IBM Application Support Facility

IBM

Diagnosis Guide

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> **Note!**
>
> Before using this information and the product it supports, be sure to read the general information under Appendix E, "Notices," on page 47.

Second Edition

This edition applies to version 3 release 4 of IBM Application Support Facility for z/OS (product number 5655-002) with or without the feature IBM Document Connect for ASF and to all subsequent releases and modifications until otherwise indicated in new editions.

This edition replaces SH12-6739-00.

Contents

About this book

This book helps identify and describe program errors that occur when using IBM®
Application Support Facility for z/OS® (ASF) Version 3 Release 4 with or without
the feature IBM Document Connect for ASF. In addition, it contains the ABEND
and dump codes from the online and batch utility programs of Application
Support Facility.

Who should read this book

This book is intended for application programmers, system programmers, and for
IBM support representatives and system engineers.

How to use this book

Choose the keywords from Chapter 1, "Specifying a program failure" that describe
your program error and report the error as described. The procedures and tools
described in Chapter 2, "Identifying a problem" are intended to help you identify
the right keywords.

Appendix A, "ABEND and dump codes from the online programs," on page 17,
Appendix B, "Messages and codes from the batch utility programs," on page 21,
Appendix C, "Messages and codes in the DB2 environment," on page 39, and
Appendix D, "Dumps from the batch utility programs," on page 45 describe
messages and codes issued by ASF.

Conventions used in this book

Convention	Meaning
ABEND	Refers to a program error.
ASF V3 R4	Version 3 Release 4 of ASF.
ATD	Application-type description.
DCF	Document Composition Facility.
F-key	Refers to a function key on host panels.
PDP	Parameter determination program.
PVP	Parameter verification program.
SIB	Standard interface block.
Web client	The browser interface provided with the feature Document Connect for ASF.
3270–ASF	ASF with the traditional 3270 interface (without the feature Document Connect for ASF).

Other books you may need

The bibliography describes each book in the ASF library. It also describes some
publications for other IBM products you can use with ASF.

Chapter 1. Specifying a program failure

This chapter explains how to specify failures in ASF by the use of keywords. A keyword is a set of alphanumeric characters used to identify a single aspect of a program failure. The format and a description of each keyword is listed in this chapter.

You can use the problem determination sheet shown in Table 1 on page 2 to record the keywords you select.

Selecting keywords

A complete set of keywords for a certain problem failure should specify the problem. There is a group of keywords to define the environment in which the failure occurred and to define each of the following aspects of a program failure:
1. Program specification
2. Feature number for language
3. Service level
4. Hardware and software keywords
5. Type of failure
6. Functions that failed
7. Transaction code
8. Program name
9. Module that failed
10. Additional software, such as:
    - CICS® Transaction Gateway
    - IMS™ Connect
    - WebSphere®
    - MQSeries®

The first four items are independent of any specific failure. The keywords you select for these items describe the environment in which the failure occurred. The keywords you choose for the remaining items in the list depend on the problem you found.

To make a successful search, remember to:
- Use keywords from the list in this book
- Spell all keywords the same way they are given in this book
- Include the appropriate keywords in the related APAR form if you are asked to submit an APAR

Check the options that apply to your installation and supply any additional information in the following problem determination sheet. An additional explanation for some sections is provided below.

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Table 1. Problem determination sheet

Installed features:			
( )	5655-002 for z/OS	( )	DC4ASF, if Document Connect for ASF is installed
( )	Other:		
Program service level:			
( )	Version 3 Release 4 Modification 0	( )	State maintenance packs or fixes applied:
( )	Other:		
Installation settings in member FSNASPA1:			
( )	DBSETUP=	( )	TRANSMGR=
Emulator:			
( )	Product name and release of 3270 emulator:		
Software version, release, and modification:			
( )	CICS	( )	DB2®
( )	DCF	( )	IMS
( )	z/OS		
Software for Web client (server part):			
( )	Microsoft® Windows® XP	( )	Microsoft Windows Vista
( )	AIX®	( )	Linux®
( )	WebSphere Application Server		
( )	IMS Connect	( )	CICS Transaction Gateway
( )	DB2 Connect™	( )	MQSeries
( )	WebSphere MQ		
Software for Web client (client part):			
( )	Microsoft Windows XP	( )	Microsoft Windows Vista
( )	Microsoft Internet Explorer 6.0	( )	Microsoft Internet Explorer SP
( )	3270 Listener	( )	AFP Viewer
Customer application involved:			
( )	ASF is called from a front-end application on host level		
( )	ASF is called from a front-end application on client/server level		
( )	DCP	( )	PDP
( )	PVP		
Customer program called with an ATD:			
( )	Specify details:		
Customer exits involved:			
( )	CUSADPA	( )	CUSARCH
( )	CUSBDCE	( )	CUSBUSF
( )	CUSHLPE	( )	CUSITPE
( )	CUSLCME	( )	CUSOPAE
( )	CUSPFKE	( )	CUSPLS1
( )	CUSPLS2	( )	CUSPRTE

Table 1. Problem determination sheet (continued)

( )	CUSPSEL	( )	CUSSECE
( )	CUSWLCM	( )	CUSWTBL
Installed languages:			
( )	DA	( )	DE
( )	EN	( )	ES
( )	NL	( )	FR
( )	Other:		
Type of failure:			
( )	ABEND:	( )	DOC:
( )	INCORROUT:	( )	LOOP:
( )	MSG:	( )	Other:
3270–ASF functions that failed:			
( )	DC4ASF	( )	DCPCALL
( )	DISPLAY	( )	HELP
( )	LMF	( )	PDPCALL
( )	PVPCALL	( )	RP
( )	UAPI		
Batch functions that failed:			
( )	CF	( )	FSNBTCH
( )	UTIL		
Web-client functions that failed:			
( )	HELP	( )	INVOCATION
( )	DCPCALL	( )	LOGON
( )	MENU	( )	PARAMETER
( )	PDPCALL	( )	PREVIEW
( )	PRINT	( )	PRINTPREV
( )	PVPCALL	( )	SPSELECT
Browser-based functions that failed:			
( )	Function name:	( )	Function name:
Transaction code:			
( )		( )	Corresponding default:
Program name:			
( )		( )	Corresponding default:

Type of failure

The type-of-failure keyword identifies the problem you want to describe:

ABENDxxxx
> ASF ended abnormally. Replace *xxxx* with the ABEND code that was issued. If a message was issued, you should write it down.

DOC An ASF problem seems to occur because of incorrect, missing, or ambiguously stated information in one of the IBM-supplied books for ASF.

