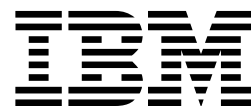


IBM VSE/Access Control - Logging and Reporting

Program Reference and Operations Guide

Version 1 Release 2



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Note!

Before using this information and the product it supports, be sure to read the general information under "Notices" on page vii.

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Contents

Notices	vii
Trademarks and Service Marks	vii
About This Book	ix
How This Book is Organized	ix
Where to Find More Information	ix
Summary of Changes	xi
Chapter 1. Introduction	1
Chapter 2. General Description	3
Verification of Access Authorization	3
User Profiles	3
Resource Profile	4
Logging Option	5
The Logger	5
Logging	6
Switching the Files of the Log Data Set	6
The Reporting Program	6
Reporting	6
Access Control Reports	7
Invocation of the Reporting Program	8
Chapter 3. Control Statements for the Reporting Program	11
General Format of the Control Statements	11
The ACCESS Control Statement	11
The DATASET Control Statement	14
The INITIALIZE Control Statement	15
The SAVE Control Statement	15
Chapter 4. Installation	17
Restoring the Distribution Tape	17
Configuration Requirements	17
Performance Considerations	18
Chapter 5. Prerequisites for Operation and Error Handling	19
Prerequisites for Operation	19
Error Handling	19
Chapter 6. Example Scenario of Logging and Reporting	21
Messages on SYSLOG during Execution	21
Control Statements for the Reporting Program	23
Example of Output of the Reporting Program	24
Chapter 7. Messages	35
Index	63

Figures

1.	Overview of Logging and Reporting	2
2.	Example of a Job to Run the Reporting Program	8
3.	Example Run - Messages on SYSLOG	22
4.	Example of Input for the Reporting Program	23
5.	Access Control Report - No Selection Criteria Specified	24
6.	Execution Report - No Selection Criteria Specified	25
7.	Access Control Report - Sorted by Userid	26
8.	Execution Report - Sorted by Userid	27
9.	Access Control Report - Security Violations	28
10.	Execution Report - Security Violations	29
11.	Access Control Report - Sorted by RNAME	30
12.	Execution Report - Sorted by RNAME	31
13.	Access Control Report - Userid=XBT1	31
14.	Execution Report - Userid=XBT1	32
15.	Access Control Report - for Member(s) \$\$B*	32
16.	Execution Report - for Member(s) \$\$B*	33
17.	Execution Report - Save of Log Data Set	33

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About This Book

This publication provides information about IBM Virtual Storage Extended/Access Control - Logging and Reporting (also referred to in this manual as *Logging and Reporting*), an optional program of VSE/ESA. It includes both guide and reference information for persons who need to install and use the program.

The reader should be familiar with the VSE/ESA security concept as described in the *VSE/ESA Administration* manual.

Logging and Reporting is needed if an installation plans to keep track of the usage of its protected resources such as files, libraries, sublibraries, and members. Together with the VSE/ESA Access Control Function, which is part of the VSE/ESA security support, Logging and Reporting constitutes an efficient audit aid.

The main functions of the program are:

- Logging of attempts to access a protected resource without authorization (security violations).
- Logging of any access to and use of protected resources.
- Generating formatted reports of the information that has been logged.

How This Book is Organized

The information in this manual is organized as follows:

Chapter 1. Introduction provides a brief overview of Logging and Reporting.

Chapter 2. General Description outlines the access control function of VSE/ESA and discusses the various functions of Logging and Reporting.

Chapter 3. Control Statements for the Reporting Program explains how execution of the Reporting program can be controlled.

Chapter 4. Installation describes in what form Logging and Reporting is distributed and which hardware devices and software products are needed to run it.

Chapter 5. Prerequisites for Operation and Error Handling provides operation and error handling information.

Chapter 6. Example Scenario of Logging and Reporting presents and describes input and output examples.

Chapter 7. Messages lists and comments all messages that may be issued by Logging and Reporting.

Where to Find More Information

Before using the Logging and Reporting program, consult the *VSE/ESA Administration* manual for customization details.

Summary of Changes

This manual has been updated to reflect the following enhancements and changes:

1. Year 2000 compliance.
2. Editorial improvements.

Chapter 1. Introduction

The main objective of *Logging and Reporting* is to keep track of the access to protected files, libraries, sublibraries, and library members.

The access control to be exercised in a given VSE/ESA installation is to be defined by the user in the access control table DTSECTAB. DTSECTAB is used to protect files, libraries, sublibraries, and members. A user's access rights are defined in the corresponding user profile. User profiles are stored in the VSE.CONTROL.FILE. Any attempt by a user to access a resource is checked against the information in DTSECTAB and in the user's profile to ascertain the user's right to access the resource. For detailed information on DTSECTAB and the user profiles, refer to the manual *VSE/ESA Administration*.

Logging and Reporting consists of two parts, the logging function (referred to as the *Logger*) and the reporting function (referred to as the *Reporting program*). For an overview illustration, refer to Figure 1 on page 2.

The **Logger** enables a VSE/ESA installation to record all unauthorized access attempts as well as authorized accesses to resources defined in DTSECTAB. It runs as a system task. When activated, the Logger writes information on all security events onto a sequential file on disk, called the *log data set*. The input to the Logger comes from the *log queue*, an area in main storage. The following events can be logged:

- Access to a file (disk files and files on standard-labeled tapes)
- Access to a library
- Access to a sublibrary
- Access to a library member

Which events are considered security events and will actually be logged depends on the resource definitions made in DTSECTAB.

The **Reporting program** extracts data from the log data set according to selection criteria specified by the user. It edits this data and prints it as a formatted list of security events. These printouts are called *access control reports*.

The Reporting program has two other ("housekeeping") functions:

- initially formatting the log data set before it is used by the Logger
- saving the log data set on tape for later processing or archiving.

Introduction

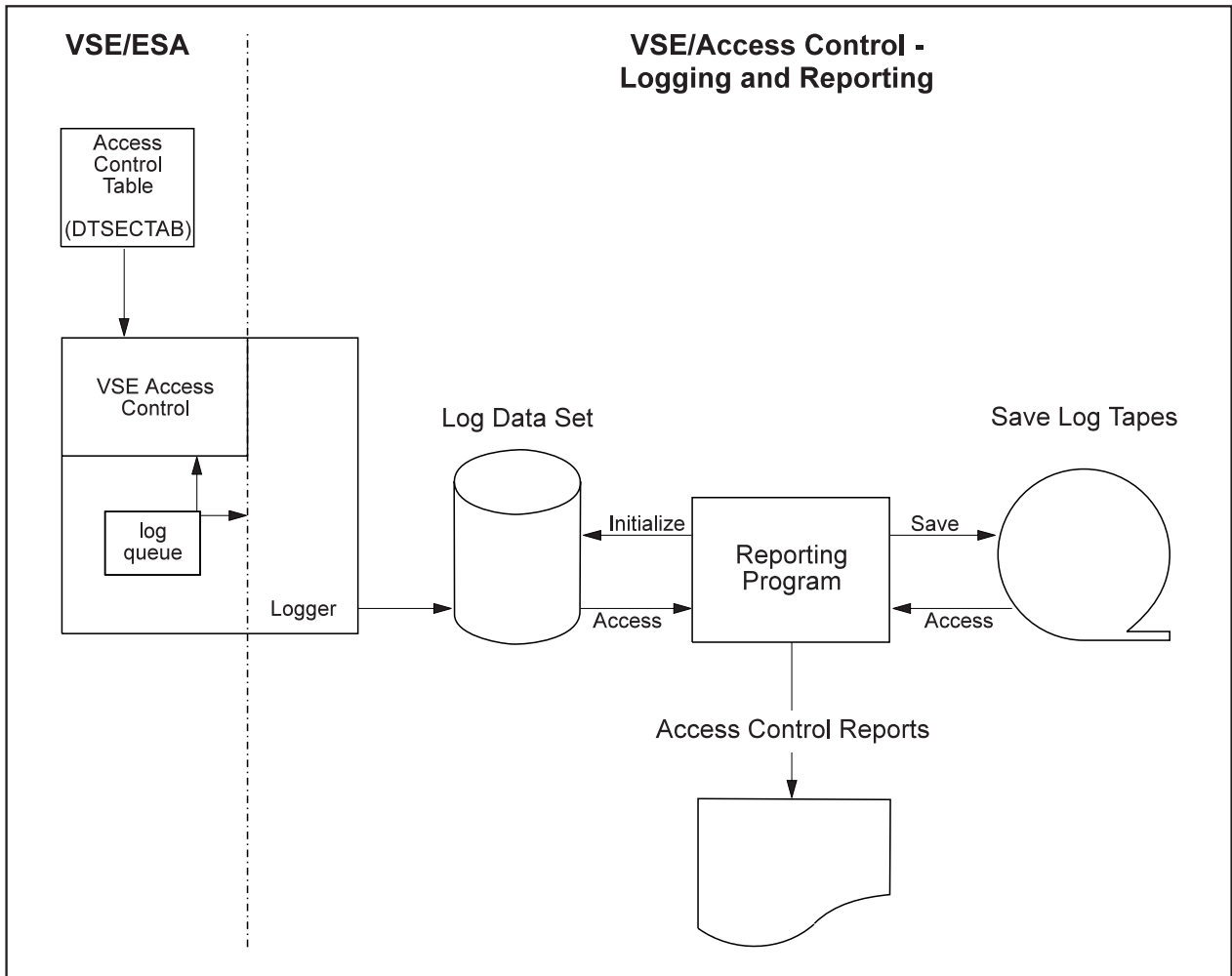


Figure 1. Overview of Logging and Reporting

Chapter 2. General Description

This chapter describes the function of the *Logging and Reporting* program. Because the program is closely linked to the VSE/ESA Access Control Function, a few highlights of the access control concept will be presented first.

To detect a *security event*, the VSE/ESA Access Control Function monitors every attempt to access a resource. If the resource is protected, the user's authorization to access this resource is checked. Access authorization checking is outlined in the first section of this chapter. The remaining sections of this chapter describe the functions of the Logger and of the Reporting program.

Verification of Access Authorization

Resources to be protected must be defined in the access control table DTSECTAB. You use DTSECTAB to protect files, libraries, sublibraries, and members. The access rights a user has to these resources are defined in the **user's profile** stored in the VSE.CONTROL.FILE. Details on user profiles are provided under "User Profiles."

The access control table generated by the DTSECTAB macro contains **resource profile** information as described under "Resource Profile" on page 4.

For detailed information on how to define access control table DTSECTAB as well as user profiles, refer to the manual *VSE/ESA Administration*.

User Profiles

A user profile in the VSE.CONTROL.FILE specifies, for an individual user, the access rights to files, libraries, sublibraries, and members.

This section provides details on user profile information for resources defined in DTSECTAB.

The ACC parameter of DTSECTAB defines *access control classes* together with associated *access rights*. A user's access control class can have one of the following access rights:

- ALTER
- UPDATE
- READ
- CONNECT

These access rights are ordered hierarchically: ALTER implies UPDATE, UPDATE implies READ, READ implies CONNECT.

To catalog B-transient routines into an access controlled library, the special access right BTRANS is required.

For a particular job, the user's security information is supplied in three ways:

1. During sign-on to a VSE/ESA subsystem such as VSE/ICCF or the VSE/ESA Interactive Interface. Jobs submitted from here run under the sign-on user ID.

General Description

2. An explicit security identification in the job as specified in the SEC parameter of the VSE/POWER JECL statement * \$\$ JOB.
3. An explicit security identification in the job as specified in the // ID job control statement.

Resource Profile

Access control classes in DTSECTAB are a key item for access control. An access control class is specified for an individual resource or group of resources in the resource profile. Access control classes are numbers between 1 and 32 which are assigned to the resource.

The following resources can be protected in DTSECTAB:

- Files
- Libraries
- Sublibraries
- Members

For each resource to be protected, the security administrator defines one or more access control classes in the corresponding resource profile. In general, resources without an entry in DTSECTAB are not protected.

A typical definition might look as follows:

```
DTSECTAB TYPE=SUBLIB,NAME=AUX.PR$302,ACC=(8,9),LOG=(8)
```

Sublibrary AUX.PR\$302 is defined as a resource with access control classes 8 and 9.

Authorization of a particular user to access a resource is determined by a match (or no-match, as the case may be) of the access control classes. In our example, user JANE with access control class 1 through 8 is allowed to access sublibrary AUX.PR\$302 due to the match on class 8. The access right is limited to UPDATE. An attempt by JANE to ALTER (rename or delete, for example) the sublibrary would be an access violation.

The LOG parameter indicates that accesses related to this class are to be logged (see the next section).

Access control via classes establishes an **individual access right** for the user. For resources 'library', 'sublibrary' and 'member', additionally a **universal access right (UACC)** can be specified. It grants **all** users of the system, irrespective of the classes specified in user profiles (if such profiles exist), the defined access right of ALT, UPD, READ or CON. For a resource with a **universal** access right, **individual** access rights are meaningful only if they are higher than the universal access right, because at least the UACC will be granted to any user.

A user who has the access right of CON to a library or sublibrary is authorized to read its **directory** if the user profile specifies READDIR=YES.

Logging Option

An access control class can be defined with or without the *logging option*. If the option is set, **all attempts** to access this resource will be logged by the *Logger*. If the option is not set, **only the violations** will be logged.

Irrespective of the setting of the logging option, the following rules apply:

- An access by the security administrator to a protected resource is always logged.
- An access to a resource that has a universal access right (UACC) is never logged.
- An attempt to read the directory of a library or of a sublibrary is not logged if the user has the READDIR=YES privilege.

