

Unicenter[®] CA-View[®] Output Archival and Viewing

Metrics User Guide

Release 1.7 / 2.0



Computer Associates™
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Introduction

In This Chapter

This chapter provides an overview of the Metrics process for CA-View Release 1.7 and 2.0.

The metric requirements requested by customers give the customer the ability to measure the activity and usage of a CA-View database. These measurements are specifically intended to provide information that can be used to tailor Expanded Retention Parameters, Expanded Access Server for Tape/Robotic options, and database utilization.

What Is the Metrics Process?

CA-View provides many facilities for storage, access, and retention of reports based on initialization parameters, option parameter specifications, or program parameter specifications. These parameters provide the customer with the ability to customize the product to their environment.

Customization of certain parameters, however, may require an intimate knowledge about reports retained and accessed in the CA-View database. Since this knowledge may not be known or may vary based on user activity, customers require methods for measuring usage of CA-View.

The Metrics requirements provide information used for the measurements of CA-View. The Metrics data is actually generated for unique activity to report data and is subsequently gathered to produce useful statistics. Since the metric data is generated for unique activity to report data, the metric data also provides audit trail information and related accounting information.

The metric data is recorded as System Management Facility (SMF) records. These records provide a detailed account of the following activities:

- Users logging on to CA-View
- Users logging off of CA-View

- Users viewing reports
- Users reprinting reports
- Users loading reports
- Users deleting reports

An optional data set can be generated from the Metrics report program that contains the SMF records used to produce the reports. These records can then be used with a report writer; this allows clients to generate customized reports based on CA-View Metrics according to their individual needs.

Recording of SMF Records

In This Chapter

This chapter describes how SMF records are generated. All SMF records for a specific CA-View database are generated with the same SMF record type. This SMF record type is based on the specification of the SMFTYPE initialization parameter, which may range from 128 to 255.

Record Subtype

The *record subtype* is a uniquely defined number indicating the record that is being recorded. These record subtypes (located in bytes 26–27 of the SMF record) are listed below:

Record SubType	Type of SMF Record
20	Online user logging onto the online retrieval facility
21	Online user logging off from the online retrieval facility
30	Online user viewing a report
31	Batch or online reprinting of a report
32	Report being loaded into the database
33	Batch or online deletion of a report
34	Batch or online deletion of a report from database disk

The SARSMFUX user exit is called prior to writing the SMF record to allow modification and/or suppression of the SMF record. All SMF records may be suppressed automatically by setting a new SMFTYPE initialization parameter to zero.

For specific information about SMF record layouts, see Chapter 6, “SMF Record Layouts.”

SMF Record Header/Self-Defining Section

The SMF Record Header/Self-defining section is a fixed section that prefixes all SMF records generated by CA-View. This section identifies the SMF record type, date and time when the SMF record was produced, product name, product release, record subtype, job name, job number, online user, database name, etc. The SMF Record Header/Self-defining section is followed by data pertinent to the record subtypes as indicated in bytes 26–27 of the SMF record.

The SMF Record Header/Self-defining section and all individual SMF records are mapped by the SARSMF macro.

User Logon SMF Record

A User Logon SMF record is written when a user initiates an online retrieval session. The User Logon SMF record is identified by a record subtype of 20 (Hex 14) in bytes 26–27 of the SMF record.

The standard SMF Record Header/Self-defining section identifies the time and date when the user logged on, the user’s name, the online interface being used, and the database name. The job name, job number, reader start date, and reader start time in the SMF record designate the cross-memory region, TSO user, or CA-Roscoe region.

User Logoff SMF Record

A User Logoff SMF record is written when a user ends the online retrieval session. The User Logoff SMF record is identified by a record subtype of 21 (Hex 15) in bytes 26–27 of the SMF record.

The standard SMF Record Header/Self-defining section identifies the time and date when the user logged off, the user name, the online interface being used, and the database name. The job name, job number, reader start date, and reader start time in the SMF record designate the cross-memory region, TSO user, or CA-Roscoe region.

Report View SMF Record

A Report View SMF record is written when a user views a report through the online retrieval facility. The Report View SMF record is identified by a record subtype of 30 (Hex 1E) in bytes 26–27 of the SMF record.

The standard SMF Record Header/Self-defining section identifies the time and date the user ended the viewing of the report, the user name, the online interface being used, and database name. The job name, job number, reader start date, and reader start time in the SMF record designate the cross-memory region, TSO user, or CA-Roscoe region.

The Report View SMF record contains two independent sections that reference an access section and an index section. The access section identifies the tapes being accessed, and the index section identifies the index names and values selected when viewing the report. The offset and length of these sections are provided at the end of the standard SMF Record Header/Self-defining section. The access and index sections may not be supplied if the section does not have any applicable data; if the section is not supplied, the value of the offset and length pair is zero.

Report View SMF Record Access Section

The access section of the Report View SMF record identifies the tapes that were accessed when the report data is accessed from tape. The SV30AOF and SV30ALN fields reference the offset to and length of the access section. If the report is not reprinted from tape, the access section is not supplied, and the value in the SV30AOF and SV30ALN fields is zero.

The SV30TSQ through SV30TDSN fields are repeated for each tape that is accessed.

Report View SMF Record Index Section

The index section of the Report View SMF record identifies the index name and value that was viewed. The SV30IOF and SV30ILN fields reference the offset to and length of the index section. If the report is not viewed through an index, the index section is not supplied, and the value in the SV30IOF and SV30ILN fields is zero.

For multi-level indexing, where up to 8 index names may be specified for an index, the index names and values are supplied in pairs (1st index name, 1st index value, 2nd index name, 2nd index value, etc.). A length field precedes both the index name and the index value.

The *nl* field in the offset column designates the index name length. The SV30INLN through SV30IVAL fields are repeated for each index level.

Report Reprint SMF Record

A Report Reprint SMF record is written when a user reprints a report from the online retrieval facility or batch facility. The Report Reprint SMF record is identified by a record subtype of 31 (Hex 1F) in bytes 26–27 of the SMF record.

The standard SMF Record Header/Self-defining section identifies the user reprinting the report, the database, and the time and date the report was reprinted. The job name, job number, reader start date, and reader start time in the SMF record designate the cross-memory region, TSO user, CA-Roscoe region, or batch job.

The Report Reprint SMF record contains two independent sections that reference an access section and an index section. The access section identifies the tapes being accessed, and the index section identifies the index names and values used to reprint the report. The offset and length of these sections are provided at the end of the standard SMF Record Header/Self-defining section. The access and index sections may not be supplied if the section does not have any applicable data; if the section is not supplied, the value of the offset and length pair is zero.

Report Reprint SMF Record Access Section

The access section of the Report Reprint SMF record identifies the tapes that were accessed when report data is accessed from tape. The SV31AOF and SV31ALN fields reference the offset to and length of the access section. If the report is not reprinted from tape, the access section is not supplied, and the SV31AOF and SV31ALN fields are zero.

The SV31TSQ through SV31TDSN fields are repeated for each tape that is accessed.

Report Reprint SMF Record Index Section

The index section of the Report Reprint SMF record identifies the index name and value that was reprinted. The SV31IOF and SV31ILN fields reference the offset to and length of the index section. If the report is not reprinted through an index, the index section is not supplied, and the SV31IOF and SV31ILN fields are zero.

For multi-level indexing, where up to 8 index names may be specified for an index, the index names and values are supplied in pairs (1st index name, 1st index value, 2nd index name, 2nd index value, etc.). A length field precedes both the index name and the index value.

The *nl* field in the offset column designates the index name length. The SV31INLN through SV31IVAL fields are repeated for each index level.

Report Load SMF Record

A Report Load SMF record is written when a report is loaded into the database explicitly from the batch facility or implicitly from the online retrieval facility. The Report Load SMF record is identified by a record subtype of 32 (Hex 20) in bytes 26–27 of the SMF record.

The standard SMF Record Header/Self-defining section identifies the user loading the report, the database, and time and date when the report was loaded. The job name, job number, reader start date, and reader start time in the SMF record designate the cross-memory region, TSO user, CA-Roscoe region, or batch job.

The Report Load SMF record contains one independent section that references an access section. The access section identifies the tapes being accessed. The offset and length of this section is provided at the end of the standard SMF Record Header/Self-defining section. The access section may not be supplied if the section does not have any applicable data; if the section is not supplied, the value of the offset and length pair is zero.

Report Load SMF Record Access Section

The access section of the Report Load SMF record identifies the tapes that were accessed when report data is loaded from tape. The SV32AOF and SV32ALN fields reference the offset to and length of the access section. If the report is not loaded from tape, the access section is not supplied, and the SV32AOF and SV32ALN fields are zero.

The SV32TSQ through SV32TDSN fields are repeated for each tape that is accessed.

Report Delete SMF Record

A Report Delete SMF record is written when a report is deleted from the database through the online retrieval facility, batch facility, or backup cycle. The Report Delete SMF record is identified by a record subtype of 33 (Hex 21) in bytes 26–27 of the SMF record.

The standard SMF Record Header/Self-defining section identifies the user deleting the report, the database, and time and the date the report was deleted. The job name, job number, reader start date, and reader start time in the SMF record designate the cross-memory region, TSO user, CA-Roscoe region, batch job, or backup task.