If you have a documentation error, specify the complete order number, including the suffix, of the book, and the page or pages on which you found the incorrect information.

INCORROUT
ASF produced output that was not expected. Check whether the output is really incorrect and not just undesirable.

LOOP
ASF seems to be doing something repetitively. Specify how you identified that ASF is looping.

MSGnnns
A failure related to a message occurred, for example:
- The message described a set of conditions that do not apply to what the program is doing.
- You expected a message, but it did not appear.
- The program printed or displayed a message that starts with FSN and is not documented, or not documented correctly.

Functions that failed

The function names describe major areas of the program to which you can assign failures even if you do not know the exact cause.

3270 interface

Choose the keyword that best describes the function you used on the host when the failure occurred:

DC4ASF
The feature Document Connect for ASF was used.

DCPCALL
A data collection program (DCP) was invoked.

DISPLAY
The display function was used.

HELP The help function was used.

LMF The library maintenance functions were used.

PDPCALL
A program determination program (PDP) was invoked.

PVPCALL
A program verification program (PVP) was invoked.

RP Remote printing was used.

UAPI You switched between ASF and your programs.

Batch utilities

Choose the keyword that best describes the utility you used when the failure occurred:

CF Continuous formatting was used (DB2 only).

FSNBTCH
Document composition in batch mode.

UTIL A batch utility program of ASF other than FSNBTCH was active.

Web client interface

Choose the keyword that best describes the function you used on the Web client when the failure occurred:

DCPCALL
> A data collection program (DCP) was invoked.

HELP   An error occurred while using the online help function.

INVOCATION
> An error occurred on invocation of the Web client. The type of invocation can be **3270–Listener**, **HTTP POST**, or **JNI client**.

LOGON
> An error occurred while logging on to the system.

MENU
> An error occurred while selecting a menu item.

PARAMETER
> An error occurred while entering parameters.

PDPCALL
> A program determination program (PDP) was invoked.

PREVIEW
> An error occurred while using the Preview function.

PRINT
> An error occurred while printing the document.

PRINTPREV
> An error occurred while using the Print Preview function.

PVPCALL
> A program verification program (PVP) was invoked.

SPSELECT
> An error occurred while editing the document structure.

Transaction code

If the error occurred while running ASF online, enter the transaction code that caused the problem. If you have changed transaction codes through tailoring, indicate also the corresponding default transaction code of ASF.

Program name

Enter the name of the program, that is, the load module that caused the problem.

Submitting an APAR

After you have selected the keywords for the problem determination sheet, your next step is to check if the problem has already been reported to IBM.

When you have selected the keywords, visit the ASF Web page at http://www.ibm.com/software/applications/office/asf/support.html to determine if the problem has been reported. In the Support section, use the keywords to check the FAQs section and the Hints and Tips section for any information relating to the problem. To report the problem, read the information relating to APARs, and submit an APAR according to the instructions supplied. Where requested, include the keywords you selected.

The error description submitted with the APAR should include the following information and documentation:

- If the error occurred during online operation of ASF:
  - A CICS formatted transaction dump, a PL/I dump, or a SYSUDUMP
  - A description of what you did before the error occurred, detailed enough to allow for the reproduction of the error
  - A description of the last panel that was displayed when the error occurred
  - ASF session trace, if the problem can be reproduced
- If the error occurred while running a batch utility program:
  - All output you received from the job that failed
  - If the job ended abnormally, a partition dump
  - All input you supplied to the job that failed
- If the error occurred on the Web client:
  - A description of what you did before the error occurred, detailed enough to allow for the reproduction of the error
  - A description of the last panel that was displayed when the error occurred
  - All input you supplied to the Web browser
  - All output you received from the function that failed
  - The trace of the Web client, if the problem can be reproduced
- Add all information you think is related to the failure

The APAR form

An APAR is submitted on a special form available from IBM. If you are requested to submit an APAR for your program failure, you need to determine the problem's severity code. Complete the following fields:

- Severity code
- Failure keyword
- Abstract
- Error description text

If you have more than one keyword to describe the type of failure, select the failure keyword that best describes the problem. Specify the other types of failure keywords in the **Error description text** field.

If the **Abstract** field is too small to enter all the function and module keywords, put the keywords that contribute least to the description of the problem in field **Error description text** and not in field **Abstract**.

Chapter 2. Identifying a problem

This chapter describes how to identify a problem inASF. The chapter is divided into the following parts:

- Identifying a problem in 3270–ASF
- Identifying a problem in the ASF Web client
- Identifying a problem in the batch utilities

Identifying a problem in 3270–ASF

The IBM service organization personnel may ask you to get session debug trace information to analyze a reported problem of an online task you tried to perform and that failed.

The trace can be set on individually for each single user by definitions in the user profile. If necessary, refer to the *Application Support Facility for z/OS: Administration Guide* for details of how to maintain user profiles. Select **Session control settings** on the Profile Maintenance panel. Enter **1** in field **Run debug trace**, press Enter and then the End F-key. Log off from ASF and then sign on again. Perform the sequence of steps that caused the problem. The trace output shows the maintenance level of the ASF modules that are affected by the online task being traced.

Definition of the trace data set FSNXTRA

During installation, a permanent data set with the ddname FSNXTRA is allocated with the following definitions:

```
Organization:          PS
Record format:         FBA
Record length:         132
Block size:            1320 (Or any multiple of 132. Change the
                            CICS DCT definitions accordingly.)
First extent blocks:   500
Secondary blocks:      500
```

If necessary, define the data set with DISP=MOD so that more than one transaction trace output can be collected. Otherwise each transaction trace output replaces the previous one.

When the debug trace is set on, session information is collected in data set FSNXTRA. At the end of the trace session, set off the debug trace in the user profile.

Considerations for FSNXTRA in a CICS environment

During installation, a CICS extrapartition queue with the name FSNXTRA and DSCNAME FSNXTRA is defined in the CICS CSD.

Specify the ddname FSNXTRA in the CICS startup job.

If you run CICS MRO (multiregion operation), define a different physical data set in the startup job for each CICS region. Before you start the trace, check that the queue exists and that it is open by using the CEMT command **CEMT I TD(FSNX)**.

Close the queue FSNXTRA with CICS transaction CEMT. If necessary, save the FSNXTRA output in another permanent data set.

Considerations for FSNXTRA in an IMS environment

The ddname FSNXTRA and its dsname must be specified in the message processing program (MPP). If you have more than one MPP, define different physical data sets for FSNXTRA in each MPP. Stop your message processing region and, if necessary, save the FSNXTRA output in another permanent data set.