The Logger

The Logger is loaded into the SVA and initialized at IPL time and becomes active when a security event is detected. The Logger then creates log records from the entries of the *log queue* and writes these log records to the log data set.

The **log queue** resides in main storage acquired dynamically by the Logger. The queue elements are generated by the security routines when they have detected a security event. They are removed from the log queue after the event has been logged, that is, after the Logger has written a record describing this event to the log data set. The logging is performed asynchronously to the occurrence of the causing event.

The **log data set** consists of two files, IJSYSL1 and IJSYSL2, which reside on disk and which are used in flip/flop mode. This means: when the active file of the log data set is full, the Logger switches automatically to the other file of the log data set.

The size of the files can be defined according to the needs of the installation. The record for one security event is 108 bytes long. The log data set has a blocksize of 2041 bytes.

The files of the log data set must not reside in VSAM-managed space.

At the time of its **initialization**, the Logger needs label and extent information for the files of the log data set (initialization of the Logger takes place after the first occurrence of a // JOB statement). Therefore, label and extent information for the files of the log data set should be permanently cataloged in the procedure STDLABUS as shown below. The procedure is called by procedure STDLABEL; see also the IBM manual *VSE/ESA Planning*.

An example set of // DLBL and // EXTENT statements is listed below. Note that an explicit volume serial number is required.

```
// DLBL IJSYSL1,'LOGREP.LOG.DATA.SET.1',99/365,SD
// EXTENT SYS005,DS6M31,1,0,1045,57           file 1 of the log data set
// DLBL IJSYSL2,'LOGREP.LOG.DATA.SET.2',99/365,SD
// EXTENT SYS006,DS6M31,1,0,1102,57           file 2 of the log data set
```

General Description

Any other programmer logical unit may be specified instead of SYS005 and SYS006.

Before the Logger is started for the first time, the files of the log data set have to be initialized by a special function of the Reporting program (see "The INITIALIZE Control Statement" on page 15). This should be done while the Logger is still inactive (the system running without security).

Logging

If security is active in your system (which you control via the IPL SYS parameter SEC), all attempts to access files, libraries, sublibraries, or members are checked against the system's access control table DTSECTAB.

Logging is activated only when SEC=YES is specified.

If a check reveals that the resource to be accessed is protected and that the access has been attempted **without authorization**, all relevant information about this access is recorded on the log data set by the Logger.

Authorized access to a protected resource, however, is logged only if explicitly requested in DTSECTAB via the logging option (but keep in mind that an access by a security administrator user ID is logged in any case).

Switching the Files of the Log Data Set

When the Logger has been activated, logging starts on one file of the log data set (IJSYSL1 or IJSYSL2, as the situation may be). When this file is full, the Logger informs the operator of this fact and switches to the other file. In case no logging space is available on that file, the operator is informed again and the system may eventually come to a soft wait.

To avoid this situation, logging space should be made available as soon as one file of the log data set is full. This can be done by saving its contents with the SAVE function of the Reporting program (which is described in Chapter 3). If, however, the SAVE function is activated after the system has gone into a soft wait, the Reporting program will reactivate the Logger after completion of the SAVE function.

The Reporting Program

Reporting

The Reporting program runs in a static partition or in a VSE/ICCF interactive partition. It can not run in a dynamic partition.

The Reporting program performs the following functions:

- It **initializes** the files of the log data set prior to their first use by the Logger.
- It **saves** the files of the log data set on tape (the 'save log tape') for later processing or archiving.
- It **resets** the files of the log data set after saving, to make them ready for further use by the Logger.

- According to selection criteria specified by the user, it prints out the contents of the log data set and of the save log tapes in the form of **access control reports**.

The selection criteria for an access control report are specified in *control statements*. Several reports, each based on different selection criteria, can be obtained in one program run. Because the data in the log data set is not destroyed, the program can be run several times.

To sort the records of the log data set, the Reporting program invokes the DOS/VS Sort/Merge program or an equivalent sort program. It is assumed that this sort program is accessible in the system under the phase name SORT. If this phase is not found at execution time, a message is issued and the job will be canceled.

A SAVE operation is necessary if a file of the log data set is full. After the saving has completed, the file is reset to be used again by the Logger.

The active file of the log data set can be used simultaneously as input and as output, that is, it may be updated by the Logger and used by the Reporting program at the same time. A SAVE command, however, may be executed only for an inactive file of the log data set, that is, for that file of the log data set which is currently not connected to the Logger.

Access Control Reports

The output of the Reporting program, one or several access control reports, is printed on SYSLST. For every ACCESS control statement that the user submitted, one access control report is printed. The records listed in an access control report correspond to the selection criteria that the user had specified. The records are printed in the order specified in the SORT parameter, or, by default, in the order they were recorded on the log data set.

Each access control report is structured into six fields:

- | | |
|----------------|---|
| Field 1 | specifies the relevant user ID. |
| Field 2 | specifies the date at which the security event occurred. |
| Field 3 | specifies the time at which the security event occurred. |
| Field 4 | consists of two subfields, the name of the job causing the event and the partition in which the job was executed. |
| Field 5 | specifies the protected resource.
Subfield 1 (TYPE) specifies the type of the resource (file, library, sublibrary, member), subfield 2 (FILE-ID) the file identification (usually an entry in VTOC), subfield 3 (VOL-ID) the associated volume serial number, and subfield 4 (LIB-NAME, SUBLIB-NAME, MEMBER-NAME) the name of the accessed resource. |
| Field 6 | identifies security violations.
Subfield 1 specifies the required access right (CONNECT, READ, UPDATE, ALTER, BTRN), where BTRN stands for B-Transient, and subfield 2 the user's access right (CONNECT, READ, UPDATE, or NONE). |

Various examples of access control reports are shown in Chapter 6.

General Description

At the end of the access control report, a so-called *execution report* gives a summary specifying

- the number of records read from the log data set
- the number of records selected for the access control report
- the number of security violations detected among the records selected for the access control report.

Invocation of the Reporting Program

The execution of the Reporting program is controlled by a set of control statements, which are described in the next chapter. Messages are sent either to the system operator (SYSLOG) or to the system printer (SYSLST) or to both.

Figure 2 shows an example of a job to run the Reporting program. All JCL statements that may be required for a run of the Reporting program are included, although they are not needed for this specific run:

```
// JOB DSPRM SAMPLE JOB TO RUN THE REPORTING MODULE
// OPTION PARTDUMP
// DLBL IJSYSL1,'LOGREP.LOG.DATA.SET.1',99/365,SD
// EXTENT SYS005, DS6M31,1,0,1045,57          file 1 of the log data set
// ASSGN SYS005,DISK,VOL=DS6M31,SHR
// DLBL IJSYSL2,'LOGREP.LOG.DATA.SET.2',99/365,SD
// EXTENT SYS006,DS6M31,1,0,1102,57          file 2 of the log data set
// ASSGN SYS006,DISK,VOL=DS6M31,SHR
// TLBL DSPTP01,'LOGREP.SAVE.TAPE1',,LABEL1    save log tape (input)
// TLBL DSPTP02,'LOGREP.SAVE.TAPE2',,LABEL2    save log tape (input)
// TLBL DSPTP03,'LOGREP.SAVE.TAPE3',,LABEL3    save log tape (input)
// ASSGN SYS007,X'181'
// DLBL DSPSWK1,'LOGREP.SORT.WORK.1',0,SD          sort work file
// EXTENT SYS009,DS6M31,1,0,1178,133
// ASSGN SYS009,DISK,VOL=DS6M31,SHR
// TLBL DSPDUMP,'LOGREP.SAVE.2',,LABELX        save log tape (output)
// ASSGN SYS008,X'182'
// EXEC DSPRPM,SIZE=200K
// DATASET DISK=ALL,TAPE=3
// ACCESS BEGIN=('1998/07/27','13:00:00'),+
//           END=('1998/07/30','21:35:01'),+
//           SORT=USERID,+
//           PRINT=ALL
/*
/ &
```

Figure 2. Example of a Job to Run the Reporting Program

Any programmer logical unit, other than those shown above, may be specified for IJSYSL1, IJSYSL2, and DSPSWK1. The programmer logical units for DSPDUMP and DSPTP01, DSPTP02, and DSPTP03 have to be specified as shown. Any // DLBL or // EXTENT statement contained within the system or the partition standard label area need not be specified in the job stream.

The Reporting program can **save** a file of the log data set **on tape or on disk**. **However**, saving on disk is recommended only if a tape unit should not be available for any reason. Logging and Reporting offers no function to copy the

saved file from disk to tape. To do this, use the *Data Interfile Transfer, Testing and Operations (DITTO)* utility program which is part of VSE/ESA.

The file name DSPDUMP is used to refer to the output file.

Following is an example of JCL statements needed by the Reporting program when using DSPDUMP as disk file:

```
// DLBL DSPDUMP, 'LOGREP.SAVE.DISK',0  
// EXTENT SYS008,PAGEDS,1,0,740,38
```

Logging and Reporting uses labeled tapes only. As Figure 2 shows, the tapes must be defined by TLBL statements specifying the correct file (or volume) serial number (the file name DSPDUMP is used to refer to the output file).

The Reporting program can **read** the saved log data set **from tape or disk**. The file names DSPTP01, DSPTP02, and DSPTP03 must be used to refer to input files.

The operator has to mount the requested tapes in the sequence indicated by the file names (DSPTP01, DSPTP02, and DSPTP03 in the example). The operator would have to mount the tape with the valid LABEL1 first, then the tape with the valid LABEL2, and eventually the tape with the valid LABEL3. Up to 99 tapes can be processed for one run of the Reporting program.

If the Reporting program generates access control reports from a log data set saved on disk, no other log data sets saved on tape can be processed for this run of the Reporting program (the files of the currently active log data set may, however, be included). The control statement 'DATASET TAPE=1' has to be provided in this case.

Examples of JCL statements required by the Reporting program using DSPTP01 as disk file are shown below:

```
// DLBL DSPTP01, 'LOGREP.SAVE.DISK'    read saved log data set  
// EXTENT SYS007,PAGEDS,1,0,740,38    from disk
```

General Description

Chapter 3. Control Statements for the Reporting Program

As was pointed out in the last chapter, the Reporting program can be used to perform various functions. The following control statements determine which function is selected:

- ACCESS control statement
- DATASET control statement
- INITIALIZE control statement
- SAVE control statement

For migration purposes the SELECT command of Release 1.1 is still supported. It can be used alternatively with the ACCESS control statement. Apart from the DATASET, INITIALIZE, and SELECT control statement, no other control statements of the former release are supported anymore.

General Format of the Control Statements

Each control statement specifies an operation and, possibly, one or several parameters. The first parameter must be preceded by one or several blank characters. Each parameter consists of a keyword and one or several operands. Each keyword is followed by an equal sign and an operand or an operand list. An operand list is enclosed in parentheses. The operands within an operand list must be separated by commas. Operands containing one of the following special characters have to be enclosed in single quotes: '!', ':', ';', and '/'. A parameter or parameter list must be followed by a blank character to indicate the control statement is complete, or by a comma, if another parameter is to follow.

One control statement may extend over several physical records (cards) on SYSIPT, but only columns 1 to 72 are scanned (scan segment) for command information. Continuation is signalled by the continuation indicators '+' and '-'. These two indicators are used as follows:

- The plus sign indicates that all leading blanks are to be removed before the characters of the next scan segment are concatenated with the character preceding the plus sign.
- The minus sign indicates that leading blanks are not to be removed before the characters of the next scan segment are concatenated with the character preceding the minus sign.

A maximum of 19 continuation records may be specified per control statement. A maximum of 255 control statements to request reports may be processed in one job step.

The ACCESS Control Statement

For each ACCESS control statement, the Reporting program generates an access control report.

Control Statements

The log records that are to be included in the access control report are selected according to the parameters which the user specifies in the ACCESS control statement:

```
ACCESS      [BEGIN=('date1'[, 'time1'])]
            [,END=('date2'[, 'time2'])]
            [,USERID=(,userid1,...)]
            [,EVENT=(event1,...)]
            [,DSNAME=('dsname1',...)]
            [,MEMBER=(membername1,...)]
            [,SUBLIB=(sublibname1,...)]
            [,VIOLATION={YES|NO}]
            [,SORT=(arg1,...)]
            [,PRINT={ALL|SUMMARY}]
```

Apart from the SORT and PRINT keywords, all keywords of the ACCESS control statement are involved in the selection process.

Some operands can be specified in a generic format, which means that an asterisk may be used as a permutation character. If, for example, 'MEMBER=ABC*' is specified, all members are selected that have a name which starts with the letters 'ABC'.

If an ACCESS control statement contains a syntactical error, an error message is issued.

The keywords of the ACCESS control statement determine the generation of an access control report in the following way:

BEGIN=('date1'[, 'time1'])

A security event is selected that did not occur before time1 on date1. The format of date1 is yy/mm/dd or yyyy/mm/dd and the format of time1 is hh:mm:ss, regardless of how it is specified in the system. If time1 is not specified, the time at which the security event occurred, is not considered in the selection process. If date1 is not specified, that is, if the BEGIN keyword is omitted, neither date nor time of the security event is involved in the selection process.

END=('date2'[, 'time2'])

A security event is selected that did not occur after time2 on date2. The format of date2 is yy/mm/dd or yyyy/mm/dd and the format of time2 is hh:mm:ss, regardless of how it is specified in the system. If time2 is not specified, the time at which the event occurred is not considered in the selection process. If date2 is not specified, that is, if the END keyword is omitted, neither date nor time of the security event is involved in the selection process.

USERID=(userid1,...)

