUN	SCH ID	ENTRY MODE	MSTR REQ	JOB STATUS
XXAIS902	PRN	0630	032/1023	032/1013	032/1033	ALL-E09A	001 AUTO		C-C0000
XXAIS902	PRN	0821	032/1245	032/1243	032/1255	ALL-E09A	001 AUTO		C-C0012
XXFAR030	PRN	0727	032/1418	032/1346	032/1430	ALL-E09A	002 AUTO		C-C0500
XXFPL010	REQ	0911	032/1627	032/1615	032/1635	ALL	001 SSCN	0001	RQMT INC
XXHRS305	PRN	0711	032/1234	032/1135	032/1234	ALL-E09A	102 DEMD		C-C0500
XXHRS310	PRN	0835	032/1356	032/1256	032/1356	ALL-E09A	101 DEMD		C-C0500
XXHRS315	PRN	0949	032/1545	032/1445	032/1545	ALL-E09A	001 DEMD		C-C0500
XXHRS385	REQ	0877	033/0014	032/2330	033/0030	ALL	101 AUTO	0006	RQMT INC
XXHRS390	REQ	0878	033/0010	032/2300	033/0030	ALL	101 AUTO	0004	RQMT INC
XXHRS405	PRN	0544	032/1006	032/0907	032/1006	ALL-E09A	001 DEMD		C-C0500
XXHRS445	PRN	0569	032/1022	032/0923	032/1022	ALL-E09A	001 DEMD		C-C0505
XXPEP005	PRN	0679	032/1207	032/1107	032/1207	ALL-E09A	001 DEMD		C-C0505
XXPEP010	PRN	0570	032/1023	032/0923	032/1023	ALL-E09A	001 DEMD		C-C0505
XXPEP010	PRN	0723	032/1246	032/1146	032/1246	ALL-E09A	001 DEMD		C-C0505
XXPEP030	PRN	0586	032/0949	032/0939	032/1038	ALL-E09A	001 AUTO		C-C0500

AS OF: 02-01-yy/15:00 **1** SIMULATED LQ DISPLAY OF JOBS

2 **3** **4** **5** **6** **7** **8** **9** **10** **11** **12**

TOTAL JOBS LISTED: 15 < **13**

Item Description

1 Date and time-of-day the status shown was in effect. Corresponds to the Thru Date and Thru Time specified in the request control statement or the last log record considered in the reconstruction of the status.

2 Name of the job as defined to CA-7.

3 Name of the queue in which this job last resided. The following queue names may appear:

- ACT
- PRN
- RDY
- REQ

4 The number assigned to the job by CA-7.

5 Date and time-of-day of the latest start time for the job. The format is Julian ddd/hhmm.

- 6** The date and time-of-day the job either started execution, was scheduled to be submitted, or when JCL was written to the internal reader or a submit data set. The format is Julian ddd/hhmm.
- 7** Date and time-of-day the job was scheduled to be completed. The format is Julian ddd/hhmm.
- 8** Indicates CPU values for the job. Value may be one of the following:
- *SKELETON*** Job has only reached queue entry, but requirements have not been posted and the JCL has not been attached.
 - *NOEX*** The job has been defined as being nonexecutable. (See the EXEC field on the DB.1 screen.)
 - rrr-aaaa** For all executable jobs.
 - rrr** Indicates the requested main ID. See MAINID on the DB.1 screen. Shows ALL, SYn, or SYn where n is the specified main ID.
 - aaaa** Is the actual CPU ID as shown in the SMF feedback. Only shown for jobs which have started or completed execution.
- 9** The CA-7 schedule ID for this execution of the job.
- 10** Indicates how the job was originally scheduled into CA-7. Shows one of the following:
- AUTO** Job was triggered by another job, an input workstation network, or by creation of a data set.
 - DEMD** Job was scheduled through the DEMAND command.
 - LOAD** Job was scheduled through a LOAD command.
 - PS** Job was scheduled using the Submit function from the Personnel Scheduling screen.
 - RUN** Job was scheduled through a RUN command.
 - SSCN** Job was scheduled through Schedule Scan based on date and time considerations.
 - XDEM** Job was scheduled through the DEMAND command from an XPS CLIENT.
 - XPS** Job was scheduled from an XPS CLIENT using the RUN command with the REF option.
 - XRUN** Job was scheduled from an XPS CLIENT using the RUN command.
- Note:** No commands are generated in the SASSRA02 report for XPS SERVER jobs (jobs whose entry mode begins with "X").

- 11** Indicates the number of outstanding preexecution requirements which must be satisfied before execution may begin. For non-SKELETON records, shows a count only if greater than zero. Applies only to jobs in the request queue.
- 12** Indicates whether a job is late, in SKELETON status or, for completed jobs, theabend or condition code values.
- 13** A simple count of the total number of jobs listed in the report.

3.4 SASSXTRK Log Extract Program

The SASSXTRK program is a tool to be used by the support personnel. This program will extract records from the CA-7 log file based on a specific job name. The output file can be used by other management reporting jobs to produce reports. Only a control statement edit report is produced by this program.

SASSXTRK can also be used to extract a specific range of log records based on date and time.

3.4.1 SASSXTRK Control Statement Description

Job Name Specifies the name of the job to be reported. An asterisk (*) denotes a generic request. The first character must be a nonblank character. The field will terminate with the first blank found.

If the first character of the job name is asterisk (*), all log records for the date/time range specified will be extracted. The FROM DATE and TO DATE fields are required if the first character is an asterisk.

Positions: 01-08
Value: alphanumeric
Required: yes
Default: none

From Date

Indicates the Start Date for records to be extracted.

Positions: 10-14
Value: numeric (in yyddd format)
Required: no (unless first character of the job name is *)
Default: 00000

From Time

Indicates the Start Time for records to be extracted.

Positions: 15-18
Value: numeric (hhmm)
Required: no
Default: 0000

To Date Indicates the Ending Date for records to be extracted.

Positions: 20-24
Value: numeric (yyddd)
Required: no (unless first character of the job name is *)
Default: highest date in log file

To Time Indicates the Ending Time for records to be extracted.

Positions: 25-28
 Value: numeric (hhmm)
 Required: no
 Default: 2400

3.4.2 SASSXTRK Program

The following sample JCL is used to execute the SASSXTRK program.

```
//jobname JOB ...
//EXTRACT EXEC PGM=SASSXTRK
//STEPLIB DD DISP=SHR,DSN=ca7.loablib
//LOGIN DD DISP=SHR,DSN=ca7.logtape
//LOGOUT DD DISP=(NEW,CATLG,DELETE),DSN=extracted.file,
// UNIT=SYSDA,SPACE=(CYL,(10,5),RLSE),
// DCB=(RECFM=VB,LRECL=2100,BLKSIZE=21004)
//SYSOUT DD SYSOUT=*
//SYSIN DD *
jobname yyddhhmm yyddhhmm
/*
```

Figure 3-3. SASSXTRK JCL

Where:

LOGIN

DD is used as input for this program. This DD statement is required. This file can be the history LOGTAPE or the DASD LOGP or LOGS file. The LRECL can only be 1400 or 2100.

LOGOUT

DD is used as output for this program. This DD statement is required. This file can be DASD or tape. The LRECL is copied from the LOGIN DD statement. This file contains a copy of the log records that were selected.

SYSOUT

DD is used as output for this program. This DD statement is required. This file contains information from the control statement edit routine and possibly some error messages.

SYSIN

DD is used as input for this program. This DD statement is required. The selection criteria is taken from this DD statement. Currently only one control statement per execution is supported.

Chapter 4. Workload Planning

CA-7 includes several tools that provide information on a data center's production workload. History Reporting and Automated Performance Analysis (APA) provide information on what has already happened in the data center. Online inquiry facilities provide information on what is currently happening. Various Forecast commands project what should happen based on the requirements of the production workload as it is currently defined.

Workload planning (WLP) simulates and reports on what could have happened in the data center, based on a combination of historical workload information and potential processing alternatives. WLP can also simulate and report on what should happen given new processing objectives for the existing workload as defined in the CA-7 database. Modeling and simulation techniques are employed to accomplish this.

WLP assists data center management in planning workload schedules and resource use. This planning function is provided in batch mode, separate and apart from realtime control over the production workload, for several reasons:

- Poor or erroneous assumptions made in a planning exercise should have no automatic, direct impact on actual workload processing. Errors should be eliminated by replanning without disrupting the ongoing needs of getting the work done.
- Special or onetime uses of planning facilities for situations such as disaster contingency planning, or exploring alternatives such as hardware upgrades, have no direct relationship to daily processing procedures.
- Planning personnel can perform planning activities concurrently yet independent of ongoing processing activities.
- Unlike the ongoing demands for control over workload processing, planning should be an optional exercise to be performed only when changes or alternatives are to be considered.

4.1 Using Workload Planning

This topic introduces common uses, special uses, data flow, and limitations on using workload planning.

4.1.1 Common Uses

WLP can be used to study the effects of changing the processing performed on a particular day or even a particular shift. For example, a data center manager could use the History Management report to locate a log history file containing run information for the time frame in question. With this file used as input, WLP simulates a previous time frame run taking abends, reruns and on-request work into account, and create workload planning reports. The reports are a key tool in studying processing alternatives. They provide job and resource performance data for the particular time frame.

The manager can now begin to study, for example, the effects of omitting one job from the run or adding a tape drive to the available resource pool.

A simulated workload model can be produced, using CA-7 database job and resource data reflecting the same time frame. The online FWLP command extracts this data from the database and creates a file that can be edited prior to a simulation run. Once the file has been edited, WLP can be used to simulate and report on the run. The resulting reports, when compared to those reports produced from log history data, project what effect changing the workload or the processing objectives will have on production work flow and resource use.

WLP can also be helpful in establishing a proper balance between production processing, testing and stand-alone time such as Preventive Maintenance (PM) or dedicated test time. CA-7 neither captures nor reports on testing or PM. Workload planning reports on production requirements can, however, identify what time and resources are not available for testing and stand-alone time. Decisions on when and how much time and resources to provide programmers, customer engineers, and so forth, can be easily and more accurately made based on the slack time identified by these reports.

Data center management is continuously involved in the process of finding an optimum balance between job work flow and resource use. Ultimately, the goal of a data center is to be able to run every job or application on schedule while maximizing use of the available resources. WLP is designed to provide a means of reaching and maintaining this goal. Automated Performance Analysis (APA) graphs show how many jobs are late or early; WLP allows managers to simulate specific alternatives in job schedules or processing environments to achieve better throughput. WLP shows how work flow can reasonably be expected to occur if, for example, a group of jobs which have historically run late are submitted earlier.

The task of balancing work flow requirements and resource use would be relatively simple if the jobs and available resources remained constant. In most cases, however, the demands on data centers are continually growing. Growth can be significant although no new applications are being implemented. Manufacturers are constantly adding new parts to inventory; banks are constantly adding new customers to their customer files; payroll files grow as companies gain new employees. In each case, the elapsed time of jobs using these files can increase significantly.

Eventually, such increases in production workload may require hardware upgrades such as faster CPUs or more tape drives and initiators. Occasional use of WLP can help prevent these subtle increases in demand from suddenly exhausting the available resources.

CA-7 workload balancing provides realtime balancing of production work to yield optimum use of resources while monitoring work flow through completion and delivery deadlines. Processing objectives, as defined to workload balancing, are subject to change as new requirements or environments occur. Changes to these definitions can be simulated with WLP prior to implementing the changes in the production environment. If, for example, new peripherals or a new CPU can be expected to cause all jobs to run 10 percent faster, WLP can simulate this using a user-supplied elapsed time factor. An Hourly Usage Projection report may show that, under normal circumstances, the use of one type of tape drive approaches maximum capacity at all times. WLP can simulate the use of additional drives if requirements for this type of drive are expected to increase.

It is common for resources available for production batch processing to change on a shift-to-shift basis. In the daytime, for example, a majority of CPU resources might be allocated for processing online transactions. At night, a reduction in the number of these transactions might free up available resources, enabling an entire online system such as IMS to be shut down, and thus providing more resources for batch processing. These environmental changes can be handled by workload balancing in realtime whether or not they are scheduled. Simulating their impact on overnight batch production processing, however, assists a data center in developing and planning procedures for handling the changes. This is particularly true for unexpected, last minute requests to keep the online system up beyond the normal scheduled time.

4.1.2 Special Uses

CA-7 WLP can also assist in disaster recovery or backup configuration planning. With WLP, the data center can define workload and resource models and project the requirements of this workload/configuration combination. The workload demand and available capacity may not be the same as normal during recovery from a major disaster. A company may redefine the workload model for WLP to reflect only those jobs that must run in spite of a disaster. Copies of the projected workload completion times may then be reviewed and approved by appropriate user management personnel. This way, WLP can be used to help define a suitable configuration for processing the required work. Decisions on the suitability of alternate CPU/peripheral configurations are greatly assisted by realistic planning information.

4.1.3 Data Flow

WLP executes as a single job step, simulating the processing of jobs based on a defined workload model and as many resource models as are necessary to correspond to the anticipated changes in environment.

The CA-7 text editor, or any comparable text editing facility, can be used to tailor the workload model to specific needs. Jobs can be added, changed, or deleted as necessary to complete the accurate definition of the workload model prior to running the actual planning job.

Resource models for WLP can be based on the workload balancing processing objectives used in production. Those processing objectives used in actual workload processing can be used, without change, in WLP. New processing objectives, when necessary, can also be defined for use in WLP to accomplish the desired results. Predefined processing objectives used in the current production control function can be selected when the workload model parameters are specified. If these planning objectives have been previously defined and scheduled with the UCC7Rxxx convention, they can be selected and automatically included at the appropriate position in the file containing the workload model produced by FWLP. Changes to processing objectives, including additions, or deletions can alternatively be made to the data file. This is done in a manner similar to the technique for modifying job detail in the workload model, since both are physically intermixed in the data file which becomes input to WLP. Global overrides and additional parameters are also available on the WLP1 control statement.

Once the data representing the desired workload and resources is completely prepared, the workload planning job is run. Different reports are produced depending on whether log history or data statement information is used. Reports with the title suffix PROJECTION are produced whenever data statement information and the WLP1 control statement are used for the workload model. Reports with the title suffix ACTUAL are produced whenever history information and the WLP2 control statement are used for the model. The workload planning summary display is also provided for workload models selected from the database with the FWLP command.

Refer to Figure 4-1 on page 4-5 for the flow of the workload planning facility.

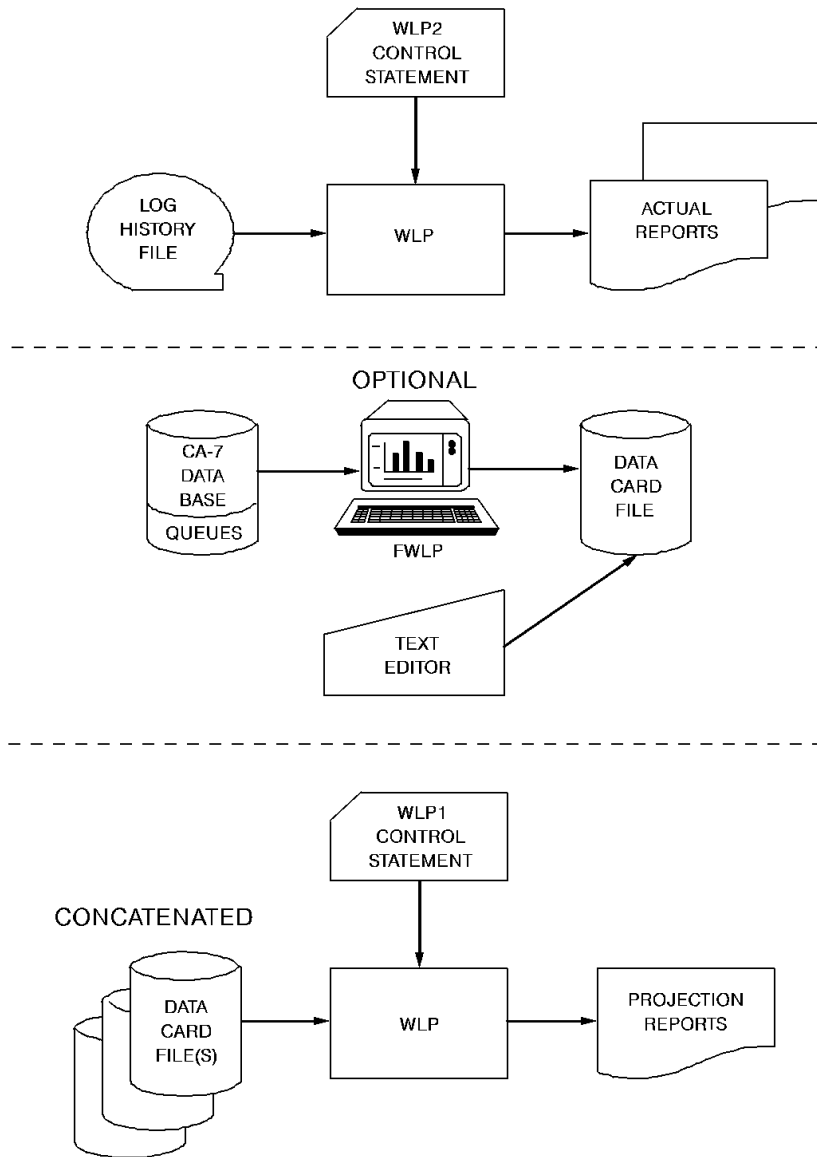


Figure 4-1. Workload Planning Flowchart

4.1.4 Limitations On Use

The workload planning facility is flexible, but using it to compare dissimilar systems results in data that appears to be good, but probably is not. Such data should not be used for the basis of decisions.

One way to avoid this situation is to do separate extracts from the CA-7 database, thereby creating a series of data files. If all the information is needed in a particular projection run, concatenate the files for more universal results. Even here remember that the values of the WLP1 parameters are applied globally in the concatenated data.

For example, a site has a 3083 and a 4341, and jobs can run on either CPU. To do a projection run involving jobs that run on both CPUs, the source information for the projection run is extracted from the CA-7 database. The values for the parameters to be used in the projection run are applied globally. But the system does not allow a separate set of values applied to parameters for the 3083 and another set applied to the 4341 in the same run.

The two overall best uses of projection are studying the effects of proposed system upgrades, perhaps the reintegration of systems as a result of the upgrades, and troubleshooting problem devices and applications.

4.2 Workload Planning Reports

The CA-7 workload planning (WLP) facility generates reports that provide resource usage and job run information based on simulated runs. The reports assist data center managers in identifying particular problem areas in hardware configuration and job scheduling (those areas which affect job flow).

The WLP reports are:

- Card Input Edit - WLP01
- Hourly INIT Usage Projection - WLP02
- Hourly TP1 Usage Projection - WLP03
- Hourly TP2 Usage Projection - WLP04
- Hourly CPU Usage Projection - WLP05
- Resource Summary Projection - WLP06
- Job Summary - Projection Report WLP07
- Job Summary - Actual Report WLP07
- Detailed Resource Utilization - Projection - WLP07
- Detailed Resource Utilization - Actual - WLP07

A description and sample of each report follows. The remaining topics provide the procedures to generate specific reports.

4.2.1 Card Input Edit Report - WLP01

This report is an audit trail/error report of either the WLP1 or WLP2 control statement used in either a projection or an actual run. It shows the values of either WLP1 or WLP2, in effect, during the run.

This report is output with reports WLP02 through WLP07 so that you can see the values used in the run, rather than having to refer to the control records for that run.

Following is an example of the WLP1 control statement used in a projection run, including the projection time span for that run. The values shown in the report correspond to the values entered in the control record for the batch run for the projection.

```

WLP01 - 01/12/00.012 10:28:03          1          PAGE 0001
** CA - 7  WORKLOAD PLANNING ***
   CONTROL CARDS

   3   WLP1 TP1=+00
   4   CONTROL VALUES IN EFFECT
      WLP1 ETF=+000
          TP1=+00
          TP2=+00
          INIT=+00
          ALG=WLB
          SCNSPAN=04
          SCNINCR=00
          RERUN=NO
          LPP=60
          CPUS=01

WLP01 - 01/12/00.012 10:28:03          5          PAGE 0001
      WLP ERROR MESSAGE

      PROJECTION TIME SPAN WAS
      FROM=00.011/0900      (2000.011/09:00)
      TO=00.011/2019      (2000.011/20:19)
   6

```

Figure 4-2. Card Input Edit Report Projection - WLP01

Item Description

- 1** Identifies the report.
- 2** Specifies the date and time-of-day of the projection run which created this report.
- 3** Shows the control statement identifier.
- 4** Shows the values that were in effect for the WLP1 control statement for this particular projection run.
- 5** Shows the error messages and any items that were specified incorrectly.
- 6** The time span used in this projection.

Following is an example of a WLP01 report that comes from an actuals run. The actuals run uses the WLP2 control statement.

```

WLP01 - 01/13/00.099      16:05:55      ** CA - 7 W O R K L O A D P L A N N I N G **
                                C O N T R O L C A R D S
                                **

3 WLP2 FROM=00013/0000,SPAN=24
4 CONTROL VALUES IN EFFECT
  WLP2 CPUID=ALL
      LPP=60
5      MAXRUN=12
6 SPECIFIED TIME SPAN WAS
  FROM=99013/0000      (1999.013/00:00)
  TO=99013/2400      (1999.013/24:00)
  LOW DATE=99013/0921      (1999.013/09:21)
  HIGH DATE=99013/0533      (1999.013/05:33)

```

Figure 4-3. Card Input Report Actuals - WLP01

Item Description

- 1 Identifies the report.
- 2 Specifies the date and time-of-day of the actuals run which created this report.
- 3 Shows the values that were entered on the WLP2 control statement in the actuals run. Defaults go into effect when parameters are not specified.
- 4 Shows the values that were in effect for the WLP2 control statement for this particular actuals run.
- 5 Shows the error messages and any items that were specified incorrectly.
- 6 Shows how the system interpreted the FROM and TO or FROM and SPAN parameters specified. Additionally, the LOW and HIGH date and time values from the History/Archives input files are listed.

4.2.2 Hourly INIT Usage Projection Report WLP02

This report provides a breakdown of initiator usage per hour for a single WLP simulation. Hour-by-hour figures assist the user in finding resource and job schedule slack time. Furthermore, they can show the projected effects of additional initiators, hardware failure, or new applications in a data center under CA-7.

The WLP data statement file, extracted from the database by the FWLP command or created manually, is the input for this report. The WLP1 control statement must also appear in the WLPCC control record file to generate the report.

WLP02 - 01/12/00.012 10:28:03		** CA - 7 WORKLOAD PLANNING **										PAGE 0001			
** HOURLY INIT USAGE PROJECTION **															
1 DATE 00011															
3 HIGH WATER MARK IN UNITS															
1 1 2 2 3 3 4 4 5															
2 TIME ...5...0...5...0...5...0...5...0...5...0															
4 CAPACITY															
5 USED															
6 PERCENTAGE															
TIME															
900-1000												15.0	0.0	0.0	900-1000
1000-1100												15.0	0.0	0.0	1000-1100
1100-1200												15.0	0.0	0.0	1100-1200
1200-1300												15.0	0.0	0.0	1200-1300
1300-1400	*****											15.0	3.7	24.7	1300-1400
1400-1500	**											15.0	1.1	7.3	1400-1500
1500-1600	*											15.0	1.0	6.6	1500-1600
1600-1700	*											15.0	1.0	6.6	1600-1700
1700-1800	*											15.0	1.0	6.6	1700-1800
1800-1900	*											15.0	1.0	6.6	1800-1900
1900-2000	**											15.0	1.4	9.5	1900-2000
2000-2019	*											4.7	0.3	6.6	2000-2019
7 TOTALS												169.7	10.5	6.2	
8 AVERAGES												14.1	0.8		

Item Description

- 1 Indicates the date for which the WLP simulation applies.
- 2 Divides the simulation time span into consecutive hour increments. For simulations whose span exceeds 8 hours, multiple groups of 8-hour segments are produced.
- 3 Indicates a bar graph plot of the largest number of initiator hours in use per hour scaled from 0 to 50 or 100, depending on the availability values for the simulation.
- 4 Indicates the number of initiator hours available per hour for a single WLP simulation. Value may be fractional to reflect changing resource availability within the hour time span.
- 5 Indicates the actual number of initiator hours used per hour for a single WLP simulation.
- 6 Indicates an hour-by-hour percentage of initiator usage based on the ratio:
USED/CAPACITY
- 7 Indicates summary figures for CAPACITY, USED, and PERCENTAGE. Totals should correspond with figures on the Resource Summary Projection report, although minor differences due to rounding are possible.

8 Indicates mean averages for the CAPACITY and USED columns.

Note: Totals and averages reflect the values accumulated for the reporting period within the day specified by DATE.

4.2.3 Hourly TP1 Usage Projection Report WLP03

This report provides a breakdown of TYPE1 tape drive usage per hour for a single WLP simulation. Hour-by-hour figures assist the user in finding resource and job schedule slack time. Furthermore, they can show the projected effects of additional hardware, hardware failure, or new applications in a data center under CA-7.

The WLP data statement file, extracted from the database by the FWLP command or created manually, is the input for this report. The WLP1 control statement must also appear in the WLPCC control record file to generate the report.

WLP03 - 01/12/00.012 10:28:03		** CA - 7 WORKLOAD AD PLANNING **										PAGE 0001										
		** HOURLY TP1 USAGE PROJECTION **																				
1	DATE 00011																					
		3	HIGH WATER MARK IN UNITS																			
			1	1	2	2	3	3	4	4	5	4	5	6	TIME							
		TIME	...	5	...	0	...	5	...	0	...	5	...	0	...	5	...	0	CAPACITY	USED	PERCENTAGE	TIME
2	900-1000											14.0	0.0	0.0	900-1000							
	1000-1100											14.0	0.0	0.0	1000-1100							
	1100-1200											14.0	0.0	0.0	1100-1200							
	1200-1300											14.0	0.0	0.0	1200-1300							
	1300-1400	*****										14.0	3.6	26.0	1300-1400							
	1400-1500	**										14.0	1.1	7.8	1400-1500							
	1500-1600	**										14.0	1.6	11.6	1500-1600							
	1600-1700	**										14.0	2.0	14.2	1600-1700							
	1700-1800	**										14.0	2.0	14.2	1700-1800							
	1800-1900	**										14.0	1.8	13.0	1800-1900							
	1900-2000	**										14.0	1.4	9.8	1900-2000							
	2000-2019	*										4.4	0.2	5.6	2000-2019							
7	TOTALS											158.4	13.7	8.6								
8	AVERAGES											13.2	1.1									

Item Description

- 1 Indicates the date for which the WLP simulation applies.
- 2 Divides the simulation time span into consecutive hour increments. For simulations whose span exceeds 8 hours, multiple groups of 8-hour segments are produced.
- 3 Indicates a bar graph plot of the largest number of TYPE1 tape drives in use per hour scaled from 0 to 50 or 100, depending on the resource availability values for the simulation.
- 4 Indicates the number of TYPE1 tape drive hours available per hour for a single WLP simulation. Value may be fractional to reflect changing resource availability within the hour time span.
- 5 Indicates the actual number of TYPE1 tape drive hours used per hour for a single WLP simulation.
- 6 Indicates an hour-by-hour percentage of TYPE1 tape drive usage based on the ratio:
USED/CAPACITY
- 7 Indicates summary figures for CAPACITY, USED, and PERCENTAGE. Totals should correspond with figures on the Resource Summary Projection report, although minor differences due to rounding are possible.

8 Indicates mean averages for the CAPACITY and USED columns.

Note: Totals and averages reflect the values accumulated for the reporting period within the day specified by DATE.

4.2.4 Hourly TP2 Usage Projection Report WLP04

This report provides a breakdown of TYPE2 tape drive usage per hour for a single WLP simulation. Hour-by-hour figures assist the user in finding resource and job schedule slack time. Furthermore, they can show the projected effects of additional hardware, hardware failure, or new applications in a data center under CA-7.

The WLP data statement file, extracted from the database by the FWLP command or created manually, is the input for this report. The WLP1 control statement must also appear in the WLPCC control record file to generate the report.

WLP04 - 01/12/00.012 10:28:03		** CA - 7 WORKLOAD PLANNING **					PAGE 0001							
		** HOURLY TP2 USAGE PROJECTION **												
1 DATE 00011		3 > HIGH WATER MARK IN UNITS					4		5		6			
TIME		1	1	2	2	3	3	4	4	5	CAPACITY	USED	PERCENTAGE	TIME
2		...	5	...	0	...	5	...	0	...	5	...	0	...
900-1000											12.0	0.0	0.0	900-1000
1000-1100											12.0	0.0	0.0	1000-1100
1100-1200											12.0	0.0	0.0	1100-1200
1200-1300											12.0	0.0	0.0	1200-1300
1300-1400											12.0	0.0	0.0	1300-1400
1400-1500											12.0	0.0	0.0	1400-1500
1500-1600											12.0	0.0	0.0	1500-1600
1600-1700											12.0	0.0	0.0	1600-1700
1700-1800											12.0	0.0	0.0	1700-1800
1800-1900											12.0	0.0	0.0	1800-1900
1900-2000											12.0	0.0	0.0	1900-2000
2000-2019											3.8	0.0	0.0	2000-2019
											7 TOTALS	135.8	0.0	0.0
											8 AVERAGES	11.3	0.0	

Item Description

- 1 Indicates the date for which the WLP simulation applies.
- 2 Divides the simulation time span into consecutive hour increments. For simulations whose span exceeds 8 hours, multiple groups of 8-hour segments are produced.
- 3 Indicates a bar graph plot of the largest number of TYPE2 tape drives in use per hour scaled from 0 to 50 or 100, depending on the resource availability values for the simulation.
- 4 Indicates the number of TYPE2 tape drive hours available per hour for a single WLP simulation. Value may be fractional to reflect changing resource availability within the hour time span.
- 5 Indicates the actual number of TYPE2 tape drive hours used per hour for a single WLP simulation.
- 6 Indicates an hour-by-hour percentage of TYPE2 tape drive usage based on the ratio:
USED/CAPACITY

7 Indicates summary figures for CAPACITY, USED, and PERCENTAGE. Totals should correspond with figures on the Resource Summary Projection report, although minor differences due to rounding are possible.

8 Indicates mean averages for the CAPACITY and USED columns.

Note: Totals and averages reflect the values accumulated for the reporting period within the day specified by DATE.

4.2.5 Hourly CPU Usage Projection Report WLP05

This report provides a breakdown of CPU usage per hour for a single WLP simulation. Hour-by-hour figures assist the user in finding resource and job schedule slack time. Furthermore, they can show the projected effects of additional hardware, hardware failure, or new applications in a data center under CA-7.