Controlling dumps being taken when ASF abends

When ASF detects a situation where it cannot continue processing, the task is ended and, if possible, an error information screen is displayed showing the ABEND code, the requesting program and a message containing more information about the origin of the error.

A Pl/I dump or CICS transaction dump is taken according to the tailoring definitions in parameter DUMPCR. This parameter is described in the *Application Support Facility for z/OS: Administration Guide*. Its value can range from *0* to *3*. The tailoring default is *0*, which means no dump will be taken. If a dump is necessary for debugging of application programs or if the IBM service organization personnel asks you to provide it, set parameter to *1* if ASF runs under IMS, or to *1*, *2* or *3* if it runs under CICS. The DUMPCR values have the following meaning:

Value	Meaning
1	PL/I dump only
2	CICS transaction dump
3	Both dumps

Under CICS, the dump is written to the active CICS dump data set, that is to either DFHDMPA or DFHDMPB which are defined in the startup job. Under IMS, the dump is written to the SYSPRINT data set as defined in the message processing procedure.

Identifying a problem in the ASF Web client

If you use ASF with the feature Document Connect for ASF, you can get trace information on the host, the server, the client, or on all of them.

Logging and tracing on the host

In addition to the session debug trace described in "Identifying a problem in 3270–ASF" on page 7, you can set up an ASF system trace. Set base tailoring parameter RUNTRCE to 2 and refresh the base tailoring of ASF (load module FSNT000).

With this setting of RUNTRCE, all available session trace information for all users is written to the data set FSNXTRA.

Note: This leads to a drop in performance.

Logging and tracing on the server

The ASF server can be configured to record information in log and trace files. The programs on the server issue log and trace messages at certain points. Depending on the server configuration, these messages are either filtered out or, if they pass the filter, formatted and written to the appropriate file.

Logging and tracing configuration information is stored in the configuration file
DocConfiguration.xml. By default, logging is enabled and tracing is disabled.

The logging section in the file contains:

```
<Logging enable="aaa">...</Logging>
```

where aaa="Y" if logging is enabled, and aaa="N" if logging is disabled.

The tracing section in the file contains:

```
<Tracing enable="bbb">...</Tracing>
```

where bbb="Y" if tracing is enabled, and bbb="N" if tracing is disabled.

Logging and tracing configuration

The following is an example of logging and tracing configurations in
DocConfiguration.xml:

```
...
<Logging enable="Y">
<GenericName>g:\dc4asf\log\logfile</GenericName>
<Extension>.log</Extension>
<NumberOfGenerations>11</NumberOfGenerations>
<Filesize>10</Filesize>
<Recordlength>204</Recordlength>
</Logging>
<Tracing enable="N">    <GenericName>g:\dc4asf\log\trcfile</GenericName>
<Extension>.trc</Extension>
<Recordlength>123</Recordlength>
<Class>
<Classname>DocASF*</Classname>
<Classname>DocCfg*</Classname>
<Classname>DocBasics</Classname>
</Class>
<TraceType>
<Type>US</Type>
<Type>LG</Type>
</TraceType>
</Tracing>
...
```

Logging tags: The logging configuration contains the following tags:

Tag	Meaning
GenericName	The fully qualified generic file name of the log file.
Extension	The file extension of the log file.
NumberOfGenerations	The number of physical log files.
Filesize	The maximal file size in kilobytes of the physical log file.
Recordlength	The maximal record length of the log file.

Tracing tags: The tracing configuration contains the following tags:

Tag	Meaning
GenericName	The generic fully qualified file name of the trace file.
Extension	The file extension of the trace file.
Recordlength	The maximal record length of the trace file.
ClassName	The class name of the trace filter.
	There must be one or more <Classname> tags within the <Class> tag. The content of the

<Classname> tag is the class name (not fully qualified) that issued the trace message.

Wild cards (*) are allowed for class names, for example:
- <Classname>*</Classname> permits all classes.
- <Classname>Doc*</Classname> permits only those classes starting with Doc.

Type   The type of trace filter.

There must be one or more <Type> tags within the <Trace Type> tag. The content of the <Type> tag is the trace type that is associated with the message. Valid values are:

AL	All trace types
BU	Buffer trace
CN	Constructor trace
ER	Error trace
LG	Log trace
PF	Performance trace
US	User trace

Trace filters

Trace filters are used to suppress the formatting of trace messages to trace records and the writing of them to trace files. The filter information is stored in the tracing section of the configuration file **DocConfiguration.xml**. Filter information is "positive". This means that if the trace values in trace messages match the values stored in the configuration file, the messages are formatted to records and written to the file.

There are two kinds of trace filters:
- Trace type
- Class name

A message is processed if the trace type of the message fulfills any of the trace type conditions *and* if the message class name fulfills any of the class name conditions.

Note: Messages with the trace type "AW" (Always) are always formatted to trace records and written to the trace file regardless of the trace type and class name in the configuration setting. Messages with the trace type "ER" (Error Trace) are written to the trace file regardless of the class name in the configuration setting.

Log file layout

A logical log file consists of one or several generations of physical log files. The number of generations is determined by the content of the tag <NumberofGenerations> in the logging section of the configuration file **DocConfiguration.xml**.

Each physical log file comprises text files with variable record lengths and maximal file sizes. The variable record length is determined by the content of the <Recordlength> tag in the logging section of the configuration file. The value of the maximal file size (in kilobytes) is determined by the content of the tag <**Filesize**> in the logging section of the configuration file.

The file name of the physical log files comprises:

- The content of tag <GenericName>
- The formatted generation number
- The content of tag <Extension>

The formatted generation number is a value between 0 and the content of <NumberofGenerations> minus 1.

The writing of files is done in a *wraparound* manner. This means that the files with the formatted generation number 0, 1, 2, and so on, are successively written, up to the maximal file size. If the file is full (the maximal file size is reached), the current file is closed and the next file is written with the next formatted generation number. For instance, if the file, whose formatted generation number is the same as the value of the tag <NumberofGenerations> minus 1, is closed, the file with the formatted generation number 0 is overwritten.

In the following example of log file names, there are 11 physical log files because the <NumberofGenerations> is 11:
- G:\dc4asf\log\logfile00.log
- G:\dc4asf\log\logfile01.log
- G:\dc4asf\log\logfile02.log
- G:\dc4asf\log\logfile03.log
- G:\dc4asf\log\logfile04.log
- G:\dc4asf\log\logfile05.log
- G:\dc4asf\log\logfile06.log
- G:\dc4asf\log\logfile07.log
- G:\dc4asf\log\logfile08.log
- G:\dc4asf\log\logfile09.log
- G:\dc4asf\log\logfile10.log

Each of the files have a maximal record length of 204 bytes and a maximal file size of 10 kilobytes. When file G:\project\logging\logfile10.log is full, the file G:\project\logging\logfile00.log is overwritten.