A security event is selected that was caused by a user whose user ID is among the user IDs specified. If no user ID is specified, that is, if the keyword USERID is omitted, the user identification of the security event will not be considered in the selection process. The user ID may be specified as a generic name.

EVENT=(event1,...)

A security event is selected that concerns a resource whose type matches one of the event types specified. The event type can be specified as 'MEMBER', 'FILE', 'LIBRARY', or 'SUBLIB'. If the keyword

EVENT is omitted, the type of event will not be considered in the selection process.

DSNAME=('dsname1',...)

A security event is selected that presents an access to a file or library that has one of the names specified. If the keyword DSNAME is omitted, the name of the file or library involved in the security event will not be considered. The name of the file or library may be specified as a generic name.

MEMBER=(membername1,...)

A security event is selected that concerns a member in a system or in a private library whose name is among the ones specified. If the keyword MEMBER is omitted, the name of the member involved in the security event is not considered in the selection process. The member name may be specified as a generic name.

SUBLIB=(sublibname1,...)

A security event is selected that concerns a sublibrary whose name is among the ones specified. If the keyword SUBLIB is omitted, the sublibrary name is not involved in the selection process. The name of the sublibrary may be specified as a generic name.

VIOLATION={YES|NO}

If 'VIOLATION=YES' is specified, a security event is only selected if it represents a security violation. If 'VIOLATION=NO' is specified, a security event is only selected if it does not represent a security violation. If the keyword VIOLATION is omitted, both types of security events are included in the report.

SORT=(arg1,...)

This parameter allows the user to specify the order in which the access control report is to be sorted. Up to five of the following sort arguments may be specified:

USERID User ID of the user involved in the security event.

TIME Time (year, month, day, hour, minute, and second) at which the event occurred.

EVENT Type of the accessed resource (file, library, sublibrary or member).

RNAME Name of the resource (member name, file name, library name, or name of sublibrary).

VIOLATION Security events presenting a violation are preceding non-violations.

For all but the VIOLATION and the EVENT argument, sorting is done in ascending alphabetic order. The sequence of the sorting arguments in the SORT parameter determines the sort sequence: the left-most argument has highest, the right-most argument lowest priority. If no sorting criteria are specified, date and time of the events are taken as sort arguments.

PRINT={ALL|SUMMARY}

If 'PRINT=ALL' is specified, all selected records and a summary, the execution report, is printed. If 'PRINT=SUMMARY' is specified, only the execution report is printed. ALL is the default value.

Control Statements

Attention:

If several ACCESS statements and one SAVE statement are processed in the same job step, make sure

- that the SAVE statement works on a data set which is *not empty* and
- that the data set is *not locked* by the Logger.

Otherwise the Reporting program terminates *without any* reports being printed.

The DATASET Control Statement

This control statement specifies the input files for the Reporting program. Input to the Reporting program can come from the following sources:

1. From one or from both currently active files of the log data set
2. From one or several log data sets saved on tape
3. From any combination of 1. and 2.
4. Exceptionally - from a log data set saved on disk
5. From a combination of 1. and 4.

For every execution of the Reporting program there has to be one and only one DATASET statement. If SAVE is the only operation to be performed by the Reporting program, the DATASET statement is not needed. The DATASET statement has the following format:

```
DATASET      {DISK={1|2|ALL}|TAPE=n|DISK={1|2|ALL},TAPE=n}
              [,SEQCHECK={NO|YES}]
```

The DISK and TAPE keywords of the DATASET control statement determine the selection of the input file(s) for the Reporting program in the following way:

DISK=1 Only the first file of the log data set (IJSYSL1) will be processed.

DISK=2 Only the second file of the log data set (IJSYSL2) will be processed.

DISK=ALL Both files of the log data set will be processed.

TAPE=n n save log tapes will be processed and, based on the information included in the // TLBL statements, n mount commands are issued. If TAPE=1 is specified and the JCL statements specify that the input file for the Reporting program comes from disk (see page 9), a log data set saved on disk will be processed.

If both the DISK and the TAPE keyword are specified, the files will be processed in the following sequence:

1. Save log tapes
2. The 'older' portion of the log data set
3. The 'younger' portion of the log data set

If SEQCHECK=YES is specified, sequence checking is performed on all specified log data sets: the end-date of the previous file is compared with the start-date of the succeeding file. If the start-date of the succeeding file comes before the end-date of the preceding file, the files are out of sequence. If a tape or disk is mounted which is not the next in sequence, it is rejected and an error message is

displayed. In this case the operator may mount the correct tape or disk or else cancel the job. If the last file on tape has been processed and one of the online disk files is required, and if this disk file is not in sequence, an error message is displayed and the job will be canceled immediately.

The INITIALIZE Control Statement

The INITIALIZE control statement requests initialization of the log data set. It accesses the file of the log data set that was specified in the DATASET control statement. No other control statement, apart from the DATASET statement, may be specified in the same run of the Reporting program. The operation can only be performed, if the specified file is not currently accessed by the Logger and has been reset after a former SAVE operation. If this is not the case, an error message is displayed and the job will be canceled. No parameters can be specified in the command:

```
INITIALIZE
```

Performing the INITIALIZE function of the Reporting program is only useful:

- When *Logging and Reporting* has been installed for the first time.
- If there is an unrecoverable I/O-Error on the log data set.

The SAVE Control Statement

This control statement copies the currently not active file of the log data set onto a labeled tape for later processing or archiving. Saving on disk is also possible, but is only recommended if no tape units are available.

The SAVE control statement is coded without any parameters:

```
SAVE
```

The SAVE operation automatically selects the older portion of the log data set (IJSYSL1 or IJSYSL2, as the situation may be). If, however, the second file of the log data set is not active, it will also be saved. The DATASET control statement does not affect the SAVE operation. If SAVE is the only control statement in an execution step of the Reporting program, the DATASET statement will be ignored. When the SAVE operation is completed, the saved file is reset for further logging.

Control Statements

Chapter 4. Installation

This chapter contains information necessary to install the VSE/Access Control - Logging and Reporting program. It also describes the minimum system configuration required for this program.

The VSE/Access Control - Logging and Reporting program is distributed on tape.

Restoring the Distribution Tape

Logging and Reporting is a VSE/ESA optional program. The Interactive Interface of VSE/ESA provides an easy-to-use service dialog for installing such a program. For detailed information refer to the *VSE/ESA Installation* manual.

The Logger phase (DSPLLOG) and the product-dependent SVA loadlist (\$SVALOG) must reside in the system sublibrary IJSYSRS.SYSLIB because the Logger can only be initialized during IPL. The dialog does not allow to install an optional program into the system sublibrary. When, during installation of Logging and Reporting, the service dialog asks you for a library where the program should be installed, specify some existing sublibrary other than the system sublibrary, for example PRD2.PROD.

The service dialog now creates a member containing the installation job. Run the job to install the Logging and Reporting program.

After

- the installation of Logging and Reporting has been completed, or
- a Fast Service Upgrade (FSU) has been performed, or
- a PTF has been applied that changes the Logging and Reporting program,

copy (replace) the following two members into system sublibrary IJSRSRS.SYSLIB:

```
DSPLLOG.PHASE
$SVALOG.PHASE
```

Configuration Requirements

Logging and Reporting runs under the control of VSE/ESA and requires:

- The installation of the VSE/ESA optional program **DFSORT/VSE** or of an equivalent sort program, if the ACCESS control statement is to be used (no sort program is required for the INITIALIZE and SAVE control statements).
- Any **direct access device** (DASD) supported by VSE/ESA for the online files of the log data set. The minimum size for each file is 12 FBA blocks on an FBA device, and one track on a CKD device.
- Any **tape device** supported by VSE/ESA on which the log data set can be saved for archiving purposes.

Performance Considerations

The performance of the **Logger** depends on two factors:

- The number of logging requests issued per second.
- The access control options that were selected in the access control table.

The **Reporting program** runs in a static partition or in a VSE/ICCF interactive partition and has no critical performance requirements. The performance of the Reporting program depends on the following factors:

- The size of the input files.
- The time required to sort the log records for the different reports.
- The time required to print the reports.

Chapter 5. Prerequisites for Operation and Error Handling

Prerequisites for Operation

The following functions need to be performed in order to support *Logging and Reporting*:

- Security in your system must be set active (via the IPL SYS parameter SEC).
- The security administrator has to generate the access control table DTSECTAB with the DTSECTAB macro and make the necessary definitions for the resource profiles. It may help to use as a base the pregenerated DTSECTAB that is delivered as part of VSE/ESA.
- The security administrator has to define the security characteristics in the user profiles by using the dialog for user profile maintenance.
- The files of the log data set have to be defined to VSE/ESA. This is done with the // DLBL and // EXTENT control statements which provide label and extent information. It is recommended to add (catalog) these statements on top of label procedure STDLABUS. The *VSE/ESA Guide to System Functions* provides details on label procedures.
- All input and output files of the Reporting program on tape have to be defined in // TLBL statements, as shown in Figure 2 on page 8. The following file names can be used:
 - DSPDUMP for output
 - DSPTP01, DSPTP02,...,DSPTP99 for input
- Before the log data set can be used for logging, the system programmer has to initialize both files of the log data set with the INITIALIZE function of the Reporting program. Refer also to "The INITIALIZE Control Statement" on page 15.
- When one of the two online files of the log data set is full, the security administrator or an authorized operator has to run the SAVE function of the Reporting program. In this case the Reporting program has to be run as a batch job; it can be run in any (static) partition. The free log data set is meanwhile used for further logging.

Error Handling

For every error encountered during execution of the **Logger** a message is sent to the system operator console (SYSLOG). If the error prevents further processing, the Logger will close the log data set and then terminate processing. No dump will be generated.

For every error encountered during execution of the **Reporting program**, a message is either displayed on the system operator console (SYSLOG), or printed on SYSLST, or both. The error situation should be analyzed and corrected before the Reporting program is restarted. For a detailed description of the messages, see "Chapter 7. Messages."

Chapter 6. Example Scenario of Logging and Reporting

The following figures illustrate examples of runs of Logging and Reporting:

- Figure 3 on page 22 shows the output on SYSLOG during execution of *Logging and Reporting*
- Figure 4 on page 23 lists the control statements that controlled execution of the Reporting program.
- Figure 5 on page 24 to Figure 17 on page 33 show the access control and execution reports that were generated in response to the control statements of Figure 4 on page 23.

Messages on SYSLOG during Execution

The messages listed in Figure 3 on page 22 were written to the system console (SYSLOG) while the Logger was executed as system task and the Reporting program was running in partition F9.

Examples

```
AR 00 DSP050I LOGGER INITIALIZATION COMPLETED
AR 00 DSP061I NOW LOGGING ON DATASET: IJSYSL1      ] 1
...
...
AR 00 DSP056A START REPORTING, DATASET FULL: IJSYSL1
AR 00 DSP062I DATASETS SWITCHED, NOW LOGGING ON DATASET:
IJSYSL2                                           ] 2
...
...
AR 00 DSP056A START REPORTING, DATASET FULL: IJSYSL2
AR 00 DSP055A BOTH DATASETS FULL, START REPORTING
AR 00 DSP063A FOLLOWING DATASET MUST BE SAVED FIRST:
IJSYSL1                                           ] 3

F9 01 // JOB EMEREPR1
DATE 10/18/1998,CLOCK 15/06/23
F9 01 DSP100I ACCESS CONTROL REPORTING STARTING
F9 01 DSP102I SAVE OF LOG DATA SET IN PROGRESS: IJSYSL1
F9 01 DSP147I REPORT IS COMPLETED
F9 01 DSP104I LOG DATA SET HAS BEEN SAVED: IJSYSL1
F9 01 DSP107I NUMBER OF LOG RECORDS READ:         74
F9 01 DSP110I NUMBER OF LOG RECORDS TRANSFERRED:  74
F9 01 DSP106I LOG DATA SET HAS BEEN RESET: IJSYSL1
F9 01 DSP101I ACCESS CONTROL REPORTING SUCCESSFULLY
COMPLETED
AR 00 DSP052I LOGGING CONTINUED AFTER REPORTING
F9 01 EOJ EMEREPR1
DATE 10/18/1998,CLOCK 15/07/01,DURATION 00/00/28 ] 4

AR 00 DSP062I DATASETS SWITCHED, NOW LOGGING ON DATASET:
IJSYSL1                                           ] 5
```

Figure 3. Example Run - Messages on SYSLOG

The messages in Figure 3 describe the following events:

1. The Logger was initialized and started logging on IJSYSL1.
2. When IJSYSL1 was full, the operator was asked to start the Reporting program to save IJSYSL1. Meanwhile the Logger switched to IJSYSL2.
3. IJSYSL2 was full, before the Reporting program was started. The operator was again asked to start the Reporting program to save IJSYSL1.
4. The operator started job EMEREPR1 in partition F9. EMEREPR1 invoked the SAVE function of the Reporting program, which
 - saved IJSYSL1,
 - reset IJSYSL1, and
 - reactivated the Logger.
5. The Logger continued logging on IJSYSL1.

Control Statements for the Reporting Program

In our example of *Logging and Reporting* the control statements listed in Figure 4 were input to the Reporting program.

```
DATASET DISK=1
ACCESS
ACCESS SORT=USERID
ACCESS VIOLATION=YES
ACCESS SORT=RNAME
ACCESS USERID=XBT1
ACCESS MEMBER=$$B*
SAVE
```

Figure 4. Example of Input for the Reporting Program

The above-listed control statements control execution of the Reporting program in the following way:

DATASET DISK=1

indicates that IJSYSL1 is to be used as input file.