The WLP data statement file, extracted from the database by the FWLP command or created manually, is the input for this report. The WLP1 control statement must also appear in the WLPCC control record file to generate the report.

```

WLP05 - 01/12/00.012 10:28:03                                PAGE 0001
** CA - 7 WORKLOAD PLANNING **
** HOURLY CPU USAGE PROJECTION **

1  DATE 00011
3 > HIGH WATER MARK      IN PERCENT
1 2 3 4 5 6 7 8 9 0
2  TIME  ...0...0...0...0...0...0...0...0...0...0
900-1000          60.0  0.0      0.0  900-1000
1000-1100         60.0  0.0      0.0  1000-1100
1100-1200         60.0  0.0      0.0  1100-1200
1200-1300         60.0  0.0      0.0  1200-1300
1300-1400 *****
1400-1500 **
1500-1600 ***
1600-1700 ***
1700-1800 ***
1800-1900 *
1900-2000 *
2000-2019 *

7  TOTALS          679.0  17.0      2.5
8  AVERAGES         56.5   1.4

4  CAPACITY        USED        PERCENTAGE        TIME

```

Item Description

- 1** Indicates the date for which the WLP simulation applies.
- 2** Divides the simulation time span into consecutive hour increments. For simulations whose span exceeds 8 hours, multiple groups of 8-hour segments are produced.
- 3** Indicates a bar graph plot of the highest percentage of CPU time in use per hour scaled from 0 to 100.
- 4** Indicates the number of CPU minutes available per hour for a single WLP simulation. This value corresponds directly to the value given for CPUS on the WLP1 control statement multiplied by 60 for each full hour reported.
- 5** Indicates the actual number of CPU minutes used per hour for a single WLP simulation.
- 6** Indicates an hour-by-hour percentage of CPU usage based on the ratio:

$$\text{USED}/\text{CAPACITY}$$
- 7** Indicates summary figures for CAPACITY, USED, and PERCENTAGE. Totals should correspond with figures on the Resource Summary Projection report, although minor differences due to rounding are possible.

8 Indicates mean averages for the CAPACITY and USED columns.

Note: Totals and averages reflect the values accumulated for the reporting period within the day specified by DATE.

4.2.6 Resource Summary Projection Report WLP06

This report provides resource usage summary information based on total capacity for an entire WLP simulation. Figures for TYPE1 and TYPE2 tape drives, initiators and CPU usage compare projected resource capacity with actual usage. The resulting percentages help to identify a resource shortage or surplus. A message is generated when usage reaches a critical level.

The WLP data statement file, extracted from the database by the FWLP command or created manually, is the input for this report. The WLP1 control statement must also appear in the WLPCC control record file to generate the report.

WLP06 - 01/12/00.012 10:28:03		** CA - 7 WORKLOAD PLANNING **		PAGE 0001
** RESOURCE SUMMARY PROJECTION **				
	1 CAPACITY	2 USED	3 PERCENTAGE	
INITIATOR HOURS	169.7	10.5	6.2	
TP1 HOURS	158.4	13.7	8.6	
TP2 HOURS	135.8	0.0	0.0	
CPU MINUTES	679.0	17.0	2.5	

Item Description

- 1** Indicates the number of resource hours available for initiator, tape drive, and CPU usage.
- 2** Indicates the number of resource hours actually used in a single WLP simulation.
- 3** Indicates a percentage of resource usage based on the ratio:

USED/CAPACITY

A low value identifies a possible resource surplus. A value greater than 100 percent identifies a possible deficiency.

CRITICAL appears when resource PERCENTAGE exceeds 100 percent.

4.2.7 Job Summary - Projection Report WLP07

This report provides job status summary information based on deviations from due-out times for a specific WLP simulation time span. Figures for number of jobs to be run, number of jobs early, and number of jobs late help identify excessive run or rerun times, inappropriate job schedules, insufficient resource allocation, and so forth.

The WLP data statement file, extracted from the database by the FWLP command or created manually, is the input for this report. The WLP1 control statement must also appear in the WLPCC control record file to generate the report.

WLP07 - 01/12/00.012 10:28:03		** CA - 7 WORKLOAD PLANNING **		PAGE 0001
		** JOB SUMMARY -- PROJECTION **		
		-- TIME PERIOD : FROM 00.011/09:00 TO 00.011/20:19		
	3 COUNT	4 AVERAGE DEVIATION	5 MAXIMUM DEVIATION	
JOBS SCHEDULED	24	+ 02:05		
JOBS EARLY	14	+ 04:08	+ 04:30	
JOBS LATE	10	- 00:49	- 01:21	

Item Description

- 1** Indicates the beginning date and time for this simulation.
- 2** Indicates the ending date and time for this simulation.
- 3** Indicates total number of jobs for this simulation as follows:

JOBS SCHEDULED - Total number of jobs that were completed during this simulation.

JOBS EARLY - Total number of jobs that were completed early during this simulation.

JOBS LATE - Total number of jobs that were completed late during this simulation.

- 4** Indicates average job completion time deviations for this simulation as follows:

JOBS SCHEDULED - Total, in hours and minutes, for all jobs, calculated as follows:

$$\frac{(\text{Due-out times} - \text{Completion times})}{\text{Total number of jobs}}$$

JOBS EARLY - Total, in hours and minutes, for all early jobs, calculated as follows:

$$\frac{(\text{Due-out times} - \text{Completion times})}{\text{Total number of early jobs}}$$

JOBS LATE - Total, in hours and minutes, for all late jobs, calculated as follows:

$$\frac{(\text{Due-out times} - \text{Completion times})}{\text{Total number of late jobs}}$$

- 5** Indicates the highest completion time deviation for this simulation, as follows:

JOBS EARLY - Maximum amount of time early (+), in hours and minutes, for the earliest job.

JOBS LATE - Maximum amount of time late (-), in hours and minutes, for the latest job.

4.2.8 Job Summary - Actual Report WLP07

This report provides actual job status summary information based on deviations from due-out times. The information is taken directly from the CA-7 log history file for a specified time span. The WLP2 control statement must also appear in the WLPCC control record file to generate this report.

WLP07 - 01/12/00.012 10:28:03		** CA - 7 WORKLOAD PLANNING **		PAGE 0001
		** JOB SUMMARY -- ACTUAL **		
		-- TIME PERIOD : FROM 00.011/09:00 TO 00.011/20:19		
	3	4	5	
	COUNT	AVERAGE DEVIATION	MAXIMUM DEVIATION	
JOB SCHEDULED	82	+ 02:58		
JOB EARLY	50	+ 01:19	+ 06:22	
JOB LATE	32	- 09:40	- 19:43	

Item Description

1 Indicates the beginning date and time for this actuals run.

2 Indicates the ending date and time for this actuals run.

3 Indicates total number of jobs for this actuals run as follows:

JOB SCHEDULED - Total number of all jobs (scheduled, demanded, rerun) that completed during this run.

JOB EARLY - Total number of jobs that were completed early during this run.

JOB LATE - Total number of jobs that were completed late during this run.

4 Indicates average job completion time deviations for this actuals run as follows:

JOB SCHEDULED - Total, in hours and minutes, for all jobs, calculated as follows:

$$\frac{(\text{Due-out times} - \text{Completion times})}{\text{Total number of jobs}}$$

JOB EARLY - Total, in hours and minutes, for all early jobs, calculated as follows:

$$\frac{(\text{Due-out times} - \text{Completion times})}{\text{Total number of early jobs}}$$

JOB LATE - Total, in hours and minutes, for all late jobs, calculated as follows.

$$\frac{(\text{Due-out times} - \text{Completion times})}{\text{Total number of late jobs}}$$

- 5** Indicates the highest completion time deviation for this actuals run, as follows:

JOBS EARLY - Maximum amount of time early (+), in hours and minutes, for the earliest job.

JOBS LATE - Maximum amount of time late (-), in hours and minutes, for the latest job.

- 5** Indicates the job's due-out day and time.
- 6** Indicates the job's start day and time.
- 7** For executable jobs, indicates the job's elapsed time. Nonexecutable jobs show ***NON-EXEC.
- 8** Indicates the job's CPU time.
- 9** Indicates the number of TYPE1 tape drives required by the job.
- 10** Indicates the number of TYPE2 tape drives required by the job.
- 11** Indicates the job's WLB class.
- 12** Indicates the job's workload balancing (WLB) priority.
- 13** Indicates the job's rerun rate expressed as a percentage.
- 14** Indicates a rerun job. A value of R appears to indicate a job's elapsed time and CPU time have been extended to represent rerun spoilage as indicated by the RERUN, RRTHRSH, and RRSPOIL values on the WLP1 control statement. (Rerun time is included in elapsed time only for the Projection report.)
- 15** Indicates an 8-hour span against which elapsed time is plotted. The first 8-hour span reported begins on the 1-hour boundary prior to the simulation FROM time appearing on the earliest RES statement time. An individual job's span begins at its start time. A value of C appears in the first column of this field when the job's elapsed time span has been continued from a previous time range.
- 16** Indicates the completion code of the job (actuals only).
- 17** Indicates the job's status based on due-out time. End time is either earlier (+) or later (-) than due-out time. Asterisks (***) appear when a job is late.
- 18** Indicates total initiator hours used per hour for each of the 8 hours for this simulation.
- 19** Indicates total TYPE1 tape drive hours used per hour for each of the 8 hours for this simulation.
- 20** Indicates total TYPE2 tape drive hours used per hour for each of the 8 hours for this simulation.
- 21** Indicates total CPU minutes used per hour for each of the 8 hours for this simulation.

4.2.10 Detailed Resource Utilization - Actual Report WLP07

This report provides job flow information based on information from the CA-7 log history file. Statistics include all jobs that ran during a specified time frame, in addition to their due-out times, start times, and elapsed times. A plot graphically shows when each job ran within the time frame.

Information for the report comes from a log history file. The WLP2 control statement must also appear in the WLPCC control record file to generate the report.

```

WLP07 - 01/12/00.012 10:28:03                                PAGE 0001
** CA - 7 WORKLOAD PLANNING **
** DETAILED RESOURCE UTILIZATION -- ACTUAL **
-- TIME PERIOD : FROM 00.011/09:00 TO 00.011/17:00

 3      4      5      6      7      8      9      11      13      14      15
JOB NAME SCHDID DOTM   START TM  ELAP   CPU   T1 T2 C PRT  RR RI  0   1   1   1   1   1   1   1   1   1   16  17
                                DDD/HHMM DDD/HHMM HHMM  MMMSS
                                10  12
                                9.....0.....1.....2.....3.....4.....5.....6.....7  CC  HHMM
ACLWAIT1 030 011/1715 011/1300 0004 00004 0 0 A 100 0 0 0 0 0 0 0 0 0 0 0 0 0000 +0411
JFM001   030 011/1715 011/1300 0004 00001 0 0 U 100 1 R - - - - - 0010 +0411
JFM770   030 011/1735 011/1300 0005 00007 0 0 U 100 2 - - - - - 0000 +0430
JFM014   030 011/1738 011/1304 0013 00009 1 0 U 100 1 - - - - - 0000 +0421
AFM135   030 011/1742 011/1304 0017 00024 2 0 B 100 3 R - - - - - 0001 +0421
JFM013   030 011/1744 011/1304 0019 00016 1 0 U 100 2 - - - - - 0000 +0421
JFM012   030 011/1757 011/1304 0032 00019 1 0 U 100 2 - - - - - 0000 +0421
JFM011   030 011/1820 011/1317 0035 00036 1 0 U 100 2 - - - - - 0000 +0428
JFM010   030 011/1834 011/1317 0049 00035 1 0 U 100 3 - - - - - 0000 +0428
JFM112   030 011/1942 011/1317 0157 00423 1 0 U 100 4 - - - - - 0016 +0428
JFM062   030 011/1811 011/1352 0004 00005 0 0 I 100 0 - - - - - 0001 +0415
JFM002   030 011/1825 011/1356 0004 00002 0 0 U 100 1 R - - - - - 0001 +0425
JFM040   030 011/1848 011/1514 0004 00002 0 0 U 100 0 - - - - - S222 +0330
BFM135   030 011/1940 011/1518 0215 00727 2 0 B 100 13 - - - - - 0004 +0207

18 INITIATOR USAGE (HRS) 0.2 1.4 2.6 3.0 2.9 2.5 3.0 2.2
19 TP1 USAGE (HRS)      0.0 1.0 2.2 3.7 2.9 2.5 4.0 2.1
20 TP2 USAGE (HRS)      0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
21 CPU TIME (MINS)      1.8 15.6 17.1 13.7 8.0 7.7 11.1 7.6

```

Item Description

- 1** Indicates the beginning date and time of the actual run.
- 2** Indicates the ending date and time of the actual run. Each page of the report covers an 8-hour span. Runs longer than this span are divided into 8-hour time spans for reporting purposes.
- 3** Indicates the job name. Multiple entries for the same job appear when a job reruns.
- 4** Indicates the job's schedule ID.
- 5** Indicates the job's due-out day and time.
- 6** Indicates the job's start day and time.
- 7** Indicates the job's elapsed time.

- 8** Indicates the job's CPU time.
- 9** Indicates the number of TYPE1 tape drives required by the job.
- 10** Indicates the number of TYPE2 tape drives required by the job.
- 11** Indicates the job's WLB class.
- 12** Indicates the job's WLB priority.
- 13** Indicates the number of times the job has been restarted.
- 14** Indicates a rerun job. A value of R appears when the job is a rerun. (Rerun time is not included in elapsed time for the Actual report. Instead, each rerun is listed individually as a separate job.)
- 15** Indicates an 8-hour span against which elapsed time is plotted. The first 8-hour span reported begins on the 1-hour boundary prior to the FROM value appearing on the WLP2 control statement. An individual job's span begins at its start time. A value of C appears in the first column of this field when the job's elapsed time span has been continued from a previous time range.
- 16** Indicates the completion code of the job.
- 17** Indicates the job's status based on due-out time. End time is either earlier (+) or later (-) than due-out time. Asterisks (**) appear when a job is late.
- 18** Indicates total initiator hours used per hour for each of the 8 hours for this actual run.
- 19** Indicates total TYPE1 tape drive hours used per hour for each of the 8 hours for this actual run.
- 20** Indicates total TYPE2 tape drive hours used per hour for each of the 8 hours for this actual run.
- 21** Indicates total CPU minutes used per hour for each of the 8 hours for this actual run.

4.3 WLP Online Data Generator

The online data generator is the FWLP command which is used to automatically generate data for a projection run. It is used only for projections.

4.3.1 FWLP Command

The FWLP command selects information from the CA-7 database and queues to be used as input for the CA-7 WLP simulator and projection reports. This input supplies all critical information about the resource configuration(s) and jobs scheduled for a specified time frame. The file created by FWLP consists of card-image, fixed format records to facilitate additions, deletions, and updates for possible resource and job specification changes through a standard text editor (CA-7, TSO, CA-Roscoe, and so forth).

You can find more information about the FWLP command in the *CA-7 Commands Guide*.

4.3.2 Data Statement File

The data statement file created by the FWLP transaction consists of 80-character, fixed-format records divided into two types:

- RES statements which define the resources available
- JOB statements which define the jobs' requirements

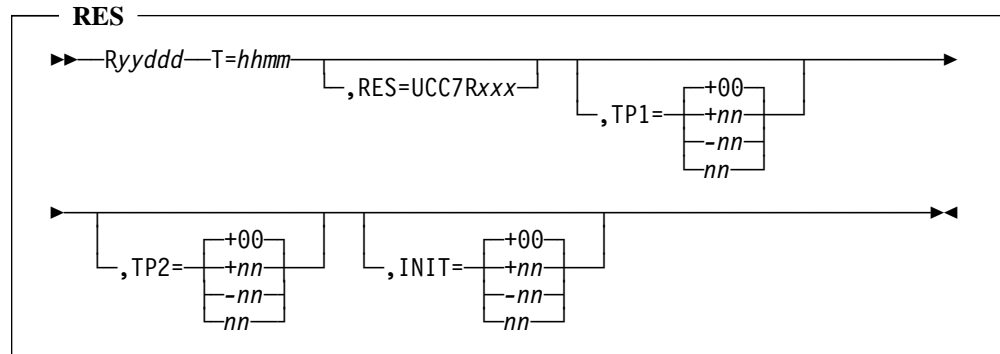
The file is used as input for a batch WLP run. WLP simulates a run based on information such as when a job enters the queues, its requirements, available resources, and so forth, as specified in the data statement file. At the user's option, parameters on the RES and JOB statements may be changed, or additional RES or JOB statements may be added. This enables the user to simulate the effects of changing resources and/or job processing characteristics. If additional statements are added, they do not have to be added in sequence. The batch simulation job sorts the statements before processing.

Simulation may optionally be based on workload balancing (WLB) calculations determined by job characteristics and WLB processing objectives definitions. Whether the WLB algorithm is used to calculate job priorities, resource specifications (RES statements) may refer to the WLB processing objectives modules.

4.3.2.1 RES Statements

The number of RES statements in the data statement file corresponds directly to the RESP or RESA parameters in the FWLP command. If RESP has been specified, the resource picture job name (UCC7Rxxx) is used permanently throughout a single batch run of WLP. Only one RES statement has been created as a result of FWLP. On the other hand, if RESA has been specified, the indicated job name (UCC7Rxxx) is used as a starting schedule point of resource definitions, and all ascending occurrences of UCC7Rxxx jobs are picked up by schedule times as encountered. In this case, one RES statement has been created for each scheduled resource picture definition change. The modules referenced by the RES parameter on the RES statement must be in a load library in the WLP batch JCL.

Syntax:



Where:

Ryyddd

Is a required, positional field. Must begin in column 1.

R

Indicates this is a RES statement.

yyddd

Indicates the Julian date on which this resource picture is to take effect. Value is taken from the scheduled due-out time of the WLB resource picture schedule in the CA-7 database if the RES statement was generated by the FWLP command.

Years (yy) in the range 70-99 are interpreted to be in the 20th century (that is, 97 is interpreted as 1997). Years in the range 00-69 are interpreted to be in the 21st century (that is, 01 is interpreted as 2001).

T=hhmm

Is a required, positional field. Must begin in column 8. Specifies the time-of-day at which this resource picture is to be applied. Value is the due-out time of the WLB resource picture schedule on the CA-7 database if the RES statement was generated by the FWLP command.

RES

Specifies the module name of the WLB resource picture. This parameter is optional. If the RES keyword is omitted, changes indicated by other keywords are applied to the resource definition in effect for the time indicated.

UCC7Rxxx

Identifies a CA-7 WLB processing objective definition module existing on the Load library. If the RES parameter is not specified, adjustments for TP1, TP2, and INIT are applied to the current WLB definition. When processing begins, the definition contains a value of zero for all parameters.

If the RES parameter is not specified on the earliest RES statement, the INIT parameter should be specified. Otherwise, jobs run the risk of not fitting the resources available from the time of this RES statement until the time the next RES statement becomes effective. The earliest RES statement date/time should always include this parameter with the appropriate module name.

TP1

Overrides the number of tape drives specified in the WLB TAPE1 macro MXTAL value. This parameter is optional. The FWLP command does not generate this parameter.

+00

Indicates no change to the current value. This is the default.

+nn

Indicates the amount by which TAPE1 is adjusted. For example, TAPE1 macro MXTAL=4; RES statement TP1=+3; the result is a value of 7 for TAPE1. The adjustment cannot exceed 99. For example, TAPE1 macro MXTAL=90; RES statement TP1=20; the result is a value of 99 for TAPE1.

-nn

Indicates the amount by which TAPE1 is adjusted. For example, TAPE1 macro MXTAL=4; RES statement TP1=-3; the result is a value of 1 for TAPE1. The adjustment cannot be less than 0. For example, TAPE1 macro MXTAL=4; RES statement TP1=-5; the result is a value of 0 for TAPE1.

nn

Overrides and replaces the value of TAPE1. For example, TAPE1 macro MXTAL=4; RES statement TP1=3; the TAPE1 resulting value is 3.

TP2

Overrides the number of tape drives specified in the WLB TAPE2 macro MXTAL value. This parameter is optional. The FWLP command does not generate this parameter.

+00

Indicates no change to the current value. This is the default.

+nn

Indicates the amount by which TAPE2 is adjusted. For example, TAPE2 macro MXTAL=4; RES statement TP2=+3; the result is a value of 7 for TAPE2. The adjustment cannot exceed 99. For example, TAPE2 macro MXTAL=90; RES statement TP2=20; the result is a value of 99 for tape 2.

-nn

Indicates the amount by which TAPE2 is adjusted. For example, TAPE2 macro MXTAL=4; RES statement TP2=-3; the result is a value of 1 for TAPE2. The adjustment cannot be less than 0. For example, TAPE2 macro MXTAL=4; RES statement TP2=-5; the result is a value of 0 for TAPE2.

nn

Overrides and replaces the value of TAPE2. For example, TAPE2 macro MXTAL=4; RES statement TP2=3; the TAPE2 resulting value is 3.

INIT

Adjusts the number of initiators in the WLB INIT macro MXTAL value. If the RES parameter is omitted, the INIT parameter should be specified; otherwise, the INIT parameter is optional. The FWLP command does not generate this parameter.

+00

Indicates no change to the current value. This is the default.

+nn

Indicates the amount by which the resource picture is adjusted. For example, INIT macro MXTAL=6; RES statement INIT=+2; the result is a value of 8 for INIT. The adjustment cannot exceed 99, for example, INIT macro MXTAL=90; RES statement INIT=+20; the result is a value of 99 for INIT.

-nn

Indicates the amount by which the resource picture is adjusted. For example, INIT macro MXTAL=6; RES statement INIT=-2; the result is a value of 4 for INIT. The adjustment cannot be less than 0. For example, INIT macro MXTAL=6; RES statement INIT=-7; the result is a value of 0 for INIT.

nn

Overrides and replaces the value of WLB INIT. For example, WLB INIT macro MXTAL=6; RES statement INIT=2; the resulting INIT value is 2.

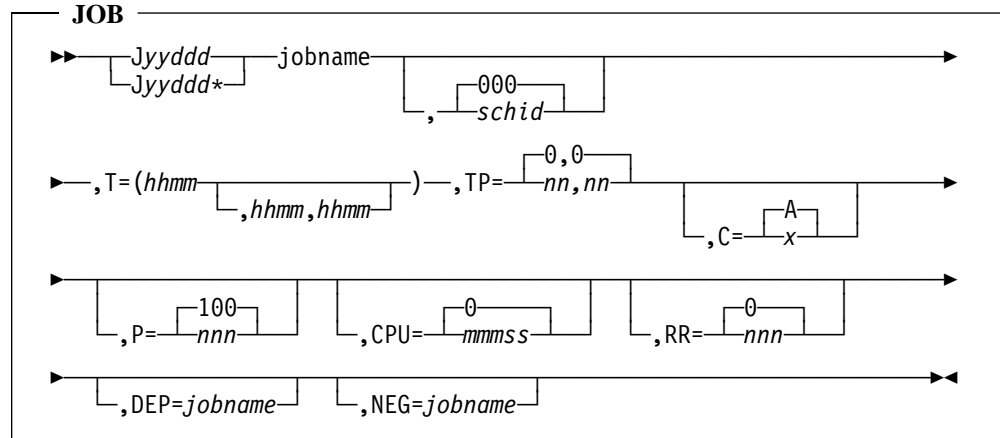
Usage Notes: At least one RES statement is required for any WLP1 (projection) run of the batch WLP program. The date and time of the earliest RES statement indicates the beginning time of the simulation process. The span of time covered by the projection reports is determined by the mix of jobs and resources specified in the RES and JOB statements. The reports begin with the earliest RES statement time. It continues until either all jobs are expected to complete, or until the remainder of the jobs not completed cannot fit into the resources specified by the last RES statement.

4.3.2.2 JOB Statements

JOB statements contain data about individual jobs (for example, required resources, job dependencies, job triggers represented by job dependencies and due-out time, job class, and so forth). WLP uses this data to determine when a job can be run. There is one JOB statement for each job scheduled during the simulation, including reruns and demands.

The user can update, add or delete JOB statements generated by the online FWLP.

Syntax



Where:

Jyyddd[*]

Is a required, positional field. Must begin in column 1.

J

Indicates this is a JOB statement.

yyddd

Indicates the Julian date for the due-out time of this job, taken from the job's schedule.

Years (yy) in the range 70-99 are interpreted to be in the 20th century (that is, 97 is interpreted as 1997). Years in the range 00-69 are interpreted to be in the 21st century (that is, 01 is interpreted as 2001).

*

Indicates that the job is executing on the CPU at the time the simulation is to begin, and that the third subparameter of T on the statement is the job's actual start time. If omitted, the third subparameter represents the job's submit time. If used, * must appear in column 7. This is an option generated by FWLP.

jobname

Specifies the name of this job in up to 8 characters. Corresponds to the name on the CA-7 database and must begin in column 9. This positional parameter is required.

schid

Positional parameter indicating the job's schedule ID. (For information only.) When not used, a comma is required to denote omission. For example:

Jyyddd jobname,,T=....

If schedule ID is omitted, 000 is the default value.

T=(hhmm[,hhmm,hhmm])

Indicates time factors. T is required and can be user generated if desired. The three subparameters correspond to due-out time, elapsed time and submit or start time, as follows:

- First subparameter: Due-out time for this job. The value is the DOTM value in the job's schedule definition as defined in the CA-7 database. It is required.
- Second subparameter: Elapsed time for this job. If generated by the online FWLP command, this value is the weighted average elapsed run (clock) time or schedule lead time carried in the job's definition in the CA-7 database. It is optional. But if omitted or if 0 is specified, it indicates that the job is nonexecutable. The default is 0. If omitted and the third time subparameter is specified, the omission must be indicated by a comma. For example, T=(hhmm,,hhmm).
- Third subparameter: If an asterisk appears in column 7 of this JOB statement, this value is the actual start time for the job which was executing at the time the command was issued. Otherwise, it is the job's submit time, the time before which the job cannot be submitted. It is optional if no asterisk appears in column 7.

TP

Specifies the number of tape drives needed for this job. TP is optional and can be user generated if desired. The two subparameters correspond with the TAPE1 and TAPE2 values contained in the CA-7 database as follows:

- First subparameter (nn): Number of tape drives of TYPE1. The default is 0.
- Second subparameter (nn): Number of tape drives of TYPE2. The default is 0.

Any manual overrides made on the DB.1 screen for TYPE1 and TYPE2 tape drives are used to generate these values from the online FWLP command. Otherwise, the CA-7 calculated tape drive requirements are generated.

The parameters are positional. For example, if the job requires only one TYPE1 tape drive, one of the following would be specified:

```
TP=(1,0)
TP=(1)
TP=1
```

If the job requires only two TYPE2 tape drives, one of the following would be specified:

TP=(0,2) TP=(,2)

C

Indicates the CA-7 workload balancing (WLB) class of this job as specified on the CA-7 database. This parameter is optional.

A

Indicates the class to which the job defaults if the parameter is not specified.

x

Indicates the class of this job on the CA-7 database.

P

Indicates the CA-7 workload balancing (WLB) priority of this job as specified on the DB.1 screen if this JOB statement was generated by online FWLP. This parameter is optional.

100

Indicates the default WLB priority value of this job if the user does not specify the P parameter.

mmn

Indicates the WLB priority of this job. If online FWLP generated this JOB statement, the priority indicated here is the same as the priority of this job as shown on the DB.1 screen.

CPU

Indicates the job's CPU time. This parameter is optional.

0

Indicates the default CPU time if the user does not specify this parameter.

mmmss

Indicates the job's CPU time given in minutes (mmm) and seconds (ss).

RR

Indicates the job's rerun rate. This parameter is optional.

0

Indicates there are no reruns. This is the default.

nnn

Specifies the rerun rate as a 3-digit percentage.

DEP

Specifies one or more jobs on which this job is dependent or that trigger this job. Value can be either a job requirement connection, corresponding to the DB.3.2 screen, or it can represent a triggered job's dependency on the triggering job. This parameter is optional. Multiple job dependencies may be specified as follows:

DEP=(jobname1,jobname2,...,jobnamen)

NEG

Specifies one or more jobs with which this job is mutually exclusive. Value corresponds with the DB.3.2 screen value when a /jobname (not this job) appears. This parameter is optional. Multiple job names may be specified as follows:

NEG=(jobname1,jobname2,...,jobnamen)

Usage Notes: Any number of job names may be specified for both DEP and NEG.

If a JOB statement must be continued, an asterisk (*) in column 72 and a comma after the last parameter indicate that the following statement is a continuation. Leading blanks on the following statement are ignored; continued data may start in any column.

4.4 WLP Control Statements

Two WLP control statements are available for the batch run. They are:

WLP1 (generates Projection reports)

WLP2 (generates Actual reports)

You may specify either of these statements, but not both, as input either for the WLPCC DD or as EXEC statement PARM information. If PARM is used, WLPCC is ignored since only one control statement is allowed per run of WLP. We recommend that the control statement be used rather than the PARM.

4.4.1 Format Rules

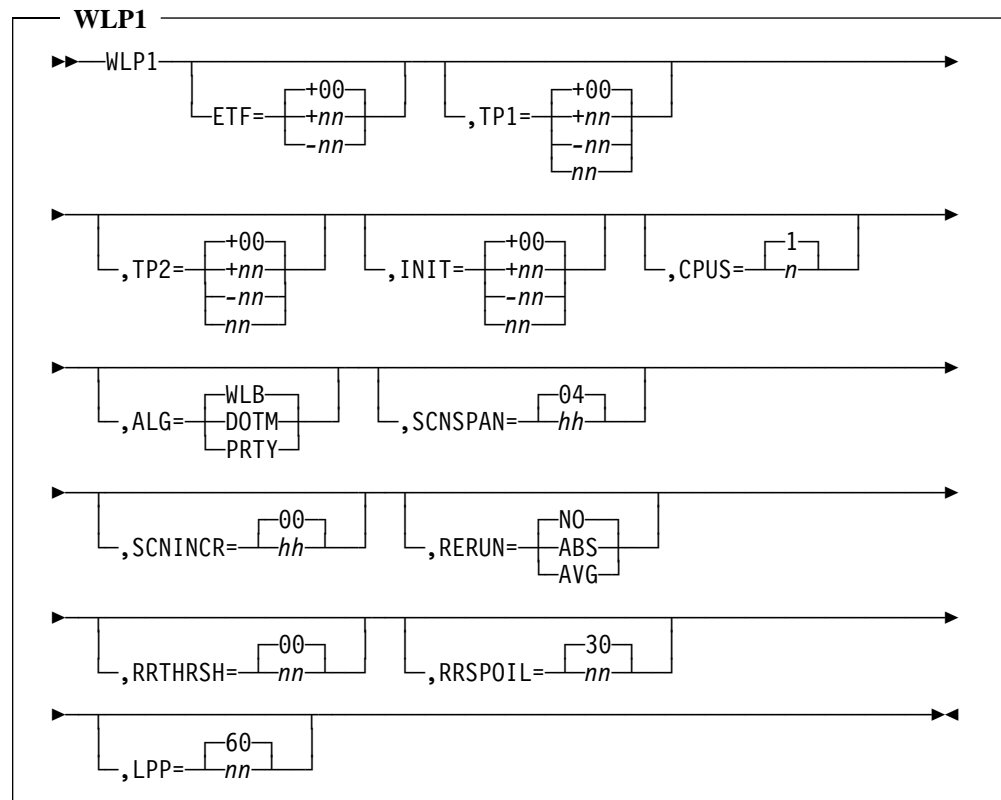
The following format rules apply to the WLP1 and WLP2 control statements:

- At least one blank is required between operation, operand and comment fields.
- No blank may appear within any field.
- A blank statement is not allowed.
- The operation field (WLP1 or WLP2) must begin in column 1 and is followed by one or more blanks.
- A comment statement with an asterisk (*) in column 1 is allowed.
- No field can exceed column 71.
- An operand field may be continued on a subsequent control statement, after coding a complete parameter (including comma) before column 72 and by including an asterisk (*) in column 72.
- The continuation statement may start anywhere after column 1.
- All keyword parameters must be separated by commas, but can be coded in any order.