Log starter records: Certain starter records are always written at the first position of the log files when the files are created. They contain system information such as the name and version of the operating system of the ASF server, the installed Java™ run-time vendor and environment, and the time zone. The time zone is controlled by the setting of the parameter user.timezone in the Java system property file. It relates to the time stamp in the log file name and the time stamp in the file header. This time stamp might therefore be determined by both the local user time and the last modification time of the log record.

Trace file layout

Each trace record consists of a trace string header of fixed length and trace string data of variable length. The trace file is a text file with variable record length. The value of the maximal record length is determined by the content of the tag <Recordlength> in the tracing section of the configuration file **DocConfiguration.xml**.

The file name of the trace file comprises:
- The content of tag <GenericName>
- The time stamp of when the file was generated
- The content of the tag <Extension>

For example, if the file was created on August 12, 2002, at 09:54:22 and 023 milliseconds, the file name would be:

- G:\dc4asf\log\trcfile20020812095422023.trc

The file would have a maximal record length of 204 bytes.

Trace starter records: Certain starter records are always written at the first position of the trace files when the files are created. They contain system information such as the name and version of the operating system of the ASF server, the installed Java run-time vendor and environment, and the time zone. The time zone is controlled by the setting of the parameter user.timezone in the Java system property file. It relates to the time stamp in the trace file name and the time stamp in the file header. This time stamp might therefore be determined by both the local user time and the last modification time of the trace record.

Logging and tracing on the client

Depending on the function that failed, select the type of trace that you want to run:
- 3270–Listener trace for errors in the communication between the 3270–emulator session and the Web client session
- AFP Viewer trace for errors that occur with print preview
- Script debugging for JavaScript™ errors.

3270–Listener trace

To set up a trace for the 3270 Listener follow these steps:

1. Close the listener.
2. Change the listener's startup option: Open the listener's Properties notebook. On the **Shortcut** tab, change the trace option, which is specified in the field **Target:**, from **/notrace** to **/trace**.
3. Restart the listener.

The listener writes trace information to a trace file in the default `temp` directory. The trace file is named DOCLISTN_*xx*.txt, where *xx* is the trace number, starting from 01.

For every trace, the number is increased by one, unless you deleted previously generated trace files

AFP Viewer trace

To set up a trace for the AFP Viewer, modify the file ftdport2.ini in the afpplgin directory. The settings are:

```
Trace=TRUE
ViewTraceFile=C:\AFPPLGIN.LOG
```

When a user requests print preview, trace information is written to the specified trace file.

Identifying JavaScript errors

A yellow and black triangle in the bottom-left corner of the Web-client window indicates a JavaScript error. If such an error occurred, the further use of Document Connect for ASF can produce subsequent errors like processing errors or continuous display of the hourglass. To see more information about the JavaScript error, click on the triangle.

If Microsoft Script Debugger is installed on your system, enable script debugging in case of a JavaScript error.

On the **Advanced** tab in the Internet Options notebook, clear the **Disable Script Debugging (Internet Explorer)** check box. Repeat the task where the error occurred. Create a screen capture of the respective debugger window and attach it to your problem description.

Disable script debugging.

Identifying a problem in the batch utilities

All batch utility programs optionally write trace information to the data set with the ddname FSNXTRA. With the exception of FSNBTCH (FSNBTC2), the trace is started by using the control keyword TRACE. Specify one of the following keywords as the first statement of your job:

TRACE(0)
> No trace.

TRACE(1)
> Run a debug trace.
>
> **Note:** You can also just specify **TRACE**.

TRACE(2)
> Extended trace with dump of control areas.
>
> **Note:** This option creates a large amount of output.

Note: The statement must be a single statement, that is, the line must not contain another statement.

FSNBTCH (FSNBTC2) writes trace information if the user ID in the SIB control block being processed is defined with the option **Run debug trace = 2** in its user profile.

For information about controlling dumps that are taken when ASF abends refer to "Controlling dumps being taken when ASF abends" on page 8.

The trace facility of FSNBTCH (FSNBTC2)

In addition to the session debug trace, other trace facilities are available. After tailoring FSNBTCH (FSNBTC2), or when new or changed user application programs are activated, a test run is recommended. FSNBTCH (FSNBTC2) offers extended input, output, and processing logs as an optional feature (trace mode). To activate this feature, a modified tailoring module FSNTB00 must be generated, which contains the macro statement:

```
FSNTBMON  TRCECT=nnn
```

where *nnn* represents the number of input SIB records to be traced. When the value of this parameter is higher than *64*, the trace does not show the contents of the I/O areas, except for the input and error SIB records.

Note: FSNBTCH (FSNBTC2) does not stop after processing these records but returns to normal operation.

For all records to be traced, FSNBTCH (FSNBTC2) writes the following log information to SYSPRINT:

- All PCB names from the parameter list passed to the monitor module (only when running under IMS or DL/I).
- All generated FSNTBUAP tables in hexadecimal representation (up to a maximum of 250 tables) showing:

  There is one entry for each FSNTBUAP in the FSNTB00 tailoring table:

FSNBUAP

Name of user application as defined in LTD 8 bytes	Name of user application 8 bytes	Program length 1 byte	Application processing option 1 byte	Number of databases 1 byte

Database name 8 bytes	Processing option 2 bytes	Sequence number 2 bytes
←———— max. 230 entries ————→		

One entry for each FSNBUAP in the FSNTB00I tailoring table

If IMS or DL/I is used, this extension is found after each FSNBUAP entry. One entry is provided for each database referenced by the user program, up to a maximum of 230 entries.