ACCESS

requests an access control report that contains all log records of IJSYSL1 in the sequence they are stored on disk. Figure 5 on page 24 and Figure 6 on page 25 show the access control and execution reports generated.

ACCESS SORT=USERID

asks for the same data but with the log records being sorted by user ID. Figure 7 on page 26 and Figure 8 on page 27 show the access control and execution reports generated.

ACCESS VIOLATION=YES

selects only those log records that describe security violations. Figure 9 on page 28 and Figure 10 on page 29 show the access control and execution reports generated.

ACCESS SORT=RNAME

requests an access control report that contains all log records of IJSYSL1 sorted by resource name. Figure 11 on page 30 and Figure 12 on page 31 show the access control and execution reports generated.

ACCESS USERID=XBT1

selects only log records that concern user XBT1. Figure 13 on page 31 and Figure 14 on page 32 show the access control and execution reports generated.

ACCESS MEMBER=\$\$B*

requests an access control report that contains only log records concerning members that have a name beginning with '\$\$B'. Figure 15 on page 32 and Figure 16 on page 33 show the access control and execution reports generated.

SAVE

saves and resets IJSYSL1.

Examples

Example of Output of the Reporting Program

Each ACCESS statement of Figure 4 on page 23 generates one access control report and one execution report. The reports are shown in the following figures.

```

DATE : 1998/01/15      LOGGING AND REPORTING - REPORTING MODULE      PAGE 1
                        ACCESS CONTROL REPORT                          REPORT NUMBER 1
                                                                PAGE OF REPORT 1
  
```

EXAMINED PERIODS :

```

DATASET  SOURCE  FROM DATE + TIME  TO DATE + TIME  VOL-ID.  FILE-ID.
-----
IJSYSL1  DISK    1998/01/15 00:15:17  1998/01/15 02:01:45  DOSRES   LOGREP.LOG.DATA.SET.1
  
```

SELECTION CRITERIA :

* NO SELECTION CRITERIA SPECIFIED *

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I  USER-ID  I  DATE OF  I  TIME OF  I  VSE - JOB  I  PROTECTED RESOURCE  I  SECURITY I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I  XCRE      I  1998/01/15I  02:01:44I  CICSICCFI  F2  I  LIBRARY  I  VSE.PRD1.LIBRARY  I  I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I  XCRE      I  1998/01/15I  02:04:00I  CICSICCFI  F2  I  LIBRARY  I  VSE.PRD1.LIBRARY  I  I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I  YRT2SEV   I  1998/01/15I  02:07:44I  BTRANS    I  BG  I  LIBRARY  I  LIBRARY.L1      I  I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I  YRT2SEV   I  1998/01/15I  02:09:43I  BTRANS    I  BG  I  MEMBER    I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I  YRT1      I  1998/01/15I  02:09:52I  SAMFILE1I  BG  I  FILE      I  WORK.FILE.SD    I  I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I  XBT1      I  1998/01/15I  02:10:03I  SAMFILE2I  BG  I  FILE      I  WORK.FILE.SD    I  IUPD  I  NONEI
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I  XBT1      I  1998/01/15I  02:10:16I  VIOLBR11I  BG  I  MEMBER    I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I  XBT1      I  1998/01/15I  02:10:16I  VIOLBR11I  BG  I  MEMBER    I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
  
```

Figure 5. Access Control Report - No Selection Criteria Specified

DATE : 1998/01/15 LOGGING AND REPORTING - REPORTING MODULE PAGE 2
ACCESS CONTROL EXECUTION REPORT REPORT NUMBER 1
PAGE OF REPORT 2

SELECTION CRITERIA :

* NO SELECTION CRITERIA SPECIFIED *

DSP107I NUMBER OF LOG RECORDS READ : 8
DSP108I NUMBER OF LOG RECORDS SELECTED : 8
DSP109I NUMBER OF SECURITY VIOLATIONS : 4
DSP147I REPORT IS COMPLETED

Figure 6. Execution Report - No Selection Criteria Specified

Examples

```

DATE : 1998/01/15   LOGGING AND REPORTING - REPORTING MODULE   PAGE 3
                        ACCESS CONTROL REPORT                       REPORT NUMBER 2
                                                                PAGE OF REPORT 1
  
```

EXAMINED PERIODS :

```

DATASET  SOURCE  FROM DATE + TIME  TO DATE + TIME  VOL-ID.  FILE-ID.
-----
IJSYSL1  DISK     1998/01/15 00:15:17 1998/01/15 02:01:45  DOSRES  LOGREP.LOG.DATA.SET.1
  
```

SELECTION CRITERIA :

```

SORT      = USERID
  
```

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I  USER-ID  I  DATE OF  I  TIME OF  I  VSE - JOB  I  TYPE  I  FILE-ID  I  SECURITY I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
I      I      I      I      I      I      I      I      I      I      I      I
I  XBT1     I 1998/01/15I 02:10:03I SAMFILE2I BG  I FILE  I  WORK.FILE.SD  I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I  XBT1     I 1998/01/15I 02:10:16I VIOLBR11I BG  I MEMBER I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I  XBT1     I 1998/01/15I 02:10:16I VIOLBR11I BG  I MEMBER I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I  XCRE     I 1998/01/15I 02:01:44I CICSICCFI F2  I LIBRARY I VSE.PRD1.LIBRARY
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I  XCRE     I 1998/01/15I 02:04:00I CICSICCFI F2  I LIBRARY I VSE.PRD1.LIBRARY
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I  YRT1     I 1998/01/15I 02:09:52I SAMFILE1I BG  I FILE  I  WORK.FILE.SD  I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I  YRT2SEV  I 1998/01/15I 02:07:44I BTRANS  I BG  I LIBRARY I LIBRARY.L1
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I  YRT2SEV  I 1998/01/15I 02:09:43I BTRANS  I BG  I MEMBER I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
  
```

Figure 7. Access Control Report - Sorted by Userid

DATE :	1998/01/15	L O G G I N G A N D R E P O R T I N G - R E P O R T I N G M O D U L E	P A G E	4
		A C C E S S C O N T R O L E X E C U T I O N R E P O R T	R E P O R T N U M B E R	2
			P A G E O F R E P O R T	2

SELECTION CRITERIA :

 SORT = USERID

DSP107I NUMBER OF LOG RECORDS READ : 8

DSP108I NUMBER OF LOG RECORDS SELECTED : 8

DSP109I NUMBER OF SECURITY VIOLATIONS : 4

DSP147I REPORT IS COMPLETED

Figure 8. Execution Report - Sorted by Userid

Examples

```

DATE : 1998/01/15   LOGGING AND REPORTING - REPORTING MODULE   PAGE 5
                        ACCESS CONTROL REPORT                       REPORT NUMBER 3
                                                                PAGE OF REPORT 1
  
```

EXAMINED PERIODS :

```

DATASET  SOURCE  FROM DATE + TIME  TO DATE + TIME  VOL-ID.  FILE-ID.
-----
IJSYSL1  DISK     1998/01/15 00:15:17  1998/01/15 02:01:45  DOSRES  LOGREP.LOG.DATA.SET.1
  
```

SELECTION CRITERIA :

VIOLATION = YES

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I USER-ID I DATE OF I TIME OF I VSE - JOB +-----+-----+ SECURITY I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
I      I      I      I      I      I      I      I      I      I      I      I
I YRT2SEV I 1998/01/15I 02:09:43I BTRANS I BG I MEMBER I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I XBT1    I 1998/01/15I 02:10:03I SAMFILE2I BG I FILE I WORK.FILE.SD I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I XBT1    I 1998/01/15I 02:10:16I VIOLBR11I BG I MEMBER I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I XBT1    I 1998/01/15I 02:10:16I VIOLBR11I BG I MEMBER I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
  
```

Figure 9. Access Control Report - Security Violations

DATE : 1998/01/15	L O G G I N G A N D R E P O R T I N G - R E P O R T I N G M O D U L E	PAGE	6
	A C C E S S C O N T R O L E X E C U T I O N R E P O R T	REPORT NUMBER	3
		PAGE OF REPORT	2

SELECTION CRITERIA :

VIOLATION = YES

DSP107I NUMBER OF LOG RECORDS READ : 8

DSP108I NUMBER OF LOG RECORDS SELECTED : 4

DSP109I NUMBER OF SECURITY VIOLATIONS : 4

DSP147I REPORT IS COMPLETED

Figure 10. Execution Report - Security Violations

Examples

```

DATE : 1998/01/15   LOGGING AND REPORTING - REPORTING MODULE   PAGE 7
                        ACCESS CONTROL REPORT                       REPORT NUMBER 4
                                                                PAGE OF REPORT 1

```

EXAMINED PERIODS :

```

DATASET  SOURCE  FROM DATE + TIME  TO DATE + TIME  VOL-ID.  FILE-ID.
-----
IJSYSL1  DISK     1998/01/15 00:15:17  1998/01/15 02:01:45  DOSRES   LOGREP.LOG.DATA.SET.1

```

SELECTION CRITERIA :

SORT = RNAME

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I USER-ID I DATE OF I TIME OF I VSE - JOB +-----+-----+ SECURITY I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
I      I      I      I      I      I      I      I      I      I      I      I
I XCRE   I 1998/01/15I 02:01:44I CICSICCFI F2 I LIBRARY I VSE.PRD1.LIBRARY
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I XCRE   I 1998/01/15I 02:04:00I CICSICCFI F2 I LIBRARY I VSE.PRD1.LIBRARY
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I YRT2SEV I 1998/01/15I 02:09:43I BTRANS  I BG  I MEMBER I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I XBT1   I 1998/01/15I 02:10:16I VIOLBR11I BG I MEMBER I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I XBT1   I 1998/01/15I 02:10:16I VIOLBR11I BG I MEMBER I
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I YRT2SEV I 1998/01/15I 02:07:44I BTRANS  I BG I LIBRARY I LIBRARY.L1
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I YRT1   I 1998/01/15I 02:09:52I SAMFILE1I BG I FILE   I WORK.FILE.SD
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
I XBT1   I 1998/01/15I 02:10:03I SAMFILE2I BG I FILE   I WORK.FILE.SD
I      I      I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I      I      I
+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

Figure 11. Access Control Report - Sorted by RNAME

Examples

```

DATE : 1998/01/15   LOGGING AND REPORTING - REPORTING MODULE   PAGE 8
                    ACCESS CONTROL EXECUTION REPORT             REPORT NUMBER 4
                                                            PAGE OF REPORT 2

```

SELECTION CRITERIA :

SORT = RNAME

```

DSP107I NUMBER OF LOG RECORDS READ :           8
DSP108I NUMBER OF LOG RECORDS SELECTED :       8
DSP109I NUMBER OF SECURITY VIOLATIONS :        4
DSP147I REPORT IS COMPLETED

```

Figure 12. Execution Report - Sorted by RNAME

```

DATE : 1998/01/15   LOGGING AND REPORTING - REPORTING MODULE   PAGE 9
                    ACCESS CONTROL REPORT             REPORT NUMBER 5
                                                            PAGE OF REPORT 1

```

EXAMINED PERIODS :

DATASET	SOURCE	FROM DATE + TIME	TO DATE + TIME	VOL-ID.	FILE-ID.
IJSYSL1	DISK	1998/01/15 00:15:17	1998/01/15 02:01:45	DOSRES	LOGREP.LOG.DATA.SET.1

SELECTION CRITERIA :

USERID = XBT1

USER-ID	DATE OF EVENT	TIME OF EVENT	VSE - JOB	TYPE	FILE-ID	PROTECTED RESOURCE	SECURITY VIOLATION
I XBT1	I 1998/01/15I	I 02:10:03I	I SAMFILE2I	I BG	I FILE	I WORK.FILE.SD	I IUPD I NONEI
I XBT1	I 1998/01/15I	I 02:10:16I	I VIOLBR11I	I BG	I MEMBER	I LBR1	I IALT I NONEI
I XBT1	I 1998/01/15I	I 02:10:16I	I VIOLBR11I	I BG	I MEMBER	I LBR1	I IALT I NONEI

Figure 13. Access Control Report - Userid=XBT1

Examples

```

DATE : 1998/01/15      LOGGING AND REPORTING - REPORTING MODULE      PAGE 10
                          ACCESS CONTROL EXECUTION REPORT                      REPORT NUMBER 5
                                                              PAGE OF REPORT 2
  
```

SELECTION CRITERIA :

USERID = XBT1

```

DSP107I NUMBER OF LOG RECORDS READ :           8
DSP108I NUMBER OF LOG RECORDS SELECTED :       3
DSP109I NUMBER OF SECURITY VIOLATIONS :        3
DSP147I REPORT IS COMPLETED
  
```

Figure 14. Execution Report - Userid=XBT1

```

DATE : 1998/01/15      LOGGING AND REPORTING - REPORTING MODULE      PAGE 11
                          ACCESS CONTROL REPORT                      REPORT NUMBER 6
                                                              PAGE OF REPORT 1
  
```

EXAMINED PERIODS :

DATASET	SOURCE	FROM DATE + TIME	TO DATE + TIME	VOL-ID.	FILE-ID.
IJSYSL1	DISK	1998/01/15 00:15:17	1998/01/15 02:01:45	DOSRES	LOGREP.LOG.DATA.SET.1

SELECTION CRITERIA :

MEMBER = \$\$B*

I	I	I	I	I	I			I		I	I
I	I	I	I	I	I			I		I	I
I	I	I	I	I	I	I	I	I		I	I
I	I	I	I	I	I	I	I	I	I	I	I
I	I	I	I	I	I	I	I	I	I	I	I
I	I	I	I	I	I	I	I	I	I	I	I
I	I	I	I	I	I	I	I	I	I	I	I
I	I	I	I	I	I	I	I	I	I	I	I
I	I	I	I	I	I	I	I	I	I	I	I
I	I	I	I	I	I	I	I	I	I	I	I
I	I	I	I	I	I	I	I	I	I	I	I
I	I	I	I	I	I	I	I	I	I	I	I
I	I	I	I	I	I	I	I	I	I	I	I
I	I	I	I	I	I	I	I	I	I	I	I
I	I	I	I	I	I	I	I	I	I	I	I
I	I	I	I	I	I	I	I	I	I	I	I
I	I	I	I	I	I	I	I	I	I	I	I
I	I	I	I	I	I	I	I	I	I	I	I
I	I	I	I	I	I	I	I	I	I	I	I
I	I	I	I	I	I	I	I	I	I	I	I
I	I	I	I	I	I	I	I	I	I	I	I

Figure 15. Access Control Report - for Member(s) \$\$B*