4.4.2 WLP1 Control Statement

The WLP1 control statement causes a workload simulation based on input from the data statement file created from the online FWLP command and referenced by the UCC7WLP DD statement. Projection reports are the results.

4.4.2.1 Syntax



Where:

ETF

Indicates a global elapsed time factor, assuming all jobs run *nn* percent slower or faster than their elapsed times indicated by the T parameter on the JOB data statement. The ETF parameter is useful for simulating hardware changes. This parameter is optional.

+00

Indicates that the ETF parameter was not specified, or there is no change to the elapsed time specified by the T parameter on the JOB data statement. This is the default.

+nn

Assumes all jobs run *nn* percent faster than was specified by the T parameter on the JOB data statement.

-nn

Assumes all jobs run nn percent slower than was specified by the T parameter on the JOB data statement.

TP1

Adjusts the values of TP1 as specified on each of the RES data statements for the entire simulation process. Indicates a global change to the value of TAPE1 tape drives. Values range from 00 to 99. This parameter is optional.

+00

Indicates that the TP1 parameter was not specified or no adjustment to the TAPE1 counts is required. This is the default.

+nn

Indicates a global increase value to the number of TAPE1 tape drives. For example, if RES statement TP1=1; WLP1 statement TP1=+1; the resulting number of TAPE1 tape drives is 2.

-nn

Indicates a global decrease value to the number of TAPE1 tape drives. For example, if RES statement TP1=2; WLP1 statement TP1=-1; the resulting number of TAPE1 tape drives is 1.

nn

Overrides and replaces the value of TAPE1. For example, RES statement TP1=2; WLP1 statement TP1=1; the resulting number of TAPE1 tape drives is 1.

TP2

Adjusts the value of TP2 as specified on each of the RES data statements for the entire simulation process. Indicates a global change to the value of TAPE2 tape drives. Values range from 00 to 99. This parameter is optional.

+00

Indicates that the TP2 parameter was not specified or no adjustment to the TAPE2 counts is required. This is the default.

+nn

Indicates a global increase value to the number of TAPE2 tape drives. For example, if RES statement TP2=1; WLP1 statement TP2=+1; the resulting number of TAPE2 tape drives is 2.

-nn

Indicates a global decrease value to the number of TAPE2 tape drives. For example, if RES statement TP2=2; WLP1 statement TP2=-1; the resulting number of TAPE2 tape drives is 1.

nn

Overrides and replaces the value of TAPE2. For example, RES statement TP2=2; WLP1 statement TP2=1; the resulting number of TAPE2 tape drives is 1.

INIT

Adjusts the value of INIT specified on each of the RES data statements for the entire simulation process. Indicates a global change to the number of initiators available. Values may range from 00 to 99. This parameter is optional.

+00

Indicates the INIT parameter was not specified or there is no adjustment required on RES INIT. This is the default.

+nn

Indicates the amount to increase the number of initiators available. For example, RES statement INIT=3; WLP1 statement INIT=+3; the resulting number of initiators available is 6.

-nn

Indicates the amount to decrease the number of initiators available. For example, RES statement INIT=3; WLP1 statement INIT=-1; the resulting number of initiators available is 2.

nn

Overrides and replaces the value of RES statement INIT. For example, RES statement INIT=3; WLP1 statement INIT=1; the resulting number of initiators available is 1.

CPUS

Indicates an adjustment in the total number of CPUs to be represented. Values may range from 1 to 9. This parameter is optional.

1

Indicates one CPU is to be represented. This is the default.

n

Specifies the number of CPUs to be considered. This value multiplies both the number of initiators and CPU capacity.

ALG

Indicates the algorithm to be used for simulation of job processing activity. This parameter is optional.

WLB

Simulates job processing according to the workload balancing priority calculation technique. This is the default.

DOTM

Simulates job processing, assuming that job submission priority is based solely on the job's specified due-out time (T on the JOB statement).

PRTY

Simulates job processing, assuming that job submission priority is based on a job's specified priority (P on the JOB statement).

SCNSPAN

Indicates the number of hours early that any job may be run during projection processing. In general, this value should correspond to the schedule scan span specified for the online execution of CA-7. However, it is possible to have a job that is dependent on another job and their due-out times are far apart; then, the SCNSPAN value should be large enough to encompass both jobs. hh may be from 01 to 24. This parameter is optional. The default is 04.

SCNINCR

Indicates the number of hours between simulated schedule scan "wake-ups." The value corresponds directly to the schedule scan increment value for the online execution of CA-7. hh may be from 00 to 24. This parameter is optional. The default is 00. If the value is 00, jobs are brought into the simulated queues continuously. (This keyword is most useful in shops requiring a large scan span and increment for simulation.)

The next three parameters work together to determine the increase in elapsed time depending on the particular job's rerun rate.

RERUN

Indicates the method by which rerun conditions are to be represented in the simulation. This parameter is optional.

NO

Indicates rerun rates are to be ignored. This is the default.

ABS

Indicates elapsed time is to be increased by the RRSPOIL (rerun spoilage) percentage for all jobs with rerun rates over the RRTHRSH (rerun threshold) value.

AVG

Indicates that each job's elapsed time is to be increased by the RRSPOIL (rerun spoilage) percentage times the job's rerun rate, as follows:

$$\text{Elapsed Time} = \text{Elapsed Time} \times (1 + \text{RRSPOIL} \times \text{Rerun Rate})$$

The rerun rate for each job is its historical average.

RRTHRSH

Indicates RRSPOIL (rerun spoilage) value is to be applied to those jobs where rerun frequency crosses the threshold specified by this parameter. RERUN=ABS must also be specified. This parameter is ignored if RERUN=NO or AVG. Otherwise, this parameter is optional.

00

Indicates RRTHRSH parameter was not specified. This is the default.

nn

Specifies the percentage that must be equaled or surpassed by the RR value of a job for the rerun spoilage to be applied.

RRSPOIL

Indicates the percentage by which each job's elapsed time is to be lengthened due to reruns. This parameter is ignored if RERUN=NO. This parameter is optional.

30

Indicates the default percentage by which each job's elapsed time is lengthened.

nn

Indicates the percentage by which each job's elapsed time is lengthened. For example:

```
RERUN=ABS,RRTHRSH=10,RRSPOIL=25
```

For any job whose rerun rate is 10 percent or more, the job's elapsed time is increased by 25 percent.

```
RERUN=AVG,RRSPOIL=25
```

If a job's rerun rate is 10 percent, the job's elapsed time is increased by 2.5 percent.

LPP

Indicates the number of lines per page for all reports produced. This parameter is optional.

60

Indicates the default number of lines per page for reports produced.

nn

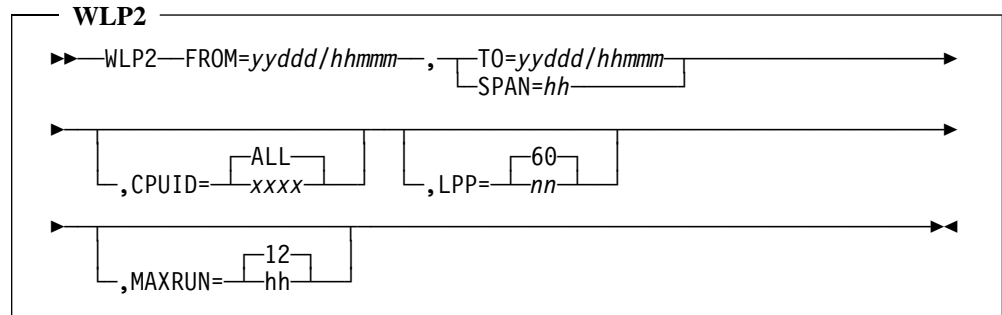
Indicates the number of lines per page for reports produced. Value may not be less than 40 nor greater than 80.

4.4.3 WLP2 Control Statement

The WLP2 control statement uses actual CA-7 log history data to create actual reports.

WLP2 begins in column 1 and is followed by one or more blanks.

4.4.3.1 Syntax



Where:

FROM=yyddd/hhmm

Indicates report beginning date and time. This parameter is required.

Years (yy) in the range 70-99 are interpreted to be in the 20th century (that is, 97 is interpreted as 1997). Years in the range 00-69 are interpreted to be in the 21st century (that is, 01 is interpreted as 2001).

TO=yyddd/hhmm

Indicates report ending date and time. Either TO or SPAN must be specified.

Years (yy) in the range 70-99 are interpreted to be in the 20th century (that is, 97 is interpreted as 1997). Years in the range 00-69 are interpreted to be in the 21st century (that is, 01 is interpreted as 2001).

SPAN

Indicates the report time interval in hours to be added to the FROM value. Values may range from 01 to 99. Either SPAN or TO must be specified.

CPUID

Indicates the SMF ID for the CPU jobs to which the report is to be restricted. Only those jobs run on the specified CPU are included. This parameter is optional.

ALL

Indicates reports are to be generated for jobs run on all CPUs. This is the default.

xxxx

Indicates reports are to be generated for the jobs run on the CPU specified by this SMF ID.

LPP

Indicates the number of lines per page for all reports produced. This parameter is optional.

60

Indicates the default number of lines per page for reports produced.

nn

Indicates the number of lines per page for reports produced. Value may not be less than 40 nor greater than 80.

MAXRUN

Provides a means for including those jobs that start within the FROM/TO span but that do not complete until after the span. This parameter indicates the number of hours past the TO value that WLP still considers jobs on the CA-7 log history tapes for inclusion in the report. The scan of the log tape may complete without reading to end-of-data and still include all pertinent jobs. This parameter is optional.

12

Indicates the default number of hours past the TO value that WLP still considers jobs on the CA-7 log history tapes for inclusion in the report.

hh

Indicates the number of hours past the TO value that WLP still considers jobs on the CA-7 log history file for inclusion in the report. Values may range from 00 to 99.

4.5 Using Workload Planning

The workload planning facility produces projection and actual reports. Projections are requested by a WLP1 control statement and use data generated from the CA-7 database as input. Actuals are requested by a WLP2 control statement and use the log history file as input.

The first decision to be made is whether to run projections or actuals because both cannot be done at the same time.

4.5.1 Projections

Either CA-Roscoe, TSO, and so forth, can be used to generate all the data for the projection run, or the online FWLP command can be used, which in turn creates the data for the projection run.

The following are some suggestions to help get started:

- Carefully decide the purpose of the projection. Manipulating too many variables in one projection run may cloud rather than clarify the issue.
- Using the online FWLP command saves time. The command builds the RES and JOB data statements including supplying defaults for the parameters on those statements.
- If the default value or condition for a parameter is desired, omit the parameter. It is better not to code the parameter with the default value. Report WLP01 shows exactly what the system interprets the parameter values to be.
- Refer to 4.2, “Workload Planning Reports” on page 4-7 through 4.4, “WLP Control Statements” on page 4-36 for more information on the WLP1 control statement.
- If a problem revolves around several trouble applications, several data statement files should be created, one for each trouble application. This allows each application to be studied individually. To see the collective effects of all the trouble applications, the files can be concatenated for a run.

4.5.1.1 FWLP Control Statement Example

The following example illustrates how to set up the UCC7WLP data file using the online FWLP command, how to create the appropriate WLP1 control statement, and some typical JCL.

An end-of-month application (EOM) has been creating problems. It is usually run late, creating more problems with the downline schedule. This application has predecessors from other applications as well as inside the application. Also, EOM is the predecessor for the general ledger (GL) application.

The EOM is on the schedule as starting and finishing at certain times. Closing for February business seems to be especially problematic; therefore, the February time frame is specified on the FWLP command (FROM and TO). TRIG=J is specified because EOM has predecessors and successors. At least one workload balancing picture comes into play (RESA) and there is a predefined ddname to be used for the data file.

The command which accomplishes this is as follows:

```
FWLP, FROM=(0301,1801), TO=(0302,0101), TRIG=J, RESA=UCC7REOM,
DDNAME=PROJDATA, JOB=EOM*
```

Where:

FROM and TO specify the time slice to be used for the simulation. It is also the time at which EOM is supposed to start and finish.

TRIG specifies that job-triggered jobs are to be considered. This is because EOM has predecessors and is itself a predecessor.

The MAINID parameter has been omitted from the FWLP statement so the default for MAINID is in effect. The default is ALL. ALL CPUs are considered. The CPU in which the jobs run is not a selection criterion for the projection.

RESA specifies a module name which contains a WLB resource picture. If the RESA parameter was not specified, it would default to the resource picture currently in effect. If the RESA parameter is specified, the system uses a resource picture different from the one normally in effect. Anytime the resource picture changes during the time slice indicated with FROM and TO, FWLP generates a new RES data statement. During the time slice, the resources may shift. All these different resource pictures are reflected in the simulation.

DDNAME indicates the data file created by the FWLP command is to be saved. This is done by directing it to a specific ddname so that the file can be kept as a unique data set. If a predefined ddname is not specified, the system executes the projection but does not save the data.

The DEMAND parameter has been omitted which means the default for DEMAND is in effect. The time slice specified is straight production time; therefore, on-request jobs are not allowed. DEMAND defaults to zero percentage.

The JOB parameter shows that all jobs starting with the letters EOM are to be used in the simulation. Specific job names could have been specified, but this captures all of them.

The SYS parameter has been omitted which means the default for SYS is in effect. The default considers all systems. Any job starting with the letters EOM, regardless of what system it is in, is used in the projection. Therefore, no system restrictions are applied to finding and projecting the EOM jobs.

The TYPE parameter has been omitted which means the default of ACTUAL is in effect. Also, this means that the projection honors the "don't schedule before/after" criteria for each job selected for simulation.

When the online FWLP command has completed, the data statement data set is created. This data set includes the needed RES and JOB statements. These statements may be changed if desired. For this example, the data statements stand as FWLP created them.

The next item in the example is the WLP1 statement. This statement has to be coded before the batch run is executed because it is part of the run.

```
WLP1,SCNINCR=2,SCNSPAN=4,RERUN=ABS,RRTHRS=5
```

The TP1 and TP2 parameters are omitted so their defaults are in effect. This means that the tape drives available for these jobs neither increase nor decrease. The values on the RES data statements created by the online FWLP command stand.

The CPUS parameter is omitted which means that the default is in effect. This parameter actually refers to the number of initiators that are to be used in the simulation. The system multiplies the number of initiators and CPU capacity by the number in the CPUS parameter.

SCNSPAN specifies the number of hours early that any job may be scheduled during projection runs. The value here should be the same as in production CA-7. Here, 4 hours early was specified.

SCNINCR specifies a value corresponding to CA-7 schedule scan wakeup intervals as defined in the initialization file. Here 2 hours was specified. If omitted, jobs are brought into the WLP simulated queues continuously.

ABS for RERUN means that the elapsed times for the rerun jobs used in the simulation are increased. The amount of the increase is equal to the spoilage percentage whenever the spoilage percentage is greater than the threshold value.

RRTHRS is set for 5 percent, meaning that rerun frequency must be greater than 5 percent before the rerun spoilage value is applied to these jobs.

RRSPOIL is omitted, meaning that the default is in effect. The default is 30 percent. The 30 percent applies to the increase in elapsed time for each job's run. Spoilage is based on reruns.

The LPP parameter is omitted meaning that the default is in effect. LPP is the number of lines printed per page on each report. The default is 60 lines.

4.5.2 Sample WLP Projections JCL

The following is an example of the JCL needed to produce WLP projections. Refer also to job N600 from the installation process.

```

//jobname JOB local jobcard standards
//WLP EXEC PGM=SASSWP00
//* User input files
//STEPLIB DD DISP=SHR,DSN=user.CA-7.loadlib
//UCC7WLP DD DISP=SHR,DSN=user.CA-7.wlpdata
//CA7RSRC DD DISP=SHR,DSN=user.CA-7.VRM.dataset
//WLPCC DD *
    WLP1 control records go here <====<
//* Report DDs
//MSGRPT DD SYSOUT=a
//INTRPT DD SYSOUT=a
//TP1RPT DD SYSOUT=a
//TP2RPT DD SYSOUT=a
//CPURPT DD SYSOUT=a
//RESRPT DD SYSOUT=a
//DETRPT DD SYSOUT=a
//TRCRPT DD SYSOUT=a
//* Other SYSOUT DDs
//SYSPRINT DD SYSOUT=a
//SYSOUT DD SYSOUT=a
//SYSUDUMP DD SYSOUT=a
//* Temporary work files
//JOBFILE DD UNIT=SYSDA,SPACE=(CYL,(1,1),RLSE),DCB=BLKSIZE=500
//JOBFIN DD DISP=(OLD,PASS),DSN=*.JOBFILE,VOL=REF=*.JOBFILE
//JOBFOU DD DISP=(OLD,PASS),DSN=*.JOBFILE,VOL=REF=*.JOBFILE
//JOBFWK01 DD UNIT=SYSDA,SPACE=(CYL,(1,1))
//JOBFWK02 DD UNIT=SYSDA,SPACE=(CYL,(1,1))
//JOBFWK03 DD UNIT=SYSDA,SPACE=(CYL,(1,1))
//RESFILE DD UNIT=SYSDA,SPACE=(CYL,(1,1),RLSE),DCB=BLKSIZE=200
//RESFIN DD DISP=(OLD,PASS),DSN=*.RESFILE,VOL=REF=*.RESFILE
//RESFOU DD DISP=(OLD,PASS),DSN=*.RESFILE,VOL=REF=*.RESFILE
//SIMLOG DD UNIT=SYSDA,SPACE=(CYL,(1,1),RLSE),DCB=BLKSIZE=400
//SORTWK01 DD DISP=(OLD,PASS),DSN=*.JOBFWK01,VOL=REF=*.JOBFWK01
//SORTWK02 DD DISP=(OLD,PASS),DSN=*.JOBFWK02,VOL=REF=*.JOBFWK02
//SORTWK03 DD DISP=(OLD,PASS),DSN=*.JOBFWK03,VOL=REF=*.JOBFWK03

```

Figure 4-4. Projections JCL

4.5.3 Actuals

The fundamental use of the Actuals reports is to compare what actually happened with a projection of that same scenario. Another use is reporting on what happened during a given time frame.

The following example shows how to code the WLP2 control statement and set up the JCL for the batch run using the WLP2 version.

4.5.3.1 WLP2 Control Statement Example

In the example used to illustrate projections, there was a trouble application called EOM. By running the Actuals reports for the time span specified in the projections, a comparison point is established.

The time frame for the projection example was from 3/1/00 at 6:01 PM through 3/2/00 at 1:01 AM. The time frame for the Actuals report is the same:

WLP2 FROM=00060/1801,TO=00061/0101

The CPUID, LPP, and MAXRUN parameters are omitted because their default values are desirable under the circumstances. CPUID defaults to ALL, meaning that the reports reflect all CPUs involved. If a CPUID were specified, the reports would reflect the activity in that CPU only. LPP defaults to 60 lines per page for the reports. MAXRUN defaults to 12 hours.

4.5.4 Sample WLP Actuals JCL

The following is an example of the JCL which could be used in the batch run for the Actuals reports. Refer also to job N600 from the installation process.

```

//jobname JOB local jobcard standards
//WLP EXEC PGM=SASSWP00
//* User input files
//STEPLIB DD DISP=SHR,DSN=user.CA-7.loadlib
//UCC7LOG DD DISP=SHR,DSN=user.CA-7.loghist(0)
//WLPCC DD *
    WLP2 control records go here <====<
//* Report DDs
//MSGRPT DD SYSOUT=a
//DETRPT DD SYSOUT=a
//* Other SYSOUT DDs
//SYSPRINT DD SYSOUT=a
//SYSOUT DD SYSOUT=a
//SYSUDUMP DD SYSOUT=a
//* Temporary work files
//JOBFILE DD UNIT=SYSDA,SPACE=(CYL,(1,1),RLSE),DCB=BLKSIZE=500
//SORTWK01 DD UNIT=SYSDA,SPACE=(CYL,(1,1))
//SORTWK02 DD UNIT=SYSDA,SPACE=(CYL,(1,1))
//SORTWK03 DD UNIT=SYSDA,SPACE=(CYL,(1,1))

```

Figure 4-5. Actuals JCL

4.5.5 Sample WLP Combined JCL

JCL was shown for each individual control statement in the previous examples, either WLP1 or WLP2. One job can be used to run both, but not at the same time. Below is an example showing the combined JCL. Refer also to job N600 from the installation process.

```
//jobname JOB local jobcard standards
//WLP EXEC PGM=SASSWP00
//* User input files
//STEPLIB DD DISP=SHR,DSN=user.CA-7.loadlib
//UCC7LOG DD DISP=SHR,DSN=user.CA-7.loghist(0)
//UCC7WLP DD DISP=SHR,DSN=user.CA-7.wlpdata
//WLPCC DD *
    control records go here <====<
//* Report DDs
//MSGRPT DD SYSOUT=a
//INTRPT DD SYSOUT=a
//TP1RPT DD SYSOUT=a
//TP2RPT DD SYSOUT=a
//CPURPT DD SYSOUT=a
//RESRPT DD SYSOUT=a
//DETRPT DD SYSOUT=a
//TRCRPT DD SYSOUT=a
//* Other SYSOUT DDs
//SYSRPT DD SYSOUT=a
//SYSOUT DD SYSOUT=a
//SYSUDUMP DD SYSOUT=a
//* Temporary work files
//JOBFILE DD UNIT=SYSDA,SPACE=(CYL,(1,1),RLSE),DCB=BLKSIZE=500
//JOBFIN DD DISP=(OLD,PASS),DSN=*.JOBFILE,VOL=REF=*.JOBFILE
//JOBFOU DD DISP=(OLD,PASS),DSN=*.JOBFILE,VOL=REF=*.JOBFILE
//JOBFWK01 DD UNIT=SYSDA,SPACE=(CYL,(1,1))
//JOBFWK02 DD UNIT=SYSDA,SPACE=(CYL,(1,1))
//JOBFWK03 DD UNIT=SYSDA,SPACE=(CYL,(1,1))
//RESFILE DD UNIT=SYSDA,SPACE=(CYL,(1,1),RLSE),DCB=BLKSIZE=200
//RESFIN DD DISP=(OLD,PASS),DSN=*.RESFILE,VOL=REF=*.RESFILE
//RESFOU DD DISP=(OLD,PASS),DSN=*.RESFILE,VOL=REF=*.RESFILE
//SIMLOG DD UNIT=SYSDA,SPACE=(CYL,(1,1),RLSE),DCB=BLKSIZE=400
//SORTWK01 DD DISP=(OLD,PASS),DSN=*.JOBFWK01,VOL=REF=*.JOBFWK01
//SORTWK02 DD DISP=(OLD,PASS),DSN=*.JOBFWK02,VOL=REF=*.JOBFWK02
//SORTWK03 DD DISP=(OLD,PASS),DSN=*.JOBFWK02,VOL=REF=*.JOBFWK03
```

Figure 4-6. WLP Execution JCL

The following is an explanation of the JCL statements required for executing a batch WLP run:

EXEC Statement - Points to the WLP batch simulation program (PGM=SASSWP00) and optionally provides PARM information as control statement input.

WLPCC DD Statement - Contains control statement information (WLP1 or WLP2). It is not required if PARM is specified on the EXEC statement.

STEPLIB DD Statement - Points to the CA-7 Load library. The Load library on which any WLB resource definitions (UCC7Rxxx indicated on RES statements) reside must be referenced by this ddname.

The following Projection report DD statements are referenced only for WLP1:

UCC7WLP DD Statement - Points to the data set which is to contain JOB and RES statement data created by the FWLP command or produced manually. It is required for WLP1 reports and ignored for WLP2.

INTRPT DD Statement - Hourly INIT Usage Projection Report

TP1RPT DD Statement - Hourly TP1 Usage Projection Report

TP2RPT DD Statement - Hourly TP2 Usage Projection Report

CPURPT DD Statement - Hourly CPU Usage Projection Report

RESRPT DD Statement - Resource Summary Report

The following DD statement is referenced only for WLP2:

UCC7LOG DD Statement - Points to a standard CA-7 log history/archive file. It is required for WLP2 commands, but ignored if WLP1 is specified in the control information.

The following DD statements are referenced for both WLP1 and WLP2:

MSGRPT DD Statement - Produces error message reports reflecting control statement and data statement edit errors.

DETRPT DD Statement - Produces the Detailed Resource Utilization and Job Summary reports.

The practice of saving the statement data sets generated by the FWLP command and concatenating pertinent ones for projection runs can enhance flexibility and increase usefulness of the WLP facility. For example, if a data file is created that contains the specifics for an existing application and it is known that a new job is to be added to this application, the effects of the new job can be tested if there is a separate data file with only that application. One way to do this would be to create a new data file with only the new job, and run it concatenated with the file that has the other jobs in the application.

This technique not only adds flexibility in usage but can also reduce runtime for projections by keeping the number of variables being exercised to a minimum.

Chapter 5. CA-Earl and CA-Easytrieve Plus Reporting

CA-7 provides the source statements to create a standard set of CA-7 reports using either the CA-Earl or CA-Easytrieve Plus report languages. An abbreviated version of CA-Earl is provided on the Unicenter TNG Framework for OS/390 tape at no extra charge to the customer. A separately priced, unrestricted version of CA-Earl with additional facilities is also available. CA-Easytrieve Plus is a separately licensed product which may be in use at your installation. CA-7 provides the report definition statements and JCL required by both products to create an identical set of standard reports. The reports serve a number of purposes including monitoring system performance, workload performance, manual workload intervention activities, some database activities, and so forth.

Lists of available reports are provided later in this chapter.

5.1 Using CA-Earl and CA-Easytrieve Plus Reporting

This topic presents the reports available and how to produce them.

5.1.1 Producing Reports

The CA-7 CA-Earl and CA-7 CA-Easytrieve Plus interfaces provide a number of predefined reports. Producing any of the predefined reports is accomplished by defining the desired data and the date/time range for the report and selecting the appropriate predefined CA-Earl or CA-Easytrieve Plus definition. These predefined definitions are selected by means of a "request ID." A batch job then produces the desired report(s).

The CA-7 CA-Earl interface accesses data through a predefined exit to CA-Earl only. The CA-7 CA-Easytrieve Plus interface accesses data directly without the use of an exit. Both methods provide access to a considerable amount of vital information from the CA-7 log history data and CA-7 database backup files.

The interface also allows for generating user-defined reports. Generating user-defined reports is discussed in 5.2, "Selecting Reports" on page 5-5.

5.1.2 Reports Available

The predefined reports available through CA-7, CA-Earl, and CA-Easytrieve Plus are listed here. The request ID used to produce the reports and the log record type from which log reports are produced are also listed. A sample of each report is discussed in detail in 5.2, "Selecting Reports" on page 5-5.

5.1.3 Reports Available from Log History Data

Report Title	Request ID*	Log Type
CA-7 Job Completion Profile	CA7xx001	161
CA-7 Request Queue Activity Profile	CA7xx002	161
CA-7 Ready Queue Activity Profile	CA7xx003	161
CA-7 Active Queue Activity Profile	CA7xx004	161
CA-7 Preprocessing Queue Activity Profile	CA7xx005	161
CA-7 Postprocessing Queue Activity Profile	CA7xx006	161
CA-7 Prior-Run Queue Activity Profile	CA7xx007	161
CA-7 Database DSD/DSM Record Activity Profile	CA7xx008	161
CA-7 Database JBD/JBM Record Activity Profile	CA7xx009	161
CA-7 Database NWD/NWM Record Activity Profile	CA7xx010	161
CA-7 Database PPD/PPM Record Activity Profile	CA7xx011	161
CA-7 Database SID/SIM Record Activity Profile	CA7xx012	161
CA-7 Database SJD/SJM Record Activity Profile	CA7xx013	161
CA-7 Database SOD/SOM Record Activity Profile	CA7xx014	161
CA-7 Database Type I Record Activity Profile	CA7xx015	161
CA-7 Composite Database Activity Profile	CA7xx016	161
CA-7 Composite Queue Activity Profile	CA7xx017	161
CA-7 Queue Posting Activity	CA7xx018	117
CA-7 Job Scheduling/Completion Activity	CA7xx019	161
CA-7 Tape Data Set Activity	CA7xx020	161
CA-7 DASD Data Set Activity	CA7xx021	161
CA-7 Workstation Network Performance Activity	CA7xx022	161
CA-7 Input Network Performance Profile	CA7xx023	161
CA-7 Output Network Performance Profile	CA7xx024	161
CA-7 Communications Data Set Activity	CA7xx025	161
CA-7 Schedule Scan Activity	CA7xx026	161
CA-7 Queue Allocation Usage Profile	CA7xx027	162
CA-7 Job Termination Posting Dwell Time	CA7xx028	005
CA-7 Job Completion Dwell Time	CA7xx029	105
CA-7 Queue Entry Dwell Time	CA7xx030	105
CA-7 Transaction Response Time Profile	CA7xx031	161
CA-7 /LOG Command Detail	CA7xx032	129
CA-7 Trailer Queue Activity Profile	CA7xx033	161
CA-7 In-Storage Trailer Queue Profile	CA7xx034	162
CA-7 Performance Statistics Information Job Report	CA7xx035	161
CA-7 Performance Statistics Information System Report	CA7xx036	161
CA-7 Job Completion Table Data	CA7xx037	162

Note: * xx=ER for CA-Earl reports

xx=EZ for CA-Easytrieve Plus reports

5.1.4 Reports Available from Database Backup

Report Title	Request ID*
CA-7 Data Sets with No Associated Jobs	CA7xx701
CA-7 Workstation Networks with No Associated Jobs	CA7xx702
CA-7 Roster for Prose Type: System	CA7xx703
CA-7 Roster for Prose Type: Job	CA7xx704
CA-7 Roster for Prose Type: Data Set	CA7xx705
CA-7 Roster for Prose Type: Network	CA7xx706
CA-7 Roster for Prose Type: User	CA7xx707
CA-7 Roster for Prose Type: DD	CA7xx708
CA-7 CPU Job Schedules with Current SCHDMOD	CA7xx709
CA-7 Input Network Schedules with Current SCHDMOD	CA7xx710

* xx=ER for CA-Earl reports

xx=EZ for CA-Easytrieve Plus reports

5.2 Selecting Reports

CA-Earl and CA-Easytrieve Plus definitions of these reports are provided with CA-7. Sample JCL is also provided later in this chapter. Producing a report requires running a batch job using the appropriate JCL, data file, and request ID.