The Report Delete SMF record contains one independent section that references an access section. The access section identifies the backup tapes on which the report resided. The offset and length of this section are provided at the end of the standard SMF Record Header/Self-defining section. The access section may not be supplied if the section does not have any applicable data. If the section is not supplied, the value of the offset and length pair is zero.

Report Delete Disk SMF Record

A Report Delete Disk SMF record is written when a report is deleted from the database disk or optical disk through the online retrieval facility, batch facility, backup cycle, or migration task. The Report Delete Disk SMF record is identified by a record subtype of 34 (Hex 22) in bytes 26–27 of the SMF record.

The standard SMF Record Header/Self-defining section identifies the user deleting the report, the database, and time and date when the report was deleted. The job name, job number, reader start date, and reader start time in the SMF record designate the cross-memory region, TSO user, CA-Roscoe region, batch job, backup task, or migration task.

Recording of SMF Records Under TSO and ISPF

In This Chapter

To write SMF records using IBM's SMFWTR macro requires the issuing program to be in supervisor state key zero. Since the native TSO and ISPF interfaces are not sufficiently authorized to establish supervisor state, SMF records can not be written directly under these interfaces. Merely adding these interfaces to the TSO authorization table would not be sufficient for the ISPF interface. ISPF, specifically, does not allow dialog service support from authorized programs.

To provide a consistent interface for both the native TSO and ISPF interfaces, a separate program, SARSMFT, is provided that must be added to the TSO authorization table. These online interfaces then use the TSO service routine, IKJEFTSI, to execute the SARSMFT program to write the SMF record.

Authorized TSO programs are normally defined in the IKJTSOxx member of SYS1.PARMLIB. For simplicity, only the updates to the IKJTSOxx member are discussed.

The AUTHTSF Section

The IKJTSOxx member provides four sections for defining authorized commands, authorized program, authorized program called from the TSO service facility, and command not supported in background. These sections are AUTHCMD, AUTHPGM, AUTHTSF, and NOTBKGND, respectively. The SARSMFT must be added to the AUTHTSF section.

Syntax

The format and syntax of the AUTHTSF section of the IKJTSOxx member are as follows:

```
AUTHTSF NAMES( /* PROGRAMS TO BE AUTHORIZED      */ +
                /* WHEN CALLED THROUGH THE TSO    */ +
                /* SERVICE FACILITY.              */ +
                IEBCOPY /*                          */ +
                IKJEFF76) /*                          */ +
```

Enclose the names of the authorized programs in parentheses after the NAMES keyword. The program names are separated from other program name by one or more blanks. Continuation statements are indicated by a trailing plus sign.

The SARSMFT program can be added anywhere in the AUTHTSF NAMES list. If the SARSMFT program is added at the end of the list, the closing parentheses must be removed from the previous program name and added after the SARSMFT program name. Also, a continuation character must be added to the previous entry.

Example

The following example shows the change:

```
AUTHTSF NAMES( /* PROGRAMS TO BE AUTHORIZED      */ +
                /* WHEN CALLED THROUGH THE TSO     */ +
                /* SERVICE FACILITY.               */ +
                IEBCOPY /*                          */ +
                IKJEFF76 /*                          */ +
                SARSMFT) /* SAR SMF WRITER ROUTINE  */ +
```

SMF Initialization Parameter

In This Chapter

This chapter provides information about the SARINIT initialization parameter.

To facilitate the recording of SMF records within CA-View, a new SARINIT initialization parameter, SMFTYPE, must be added to identify a unique SMF record type.

Setting the SMFTYPE Initialization Parameter

To indicate a user SMF record to the system management facility, set the SMFTYPE initialization parameter to a value from 128–255.

The default for the initialization parameter is 0, which bypasses the writing of CA-View SMF records.

Syntax

The syntax of the SMFTYPE initialization parameter is as follows:

```
SMFTYPE=nnn
```

Where *nnn* is a value from 128–255.

In This Chapter

This chapter describes the SMF user exit.

The SMF records generated by CA-View to record user logons, user logoffs, report viewing, report reprinting, report loading, and report deletes are passed to SARSMFUX, the existing CA-View SMF user exit, prior to writing the SMF record.

SARSMFUX-SMF Exit

SARSMFUX has the ability to modify and/or suppress the SMF record.

The type-6 SMF record previously written by the archival started task when reports were reprinted during archival are no longer written. These SMF records are replaced by the new Report Reprint SMF record as documented in Chapter 2, "Recording of SMF Records" and Chapter 3, "Recording of SMF Records Under TSO and ISPF."

Standard Exit

The standard exit supplied with CA-View merely returns the same SMF records to be written that it receives. If the user exit is modified, the exit must be link-edited with authorization code 1 and placed in the library containing the CA-View load modules.

Register Contents: Entry

The contents of the significant general registers on entry to the exit are:

Reg 0	Address of GCR record
	The address of the GCR record passed to user exit for report type SMF records.
Reg 1	Address of SMF record
	The format of the record is mapped by the SARSMF macro

Reg 13	Address of a standard, 72-byte register save area
Reg 14	Return address
Reg 15	Entry point address

Register Contents: The contents of the significant general registers on return from the exit are:
Return

Reg 1	Address of SMF record to be written
Reg 2-13	Same as on entry to the exit
Reg 13	Address of a standard, 72-byte register save area
Reg 14	Return address
Reg 15	Return code:
0	The SMF record whose address is in general register 1 is to be written
4	No SMF record is to be written

SMF Record Layouts

In This Chapter

This chapter contains SMF record layouts produced by the Metrics report program. These layouts should be used when modifying SARSMFUX or using an OEM Report Writer to process the records written to the //USERSMF DD by the Metrics report program.

SMF Record Header/Self-Defining Section

Offsets	Name	Length	Format	Description	
0	0	SMFVLEN	2	Binary	Specifies the record length This field and the next field (total of four bytes) form the RDW (Record Descriptor Word) for the SMF record.
2	2	SMFVSEG	2	Binary	Specifies the segment descriptor (always zero)
4	4	SMFVFLG	1	Binary	Specifies the system indicator
5	5	SMFVRTY	1	Binary	Specifies the SMF record type (number specified on SMFTYPE initialization parameter)
6	6	SMFVTME	4	Binary	Specifies the time since midnight, in hundredths of a second, when the record was issued
10	A	SMFVDAT	4	Packed	Specifies the date when the record was issued, in the format 0cyydddF
14	E	SMFVSID	4	Char	Specifies the system identification
18	12	SMFVPRD	4	Char	Specifies the product identification (VIEW)

Offsets	Name	Length	Format	Description	
22	16	SMFVPRL	4	Char	Specifies the product release as one of the following: 1.7 CA-View release 1.7 2.0 CA-View release 2.0
26	1A	SMFVPTY	2	Binary	Specifies the product record subtype as one of the following: 20 User logon 21 User logoff 30 Report was viewed 31 Report was reprinted 32 Report was loaded to database 33 Report was deleted 34 Report was deleted from disk
28	1C	SMFVJBN	8	Char	Specifies the job name, started task, or TSO session where this record was written
36	24	SMFVJID	8	Char	Specifies the job number, started task, or TSO session where this record was written
44	2C	SMFVRST	4	Binary	Specifies the time since midnight, in hundredths of a second, when the reader recognized the job, started task, or TSO session
48	30	SMFVRSD	4	Packed	Specifies the date when the reader recognized the job, started task, or TSO session, in the format 0cyydddF
52	34	SMFVUIF	8	Char	Specifies the user identification (taken from the common exit parameter area) of job, started task, or TSO session
60	3C	SMFVPGM	8	Char	Specifies the program name (main program being executed) for example, SARBCH, SARSPF, SARTSO, etc.
68	44	SMFVUSER	8	Char	Specifies the online user or user name from job card
76	4C	SMFVTYP	1	Binary	Specifies the type of processing as follows: 0 Online user 1 Batch job 2 Archival started task 3 Archival backup task

Offsets	Name	Length	Format	Description
77	4D SMFVOTYP	1	Binary	Specifies the type of online interface as follows: 1 ISPF online interface 2 CA-Roscoe online interface 3 TSO online interface 4 VTAM online interface 5 IMS cross-memory online interface 6 CICS cross-memory online interface 7 ISPF cross-memory online interface 8 TSO cross-memory online interface 9 CA-Roscoe cross-memory online interface This field will only contain a value when SVFVTYP is 0.
78	4E SMFVOMO D	1	Binary	Specifies the mode of online user as one of the following: 1 ALL mode 2 EXPO mode 3 EXP mode 4 SARO mode 5 SAR mode This field will only contain a value when SMFVTYP is 0.
79	4F SMFVDBN	17	Char	Specifies the CA-View database prefix
96	60 SMFVCUST	20	Char	Customizable area for customer use

User Logon SMF Record

Offsets	Name	Length	Format	Description
0	0 SV20LEN	2	Binary	Specifies the record length
2	2 SV20SEG	2	Binary	Specifies the segment descriptor (always zero)
4	4 SV20FLG	1	Binary	Specifies the system indicator
5	5 SV20RTY	1	Binary	Specifies the SMF record type (number specified on SMFTYPE initialization parameter)
6	6 SV20TME	4	Binary	Specifies the time since midnight, in hundredths of a second, when the record was issued