```

DATE : 1998/01/15   LOGGING AND REPORTING - REPORTING MODULE   PAGE 11
                    ACCESS CONTROL EXECUTION REPORT           REPORT NUMBER   6
                                                            PAGE OF REPORT   2

```

SELECTION CRITERIA :

MEMBER = \$\$\$*

```

DSP107I NUMBER OF LOG RECORDS READ :           8
DSP108I NUMBER OF LOG RECORDS SELECTED :       1
DSP109I NUMBER OF SECURITY VIOLATIONS :         1
DSP147I REPORT IS COMPLETED

```

Figure 16. Execution Report - for Member(s) \$\$\$*

```

DATE : 1998/01/15   LOGGING AND REPORTING - REPORTING MODULE   PAGE 12
                    SAVE EXECUTION REPORT                       REPORT NUMBER   7
                                                            PAGE OF REPORT   1

```

CONTROL STATEMENT: SAVE

LOGREP RECORDS SAVED FROM

DATASET	SOURCE	FROM DATE + TIME	TO DATE + TIME	VOL-ID.	FILE-ID.
IJSYSL1	DISK	1998/01/15 00:02:30	1998/01/15 00:15:17	DOSRES	LOGREP.LOG.DATA.SET.1

LOGREP RECORDS SAVED TO

DATASET	SOURCE	FROM DATE + TIME	TO DATE + TIME	VOL-ID.	FILE-ID.
DSPDUMP	DISK	1998/01/15 00:02:30	1998/01/15 00:15:17	DOSRES	LOGREP.LOG.DATA.SET.1

DSP104I LOG DATA SET HAS BEEN SAVED: IJSYSL1

DSP107I NUMBER OF LOG RECORDS READ : 8

DSP110I NUMBER OF LOG RECORDS TRANSFERRED : 8

DSP106I LOG DATA SET HAS BEEN RESET: IJSYSL1

Figure 17. Execution Report - Save of Log Data Set

Examples

Chapter 7. Messages

This chapter contains a complete description of error messages and other messages generated by the Logger and the Reporting program.

The messages may be sent to two different destinations:

- Messages DSP001 to DSP099, which are generated by the Logger, are sent to the system operator (SYSLOG).
- Messages DSP100 to DSP237, which are generated by the Reporting program, are sent to SYSLST or to SYSLOG or to both as specified by 'Message Destination'.

Most messages consist of four fields:

- Field 1** indicates the partition generating the message (AR refers to the system).
- Field 2** gives the reply identifier to be used if a message requires an answer by the operator. *Logging and Reporting*, however, does not issue any message requiring an answer.
- Field 3** contains the message code. If a message was issued by Logging and Reporting, the message code starts with the characters DSP. Messages issued by the Logger have numbers lower than 100; messages issued by the Reporting program have numbers equal to or greater than 100. The message code ends with the letter 'I', if the message is intended as an information only, or with the letter 'A', if action by the operator is required.
- Field 4** contains the message text.

0300A LOGGER ABNORMALLY TERMINATED

Explanation: The Logger was abnormally terminated by the VSE system.

System Action: All VSE tasks waiting for service by the Logger are posted and the Logger terminates processing.

Programmer Response: Analyze all messages issued prior to this message and try to correct the problem. If the cause of the problem cannot be determined, call IBM for programming support.

Operator Response: Save the output on SYSLOG for your programmer.

DSPxxxI MESSAGE NOT FOUND

Explanation: *Logging and Reporting* requested message number xxx to be issued. The message text, however, was not found in the central text pool.

System Action: None.

Programmer Response: Contact IBM for programming support.

Operator Response: None.

DSP002I UNEXPECTED EOF RECORD FOUND ON DATASET: xxxxxxxx

Explanation: While logging on file xxxxxxxx of the log data set, an EOF (End-of-File) record was found; probably, because the log data set was not properly initialized with the INITIALIZE command of the Reporting program.

System Action: The Logger terminates processing.

Programmer Response: Ensure that the files of the log data set are initialized properly before they are used for logging.

Operator Response: None.

DSP003I READ ERROR DURING INITIALIZATION ON DATASET: xxxxxxxx

Explanation: During the initialization phase of the Logger, an error occurred while reading from the specified file of the log data set. This may be due to the fact that the log data set is being used for the first time without having been initialized by the Reporting program before.

System Action: The Logger terminates processing.

Programmer Response: Correct the problem before starting the Logger again.

Operator Response: None.

DSP004I WRITE ERROR DURING INITIALIZATION ON DATASET: xxxxxxxx

Explanation: During the initialization phase of the Logger, an error occurred while writing the header of file xxxxxxxx of the log data set.

System Action: The Logger terminates processing.

Programmer Response: Correct the problem before starting the Logger again.

Operator Response: None.

DSP007I RECORD WITH INVALID ID FOUND ON DATASET: xxxxxxxx

Explanation: The Logger found a record with an invalid identification on file xxxxxxxx of the log data set, presumably because the log data set was not properly initialized.

System Action: The Logger terminates processing.

Programmer Response: Ensure that the log data set is properly initialized before it is first used by the Logger. Furthermore, ensure that no unauthorized program has access to the log data set. Call IBM for programming support if the problem recurs.

Operator Response: None.

DSP013I READ ERROR DURING PROCESSING ON DATASET: xxxxxxxx

Explanation: While updating a record on the log data set, an error occurred during a READ request. This may be due to the fact that the log data set is being used for the first time without having been initialized by the Reporting program before.

System Action: The Logger terminates processing.

Programmer Response: Ensure that the log data set is properly initialized. Call IBM for programming support if the problem recurs.

Operator Response: None.

DSP014I WRITE ERROR DURING PROCESSING ON DATASET: xxxxxxx

Explanation: While writing a log record to the specified file of the log data set, an error occurred.

System Action: The Logger terminates processing.

Programmer Response: Correct the problem before restarting the Logger.

Operator Response: None.

DSP033I READ ERROR DURING TERMINATION ON DATASET: xxxxxxx

Explanation: During the termination phase of the Logger, an error occurred while reading the header of the specified file of the log data set. The reason for the error may be that the header has been overwritten while the Logger was working.

System Action: The header of the log data set is not updated.

Programmer Response: If the problem persists, have the following information available for problem determination:

- The output on SYSLOG
- A listing of file xxxxxxx of the log data set

Operator Response: Save the output on SYSLOG for your programmer.

DSP034I WRITE ERROR DURING TERMINATION ON DATASET: xxxxxxx

Explanation: During the termination phase of the Logger, an error occurred while updating the header of the specified file of the log data set.

System Action: The header of the log data set is not updated.

Programmer Response: If the problem persists, have the following information available for problem determination:

- The output on SYSLOG
- A listing of file xxxxxxx of the log data set

Operator Response: Save the output on SYSLOG for your programmer.

DSP040I LOGGER TERMINATED BECAUSE OF PREVIOUS ERROR

Explanation: The Logger terminates processing because of a situation described by a previous message.

System Action: The Logger terminates processing.

Programmer Response: None.

Operator Response: None.

DSP042I ERROR DURING UNLOCK OF DATASET: xxxxxxx

Explanation: An error occurred while the specified file of the log data set was being unlocked. The Logger and the Reporting program lock a file of the log data set to obtain exclusive control of this file.

System Action: The error is ignored; the log data set may not be unlocked.

Programmer Response: If the problem recurs, call IBM for programming support.

Operator Response: None.

DSP043I ERROR DURING LOCK OF DATASET: xxxxxxx

Explanation: An error occurred while the specified file of the log data set was being locked. The Logger and the Reporting program lock a file of the log data set to obtain exclusive control of this file.

System Action: The Logger terminates processing.

Programmer Response: Have the output on SYSLOG available for problem determination.

Operator Response: Save the output on SYSLOG for your programmer.

DSP044I CROSS PARTITION COMMUNICATION ERROR

Explanation: An error occurred while the Logger was waiting for the Reporting program to complete processing.

System Action: The Logger terminates processing.

Programmer Response: Have the output on SYSLOG available for problem determination.

Operator Response: Save the output on SYSLOG for your programmer.

DSP050I LOGGER INITIALIZATION COMPLETED

Explanation: Initialization of the Logger has terminated.

System Action: The Logger is now ready to process requests for logging.

Programmer Response: None.

Operator Response: None.

DSP052I LOGGING CONTINUED AFTER REPORTING

Explanation: The Logger has been waiting for the Reporting program to complete the processing of a file of the log data set. Now the Reporting program has completed and the Logger continues processing.

System Action: Processing continues.

Programmer Response: None.

Operator Response: None.

DSP053I DEACTIVATION OF LOGGER COMPLETED

Explanation: The Logger completed processing normally.

System Action: None.

Programmer Response: None.

Operator Response: None.

DSP054A DATASETS FULL OR INCORRECT AT INITIALIZATION TIME, START REPORTING

Explanation: Both files of the log data set were full when the Logger is being initialized.

System Action: The Logger waits until the Reporting program terminates processing.

Programmer Response: None.

Operator Response: Run the Reporting program to make a file of the log data set available for logging.

DSP055A BOTH DATASETS FULL, START REPORTING

Explanation: Both files of the log data set have been filled by the Logger. This message is followed by message DSP063.

System Action: The Logger waits until the Reporting program terminates processing.

Programmer Response: None.

Operator Response: Run the Reporting program to make the log data set available for logging.

DSP056A START REPORTING, DATASET FULL: xxxxxxx

Explanation: File xxxxxxx of the log data set is full.

System Action: The Logger now uses the other file of the log data set for logging.

Programmer Response: None.

Operator Response: Run the Reporting program in order to make file xxxxxxx available for logging. If it is not possible to SAVE file xxxxxxx because the Logger could not switch to the second log data set, proceed as follows:

- provide label information for a new log data set in the system standard label area and
- INITIALIZE the new log data set.

The Logger will read the new system labels after the Reporting program has stopped execution and then switch to the newly initialized log data set.

DSP057I INITIALIZATION OF LOGGER NOT COMPLETED

Explanation: For a reason explained in a previous message, the Logger could not complete its initialization phase successfully.

System Action: The Logger waits until the Reporting program terminates processing.

Programmer Response: None.

Operator Response: Run the Reporting program in order to make one of the log data sets available for logging.

DSP058A DATASET IS NOT AVAILABLE: xxxxxxx

Explanation: File xxxxxxx of the log data set is not available to the Logger; probably, because no label information was available for the specified file when the Logger was started.

System Action: The Logger terminates processing.

Programmer Response: Supply the correct label information for both files of the log data set.

Operator Response: Save the output on SYSLOG for your programmer.

DSP061I NOW LOGGING ON DATASET: xxxxxxx

Explanation: Logging is now performed on file xxxxxxx of the log data set. The other file of the log data set can be saved by the Reporting program.

System Action: File xxxxxxx of the log data set is used by the Logger.

Programmer Response: None.

Operator Response: None.

DSP062I DATASETS SWITCHED, NOW LOGGING ON DATASET xxxxxxx

Explanation: The Logger has closed one file of the log data set and is now logging on file xxxxxxx.

System Action: The Logger now logs on file xxxxxxx of the log data set.

Programmer Response: None.

Operator Response: None.

DSP063A FOLLOWING DATASET WILL BE SAVED FIRST: xxxxxxx

Explanation: This message follows message DSP055. The Reporting program should be run to make file xxxxxxx of the log data set available for logging.

System Action: None.

Programmer Response: None.

Operator Response: Run the Reporting program on file xxxxxxx of the log data set.

DSP064A WRITE OFFSET ADDRESS OUT OF EXTENT ON DATASET: xxxxxxx

Explanation: The write offset address for file xxxxxxx of the log data set did not fall within the current extent of this file; probably, because the extent information of the log data set has been modified after the last run of the Logger.

System Action: The Logger terminates processing.

Programmer Response: Ensure that the correct extents are used by checking the appropriate // DLBL and // EXTENT statements. If the problem persists, call IBM for programming support.

Operator Response: Save the output on SYSLOG for your programmer.

DSP066I INVALID VOL-ID FOUND FOR DATASET: xxxxxxx

Explanation: During processing of the Logger, the GETVCE request (to obtain the physical unit) did not complete normally.

System Action: The Logger terminates processing.

Programmer Response: Supply the correct label information of the log data set.

Operator Response: Save the output on SYSLOG for your programmer.

DSP067A VOLUME NOT MOUNTED FOR DATASET: xxxxxxx

Explanation: During processing of the Logger, the GETVCE request (to obtain the physical unit) did not complete normally.

System Action: The Logger terminates processing.

Programmer Response: None.

Operator Response: Mount the required volume.

DSP068I GETVCE ERROR DURING INITIALIZATION OF DATASET: xxxxxxx

Explanation: During processing of the Logger, the GETVCE request (to obtain the physical unit) did not complete normally.

System Action: The Logger terminates processing.

Programmer Response: Ensure that:

- the correct // DLBL and // EXTENT JCL statements for file xxxxxxx of the log data set are included in the system standard label area.
- the correct standard assignments are made.

- the correct volumes are mounted.
- the mounted volumes have valid VTOCs.

If the problem recurs, call IBM for programming support.

Operator Response: Save the output on SYSLOG for your programmer.

DSP069I NO FREE LUB FOUND BY DYNAMIC ASSIGN FOR DATASET: xxxxxxxx

Explanation: During processing of the Logger, the ASSIGN request (to obtain the logical unit) did not complete normally.

System Action: The Logger terminates processing.