Reports being produced from log history data also require that you provide:

1. the log record type,
2. the date and time range desired (the ENDDAY initialization file option for APA reporting has no effect on these reports)
and for certain reports,
3. the reporting time increment.

The request ID is provided as an EARLLIB member name in the CA-Earl and CA-Easytrieve Plus SYSIN DD statement in the JCL. The other values are provided as either PARM keywords or through the SYSIN data set. Request IDs are provided on the list of available reports.

LOGSTATS DD is used to produce the CA-7 Log Record Profile report on log records found within the specified date/time range during the PULL step. This report is discussed in detail in 5.3, “Report Descriptions” on page 5-12.

Note: It may be necessary to add sort work DD statements in the EARL step in some situations. See 5.2.7, “JCL Considerations for SORT (CA-Earl only)” on page 5-10. Sort work DD statements are already added in the EZTRIEVE step. See an example of CA-Easytrieve Plus JCL on CA-Easytrieve Plus Sample Log History Report JCL on page 5-7.

5.2.1 CA-Earl Sample Log History Report JCL

The following is an example of JCL required to select log records and create a report through CA-Earl. Refer to member L233EARL in the CA-7 Sample JCL Library for sample JCL.

```

//..... JOB .....
//*
//*****
//*
//*          EXTRACT/SUMMARIZE LOG RECORDS FOR CA-EARL PROCESSING
//*
//*****
//PULL      EXEC PGM=SASSGRLX,
//          PARM=('TYPE=ttt,FROM=yyddd/hhmm,THRU=yyddd/hhmm,SUM=nnn')
//STEPLIB  DD DISP=SHR,DSN=loadlib-for-CA-7
//SYSUDUMP DD SYSOUT=*
//LOGSTATS DD SYSOUT=*
//LOGIN    DD DISP=(OLD,KEEP),DSN=input-log-data
//LOGOUT   DD DISP=(NEW,PASS),DSN=&&LOGOUT,
//          UNIT=SYSDA,SPACE=(TRK,(nn,n)),
//          DCB=(RECFM=VB,LRECL=2100,BLKSIZE=nnnn)
//SYSIN    DD DUMMY
//*
//*****
//*
//*          PRODUCE REPORT VIA CA-EARL
//*
//*****
//EARL     EXEC PGM=EARL,COND=(0,NE,PULL)
//STEPLIB  DD DISP=SHR,DSN=loadlib-for-CA-EARL
//          DD DISP=SHR,DSN=loadlib-for-CA-7
//EARLLIB  DD DISP=SHR,DSN=caimac-for-CA-7
//EARLOBJ  DD UNIT=SYSDA,SPACE=(CYL,(1,1))
//WORK1    DD UNIT=SYSDA,SPACE=(CYL,(1,1))
//SYSUT1   DD UNIT=SYSDA,SPACE=(CYL,(1,1))
//SYSPRINT DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//LOGIN    DD DISP=(OLD,DELETE),DSN=&&LOGOUT
//SYSIN    DD DISP=SHR,DSN=caimac-for-CA-7(requestID)
//

```

Figure 5-1. Sample CA-Earl Report JCL

5.2.2 CA-Easytrieve Plus Sample Log History Report JCL

The following is an example of JCL required to select log records and create a report through CA-Easytrieve Plus. Refer to member L233EZ in the CA-7 Sample JCL Library for sample JCL.

```
//.....JOB.....
//*
//*****
//* EXTRACT/ SUMMARIZE LOG RECORDS FOR CA-EASYTRIEVE PLUS *
//* PROCESSING *
//* *
//*****
//PULL EXEC PGM=SASSGRLX,
// PARM=('TYPE=ttt, FROM=yyddd/hhmm,
// THRU=yyddd/hhmm, SUMM=nnn')
//STEPLIB DD DISP=SHR, DSN=loadlib-for-CA-7
//SYSUDUMP DD SYSOUT=*
//LOGSTATS DD SYSOUT=*
//LOGIN DD DISP=(OLD, KEEP), DSN=input-log-data
//LOGOUT DD DISP=(NEW, PASS), DSN=&&LOGOUT,
// UNIT=SYSDA, SPACE=(TRK, (nn, n)),
// DCB=(RECFM=VB, LRECL=2100, BLKSIZE=nnnnn)
//SYSIN DD DUMMY
//*
//*****
//* PRODUCE REPORT VIA CA-EASYTRIEVE/CA-EARL EXIT *
//* *
//*****
//EZTRIEVE EXEC PGM=EZTPA00, REGION=512k, COND=(0, NE, PULL)
//STEPLIB DD DISP=SHR, DSN=loadlib-for-CA-EASYTRIEVE
//LOGIN DD DISP=(OLD, DELETE), DSN=&&LOGOUT
//PDS DD DISP=SHR, DSN=caimac-for-CA-7
//SYSIN DD DISP=SHR, DSN=caimac-for-CA-7(requestID)
//EZTVFM DD UNIT=SYSDA, SPACE=(4096, (100, 100))
//SORTLIB DD DSN=loadlib-for-SORT
//SORTIN DD UNIT=SYSDA, SPACE=(CYL, (5, 5))
//SORTOUT DD UNIT=SYSDA, SPACE=(CYL, (5, 5))
//SORTWK01 DD UNIT=SYSDA, SPACE=(CYL, (5, 5))
//SORTWK02 DD UNIT=SYSDA, SPACE=(CYL, (5, 5))
//SORTWK03 DD UNIT=SYSDA, SPACE=(CYL, (5, 5))
//SYSOUT DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//
```

Figure 5-2. Sample CA-Easytrieve Plus Log History Report JCL

Note: The PDS ddname in the EZTRIEVE step references the file that contains the macro members for use in report generation. To invoke the macros, the CA-Easytrieve Plus options table should contain the options &MACDDN=PDS and &MACRO=PDS. The CA-Easytrieve Plus module that sets these options is EZTPOPT. Refer to the CA-Easytrieve Plus documentation for information on modification of the options table.

FROM

Indicates the beginning of the reporting period. Specified as a Julian date with optional time-of-day specified after the slash character. Valid time-of-day values for hh are 00-24 and 00-59 for mm. For incremental reporting of statistics interval records, this specifies the beginning of the first increment desired. That is, a value of /0700 here for 1-hour increments would cause the first increment record to be generated for the period 0700 through 0800. Default is January 1, 1970 (70001).

Years 70-99 are interpreted as 20th Century dates. Years 00-69 are interpreted as 21st century dates.

Date range literals may be used to provide desired values. Refer to 3.1.4, "SASSHIS8 Date/Time Ranges" on page 3-5 for details on these predefined literals.

THRU

Indicates the ending of the reporting period. Specified as a Julian date with optional time-of-day specified after the slash character. Valid time-of-day values for hh are 00-24 and 00-59 for mm. For incremental reporting of statistics interval records, this specifies the end of the last increment desired. That is, a value of /1600 here for 1-hour increments causes the last increment record to be generated for the period 1500 through 1600. Default is December 31, 2069 (69365).

Years 70-99 are interpreted as 20th century dates. Years 00-69 are interpreted as 21st century dates.

SUMM

Indicates time increments for which summarization of statistics is desired. This is only meaningful for TYPE=161. Increments determine the reporting intervals which are shown on the various reports. Specified as decimal minutes of up to 3 digits. That is, to produce records containing activity volumes in 8-hour increments, specify SUMM=480. If not specified for TYPE=161, default is 060 to indicate summarization into 1-hour increments.

5.2.5 Sample Log History Pull Options

The following are examples of option specifications:

```
TYPE=161, FROM=yy145/0800, THRU=yy145/1600, SUMM=30
```

Indicates to extract record type 161 (X'A1' statistics interval records) for an 8-hour period and summarize the activity from those records into 30 minute increments.

```
TYPE=117, FROM=TODAY, THRU=/0800
```

Indicates to extract record type 117 (X'75' POST activity records) for the 8 hours since midnight of the current day.

```
TYPE=105, FROM=TWEEK
```

Indicates to extract record type 105 (X'69' queue movement records) for the period from the last previous Saturday midnight up to the current time.

5.2.6 Database Report JCL

Make the following changes to the sample JCL for producing reports from log history data (see Sample CA-Earl Report JCL on page 5-6) to produce reports against a database backup file.

1. Eliminate the PULL step.
2. Replace the LOGIN data set in the EARL step or EZTRIEVE step with a DBASEIN DD statement which defines the CA-7 database backup file.

The database backup file must have been created with the SASSBK00 backup program. Other formats are not supported. Refer to the *CA-7 Systems Programmer Guide* "Backup and Recovery Considerations" chapter, for details on how to create a backup file in the proper format.

5.2.7 JCL Considerations for SORT (CA-Earl only)

Each report includes an OPTION SORT = SRAM statement. Refer to the *CA-Earl Systems Programmer Guide* for a more detailed discussion of this option. The code necessary to support this option is distributed with CA-7 with the no-charge version of CA-Earl.

No JCL is required for sorting with this option. Therefore, no JCL changes are required to create any of the available reports with the sample JCL provided in Sample CA-Earl Report JCL on page 5-6.

If some other product is used to sort the data, the necessary JCL statements must be added to those shown in the sample.

5.2.8 User-defined Reports

Predefined reports provide examples of what is required to generate reports from CA-7 data using CA-Earl and CA-Easytrieve Plus. Examine closely the members of EARLLIB which define these reports and use them as a guide to generating other reports. Those EARLLIB members distributed with the product should be left intact. They can be used as patterns for other report definitions.

With the no-charge version of CA-Earl, all access to data is performed by the exit routine provided with the product. If you are using the version of CA-Earl with all features provided, this restriction does not exist. However, CA-Earl EARLLIB members distributed with CA-7 are coded to use only the exit routine provided with CA-7. With CA-Easytrieve Plus, all access is done directly without use of an exit.

5.2.9 Record Definitions for CA-Earl

Members in the EARLLIB DD (see JCL on page 4-5) identify the appropriate file definitions and request types for accessing information through the exit SASSERLX. Member CA7DB and filename DBASEIN are used to access the database. Other members beginning with the characters CA7DB define the individual record types within the database. Each of these members identify the request number used to access that record type through the exit.

Member CA7VBLOG and filename LOGIN are used to access log history data. Other members beginning with the characters CA7LOG define the individual record types within the history data. Each of these members identify the TYPE value used to access that record type.

5.2.10 Record Definitions for CA-Easytrieve Plus

Members in the PDS DD (see JCL on page 4-6) also define the file and record definitions for CA-Easytrieve Plus to access the log history and database data. The database members are:

- CA7EZDB
- CA7EZDSM
- CA7EZNWM
- CA7EZPPM
- CA7EZXXD

The log history members are used to identify the TYPE value used to access that record type. These members are:

- CA7EZA1
- CA7EZA2
- CA7EZVB
- CA7EZ05
- CA7EZ69
- CA7EZ75
- CA7EZ81

5.3 Report Descriptions

This topic discusses each of the predefined reports available through the CA-7 CA-Earl interface and the CA-Easytrieve Plus interface. Each report is followed by detailed descriptions of the report fields.

5.3.1 Log Record Profile

This report is produced for each PULL step. It summarizes information on the log records which occurred in the LOGIN data set during the date/time range specified. All records occurring between the specified FROM and THRU values are included in the profile. The date/time range is shown in the report headings. The THRU date/time shown is the value from the last log record read from the input. If additional records exist in the input file, this value is from the last record read before the THRU value was exceeded.

Even though all records are listed on this report, only records with a record type value matching the requested TYPE value are written to the LOGOUT data set. For TYPE=161, the number of records written is determined by the date/time range requested and the SUMM value for time increment.

DATE: 06 MAY yy		COMPUTER ASSOCIATES INTERNATIONAL, INC.						PAGE 1
FOR THE PERIOD:		01 FEB yy AT 08:00		THRU	01 FEB yy AT 12:00			
LOGTYPE	RECORDS	*-----		BYTE	COUNT	*-----		
DEC HEX	COUNT PCT.	AVG.	TOTAL(M)	PCT.				
004 04	1,940 7.7	80	155.2	7.0				
005 05	189 .7	72	13.6	.6				
014 0E	3,241 12.8	105	340.3	15.4				
015 0F	2,572 10.2	107	275.2	12.4				
020 14	191 .7	42	8.0	.3				
026 1A	1,093 4.3	44	48.0	2.1				
067 43	10,492 41.7	34	356.7	16.1				
103 67	1,002 3.9	23	23.0	1.0				
104 68	718 2.8	24	17.2	.7				
105 69	1,494 5.9	170	253.9	11.5				
114 72	1,085 4.3	33	35.8	1.6				
115 73	276 1.0	29	8.0	.3				
117 75	135 .5	166	22.4	1.0				
130 82	1 .0	170	.1	.0				
144 90	2 .0	55	.1	.0				
145 91	13 .0	75	.9	.0				
146 92	51 .2	135	6.8	.3				
147 93	9 .0	88	.7	.0				
148 94	16 .0	89	1.4	.0				
161 A1 *	615 2.4	1,046	643.2	29.1	SUMM=0030			
1	2	3	4	5	6	7		
TOTALS	25,135	87.9	2,210.5					

Item Description

- 1** Log record type in decimal.
- 2** Log record type in hexadecimal. An asterisk follows the value given for record types matching the requested TYPE= value.
- 3** Number of records of this type. A total for this column is given at the end of the report.
- 4** Percent of the total record count this type represents.
- 5** Average record length of this type in bytes. The average length of all records is provided at the end of the report.
- 6** Total length of all records of this type in thousands. A total of this column is given at the end of the report.
- 7** Percent of the total byte count represented by this type. When TYPE=161 and LOGTYPE DEC is 161, the SUMM= value is shown following this value.

5.3.2 CA7xx001 Job Completion Profile

This report provides a profile of CPU job completions for jobs submitted by CA-7. Job completions are summarized into normal and abnormal categories.

Activity is shown in time increments specified by the SUMM parameter. The log record type from which this report is produced is TYPE=161.

APR 14 yy TIME: 07.39.26		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 JOB COMPLETION PROFILE				PAGE 1 REQUEST - CA7xx001	
TIMES	JCL ERRORS	COND-CODE FAILURES	USER ABENDS	SYSTEM ABENDS	NORMAL EOJS	TOTAL EOJS	PERCENT NORMAL
yy.032/08:00 - 08:30	0	0	0	0	17	17	100.0
yy.032/08:30 - 09:00	0	0	0	0	21	21	100.0
yy.032/09:00 - 09:30	0	0	0	0	40	40	100.0
yy.032/09:30 - 10:00	0	0	0	0	20	20	100.0
yy.032/10:00 - 10:30	0	0	0	0	25	25	100.0
yy.032/10:30 - 11:00	0	0	2	1	16	19	84.2
yy.032/11:00 - 11:30	0	0	1	0	29	30	96.6
yy.032/11:30 - 12:00	0	0	0	0	17	17	100.0
	1	2	3	4	5	6	7
END OF REPORT							

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of jobs flushed with a JCL error.
- 3** Number of jobs which failed a CA-7 job level (DB.1 screen RO and COND-CODE fields) or step level (#SCC statement) condition code test.
- 4** Number of jobs which abended with a Unnnn type of abend.
- 5** Number of jobs which abended with a Sxxx type of abend.
- 6** Number of jobs which ended without any of the above conditions.
- 7** Total of all completions shown in the previous columns.
- 8** Percentage of total completions which were normal.

5.3.3 CA7xx002 Request Queue Activity Profile

This report provides a profile of CA-7 request queue activity. Activity is shown in time increments as specified by the SUMM parameter. The log record type from which this report is produced is TYPE=161.

This data is also included as one of the line items comprising total queue activity in the 5.3.18, "CA7xx017 Composite Queue Activity Profile" on page 5-37.

COMPUTER ASSOCIATES INTERNATIONAL, INC.						
CA-7 REQUEST QUEUE ACTIVITY PROFILE						
APR 13 yy						PAGE 1
TIME: 14.12.03						REQUEST - CA7xx002
TIMES	ADDS	DELETES	READS	REPLACES	TOTAL ACCESSES	PERCENT READS
yy.032/08:00 - 08:30	37	18	2,962	100	3,117	95.0
yy.032/08:30 - 09:00	43	21	5,432	150	5,646	96.2
yy.032/09:00 - 09:30	80	41	6,747	188	7,056	95.6
yy.032/09:30 - 10:00	45	21	3,898	112	4,076	95.6
yy.032/10:00 - 10:30	57	25	5,680	147	5,909	96.1
yy.032/10:30 - 11:00	49	19	6,176	135	6,379	96.8
yy.032/11:00 - 11:30	52	30	7,027	120	7,229	97.2
yy.032/11:30 - 11:00	34	19	5,198	101	5,352	97.1
	1	2	3	4	5	6
END OF REPORT						

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of records added to the queue.
- 3** Number of records deleted from the queue.
- 4** Number of records read from the queue.
- 5** Number of records replaced (updated) in the queue.
- 6** Total number of accesses to the queue.
- 7** Percent of total accesses which were reads. This value represents the portion of queue accesses which can be serviced from a resident queue without requiring an access to the DASD device. Refer to the INDEX=A option on the initialization file FORMAT statement for further discussion of this performance option.

5.3.4 CA7xx003 Ready Queue Activity Profile

This report provides a profile of CA-7 ready queue activity. Activity is shown in time increments as specified by the SUMM parameter. The log record type from which this report is produced is TYPE=161.

This data is also included as one of the line items comprising total queue activity in the 5.3.18, "CA7xx017 Composite Queue Activity Profile" on page 5-37.

COMPUTER ASSOCIATES INTERNATIONAL, INC.						
CA-7 READY QUEUE ACTIVITY PROFILE						
APR 13 yy						PAGE 1
TIME:14.13.03						REQUEST - CA7xx003
TIMES	ADDS	DELETES	READS	REPLACES	TOTAL ACCESSES	PERCENT READS
yy.032/08:00 - 08:30	15	0	306	30	351	87.1
yy.032/08:30 - 09:00	30	0	504	54	588	85.7
yy.032/09:00 - 09:30	35	0	1,800	79	1,914	94.0
yy.032/09:30 - 10:00	20	0	466	40	526	88.5
yy.032/10:00 - 10:30	26	0	577	50	653	88.3
yy.032/10:30 - 11:00	23	0	639	41	703	90.8
yy.032/11:00 - 11:30	26	0	773	56	855	90.4
yy.032/11:30 - 12:00	21	0	490	41	552	88.7
1	2	3	4	5	6	7
END OF REPORT						

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of records added to the queue.
- 3** Number of records deleted from the queue.
- 4** Number of records read from the queue.
- 5** Number of records replaced (updated) in the queue.
- 6** Total number of accesses to the queue.
- 7** Percent of total accesses which were reads. This value represents the portion of queue accesses which can be serviced from a resident queue without requiring an access to the DASD device. Refer to the INDEX=A option on the initialization file FORMAT statement for further discussion of this performance option.

5.3.5 CA7xx004 Active Queue Activity Profile

This report provides a profile of CA-7 active queue activity. Activity is shown in time increments as specified by the SUMM parameter. The log record type from which this report is produced is TYPE=161.

This data is also included as one of the line items comprising total queue activity in the 5.3.18, "CA7xx017 Composite Queue Activity Profile" on page 5-37.

COMPUTER ASSOCIATES INTERNATIONAL, INC.						
CA-7 ACTIVE QUEUE ACTIVITY PROFILE						
APR 13 yy						PAGE 1
TIME: 14.13.25						REQUEST - CA7xx004
TIMES	ADDS	DELETES	READS	REPLACES	TOTAL ACCESSES	PERCENT READS
yy.032/08:00 - 08:30	15	0	451	139	605	74.5
yy.032/08:30 - 09:00	25	0	1,025	288	1,338	76.6
yy.032/09:00 - 09:30	40	0	2,181	446	2,667	81.7
yy.032/09:30 - 10:00	20	0	1,064	212	1,296	82.0
yy.032/10:00 - 10:30	24	0	1,307	289	1,620	80.6
yy.032/10:30 - 11:00	20	0	797	184	1,001	79.6
yy.032/11:00 - 11:30	27	0	1,194	340	1,561	76.4
yy.032/11:30 - 12:00	20	0	569	164	753	75.5
1	2	3	4	5	6	7
END OF REPORT						

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of records added to the queue.
- 3** Number of records deleted from the queue.
- 4** Number of records read from the queue.
- 5** Number of records replaced (updated) in the queue.
- 6** Total number of accesses to the queue.
- 7** Percent of total accesses which were reads. This value represents the portion of queue accesses which can be serviced from a resident queue without requiring an access to the DASD device. Refer to the INDEX=A option on the initialization file FORMAT statement for further discussion of this performance option.

5.3.6 CA7xx005 Preprocessing Queue Activity Profile

This report provides a profile of CA-7 preprocessing queue activity. Activity is shown in time increments as specified by the SUMM parameter. The log record type from which this report is produced is TYPE=161.

This data is also included as one of the line items comprising total queue activity in the 5.3.18, "CA7xx017 Composite Queue Activity Profile" on page 5-37.

APR 13 yy TIME: 14.13.45		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 PREPROCESSING QUEUE ACTIVITY PROFILE				PAGE 1 REQUEST - CA7xx005	
TIMES	ADDS	DELETES	READS	REPLACES	TOTAL ACCESSES	PERCENT READS	
yy.032/08:00 - 08:30	10	2	443	13	468	94.6	
yy.032/08:30 - 09:00	0	8	482	14	504	95.6	
yy.032/09:00 - 09:30	11	5	648	16	680	95.2	
yy.032/09:30 - 10:00	0	1	497	5	503	98.8	
yy.032/10:00 - 10:30	18	6	646	27	697	92.6	
yy.032/10:30 - 11:00	0	2	561	4	567	98.9	
yy.032/11:00 - 11:30	15	4	493	26	538	91.6	
yy.032/11:30 - 12:00	0	6	724	10	740	97.8	

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END OF REPORT

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of records added to the queue.
- 3** Number of records deleted from the queue.
- 4** Number of records read from the queue.
- 5** Number of records replaced (updated) in the queue.
- 6** Total number of accesses to the queue.
- 7** Percent of total accesses which were reads. This value represents the portion of queue accesses which can be serviced from a resident queue without requiring an access to the DASD device. Refer to the INDEX=A option on the initialization file FORMAT statement for further discussion of this performance option.

5.3.7 CA7xx006 Postprocessing Queue Activity Profile

This report provides a profile of CA-7 postprocessing queue activity. Activity is shown in time increments as specified by the SUMM parameter. The log record type from which this report is produced is TYPE=161.

This data is also included as one of the line items comprising total queue activity in the 5.3.18, "CA7xx017 Composite Queue Activity Profile" on page 5-37.

APR 13 yy TIME: 14.14.06		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 POSTPROCESSING QUEUE ACTIVITY PROFILE				PAGE 1 REQUEST - CA7xx006	
TIMES	ADDS	DELETES	READS	REPLACES	TOTAL ACCESSES	PERCENT READS	
yy.032/08:00 - 08:30	0	0	33	0	33	100.0	
yy.032/08:30 - 09:00	0	0	33	0	33	100.0	
yy.032/09:00 - 09:30	0	0	33	0	33	100.0	
yy.032/09:30 - 10:00	0	0	33	0	33	100.0	
yy.032/10:00 - 10:30	0	0	33	0	33	100.0	
yy.032/10:30 - 11:00	2	0	63	2	67	94.0	
yy.032/11:00 - 11:30	0	0	39	0	39	100.0	
yy.032/11:30 - 12:00	0	0	39	0	39	100.0	

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END OF REPORT

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of records added to the queue.
- 3** Number of records deleted from the queue.
- 4** Number of records read from the queue.
- 5** Number of records replaced (updated) in the queue.
- 6** Total number of accesses to the queue.
- 7** Percent of total accesses which were reads. This value represents the portion of queue accesses which can be serviced from a resident queue without requiring an access to the DASD device. Refer to the INDEX=A option on the initialization file FORMAT statement for further discussion of this performance option.

5.3.8 CA7xx007 Prior-Run Queue Activity Profile

This report provides a profile of CA-7 prior-run queue activity. Activity is shown in time increments as specified by the SUMM parameter. The log record type from which this report is produced is TYPE=161.

This data is also included as one of the line items comprising total queue activity in the 5.3.18, "CA7xx017 Composite Queue Activity Profile" on page 5-37.

APR 13 yy TIME: 14.15.22		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 PRIOR-RUN QUEUE ACTIVITY PROFILE				PAGE 1 REQUEST - CA7xx007	
TIMES	ADDS	DELETES	READS	REPLACES	TOTAL ACCESSES	PERCENT READS	
yy.032/08:00 - 08:30	0	0	267	18	285	93.6	
yy.032/08:30 - 09:00	0	0	113	22	135	83.7	
yy.032/09:00 - 09:30	0	0	284	40	324	87.6	
yy.032/09:30 - 10:00	0	0	105	21	126	83.3	
yy.032/10:00 - 10:30	0	0	170	25	195	87.1	
yy.032/10:30 - 11:00	0	0	70	18	88	79.5	
yy.032/11:00 - 11:30	2	0	182	27	211	86.2	
yy.032/11:30 - 12:00	0	0	69	18	87	79.3	

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END OF REPORT

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of records added to the queue.
- 3** Number of records deleted from the queue.
- 4** Number of records read from the queue.
- 5** Number of records replaced (updated) in the queue.
- 6** Total number of accesses to the queue.
- 7** Percent of total accesses which were reads. This value represents the portion of queue accesses which can be serviced from a resident queue without requiring an access to the DASD device. Refer to the INDEX=A option on the initialization file FORMAT statement for further discussion of this performance option.

5.3.9 CA7xx008 Database DSD/DSM Record Activity Profile

This report provides a profile of CA-7 database activity for data set directory (DSD) and member (DSM) records. Activity is shown in time increments as specified by the SUMM parameter. The log record type from which this report is produced is TYPE=161.

This data is also included as one of the line items comprising total database activity in the 5.3.17, "CA7xx016 Composite Database Activity Profile" on page 5-35.

COMPUTER ASSOCIATES INTERNATIONAL, INC.													
CA-7 DATABASE DSD/DSM RECORD ACTIVITY PROFILE													
												PAGE	1
												REQUEST -	CA7xx008
TIMES	DSD ADDS	DSD DELETES	DSD READS	DSD REPLACES	DSD TOTAL	PCT DSD READS	DSM ADDS	DSM DELETES	DSM READS	DSM REPLACES	DSM TOTAL	PCT DSM READS	
yy.032/08:00 - 08:30	0	0	320	0	320	100.0	0	0	565	61	626	90.2	
yy.032/08:30 - 09:00	0	0	470	0	470	100.0	0	0	630	175	805	78.2	
yy.032/09:00 - 09:30	0	0	834	0	834	100.0	0	0	1,475	180	1,655	89.1	
yy.032/09:30 - 10:00	0	0	450	0	450	100.0	0	0	743	43	786	94.5	
yy.032/10:00 - 10:30	0	0	526	0	526	100.0	0	0	1,074	124	1,198	89.6	
yy.032/10:30 - 11:00	0	0	414	0	414	100.0	0	0	515	59	574	89.7	
yy.032/11:00 - 11:30	5	0	333	5	343	97.0	5	0	1,315	184	1,504	87.4	
yy.032/11:30 - 12:00	0	0	241	0	241	100.0	0	0	272	74	346	78.6	
1	2	3	4	5	6	7	8	9	10	11	12	13	
END OF REPORT													

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of data set directory records added to the database.
- 3** Number of data set directory records deleted from the database.
- 4** Number of data set directory records read from the database.
- 5** Number of data set directory records replaced (updated) in the database.
- 6** Total number of data set directory accesses to the database.
- 7** Percent of total data set directory accesses which were reads.
- 8** Number of data set member records added to the database.
- 9** Number of data set member records deleted from the database.

5.3 Report Descriptions

- 10** Number of data set member records read from the database.
- 11** Number of data set member records replaced (updated) in the database.
- 12** Total number of data set member accesses to the database.
- 13** Percent of total data set member accesses which were reads.

5.3.10 CA7xx009 Database JBD/JBM Record Activity Profile

This report provides a profile of CA-7 database activity for CPU job directory (JBD) and member (JBM) records. Activity is shown in time increments as specified by the SUMM parameter. The log record type from which this report is produced is TYPE=161.

This data is also included as one of the line items comprising total database activity in the 5.3.17, "CA7xx016 Composite Database Activity Profile" on page 5-35.

COMPUTER ASSOCIATES INTERNATIONAL, INC.														
CA-7 DATABASE JBD/JBM RECORD ACTIVITY PROFILE														
												PAGE	1	
												REQUEST -	CA7xx009	

TIMES	JBD ADDS	JBD DELETES	JBD READS	JBD REPLACES	JBD TOTAL	PCT READS	JBD READS	JBM ADDS	JBM DELETES	JBM READS	JBM REPLACES	JBM TOTAL	PCT READS	JBM READS

yy.032/08:00 - 08:30	0	0	160	20	180	88.8	0	0	1,520	18	1,538	98.8		
yy.032/08:30 - 09:00	0	0	157	22	179	87.7	0	0	2,504	21	2,525	99.1		
yy.032/09:00 - 09:30	0	0	255	40	295	86.4	0	0	4,197	40	4,237	99.0		
yy.032/09:30 - 10:00	0	0	139	21	160	86.8	0	0	2,042	20	2,062	99.0		
yy.032/10:00 - 10:30	0	0	169	25	194	87.1	0	0	2,396	25	2,421	98.9		
yy.032/10:30 - 11:00	0	0	186	19	205	90.7	0	0	3,696	22	3,718	99.4		
yy.032/11:00 - 11:30	2	0	6,321	36	6,359	99.4	2	0	1,694	29	1,730	97.9		
yy.032/11:30 - 12:00	0	0	4,998	18	5,016	99.6	0	0	2,050	17	2,067	99.1		
	1	2	3	4	5	6	7	8	9	10		11	12	13
END OF REPORT														

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of job directory records added to the database.
- 3** Number of job directory records deleted from the database.
- 4** Number of job directory records read from the database.
- 5** Number of job directory records replaced (updated) in the database.
- 6** Total number of job directory accesses to the database.
- 7** Percent of total job directory accesses which were reads.
- 8** Number of job member records added to the database.
- 9** Number of job member records deleted from the database.