Offsets	Name	Length	Format	Description	
10	A	SV20DAT	4	Packed	Specifies the date when the record was issued, in the format 0cyydddF
14	E	SV20SID	4	Char	Specifies the system identification
18	12	SV20PRD	4	Char	Specifies the product identification (VIEW)
22	16	SV20PRL	4	Char	Specifies the product release as follows: 1.7 CA-View release 1.7 2.0 CA-View release 2.0
26	1A	SV20PTY	2	Binary	Specifies the product record subtype as follows: 20 User Logon SMF record
28	1C	SV20JBN	8	Char	Specifies the job name, started task, or TSO session where this record was written
36	24	SV20JID	8	Char	Specifies the job number, started task, or TSO session where this record was written
44	2C	SV20RST	4	Binary	Specifies the time since midnight, in hundredths of a second, when reader recognized the job, started task, or TSO session
48	30	SV20RSD	4	Packed	Specifies the date when the reader recognized the job, started task, or TSO session, in the format 0cyydddF
52	34	SV20UIF	8	Char	Specifies the user identification (taken from the common exit parameter area) of job, started task, or TSO session
60	3C	SV20PGM	8	Char	Specifies the program name (online program being executed) for example, SARSPF, SARTSO, SARROS, etc.
68	44	SV20USER	8	Char	Specifies the online user ID
76	4C	SV20TYP	1	Binary	Specifies the type of job processing as follows: 0 Online user

Offsets	Name	Length	Format	Description	
77	4D	SV20OTYP	1	Binary	Specifies the type of online interface as follows: 1 ISPF online interface 2 CA-Roscoe online interface 3 TSO online interface 4 VTAM online interface 5 IMS cross-memory online interface 6 CICS cross-memory online interface 7 ISPF cross-memory online interface 8 TSO cross-memory online interface 9 CA-Roscoe cross-memory online interface
78	4E	SV20OMOD	1	Binary	Specifies the mode of online user as follows: 1 ALL mode 2 EXPO mode 3 EXP mode 4 SARO mode 5 SAR mode
79	4F	SV20DBN	17	Char	Specifies the CA-View database prefix
96	60	SV20CUST	20	Char	Customizable area for customer use
116	74	SV20DIST	8	Char	Specifies the distribution identifier for the online user for EXP mode online

User Logoff SMF Record

Offsets	Name	Length	Format	Description	
0	0	SV21LEN	2	Binary	Specifies the record length
2	2	SV21SEG	2	Binary	Specifies the segment descriptor (always zero)
4	4	SV21FLG	1	Binary	Specifies the system indicator
5	5	SV21RTY	1	Binary	Specifies the SMF record type (number specified on SMFTYPE initialization parameter)
6	6	SV21TME	4	Binary	Specifies the time since midnight, in hundredths of a second, when the record was issued
10	A	SV21DAT	4	Packed	Specifies the date when the record was issued, in the format 0cyydddF
14	E	SV21SID	4	Char	Specifies the system identification
18	12	SV21PRD	4	Char	Specifies the product identification (VIEW)

Offsets	Name	Length	Format	Description	
22	16	SV21PRL	4	Char	Specifies the product release as follows: 1.7 CA-View release 1.7 2.0 CA-View release 2.0
26	1A	SV21PTY	2	Binary	Specifies the product record subtype 21 User Logoff SMF record
28	1C	SV21JBN	8	Char	Specifies the job name, started task, or TSO session where this record was written
36	24	SV21JID	8	Char	Specifies the job number, started task, or TSO session where this record was written
44	2C	SV21RST	4	Binary	Specifies the time since midnight, in hundredths of a second, when the reader recognized the job, started task, or TSO session
48	30	SV21RSD	4	Packed	Specifies the date when the reader recognized the job, started task, or TSO session, in the format 0ccydddf
52	34	SV21UIF	8	Char	Specifies the user identification (taken from the common exit parameter area) of job, started task, or TSO session
60	3C	SV21PGM	8	Char	Specifies the program name (online program being executed, for example, SARSPF, SARTSO, SARROS, etc.)
68	44	SV21USER	8	Char	Specifies the online user ID
76	4C	SV21TYP	1	Binary	Specifies the type of job processing: 0 Online user
77	4D	SV21OTYP	1	Binary	Specifies the type of online interface as follows: 1 ISPF online interface 2 CA-Roscoe online interface 3 TSO online interface 4 VTAM online interface 5 IMS cross-memory online interface 6 CICS cross-memory online interface 7 ISPF cross-memory online interface 8 TSO cross-memory online interface 9 CA-Roscoe cross-memory online interface

Offsets	Name	Length	Format	Description	
78	4E	SV21OMOD	1	Binary	Specifies the mode of online user as follows: 1 ALL mode 2 EXPO mode 3 EXP mode 4 SARO mode 5 SAR mode
79	4F	SV21DBN	17	Char	Specifies the CA-View database prefix
96	60	SV21CUST	20	Char	Customizable area for customer use
116	74	SV21DIST	8	Char	Specifies the distribution identifier for the online user (for EXP mode online)
120	7C	SV21STME	4	Binary	Specifies the time since midnight, in hundredths of a second, when the user logged on
124	80	SV21SDAT	4	Packed	Specifies the date when the user logged on, in the format 0cyydddF
128	84	SV21SLEN	4	Binary	Specifies the length of time, in hundredths of a second, that the user was logged on

Report View SMF Record

Offsets	Name	Length	Format	Description	
0	0	SV30LEN	2	Binary	Specifies the record length This field and the next field (total of four bytes) form the RDW (Record Descriptor Word).
2	2	SV30SEG	2	Binary	Specifies the segment descriptor (always zero)
4	4	SV30FLG	1	Binary	Specifies the system indicator
5	5	SV30RTY	1	Binary	Specifies the SMF record type (number specified on SMFTYPE initialization parameter)
6	6	SV30TME	4	Binary	Specifies the time since midnight, in hundredths of a second, when the record was issued
10	A	SV30DAT	4	Packed	Specifies the date when the record was issued, in the format 0cyydddF
14	E	SV30SID	4	Char	Specifies the system identification
18	12	SV30PRD	4	Char	Specifies the product identification (VIEW)

Offsets	Name	Length	Format	Description	
22	16	SV30PRL	4	Char	Specifies the product release as follows: 1.7 CA-View release 1.7 2.0 CA-View release 2.0
26	1A	SV30PTY	2	Binary	Specifies the product record type (30)
28	1C	SV30JBN	8	Char	Specifies the job name, started task, or TSO session where this record was written
36	24	SV30JID	8	Char	Specifies the job number of job, started task, or TSO session where this record was written
44	2C	SV30RST	4	Binary	Specifies the time since midnight, in hundredths of a second, when reader recognized the job, started task, or TSO session
48	30	SV30RSD	4	Packed	Specifies the date when the reader recognized the job, started task, or TSO session, in the format 0ccydddf
52	34	SV30UIF	8	Char	Specifies the user identification (taken from the common exit parameter area) of job, started task, or TSO session
60	3C	SV30PGM	8	Char	Specifies the program name (program name on EXEC card)
68	44	SV30USER	8	Char	Specifies the online user or user name from job card
76	4C	SV30TYP	1	Binary	Specifies the type of processing as follows: 0 Online user 1 Batch job 2 Archival started task 3 Archival backup task
77	4D	SV30OTYP	1	Binary	Specifies the type of online interface as follows: 1 ISPF online interface 2 CA-Roscoe online interface 3 TSO online interface 4 VTAM online interface 5 IMS cross-memory online interface 6 CICS cross-memory online interface 7 ISPF cross-memory online interface 8 TSO cross-memory online interface 9 CA-Roscoe cross-memory online interface This field will only contain a value when SV30TYP is 0.

Offsets	Name	Length	Format	Description	
78	4E	SV30OMOD	1	Binary	Specifies the mode of online user as follows: 1 ALL mode 2 EXPO mode 3 EXP mode 4 SARO mode 5 SAR mode This field will only contain a value when SV30TYP is 0.
79	4F	SV30DBN	17	Char	Specifies the CA-View database prefix
96	60	SV30CUST	20	Char	Customizable area for customer use
116	74	SV30RID	12	Char	Specifies the identifier of the report being viewed
128	80	SV30GEN	2	Binary	Specifies the generation number of the report being viewed
130	82	SV30SEQ	2	Binary	Specifies the generation sequence number of the report being viewed
132	84	SV30AJBN	8	Char	Specifies the job name of the report being viewed
140	8C	SV30AJID	8	Char	Specifies the job number of the report being viewed
148	94	SV30ATME	4	Binary	Specifies the time since midnight, in hundredths of a second, when the report was archived into CA-View
152	98	SV30ADAT	4	Packed	Specifies the date when the report was archived into CA-View, in the format 0ccydddf
156	9C	SV30ORG	1	Binary	Specifies the origin of the report as follows: 0 Collected from JES Spool 1 CA-View System Extensions 3 CA-Deliver
157	9D	SV30MED	1	Char	Specifies the type of media the report was accessed from as follows: D Database disk E Tape accessed by EAS (Expanded Access Server) O Optical disk
158	9E	SV30VID	12	Char	Specifies the logical view identifier used to view report
170	AA	SV30VNUM	1	Binary	Specifies the logical view number used to view report

Offsets	Name	Length	Format	Description	
171	AB	SV30VTYP	1	Char	Specifies the type of view as follows: G Global logical view P Public logical view U Private logical view
172	AC	SV30VSTM	4	Binary	Specifies the time since midnight, in hundredths of a second, when the user started viewing the report
176	B0	SV30VSDT	4	Packed	Specifies the date when the user started viewing the report, in the format 0cyydddF
180	B4	SV30VLEN	4	Binary	Specifies the length of time, in hundredths of a second, that the user was viewing the report
184	B8	SV30AOF	2	Binary	Specifies the offset to access section from start of record, including the RDW (Record Descriptor Word)
186	BA	SV30ALN	2	Binary	Specifies the length of access section Access section is only provided for EAS (Expanded Access Server) access. If the section is not provided, the length is zero.
188	BC	SV30IOF	2	Binary	Specifies the offset to index section from start of record, including the RDW (Record Descriptor Word)
190	BE	SV30ILN	2	Binary	Specifies the length of index section The index section is only provided when the report is viewed by selecting an index value If the section is not supplied, the length is zero.