Programmer Response: Check the number of LUBs specified at VSE supervisor generation. Increase the number. If the problem recurs, call IBM for programming support.

Operator Response: Save the output on SYSLOG for your programmer.

DSP070I ASSIGN ERROR DURING INITIALIZATION OF DATASET: xxxxxxxx

Explanation: During the initialization phase of the Logger, the ASSIGN request (to obtain the logical unit) did not complete normally.

System Action: The Logger terminates processing.

Programmer Response: Ensure that:

- the correct // DLBL and // EXTENT JCL statements for file xxxxxxxx of the log data set are included in the system standard label area.
- the correct standard assignments are made.
- the correct volumes are mounted.
- the mounted volumes have valid VTOCs.

If the problem recurs, call IBM for programming support.

Operator Response: Save the output on SYSLOG for your programmer.

DSP071I LABEL ERROR DURING INITIALIZATION OF DATASET: xxxxxxxx

Explanation: During the initialization phase of the Logger, the LABEL request (to update the logical unit) did not complete normally.

System Action: The Logger terminates processing.

Programmer Response: Ensure that:

- the correct // DLBL and // EXTENT JCL statements for file xxxxxxxx of the log data set are included in the system standard label area.
- the correct standard assignments are made.
- the correct volumes are mounted.
- the mounted volumes have valid VTOCs.

If the problem recurs, call IBM for programming support.

Operator Response: Save the output on SYSLOG for your programmer.

DSP072I ERROR DURING UNASSIGN OF DATASET: xxxxxxx

Explanation: During the termination phase of the Logger, the UNASSIGN request (to free the logical unit) did not complete normally.

System Action: The error will be ignored.

Programmer Response: None.

Operator Response: None.

DSP073I LABEL ERROR DURING PROCESSING OF DATASET: xxxxxxx

Explanation: During the processing phase of the Logger, the LABEL request (to update the logical unit) did not complete normally.

System Action: The Logger terminates processing.

Programmer Response: Ensure that:

- the correct // DLBL and // EXTENT JCL statements for file xxxxxxx of the log data set are included in the system standard label area.
- the correct standard assignments are made.
- the correct volumes are mounted.
- the mounted volumes have valid VTOCs.

If the problem recurs, call IBM for programming support.

Operator Response: Save the output on SYSLOG for your programmer.

DSP074I ASSIGN ERROR DURING PROCESSING OF DATASET: xxxxxxx

Explanation: During the processing phase of the Logger, the ASSIGN request (to obtain the logical unit) did not complete normally.

System Action: The Logger terminates processing.

Programmer Response: Ensure that:

- the correct // DLBL and // EXTENT JCL statements for file xxxxxxx of the log data set are included in the system standard label area.
- the correct standard assignments are made.
- the correct volumes are mounted.
- the mounted volumes have valid VTOCs.

If the problem recurs, call IBM for programming support.

Operator Response: Save the output on SYSLOG for your programmer.

**DSP075A START REPORTING, RECORD WITH INVALID ID FOUND ON DATASET:
xxxxxxx**

Explanation: A record containing an invalid identification was found by the Logger on file xxxxxxx of the log data set; possibly, because the log data set has not been correctly initialized before its first usage by the Logger.

System Action: The Logger tries to access the other file of the log data set.

Programmer Response: None.

Operator Response: Correct file xxxxxxx of the log data set in the following way:

- Execute the SAVE function of the Reporting program to prevent a loss of data.
- Run the Reporting program again using the INITIALIZE command, to reformat file xxxxxxx of the log data set.

**DSP076I LOGGER PROGRAM CHECK HEX-LOC.: XXXXXX COND-CODE:XX
CAN-CODE: XX**

Explanation: The Logger terminated processing due to a program check.

System Action: The Logger terminates processing.

Programmer Response: Call IBM for programming support.

Operator Response: Produce a stand-alone dump and save the output on SYSLST and on SYSLOG for your programmer.

**DSP077I START REPORTING, DATASET CLOSED DUE TO PREVIOUS ERROR:
xxxxxxx**

Explanation: File xxxxxx of the log data set is closed due to an error. The error was indicated in a previous message.

System Action: The Logger tries to close file xxxxxx and switches to the other file of the log data set.

Programmer Response: None.

Operator Response: Correct file xxxxxx of the log data set in the following way:

- Execute the SAVE function of the Reporting program to prevent a loss of data.
- Run the Reporting program again using the INITIALIZE command, to reformat file xxxxxx of the log data set.

DSP078I DATASET CANNOT BE OPENED DUE TO PREVIOUS ERROR: xxxxxxx

Explanation: File xxxxxx of the log data set cannot be opened due to an error. The error was indicated in a previous message.

System Action: The Logger tries to switch to the other file of the log data set.

Programmer Response: Correct file xxxxxx of the log data set in the following way:

- Execute the SAVE function of the Reporting program to prevent a loss of data.
- Run the Reporting program again using the INITIALIZE command, to reformat file xxxxxx of the log data set.

Operator Response: None.

DSP079I EMERGENCY DEACTIVATION OF LOGGER SYSTEM TASK

Explanation: The Logger system task terminates processing due to a program check or a recurrent error.

System Action: The Logger terminates processing.

Programmer Response: Call IBM for programming support.

Operator Response: Produce a stand-alone dump and save the output on SYSLST and on SYSLOG for your programmer.

**DSP080I DATASET OWNED BY REPORTING, WAIT UNTIL REPORTING COMPLETED:
xxxxxxx**

Explanation: File xxxxxx of the log data set is locked by the Reporting program.

System Action: The Logger waits until the Reporting program has terminated processing.

Programmer Response: None.

Operator Response: None.

DSP081I DEVICE NOT READY FOR DATA SET: XXXXXX

Explanation: During the initialization phase of the Logger, the MODVCE request did not complete normally (return code = X'0C', device not ready).

System Action: The Logger terminates processing.

Programmer Response: None.

Operator Response: Make the required device ready.

DSP082I MODVCE ERROR ON DEVICE OF DATA SET: XXXXXX

Explanation: During the initialization or during the processing phase of the Logger, the MODVCE request did not complete normally.

System Action: The Logger terminates processing.

Programmer Response: Make sure that

- the mounted volumes have valid VTOCs;
- the correct standard assignments have been made;
- the device is ready.

If the problem recurs, call IBM for programming support.

Operator Response: Save the output on SYSLOG for your programmer.

DSP083I LOGGER ABNORMALLY TERMINATED CAN-CODE: XX

Explanation: The Logger terminated processing due to cancel code XX.

System Action: The Logger terminates processing.

Programmer Response: Analyze all the messages that were issued before this message and try to correct the problem. For the meaning of the cancel code, refer to *VSE/ESA Messages and Codes*. If you cannot determine the cause of the problem, call IBM for programming support.

Operator Response: Save the output on SYSLOG for your programmer.

DSP100I ACCESS CONTROL REPORTING STARTING

Explanation: The Reporting program has been started.

Message Destination: SYSLOG.

System Action: The Reporting program starts processing.

Programmer Response: None.

Operator Response: None.

DSP101I ACCESS CONTROL REPORTING SUCCESSFULLY COMPLETED

Explanation: The Reporting program has terminated processing.

Message Destination: SYSLOG.

System Action: The Reporting program will post the Logger if it was waiting for reporting to be completed.

Programmer Response: None.

Operator Response: None.

DSP102I SAVE OF LOG DATA SET IN PROGRESS: xxxxxxx

Explanation: The SAVE function of the Reporting program is being executed. File xxxxxxx of the log data set is now saved on tape for deferred processing or archiving.

Message Destination: SYSLOG.

System Action: None.

Programmer Response: None.

Operator Response: None.

DSP104I LOG DATA SET HAS BEEN SAVED: xxxxxxx

Explanation: Execution of the SAVE command has been completed. File xxxxxxx of the log data set has been saved from its disk extent to a tape.

Message Destination: SYSLOG, SYSLST.

System Action: None.

Programmer Response: None.

Operator Response: None.

DSP106I LOG DATA SET HAS BEEN RESET: xxxxxxx

Explanation: File xxxxxxx of the log data set has been reset after saving and is now available for logging.

Message Destination: SYSLOG, SYSLST.

System Action: File xxxxxxx of the log data set is available for logging again.

Programmer Response: None.

Operator Response: None.

DSP107I NUMBER OF LOG RECORDS READ: nnnn

Explanation: nnnn log records have been read from the files of the log data set.

Message Destination: SYSLST.

System Action: None.

Programmer Response: None.

DSP108I NUMBER OF LOG RECORDS SELECTED: nnnn

Explanation: nnnn security events matched the selection criteria for the current access control report.

Message Destination: SYSLST.

System Action: None.

Programmer Response: None.

DSP109I NUMBER OF SECURITY VIOLATIONS: nnnn

Explanation: nnnn security violations have been reported in the current access control report.

Message Destination: SYSLST.

System Action: None.

Programmer Response: None.

DSP110I NUMBER OF LOG RECORDS TRANSFERRED: nnnn

Explanation: nnnn log records have been transferred from disk to tape (SAVE).

Message Destination: SYSLOG, SYSLST.

System Action: None.

Programmer Response: None.

Operator Response: None.

DSP111I ACCESS CONTROL REPORTING ABNORMALLY TERMINATED

Explanation: The VSE system has abnormally terminated the Reporting program due to a condition such as a program check.

Message Destination: SYSLOG.

System Action: A storage dump is taken and the Reporting program terminates processing.

Programmer Response: Analyze the messages issued prior to this message to solve the problem. If the problem recurs, call IBM for programming support.

Operator Response: Save the output on SYSLOG and the storage dump for your programmer.

DSP112I LOG DATA SET CURRENTLY NOT AVAILABLE: xxxxxxx

Explanation: File xxxxxxx of the log data set is currently not available because it is locked by the Logger.

Message Destination: SYSLOG, SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Ensure that the Reporting program accesses the proper file of the log data set (DATASET control statement). A file of the log data set cannot be accessed concurrently by the SAVE or INITIALIZE function of the Reporting program and by the Logger.

Operator Response: None.

DSP113I INVALID DEVICE TYPE FOR LOG DATASET: xxxxxxx

Explanation: File xxxxxxx of the log data set was assigned to a device that is not supported.

Message Destination: SYSLOG, SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Ensure that file xxxxxxx is assigned to the correct device. If the problem persists, call IBM for programming support and have the following information available for problem determination:

- The output on SYSLOG
- The job stream used to execute the Reporting program

Operator Response: Save the output on SYSLOG for your programmer.

DSP114I INSUFFICIENT STORAGE TO LOAD SORT PROGRAM

Explanation: There is not enough storage available to load the Sort program.

Message Destination: SYSLOG,SYSLST.

System Action: The execution of the Reporting program is terminated.

Programmer Response: Ensure that enough storage is available for the Sort program (64K).

Operator Response: Issue the MAP command and save the output on SYSLOG for your programmer.

DSP116I SAVE STATEMENT NOT PROCESSED DUE TO EMPTY DATA SET: xxxxxxx

Explanation: The SAVE function of the Reporting program was invoked but file xxxxxxx of the log data set does not contain any log record; possibly, because it has only previously been saved and reset by the Reporting program.

Message Destination: SYSLOG,SYSLST.

System Action: The SAVE function is not performed.

Programmer Response: Check that the Reporting program uses the disk extent of the log data set.

Operator Response: Save the output on SYSLOG for your programmer.

DSP118I ACCESS/SELECT STATEMENTS NOT PROCESSED DUE TO EMPTY DATASET: xxxxxxx

Explanation: The ACCESS/SELECT function of the Reporting program was invoked, but file xxxxxxx of the log data set does not contain any log record, possibly because it has only previously been saved and reset by the Reporting program.

Message Destination: SYSLOG,SYSLST.

System Action: No ACCESS/SELECT control statements are processed.

Programmer Response: None.

Operator Response: None.

DSP119I LOG DATASET NOT RESET DUE TO ERROR ENCOUNTERED: xxxxxxx

Explanation: File xxxxxxx of the log data set has not been reset because an error was encountered during execution.

Message Destination: SYSLOG,SYSLST.

System Action: The log data set was not reset.

Programmer Response: Check the cause of the error before executing the Reporting program again.

Operator Response: None.

DSP120I UNEXPECTED EOF ON LOG DATA SET: xxxxxxx

Explanation: An EOF (End-of-File) record is encountered on file xxxxxxx of the log data set.

Message Destination: SYSLOG.

System Action: The Reporting program terminates processing.

Programmer Response: Correct file xxxxxxx of the log data set in the following way:

- Execute the SAVE function of the Reporting program, to prevent a loss of data.

- Run the Reporting program again using the INITIALIZE command, to reformat file xxxxxxx of the log data set.

Operator Response: None.

DSP121I INVALID HEADER RECORD ON LOG DATA SET: xxxxxxx

Explanation: The header record of file xxxxxxx of the log data set was invalid.

Message Destination: SYSLOG,SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Check if the proper disk extent was assigned to file xxxxxxx. If the problem persists, call IBM for programming support and have the following information available for problem determination.

- The output on SYSLOG
- The job stream used to run the Reporting program
- A printout of the log data set

Operator Response: Save the output on SYSLOG for your programmer.

DSP122I INVALID LOG RECORDS FOUND: xxxxxxx

Explanation: A log record with an invalid ID was encountered on file xxxxxxx of the log data set.

Message Destination: SYSLOG, SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Check whether the proper disk extent was assigned to the log data set or whether another program uses the disk extent as well. If the problem persists, call IBM for programming support and have the following information available for problem determination:

- The output on SYSLOG