Figure 1. Trace output for FSNTBUAP

- All FSNBTCH (FSNBTC2)-specific PCB names from the parameter list (only under IMS).
- Each SIB input record in hexadecimal representation.
- The SIB output record **error SIB** in the same representation.
- All subprogram calls that the monitor performs with:
  – PGM-ID and PGM-RET-ID prior to call
  – PGM-ID, PGM-RET-ID and MSG-NUM on return

  where:

  MSG-NUM represents the numeric portion *nnn* of a FSN*nnn*E error message

  PGM-ID and PGM-RET-ID can have one of the values shown in Figure 2

PGM-ID value	Module name	Function
000 to 004	FSNSIGM	Sign-on function
020	FSNCLAP	Call user application
030	FSNRTAP	Return to user application (error SIB)
200 to 219	FSNPSLM	LCF paragraph selection
230 to 239	FSNLPPM	LCF parameter determination
240 to 249	FSNLCTM	LCF termination

Figure 2. FSNBTCH (FSNBTC2) program control table

- The name of the called user application.
- The SIB type 1 area in hexadecimal representation before invocation of, and after return from the user application (CALL-SIB and RTRN-SIB).
- For every access to a database, the DL/I function, key, DL/I status code, and the I/O area in hexadecimal representation as shown in the following example:

```
FUNCT=GU        GIL-KEY=       LETREMPL

RECORD ADDED     TO BUFFER, BLK-NO= n  or
RECORD REPLACED  IN BUFFER, BLK-NO= n  or
RECORD RESIDENT  IN BUFFER, BLK-NO= n
```

  If database segments are added or replaced, the buffer storage area is given in hexadecimal representation as follows:

GIL-BUFC

BUFFER length 4 bytes	BUFFER control entries 4 bytes	Free space offset 4 bytes	Lowest access block number 2 bytes	Highest block number used 2 bytes	Record offset 4 bytes	Record length 2 bytes	Access count 2 bytes
					←————— max. 384 entries —————→		

DLI-STATUSCODE=
GIL-REC*   DATA LENGTH=111

I/O area in hexadecimal representation (if database was accessed)

Figure 3. Buffer storage area

- SPA areas FSNSPA (control area) and FSNCLCF (SPA area for LCF data) in hexadecimal representation, if an error is encountered.

Identifying a problem during continuous formatting

When ASF uses DB2, writing of trace information by the utility FSNCF00 is controlled by the **TRACE** keyword in the FSNIN control file, for example:

```
TRACE(ON)
```

Specify one of the following option parameters with the keyword **TRACE**:

Option Meaning

ON   Full tracing

OFF   No tracing

SMALL
          No entry (type E) and exit (type X) trace records

A trace record is 80 columns wide and has a fixed part and a variable part. The fixed part spans columns 1 to 23 and the variable part spans columns 24 to 80.

For the meaning of the columns of a trace record, refer to the following table:

Column	Description
1	The following values are possible for this column:
	Value Meaning
	T Time trace; date and time of trace start
	S Service trace; module compile date, time, and module size in bytes
	E Function entry trace; denotes a module entry point to be executed
	X Function exit trace; denotes the return from an entry point
	V Variable trace; describes the content of one or more variables
	R Return code trace; describes a return code
	I PL/I trace data; trace data produced by PL/I modules for module FSNTRAC
	L LOG writing trace; duplicates message written to LOG
3-10	Name of active module entry when trace is written
12-19	Name of active module when trace is written
21-22	Module calling level (cannot be calculated for PL/I (type I) trace data)

Column	Description
23	Blank
24-80	Trace record type dependent data

Some examples of trace records are listed in the following:

- E PRSDATA FSNCFPRS 04

  Entry point PRSDATA in module FSNCFPRS is called at calling level 4.

- X STORAGE FSNCFBFC 04

  Exit from entry point STORAGE in module FSNCFBFC at calling level 4.

- V STORAGE FSNCFBFC 04 GETMAIN 07AB9310 0005FCEC

  GETMAIN request at calling level 4 in entry point STORAGE in module FSNCFBFC with length 5FCEC starting at address 07AB9310 was successful.

- R FSNCF010 FSNCF010 02 LRR RETRIEVE RC= +4

  Module FSNCF010 at calling level 2 received a return code = 4 for request 'LRR retrieve'.

- I FSNCF410 FSNCF410 -- 0006 0001 UPDATE_OUTPUT_RECORD PROC

  ```
              00013214 +0000 00164BC4 D440F0F0 F0F0F0F0 F0F0F14D │...DM 000000001(│
                       +0010 5D40004B A29740F2                   │) ..sp 2        │
  ```

  Trace entry from PL/I module FSNCF410 with trace data.

- L FSNCF010 FSNCF010 02 FSN1312I LRR ID 373920041229059 SYSTEM ID ' ' successful

  The above message is written to the log from module FSNCF010 at calling level 2. The message is shortened to fit into one trace record.

Online display of tailoring information

The tailorable information of ASF is stored in the following load modules:

- FSNT000 - base tailoring
- FSNT100 - environment tailoring
- FSNTxxx - language tailoring

  where *xxx* is the language code defined for the system or a specific user.

To check whether changes of the tailoring information are active you can display the tailoring information online. Specify the name of the load module as fast-path command on the command line in ASF and press Enter.

Appendix A. ABEND and dump codes from the online programs

When an abnormal condition occurs that prevents one of the ASF transactions from continuing the dialog, the transaction is terminated. ASF issues an ABEND code to identify the condition. CICS supplies a transaction dump and IMS supplies a region dump for diagnosis.

ABEND codes from ASF have one of the following formats:

FSN1-FSNL
> ABEND codes that occur when functions of ASF are performed.

ABEND codes

ASF issues ABEND dumps and provides ABEND information in an online environment on a separate panel. The following example shows the structure of this panel:

```
ABENDING MODULE        =  FSNMON1
ABEND CODE             =  FSN3
ABEND INFORMATION      =  FSN1927E SIB type 1 of
                          incorrect length received
```

This panel contains the following information:

- The name of the module that detected the problem and that issued the dump
- The dump code to identify the dump in the dump data
- A message that contains more detailed information about the origin of the problem
- According to environment and type of ABEND, further information may be displayed, for example processed DB key, processed request and field **EIBRESP** if ASF is running under CICS.

Note: Generally, a forced ABEND is accompanied by an FSN19xx message, which contains more detailed information on the cause of the problem.

FSN1

Explanation: One of the ASF programs was not invoked correctly. This can have one of the following reasons:

- The transaction code was entered from the terminal but the program can only be called by another program.
- The calling program is unknown to ASF.
- ASF was called by a command it does not support.

User response: Specify the appropriate program name on the Application Type Description Header panel, or correct the calling application program. For details on how to call ASF from an application program, refer to

Application Support Facility for z/OS: Application Programming Interfaces.

FSN2

Explanation: An ASF transaction was invoked from a display station that is not supported by ASF.

User response: Use a display station supported by ASF.