Report View SMF Record Access Section

Offsets	Name	Length	Format	Description	
0	0	SV30ENAM	4	Char	Specifies the EAS (Expanded Access Server) name
4	4	SV30TNO	2	Binary	Specifies the number of tapes accessed (the following fields are repeated this number of times)
6	6	SV30TSQ	2	Binary	Specifies the tape sequence number
8	8	SV30TDSN	44	Char	Specifies the tape data set name

Report View SMF Record Index Section

Offsets	Name	Length	Format	Description
0 0	SV30NIDX	1	Binary	Specifies the number of index levels
1 1	SV30INLN	1	Binary	Specifies the length of index name Length does not include the length of this field.
2 2	SV30INAM	Varies	Char	Specifies the index name Length varies based on SV30INLN field.
2+nl 2+nl	SV30IVLN	1	Binary	Specifies the length of index value Length does not including length of this field.
3+nl 3+nl	SV30IVAL	Varies	Char	Specifies the index value Length varies based on SV30IVLN field.

Report Reprint SMF Record

Offsets	Name	Length	Format	Description
0 0	SV31LEN	2	Binary	Specifies the record length This field and the next field (total of four bytes) form the RDW (Record Descriptor Word).
2 2	SV31SEG	2	Binary	Specifies the segment descriptor (always zero)
4 4	SV31FLG	1	Binary	Specifies the system indicator
5 5	SV31RTY	1	Binary	Specifies the SMF record type (number specified on SMFTYPE initialization parameter)
6 6	SV31TME	4	Binary	Specifies the time since midnight, in hundredths of a second, when the record was issued
10 A	SV31DAT	4	Packed	Specifies the date when the record was issued, in the format 0cyydddF
14 E	SV31SID	4	Char	Specifies the system identification
18 12	SV31PRD	4	Char	Specifies the product identification (VIEW)
22 16	SV31PRL	4	Char	Specifies the product release as follows: 1.7 CA-View release 1.7 2.0 CA-View release 2.0

Offsets	Name	Length	Format	Description	
26	1A	SV31PTY	2	Binary	Specifies the product record type (31)
28	1C	SV31JBN	8	Char	Specifies the job name, started task, or TSO session where this record was written
36	24	SV31JID	8	Char	Specifies the job number, started task, or TSO session where this record was written
44	2C	SV31RST	4	Binary	Specifies the time since midnight, in hundredths of a second, when the reader recognized the job, started task, or TSO session
48	30	SV31RSD	4	Packed	Specifies the date when the reader recognized the job, started task, or TSO session, in the format 0ccyydddF
52	34	SV31UIF	8	Char	Specifies the user identification (taken from the common exit parameter area) of job, started task, or TSO session
60	3C	SV31PGM	8	Char	Specifies the program name (program name on EXEC card)
68	44	SV31USER	8	Char	Specifies the online user or user name from job card
76	4C	SV31TYP	1	Binary	Specifies the type of processing as follows: 0 Online user 1 Batch job 2 Archival started task 3 Archival backup task
77	4D	SV31OTYP	1	Binary	Specifies the type of online interface as follows: 1 ISPF online interface 2 CA-Roscoe online interface 3 TSO online interface 4 VTAM online interface 5 IMS cross-memory online interface 6 CICS cross-memory online interface 7 ISPF cross-memory online interface 8 TSO cross-memory online interface 9 CA-Roscoe cross-memory online interface This field will only contain a value when SV31TYP is 0.

Offsets	Name	Length	Format	Description	
78	4E	SV31OMOD	1	Binary	Specifies the mode of online user as follows: 1 ALL mode 2 EXPO mode 3 EXP mode 4 SARO mode 5 SAR mode This field will only contain a value when SV31TYP is 0.
79	4F	SV31DBN	17	Char	Specifies the CA-View database prefix
96	60	SV31CUST	20	Char	Customizable area for customer use
116	74	SV31RID	12	Char	Specifies the identifier of the report being viewed
128	80	SV31GEN	2	Binary	Specifies the generation number of the report being viewed
130	82	SV31SEQ	2	Binary	Specifies the generation sequence number of the report being viewed
132	84	SV31AJBN	8	Char	Specifies the job name of the report being viewed
140	8C	SV31AJID	8	Char	Specifies the job number of the report being viewed
148	94	SV31ATME	4	Binary	Specifies the time since midnight, in hundredths of a second, when the report was archived into CA-View
152	98	SV31ADAT	4	Packed	Specifies the date when the report was archived into CA-View, in the format 0ccydddf
156	9C	SV31ORG	1	Binary	Specifies the origin of report as follows: 0 Collected from JES Spool 1 CA-View System Extensions 2 CA-Deliver
157	9D	SV31MED	1	Char	Specifies the type of media the report was accessed from as follows: D Database disk E Tape accessed by EAS (Expanded Access Server) O Optical disk T Backup tape
158	9E	SV31VID	12	Char	Specifies the logical view identifier used to view report
170	AA	SV31VNUM	1	Binary	Specifies the logical view number used to view report

Offsets	Name	Length	Format	Description	
171	AB	SV31VTYP	1	Char	Specifies the type of view as follows: G Global logical view P Public logical view U Private logical view
172	AC	SV31IOUT	1	Char	Specifies the output destination as follows: C CA-Connect J JES spool P PC destination S CA-SPOOL V VPS printer
173	AD	SV31RSRV	1	Char	Reserved
174	AE	SV31IDEST	8	Char	Specifies the device destination (define device destination)
182	B6	SV31IDIST	8	Char	Specifies the distribution identifier (for CA-Deliver reprints only)
190	BE	SV31BNDL	10	Char	Specifies the bundle identifier (for CA-Deliver bundle reprints only)
200	C8	SV31LNES	4	Binary	Specifies the lines reprinted
204	CC	SV31PAGS	4	Binary	Specifies the pages reprinted
208	D0	SV31AOF	2	Binary	Specifies the offset to access section from start of record, including the RDW (Record Descriptor Word)
210	D2	SV31ALN	2	Binary	Specifies the length of access section Access section is provided for tape and EAS (Expanded Access Server) access only. If the section is not provided, the length is zero.
212	D4	SV31IOF	2	Binary	Specifies the offset to index section from start of record, including the RDW (Record Descriptor Word)
214	D6	SV31ILN	2	Binary	Specifies the length of index section Index section is only provided when report is reprinted for a specified an index value. If the section is not supplied, length is zero.

Report Reprint SMF Record Access Section

Offsets	Name	Length	Format	Description
0 0	SV31ENAM	4	Char	Specifies the EAS (Expanded Access Server) name
4 4	SV31TNO	2	Binary	Specifies the number of tapes accessed (the following fields are repeated this number of times)
6 6	SV31TSQ	2	Binary	Specifies the tape sequence number
8 8	SV31TDSN	44	Char	Specifies the tape data set name

Report Reprint SMF Record Index Section

Offsets	Name	Length	Format	Description
0 0	SV31NIDX	1	Binary	Specifies the number of index levels
1 1	SV31INLN	1	Binary	Specifies the length of the index name Length does not include the length of this field.
2 2	SV31INAM	Varies	Char	Specifies the index name Length varies based on SV31INLN field.
2+nl 2+nl	SV31IVLN	1	Binary	Specifies the length of the index value Length does not including length of this field.
3+nl 3+nl	SV31IVAL	Varies	Char	Specifies the index value Length varies based on SV31IVLN field.