5.3 Report Descriptions

- 10** Number of job member records read from the database.
- 11** Number of job member records replaced (updated) in the database.
- 12** Total number of job member accesses to the database.
- 13** Percent of total job member accesses which were reads.

5.3.11 CA7xx010 Database NWD/NWM Record Activity Profile

This report provides a profile of CA-7 database activity for workstation network directory (NWD) and member (NWM) records. Activity is shown in time increments as specified by the SUMM parameter. The log record type from which this report is produced is TYPE=161.

This data is also included as one of the line items comprising total database activity in the 5.3.17, "CA7xx016 Composite Database Activity Profile" on page 5-35.

COMPUTER ASSOCIATES INTERNATIONAL, INC.													PAGE 1	
CA-7 DATABASE NWD/NWM RECORD ACTIVITY PROFILE													REQUEST - CA7xx010	
-----													-----	
TIMES	NWD ADDS	NWD DELETES	NWD READS	NWD REPLACES	NWD TOTAL	PCT NWD READS	NWM ADDS	NWM DELETES	NWM READS	NWM REPLACES	NWM TOTAL	PCT NWM READS		
-----													-----	
APR 13 yy														
TIME: 14.17.35														
yy.032/08:00 - 08:30	0	0	11	0	11	100.0	0	0	11	0	11	100.0		
yy.032/08:30 - 09:00	0	0	0	0	0	.0	0	0	0	0	0	.0		
yy.032/09:00 - 09:30	0	0	12	0	12	100.0	0	0	12	0	12	100.0		
yy.032/09:30 - 10:00	0	0	0	0	0	.0	0	0	0	0	0	.0		
yy.032/10:00 - 10:30	0	0	18	2	20	90.0	0	0	18	2	20	90.0		
yy.032/10:30 - 11:00	0	0	6	0	6	100.0	0	0	2	0	2	100.0		
yy.032/11:00 - 11:30	0	0	15	5	20	75.0	0	0	15	5	20	75.0		
yy.032/11:30 - 12:00	0	0	1	0	1	100.0	0	0	0	0	0	.0		
	1	2	3	4	5	6	7	8	9	10	11	12	13	
END OF REPORT														

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of network directory records added to the database.
- 3** Number of network directory records deleted from the database.
- 4** Number of network directory records read from the database.
- 5** Number of network directory records replaced (updated) in the database.
- 6** Total number of network directory accesses to the database.
- 7** Percent of total network directory accesses which were reads.
- 8** Number of network member records added to the database.
- 9** Number of network member records deleted from the database.

5.3 Report Descriptions

- 10** Number of network member records read from the database.
- 11** Number of network member records replaced (updated) in the database.
- 12** Total number of network member accesses to the database.
- 13** Percent of total network member accesses which were reads.

5.3.12 CA7xx011 Database PPD/PPM Record Activity Profile

This report provides a profile of CA-7 database activity for prose directory (PPD) and member (PPM) records. Activity is shown in time increments as specified by the SUMM parameter. The log record type from which this report is produced is TYPE=161.

This data is also included as one of the line items comprising total database activity in the 5.3.17, "CA7xx016 Composite Database Activity Profile" on page 5-35.

COMPUTER ASSOCIATES INTERNATIONAL, INC.														PAGE 1	
CA-7 DATABASE PPD/PPM RECORD ACTIVITY PROFILE														REQUEST - CA7xx011	

TIMES	PPD ADDS	PPD DELETES	PPD READS	PPD REPLACES	PPD TOTAL	PCT PPD READS	PPM ADDS	PPM DELETES	PPM READS	PPM REPLACES	PPM TOTAL	PCT PPM READS			

yy.032/08:00 - 08:30	0	0	6	0	6	100.0	0	0	5	0	5	100.0			
yy.032/08:30 - 09:00	0	0	0	0	0	.0	0	0	0	0	0	.0			
yy.032/09:00 - 09:30	0	0	4	1	5	80.0	0	0	4	0	4	100.0			
yy.032/09:30 - 10:00	0	0	0	0	0	.0	0	0	0	0	0	.0			
yy.032/10:00 - 10:30	0	0	21	7	28	75.0	0	0	17	3	20	85.0			
yy.032/10:30 - 11:00	0	0	9	1	10	90.0	0	0	6	1	7	85.7			
yy.032/11:00 - 11:30	0	0	0	0	0	.0	0	0	0	0	0	.0			
yy.032/11:30 - 12:00	0	0	0	0	0	.0	0	0	0	0	0	.0			
	1	2	3	4	5	6	7	8	9	10			11	12	13
END OF REPORT															

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of prose directory records added to the database.
- 3** Number of prose directory records deleted from the database.
- 4** Number of prose directory records read from the database.
- 5** Number of prose directory records replaced (updated) in the database.
- 6** Total number of prose directory accesses to the database.
- 7** Percent of total prose directory accesses which were reads.
- 8** Number of prose member records added to the database.
- 9** Number of prose member records deleted from the database.

5.3 Report Descriptions

- 10** Number of prose member records read from the database.
- 11** Number of prose member records replaced (updated) in the database.
- 12** Total number of prose member accesses to the database.
- 13** Percent of total prose member accesses which were reads.

5.3.13 CA7xx012 Database SID/SIM Record Activity Profile

This report provides a profile of CA-7 database activity for input workstation network schedule directory (SID) and member (SIM) records. Activity is shown in time increments as specified by the SUMM parameter. The log record type from which this report is produced is TYPE=161.

This data is also included as one of the line items comprising total database activity in the 5.3.17, "CA7xx016 Composite Database Activity Profile" on page 5-35.

COMPUTER ASSOCIATES INTERNATIONAL, INC.													PAGE	1
CA-7 DATABASE SID/SIM RECORD ACTIVITY PROFILE													REQUEST - CA7xx012	
TIMES	SID ADDS	SID DELETES	SID READS	SID REPLACES	SID TOTAL	PCT READS	SIM ADDS	SIM DELETES	SIM READS	SIM REPLACES	SIM TOTAL	PCT READS		
APR 13 yy														
TIME: 14.18.26														
yy.032/08:00 - 08:30	0	0	260	0	260	100.0	0	0	491	0	491	100.0		
yy.032/08:30 - 09:00	0	0	0	0	0	.0	0	0	0	0	0	.0		
yy.032/09:00 - 09:30	0	0	260	0	260	100.0	0	0	491	0	491	100.0		
yy.032/09:30 - 10:00	0	0	0	0	0	.0	0	0	0	0	0	.0		
yy.032/10:00 - 10:30	0	0	260	0	260	100.0	0	0	491	0	491	100.0		
yy.032/10:30 - 11:00	0	0	0	0	0	.0	0	0	0	0	0	.0		
yy.032/11:00 - 11:30	0	0	260	0	260	100.0	0	0	491	0	491	100.0		
yy.032/11:30 - 12:00	0	0	2	2	4	50.0	0	0	1	1	2	50.0		
1	2	3	4	5	6	7	8	9	10	11	12	13		
END OF REPORT														

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of input schedule directory records added to the database.
- 3** Number of input schedule directory records deleted from the database.
- 4** Number of input schedule directory records read from the database.
- 5** Number of input schedule directory records replaced (updated) in the database.
- 6** Total number of input schedule directory accesses to the database.
- 7** Percent of total input schedule directory accesses which were reads.
- 8** Number of input schedule member records added to the database.
- 9** Number of input schedule member records deleted from the database.
- 10** Number of input schedule member records read from the database.

5.3 Report Descriptions

- 11** Number of input schedule member records replaced (updated) in the database.
- 12** Total number of input schedule member accesses to the database.
- 13** Percent of total input schedule member accesses which were reads.

5.3.14 CA7xx013 Database SJD/SJM Record Activity Profile

This report provides a profile of CA-7 database activity for CPU job schedule directory (SJD) and member (SJM) records. Activity is shown in time increments as specified by the SUMM parameter. The log record type from which this report is produced is TYPE=161.

This data is also included as one of the line items comprising total database activity in the 5.3.17, "CA7xx016 Composite Database Activity Profile" on page 5-35.

COMPUTER ASSOCIATES INTERNATIONAL, INC.														
CA-7 DATABASE SJD/SJM RECORD ACTIVITY PROFILE														
												PAGE	1	
												REQUEST -	CA7xx13	
TIMES	SJD ADDS	SJD DELETES	SJD READS	SJD REPLACES	SJD TOTAL	PCT SJD READS	SJM ADDS	SJM DELETES	SJM READS	SJM REPLACES	SJM TOTAL	PCT SJM READS		
yy.032/08:00 - 08:30	0	0	332	0	332	100.0	0	0	638	0	638	100.0		
yy.032/08:30 - 09:00	0	0	1	0	1	100.0	0	0	2	0	2	100.0		
yy.032/09:00 - 09:30	0	0	332	0	332	100.0	0	0	638	0	638	100.0		
yy.032/09:30 - 10:00	0	0	0	0	0	.0	0	0	0	0	0	.0		
yy.032/10:00 - 10:30	0	0	331	0	331	100.0	0	0	636	0	636	100.0		
yy.032/10:30 - 11:00	0	0	1	1	2	50.0	0	0	8	4	12	66.6		
yy.032/11:00 - 11:30	0	0	332	0	332	100.0	0	0	637	0	637	100.0		
yy.032/11:30 - 12:00	0	0	1	0	1	100.0	0	0	3	1	4	75.0		
	1	2	3	4	5	6	7	8	9	10			11	12
														13

END OF REPORT

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of job schedule directory records added to the database.
- 3** Number of job schedule directory records deleted from the database.
- 4** Number of job schedule directory records read from the database.
- 5** Number of job schedule directory records replaced (updated) in the database.
- 6** Total number of job schedule directory accesses to the database.
- 7** Percent of total job schedule directory accesses which were reads.
- 8** Number of job schedule member records added to the database.
- 9** Number of job schedule member records deleted from the database.

5.3 Report Descriptions

- 10** Number of job schedule member records read from the database.
- 11** Number of job schedule member records replaced (updated) in the database.
- 12** Total number of job schedule member accesses to the database.
- 13** Percent of total job schedule member accesses which were reads.

5.3.15 CA7xx014 Database SOD/SOM Record Activity Profile

This report provides a profile of CA-7 database activity for output workstation network schedule directory (SOD) and member (SOM) records. Activity is shown in time increments as specified by the SUMM parameter. The log record type from which this report is produced is TYPE=I61.

This data is also included as one of the line items comprising total database activity in the 5.3.17, "CA7xx016 Composite Database Activity Profile" on page 5-35.

COMPUTER ASSOCIATES INTERNATIONAL, INC.														PAGE 1	
CA-7 DATABASE SOD/SOM RECORD ACTIVITY PROFILE														REQUEST - CA7xx014	
TIMES	SOD ADDS	SOD DELETES	SOD READS	SOD REPLACES	SOD TOTAL	PCT SOD READS	SOM ADDS	SOM DELETES	SOM READS	SOM REPLACES	SOM TOTAL	PCT SOM READS			
APR 13 yy															
TIME: 14.19.13															
yy.032/08:00 - 08:30	0	0	0	0	0	.0	0	0	0	0	0	.0			
yy.032/08:30 - 09:00	0	0	0	0	0	.0	0	0	0	0	0	.0			
yy.032/09:00 - 09:30	0	0	0	0	0	.0	0	0	0	0	0	.0			
yy.032/09:30 - 10:00	0	0	2	0	2	100.0	0	0	1	0	1	100.0			
yy.032/10:00 - 10:30	0	0	0	0	0	.0	0	0	0	0	0	.0			
yy.032/10:30 - 11:00	0	0	4	1	5	80.0	0	0	12	8	20	60.0			
yy.032/11:00 - 11:30	0	0	7	3	10	70.0	0	0	5	2	7	71.4			
yy.032/11:30 - 12:00	0	0	0	0	0	.0	0	0	0	0	0	.0			
	1	2	3	4	5	6	7	8	9	10		11	12	13	
END OF REPORT															

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of output schedule directory records added to the database.
- 3** Number of output schedule directory records deleted from the database.
- 4** Number of output schedule directory records read from the database.
- 5** Number of output schedule directory records replaced (updated) in the database.
- 6** Total number of output schedule directory accesses to the database.
- 7** Percent of total output schedule directory accesses which were reads.
- 8** Number of output schedule member records added to the database.
- 9** Number of output schedule member records deleted from the database.
- 10** Number of output schedule member records read from the database.
- 11** Number of output schedule member records replaced (updated) in the database.
- 12** Total number of output schedule member accesses to the database.
- 13** Percent of total output schedule member accesses which were reads.

5.3.16 CA7xx015 Database Type I Record Activity Profile

This report provides a profile of CA-7 database activity for index (I) records. Activity is shown in time increments as specified by the SUMM parameter. The log record type from which this report is produced is TYPE=161.

This data is also included as one of the line items comprising total database activity in the 5.3.17, "CA7xx016 Composite Database Activity Profile" on page 5-35.

COMPUTER ASSOCIATES INTERNATIONAL, INC.							PAGE
CA-7 DATABASE TYPE I RECORD ACTIVITY PROFILE							1
APR 13 yy							REQUEST - CA7xx015
TIME: 14.19.36							
TIMES	I ADDS	I DELETES	I READS	I REPLACES	I TOTAL	PCT I READS	
yy.032/08:00 - 08:30	0	2	273	51	326	83.7	
yy.032/08:30 - 09:00	0	0	554	127	681	81.3	
yy.032/09:00 - 09:30	0	0	879	263	1,142	76.9	
yy.032/09:30 - 10:00	0	0	702	103	805	87.2	
yy.032/10:00 - 10:30	0	0	766	145	911	84.0	
yy.032/10:30 - 11:00	0	0	1,199	448	1,647	72.7	
yy.032/11:00 - 11:30	5	0	692	194	891	77.6	
yy.032/11:30 - 12:00	0	0	388	88	476	81.5	
1	2	3	4	5	6	7	
END OF REPORT							

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of index records added to the database.
- 3** Number of index records deleted from the database.
- 4** Number of index records read from the database.
- 5** Number of index records replaced (updated) in the database.
- 6** Total number of index accesses to the database.
- 7** Percent of total index accesses which were reads.

5.3.17 CA7xx016 Composite Database Activity Profile

This report provides a composite profile of CA-7 database activity. It is a summary of the information provided on reports CA7xx008 through CA7xx015. Activity is shown in time increments as specified by the SUMM parameter. The log record type from which this report is produced is TYPE=161.

Information is provided in groups of 16 detail lines and a total line followed by a DB LOCKOUTS line for each increment of time. The value shown for DB LOCKOUTS indicates the number of times a database access could not be made due to an update being in progress.

COMPUTER ASSOCIATES INTERNATIONAL, INC.						
CA-7 COMPOSITE DATABASE ACTIVITY PROFILE						
APR 13 yy						PAGE 4
TIME: 14.20.00						REQUEST - CA7xx016
TIMES/ TYPES	ADDS	DELETES	READS	REPLACES	TOTAL	PCT READS

yy.032/11:00 - 11:30						
TYPE - DSD	5	0	333	5	343	97.0
TYPE - DSM	5	0	1,315	184	1,504	87.4
TYPE - JBD	2	0	6,321	36	6,359	99.4
TYPE - JBM	2	0	1,694	29	1,730	97.9
TYPE - NWD	0	0	15	0	15	100.0
TYPE - NWM	0	0	15	0	15	100.0
TYPE - PPD	0	0	0	0	0	.0
TYPE - PPM	0	0	0	0	0	.0
TYPE - SID	0	0	260	0	260	100.0
TYPE - SIM	0	0	491	0	491	100.0
TYPE - SJD	0	0	332	0	332	100.0
TYPE - SJM	0	0	637	0	637	100.0
TYPE - SOD	0	0	0	0	0	.0
TYPE - SOM	0	0	0	0	0	.0
TYPE - I	5	0	692	194	891	77.6
TOTALS	19	0	12,105	448	12,577	96.2
DB LOCKOUTS	0					
yy.032/11:30 - 12:00						
TYPE - DSD	0	0	241	0	241	100.0
TYPE - DSM	0	0	272	74	346	78.6
TYPE - JBD	0	0	4,998	18	5,016	99.6
TYPE - JBM	0	0	2,050	17	2,067	99.1
TYPE - NWD	0	0	1	0	1	100.0
TYPE - NWM	0	0	0	0	0	.0
TYPE - PPD	0	0	0	0	0	.0
TYPE - PPM	0	0	0	0	0	.0
TYPE - SID	0	0	2	0	2	100.0
TYPE - SIM	0	0	1	0	1	100.0
TYPE - SJD	0	0	1	0	1	100.0
TYPE - SJM	0	0	3	0	3	100.0
TYPE - SOD	0	0	0	0	0	.0
TYPE - SOM	0	0	0	0	0	.0
TYPE - I	0	0	388	88	476	81.5
TOTALS	0	0	7,957	197	8,154	97.5
1	2	3	4	5	6	7
DB LOCKOUTS	0					

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.

TYPE - xxx appears in this column for record type detail lines to identify the type.
- 2** Number of records added to the database.
- 3** Number of records deleted from the database.
- 4** Number of records read from the database.
- 5** Number of records replaced (updated) in the database.
- 6** Total number of accesses to the database.
- 7** Percent of total accesses which were reads.

5.3.18 CA7xx017 Composite Queue Activity Profile

This report provides a composite profile of CA-7 queue activity. It is a summary of the information provided on reports CA7xx002 through CA7xx007. Activity is shown in time increments as specified by the SUMM parameter. The log record type from which this report is produced is TYPE=161.

Information is provided in groups of seven detail lines and a total line for each increment of time.

JUL 07 yy TIME: 13.56.17		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 COMPOSITE QUEUE ACTIVITY PROFILE						PAGE 1 REQUEST - CA7xx017	
TIMES/ QUEUES	ADDS	DELETES	READS	REPLACES	TOTAL	PCT READS	QLOCKS	PCT QLOCKS	

yy.062/19:00 - 19:15									
QUEUE - REQ	164	82	40,004	466	40,716	98.2			
QUEUE - RDY	111	0	6,076	214	6,401	94.9			
QUEUE - ACT	77	0	6,571	804	7,452	yy.1			
QUEUE - PRN	0	0	51,201	78	51,279	99.8			
QUEUE - PRE	0	0	0	0	0	.0			
QUEUE - PST	0	0	0	0	0	.0			
TOTALS	352	82	103,852	1,562	105,848	98.1	2,394	2.3	
yy.062/19:15 - 19:30									
QUEUE - REQ	183	111	53,507	351	54,152	98.8			
QUEUE - RDY	59	0	5,616	187	5,862	95.8			
QUEUE - ACT	94	0	9,691	978	10,763	90.0			
QUEUE - PRN	0	0	153,257	115	153,372	99.9			
QUEUE - PRE	0	0	0	0	0	.0			
QUEUE - PST	0	0	0	0	0	.0			
TOTALS	336	111	222,071	1,631	224,149	99.0	1,453	0.6	
yy.062/19:30 - 19:45									
QUEUE - REQ	286	149	69,295	754	70,484	98.3			
QUEUE - RDY	111	0	4,526	316	4,953	91.3			
QUEUE - ACT	113	0	13,165	1,323	14,601	90.1			
QUEUE - PRN	0	0	76,823	145	76,968	99.8			
QUEUE - PRE	0	0	0	0	0	.0			
QUEUE - PST	0	0	0	0	0	.0			
TOTALS	510	149	163,809	2,538	167,006	98.0	2,234	1.3	
yy.062/19:45 - 20:00									
QUEUE - REQ	244	134	66,379	598	67,355	98.5			
QUEUE - RDY	113	0	2,635	287	3,035	86.8			
QUEUE - ACT	112	0	11,945	1,488	13,545	yy.1			
QUEUE - PRN	0	0	38,547	126	38,673	99.6			
QUEUE - PRE	0	0	0	0	0	.0			
QUEUE - PST	0	0	0	0	0	.0			
TOTALS	469	134	119,506	2,499	122,608	97.4	1,796	1.5	
yy.062/20:00 - 20:15									
QUEUE - REQ	324	167	79,735	873	81,099	98.3			
QUEUE - RDY	138	0	4,966	351	5,455	91.0			
QUEUE - ACT	136	0	16,340	1,125	17,601	92.8			
QUEUE - PRN	0	0	76,891	175	77,066	99.7			
QUEUE - PRE	0	0	0	0	0	.0			
QUEUE - PST	0	0	0	0	0	.0			
TOTALS	598	167	177,932	2,524	181,221	98.1	1,658	0.9	
END OF REPORT									
	1	2	3	4	5	6	7	8	
								9	

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.

QUEUE - xxx appears in this column for queue detail lines to identify the queue.
- 2** Number of records added to the queue.
- 3** Number of records deleted from the queue.
- 4** Number of records read from the queue.
- 5** Number of records replaced (updated) in the queue.
- 6** Total number of accesses to the queue.
- 7** Percent of total accesses which were reads. This value represents the portion of queue accesses which were serviced from a resident queue without requiring an access to the DASD device. Refer to the INDEX=A option on the initialization file FORMAT statement for further discussion of this performance option.
- 8** Number of times that queue access was prevented due to update activity.
- 9** Percent of QLOCKS that occurred as compared to total accesses.

5.3.19 CA7xx018 Queue Posting Activity

This report reflects manual activities which had an effect on the flow of work through the CA-7 queues. These activities are the direct result of commands entered through a CA-7 online or batch terminal. The time-of-day shown in each activity record can be matched against the SASSHR02 Transaction Detail report to help identify which terminal/operator requested the function. One detail line is shown for each activity item. The log record type from which this report is produced is TYPE=117.

Refer to the type 117 (X'75') Post Activity log record for the input used.

APR 18 yy TIME: 13.09.24		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 QUEUE POSTING ACTIVITY				PAGE 1 REQUEST - CA7xx018
JULIAN DATE	HH MM SS	STATION/ JOB NAME	CA-7 JOB#	CA-7 QUEUE	ACTION TAKEN	
yy.032/08:03:57		RMD#0035	398	PRE	REMIND COMMAND	
yy.032/08:17:29		PPSTK345	500	REQ	DEMANDED	
yy.032/08:17:29		PPSTK345	500	REQ	HELD	
yy.032/08:31:06		PPPTS005	502	REQ	DEMANDED	
yy.032/08:42:30		PCPEP005	506	REQ	DEMANDED	
yy.032/08:44:37		FREIGHT	423	PRE	LOGGED OUT	
yy.032/08:47:56		PPSTK345	509	REQ	RELEASED	
yy.032/08:49:29		PPPTS150	511	REQ	DEMANDED	
yy.032/08:50:25		UC04	394	PRE	LOGGED OUT	
yy.032/08:56:54		TPC3	395	PRE	LOGGED OUT	
yy.032/08:58:36		PCPEP050	523	REQ	DEMANDED	
yy.032/09:00:32		PPLBX250	525	REQ	DEMANDED	
yy.032/09:00:56		PPLBX050	526	REQ	RSVP	
yy.032/09:03:32		PPLBX270	543	REQ	DEMANDED	
yy.032/09:06:55		PPLBX330	545	REQ	POST COMMAND NWK=TPC04Y	
yy.032/09:16:08		TPC3	484	PRE	LOGGED OUT	
yy.032/09:49:28		PPNND502	589	REQ	LOADED	
yy.032/10:03:06		PFPCS005	601	REQ	DEMANDED	
yy.032/10:09:55		N/A	0	REQ	POST COMMAND JOB=PPLBX030	
yy.032/10:35:20		PPDAP450	656	REQ	DEMANDED	
yy.032/10:36:40		PCHRS450	578	REQ	UPDATED VIA XUPD	
yy.032/10:36:41		PPPTS400	655	REQ	RELEASED	
yy.032/10:50:48		PPTHP576	666	REQ	DEMANDED	
yy.032/10:52:08		PKFIS587	663	REQ	RUN COMMAND	
yy.032/10:55:14		PPALA575	672	REQ	ADDRQ COMMAND JOB=PPLBX194	
yy.032/10:57:19		WIRE	554	PRE	LOGGED OUT	
yy.032/10:58:08		PPAOP530	669	REQ	CANCELED	
yy.032/11:10:25		PPHDS400	699	REQ	DEMANDED	
yy.032/11:10:31		TPC3	476	PRE	DMDNW COMMAND NWK=AR01EDIT	
yy.032/11:11:04		PFHDS400	706	REQ	DEMANDED	
yy.032/11:11:14		UC04	551	PRE	LOGGED OUT	
yy.032/11:34:43		PCHRS305	711	REQ	ADDRQ COMMAND USR=WAIT FOR OK FROM AUDIT	
yy.032/11:35:10		PCHRS305	711	REQ	RELEASED	
yy.032/11:38:14		R616	478	PRE	LOGGED IN	
yy.032/11:40:24		TPC3	687	PRE	LOGGED OUT	
yy.032/11:41:22		PMILA009	718	REQ	DEMANDED	
yy.032/11:52:36		PNCIF519	724	REQ	DEMANDED	
yy.032/11:57:12		N/A	0	REQ	POST COMMAND JOB=PPLBX232	

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2
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6

END OF REPORT

Item Description

- 1 Julian date on which the activity occurred.
- 2 Time-of-day at which the activity occurred.

- 3** For workstation network activities, the station name. For CPU jobs, the job name. This shows as an asterisk in the following cases:

CTLG commands
 Pre-V29 ADDRQ commands
 Pre-V29 POST commands

- 4** Assigned CA-7 job number. This shows as zero in the following cases:

CTLG commands
 NXTCYC commands
 Pre-V29 ADDRQ commands
 Pre-V29 POST commands

- 5** CA-7 queue identification:

* for CTLG and NXTCYC commands

PRE indicates preprocessing queue

REQ indicates request queue

RDY indicates ready queue

ACT indicates active queue

POST indicates postprocessing queue

PRN indicates prior-run queue

- 6** Indicates the command or screen function performed:

ADDRQ JOB=jobname
 ADDRQ USR=text
 CANCEL
 CANCELED VIA XPOST SCREEN (C OPTION)
 CANCELED VIA XPRE SCREEN (C OPTION)
 CANCELED VIA XQ SCREEN (C OPTION)
 CTLG DSN=datasetname
 DEMAND/DEMANDH
 DIRECT
 DMDNW NWK=networkname
 HOLD/HOLDH
 HELD VIA XPOST SCREEN (H OPTION)
 HELD VIA XPRE SCREEN (H OPTION)
 HELD VIA XQ SCREEN (H OPTION)
 JCLOVRD SET=OFF
 JCLOVRD SET=OFF VIA XQ SCREEN (J OPTION)
 JCLOVRD SET=OFF VIA XRQ SCREEN (X OPTION)
 JCLOVRD SET=ON
 JCLOVRD SET=ON VIA XQ SCREEN (J OPTION)
 LOAD
 LOGGED IN VIA LOGIN, IN OR IO COMMAND
 LOGGED IN VIA XPOST SCREEN (OPTION F OR I)
 LOGGED IN VIA XPRE SCREEN (OPTION F OR I)

LOGGED OUT VIA LOGOUT, OUT OR IO COMMAND
 LOGGED OUT VIA XPOST SCREEN (O OPTION)
 LOGGED OUT VIA XPRE SCREEN (O OPTION)
 NXTCYC SET=OFF
 NXTCYC SET=ON
 NXTCYC SET=SKP
 POST DSN=datasetname
 POST NWK=networkname
 POST JOB=jobname
 POST USR=test
 RELEASE
 RELEASED VIA XPOST SCREEN (R OPTION)
 RELEASED VIA XPRE SCREEN (R OPTION)
 RELEASED VIA XQ SCREEN (R OPTION)
 RELEASED VIA XRQ SCREEN (X OPTION)
 REMIND
 REQUEUE
 REQUEUED VIA XQ SCREEN (Q OPTION)
 REQUEUED VIA AUTO REQUEUE
 RESTART
 RESTARTED VIA XRST SCREEN
 RSVP
 RSVP VIA XPOST SCREEN (P OPTION)
 RSVP VIA XPRE SCREEN (P OPTION)
 RSVP VIA XQ SCREEN (P OPTION)
 RUN/RUNH
 RUNNW NWK=networkname
 SUBMIT
 SUBTM
 SUBTM POSTED VIA XQ SCREEN (S OPTION)
 SUBTM POSTED VIA XRQ SCREEN (X OPTION)
 UPDATED VIA XUPD SCREEN
 VERIFY SET=OFF
 VERIFY SET=OFF VIA XQ SCREEN (V OPTION)
 VERIFY SET=OFF VIA XRQ SCREEN (X OPTION)
 VERIFY SET=ON
 VERIFY SET=ON VIA XQ SCREEN (V OPTION)

5.3 Report Descriptions

XRQ POST	DSN=datasetname
XRQ POST	JOB=jobname
XRQ POST	NWK=networkname
XRQ POST	USR=text
XRQ UNPOST	DSN=datasetname
XRQ UNPOST	JOB=jobname
XRQ UNPOST	NWK=networkname
XRQ UNPOST	USR=text

* UNRECOGNIZABLE LOG RECORD ENCOUNTERED appears if some unexpected combination of codes occurs within an extracted X'75' record.

5.3.20 CA7xx019 Job Scheduling/Completion Activity

This report provides summary information on the volumes of CPU jobs being submitted for execution and jobs that completed execution, showing whether those jobs that completed execution did so successfully. The log record type from which this report is produced is TYPE=161.