FSN3

Explanation: ASF received a communication area (COMMAREA of CICS) when it was called with CICS XCTL, or a data area when it was called with CICS

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START using a length that is not valid. When ASF is called from an application program, the length must be at least 180 bytes (SIB header). When an application program returns control to ASF, the length must be at least 524 bytes (SIB header extension). When ASF is started through terminal control, there is only a COMMAREA. Its length must be 0 or equal to the length of the ASF scratchpad area as defined by your administrator.

User response: Correct the calling application program. For details on how to call ASF from an application program, refer to *Application Support Facility for z/OS: Application Programming Interfaces*.

FSN4

Explanation: ASF is unable to continue the dialog after an application program returned control to it. ASF cannot find the internal scratchpad area record that it saved before it called the program. The application program did probably not return the SIB field **SIB_SPA_REC_IDE** with the same contents the field had when the application program was called.

User response: Correct the application program. For details on how to call ASF from an application program, refer to *Application Support Facility for z/OS: Application Programming Interfaces*.

FSN5

Explanation: ASF was unable to return control to a calling transaction. Either the program name or transaction code contained in the SIB field **SIB_PGRM_NAME** is not defined in the CICS processing program table (PPT) or program control table (PCT), or the program is not contained in the load library concatenated in the **DFHRPL DD** statement (z/OS).

User response: Check whether the SIB field **SIB_PGRM_NAME** contains a correct program name or transaction code, whether this name is also specified in the CICS PPT or PCT, and whether the program is available to CICS.

FSN6

Explanation: The ABEND is issued as a result of an internal error being detected.

User response: Report the ABEND code to IBM.

FSN7

Explanation: ASF called the modules FSNDBAM with a request code that is not valid. This is an ASF internal error.

User response: Report the ABEND code and the error message to IBM.

FSN8

Explanation: You attempted to invoke a component of ASF directly, for example, from a display station or an application program. However, this component can only be called internally from ASF.

User response: None.

FSN9

Explanation: This is an ASF internal error. ASF found an incorrect program name in a control field.

User response: Report the ABEND code and the error message to IBM.

FSNB

Explanation: ASF was called from another application program. The SIB received from this application program specifies an incorrect SIB type.

User response: Try to find out why an incorrect SIB type was received or ask your ASF administrator to determine the reason for this problem.

FSND

Explanation: ASF found a program return ID that is not correct.

User response: Report the ABEND code and the error message to IBM.

FSNL

Explanation: The ABEND code occurs with one of the messages FSN1910E through FSN1914E. An ASF program is unable to load a specific tailoring module identified by the accompanying abend code.

User response: Check whether the required tailoring load modules are available. If message FSN1913E or FSN1914E was issued, check the definitions for the environment tailoring FSNT100C/I and the transactions in the base tailoring FSNT000C/I.

Messages related to ABEND codes

The following messages can occur in connection with ABEND codes:

FSN1850E	**Access to a /// table failed, SQLCODE: //////////**	**FSN1851E**	**Requested data not found in the /// tables**

FSN1852E	**Specified data already exist in the ///** **tables**
FSN1853E	**Access to DB2 failed, SQLCODE: //////////**
FSN1910E	**Base tailoring not available**
FSN1911E	**Requested language not available**
FSN1912E	**Environment tailoring FSNT100(C) or (I)** **not found**
FSN1913E	**Unable to find environment tailoring** *tailoring name*
FSN1914E	**Unable to find transaction tailoring for** *transaction family*
FSN1920E	**Incorrect start code** *code name* **received**
FSN1921E	**Invocation via CICS LINK not** **supported**
FSN1922E	**Unable to continue dialog. Incorrect** **EIBCALEN**
FSN1923E	**The returned SIB has an incorrect length**
FSN1924E	**LEVEL SPA could not be restored**
FSN1925E	**USER and SESSION SPA could not be** **restored**
FSN1926E	**SIB of TYPE 0 with incorrect length** **received**
FSN1927E	**SIB of TYPE 1 with incorrect length** **received**
FSN1928E	**SIB with incorrect TYPE** *SIB type* **received**
FSN1930E	**PROGRAM ID not found during** **module loop**
FSN1931E	**SIB input requests terminal display**

FSN1932E	**Current terminal not supported**
FSN1940E	**FSNASF2 invoked with an incorrect** **SPA name**
FSN1941E	**FSNASF2 invoked with an incorrect** **SPA length**
FSN1946E	**Creation of ZSPA from AS SPAS and** **SPAU failed**
FSN1947E	**Creation of ZSPA from AS LEVEL APA** **failed**
FSN1950E	**SPA_PGM_RET_ID** *number* **not** **supported in FSNZCLAC**
FSN1951E	**Invocation of host server not valid**
FSN1960E	**Application program** *name* **is unknown** **to CICS**
FSN1961E	**Transaction code** *code* **is unknown to** **CICS**
FSN1966E	**Start of** *transaction code* **failed. System** *name* **not available**
FSN1967E	**Start of transaction** *transaction code* **failed. EIBRESP =** *code*
FSN1968E	**Transfer control to** *program name* **failed,** **EIBRESP =** *code*
FSN1980E	**Alternate index** *name* **not available**
FSN1981E	**Database** *database name* **not available**
FSN1982E	**CICS SYNCPOINT request failed,** **EIBRESP =** *code*
FSN1983E	**Access failed on TSQ:** *name*
FSN1984E	**The received scratchpad area is too long**
FSN1985E	**Status code** *code* **received on PURGE** **request**

FSN1986E	**Status code** *code* **received when trying to insert IMS messages**
FSN1987E	**Status code** *code* **received on Get Next (GN) message request**
FSN1988E	**One of the received SIB segments is longer than 4094 bytes**
FSN1989E	**Insertion of SPA failed, status code** *code*
FSN1990E	**Database access failed, database** *database name*
FSN1991E	**Database call with incorrect request** *request*
FSN1992E	**Database call** *call* **not supported**
FSN1993E	**Generic delete not supported for** *database name*

FSN1994E	*Function* **call for database** *database name* **failed, status** *code*
FSN1995E	**Program check with condition code** *code* **occurred at** *location*
FSN1996E	**Transaction code** *code* **is unknown**
FSN1997E	**The call of transaction** *transaction code* **failed**
FSN1998E	**Status code** *code* **received on Change PCB request for transaction** *transaction code*
FSN1999E	**The return to transaction** *transaction code* **failed**

Dumps under IMS

If an unrecoverable error occurs, ASF tries a controlled termination of your session and attempts to send a message containing the reason for the termination.

The dump code is 9. A message containing additional information is sent to you and is included in the main-storage dump.