Report Load SMF Record

Offsets	Name	Length	Format	Description
0 0	SV32LEN	2	Binary	Specifies the record length This field and the next field (total of four bytes) form the RDW (Record Descriptor Word).
2 2	SV32SEG	2	Binary	Specifies the segment descriptor (always zero)
4 4	SV32FLG	1	Binary	Specifies the system indicator
5 5	SV32RTY	1	Binary	Specifies the SMF record type (number specified on SMFTYPE initialization parameter)

Offsets	Name	Length	Format	Description
6 6	SV32TME	4	Binary	Specifies the time since midnight, in hundredths of a second, when the record was issued
10 A	SV32DAT	4	Packed	Specifies the date when the record was issued, in the format 0cydddF
14 E	SV32SID	4	Char	Specifies the system identification
18 12	SV32PRD	4	Char	Specifies the product identification (VIEW)
22 16	SV32PRL	4	Char	Specifies the product release as follows: 1.7 CA-View release 1.7 2.0 CA-View release 2.0
26 1A	SV32PTY	2	Binary	Specifies the product record type (32)
28 1C	SV32JBN	8	Char	Specifies the job name, started task, or TSO session where this record was written
36 24	SV32JID	8	Char	Specifies the job number, started task, or TSO session where this record was written
44 2C	SV32RST	4	Binary	Specifies the time since midnight, in hundredths of a second, when the reader recognized the job, started task, or TSO session
48 30	SV32RSD	4	Packed	Specifies the date when the reader recognized the job, started task, or TSO session, in the format 0cydddF
52 34	SV32UIF	8	Char	Specifies the user identification (taken from the common exit parameter area) of job, started task, or TSO session
60 3C	SV32PGM	8	Char	Specifies the program name (program name on EXEC card)
68 44	SV32USER	8	Char	Specifies the online user or user name from job card
76 4C	SV32TYP	1	Binary	Specifies the type of processing as follows: 0 Online user 1 Batch job 2 Archival started task 3 Archival backup task

Offsets	Name	Length	Format	Description	
77	4D	SV32OTYP	1	Binary	Specifies the type of online interface as follows: 1 ISPF online interface 2 CA-Roscoe online interface 3 TSO online interface 4 VTAM online interface 5 IMS cross-memory online interface 6 CICS cross-memory online interface 7 ISPF cross-memory online interface 8 TSO cross-memory online interface 9 CA-Roscoe cross-memory online interface This field will only contain a value when SV32TYP is 0.
78	4E	SV32OMOD	1	Binary	Specifies the mode of online user as follows: 1 ALL mode 2 EXPO mode 3 EXP mode 4 SARO mode 5 SAR mode This field will only contain a value when SV32TYP is 0.
79	4F	SV32DBN	17	Char	Specifies the CA-View database prefix
96	60	SV32CUST	20	Char	Customizable area for customer use
116	74	SV32RID	12	Char	Specifies the identifier of the report being viewed
128	80	SV32GEN	2	Binary	Specifies the generation number of the report being viewed
130	82	SV32SEQ	2	Binary	Specifies the generation sequence number of the report being viewed
132	84	SV32AJBN	8	Char	Specifies the job name of the report being viewed
140	8C	SV32AJID	8	Char	Specifies the job number of the report being viewed
148	94	SV32ATME	4	Binary	Specifies the time since midnight, in hundredths of a second, when report was archived into CA-View
152	98	SV32ADAT	4	Packed	Specifies the date when the report was archived into CA-View, in the format 0ccyydddF
156	9C	SV32ORG	1	Binary	Specifies the origin of the report as follows: 0 Collected from JES Spool 1 CA-View System Extensions 2 CA-Deliver

Offsets	Name	Length	Format	Description	
157	9D	SV32MED	1	Char	Specifies the type of media the report was accessed from as follows: D Database disk E Tape accessed by EAS (Expanded Access Server) O Optical disk T Backup tape
158	9E	SV32IND	1	Binary	Specifies the data that was loaded as follows: 1 Report data 2 Index data 3 Report and index data
159	9F	SV32RSRV	1		Reserved
160	A0	SV32LNES	4	Binary	Specifies the lines reloaded
164	A4	SV32PAGS	4	Binary	Specifies the pages reloaded
168	A8	SV32BLKS	4	Binary	Specifies the number of database block used by report
172	AC	SV32AOF	2	Binary	Specifies the offset to access section from start of record, including the RDW (Record Descriptor Word)
174	AE	SV32ALN	2	Binary	Specifies the length of access section Access section is only provided for EAS (Expanded Access Server) access. If the section is not provided, the length is zero.

Report Load SMF Record Access Section

Offsets	Name	Length	Format	Description
0 0	SV32ENAM	4	Char	Specifies the EAS (Expanded Access Server) name
4 4	SV32TNO	2	Binary	Specifies the number of tapes accessed (the following fields are repeated this number of times)
6 6	SV32TSQ	2	Binary	Specifies the tape sequence number
8 8	SV32TDSN	44	Char	Specifies the tape data set name

Report Delete SMF Record

Offsets	Name	Length	Format	Description
0 0	SV33LEN	2	Binary	Specifies the record length This field and the next field (total of four bytes) form the RDW (Record Descriptor Word).
2 2	SV33SEG	2	Binary	Specifies the segment descriptor (always zero)
4 4	SV33FLG	1	Binary	Specifies the system indicator
5 5	SV33RTY	1	Binary	Specifies the SMF record type (number specified on SMFTYPE initialization parameter)
6 6	SV33TME	4	Binary	Specifies the time since midnight, in hundredths of a second, when the record was issued
10 A	SV33DAT	4	Packed	Specifies the date when the record was issued, in the format 0cydddF
14 E	SV33SID	4	Char	Specifies the system identification
18 12	SV33PRD	4	Char	Specifies the product identification (VIEW)
22 16	SV33PRL	4	Char	Specifies the product release as follows: 1.7 CA-View release 1.7 2.0 CA-View release 2.0
26 1A	SV33PTY	2	Binary	Specifies the product record type (33)
28 1C	SV33JBN	8	Char	Specifies the job name, started task, or TSO session where this record was written
36 24	SV33JID	8	Char	Specifies the job number, started task, or TSO session where this record was written

Offsets	Name	Length	Format	Description	
44	2C	SV33RST	4	Binary	Specifies the time since midnight, in hundredths of a second, when reader recognized the job, started task, or TSO session
48	30	SV33RSD	4	Packed	Specifies the date when the reader recognized the job, started task, or TSO session, in the format 0cyydddF
52	34	SV33UIF	8	Char	Specifies the user identification (taken from the common exit parameter area) of job, started task, or TSO session
60	3C	SV33PGM	8	Char	Specifies the program name (program name on EXEC card)
68	44	SV33USER	8	Char	Specifies the online user or user name from job card
76	4C	SV33TYP	1	Binary	Specifies the type of processing as follows: 0 Online user 1 Batch job 2 Archival started task 3 Archival backup task
77	4D	SV33OTYP	1	Binary	Specifies the type of online interface as follows: 1 ISPF online interface 2 CA-Roscoe online interface 3 TSO online interface 4 VTAM online interface 5 IMS cross-memory online interface 6 CICS cross-memory online interface 7 ISPF cross-memory online interface 8 TSO cross-memory online interface 9 CA-Roscoe cross-memory online interface This field will only contain a value when SV33TYP is 0.
78	4E	SV33OMOD	1	Binary	Specifies the mode of online user as follows: 1 ALL mode 2 EXPO mode 3 EXP mode 4 SARO mode 5 SAR mode This field will only contain a value when SV33TYP is 0.
79	4F	SV33DBN	17	Char	Specifies the CA-View database prefix

Offsets	Name	Length	Format	Description
96 60	SV33CUST	20	Char	Customizable area for customer use
116 74	SV33RID	12	Char	Specifies the identifier of the report being viewed
128 80	SV33GEN	2	Binary	Specifies the generation number of the report being viewed
130 82	SV33SEQ	2	Binary	Specifies the generation sequence number of the report being viewed
132 84	SV33AJBN	8	Char	Specifies the job name of the report being viewed
140 8C	SV33AJID	8	Char	Specifies the job number of the report being viewed
148 94	SV33ATME	4	Binary	Specifies the time since midnight, in hundredths of a second, when report was archived into CA-View
152 98	SV33ADAT	4	Packed	Specifies the date when the report was archived into CA-View, in the format 0ccyydddF
156 9C	SV33ORG	1	Binary	Specifies the origin of report as follows: 0 Collected from JES Spool 1 CA-View System Extensions 2 CA-Deliver
157 9D	SV33MED	1	Binary	Specifies the media the report was deleted from as follows: Bit Description 0 Report deleted from disk 1 Index deleted from disk 2 Report deleted from optical 3 Report deleted from tape
158 9E	SV33RSRV	2		Reserved
160 A0	SV33LNES	4	Binary	Specifies the lines deleted
164 A4	SV33PAGS	4	Binary	Specifies the pages deleted
168 A8	SV33BLKS	4	Binary	Specifies the number of database blocks that were freed (if deleted from disk)
172 AC	SV33TNO	2	Binary	Specifies the number of the tape the report was backed up to
174 AE	SV33TSQ	2	Binary	Specifies the first tape sequence number the report was backed up to
176 B0	SV33LTM	2	Binary	Specifies the file number on the first tape where the report resides (file number starts at 0)
178 B2	SV33RSV2	2		Reserved