MAY 09 yy TIME: 13.56.45		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 JOB SCHEDULING/COMPLETION ACTIVITY							PAGE 1 REQUEST - CA7xx019	
TIMES	TOTAL SCHEDULED	WITH NO PROBLEMS	TOTAL SUBMITTED	CALENDAR SCHEDULED	TRIGGER SCHEDULED	TOTAL JOBS RUN	NORMAL CA-7 EOJS	ABNORMAL CA-7 EOJS	JOB RESTARTS	
yy.032/08:00 - 08:30	20	20	15	12	6	69	17	0	0	
yy.032/08:30 - 09:00	22	22	27	0	8	110	21	0	0	
yy.032/09:00 - 09:30	40	40	38	6	15	163	40	0	0	
yy.032/09:30 - 10:00	25	24	20	0	16	170	20	0	0	
yy.032/10:00 - 10:30	31	30	24	8	17	171	25	0	0	
yy.032/10:30 - 11:00	30	30	21	0	11	153	16	3	1	
yy.032/11:00 - 11:30	21	21	27	4	6	153	29	1	1	
yy.032/11:30 - 12:00	16	16	20	0	10	103	17	0	0	

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END OF REPORT

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of jobs scheduled into the queue.
- 3** Number of jobs scheduled successfully. Unavailable CA-7 job numbers, LOCK conditions, and so forth, may prevent successful scheduling.
- 4** Number of jobs submitted to a submit data set or an internal reader.
- 5** Number of jobs submitted by schedule scan due to a calendar schedule.
- 6** Number of jobs submitted by schedule scan as a result of a job, network or data set trigger.
- 7** Total number of jobs for which SMF type 26 purge records were encountered, whether the jobs were submitted by CA-7.
- 8** Number of jobs submitted by CA-7 which completed successfully.
- 9** Number of jobs submitted by CA-7 which completed with some type of error (JCL error, abend or condition code test failure).
- 10** Number of jobs that were resubmitted through the QM.4 screen or RESTART command.

5.3.21 CA7xx020 Tape Data Set Activity

This report provides summary information on tape data set activity which was performed by jobs submitted by CA-7. The log record type from which this report is produced is TYPE=161.

COMPUTER ASSOCIATES INTERNATIONAL, INC.					
CA-7 TAPE DATA SET ACTIVITY					
APR 13 yy					PAGE 1
TIME: 14.22.50					REQUEST - CA7xx020
TIMES	TOTAL DATASETS	INPUT DATASETS	OUTPUT DATASETS	GDG DATASETS	EXCPS (000)
yy.032/08:00 - 08:30	39	13	26	27	1,180
yy.032/08:30 - 09:00	23	13	10	21	51
yy.032/09:00 - 09:30	51	20	31	43	40
yy.032/09:30 - 10:00	191	6	185	134	324
yy.032/10:00 - 10:30	270	21	249	200	828
yy.032/10:30 - 11:00	36	9	27	15	116
yy.032/11:00 - 11:30	38	17	21	35	46
yy.032/11:30 - 12:00	47	8	39	44	21
1	2	3	4	5	6
END OF REPORT					

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of data sets accessed.
- 3** Number of data sets that were accessed as input.
- 4** Number of data sets that were accessed as output.
- 5** Number of data sets that were Generation Data Groups (GDGs).
- 6** Total number of physical accesses performed (in thousands).

5.3.22 CA7xx021 DASD Data Set Activity

This report provides summary information on DASD data set activity which was performed by jobs submitted by CA-7. The log record type from which this report is produced is TYPE=161.

COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 DASD DATA SET ACTIVITY					
APR 13 yy					PAGE 1
TIME: 14.23.13					REQUEST - CA7xx021
TIMES	TOTAL DATASETS	INPUT DATASETS	OUTPUT DATASETS	GDG DATASETS	EXCPS (000)
yy.032/08:00 - 08:30	415	343	72	166	154
yy.032/08:30 - 09:00	625	372	253	272	66
yy.032/09:00 - 09:30	900	494	406	249	431
yy.032/09:30 - 10:00	562	254	308	175	768
yy.032/10:00 - 10:30	483	302	181	154	109
yy.032/10:30 - 11:00	370	244	126	56	110
yy.032/11:00 - 11:30	607	390	217	254	94
yy.032/11:30 - 12:00	485	386	99	195	30
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END OF REPORT					

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of data sets accessed.
- 3** Number of data sets that were accessed as input.
- 4** Number of data sets that were accessed as output.
- 5** Number of data sets that were Generation Data Groups (GDGs).
- 6** Total number of physical accesses performed (in thousands).

5.3.23 CA7xx022 Workstation Network Scheduling Activity

This report provides information scheduling activity for workstation networks. The log record type from which this report is produced is TYPE=161.

APR 13 yy TIME: 14.23.44		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 WORKSTATION NETWORK SCHEDULING ACTIVITY						PAGE 1 REQUEST - CA7xx022	
TIMES	INPUT SCHEDULED	INPUT CANCELED	CANCELED PCT.	SCHEDULED STATIONS	OUTPUT SCHEDULED	OUTPUT CANCELED	CANCELED PCT.	SCHEDULED STATIONS	
yy.032/08:00 - 08:30	6	0	.0	10	0	0	.0	0	
yy.032/08:30 - 09:00	5	0	.0	0	0	0	.0	0	
yy.032/09:00 - 09:30	7	0	.0	11	0	0	.0	0	
yy.032/09:30 - 10:00	5	2	40.0	0	0	0	.0	0	
yy.032/10:00 - 10:30	7	0	.0	18	0	0	.0	0	
yy.032/10:30 - 11:00	7	0	.0	0	4	1	25.0	2	
yy.032/11:00 - 11:30	1	1	100.0	15	0	0	.0	0	
yy.032/11:30 - 12:00	0	0	.0	0	2	0	.0	2	

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END OF REPORT

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of input networks scheduled into the queue.
- 3** Number of input networks that were canceled.
- 4** Canceled input networks as a percent of number scheduled.
- 5** Number of input workstations that were scheduled.
- 6** Number of output networks scheduled into the queue.
- 7** Number of output networks that were canceled.
- 8** Canceled output networks as a percent of number scheduled.
- 9** Number of output workstations that were scheduled.

5.3.24 CA7xx023 Input Network Performance Profile

This report provides a profile of on-time performance by input networks. The log record type from which this report is produced is TYPE=161.

APR 13 yy TIME: 14.24.09		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 INPUT NETWORK PERFORMANCE PROFILE					PAGE 1 REQUEST - CA7xx023	
TIMES	INPUT SCHEDULED	INPUT CANCELED	INPUT LATE	SCHEDULED STATIONS	IN ONTIME	OUT ONTIME	IN ONTIME OUT LATE	
yy.032/08.00 - 08.30	6	0	1	10	2	9	0	
yy.032/08.30 - 09.00	5	0	1	0	3	1	0	
yy.032/09.00 - 09.30	7	0	1	11	1	10	0	
yy.032/09.30 - 10.00	5	0	1	0	1	1	0	
yy.032/10.00 - 10.30	7	0	0	18	3	18	0	
yy.032/10.30 - 11.00	7	0	0	0	0	0	0	
yy.032/11.00 - 11.30	1	1	1	15	3	14	0	
yy.032/11.30 - 12.00	0	0	2	0	4	2	0	

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END OF REPORT

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of input networks scheduled into the queue.
- 3** Number of input networks that were canceled.
- 4** Number of input networks that were completed after the scheduled completion time.
- 5** Number of input workstations that were scheduled.
- 6** Number of input workstations that were logged in on time.
- 7** Number of input workstations that were logged out on time.
- 8** Number of input workstation that were logged in on time but were subsequently logged out late.

5.3.25 CA7xx024 Output Network Performance Profile

This report provides a profile of on-time performance by output networks. The log record type from which this report is produced is TYPE=161.

APR 13 yy TIME: 14.24.34		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 OUTPUT NETWORK PERFORMANCE PROFILE					PAGE 1 REQUEST - CA7xx024	
TIMES	OUTPUT SCHEDULED	OUTPUT CANCELED	OUTPUT LATE	SCHEDULED STATIONS	IN ONTIME	OUT ONTIME	IN ONTIME OUT LATE	
yy.032/08:00 - 08:30	0	0	0	0	0	0	0	
yy.032/08:30 - 09:00	0	0	0	0	0	0	0	
yy.032/09:00 - 09:30	0	0	0	0	0	0	0	
yy.032/09:30 - 10:00	0	0	0	0	0	0	0	
yy.032/10:00 - 10:30	0	0	0	0	0	0	0	
yy.032/10:30 - 11:00	4	1	0	2	2	2	0	
yy.032/11:00 - 11:30	0	0	0	0	0	0	0	
yy.032/11:30 - 12:00	2	0	0	2	2	1	1	

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END OF REPORT

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of output networks scheduled into the queue.
- 3** Number of output networks that were canceled.
- 4** Number of output networks that were completed after the scheduled completion time.
- 5** Number of output workstations that were scheduled.
- 6** Number of output workstations that were logged in on time.
- 7** Number of output workstations that were logged out on time.
- 8** Number of output workstations that were logged in on time but were subsequently logged out late.

5.3.26 CA7xx025 Communications Data Set Activity

This report provides a profile of activity on the communications data set. The log record type from which this report is produced is TYPE=161.

APR 13 yy TIME: 14.24.57		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 COMMUNICATIONS DATA SET ACTIVITY						PAGE 1 REQUEST - CA7xx025	
TIMES	READS	WRITES	READS/ WRITES	BUSY DELAYS	BUSY PCT OF R/W	WAIT MINUTES	PCT ACTIVE	JOBS SUBMITTED	TOTAL ALL JOBS RUN
yy.032/08:00 - 08:30	500	163	3.0	1	.15	29	.83	15	69
yy.032/08:30 - 09:00	756	294	2.5	5	.47	29	1.88	27	110
yy.032/09:00 - 09:30	973	402	2.4	6	.43	29	2.43	38	163
yy.032/09:30 - 10:00	903	372	2.4	4	.31	29	2.05	20	170
yy.032/10:00 - 10:30	869	360	2.4	3	.24	29	1.93	24	171
yy.032/10:30 - 11:00	728	278	2.6	1	.09	29	1.27	21	153
yy.032/11:00 - 11:30	820	325	2.5	4	.34	29	1.54	27	153
yy.032/11:30 - 12:00	620	226	2.7	0	.00	29	.94	20	103

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END OF REPORT

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of read accesses.
- 3** Number of write accesses.
- 4** Ratio of reads to writes.
- 5** Number of times accesses were delayed due to the data set already being busy.
- 6** Percent of read/write attempts which encountered a busy condition.
- 7** Number of minutes the communications subtask was idle.
- 8** Percent of the elapsed time that the communications subtask was busy in hundredths of a percent.
- 9** Number of jobs submitted.
- 10** Number of job completions that occurred (including jobs not submitted by CA-7).

5.3.27 CA7xx026 Schedule Scan Activity

This report provides a profile of activity by the schedule scan task. The log record type from which this report is produced is TYPE=161.

APR 13 yy TIME: 14.25.18		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 SCHEDULE SCAN ACTIVITY						PAGE 1 REQUEST - CA7xx026	
TIMES	TASK WAKEUPS	AVG SECS /WAKEUP	AWAKE PCT	ACTUAL SCANS	AVG SECS /SCAN	SCAN PCT	JOBS SCHEDULED	CALENDAR SCHEDULED	
yy.032/08:00 - 08:30	25	1.95	2.74	1	46.97	2.63	20	12	
yy.032/08:30 - 09:00	33	.26	.49	0	.00	.00	22	0	
yy.032/09:00 - 09:30	51	.93	2.62	1	42.66	2.36	40	6	
yy.032/09:30 - 10:00	28	.12	.19	0	.00	.00	25	0	
yy.032/10:00 - 10:30	33	1.90	3.50	1	59.65	3.33	31	8	
yy.032/10:30 - 11:00	28	.19	.30	0	.00	.00	30	0	
yy.032/11:00 - 11:30	34	1.62	3.08	1	51.26	2.85	21	4	
yy.032/11:30 - 12:00	32	.11	.20	0	.00	.00	16	0	

1 END OF REPORT
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Item Description

- 1 Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2 Number of times the task was activated to perform a scheduling function.
- 3 Average number of seconds the task was active for an active period.
- 4 Percent of elapsed time, in hundredths of a percent, that the task was active.
- 5 Number of times that the database was actually scanned to see if calendar scheduled work was due to be scheduled into the queues.
- 6 Average number of seconds that each actual scan consumed.
- 7 Percent of elapsed time, in hundredths of a percent, that actual scans were active.
- 8 Total number of jobs scheduled into the queues for calendar schedules, demand work, triggers, and so forth.
- 9 Number of those jobs scheduled into the queues solely on the basis of a calendar schedule.

5.3.28 CA7xx027 Queue Allocation Usage Profile

This report provides a profile of allocations for queues, both DASD and main memory, and an indication of the utilization that was made of the queues. This report can be helpful in tuning performance, queue and region sizes. The log record type from which this report is produced is TYPE=162.

The report ignores any data logged prior to Version 2.9 due to log record format differences.

COMPUTER ASSOCIATES INTERNATIONAL, INC.											
CA-7 QUEUE ALLOCATION USAGE PROFILE											
PAGE 1											
REQUEST - CA7xx027											

TIMES/ QUEUES	FROM CYL.	FROM HEAD	THRU CYL.	THRU HEAD	TOTAL TRACKS	USED TRACKS	PCT USED	BYTES (000)	USED (000)	PCT USED	INDEX VALUE

yy.105/00:52											
QUEUE - SCR	769	0	778	14	150	6	4.0	0	0	.0	N
QUEUE - ACT	143	0	143	4	5	2	40.0	126	0	.0	A
QUEUE - DQT	260	0	262	14	45	3	6.6	0	0	.0	N
QUEUE - PRE	76	5	76	9	5	2	40.0	0	0	.0	N
QUEUE - PRN	543	0	545	14	45	3	6.6	0	0	.0	N
QUEUE - PST	306	0	306	4	5	2	40.0	0	0	.0	N
QUEUE - RDY	85	5	85	9	5	2	40.0	8	0	.0	Y
QUEUE - REQ	289	5	289	14	10	2	20.0	0	0	.0	N
QUEUE - TRL	847	0	856	14	150	8	5.3	0	0	.0	N
TOTALS					420	30	7.1	134	0	0.0	DEVTYPE: 3380
<div style="display: flex; justify-content: space-around; margin-top: 10px;"> 1 2 3 4 5 6 7 8 9 10 11 12 </div>											
END OF REPORT											

Item Description

- 1** Date and time at which the log record containing this data was written. It is written at shutdown time. For detail lines, this field also shows:
QUEUE - xxx to indicate the queue ID.
- 2** Beginning DASD allocation cylinder number.
- 3** Beginning DASD allocation head number.
- 4** Ending DASD allocation cylinder number.
- 5** Ending DASD allocation head number.
- 6** Total DASD tracks allocated to the queue. This column is totaled at the end of the report.
- 7** Highest number of allocated DASD tracks that were actually required during processing. This column is totaled at the end of the report.
- 8** Percent of allocated DASD tracks actually required during processing. Overall percent is given in the total line at the end of the report.

5.3 Report Descriptions

- 9** Thousands of bytes allocated for the resident area when the index value is A. This column is totaled at the end of the report. This is zero for other index values.
- 10** Thousands of bytes of resident area used. This column is totaled at the end of the report.
- 11** Percent of resident area used in tenths of a percent. Overall percent is given in the total line at the end of the report.
- 12** Index value specified at initialization time for the queue.

A - indicates entire queue is memory resident
Y - indicates only the index is memory resident
N - indicates DASD resident only

DEVTYPE: xxxx appears in this column on the TOTALS line to identify the queue's device type.

5.3.29 CA7xx028 Job Termination Posting Dwell Time

This report shows the elapsed time between the completion of a CPU job and the time that CA-7 receives the information and produces a log record of the event. Any delay between these two events represents SMF feedback time. The log record type from which this report is produced is TYPE=005.

Differences between clocks on multiple CPUs may distort the calculations.

APR 18 yy TIME: 13.09.47		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 JOB TERMINATION POSTING DWELL TIME										PAGE 1 REQUEST - CA7xx028	
JULIAN	L O G	E O J	D W E L L	JOB NAME	SMFID								
DATE	HH MM SS TH	HH MM SS TH	HH MM SS TH										
yy.032	/ 08:01:18:44	- 08:01:07:51	=	:	:10:93	PPCPE025	E09A						
yy.032	/ 08:05:06:03	- 08:04:54:58	=	:	:11.45	PPQAC300	E09A						
yy.032	/ 08:15:06:91	- 08:14:54:19	=	:	:12.72	PPREL005	E09A						
yy.032	/ 08:33:32:33	- 08:33:24:10	=	:	:08.23	PPSCH005	E09A						
yy.032	/ 08:35:54:63	- 08:35:51:02	=	:	:03.61	PCWEB062	E09A						
yy.032	/ 08:56:08:99	- 08:55:58:49	=	:	:10.50	PPPBI500	E09A						
yy.032	/ 09:00:48:70	- 09:00:42:11	=	:	:06.59	PPCPE025	E09A						
yy.032	/ 09:02:33:73	- 09:02:24:44	=	:	:09.29	PPCTL005	E09A						
yy.032	/ 09:05:40:93	- 09:05:29:12	=	:	:11.81	PPCTL010	E09A						
yy.032	/ 09:10:28:98	- 09:10:20:90	=	:	:08.08	PPISC425	E09A						
yy.032	/ 09:34:55:58	- 09:34:47:45	=	:	:08.13	PPPEP560	E09A						
yy.032	/ 09:55:46:89	- 09:55:33:41	=	:	:13.48	PPSTK345	E09A						
yy.032	/ 10:04:14:56	- 10:04:01:34	=	:	:13.22	PPRLB030	E09A						
yy.032	/ 10:15:56:97	- 10:15:47:50	=	:	:09.47	PCWEB082	E09A						
yy.032	/ 10:18:04:14	- 10:18:01:83	=	:	:02.31	PHPEP100	E09A						
yy.032	/ 10:20:51:43	- 10:20:45:45	=	:	:05.98	PPVSA501	E09A						
yy.032	/ 10:46:20:51	- 10:46:12:51	=	:	:08.00	PPDMG001	E09A						
yy.032	/ 10:50:20:19	- 10:50:14:40	=	:	:05.79	PPTHP574	E09A						
yy.032	/ 10:56:49:34	- 10:56:46:87	=	:	:02.47	PPAOP530	E09A						
yy.032	/ 10:59:21:28	- 10:59:17:91	=	:	:03.37	PPWTS040	E09A						
yy.032	/ 11:04:04:55	- 11:03:55:62	=	:	:08.93	PPACP221	E09A						
yy.032	/ 11:11:09:67	- 11:10:58:71	=	:	:10.96	PPAOP530	E09A						
yy.032	/ 11:23:07:39	- 11:22:57:23	=	:	:10.16	PPHDS425	E09A						
yy.032	/ 11:23:28:87	- 11:23:19:40	=	:	:09.47	PPHDS415	E09A						
yy.032	/ 11:27:15:94	- 11:27:13:04	=	:	:02.90	PCWEB089	E09A						
yy.032	/ 11:34:45:11	- 11:34:41:15	=	:	:03.96	PFWEB010	E09A						
yy.032	/ 11:40:31:68	- 11:40:19:74	=	:	:11.94	PIABI015	E09A						
yy.032	/ 11:43:01:39	- 11:42:53:14	=	:	:08.25	PMILA009	E09A						
yy.032	/ 11:44:53:48	- 11:44:48:72	=	:	:04.76	PMILA009	E09A						
yy.032	/ 11:45:45:90	- 11:45:38:22	=	:	:07.68	PPLBX050	E09A						
yy.032	/ 11:59:15:20	- 11:59:06:12	=	:	:09.08	PCPEP010	E09A						

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END OF REPORT

Item	Description
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|----------|---|
| 1 | Julian date on which the log record was written. |
| 2 | Time-of-day at which the log record was written. |
| 3 | Time-of-day at which job termination occurred. |
| 4 | Dwell time between job termination and writing of the log record. |
| 5 | Name of the CPU job. |
| 6 | SMF ID of the CPU on which the job executed. |

5.3.30 CA7xx029 Job Completion Dwell Time

This report shows the elapsed time between the completion of a CPU job and the time that CA-7 completes processing job completion, triggering, and so forth. Any delay between these two events represents time required to trigger in other jobs, post successor's jobs, and so on. The log record type from which this report is produced is TYPE=105.

Differences between clocks on multiple CPUs may distort the calculations.

APR 18 yy TIME: 13.10.19		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 JOB COMPLETION DWELL TIME						PAGE 1 REQUEST - CA7xx029	
JULIAN DATE	C O M P HH MM SS TH	E O J HH MM	D W E L L HH MM SS TH	JOB NAME	SMFID	EXECUTION TYPE			
yy.032 / 08:01:18:81 -		08:01 =	: :18.81	PPCPE025	E09A	NORMAL			
yy.032 / 08:01:20:51 -		08:01 =	: :20.51	PPSHD119	E09A	NORMAL			
yy.032 / 08:04:14:16 -		08:04 =	: :14.16	PPPER405	E09A	NORMAL			
yy.032 / 08:17:01:58 -		08:16 =	: 1:01.58	PKFIS593	E09A	NORMAL			
yy.032 / 08:29:36:99 -		08:29 =	: :36.99	PPRLB715	E09A	NORMAL			
yy.032 / 09:00:03:51 -		09:00 =	: :03.51	PPUCCACP		NON-EXEC			
yy.032 / 09:02:56:45 -		09:02 =	: :56.45	PPALA500	E09A	NORMAL			
yy.032 / 09:13:15:97 -		09:13 =	: :15.97	PPLBX060	E09A	NORMAL			
yy.032 / 09:25:10:74 -		09:25 =	: :10.74	PCHRS445	E09A	LOAD/EXEC			
yy.032 / 09:41:45:84 -		09:41 =	: :45.84	PFWEB015	E09A	NORMAL			
yy.032 / 09:51:53:47 -		09:51 =	: :53.47	PPNND502	E09A	LOAD/EXEC			
yy.032 / 10:07:54:59 -		10:07 =	: :54.59	PPRCT021	E09A	LOAD/EXEC			
yy.032 / 10:33:17:85 -		10:33 =	: :17.85	PPPEP551	E09A	NORMAL			
yy.032 / 10:51:32:11 -		10:51 =	: :32.11	PPFIS310	E09A	NORMAL			
yy.032 / 10:58:48:05 -		10:58 =	: :48.05	PPVSA088	E09A	NON-EXEC			
yy.032 / 10:59:10:66 -		10:59 =	: :10.66	PPAOP590	E09A	NORMAL			
yy.032 / 10:59:21:60 -		10:59 =	: :21.60	PPWTS040	E09A	NORMAL			
yy.032 / 11:00:58:03 -		11:00 =	: :58.03	PPCPE025	E09A	LOAD ONLY			
yy.032 / 11:01:19:45 -		11:01 =	: :19.45	PPCPE050	E09A	NORMAL			
yy.032 / 11:01:50:27 -		11:01 =	: :50.27	PPPAA400	E09A	NORMAL			
yy.032 / 11:04:04:88 -		11:03 =	: 1:04.88	PPACP221	E09A	LOAD/EXEC			
yy.032 / 11:11:10:31 -		11:10 =	: 1:10.51	PPAOP530	E09A	NORMAL			
yy.032 / 11:43:12:90 -		11:43 =	: :12.90	PPPBI020	E09A	NORMAL			
yy.032 / 11:59:15:59 -		11:59 =	: :15.59	PCPEP010	E09A	NORMAL			

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END OF REPORT

Item Description

- 1** Julian date on which the log record was written.
- 2** Time-of-day at which completion processing was completed.
- 3** Time-of-day at which the job terminated. Seconds, tenths, and hundredths are not available here and are assumed to be zeros for dwell calculations.
- 4** Dwell time between job termination and completion of job completion processing.
- 5** Name of the CPU job.
- 6** SMF ID of the CPU on which the job executed.
- 7** Type of execution performed by the job.

NORMAL indicates normal execution
NON-EXEC indicates nonexecutable job
LOAD/EXEC indicates LOAD and execution
LOAD ONLY indicates LOAD without execution

5.3.31 CA7xx030 Queue Entry Dwell Time

This report shows the elapsed time between the start and end of placing a job in the request queue. This time is spent building Trailer queue entries for predecessor requirements, JCL images, and so forth. The log record type from which this report is produced is TYPE=105.

APR 18 yy TIME: 13.10.58		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 QUEUE ENTRY DWELL TIME				PAGE 1 REQUEST - CA7xx030	
JULIAN DATE	O U T HH MM SS TH	I N HH MM SS TH	D W E L L HH MM SS TH	JOB NAME	EXECUTION TYPE		
yy.032	/ 08:02:07:67	- 08:02:06:70	=	: :00.97	PPWTS017	NORMAL	
yy.032	/ 08:06:39:41	- 08:06:38:81	=	: :00.60	PPDMG105	NON-EXEC	
yy.032	/ 08:12:46:29	- 08:12:44:29	=	: :02.00	PPREL005	NORMAL	
yy.032	/ 08:46:19:42	- 08:46:17:32	=	: :02.10	PPACH032	NORMAL	
yy.032	/ 08:49:43:15	- 08:49:41:77	=	: :01.38	PPECL101	NORMAL	
yy.032	/ 08:53:46:21	- 08:53:43:67	=	: :02.54	PPACH521	LOAD ONLY	
yy.032	/ 08:53:53:51	- 08:53:51:91	=	: :01.60	PPSHD122	NORMAL	
yy.032	/ 08:56:48:37	- 08:56:47:05	=	: :01.32	PPECL101	LOAD/EXEC	
yy.032	/ 08:58:36:60	- 08:58:35:40	=	: :01.20	PCPEP050	NORMAL	
yy.032	/ 09:00:15:14	- 09:00:05:78	=	: :09.36	PPACP211	NORMAL	
yy.032	/ 09:01:09:30	- 09:01:07:64	=	: :01.66	PPLBX060	NORMAL	
yy.032	/ 09:01:41:65	- 09:01:39:93	=	: :01.72	PPRCT020	LOAD/EXEC	
yy.032	/ 09:02:19:93	- 09:02:18:59	=	: :01.34	PPLBX170	NORMAL	
yy.032	/ 09:06:44:31	- 09:06:42:82	=	: :01.49	PCHRS405	NORMAL	
yy.032	/ 09:06:55:29	- 09:06:53:63	=	: :01.66	PPLBX330	NORMAL	
yy.032	/ 09:30:02:25	- 09:30:00:81	=	: :01.44	PPPEP560	NORMAL	
yy.032	/ 09:50:12:48	- 09:50:10:86	=	: :01.62	PPWTS036	NORMAL	
yy.032	/ 09:57:49:62	- 09:57:48:23	=	: :01.39	PPISC510	LOAD/EXEC	
yy.032	/ 10:02:12:00	- 10:02:10:65	=	: :01.35	PCWEB053	NORMAL	
yy.032	/ 10:02:13:40	- 10:02:12:36	=	: :01.04	PCWEB055	NORMAL	
yy.032	/ 10:13:44:79	- 10:13:41:25	=	: :03.54	PMATS902	NORMAL	
yy.032	/ 10:30:28:11	- 10:30:26:31	=	: :01.80	PPMGK712	NORMAL	
yy.032	/ 10:36:55:29	- 10:36:54:13	=	: :01.16	PPPTS550	NORMAL	
yy.032	/ 10:47:17:56	- 10:47:16:39	=	: :01.17	PKFIS587	LOAD/EXEC	
yy.032	/ 10:54:18:82	- 10:54:17:26	=	: :01.56	PPFIS960	LOAD/EXEC	
yy.032	/ 10:55:24:36	- 10:55:23:57	=	: :00.79	PPALA565	NORMAL	
yy.032	/ 10:59:25:34	- 10:59:23:55	=	: :01.79	PCWEB070	NORMAL	
yy.032	/ 11:02:23:08	- 11:02:21:26	=	: :01.82	PPAOP530	NORMAL	
yy.032	/ 11:08:29:71	- 11:08:27:19	=	: :02.52	PCWEB079	NORMAL	
yy.032	/ 11:10:37:23	- 11:10:35:34	=	: :01.89	PPHDS410	NORMAL	
yy.032	/ 11:10:56:76	- 11:10:54:85	=	: :01.91	PPHDS445	NORMAL	
yy.032	/ 11:39:21:54	- 11:39:17:55	=	: :03.99	PPPBI015	NORMAL	
yy.032	/ 11:40:36:82	- 11:40:35:18	=	: :01.64	PIABT710	NORMAL	
yy.032	/ 11:44:01:06	- 11:43:59:51	=	: :01.55	PPLBX050	NORMAL	

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END OF REPORT

Item Description

- 1** Julian date on which the log record was written.
- 2** Time-of-day at which the queue entry process was completed.
- 3** Time-of-day at which the queue entry process was started.
- 4** Dwell time to complete the queue entry process.
- 5** Name of the CPU job.
- 6** Type of execution performed by the job.

NORMAL indicates normal execution

NON-EXEC indicates nonexecutable job

LOAD/EXEC indicates LOAD and execution

LOAD ONLY indicates LOAD without execution

5.3.32 CA7xx031 Transaction Response Time Profile

This report provides a profile of response times for CA-7 transactions. The log record type from which this report is produced is TYPE=161.

APR 18 yy TIME: 12.11.01		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 TRANSACTION RESPONSE TIME PROFILE								PAGE 1 REQUEST - CA7xx031	
TIMES	TOTAL RESPONSES	AVG. SECS.	UNDER 3 SECS	PCT.	UNDER 10 SECS	PCT.	UNDER 60 SECS	PCT.	OVER 60 SECS	PCT.	
yy.032/08:00 - 08:30	83	2.0	76	91.56	77	92.77	83	100.00	0	.00	
yy.032/08:30 - 09:00	173	1.1	158	91.32	169	97.68	173	100.00	0	.00	
yy.032/09:00 - 09:30	236	1.3	220	93.22	229	97.03	236	100.00	0	.00	
yy.032/09:30 - 10:00	97	.9	92	94.84	96	98.96	97	100.00	0	.00	
yy.032/10:00 - 10:30	104	1.1	95	91.34	104	100.00	104	100.00	0	.00	
yy.032/10:30 - 11:00	184	.8	177	96.19	184	100.00	184	100.00	0	.00	
yy.032/11:00 - 11:30	93	1.2	85	91.39	92	98.92	93	100.00	0	.00	
yy.032/11:30 - 12:00	100	1.1	93	93.00	98	98.00	100	100.00	0	.00	

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END OF REPORT

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Total number of transaction responses sent.
- 3** Average response time in tenths of seconds.
- 4** Number of responses taking less than 3 seconds.
- 5** Percent of responses taking less than 3 seconds, expressed in hundredths of a percent.
- 6** Number of responses taking less than 10 seconds. Includes those in less than 3 seconds.
- 7** Percent of responses taking less than 10 seconds, expressed in hundredths of a percent.
- 8** Number of responses taking less than 60 seconds. Includes those in less than 3 or less than 10 seconds.
- 9** Percent of responses taking less than 60 seconds, expressed in hundredths of a percent.
- 10** Number of responses taking over 60 seconds.
- 11** Percent of responses taking over 60 seconds.

5.3.33 CA7xx032 /LOG Command Detail

This report provides a list of data logged through the /LOG command. The log record type from which this report is produced is TYPE=129.