To find the message text, search for the ASF Communication Area (ICA). The area starts with the 8-byte constant 'ASFx-ICA', where *x* can stand for *1*, *2*, or *3*. At offset 643 (X'283'), the message text begins. Online messages are not described in this book. To display the explanation of a message, issue the command **xxxMSGO** (**xxx** stands for the national language prefix, for example **ENU** for English). Then enter the message number.

Appendix B. Messages and codes from the batch utility programs

Messages

The following messages are printed on the output lists of the batch utility programs of ASF.

FSNA01E   No input found

Explanation: No control statements were found in the input data set SYSIN.

System action: The utility program terminates.

User response: Provide the control input and resubmit the job.

FSNA02E   Parameter names cannot exceed 10 characters

Explanation: Your request control statement contains the keyword **ITNAM** and the keyword **TYPE**. If you only specified **TYPE (7)**, the values of the keyword **ITNAM** are interpreted as parameter description record names and, accordingly, must not exceed 10 characters.

User response: Correct the length of the value.

FSNA03E   Incorrect control statement

Explanation: The syntax of the control statement is not valid, or incorrect characters were used in the keyword parameter value or values.

System action: Processing continues with the next control statement.

User response: Correct the control input and resubmit the job. For detailed information about the control statements, refer to the *Application Support Facility for z/OS: Administration Guide*.

FSNA05E   Record owned by user ID/project already exists in library; input ignored

Explanation: The target library already contains the document you tried to save.

System action: The input record and its continuation records are bypassed.

User response: If you want to replace the record, specify **REPL** in the SYSIN input record; then rerun the job.

FSNA06E   Record owned by user ID/project is too long; input ignored

Explanation: The maximum record length allowed in

the target library is shorter than the length of the specified record. This can happen when GIL records are copied from an IMS to a CICS library.

System action: The input record and its continuation records are bypassed.

User response: If possible, shorten the record using the library maintenance functions. Otherwise, ask your administrator to enlarge the maximum record length allowed in the target library. Then resubmit the job.

FSNA07E   Item *name* is maintained by user *user* at terminal *termid*

Explanation: The specified item is in maintenance.

System action: The item could not be processed.

User response: Recover the item online using the specified terminal and the specified user ID. Then resubmit the job. If many items were processed you can also define a new job and specify only the items found in maintenance.

FSNA11E   No item matched the specified search criteria

Explanation: The library referred to does not contain an item that matches your search criteria.

User response: None.

FSNA12E   Either REPL or NOREPL may be specified

Explanation: Either you have specified an incorrect control statement or more than one statement in the first input line.

User response: Specify either the **REPL** or the **NOREPL** control statement.

FSNA13E   The system processes only the first control input line. The following input lines are ignored

Explanation: You specified more than one input line in a RELOAD job. You only need the control statements **REPL** or **NOREPL** in this job. All other input lines are ignored.

User response: Delete the job control input lines that are not needed.

FSNA14E   The input data set is corrupted

Explanation: Important information is missing in the sequential input data set.

System action: The RELOAD could not be performed successfully.

Explanation: Rerun the UNLOAD job; then rerun the RELOAD job.

FSNA15E   Item *name* owned by *owner* not found in *library name*

Explanation: The specified item does not exist in the library.

User response: None.

FSNA16E   Item *name* owned by *owner* already existed in library and was replaced

Explanation: Self-explanatory.

User response: None.

FSNA17E   Item *name* owned by *owner* is not valid

Explanation: You tried to process an item that is not valid.

User response: Try to recover or delete the item online, then resubmit the job. If many items were processed, you could also define a new job and specify only the items that are not valid.

FSNA18E   Item *name* owned by *owner* already exists in target library

Explanation: The specified item already existed in the target library. Because you specified the **NOREPL** control statement, the item was not replaced.

User response: None.

FSNA19E   Document owned by user ID/project not found in *library*

Explanation: The specified document is not in the document cabinet.

System action: Processing continues.

User response: Check for the correct specification in the SYSIN data; then rerun the job.

FSNA27E   Range specification is not valid

Explanation: You specified a range in the input control statement that has a lower limit value which is greater than the upper limit value.

System action: The job terminates.

User response: Check your input control statement; then rerun the job.

FSNA28E   Control parameter missing or not valid

Explanation: Only the parameters **SCAN**, **EXECUTE**, **REPL**, and **NOREPL** are allowed in an input control statement. One of these is missing, or you have typed a different parameter.

System action: The job terminates.

User response: Check your input control statement; then rerun the job.

FSNA29E   Control statement input is conflicting with control parameter *parameter*

Explanation: Some control parameters within the input control statement are incompatible. For example, the parameters **REPL** and **NOREPL** must not be followed by any other parameter.

System action: The job terminates.

User response: Check your input control statement; then rerun the job.

FSNA30   All input ignored

Explanation: No record was inserted due to incorrect code-page information.

System action: All input is bypassed.

User response: Correct the **FROMKB** statement; then resubmit the job.

FSNA31E   No utility control statement specified

Explanation: The input for the utility contains no control statement which request should be performed.

System action: The job terminates.

User response: Define a utility control statement as described in the chapter on "Batch programs that support administration" in the *Application Support Facility for z/OS: Administration Guide*.

FSNA32E   No input in input file FSNFROM

Explanation: The data set FSNFROM defined in your job control input is empty.

System action: The job terminates.

User response: Correct your job control input.

FSNA33E   **Code-page number is missing**

Explanation: A **FROMKB** statement was found but no code page was specified.

System action: All input is bypassed.

User response: Correct the **FROMKB** statement and resubmit the job.

FSNA34E   **Code-page number is not valid**

Explanation: The code page number must be a number between **1** and **999**.

System action: All input is bypassed.

User response: Correct the **FROMKB** statement and resubmit the job.

FSNA37E   **Specified code page is not supported**

Explanation: The code page specified is not supported.

System action: All input is ignored.

User response: Correct the **FROMKB** statement and resubmit the job.

FSNA38E   **Input file FSNFROM is not specified**

Explanation: The input file FSNFROM is not defined in the job control input.

System action: The job terminates.

User response: Specify the input file FSNFROM in the job.

FSNA39E   **Output file FSNTO is not specified**

Explanation: The output file FSNTO is not defined in the job control input.

System action: The job terminates.

User response: Specify the output file FSNTO in the job.

FSNA43E   **Control statement FROMKB= or TOKB= must be specified**

Explanation: The mentioned input control statements for the utility are missing but are needed to perform the requested function.

System action: The job terminates.

User response: Specify the **FROMKB** or **TOKB** in the job control input.