- The job stream used to run the Reporting program
- A printout of the log data set
- A display of the VTOC of the disks, containing the log data set

Operator Response: Save the output on SYSLOG for your programmer and run LVTOC to display the VTOC of the disk containing the log data set.

DSP123I END OF DATA ON SYSIPT OR NO COMMANDS SPECIFIED

Explanation: This message is issued in the following two situations:

- When the Reporting program was reading a control statement from SYSIPT that extended over more than one physical record (card) and encountered EOF before the control statement was complete.
- When the Reporting program was run but no control statements had been submitted.

Message Destination: SYSLST.

System Action: The control statement is ignored, or, if no control statements have been submitted, the Reporting program terminates processing.

Programmer Response: Check whether there is a record missing or whether the continuation character should be removed from the last record.

Operator Response: None.

DSP124I TOO MANY CONTINUATION RECORDS IN CONTROL STATEMENT

Explanation: The Reporting program has detected a control statement containing too many continuation records. Up to 19 continuation records may follow the first record, so that a control statement may consist of a maximum of 20 records.

Message Destination: SYSLST.

System Action: The control statement is ignored.

Programmer Response: Rearrange your job stream so that it will not contain too many continuation records.

Operator Response: None.

DSP125I BLANK RECORD ENCOUNTERED ON SYSIPT

Explanation: A record containing only blanks in columns 1-72 has been encountered on SYSIPT.

Message Destination: SYSLST.

System Action: The blank record is ignored. If this record was part of a control statement continued from a previous record, the control statement is ignored.

Programmer Response: Correct the input data before running the Reporting program again.

Operator Response: None.

DSP126I CONTROL STATEMENT NOT PROCESSED DUE TO COMMAND TABLE FULL

Explanation: The command table, which contains the control statements input to the Reporting program, is full.

Message Destination: SYSLST.

System Action: The control statement is not processed.

Programmer Response: Reduce the amount of data supplied to the Reporting program, possibly by executing the Reporting program several times.

Operator Response: None.

DSP127I TOO MANY 'ACCESS/SELECT' COMMANDS ENCOUNTERED

Explanation: More than 255 ACCESS/SELECT control statements were encountered by the Reporting program.

Message Destination: SYSLST.

System Action: The supernumerary statements are ignored.

Programmer Response: Rerun the Reporting program to process the other ACCESS control statements.

Operator Response: None.

DSP128I INVALID 'DATASET' CONTROL STATEMENT, NOT PROCESSED

Explanation: The DATASET control statement submitted to the Reporting program was invalid.

Message Destination: SYSLOG, SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Correct the control statement and rerun the Reporting program.

Operator Response: None.

DSP131I INVALID 'SAVE' CONTROL STATEMENT

Explanation: The SAVE control statement submitted to the Reporting program was invalid.

Message Destination: SYSLOG, SYSLST

System Action: The Reporting program terminates processing.

Programmer Response: Correct the job stream and rerun the Reporting program.

Operator Response: None.

DSP132I 'DATASET' CONTROL STATEMENT MISSING

Explanation: There was no DATASET control statement specified for the current execution of the Reporting program.

Message Destination: SYSLOG, SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Submit a DATASET control statement to the Reporting program and rerun the job.

Operator Response: None.

DSP133I INVALID COMMAND SPECIFIED

Explanation: A control statement for the Reporting program contains an invalid command.

Message Destination: SYSLST.

System Action: The control statement is ignored.

Programmer Response: Determine the cause for the message and rerun the Reporting program.

Operator Response: None.

DSP134I INVALID KEYWORD SPECIFIED

Explanation: A control statement was submitted to the Reporting program that contained an invalid keyword.

Message Destination: SYSLST.

System Action: The control statement is ignored.

Programmer Response: Correct the statement and rerun the Reporting program.

Operator Response: None.

DSP135I DUPLICATE KEYWORD

Explanation: A control statement was submitted to the Reporting program that contained a duplicate keyword.

Message Destination: SYSLST.

System Action: The control statement is ignored.

Programmer Response: Correct the control statement and rerun the Reporting program.

Operator Response: None.

DSP136I INVALID 'BEGIN' PARAMETER

Explanation: A BEGIN parameter was incorrectly specified in a control statement.

Message Destination: SYSLST.

System Action: The control statement is ignored.

Programmer Response: Correct the control statement and rerun the Reporting program.

Operator Response: None.

DSP137I INVALID 'END' PARAMETER

Explanation: An END parameter was incorrectly specified in a control statement.

Message Destination: SYSLST.

System Action: The control statement is ignored.

Programmer Response: Correct the control statement and rerun the Reporting program.

Operator Response: None.

DSP138I INVALID/DUPLICATE 'SORT' PARAMETER

Explanation: A SORT parameter was incorrectly specified in a control statement.

Message Destination: SYSLST.

System Action: The control statement is ignored.

Programmer Response: Correct the control statement and rerun the Reporting program.

Operator Response: None.

DSP139I INVALID 'PRINT' PARAMETER

Explanation: A PRINT parameter was incorrectly specified in a control statement.

Message Destination: SYSLST.

System Action: The control statement is ignored.

Programmer Response: Correct the control statement and rerun the Reporting program.

Operator Response: None.

DSP140I INVALID 'VIOLATION' PARAMETER

Explanation: A VIOLATION parameter was incorrectly specified in a control statement.

Message Destination: SYSLST.

System Action: The control statement is ignored.

Programmer Response: Correct the control statement and rerun the Reporting program.

Operator Response: None.

DSP141I INVALID/DUPLICATE 'EVENT' PARAMETER

Explanation: An EVENT parameter was incorrectly specified in a control statement: the control statement possibly contains more than one EVENT parameter or the parameter may have been incorrectly spelled.

Message Destination: SYSLST.

System Action: The control statement is ignored.

Programmer Response: Correct the control statement and rerun the Reporting program.

Operator Response: None.

DSP142I INVALID/DUPLICATE 'USERID' PARAMETER

Explanation: A USERID parameter was incorrectly specified in a control statement: the control statement possibly contains more than one USERID parameter or the parameter may have been incorrectly spelled (if the operand is non-generic, it has to be four characters long).

Message Destination: SYSLST.

System Action: The control statement is ignored.

Programmer Response: Correct the control statement and rerun the Reporting program.

Operator Response: None.

DSP143I INVALID/DUPLICATE 'DSNAME' PARAMETER

Explanation: A DSNAME parameter was incorrectly specified in a control statement: the control statement possibly contains more than one DSNAME parameter or the operand contains more than 44 characters.

Message Destination: SYSLST.

System Action: The control statement is ignored.

Programmer Response: Correct the control statement and rerun the Reporting program.

Operator Response: None.

DSP144I INVALID/DUPLICATE 'MEMBER' PARAMETER

Explanation: A MEMBER parameter was incorrectly specified in a control statement: the control statement possibly contains more than one MEMBER parameter or the operand contains more than 8 characters.

Message Destination: SYSLST.

System Action: The control statement is ignored.

Programmer Response: Correct the control statement and rerun the Reporting program.

Operator Response: None.

DSP145I SORT PROGRAM NOT AVAILABLE

Explanation: An ACCESS/SELECT control statement was submitted to the Reporting program, but no sort program is available.

Message Destination: SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Check if the correct library was assigned to the partition in which the Reporting program was running.

Operator Response: None.

DSP147I REPORT IS COMPLETED

Explanation: The access control report for an ACCESS/SELECT statement has been completed.

Message Destination: SYSLST.

System Action: None.

Programmer Response: None.

Operator Response: None.

DSP148I NO MATCHING RECORD FOUND

Explanation: None of the security events recorded on the log data set corresponds to the criteria of the ACCESS/SELECT statement.

Message Destination: SYSLST.

System Action: None.

Programmer Response: None.

Operator Response: None.

DSP149I INVALID 'ACCESS/SELECT' STATEMENT NOT PROCESSED

Explanation: An ACCESS/SELECT control statement was not processed due to a previous error.

Message Destination: SYSLST.

System Action: The Reporting program ignores the ACCESS/SELECT statement.

Programmer Response: Correct the control statement and rerun the Reporting program.

Operator Response: None.

DSP150I INVALID 'DISK' PARAMETER

Explanation: The DISK parameter was incorrectly specified in a control statement.

Message Destination: SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Correct the control statement and rerun the Reporting program.

Operator Response: None.

DSP151I INITIALIZATION OF LOG DATA SET IN PROGRESS: xxxxxxx

Explanation: The Reporting program is executing an INITIALIZE command.

Message Destination: SYSLOG.

System Action: The Reporting program initializes file xxxxxxx of the log data set.

Programmer Response: None.

Operator Response: None.

DSP152I LOG DATA SET HAS BEEN INITIALIZED: xxxxxxx

Explanation: The Reporting program has initialized file xxxxxxx of the log data set; it can now be used for logging.

Message Destination: SYSLOG, SYSLST.

System Action: None.

Programmer Response: None.

Operator Response: None.

DSP153I 'INITIALIZE' COMMAND NOT PROCESSED

Explanation: The INITIALIZE function of the Reporting program was evoked, but apart from the DATASET control statement other statements were also supplied.

Message Destination: SYSLOG, SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: To perform the INITIALIZE function, ensure that only the INITIALIZE command and one DATASET control statement are supplied to the Reporting program.

Operator Response: None.

DSP154I INVALID 'INITIALIZE' CONTROL STATEMENT, NOT PROCESSED

Explanation: The INITIALIZE control statement submitted to the Reporting program was invalid.

Message Destination: SYSLOG, SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Correct the job stream and rerun the Reporting program.

Operator Response: None.

DSP155I WRITE ERROR ON LOG DATA SET: xxxxxxx

Explanation: An error occurred when the Reporting program attempted to write on file xxxxxxx of the log data set.

Message Destination: SYSLOG.

System Action: The Reporting program terminates processing.

Programmer Response: Analyze and correct the problem. If the problem recurs, call IBM for support.

Operator Response: None.

DSP156I READ ERROR ON LOG DATA SET: xxxxxxx

Explanation: An error occurred when the Reporting program attempted to read file xxxxxxx of the log data set.

Message Destination: SYSLOG.

System Action: The Reporting program terminates processing.

Programmer Response: Analyze the problem and take appropriate action. It might be necessary to save and initialize the log data set. If the problem recurs, call IBM for support.

Operator Response: None.

DSP158I REPORTING TERMINATED DUE TO ERROR

Explanation: The Reporting program has terminated processing due to an error described by a previous message.

Message Destination: SYSLOG.

System Action: A storage dump is taken and the Reporting program terminates processing.

Programmer Response: Analyze the problem and take appropriate action.

Operator Response: None.

DSP161I INPUT LOG FILES OUT OF SEQUENCE: xxxxxxxx

Explanation: While reading the saved log data sets from tape or from disk, the Reporting program performs sequence checking. When switching from the log data sets saved on tape to the log data sets saved on disk, it found that the first (or only) log data set on disk is not in sequence with the last log data set on tape.

Message Destination: SYSLOG, SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: None.

Operator Response: Make sure the correct tapes are processed. Rerun the job with the correct specification of the input log data sets.

DSP162I INPUT LOG FILES NOT CONSISTENT, ERROR IN DATA SET: xxxxxxxx

Explanation: The data on the log data set is incorrect due to I/O error on the log data sets.

Message Destination: SYSLOG, SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: None.

Operator Response: Make sure the correct tapes are processed. Rerun the job with the correct specification of the input log data sets.

DSP163I SORT WORK FILE FULL

Explanation: While an ACCESS control statement was processed, the sort work area ran out of space.

Message Destination: SYSLOG, SYSLST

System Action: The Reporting program terminates processing.

Programmer Response: Provide new label information for the sort work area with increased extent.

Operator Response: None.

DSP166I DSPTAPE: WRONG LOG TAPE, MOUNT TAPE WITH 'BEGIN' DATE:

Explanation: While reading the saved log data sets from tape, the Reporting program performs sequence checking. Thus it found that two log data sets were out of sequence.

Message Destination: SYSLOG, SYSLST.

System Action: Processing continues after the correct tape has been mounted.

Programmer Response: None.

Operator Response: Mount the correct tape.

DSP169I RECORD ID 'XX' NOT SUPPORTED

Explanation: Record ID XX, which was found on one of the files of the log data set, is not supported.

Message Destination: SYSLST.

System Action: A storage dump is produced and the Reporting program terminates abnormally.

Programmer Response: Ensure that the correct extents are used and that the correct save log tapes are mounted. If the problem persists, call IBM for programming support.

Operator Response: Save the output on SYSLOG and the storage dump for your programmer.

DSP172I MULTIPLE SPECIFICATION OF 'SAVE' INVALID

Explanation: The SAVE command may only be specified once per job step.

Message Destination: SYSLST.

System Action: The job is canceled.

Programmer Response: None.

Operator Response: Remove the duplicate SAVE specifications and rerun the job.

DSP174I 'DATE' NOT SPECIFIED WITHIN 'BEGIN/END' PARAMETER