Comments pertinent to observations by operations personnel during processing can be recorded at the time of occurrence for review by others at a later time. This can be useful as an audit trail.

JULIAN DATE		HH MM SS	TERM ID	OPERATOR	DATA
yy.194 / 12:15:10			VTM001	MASTER	HARRY CALLED IN SICK
yy.194 / 12:15:33			VTM001	MASTER	ACPBA01W NOT RETAINING MASTER FILE ACROSS STEPS
yy.194 / 12:15:51			VTM001	MASTER	COMPUTER ROOM TEMP IS 79
yy.194 / 12:16:15			VTM001	MASTER	NEED MORE PAYABLES CHECK STOCK ACP-0036
yy.194 / 12:16:34			VTM001	MASTER	2 TAPES HAD I/O ERRORS AND HAD TO BE CLEANED
yy.194 / 12:16:54			VTM001	MASTER	PLEASE CHECK THESE ON THE CA-9 REPORTS

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END OF REPORT

Item Description

- 1 Julian date on which the data was logged.
- 2 Time-of-day at which the data was logged.
- 3 Terminal from which the data was logged.
- 4 Operator ID. If LOGOPID=NO is specified in the initialization file's SECURITY statement, shows @s instead.
- 5 Data logged. Up to 60 positions per command.

5.3.34 CA7xx033 Trailer Queue Activity Profile

This report provides a profile of CA-7 trailer queue activity. Activity is shown in time increments as specified by the SUMM parameter. The log record type from which this report is produced is TYPE=161.

SEP 28 yy TIME: 09.22.38		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 TRAILER QUEUE ACTIVITY PROFILE					PAGE 1 REQUEST - CA7xx033	
TIMES	ADDS	DELETES	READS	REPLACES	TOTAL ACCESSES	PERCENT READS	AVG READS PER SEC	
yy.184/20:00 - 20:10	845	6	38,067	25	38,943	97.7	63.44	
yy.184/20:10 - 20:20	731	3	22,697	11	23,442	96.8	37.82	
yy.184/20:20 - 20:30	1,060	4	33,303	18	34,385	96.8	55.50	
yy.184/20:30 - 20:40	1,932	4	27,404	35	29,375	93.2	45.67	
yy.184/20:40 - 20:50	474	4	12,197	8	12,683	96.1	20.32	
yy.184/20:50 - 21:00	285	2	6,970	4	7,261	95.9	11.61	

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END OF REPORT

Item Description

- 1** Increment of date and time. Each increment spans the number of minutes specified in the SUMM parameter. First increment start time is set by the FROM parameter. End time of the last increment is set by the THRU parameter.
- 2** Number of records added to the queue.
- 3** Number of records deleted from the queue.
- 4** Number of records read from the queue.
- 5** Number of records replaced (updated) in the queue.
- 6** Total number of accesses to the queue.
- 7** Percent of total accesses which were reads.
- 8** Average records read from the queue each second. Calculated as THRU time minus FROM time X 60 divided into READS value.

5.3.35 CA7xx034 CA-7 In-Storage Trailer Queue Profile

This report provides information about the processing of the trailer queue data in-storage. The log record type from which this report is produced is Type=162.

SEP 28 yy TIME: 10.05.33		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 IN-STORAGE TRAILER QUEUE PROFILE				PAGE 1 REQUEST - CA7xx034	
TIMES	BYTES (#MEG)	CURR # BLOCKS	MAX # BLOCKS	READ REQUESTS	READ I/O REQUIRED	% READS INCORE	
yy.013/17:04	3	2,198	2,310	473,948	1,376	99.70	
yy.013/17:09	3	2,311	2,323	487,191	1,376	99.71	
yy.013/17:14	3	2,302	2,333	497,795	1,376	99.72	
yy.013/17:19	3	2,251	2,336	510,875	1,377	99.73	
yy.013/17:24	3	2,195	2,336	525,513	1,383	99.73	
yy.013/17:29	3	2,137	2,336	536,855	1,385	99.74	
yy.013/17:34	3	2,204	2,336	550,371	1,392	99.74	
yy.013/17:39	3	2,224	2,336	556,973	1,392	99.75	
yy.013/17:44	3	2,390	2,390	563,397	1,392	99.75	
yy.013/17:49	3	2,538	2,564	572,271	1,394	99.75	
yy.013/17:54	3	2,819	2,829	578,557	1,394	99.75	
yy.013/17:59	3	2,941	3,006	590,361	1,394	99.76	
yy.013/18:04	3	3,024	3,036	604,693	1,395	99.76	
yy.013/18:09	3	3,033	3,051	623,417	1,398	99.77	
yy.013/18:14	4	3,138	3,146	637,624	1,398	99.78	
yy.013/18:19	4	3,122	3,146	645,282	1,398	99.78	
yy.013/18:24	4	3,125	3,146	658,356	1,398	99.78	
yy.013/18:29	4	3,105	3,146	672,957	1,398	99.79	
yy.013/18:34	4	3,299	3,299	699,319	1,399	99.79	
yy.013/18:39	4	3,268	3,323	717,223	1,405	99.80	
yy.013/18:44	4	3,245	3,323	727,309	1,405	99.80	

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Item Description

- 1** Date and time when the data was logged.
- 2** Maximum storage (in megabytes) used by in-storage TRLQ data.
- 3** # of 1024-byte blocks currently used by in-storage TRLQ data.
- 4** Maximum # of 1024-byte blocks used by in-storage TRLQ data (high water mark).
- 5** Total # of read requests that have been processed by the in-storage TRLQ module.
- 6** Total # of read requests that could not be satisfied with the in-storage TRLQ module (the in-storage TRLQ is not primed, so first read of TRLQ data requires an actual I/O).
- 7** Percentage of TRLQ reads that were done without actual I/O.

5.3.36 CA7xx035 Performance Statistics Information Job Report

This report shows statistical information about the CA-7 processing that is related to the jobs that are being processed. This can be used to identify situations that are causing slow job throughput and various factors that affect that throughput. The log record type from which this report is produced is TYPE=161.

The time increments shown are determined by the SUMM parameter. This report is most meaningful when run for relatively short intervals (15 minutes or less).

COMPUTER ASSOCIATES INTERNATIONAL, INC.																		
CA-7 PERFORMANCE STATISTICS INFORMATION JOB REPORT																		
															PAGE	1		
															REQUEST - CA7xx035			
SEPT 28 yy																		
TIME: 12.32.40																		
STARTS	# SCN	SCAN TIME	SCH JOB	%JOBS SCAN	%JOBS TRIG	%JOBS DEMD	MANT JOBS	NOEX JOBS	LATE JOBS	#TLR RQMTS	# JOB RQMTS	# DSN RQMTS	#USR RQMT	#NWK RQMT	#JOB COMP	#CMP SCAN	COMP IN SECS	TIME / JOB
yy.174 01:30	0	0	26	0.00	0.00	0.00	26	0	1	30	30	0	0	0	30	29	23.37	0.77
yy.174 01:40	0	0	1	0.00	0.00	0.00	1	0	0	0	0	0	0	0	6	7	3.42	0.57
yy.174 01:50	0	0	0	0.00	0.00	0.00	0	0	0	0	0	0	0	0	1	1	1.12	1.12
yy.174 02:00	0	0	0	0.00	0.00	0.00	0	0	0	0	0	0	0	0	2	2	1.45	0.72
yy.174 02:10	0	0	0	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0.00	0.00
yy.174 02:20	0	0	0	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0.00	0.00
yy.174 02:30	0	0	1	0.00	0.00	0.00	1	0	3	0	0	0	0	0	5	5	2.68	0.53
yy.174 02:40	0	0	60	0.00	0.00	0.00	60	3	3	10	7	0	3	0	30	29	35.23	1.17
yy.174 02:50	0	0	0	0.00	0.00	0.00	0	0	3	0	0	0	0	0	14	14	2.36	0.16
yy.174 03:00	0	0	4	0.00	0.00	0.00	4	1	20	8	7	0	1	0	27	28	8.39	0.31
yy.174 03:10	0	0	2	0.00	0.00	0.00	2	0	2	0	0	0	0	0	6	6	3.89	0.64
yy.174 03:20	1	1249	29	96.55	3.44	0.00	29	1	0	34	33	0	1	0	6	6	1.72	0.28
yy.174 03:30	0	0	0	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0.00	0.00
yy.174 03:40	0	0	4	0.00	0.00	0.00	4	0	0	0	0	0	0	0	2	2	1.41	0.70
yy.174 03:50	0	0	0	0.00	0.00	0.00	0	0	0	0	0	0	0	0	2	2	0.24	0.12
yy.174 04:00	0	0	10	0.00	0.00	0.00	10	0	0	14	14	0	0	0	23	23	6.64	0.28
yy.174 04:10	0	0	0	0.00	0.00	0.00	0	0	1	0	0	0	0	0	4	4	0.46	0.11
yy.174 04:20	0	0	2	0.00	0.00	0.00	2	0	0	1	1	0	0	0	5	5	1.42	0.28
yy.174 04:30	0	0	0	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	1	0.12	0.00
yy.174 04:40	0	0	2	0.00	0.00	0.00	2	0	0	2	2	0	0	0	3	3	0.83	0.27
yy.174 04:50	0	0	4	0.00	0.00	0.00	4	1	0	4	4	0	0	0	3	4	1.32	0.44
yy.174 05:00	0	0	2	0.00	0.00	0.00	2	0	0	0	0	0	0	0	9	10	1.98	0.22
yy.174 05:10	0	0	0	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0.00	0.00
yy.174 05:20	1	837	21	76.19	19.04	4.76	21	0	0	19	19	0	0	0	5	5	1.69	0.33
yy.174 05:30	0	0	1	0.00	0.00	0.00	1	0	0	0	0	0	0	0	1	1	0.24	0.24
yy.174 05:40	0	0	50	0.00	0.00	0.00	50	0	0	155	154	0	1	0	7	11	18.57	2.65
yy.174 05:50	0	0	0	0.00	0.00	0.00	0	0	2	0	0	0	0	0	3	3	1.27	0.42
yy.174 06:00	0	0	19	0.00	84.21	15.78	19	1	6	11	11	0	0	0	40	37	10.19	0.25
yy.174 06:10	0	0	0	0.00	0.00	0.00	0	0	0	0	0	0	0	0	3	3	0.29	0.09
yy.174 06:20	0	0	0	0.00	0.00	0.00	0	0	1	0	0	0	0	0	1	1	0.13	0.13
yy.174 06:30	0	0	2	0.00	0.00	0.00	2	0	1	0	0	0	0	0	2	2	1.16	0.58
yy.174 06:40	0	0	4	0.00	50.00	50.00	4	0	0	2	2	0	0	0	7	7	1.62	0.23
yy.174 06:50	0	0	0	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0.00	0.00
yy.174 07:00	0	0	10	0.00	30.00	70.00	10	0	1	15	14	0	1	0	10	10	1.97	0.19
yy.174 07:10	0	0	6	0.00	0.00	0.00	6	0	0	0	0	0	0	0	1	1	0.39	0.39
yy.174 07:20	1	1030	20	95.00	0.00	5.00	20	0	0	6	5	0	1	0	0	0	0.00	0.00
yy.174 07:30	0	0	3	0.00	0.00	0.00	3	0	0	0	0	0	0	0	3	3	2.29	0.76
yy.174 07:40	0	0	3	0.00	0.00	0.00	3	0	0	11	11	0	0	0	2	2	1.23	0.61
yy.174 07:50	0	0	0	0.00	0.00	0.00	0	0	0	0	0	0	0	0	2	2	2.82	1.41
yy.174 08:00	0	0	4	0.00	25.00	75.00	4	0	1	0	0	0	0	0	4	4	3.67	0.91
yy.174 08:10	0	0	1	0.00	0.00	0.00	1	0	0	0	0	0	0	0	1	1	1.05	1.05
yy.174 08:20	0	0	2	0.00	0.00	0.00	2	0	0	1	1	0	0	0	2	2	1.29	0.64
yy.174 08:30	0	0	3	0.00	0.00	0.00	3	0	0	36	36	0	0	0	0	0	0.00	0.00
yy.174 08:40	0	0	2	0.00	0.00	0.00	2	0	0	1	1	0	0	0	5	5	2.65	0.53
yy.174 08:50	0	0	2	0.00	0.00	0.00	2	0	0	0	0	0	0	0	0	1	0.00	0.00
yy.174 09:00	0	0	6	0.00	0.00	0.00	5	0	0	0	0	0	0	0	2	2	0.86	0.43
yy.174 09:10	0	0	2	0.00	0.00	0.00	2	0	0	1	1	0	0	0	2	2	1.94	0.97
yy.174 09:20	1	1365	25	0.00	0.00	0.00	25	0	0	5	5	0	0	0	4	4	1.63	0.40
yy.174 09:30	0	0	1	0.00	0.00	0.00	1	0	0	0	0	0	0	0	0	0	0.00	0.00
yy.174 09:40	0	0	0	0.00	0.00	0.00	0	0	0	0	0	0	0	0	1	3	0.68	0.68
yy.174 09:50	0	0	1	0.00	0.00	0.00	1	0	0	11	11	0	0	0	0	2	1.99	0.00
yy.174 10:00	0	0	13	0.00	7.69	92.30	13	0	0	19	19	0	0	0	12	13	17.55	1.46

Item Description

- 1** The starting date and time for this interval. The first time is set by the FROM parameter. The last time is set by the THRU parameter.
- 2** Number of times that calendar-scheduled jobs are put in the request queue by schedule scan.
- 3** Number of seconds that schedule scan runs when placing calendar-scheduled jobs in the request queue.
- 4** Number of jobs scheduled into the request queue.
- 5** Percent of total jobs scheduled that were done by calendar schedules.
- 6** Percent of total jobs scheduled that were triggered.
- 7** Percent of total jobs scheduled that were done by DEMAND(H), LOAD(H), or RUN(H) commands.
- 8** Number of total jobs scheduled that were MAINT=Y on DB.1 (JOB) panel.
- 9** Number of total jobs scheduled that were EXEC=N on DB.1 (JOB) panel.
- 10** Number of total jobs scheduled that were flagged as being late.
- 11** Number of predecessors that jobs had, when they entered the request queue, that would be stored in the trailer queue.
- 12** Number of job predecessors that were attached to jobs that entered the request queue.
- 13** Number of data set predecessors that were attached to jobs that entered the request queue.
- 14** Number of user predecessors that were attached to jobs that entered the request queue.
- 15** Number of network predecessors that were attached to jobs that entered the request queue.
- 16** Number of job completions.
- 17** Number of wake-ups for the CA-7 job completion task.
- 18** Number of seconds the CA-7 job completion task was active.
- 19** Average number of seconds the CA-7 job completion task was active per job.

5.3.37 CA7xx036 Performance Statistics Information System Report

This report shows statistical information about the CA-7 processing in several different areas. This report can be used to get an overall view of queue access, communications data set access, CA-7 system task processing and online transaction performance. The log record type from which this report is produced is TYPE=161.

The time increments shown are determined by the SUMM parameter. This report is most meaningful when run for time intervals of at least 15 minutes.

COMPUTER ASSOCIATES INTERNATIONAL, INC.													PAGE		1		
CA-7 PERFORMANCE STATISTICS INFORMATION SYSTEM REPORT													REQUEST - CA7xx036				
SEPT 28 yy																	
TIME: 12.33.19																	
STARTS	%REQQ READS	%RDYQ READS	%ACTQ READS	%PRNQ READS	# Q LCKS	%SUBM TIME	%SMF TIME	%COMP TIME	%LOAD TIME	%SSCN TIME	%PRMP TIME	SCH JOB	# TRLR RQMTS	%COMM BUSY	%DASD LOADS	# TRN	TIME /TRN
yy.174 01:30	96.91	81.49	82.63	99.93	81	5.68	0.41	1.55	0.00	0.00	0.00	27	30	0.00	0.18	202	0.11
yy.174 02:00	98.49	71.87	67.09	66.66	1	0.31	0.08	0.08	0.00	0.00	0.00	0	0	0.00	0.25	1	0.15
yy.174 02:30	93.96	89.39	84.76	92.35	178	7.84	0.48	2.23	0.00	0.01	0.01	61	10	0.00	0.02	307	0.11
yy.174 03:00	95.07	84.66	91.72	66.66	94	4.28	0.46	0.77	0.00	0.69	0.00	35	42	0.00	0.04	3	18.29
yy.174 03:30	93.22	79.16	89.98	99.99	10	0.89	0.06	0.09	0.00	0.00	0.00	4	0	0.00	0.00	117	0.10
yy.174 04:00	95.89	78.44	87.83	66.66	60	4.89	0.30	0.47	0.00	0.00	0.00	12	15	0.00	0.00	0	0.00
yy.174 04:30	96.24	80.18	91.39	99.89	7	2.33	0.06	0.12	0.00	0.00	0.00	6	6	0.00	0.00	18	0.12
yy.174 05:00	91.55	76.44	91.22	66.66	39	2.78	0.11	0.20	0.00	0.46	0.00	23	19	0.00	0.18	42	0.09
yy.174 05:30	92.51	78.58	92.24	99.82	28	9.34	0.17	1.11	0.00	0.00	0.00	51	155	0.00	0.06	202	0.11
yy.174 06:00	89.76	90.66	94.37	66.66	108	4.36	0.25	0.59	0.00	0.00	0.00	19	11	0.00	0.02	6	0.22
yy.174 06:30	90.34	80.53	95.08	66.66	17	1.83	0.07	0.00	0.00	0.00	0.00	6	2	0.00	0.00	4	0.23
yy.174 07:00	81.14	76.25	95.37	99.84	9	4.14	0.10	0.13	0.00	0.58	0.00	36	21	0.00	1.40	159	0.28
yy.174 07:30	95.42	86.30	95.26	99.97	10	2.72	0.23	0.35	0.00	0.00	0.00	6	11	0.00	5.67	381	0.40
yy.174 08:00	94.92	89.69	97.36	77.41	11	3.48	0.28	0.33	0.00	0.01	0.00	7	1	0.00	6.01	307	0.35
yy.174 08:30	95.63	91.63	97.30	99.93	12	2.39	0.21	0.00	0.20	0.00	0.00	7	37	0.00	6.38	422	0.33
yy.174 09:00	90.94	92.27	97.24	76.47	11	2.63	0.41	0.24	0.46	0.77	0.00	33	6	0.49	3.03	235	0.30
yy.174 09:30	98.03	93.22	97.68	99.98	3	1.62	0.16	0.14	0.00	0.01	0.00	2	11	0.00	6.19	435	0.23
yy.174 10:00	96.29	90.89	94.52	99.92	55	9.33	1.97	1.73	0.27	0.03	0.01	16	19	0.14	3.33	326	0.47
yy.174 10:30	96.24	90.92	96.29	99.93	21	5.47	0.45	0.69	0.00	0.02	0.00	13	23	0.25	4.64	202	0.91
yy.174 11:00	95.63	90.70	94.45	99.72	85	6.44	0.79	1.78	0.00	0.81	0.02	25	27	0.18	2.65	162	0.38
yy.174 11:30	95.11	78.08	92.64	69.49	24	3.30	0.48	0.71	0.06	0.02	0.01	9	9	0.00	3.46	214	0.28
yy.174 12:00	95.89	79.53	94.06	75.40	83	14.75	0.75	3.80	0.00	0.07	0.05	58	80	0.00	2.93	256	0.37
yy.174 12:30	96.81	85.71	95.59	73.33	13	3.47	0.17	0.35	0.00	0.00	0.00	9	0	0.00	2.41	200	0.15
yy.174 13:00	94.04	81.10	95.91	99.83	75	11.81	1.01	2.28	0.47	1.05	0.00	75	46	0.13	1.31	413	0.32
yy.174 13:30	98.34	79.46	94.11	99.93	13	3.64	0.57	0.67	0.00	0.01	0.00	7	8	0.00	1.79	238	0.69
yy.174 14:00	97.23	84.22	96.66	99.96	38	7.61	1.37	2.06	0.25	0.03	0.01	19	36	0.00	5.07	252	0.86
yy.174 14:30	97.48	85.88	97.32	86.66	16	3.50	0.29	0.63	0.14	0.01	0.00	20	11	0.00	4.92	417	0.33
yy.174 15:00	95.97	91.55	96.48	75.00	45	9.78	0.91	1.50	0.00	1.68	0.08	66	59	0.37	2.23	250	0.53
yy.174 15:30	98.86	91.18	96.38	99.78	62	12.18	0.71	4.45	0.00	0.02	0.01	16	11	0.00	2.89	215	0.46
yy.174 16:00	98.10	90.07	94.86	99.85	149	7.91	1.76	6.50	1.69	0.17	0.16	21	52	0.00	2.85	176	0.69
yy.174 16:30	97.80	80.12	98.01	99.95	6	2.67	0.23	0.42	0.21	0.01	0.00	3	4	0.00	5.05	342	0.41
yy.174 17:00	94.73	78.40	94.50	87.07	83	8.33	0.67	3.37	0.00	1.63	0.01	88	203	0.18	1.56	299	0.33
yy.174 17:30	98.29	82.41	94.78	75.43	42	5.47	0.38	3.65	0.00	0.03	0.02	27	39	0.20	0.82	44	0.32
yy.174 18:00	97.35	86.13	91.98	70.19	434	19.09	2.79	10.80	0.08	0.31	0.03	123	115	0.08	0.79	138	0.50
yy.174 18:30	97.53	81.55	91.40	88.28	92	7.64	1.03	4.89	0.00	0.04	0.01	27	7	0.00	2.27	163	0.11
yy.174 19:00	95.17	80.60	85.85	72.08	1274	36.35	4.00	22.05	0.04	3.45	0.22	424	258	0.13	0.27	144	0.20
yy.174 19:30	97.15	84.99	89.53	67.11	881	44.19	3.82	20.87	0.00	0.07	0.04	314	72	0.13	0.12	26	0.51
yy.174 20:00	98.35	80.43	91.74	79.19	157	16.86	0.84	6.78	0.45	0.00	0.00	59	25	0.00	0.65	114	0.17
yy.174 20:30	98.45	80.76	89.55	92.76	23	3.33	0.19	1.76	0.00	0.01	0.01	7	1	0.00	2.36	143	0.16
yy.174 21:00	96.03	89.11	83.35	75.44	351	13.58	1.11	6.78	0.05	1.12	0.05	182	190	0.11	0.42	100	0.26
yy.174 21:30	98.09	92.54	86.63	77.23	797	35.27	4.38	14.08	0.09	0.10	0.06	175	198	0.04	0.50	260	0.27
yy.174 22:00	98.22	78.18	88.14	66.76	285	23.51	1.61	6.69	0.13	0.05	0.02	91	105	0.14	0.77	46	0.15
yy.174 22:30	96.99	82.10	89.85	68.34	829	51.06	2.70	14.23	0.08	0.27	0.23	301	210	0.04	0.19	39	0.24
yy.174 23:00	97.02	82.42	90.42	76.92	732	40.88	2.36	9.77	0.16	1.60	0.04	225	299	0.14	0.69	250	0.21
yy.174 23:30	98.28	89.26	91.83	67.88	235	21.68	1.52	7.13	0.00	0.08	0.03	88	71	0.06	0.86	177	0.22
yy.175 00:00	96.87	88.10	89.67	98.65	332	25.43	1.78	6.14	0.00	0.21	0.12	114	126	0.06	0.62	339	0.20
yy.175 00:30	97.15	97.52	91.21	75.82	333	21.25	1.79	7.84	0.00	0.05	0.02	93	137	0.20	0.83	265	0.20
yy.175 01:00	95.20	96.70	88.26	79.41	578	36.16	1.79	10.90	0.00	1.87	0.13	275	542	0.17	0.60	376	0.19
yy.175 01:30	97.89	98.04	91.19	75.00	335	27.40	1.41	7.91	0.00	0.01	0.00	107	133	0.06	0.15	225	0.17
yy.175 02:00	97.46	98.02	90.17	85.53	81	10.08	0.62	2.97	0.00	0.09	0.09	33	20	0.15	0.42	160	0.13
yy.175 02:30	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0.00	0.00	0	0.00

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Item Description

- 1** The starting date and time for this interval. The first time is set by the FROM parameter. The last time is set by the THRU parameter.
- 2** Percentage of total request queue accesses that were reads.
- 3** Percentage of total ready queue accesses that were reads.
- 4** Percentage of total active queue accesses that were reads.
- 5** Percentage of total prior-run queue accesses that were reads.
- 6** Number of queue lockouts that occurred.
- 7** Percent of CA-7's active time that the job submission task was active.
- 8** Percent of CA-7's active time that the SMF task was active.
- 9** Percent of CA-7's active time that the job completion task was active.
- 10** Percent of CA-7's active time that the job load task was active.
- 11** Percent of CA-7's active time that the schedule scan task was active.
- 12** Percent of CA-7's active time that the job prompting task was active.
- 13** Number of jobs scheduled.
- 14** Number of predecessors that jobs had, when they entered the request queue, that would be stored in the trailer queue.
- 15** Percentage of busy conditions when accessing the communications data set.
- 16** Percentage of actual DASD loads done for CA-7 application programs.
- 17** Number of terminal transactions processed.
- 18** Average number of seconds per terminal transaction processed.

5.3.38 CA7xx037 Job Completion Table Data

This report lists data about job completion broken down by table used to handle job completions. All data are from TYPE=162 log records. The SUMM parameter controls the sampling interval, SUMM=05 in this case.

SEP 28 yy TIME: 16.40.06		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 JOB COMPLETION TABLE DATA										PAGE 1 REQUEST - CA7xx037	
TIMES	# USED	# JBC2 USED	# JBC3 USED	# > 3 USED	POSTS MXNJB	POSTS PRTY	POSTS TIME	# STIMES	# SKIPS	MAX2 TRIG	MAX TAB	# SGETMS	
yy.169/22:46	14,636	4,599	92	23	103	0	44	1,019	1,190	64	5	116	
yy.169/22:51	14,727	4,625	92	23	103	0	44	1,021	1,190	64	5	116	
yy.169/22:56	14,813	4,654	92	23	103	0	45	1,030	1,196	64	5	116	
yy.169/23:01	14,860	4,663	94	35	123	0	45	1,050	1,272	64	18	136	
yy.169/23:06	14,884	4,663	94	35	144	0	48	1,075	1,373	64	26	160	
yy.169/23:11	14,950	4,670	95	35	154	0	51	1,086	1,414	64	28	172	
yy.169/23:16	15,063	4,678	96	35	155	0	52	1,091	1,423	64	28	173	
yy.169/23:21	15,315	4,732	99	35	158	0	52	1,101	1,436	64	28	176	
yy.169/23:26	15,534	4,804	103	35	162	0	52	1,118	1,474	64	28	180	
yy.169/23:31	15,664	4,845	106	35	165	0	52	1,129	1,497	64	28	183	
yy.169/23:36	15,732	4,873	106	35	165	0	52	1,134	1,502	64	28	183	
yy.169/23:41	15,777	4,888	106	35	165	0	52	1,134	1,502	64	28	183	
yy.169/23:46	15,821	4,903	108	36	168	0	52	1,140	1,522	64	28	186	
yy.169/23:51	15,924	4,934	109	39	172	0	53	1,149	1,542	64	28	190	
yy.169/23:56	15,995	4,970	111	39	174	0	53	1,151	1,551	64	28	192	
1	2	3	4	5	6	7	8	9	10	11	12	13	14

END OF REPORT

Item Description

- 1** Julian date on which the data was logged.
- 2** The time-of-day on which the data was logged.
- 3** Number of times a job completion table was used.
- 4** Number of times a second job completion table was used.
- 5** Number of times a third job completion table was used.
- 6** Number of times a fourth or greater job completion table was used.
- 7** Number of times a post of completion processing was done because the maximum value was reached. If table 1 or 2 is available, no waiting is done. Otherwise, completion processing is posted when the threshold of 30 is reached.
- 8** Same as 5 except completion processing is posted if the priority of a completed job is at least the threshold of 255.
- 9** Same as 5 except completion processing is posted if a time of 11 seconds has elapsed.
- 10** Number of times completion processing waited for a time posting.
- 11** Number of times completion processing was posted and no action was taken (no threshold value was reached).
- 12** Max number of triggers done by one job.
- 13** Max number of triggers done by one job in the last five minutes.
- 14** Total number of time storage was obtained for a completion table.

5.3.39 CA7xx701 Data Sets with No Associated Jobs

This report provides an inventory listing of data sets which are defined in the CA-7 database but have no jobs in the database which create or use them.

The report identifies dormant data set definitions which can be deleted by the user. It also shows data sets which have just been defined. Care must be taken not to delete data sets which may be needed but whose CPU jobs have not yet been loaded into the database.

MAY 24 yy TIME: 08.47.38		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 DATA SETS WITH NO ASSOCIATED JOBS	PAGE 1 REQUEST - CA7xx701
NUMBER	LAST UPDATE	DATA SET NAME	
DS000011	yy.036	SSDECS.UCC7.VM.LOGTAPE	
DS000013	yy.148	SSDDEV.UCC07.R281.LOADLIB	
DS000014	yy.049	SSDDEV.UCC07.DB.TEMP	
DS000022	yy.049	SSDDEV.UCC07.DB.SUNINS	
DS000027	yy.183	SSDDEV.UCC07.R280.LOADLIB	
DS000029	yy.315	SSDDEV.UCC07.R280.DUMMYUPD	
DS000031	yy.281	SYS2.UCC11.LOADLIB	
DS000032	yy.316	SSDDEV.UCC11.R130.CMT	
DS000044	yy.088	SSDDEV.CA07.R29.DT10IN	
DS000045	yy.088	SSDDEV.CA07.R29.DT10OUT	
DS000046	yy.088	SSDDEV.CA07.R29.DT20IN	
DS000047	yy.154	SSDDEV.UCC07.REST.U7REST09	
DS000048	yy.154	SSDDEV.UCC07.REST.U7REST02	
DS000049	yy.154	SSDDEV.UCC07.REST.LOADLIB	
DS000050	yy.088	SSDDEV.CA07.R29.DT20OUT	
DS000051	yy.088	SSDDEV.CA07.R29.DT30IN	
DS000052	yy.106	SSDDEV.UCC07.DT10IN	
DS000053	yy.106	SSDDEV.UCC07.DT10OUT	
DS000054	yy.106	SSDDEV.UCC07.DT20IN	
DS000055	yy.106	SSDDEV.UCC07.DT20OUT	
DS000056	yy.106	SSDDEV.UCC07.DT30IN	
DS000057	yy.106	SSDDEV.CA07.R29.DATASETS	
DS000062	yy.195	SSDDEV.UCC07.FULL.LOADLIB	
DS000063	yy.191	SSDDEV.UCC07.FULL.U7FULL02	
DS000064	yy.191	SSDDEV.UCC07.FULL.U7FULL09	
DS000068	yy.225	SSDDEV.UCC07.JCLDS2	
DS000073	yy.008	SSDDEV.UCC07.T290.LOADLIB	
DS000074	yy.019	SSDDEV.CA07.R29.DOC.REPORTS	
DS000076	yy.005	SSDDEV.UCC07.TEST.U7TEST02	
DS000077	yy.005	SSDDEV.UCC07.TEST.U7TEST09	
DS000078	yy.014	SSDDEV.UCC07.LOG.SUNINS	
DS000095	yy.106	SSDDEV.UCC07.STOPS	
DS000096	yy.106	SSDDEV.UCC07.DELPROCS	
DS000097	yy.091	SSDDEV.UCC07.DELSTOPS	
DS000102	yy.119	SSDDEV.UCC07.LOG.TEST	
DS000103	yy.125	D402.EDIT.INPUT	
DS000104	yy.133	D496MS1.JCL.TEMP2	

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END OF REPORT

Item Description

- 1** Data set number assigned by CA-7.
- 2** Julian date of last update performed against this data set definition.
- 3** Fully qualified name of the data set.