Report Delete Disk SMF Record

Offsets	Name	Length	Format	Description
0 0	SV34LEN	2	Binary	Specifies the record length This field and the next field (total of four bytes) form the RDW (Record Descriptor Word).
2 2	SV34SEG	2	Binary	Specifies the segment descriptor (always zero)
4 4	SV34FLG	1	Binary	Specifies the system indicator
5 5	SV34RTY	1	Binary	Specifies the SMF record type (number specified on SMFTYPE initialization parameter)
6 6	SV34TME	4	Binary	Specifies the time since midnight, in hundredths of a second, when the record was issued
10 A	SV34DAT	4	Packed	Specifies the date when the record was issued, in the format 0cyydddF
14 E	SV34SID	4	Char	Specifies the system identification
18 12	SV34PRD	4	Char	Specifies the product identification (VIEW)
22 16	SV34PRL	4	Char	Specifies the product release as follows: 1.7 CA-View release 1.7 2.0 CA-View release 2.0
26 1A	SV34PTY	2	Binary	Specifies the product record type (34)
28 1C	SV34JBN	8	Char	Specifies the job name, started task, or TSO session where this record was written
36 24	SV34JID	8	Char	Specifies the job number, started task, or TSO session where this record was written
44 2C	SV34RST	4	Binary	Specifies the time since midnight, in hundredths of a second, when reader recognized the job, started task, or TSO session
48 30	SV34RSD	4	Packed	Specifies the date when the reader recognized the job, started task, or TSO session, in the format 0cyydddF
52 34	SV34UIF	8	Char	Specifies the user identification (taken from the common exit parameter area) of the job, started task, or TSO session
60 3C	SV34PGM	8	Char	Specifies the program name (program name on EXEC card)
68 44	SV34USER	8	Char	Specifies the online user or user name from job card

Offsets	Name	Length	Format	Description	
76	4C	SV34TYP	1	Binary	Specifies the type of processing as follows: 0 Online user 1 Batch job 2 Archival started task 3 Archival backup task
77	4D	SV34OTYP	1	Binary	Specifies the type of online interface as follows: 1 ISPF online interface 2 CA-Roscoe online interface 3 TSO online interface 4 VTAM online interface 5 IMS cross-memory online interface 6 CICS cross-memory online interface 7 ISPF cross-memory online interface 8 TSO cross-memory online interface 9 CA-Roscoe cross-memory online interface This field will only contain a value when SV34TYP is 0.
78	4E	SV34OMOD	1	Binary	Specifies the mode of online user as follows: 1 ALL mode 2 EXPO mode 3 EXP mode 4 SARO mode 5 SAR mode This field will only contain a value when SV34TYP is 0.
79	4F	SV34DBN	17	Char	Specifies the CA-View database prefix
96	60	SV34CUST	20	Char	Customizable area for customer use
116	74	SV34RID	12	Char	Specifies the identifier of the report being viewed
128	80	SV34GEN	2	Binary	Specifies the generation number of the report being viewed
130	82	SV34SEQ	2	Binary	Specifies the generation sequence number of the report being viewed
132	84	SV34AJBN	8	Char	Specifies the job name of the report being viewed
140	8C	SV34AJID	8	Char	Specifies the job number of the report being viewed
148	94	SV34ATME	4	Binary	Specifies the time since midnight, in hundredths of a second, when report was archived into CA-View

Offsets	Name	Length	Format	Description
152 98	SV34ADAT	4	Packed	Specifies the date when the report was archived into CA-View, in the format 0cyydddF
156 9C	SV34ORG	1	Binary	Specifies the origin of the report as follows: 0 Collected from JES Spool 1 CA-View System Extensions 2 CA-Deliver
157 9D	SV34MED	1	Binary	Specifies that the media report was deleted from one of the following: Bit Description 0 Report deleted from disk 1 Index deleted from disk 2 Report deleted from optical
158 9E	SV34RSRV	2		Reserved
160 A0	SV34LNES	4	Binary	Specifies the lines deleted
164 A4	SV34PAGS	4	Binary	Specifies the pages deleted
168 A8	SV34BLKS	4	Binary	Specifies the number of database blocks that were freed (if deleted from disk)

Executing CA-View Metrics Reports

In This Chapter

This chapter lists the four reports that are included with CA-View Metrics and describes how they are generated.

Optionally you can output a file containing the CA-View Metrics SMF records that were used to produce the reports. These records can then be used as input to a third party report writer such as CA-Earl or CA-Easytrieve to create customized reports. The record layouts in Chapter 6, "SMF Record Layouts," should be used when defining these records to your report writer.

The Metrics Reports

The following reports are included with CA-View Metrics:

- Access Activity report
- Delete Activity report
- User's Activity report
- Load Activity report

Access Activity Report

The Access Activity report is based on the report ID of a report being viewed, printed, or loaded. This report contains the following information:

- Report ID of the viewed report
- Report generation number
- Generation sequence number
- Jobname
- Job number
- Archive date and time
- User ID of the person viewing the report
- Access date and time
- Activity type
- Media type
- Access type (online IM)
- Database prefix
- View duration (View Accesses only)
- View ID (View Accesses only)
- View number (View Accesses only)
- View type (View Accesses only)

Sample Access Activity Report

REPORT ID		GEN #	GSEQ#	USERID	DATE & TIME		ACTV	MED	ACCESS	DB PREFIX	
JOBNAME		JOB NO.	ARCHIVE	DATE & TIME	END DATE & TIME		DURATION	VIEW	ID	VNO	VTYP
116:51:06:37 JUNE 29, 1999e											
CA-VIEW METRICS REPORT, ACCESS ACTIVITY, 098001-099179,0000-2359											
PAGE: 1											

PINJ0041		00026	00015	PINJ004	06/22/1999	13:44:25:16	VIEW	DISK	ISPF	OLI	
OPM.PINJ004.VW20											
PINJ0041		JOB06116	06/21/1999	20:08:35:00	06/22/1999	13:44:33:43	00:00:08:27			00	
PINJ0041		JOB06116	06/21/1999	20:08:35:00	06/22/1999	13:44:11:93	LOAD	BKTP	ISPF	OLI	
OPM.PINJ004.VW20											
TOTAL ACCESS PER GEN SEQ# 00015					DISK=	1	TAPE=		1	OPT=	0
					VIEW=	1	PRINT=		0	LOAD=	1
					VIEW=	1	PRINT=		0	LOAD=	1
PINJ0041		00027	00004	PINJ004	06/22/1999	13:41:28:54	VIEW	DISK	ISPF	OLI	
OPM.PINJ004.VW20											
PINJ0041		JOB06126	06/21/1999	22:04:29:00	06/22/1999	13:41:31:75	00:00:03:21			00	
TOTAL ACCESS PER GEN SEQ# 00004					DISK=	1	TAPE=		0	OPT=	0
					VIEW=	1	PRINT=		0	LOAD=	0
PINJ0041		00027	00005	PINJ004	06/22/1999	13:45:18:84	VIEW	DISK	ISPF	OLI	
OPM.PINJ004.VW20											
PINJ0041		JOB06159	06/22/1999	09:48:15:00	06/22/1999	13:45:56:29	00:00:37:45			00	
TOTAL ACCESS PER GEN SEQ# 00005					DISK=	1	TAPE=		0	OPT=	0
					VIEW=	1	PRINT=		0	LOAD=	0
PINJ0041		00027	00006	PINJ004	06/22/1999	13:45:08:63	VIEW	DISK	ISPF	OLI	
OPM.PINJ004.VW20											
PINJ0041		JOB06160	06/22/1999	09:57:39:00	06/22/1999	13:45:10:77	00:00:02:14			00	
PINJ0041		JOB06160	06/22/1999	09:57:39:00	06/22/1999	13:46:13:38	VIEW	DISK	ISPF	OLI	
OPM.PINJ004.VW20											
TOTAL ACCESS PER GEN SEQ# 00006					DISK=	2	TAPE=		0	OPT=	0
					VIEW=	2	PRINT=		0	LOAD=	0
PINJ0041		00027	00007	PINJ004	06/22/1999	13:44:59:45	VIEW	DISK	ISPF	OLI	
OPM.PINJ004.VW20											
PINJ0041		JOB06168	06/22/1999	13:17:09:00	06/22/1999	13:45:01:87	00:00:02:42			00	
TOTAL ACCESS PER GEN SEQ# 00007					DISK=	1	TAPE=		0	OPT=	0
					VIEW=	1	PRINT=		0	LOAD=	0
TOTAL ACCESS PER REPT ID. PINJ0041					DISK=	6	TAPE=		1	OPT=	0
					VIEW=	6	PRINT=		0	LOAD=	1
TOTAL ACCESS PER REPORT					DISK=	6	TAPE=		1	OPT=	0
					VIEW=	6	PRINT=		0	LOAD=	1
6 SUBTYPE '30', X'1E'											
0 SUBTYPE '31', X'1F'											
1 SUBTYPE '32', X'20'											
7 SUBTYPE TOTAL ACCS											

Delete Activity Report

The Delete Activity report is also based on report ID and contains the following information about reports that have been deleted:

- Report ID of the deleted report
- Report generation number
- Generation sequence number
- Jobname
- Job number
- Archive data and time of report
- Access type
- Delete date and time
- Delete type
- Delete user ID
- Tape sequence number
- Database prefix