Explanation: Within a BEGIN or END parameter, only the TIME subparameter was specified.

Message Destination: SYSLST.

System Action: The control statement is ignored.

Programmer Response: None.

Operator Response: Correct the statement by specifying DATE as well as TIME and rerun the job.

DSP175I FOR 'SAVE' FUNCTION 'DISK' MUST BE SPECIFIED AS INPUT

Explanation: The SAVE function may only be used to transfer log records from the inactive log data set to the disk or tape specified for DSPDUMP. A tape-to-tape transfer is not possible.

Message Destination: SYSLST.

System Action: The job is canceled.

Programmer Response: None.

Operator Response: Correct the job stream and rerun the job.

DSP179A DSPTAPE: MOUNT NEXT LOG TAPE

Explanation: EOF was encountered on the previous save log tape and a further save log tape is required for input.

Message Destination: SYSLOG.

System Action: The previous save log tape is unloaded and the system waits for the next save log tape.

Programmer Response: None.

Operator Response: Mount the next save log tape on the same tape unit as the previous save log tape.

DSP180I INVALID 'TAPE' PARAMETER

Explanation: The TAPE parameter was incorrectly specified in a control statement.

Message Destination: SYSLST.

System Action: The job is canceled.

Programmer Response: None.

Operator Response: Correct the control statement and rerun the job.

DSP181I INVALID/DUPLICATE 'LIBRARY' PARAMETER

Explanation: THE LIBRARY parameter was incorrectly specified in a control statement.

Message Destination: SYSLST.

System Action: The control statement is ignored.

Programmer Response: None.

Operator Response: Correct the control statement and rerun the job.

DSP182I INVALID 'ACCESS/SELECT' PARAMETER

Explanation: A parameter within the 'ACCESS/SELECT' control statement was incorrectly specified.

Message Destination: SYSLST.

System Action: The control statement is ignored.

Programmer Response: None.

Operator Response: Correct the control statement and rerun the job.

DSP183I INVALID 'SEQCHECK' PARAMETER

Explanation: The SEQCHECK parameter was incorrectly specified in a control statement.

Message Destination: SYSLST.

System Action: The control statement is ignored.

Programmer Response: None.

Operator Response: Correct the control statement and rerun the job.

DSP184I LOG DATA SET NOT RESET, LOCKED BY THE LOGGER: xxxxxxx

Explanation: File xxxxxxx of the log data set has been locked by the Logger. The SAVE function cannot be processed.

Message Destination: SYSLOG, SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Ensure that the Logger accesses the proper file of the log data set. The SAVE function of the Reporting program and the Logger cannot access the same file of the log data set concurrently.

Operator Response: None.

DSP185I LOG DATA SET NOT SAVED, LOCKED BY THE LOGGER: xxxxxxx

Explanation: File xxxxxxx of the log data set is locked by the Logger. The SAVE function cannot be processed.

Message Destination: SYSLOG, SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Ensure that the Logger accesses the proper file of the log data set. The SAVE function of the Reporting program and the Logger cannot access the same file of the log data set concurrently.

Operator Response: None.

DSP186I RECORD WITH INVALID ID FOUND ON DATASET: xxxxxxxx

Explanation: A log record with an invalid ID was encountered on file xxxxxxxx of the log data set.

Message Destination: SYSLOG, SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Check whether the proper disk extent was assigned to file xxxxxxxx and whether another program also uses the disk extent. If the problem persists, call IBM for programming support and provide the following information for problem determination:

- The output on SYSLOG
- The job stream used to run the Reporting program
- A printout of file xxxxxxxx of the log data set
- A display of the VTOC of the disk that contains the log data set

Operator Response: Save the output on SYSLOG for your programmer and run LVTOC to display the VTOC of the disk that contains the log data set.

DSP187I NO LABEL INFORMATION DATASET: xxxxxxxx

Explanation: The specified file of the log data set is not available to the Reporting program, probably because no label information was available for file xxxxxxxx.

Message Destination: SYSLOG, SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Supply the correct label information for the log data set.

Operator Response: Save the output on SYSLOG and on SYSLST for your programmer.

**DSP188I INITIALIZE STATEMENT NOT PROCESSED, DATASET NOT EMPTY:
xxxxxxx**

Explanation: The INITIALIZE function of the Reporting program was evoked, but could not be processed because file xxxxxxxx of the log data set was not empty.

Message Destination: SYSLOG, SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Run the Reporting program to save file xxxxxxxx of the log data set and rerun the job.

Operator Response: None.

DSP189I MORE THAN 256 COMMANDS SPECIFIED

Explanation: Only 256 commands can be specified in one job step.

Message Destination: SYSLOG, SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Reduce number of commands to 256 per job step.

Operator Response: None.

DSP190I INITIALIZATION TOGETHER WITH 'ACCESS/SELECT' COMMAND INVALID

Explanation: If the INITIALIZE function of the Reporting program is evoked in a job step, no other control statement may be specified within the same job step.

Message Destination: SYSLOG, SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Correct the job stream and rerun the Reporting program.

Operator Response: None.

DSP195I INITIALIZATION TOGETHER WITH 'SAVE' COMMAND INVALID

Explanation: If the INITIALIZE function of the Reporting program is evoked in a job step, no other control statement may be specified within the same job step.

Message Destination: SYSLOG, SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Correct the job stream and rerun the Reporting program.

Operator Response: None.

DSP200I INVALID/DUPLICATE 'SUBLIB' PARAMETER

Explanation: A SUBLIB character was incorrectly specified.

Message Destination: SYSLST.

System Action: The control statement is ignored.

Programmer Response: Correct the control statement and rerun the Reporting program.

Operator Response: None.

DSP204I NO LABEL INFORMATION DATASET : DSPSWK1

Explanation: The specified file of the log data set is not available to the Reporting program, probably because no label information was available for the file.

Message Destination: SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Supply the correct label information for the log data set.

Operator Response: Have the output on SYSLOG and on SYSLST ready for your programmer.

DSP210I LABEL UPDATE ERROR DATASET: xxxxxxx

Explanation: During the initialization phase of the Reporting program, the updating of the label for file xxxxxxx did not complete normally.

Message Destination: SYSLOG, SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Correct the problem. If the problem recurs, call IBM for programming support.

Operator Response: Save the output on SYSLST and SYSLOG for your programmer.

DSP211I TOO MANY 'DATASET' COMMANDS ENCOUNTERED

Explanation: Only one DATASET control statement should be specified for each run of the Reporting program.

Message Destination: SYSLST.

System Action: Except for the first all DATASET statements are ignored.

Programmer Response: Remove the supernumerary DATASET control statements.

Operator Response: None.

DSP212I TOO MANY 'INITIALIZE' COMMANDS ENCOUNTERED

Explanation: Only one INITIALIZE control statement should be specified for each run of the Reporting program.

Message Destination: SYSLST.

System Action: Except for the first all INITIALIZE statements are ignored.

Programmer Response: Remove the supernumerary INITIALIZE control statements.

Operator Response: None.

DSP225I SAVE PROCESSING IS CANCELED DUE TO PREVIOUS ERROR.

Explanation: The Reporting program canceled processing of the SAVE function because of an error. The error is described by the previous message.

Message Destination: SYSLST, SYSLOG.

System Action: The Reporting program terminates processing.

Programmer Response: Correct the problem. If the problem recurs, call IBM for support.

Operator Response: None.

DSP226I INSUFFICIENT STORAGE FOR GETVIS

Explanation: A GETVIS request to obtain storage did not complete normally.

Message Destination: SYSLOG.

System Action: The Reporting program terminates processing.

Programmer Response: Ensure that there is enough GETVIS space available for the Reporting program.

Operator Response: None.

DSP227I RESET PROCESSING CANCELED DUE TO PREVIOUS ERROR.

Explanation: The Reporting program canceled processing of the RESET function because of an error. The error is described by the previous message.

Message Destination: SYSLST, SYSLOG.

System Action: The Reporting program terminates processing.

Programmer Response: Correct the problem. If the problem recurs, call IBM for support.

Operator Response: None.

DSP229I VOL-ID MISSING FOR DATASET: xxxxxxx

Explanation: File xxxxxxx of the log data set is not available to the Reporting program, probably because the label information for the specified file was invalid.

Message Destination: SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Supply the correct label information for the log data set.

Operator Response: Save the output on SYSLOG and on SYSLST for your programmer.

DSP230I INVALID VOL-ID FOUND FOR DATASET: xxxxxxx

Explanation: File xxxxxxx of the log data set is not available to the Reporting program, probably because the label information for the specified file was invalid.

Message Destination: SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Supply the correct label information for the log data set.

Operator Response: Save the output on SYSLOG and on SYSLST for your programmer.

DSP231I VOLUME NOT MOUNTED FOR DATASET: xxxxxxx

Explanation: File xxxxxxx of the log data set is not available to the Reporting program, possibly because the label information for the specified file was invalid, or because the data volume is not physically available at this moment.

Message Destination: SYSLST.

System Action: The Reporting program terminates processing.

Programmer Response: Supply the correct label information for the log data set or ready the device.

Operator Response: Save the output on SYSLOG and on SYSLST for your programmer.

DSP232I ERROR DURING GETVCE MACRO FOR DATASET: xxxxxxx

Explanation: A GETVCE request to obtain information on file xxxxxxx of the log data set did not complete normally.

Message Destination: SYSLOG.

System Action: The Reporting program terminates processing.

Programmer Response: Determine the cause of the GETVCE failure (return code) and correct the problem.

Operator Response: None.

DSP233I NO FREE LUB FOUND BY DYNAMIC ASSIGN FOR DATASET: xxxxxxx

Explanation: No LUB space was available.

Message Destination: SYSLST, SYSLOG.

System Action: The Reporting program terminates processing.

Programmer Response: Correct the problem. If the problem recurs, call IBM for support.

Operator Response: None.

DSP234I ERROR DURING ASSGN MACRO FOR DATASET: xxxxxxxx

Explanation: An unexpected error return code was received from the ASSGN macro.

Message Destination: SYSLST, SYSLOG.

System Action: The Reporting program terminates processing.

Programmer Response: Correct the problem. If the problem recurs, call IBM for support.

Operator Response: None.

DSP235I ERROR DURING UNASSGN MACRO FOR DATASET: xxxxxxxx

Explanation: An unexpected error return code was received from the UNASSGN macro.

Message Destination: SYSLST, SYSLOG.

System Action: The Reporting program terminates processing.

Programmer Response: Correct the problem. If the problem recurs, call IBM for support.

Operator Response: None.

DSP236I SUPERFLUOUS 'DATASET' COMMAND(S) DROPPED

Explanation: The DATASET control statement which was specified for this run of the Reporting program was not needed because only the SAVE function was evoked in this execution step.

Message Destination: SYSLST.

System Action: The DATASET control statement is ignored.

Programmer Response: None.

Operator Response: None.

DSP237I LOG DATASET TOO SMALL. SPECIFY AT LEAST 1 TRACK / 12 FBA BLOCKS.

Explanation: An attempt was made to initialize one file of the log data set with less than one track of CKD or with less than 12 FBA blocks.

Message Destination: SYSLST, SYSLOG.

System Action: The log data set is not initialized.

Programmer Response: Alter the // EXTENT statements for the log data set and rerun the Reporting program.

Operator Response: None.

Index

Special Characters

// DLBL 19
// EXTENT 19
// TLBL 19

A

ACC parameter of DTSECTAB 3
access authorization checking 3, 6
access control class 3, 4
access control report 7
ACCESS control statement 11
access control table 3, 6
 generation 19
access violation 4
activation of the Logger 5
ALTER access right 3

B

BEGIN parameter 12

C

class (access control) 3
CONNECT access right 3
control statements for the Reporting program 7, 11

D

DATASET control statement 14
definition of log data set 19
direct access device 17
distribution tape 17
DITTO program 9
DLBL/EXTENT statements 9
DSNAME parameter 13
DSPDUMP 9, 19
DSPTP01,...,DSPTP99 9, 19
DTSECTAB 3, 19

E

END parameter 12
EVENT parameter 12
execution report 8

H

hardware requirements 17

I

IJSYSL1 5, 6
IJSYSL2 5, 6
initialization of log data set 6, 19
initialization of the Logger 5
INITIALIZE control statement 15
installation of Logging and Reporting 17
invocation of the Reporting program 8

L

label information for log data set 5, 19
log data set 5
 reading 9
 saving 8
log queue 5
log record 5, 7
Logger 5, 6
 errors during processing 19
 performance 18
logging option 5, 6

M

MEMBER parameter 13
messages from the Logger 19
messages from the Reporting program 8, 19

P

PRINT parameter 13
printing the access control report 7
protection of resources 4

R

READ access right 3
reading the log data set 9
Reporting program 6, 9
 errors during processing 19
 performance 18
resetting the log data set 6
resource profile 3
resources 4

S

SAVE control statement 6, 15
saving the log data set 6, 19
 output devices 8
security option 6, 19

- selection criteria for the access control report 7
- sequence checking of log data sets 14
- software requirements 17
- SORT parameter 13
- sort program 7, 17
- sorting the log records 7
- SUBLIB parameter 13
- switching the log data set 5, 6
- SYSLST 7

T

- tape device 17
- TLBL statement 9

U

- UACC (universal access right) 4
- universal access right 4
- UPDATE access right 3
- user profile 3
- USERID parameter 12

V

- VIOLATION parameter 13
- violation, access 4

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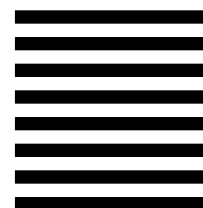
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