5.3.40 CA7xx702 Workstation Networks with No Associated Jobs

This report provides an inventory listing of networks which are defined in the CA-7 database but have no jobs in the database to use them.

The report identifies dormant network definitions which can be deleted by the user. It also shows which networks have just been defined. Care must be taken not to delete networks which may be needed but whose CPU jobs have not yet been loaded into the database.

MAY 24 yy TIME: 09.18.31		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 WORKSTATION NETWORKS WITH NO ASSOCIATED JOBS									PAGE 1 REQUEST - CA7xx702	
NETWORK NAME	NUMBER	LAST UPDATE	STATION NO. 1	STATION NO. 2	STATION NO. 3	STATION NO. 4	STATION NO. 5	STATION NO. 6	STATION NO. 7	STATION NO. 8	STATION NO. 9	
AJGOUT	NW000005	yy.183	PRINT	BURST								
D40218ED	NW000008	yy.125	CHECKIN	ENCODE	VERIFY	BALANCE	CHECKOUT					
D40218OP	NW000009	yy.125	PRINT	BALANCE	DECOLATE	BURST	DELIVERY					
AJGOUT	NW000021	yy.183	PRINT	BURST								

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END OF REPORT

Item Description

- 1 Name of the workstation network.
- 2 Network number assigned by CA-7.
- 3 Julian date of last update performed against this network definition.
- 4 Station name for relative station number 1.
- 5 Station name for relative station number 2.
- 6 Station name for relative station number 3.
- 7 Station name for relative station number 4.
- 8 Station name for relative station number 5.
- 9 Station name for relative station number 6.
- 10 Station name for relative station number 7.
- 11 Station name for relative station number 8.
- 12 Station name for relative station number 9.

5.3.41 CA7xx703 Roster for Prose Type: SYSTEM

This report provides a roster of prose members with a prose type of SYSTEM. That is, members defined through the DB.4.6 screen.

JUL 26 yy TIME: 14.39.38		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 ROSTER FOR PROSE TYPE: SYSTEM		PAGE 1 REQUEST - CA7xx703
SYSTEM	PROSE NUMBER	LINK MEMBER	***** DESC *****	
SYNOVA	PP000014	000000		
CA/7	PP000016	000000	TEST	
SYS2	PP000027	000000	THIS IS A TEST OF THE 12345678901234567890123	

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END OF REPORT

Item Description

- 1 System name as entered in the SYSTEM field on the DB.4.6 screen.
- 2 Prose member number assigned by CA-7.
- 3 Shows the prose number in PPnnnnnn format if a LINK value is provided. If no LINK value is provided, this shows as 000000.
- 4 Value provided in DESC field on DB.4.6 screen.

5.3.42 CA7xx704 Roster for Prose Type: JOB

This report provides a roster of prose members with a prose type of JOB. That is, members defined through the DB.4.1 screen.

JUL 26 yy TIME: 14.39.38		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 ROSTER FOR PROSE TYPE: JOB		PAGE 1 REQUEST - CA7xx704
JOB	PROSE NUMBER	LINK MEMBER	***** DESC *****	
D463XX01	PP000001	000000	THIS IS JOB INFORMATION FOR D463XX01	
D463XX02	PP000002	000000	THIS IS JOB INFORMATION FOR D463XX02	
D463XX03	PP000003	000000	THIS IS JOB INFORMATION FOR D463XX03	
D463XX04	PP000004	000000	THIS IS JOB INFORMATION FOR D463XX04	
D463XX05	PP000005	000000	THIS IS JOB INFORMATION FOR D463XX05	
D463XX06	PP000006	000000	THIS IS JOB INFORMATION FOR D463XX06	
D463XX07	PP000007	000000	THIS IS JOB INFORMATION FOR D463XX07	
D463XX08	PP000008	000000	THIS IS JOB INFORMATION FOR D463XX08	
D463XX09	PP000009	000000	THIS IS JOB INFORMATION FOR D463XX09	
D463XX10	PP000010	000000	THIS IS JOB INFORMATION FOR D463XX10	
U7TST001	PP000011	000000		
U7TST002	PP000022	000000		

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END OF REPORT

Item Description

- 1 Job name as entered in the JOB field on the DB.4.1 screen.
- 2 Prose member number assigned by CA-7.
- 3 Shows the prose number in PPnnnnnn format if a LINK value is provided. If no LINK value is provided, this shows as 000000.
- 4 Value provided in DESC field on DB.4.1 screen.

5.3.43 CA7xx705 Roster for Prose Type: DATASET

This report provides a roster of prose members with a prose type of DATASET. That is, members defined through the DB.4.4 screen.

CA7xx705 Roster for Prose Type: DATASET			
AUG 01 yy TIME: 10.48.27	COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 ROSTER FOR PROSE TYPE: DATASET		PAGE 1 REQUEST - CA7xx705
DS NUMBER	PROSE NUMBER	LINK MEMBER	***** DESC *****
DS000011	PP000029	000000	HISTORY ARCHIVE OF LOG MESSAGES
DS000028	PP000030	000000	RELEASE 3.3 LOADLIB FOR QA REGRESSION TESTING
DS000031	PP000031	000000	CA-11 LOADLIB FOR INTERFACE TEST WITH R3.3
DS000001	PP000032	000000	QA ARCHIVE PDS FOR R3.3 OUTPUT

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END OF REPORT

Item Description

- 1 Data set number assigned by CA-7. Data set name is NOT available in these records.
- 2 Prose member number assigned by CA-7.
- 3 Shows the prose number in PPnnnnnn format if a LINK value is provided. If no LINK value is provided, this shows as 000000.
- 4 Value provided in DESC field on DB.4.4 screen.

5.3.44 CA7xx706 Roster for Prose Type: NETWORK

This report provides a roster of prose members with a prose type of NETWORK. That is, members defined through the DB.4.2 screen.

MAY 27 yy TIME. 08.40.10		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 ROSTER FOR PROSE TYPE: NETWORK			PAGE 1 REQUEST - CA7xx706
NAME	NW NUMBER	PROSE NUMBER	LINK MEMBER	***** DESC *****	
TESTOTNW	NW000002	PP000012	000000	THIS IS NETWORK INFO FOR TESTOTNW	
FULLLOTNW	NW000018	PP000015	000000	THIS IS NETWORK INFO FOR FULLLOTNW	
D40218OP	NW000009	PP000017	000000		
D40218ED	NW000008	PP000024	000000		
RESTOTNW	NW000020	PP000063	000000	THIS IS NETWORK INFO FOR RESTOTNW	
TESTINNW	NW000029	PP000420	000000	THIS IS NETWORK INFO FOR TESTINNW	

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END OF REPORT

Item Description

- 1 Network name.
- 2 Network number assigned by CA-7.
- 3 Prose member number assigned by CA-7.
- 4 Shows the prose number in PPnnnnnn format if a LINK value is provided. If no LINK value is provided, this shows as 000000.
- 5 Value provided in DESC field on DB.4.2 screen.

5.3.45 CA7xx707 Roster for Prose Type: USER

This report provides a roster of prose members with a prose type of USER. That is, members defined through the DB.4.3 screen.

MAY 27 yy TIME: 08.40.25		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 ROSTER FOR PROSE TYPE: USER		PAGE 1 REQUEST - CA7xx707
***** USER *****	PROSE NUMBER	LINK MEMBER	***** DESC *****	
U7JCJ001	PP000018	000000	TEST CASE TRANSPORTIBILITY-PROSE,USER ENTRY	
255	PP000021	000000		
B.PROSE.ENTRY	PP000025	000000		
C.PROSE.ENTRY	PP000026	000000		

1
2
3
4

END OF REPORT

Item Description

- 1** User-assigned name.
- 2** Prose member number assigned by CA-7.
- 3** Shows the prose number in PPnnnnnn format if a LINK value is provided. If no LINK value is provided, this shows as 000000.
- 4** Value provided in DESC field on DB.4.3 screen.

5.3.46 CA7xx708 Roster for Prose Type: DD

This report provides a roster of prose members with a prose type of DD. That is, members defined through the DB.4.5 screen.

MAY 27 yy TIME. 08.40.39		COMPUTER ASSOCIATES INTERNATIONAL, INC. CA-7 ROSTER FOR PROSE TYPE: DD			PAGE 1 REQUEST - CA7xx708	
JOB NAME	STEPNAME	DD NAME	PROSE NUMBER	LINK MEMBER	*****	DESC *****
U7TST001 A	STEP1 STEP1	SYSIN SORTLIB	PP000023 PP000409	000000 000000		
1	2	3	4	5		6

END OF REPORT

Item Description

- 1** CPU job name.
- 2** Job step name.
- 3** DDname.
- 4** Prose member number assigned by CA-7.
- 5** Shows the prose number in PPnnnnnn format if a LINK value is provided. If no LINK value is provided, this shows as 000000.
- 6** Value provided in DESC field on DB.4.5 screen.

5.3.47 CA7xx709 CPU Job Schedules with Current SCHDMOD

This report provides a list of CPU job schedule members which have an active modification made through the DB.2.7 screen.

COMPUTER ASSOCIATES INTERNATIONAL, INC.			PAGE 1
CA-7 CPU JOB SCHEDULES WITH CURRENT SCHDMOD			REQUEST - CA7xx709
AUG 31 yy			
TIME: 08.56.55			
SCHD NUMBER	MONTHS SCHEDULED	SCAL YYYY	
SJ000004	JAN-DEC	005D	
SJ000005	JAN-DEC	005D	
SJ000022	JAN-DEC	005D	
SJ000424	JAN-DEC	005D	
SJ000692	JULY-JUNE	00ED	
SJ000827	JAN-DEC	005D	
SJ000906	JAN-DEC	005D	
SJ001203	JAN-DEC	005D	
SJ001348	JAN-DEC	005D	
SJ001766	JAN-DEC	005D	
SJ002049	JAN-DEC	005D	

1	2	3
----------	----------	----------

END OF REPORT

Item Description

- 1** Schedule member number assigned by CA-7.
- 2** Either JAN-DEC or JULY-JUNE depending on when the schedule was last resolved.
- 3** Last four positions of SCALyxxx calendar ID against which the schedule was resolved.

5.3.48 CA7xx710 Input Network Schedules with Current SCHDMOD

This report provides a list of input network schedule members which have an active modification made through the DB.2.7 screen.

COMPUTER ASSOCIATES INTERNATIONAL, INC.		
CA-7 INPUT NETWORK SCHEDULES WITH CURRENT SCHDMOD		
AUG 31 yy		PAGE 1
TIME: 09.22.03		REQUEST - CA7xx710
SCHD NUMBER	MONTHS SCHEDULED	SCAL YYYY
SJ000085	JAN-DEC	005D
SJ000112	JAN-DEC	005D
SJ000143	JAN-DEC	00ED
SJ000382	JULY-JUNE	005D
SJ000569	JAN-DEC	005D
SJ000584	JAN-DEC	005D
SJ000708	JULY-JUNE	005D
SJ000799	JAN-DEC	005D
SJ001036	JAN-DEC	00ED
SJ001472	JAN-DEC	005D
SJ001819	JAN-DEC	00ED
SJ003024	JAN-DEC	005D

1 2 3

END OF REPORT

Item Description

- 1 Schedule member number assigned by CA-7.
- 2 Either JAN-DEC or JULY-JUNE depending on when the schedule was last resolved.
- 3 Last four positions of SCALyxxx calendar ID against which the schedule was resolved.

5.3 Report Descriptions

Index

Special Characters

-nDAY literal in SASSHIS8 3-6

Numerics

20th Century dates 5-9

21st Century dates 5-9

A

Active Queue Activity Profile, CA7xx004 5-17

Actuals, sample WLP JCL 4-49

APA

database graphs 2-11

graph reports 2-10

job graphs 2-15

network graphs 2-32

overview 2-1

system graphs 2-35

Audit trail/error reporting 4-8

Automated Performance Analysis

See APA

B

Backup configuration planning 4-3

Balancing work flow 4-2

C

CA-Earl reports

from database backup 5-4

from log history data 5-2

overview 5-1

producing 5-2

sample log history report JCL 5-6

selecting 5-5

user-defined 5-10

CA-Easytrieve Plus reports

from log history data 5-2

overview 5-1

producing 5-2

sample log history report JCL 5-7

selecting 5-5

user-defined 5-10

CA7DB member 5-10

CA7xx001 Job Completion Profile 5-14

CA7xx002 Request Queue Activity Profile 5-15

CA7xx003 Ready Queue Activity Profile 5-16

CA7xx004 Active Queue Activity Profile 5-17

CA7xx005 Preprocessing Queue Activity Profile 5-18

CA7xx006 Postprocessing Queue Activity Profile 5-19

CA7xx007 Prior-Run Queue Activity Profile 5-20

CA7xx008 Database DSD/DSM Record Activity Profile 5-21

CA7xx009 Database JBD/JBM Record Activity Profile 5-23

CA7xx010 Database NWD/NWM Record Activity Profile 5-25

CA7xx011 Database PPD/PPM Record Activity Profile 5-27

CA7xx012 Database SID/SIM Record Activity Profile 5-29

CA7xx013 Database SJD/SJM Record Activity Profile 5-31

CA7xx014 Database SOD/SOM Record Activity Profile 5-33

CA7xx015 Database Type I Record Activity Profile 5-34

CA7xx016 Composite Database Activity Profile 5-35

CA7xx017 Composite Queue Activity Profile 5-37

CA7xx018 Queue Posting Activity 5-39

CA7xx019 Job Scheduling/Completion Activity 5-43

CA7xx020 Tape Data Set Activity 5-44

CA7xx021 DASD Data Set Activity 5-45

CA7xx022 Workstation Network Scheduling Activity 5-46

CA7xx023 Input Network Performance Profile 5-47

CA7xx024 Output Network Performance Profile 5-48

CA7xx025 Communications Data Set Activity 5-49

CA7xx026 Schedule Scan Activity 5-50

CA7xx027 Queue Allocation Usage Profile 5-51

CA7xx028 Job Termination Posting Dwell Time 5-53

CA7xx029 Job Completion Dwell Time 5-55

CA7xx030 Queue Entry Dwell Time 5-57

CA7xx031 Transaction Response Time Profile 5-59

CA7xx032 /LOG Command Detail 5-60

CA7xx033 Trailer Queue Activity Profile 5-61

CA7xx034 CA-7 In-Storage Trailer Queue Profile 5-62

CA7xx035 Performance Statistics Information Job Report 5-63

CA7xx036 Performance Statistics Information System Report 5-65

CA7xx037 Job Completion Table Data 5-67

CA7xx701 Data Sets with No Associated Jobs 5-69

CA7xx702 Workstation Networks with No Associated Jobs 5-71

CA7xx703 Roster for Prose Type: SYSTEM 5-72

CA7xx704 Roster for Prose Type: JOB 5-73

CA7xx705 Roster for Prose Type: DATASET 5-74

CA7xx706 Roster for Prose Type: NETWORK 5-75

CA7xx707 Roster for Prose Type: USER 5-76

CA7xx708 Roster for Prose Type: DD 5-77

CA7xx709 CPU Job Schedules with Current SCHDMOD 5-78

CA7xx710 Input Network Schedules with Current SCHDMOD 5-79

Card Input Edit Report WLP01 4-8

Changing

- graph definitions 2-9
- processing 4-2

Chronological processing activity 3-49, 3-51

COMMANDS

- DEMANDH 3-65
- file 3-4
- FWLP 4-2
- Recovery Aid Batch Commands 3-31

Comments logged by operations personnel 5-60

Communications Data Set Activity, CA7xx025 5-49

Completion activity, jobs 5-43

Composite

- Database Activity Profile, CA7xx016 5-35
- Queue Activity Profile, CA7xx017 5-37

Condition codes, PULL step 5-8

Control statements

- descriptions, SASSHIS8 3-5
- Edit Report SASSHIS8 3-37
- formats, SASSHIS8 3-3, 3-9

CPU

- job completion report 5-14
- Job Schedules with Current SCHDMOD, CA7xx709 5-78
- usage 4-16

Cross-platform scheduling 3-61, 3-68

Customizing graphs 2-9

D

DASD Data Set Activity, CA7xx021 5-45

Data

- flow, modeling 4-4
- generator, WLP online 4-27
- statement file, FWLP 4-28

Data sets

- activity

 - DASD 5-45
 - tape 5-44

Data Sets with No Associated Jobs, CA7xx701 Database

- Activity Profile, Composite, CA7xx016 5-35
- DSD/DSM Record Activity Profile, CA7xx008 5-21 graphs 2-8, 2-11
- JBD/JBM Record Activity Profile, CA7xx009 5-23
- NWD/NWM Record Activity Profile, CA7xx010 5-25
- PPD/PPM Record Activity Profile, CA7xx011 5-27 report JCL 5-10
- SID/SIM Record Activity Profile, CA7xx012 5-29
- SJD/SJM Record Activity Profile, CA7xx013 5-31
- SOD/SOM Record Activity Profile, CA7xx014 5-33
- Type I Record Activity Profile, CA7xx015 5-34

Date/time ranges, SASSHIS8 3-5

Date definition 3-8

DBASEIN filename 5-10

DD

- prose members 5-77

Defining

- reporting day 3-8
- reporting quarter 3-8

DEMANDH command 3-65

Detailed Resource Utilization

- Actual Report WLP07 4-25
- Projection Report WLP07 4-23

Differential Severity Scale 3-35

Disaster recovery 4-3

Dormant definitions

- data set 5-69
- network 5-71

DSD (data set directory)/DSM (data set member) record activity profile 5-21

DSN (data set) prose members 5-74

Dwell time

- job completion 5-55
- job termination posting 5-53
- queue entry 5-57

E

EARL step 5-5, 5-8, 5-10

EARLLIB members 5-10

Enhancements 1-1

Explicit ranges, SASSHIS8 3-5

EZTRIEVE step 5-5, 5-8, 5-10

F

File descriptions, SASSHIS8 3-4

Flowcharts

- history reporting 3-2
- workload planning 4-5

Forecasting
 data flow 4-4
 workload 4-1
Format, SASSHIS8 control statements 3-9
FWLP command
 control statement example 4-44
 data statement file 4-28
 description 4-2
 JOB statement
 format 4-32
 note 4-35
 projections 4-44
 RES statement format 4-28

G

Generated
 Batch Terminal Interface Commands Report
 SASSRA02 3-31, 3-65
Graph reports
 database 2-11
 descriptions 2-10
 job 2-15
 network 2-32
 system 2-35
GRAPHD function 2-8
GRAPHJ function 2-7
GRAPHN function 2-6
Graphs
 customizing 2-9
 formats 2-2
 function 2-6
 using averages 2-4
 using percentages 2-5

H

History reports
 flowchart 3-2
 list of 3-38
 sample JCL 3-36
 SASSHIS8 3-3
Hourly
 CPU Usage Projection Report WLP05 4-16
 INIT Usage Projection Report WLP02 4-10
 TP1 Usage Projection Report WLP03 4-12
 TP2 Usage Projection Report WLP04 4-14

I

Index record activity profile 5-34

Initiator usage figures 4-10
Input
 transactions 3-41
 WLP simulator 4-27
Input Network Performance Profile, CA7xx023 5-47
Input Network Schedules with Current SCHDMOD,
 CA7xx710 5-79
Internal Activity Trace Report SASSHR70 3-56

J

JBD (job directory)/JBM (job member) record activity
 profile 5-23
JCL
 examples
 combined WPL execution 4-50
 database report JCL 5-10
 sample CA-Easytrieve Plus log history report 5-7
 sample history reporting 3-36
 sample log history report 5-6
 WLP actuals 4-49
 WLP projections 4-47

Job

 Completion Dwell Time, CA7xx029 5-55
 Completion Profile, CA7xx001 5-14
 Completion Table Data, CA7xx037 5-67
 failures 3-39
 graphs 2-15
 Processing Activity Report SASSHR06 3-23, 3-49
 prose members 5-73
 Scheduling/Completion Activity, CA7xx019 5-43
 statements, FWLP
 format 4-32
 note 4-35
 summary reports
 actual, WLP07 4-21
 projection, WLP07 4-19
 Termination Posting Dwell Time, CA7xx028 5-53

L

Last Logged Status of Jobs Report SASSRA01 3-31, 3-59
Literals for
 prior reporting periods 3-6
 to-date reporting 3-6
LMNTH literal in SASSHIS8 3-6
Log
 archives file 3-3
 Command Detail, CA7xx032 5-60
 Dump Report SASSHR03 3-14, 3-44
 history file 3-3
 history PULL options 5-8

Log (*continued*)
 record types 3-15
 records
 profile 5-12
 type, CA-Earl reports 5-2
 type, CA-Easytrieve Plus reports 5-2
LQRTR literal in SASSHIS8 3-6
LWEEK literal in SASSHIS8 3-6

M

Maintenance activity, database 2-8
Master Station Activity Report
 SASSHR08 3-27, 3-52
 SASSHR70 3-33
Modeling 4-1

N

Network graphs 2-6, 2-32
nnDAY literal in SASSHIS8 3-6
nnHRS literal in SASSHIS8 3-6
NWD (network directory)/NWM (network member) record
 activity profile 5-25
NWK (network) prose members 5-75

O

On-time performance
 input networks 5-47
 output networks 5-48
Online
 data generator, WLP 4-27
Operations personnel, comments logged by 5-60
Output Network
 Performance Profile, CA7xx024 5-48
Overall performance measurement 2-6

P

PARM operand 3-3
Percentages, graph using 2-5
Performance data 2-7
Planning
 backup configuration 4-3
 workload 4-1
Posting activity, queues 5-39
Postprocessing Queue Activity Profile, CA7xx006 5-19
PPD (prose directory)/PPM (prose member) record activity
 profile 5-27
Preprocessing Queue Activity Profile, CA7xx005 5-18

Prior reporting periods, literals for 3-6
Prior-Run queue
 Activity Profile, CA7xx007 5-20
Processing
 activity, chronological 3-49, 3-51
 effects of changing 4-2
Producing
 CA-Earl reports 5-2
 CA-Easytrieve Plus reports 5-2
Production
 activity, queues 3-67
 workload 4-1
Projections, sample WLP JCL 4-47
PROSE members
 DD 5-77
 DSN (data set) 5-74
 JOB 5-73
 NWK (network) 5-75
 SYS (system) 5-72
 USER 5-76
PULL options
 samples 5-9
 specifying 5-8
 step condition codes 5-8

Q

Quarter definition 3-8
Queue
 activity
 active 5-17
 composite profile 5-37
 postprocessing 5-19
 preprocessing 5-18
 prior-run 5-20
 production 3-67
 ready 5-16
 request 5-15
 trailer 5-61
 Allocation Usage Profile, CA7xx027 5-51
 Entry Dwell Time, CA7xx030 5-57
 Posting Activity, CA7xx018 5-39
Queue files
 reports from 5-3

R

Range literals, SASSHIS8 3-6
Ranges
 date/time, SASSHIS8 3-5
 explicit, SASSHIS8 3-5
 sample SASSHIS8 3-7

Ready Queue Activity Profile, CA7xx003 5-16

Record types, log 3-15

Recovery aid facility

- Batch Commands - COMMANDS 3-31
- Last Logged Status, Jobs 3-31
- output 3-31
- reports 3-3

Release enhancements summary 1-1

Reporting

- Automated Performance Analysis 2-1
- CA-Earl reporting 5-1
- CA-Easytrieve Plus reporting 5-1
- day definition 3-8
- quarter definition 3-8

Reports

- APA 2-1
- CA-Earl
 - database report JCL 5-10
 - from database backup 5-4
 - from log history data 5-2
 - overview 5-2
 - sample JCL, log history report 5-6
 - selecting 5-5
 - user-defined 5-10
- CA-Easytrieve Plus
 - from log history data 5-2
 - overview 5-2
 - sample JCL, log history report 5-7
 - selecting 5-5
 - user-defined 5-10
- history 3-1
- WLP 4-1

Request

- ID CA-Earl reports 5-2
- ID CA-Easytrieve Plus reports 5-2

Request Queue Activity Profile, CA7xx002 5-15

RES statements, FWLP

- format 4-28
- note 4-31

Resource

- use 4-1

Resource Summary Projection Report WLP06 4-18

Response time

- graphs 2-6
- profile, transactions 5-59

Roster for Prose Type

- Data Set, CA7xx705 5-74
- DD, CA7xx708 5-77
- Job, CA7xx704 5-73
- Network, CA7xx706 5-75
- System, CA7xx703 5-72
- User, CA7xx707 5-76

S

Sample

- history reporting JCL 3-36
- ranges, SASSHIS8 3-7
- WLP
 - actuals JCL 4-49
 - combined JCL 4-50
 - projections JCL 4-47

SASSDS module 3-35

SASSHIS8

- available outputs 3-4
- control statement
 - descriptions 3-5
 - Edit Report 3-37
 - formats 3-9
- date/time ranges 3-5
- explicit ranges 3-5
- file descriptions 3-4
- history reports list 3-38
- overview 3-3
- range literals 3-6
- sample ranges 3-7
- scheduling considerations 3-8

SASSHR01, Scheduled Jobs Not Run Report 3-39

SASSHR02, Transaction Detail Report 3-41

SASSHR03, Log Dump Report 3-44

SASSHR04, Scheduled Versus Actual Job Report 3-45

SASSHR05, Scheduled Versus Actual Station Report 3-47

SASSHR06, Job Processing Activity Report 3-49

SASSHR07, Workstation Activity Report 3-51

SASSHR08, Master Station Activity 3-52

SASSHR30, Security Exception Report 3-53

SASSHR70, Internal Activity Trace Report 3-56

SASSRA01, Last Logged Status of Jobs Report 3-31, 3-59

SASSRA02, Generated Batch Terminal Interface Commands Report 3-31, 3-65

SASSRA03, Simulated LQ Display of Jobs Report 3-31, 3-67

SASSXTRK Log Extract Program 3-70

SCALE parameter 2-9

SCHDMOD, modifications by

- input network schedules 5-79
- job schedules 5-78

Schedule Scan Activity report, CA7xx026 5-50

Scheduled

- Jobs Not Run Report SASSHR01 3-9, 3-39
- Versus Actual Job Report SASSHR04 3-17, 3-45
- Versus Actual Station Report SASSHR05 3-20, 3-47

Scheduling

- activity, workstation networks 5-46
- considerations, SASSHIS8 3-8

- Security
 - Exception Report SASSHR30 3-53
- Security Exception Report SASSHR30 3-53
- Selecting
 - CA-Earl reports 5-5
 - CA-Easytrieve Plus reports 5-5
- SID (input schedule directory)/SIM (input schedule member)
 - record activity profile 5-29
- Simulated LQ Display of Jobs Report SASSRA03 3-31, 3-67
- Simulation techniques 4-1
- SJD (job schedule directory)/SJM (Job schedule member)
 - record activity profile 5-31
- SOD (output schedule directory)/SOM (output schedule member)
 - record activity profile 5-33
- Special uses of WLP 4-3
- Standard graph 2-3
- Summary of enhancements 1-1
- SYS (system) prose members 5-72
- SYSIN file 3-4
- SYSLIST file 3-4
- System
 - graphs descriptions 2-35
 - graphs overview 2-6

T

- Tape Data Set Activity, CA7xx020 5-44
- TMNTH literal in SASSHIS8 3-6
- To-date reporting, literals for 3-6
- TODAY literal in SASSHIS8 3-6
- TQRTR literal in SASSHIS8 3-6
- Trailer Queue Activity Profile, CA7xx033 5-61
- Transaction
 - Detail Report SASSHR02 3-11, 3-41
 - Response Time Profile, CA7xx031 5-59
 - totals 2-6
- TWEEK literal in SASSHIS8 3-6
- Twentieth century dates 5-9
- Twenty-first century dates 5-9
- TYPE1 drive usage 4-12
- TYPE2 drive usage 4-14

U

- UCC7ARCH file 3-4
- UCC7HIST file 3-4
- USER prose members 5-76
- User-defined reports 5-10
- Using
 - queue allocations 5-51
 - workload planning 4-44

- Using queue allocations 5-51
- Using workload planning 4-44

W

- WLP
 - actuals 4-48
 - control statements
 - format rules 4-36
 - FWLP control statement example 4-44
 - sample actuals JCL 4-49
 - sample combined JCL 4-50
 - sample projections JCL 4-47
 - WLP1 format 4-37
 - WLP1 statement example 4-46
 - WLP1, projections 4-37
 - WLP2 control statement example 4-48
 - WLP2 format 4-42
 - WLP2, actuals 4-42
 - flowchart 4-5
 - limitations on use 4-6
 - online data generator 4-27
 - overview 4-1
 - projections 4-44
 - reports, list of 4-7
 - special uses 4-3
 - using 4-44
- WLP01, Card Input Edit Report 4-8
- WLP02, Hourly INIT Usage Projection Report 4-10
- WLP03, Hourly TP1 Usage Projection Report 4-12
- WLP04, Hourly TP2 Usage Projection Report 4-14
- WLP05, Hourly CPU Usage Projection Report 4-16
- WLP06, Resource Summary Projection Report 4-18
- WLP07, Detailed Resource Utilization - Actual Report 4-25
- WLP07, Detailed Resource Utilization - Projection Report 4-23
- WLP07, Job Summary - Actual Report 4-21
- WLP07, Job Summary - Projection Report 4-19
- Workload
 - planning
 - See* WLP
- Workload characteristics 2-7
- Workstation
 - Activity report SASSHR07 3-25, 3-51
 - network reports 2-6
 - Network Scheduling Activity report, CA7xx022 5-46
 - Networks with No Associated Jobs report, CA7xx702 5-71

X

XPS client

as entry mode on reports 3-61, 3-68