Sample Delete Activity Report, Page 1

117:05:42:51 JUNE 30, 1999

CA-VIEW METRICS REPORT, DELETE ACTIVITY, 098001-099181,0000-2359

PAGE: 1

REPORT ID JOBNAME	GEN # JOB#	GSEQ# ARCHIVE	ACCESS DATE & TIME	DELETION DATE & TIME	DEL TYPE	USER	TAPE#	DB PREFIX
PINJ0041	00011	00011	BKUPTASK	05/19/1999 14:48:24:62	DB		00001	OPM.PINJ004.VW20
PINJ0041	JOB06033	05/18/1999	09:49:47:00					
PINJ0041	00012	00002	BKUPTASK	05/19/1999 14:48:24:60	DB		00001	OPM.PINJ004.VW20
PINJ0041	JOB06049	05/18/1999	13:42:18:00					
PINJ0041	00012	00006	BKUPTASK	05/19/1999 14:48:24:58	DB		00001	OPM.PINJ004.VW20
PINJ0041	JOB06053	05/18/1999	13:45:19:00					
PINJ0041	00013	00001	BKUPTASK	05/19/1999 14:48:24:55	DB		00001	OPM.PINJ004.VW20
PINJ0041	JOB06059	05/18/1999	15:12:07:00					
PINJ0041	00013	00011	BKUPTASK	05/19/1999 14:48:24:48	DBD			OPM.PINJ004.VW20
PINJ0041	JOB06071	05/18/1999	15:59:23:00					
PINJ0041	00014	00001	BKUPTASK	05/19/1999 14:48:24:41	DBD			OPM.PINJ004.VW20
PINJ0041	JOB06082	05/19/1999	11:55:00:00					
TOTAL DELETES PER REPT ID. PINJ0041				TYPE DB=	4	TYPE DBD=	2	TYPE DB/DBD=
6								
PINJ0042	00011	00012	BKUPTASK	05/19/1999 14:48:24:89	DB		00001	OPM.PINJ004.VW20
PINJ0042	JOB06034	05/18/1999	09:51:27:00					
PINJ0042	00012	00003	BKUPTASK	05/19/1999 14:48:24:87	DB		00001	OPM.PINJ004.VW20
PINJ0042	JOB06050	05/18/1999	13:42:49:00					
PINJ0042	00012	00007	BKUPTASK	05/19/1999 14:48:24:80	DB		00001	OPM.PINJ004.VW20
PINJ0042	JOB06054	05/18/1999	13:45:45:00					
PINJ0042	00013	00002	BKUPTASK	05/19/1999 14:48:24:78	DB		00001	OPM.PINJ004.VW20
PINJ0042	JOB06060	05/18/1999	15:12:13:00					
PINJ0042	00013	00012	BKUPTASK	05/19/1999 14:48:24:75	DBD			OPM.PINJ004.VW20
PINJ0042	JOB06072	05/18/1999	16:00:14:00					
PINJ0042	00014	00003	BKUPTASK	05/19/1999 14:48:24:68	DBD			OPM.PINJ004.VW20
PINJ0042	JOB06083	05/19/1999	11:55:31:00					
TOTAL DELETES PER REPT ID. PINJ0042				TYPE DB=	4	TYPE DBD=	2	TYPE DB/DBD=
6								
PINJ0043	00011	00013	BKUPTASK	05/19/1999 14:48:25:20	DB		00001	OPM.PINJ004.VW20
PINJ0043	JOB06035	05/18/1999	09:51:45:00					
PINJ0043	00012	00004	BKUPTASK	05/19/1999 14:48:25:16	DB		00001	OPM.PINJ004.VW20
PINJ0043	JOB06051	05/18/1999	13:42:59:00					
PINJ0043	00012	00008	BKUPTASK	05/19/1999 14:48:25:15	DB		00001	OPM.PINJ004.VW20
PINJ0043	JOB06055	05/18/1999	13:45:59:00					
PINJ0043	00013	00003	BKUPTASK	05/19/1999 14:48:25:10	DB		00001	OPM.PINJ004.VW20
PINJ0043	JOB06061	05/18/1999	15:12:15:00					
PINJ0043	00013	00013	BKUPTASK	05/19/1999 14:48:25:08	DBD			OPM.PINJ004.VW20
PINJ0043	JOB06073	05/18/1999	16:00:57:00					
PINJ0043	00014	00002	BKUPTASK	05/19/1999 14:48:25:00	DBD			OPM.PINJ004.VW20
PINJ0043	JOB06084	05/19/1999	11:55:29:00					
TOTAL DELETES PER REPT ID. PINJ0043				TYPE DB=	4	TYPE DBD=	2	TYPE DB/DBD=
6								
PINJ0044	00011	00014	BKUPTASK	05/19/1999 14:48:25:50	DB		00001	OPM.PINJ004.VW20
PINJ0044	JOB06036	05/18/1999	09:52:03:00					
PINJ0044	00012	00005	BKUPTASK	05/19/1999 14:48:25:50	DB		00001	OPM.PINJ004.VW20
PINJ0044	JOB06052	05/18/1999	13:43:23:00					
PINJ0044	00012	00009	BKUPTASK	05/19/1999 14:48:25:48	DB		00001	OPM.PINJ004.VW20
PINJ0044	JOB06056	05/18/1999	13:46:03:00					
PINJ0044	00013	00004	BKUPTASK	05/19/1999 14:48:25:45	DB		00001	OPM.PINJ004.VW20
PINJ0044	JOB06062	05/18/1999	15:12:17:00					
PINJ0044	00013	00010	BKUPTASK	05/19/1999 14:48:25:45	DB		00001	OPM.PINJ004.VW20

Sample Delete Activity Report, Page 2

REPORT ID JOBNAME	GEN # JOB#	GSEQ# ARCHIVE	ACCESS DATE & TIME	DELETION DATE & TIME	DEL TYPE	USER	TAPE#	DB PREFIX
117:05:42:51 JUNE 30, 1999e CA-VIEW METRICS REPORT, DELETE ACTIVITY, 098001-099181,0000-2359								
PAGE: 2								

PINJ0044	JOB06068	05/18/1999	15:30:28:00					
PINJ0044	00013	00014	BKUPTASK 05/19/1999	14:48:25:43	DBD			OPM.PINJ004.VW20
PINJ0044	JOB06074	05/18/1999	16:03:47:00					
PINJ0044	00014	00005	BKUPTASK 05/19/1999	14:48:25:37	DBD			OPM.PINJ004.VW20
PINJ0044	JOB06086	05/19/1999	12:01:39:00					
PINJ0044	00016	00001	BKUPTASK 05/19/1999	14:48:25:30	DBD			OPM.PINJ004.VW20
PINJ0044	JOB06102	05/19/1999	13:55:46:00					
TOTAL DELETES PER REPT ID. PINJ0044 TYPE DB= 5 TYPE DBD= 3 TYPE DB/DBD=								
8								

PINJ0045	00012	00001	BKUPTASK 05/19/1999	14:48:25:63	DB		00001	OPM.PINJ004.VW20
PINJ0045	JOB06048	05/18/1999	13:39:28:00					
PINJ0045	00012	00010	BKUPTASK 05/19/1999	14:48:25:62	DB		00001	OPM.PINJ004.VW20
PINJ0045	JOB06057	05/18/1999	13:46:17:00					
PINJ0045	00013	00005	BKUPTASK 05/19/1999	14:48:25:59	DB		00001	OPM.PINJ004.VW20
PINJ0045	JOB06063	05/18/1999	15:12:21:00					
PINJ0045	00013	00009	BKUPTASK 05/19/1999	14:48:25:58	DB		00001	OPM.PINJ004.VW20
PINJ0045	JOB06069	05/18/1999	15:30:27:00					
PINJ0045	00013	00016	BKUPTASK 05/19/1999	14:48:25:57	DBD			OPM.PINJ004.VW20
PINJ0045	JOB06077	05/18/1999	16:49:42:00					
PINJ0045	00014	00004	BKUPTASK 05/19/1999	14:48:25:53	DBD			OPM.PINJ004.VW20
PINJ0045	JOB06085	05/19/1999	11:57:34:00					
TOTAL DELETES PER REPT ID. PINJ0045 TYPE DB= 4 TYPE DBD= 2 TYPE DB/DBD=								
6								

TOTAL DELETES PER REPORT TYPE DB= 21 TYPE DBD= 11 TYPE DB/DBD=								
32								
21 SUBTYPE '33', X'21'								
11 SUBTYPE '34', X'22'								
53 SUBTYPE TOTAL DELE								

User's Activity Report

The User's Activity report documents user signon and signoff activity. This report contains the following information:

- User name
- Logon date and time
- Logoff date and time
- Duration
- Access type (online interface)
- Mode
- Database prefix

Sample User's Activity Report

111:16:27:31 JUNE 30, 1999		CA-VIEW METRICS REPORT, USER'S ACTIVITY, 098001-099181,0000-2359					
PAGE: 1							
USER NAME PREFIX	LOGON DATE & TIME	LOGOFF DATE & TIME	DURATION	ACCESS	MODE	DB	
PINJ004	06/28/1999 11:39:36:43	LOGOFF TIME NOT AVAILABLE		ISPF OLI	ALL		
OPM.PINJ004.VW20							
**TOTAL SESSIONS PER USER: PINJ004			SESSIONS=	1			
**TOTAL SESSIONS PER USER: ALL USER			SESSIONS=	1			
1 SUBTYPE '20', X'14'							
0 SUBTYPE '21', X'15'							
1 SUBTYPE TOTAL USER							

Load Activity Report

The Load Activity report documents reports reloaded to disk within a specific time period. This report contains the following information:

- Report ID of disk delete and load report
- Report generation number
- Generation sequence number
- Jobname
- Job number
- Mode
- Archive date and time of report
- User ID
- Disk delete/load date and time
- Activity type
- Media type
- Access type
- Database prefix

Sample Load Activity Report

117:14:51:35 JUNE 30, 1999		CA-VIEW METRICS REPORT, LOAD ACTIVITY, 098001-099181,0000-2359							
PAGE: 1									
REPORT ID	GEN#	GSEQ#	USERID	DATE & TIME	ACTV	MED	ACCESS	DB	PREFIX
JOBNAME	JOBNO.	ARCHIVE	DATE & TIME						
PINJ004	0023	00005		06/21/1999 21:06:49:66	DDEL		BKUPTASK	OPM.PINJ004.VW20	
PINJ0045	JOB00033	06/18/1999	14:27:43:00						
		PINJ004	06/21/1999	21:54:53:17	LOAD	BKTP	ISPF OLI	OPM.PINJ004.VW20	
TOTAL LOADS PER REPT ID. PINJ0045									LOAD= 1
TOTAL LOADS PER SARMET14									LOAD= 1
11 SUBTYPE TOTAL LOAD									

Generating CA-View Metrics Reports

The CA-View Metrics reports are generated using the JCL member (HA17METX or HA20METX) that was installed into CAI.PPOPTION from the CA-View Metrics apar tape. This JCL may be tailored to meet the needs of your data center, but do not modify the DDnames.

Job Control Statements

HA17METX and HA20METX contain the following control statements:

Control Statement	Description
SMFIN DD	Input file that contains your SMF data
USERSMF DD	File that contains the CA-View Metrics SMF records output
ACCS DD	Access Activity report
USER DD	User Activity report
DELE DD	Delete Activity report
LOAD DD	Load Activity report
SYSPRINT DD	Print file used to log error messages, record counts, etc. resulting from job execution
SYSIN DD	Specifies input parameters to the report program

Input Parameters

The input parameters to the report program are as follows:

Parameters	Description
SMFTYPE=nnn	<p>Specifies the value generated by SARINIT for defining user during initialization</p> <p>Where <i>nnn</i> is the user SMF record number assigned to the metrics function.</p> <p>This entry is required.</p>
DATE=cyyddd-cyyddd	<p>Specifies a range of dates used to generate reports</p> <p>Where <i>cyyddd-cyyddd</i> is the startdate-enddate in the format century code, year, day as follows:</p> <p><i>c</i> Specifies the century code: 0 = 20th century 1 = 21st century</p> <p><i>yy</i> Specifies the year</p> <p><i>ddd</i> Specifies the day in the Julian calendar</p> <p>The default is to process the entire input file.</p> <p>This entry is optional.</p>
DATE=TODAY(-n)	<p>Specifies the current date minus a number of days to generate a range of dates that is used to produce the reports</p> <p>Where <i>n</i> is a number of days from 1-366.</p> <p>For example, if you enter DATE=TODAY(-18), the following is calculated automatically:</p> <pre>098355 (current date) -18 (days) 098337</pre> <p>The date 098337 is used to produce the reports, and is used as both the from and to date.</p> <p>This entry is optional.</p>

Parameters	Description										
TIME=hhmm-hhmm	<p>Specifies a range of time used to generate reports</p> <p>Where <i>hhmm-hhmm</i> is the starttime-endtime in the format hour-minute as follows:</p> <p><i>hh</i> Specifies the hour in military time, for example, 00-23</p> <p><i>mm</i> Specifies the minutes from 00-59</p> <p>The default is to process the entire input file.</p> <p>This entry is optional.</p>										
RPT=report name	<p>Specifies the name of the report</p> <p>Where <i>report name</i> is one of the following:</p> <table border="0"> <tr> <td>FILE</td> <td>Generates SMF output file</td> </tr> <tr> <td>ACCS</td> <td>Access Activity Report</td> </tr> <tr> <td>USER</td> <td>User Activity Report</td> </tr> <tr> <td>DELE</td> <td>Delete Activity Report</td> </tr> <tr> <td>LOAD</td> <td>Load Activity Report</td> </tr> </table> <p>This entry is required.</p>	FILE	Generates SMF output file	ACCS	Access Activity Report	USER	User Activity Report	DELE	Delete Activity Report	LOAD	Load Activity Report
FILE	Generates SMF output file										
ACCS	Access Activity Report										
USER	User Activity Report										
DELE	Delete Activity Report										
LOAD	Load Activity Report										
ELAP=nn	<p>Specifies elapsed time in days from time of disk delete to reload of report</p> <p>Where <i>nn</i> is a number of days from 00-99.</p> <p>This entry must be coded for the RPT=LOAD control card.</p>										

Each report is generated based on the control card that defines that report. You can run multiple reports in the same run, but you must include a separate control card for each.

Example #1

To generate an Access Activity report for December 21st, a User Activity report for December 20th 1:00 PM to 3:00 PM, and to output an SMF file for the entire input, you would code the following:

```
SMFTYPE=128 RPT=FILE
SMFTYPE=128 DATE=098355-098355 TIME=0000-2359 RPT=ACCS
SMFTYPE=128 DATE=098354-098354 TIME=1300-1500 RPT=USER
```

Important! If you are generating the SMF output file using RPT=FILE, this control card must be the first card in the input file. The reason for this is that CA-View reads the SMF input one time and generates the extracted Metrics SMF records, then uses this file as input to the remaining report requests in this execution. This is done to limit the number of reads of the original SMF input file. This is important because if you extract a time period that does **not** include subsequent report requests, those reports will be incomplete.

Example #2 The following will only produce an Access Activity report for 98355 from 00:00 to 14:00:

```
SMFTYPE=128 DATE=098355-098355 TIME=0000-1400 RPT=FILE  
SMFTYPE=128 DATE=098355-098355 TIME=0000-2359 RPT=ACCS
```

Example #3 The following will produce a Load Activity report with an elapsed time of five days from disk deletion to reload:

```
SMFTYPE=128 DATE=098355-098365  
TIME=0000-2359 ELAP=05
```


Error Messages

In This Chapter

This chapter contains the messages issued by CA-View Metrics, provides the reasons the messages occurred, and suggests appropriate actions.

CA-View Metrics Error Messages

This section describes the error messages associated with the reporting aspect of the CA-View Metrics function.

SARMET01

'SMFTYPE=' PARM MISSING OR INVALID

Reason: The parameter value is invalid due to one of the following:

- The parameter is missing from the first parameter statement.
- The specified value is not numeric.
- The specified value is not within the allowable range (128–255).
- The parameter specified different values on separate parameter statements.
- The parameter was duplicated on the same statement.

Action: Correct the value and resubmit the job.

SARMET02

'DATE=' PARM VALUES INVALID

Reason: The parameter value is invalid due do one of the following:

- The specified value contains a non-numeric character.
- The value specified for century is not a numeric 0 or 1.
- The value specified for day is less than 1 or greater than 366.

- The FROM-TO values are not separated by a hyphen.
- The FROM-TO values are not equal to 6 digits in length.
- The parameter was duplicated on the same statement.

Action: Correct the value and resubmit the job.

SARMET03

'TIME=' PARM VALUES INVALID

Reason: The parameter value is invalid due to one of the following:

- The specified value contains a non-numeric character.
- The value specified for hour is less than 00 or greater than 23.
- The value specified for minute is less than 00 or greater than 59.
- The FROM-TO values are not separated by a hyphen.
- The FROM-TO values are not equal to 4 digits in length.
- The parameter was duplicated on the same statement.

Action: Correct the value and resubmit the job.

SARMET04

'RPT=' PARM MISSING OR INVALID

Reason: The parameter value is invalid due to one of the following:

- The specified value is not equal to the function defined report values (FILE, ACCS, DELE, USER).
- The parameter literal is not specified as RPT=.

Action: Correct the value and resubmit the job.

SARMET05

'RPT=FILE' NOT LOCATED ON FIRST PARAMETER STATEMENT

Reason: The parameter is not located on the first parameter statement.

Action: If the user does not wish to copy to a work file, remove this parameter statement. If the user does wish to copy the input file, make certain that this parameter statement is specified as the first in the group.

SARMET06 'RPT=' PARM DUPLICATED IN PARAMETER STATEMENTS

Reason: The parameter value specified was repeated in the previous parameter statement.

Action: Remove the parameter statement containing the duplicate RPT value and resubmit the job.

SARMET08 PARM STATEMENTS EXCEED A MAXIMUM OF 4

Reason: The maximum number of control cards to execute at one time is 4.

Action: Remove the extraneous statement(s) and resubmit the job.

SARMET09 ERROR LOADING METRICS REPORT PROGRAM

Reason: An error occurred during loading of a report program.

Action: Resubmit the job. If the condition persists, contact Computer Associates Technical Support.

SARMET10 ERROR PROCESSING SUBTYPES

Reason: An error occurred during the processing of SMF record subtypes.

Action: Rerun the job. If the condition persists, contact Computer Associates Technical Support.

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