FSNA44E   **Control statement not recognized**

Explanation: The defined input control statement is not known as a keyword for the utility.

System action: The job terminates.

User response: Correct the job control input as described in the chapter on "Batch programs that support administration" in the *Application Support Facility for z/OS: Administration Guide*.

FSNA45E   **Control statement missing** *statement*

Explanation: The control statement given in the message text is missing.

System action: The job terminates.

User response: Correct the job control statement and resubmit the job.

FSNA46E   **Unmatched right parenthesis in operand of keyword** *keyword value*

Explanation: The control input definitions contain a left parenthesis that does not match a right one.

System action: The job terminates.

User response: Correct the job control input.

FSNA47E   **Incorrect value specified in keyword** *keyword*

Explanation: The control input definitions for the keyword mentioned in the message contains an incorrect value.

System action: The job terminates.

User response: Correct the job control input.

FSNA48E   **Only one value is allowed in keyword** *keyword*

Explanation: The control input definitions for the keyword mentioned in the message contain more than a single value.

System action: The job terminates.

User response: Correct the job control input. See description for correct utility control specifications.

FSNA51E   **Open failed for data set** *name*

Explanation: The utility tried to open the data set mentioned in the message but failed.

System action: The job terminates.

User response: See what other system messages indicate the reason for the unsuccessful opening and correct accordingly.

FSNA52E   Export data set *data set name* **is locked**

Explanation: The export function tried to open the data set mentioned in the message but failed.

System action: The job terminates.

User response: If the input in the export data set has already been processed, run the utility program FSNRSETC to unlock the data set for new input processing.

FSNA55E   LRR *name* **is incomplete and was not migrated**

Explanation: The LRR mentioned in the message is incomplete and was not migrated.

System action: Migration continues with the next LRR.

User response: None.

FSNA56E   Item *name* **is already integrated, input ignored**

Explanation: The specified item already exists in the test GIL. Because it has been integrated, as indicated by release status of 9, it cannot be replaced.

System action: Processing continues with the next item to be loaded.

User response: Either deintegrate the system or load the item after takeover of the integrated items from test into production has been completed.

FSNA59E   Item *name* **could not be deleted from database. SQL code** *sqlcode*

Explanation: The move function MOVES2C or MOVEC2S of the resource unload utility could not delete the specified item from the source database SLL or CLL, because DB2 returned the specified SQL code.

System action: The LRR has already been inserted in the target database It still remains in the source database. Processing continues with the next request.

User response: Use the delete function of the resource unload utility to delete the LRR from the source database.

FSNA60E   Items from different databases cannot be processed in the same job step

Explanation: You specified a request statement referring to more than one database type.

User response: Choose the database you want to process. Correct or delete request statements referring to other databases; then rerun the job.

FSNA61E   Maximum number of requests exceeded. Program terminated after 99 request statements

Explanation: You specified more than 99 request statements. The system cannot process more than 99 request statements. Therefore the statements following statement number 99 are ignored.

User response: Define a new job with the statements that were not processed.

FSNA62E   Either OWNER or USER can be specified as a keyword

Explanation: You have specified the keywords **OWNER** and **USER** in the same request control statement. This is not allowed. If you specify the keyword **OWNER**, you get all items owned by the specified owner(s). If you specify the keyword **USER**, you get only the private items of a specific user.

User response: To process private items owned by a user, specify the keyword **USER** with a specific value. To process items owned by a **PROJECT**, specify the keyword **PROJECT**.

FSNA63E   Either RLSGIL or combinations of COPYGIL and DELGIL can be specified, input ignored

Explanation: The requests specified in the message cannot be performed at the same time.

System action: Processing stops.

User response: Choose the request to be performed and correct the request statements; then rerun the job. If all specified requests must be performed, run one job for request RLSGIL and another job for the COPYGIL and DELGIL requests.

FSNA64E   Item name *name* **not allowed**

Explanation: During migration, the migration utility found an item that has a name that is not supported by ASF. Probably the item was either internally used by the product from which you migrate or the item is corrupted.

System action: The item is not migrated.

User response: Check the item in the library.

FSNA65E   Item *name* **already exists in target library**

Explanation: During migration, the migration utility found an item with the same name in the target library; the no replace option (**NOREPL**) applies.

System action: The item is not migrated.

User response: If you want to replace all items for which this message is issued in the target library, run

the migration utility again, using the **REPL** option.

FSNA66E   Item *name* **is in maintenance**

Explanation: The migration utility does not migrate items that are currently in maintenance.

System action: The item is not migrated.

User response: Use the product from which you want to migrate to complete maintenance of the item.

FSNA68E   Item *name* **is corrupted**

Explanation: The migration utility found that the item is corrupted. Possible reasons are: A needed physical segment was not found, or required information about the item (for example, the type of the GIL item) is missing.

System action: The item cannot be migrated.

FSNA69I   Item name *name* **changed to** *new name*

Explanation: Self-explanatory.

FSNA70I   Target program *name* **changed to** *new name*

Explanation: Self-explanatory.

FSNA72I   *Number* menu lines have been truncated

Explanation: In ASF text lines in menu items can have a maximum length of 72 characters (instead of 75 characters in the product from which you migrate).

System action: The migration utility migrates the item, but truncates the text lines that are longer than 72 characters.

FSNA74E   Item *name* **is not migrated**

Explanation: The item is an internally used item of the product from which you migrate.

System action: The item is not migrated.

FSNA80E   Control cards for FSNLOAD not found in SYSIN

Explanation: The SYSIN data set was empty.

System action: The job terminates.

User response: Correct the job control input; then resubmit the job.

FSNA90E   Base tailoring could not be loaded

Explanation: The tailoring information load module could not be loaded.

System action: The job terminates.

User response: Check your installation steps to see if tailoring was done, if the correct name of the load module was specified, and if it is put into the library referenced in the job.

FSNA91E   Batch message pool could not be loaded

Explanation: The load module containing the batch messages could not be loaded.

System action: The job terminates.

User response: Check your installation steps to see if tailoring was done, if the correct name of the load module was specified, and if it is put into the library referenced in the job.

FSNA92E   Environment tailoring could not be loaded

Explanation: The load module FSNT100C/I containing the environment tailoring could not be loaded.

System action: The job terminates.

User response: Check your installation steps to see if tailoring was done, if the correct name of the load module was specified, and if it is put into the library referenced in the job.

FSNA94E   Unable to find environment tailoring *environment*

Explanation: The specified environment tailoring could not be found in tailoring module FSNT100C/I.

System action: The job terminates.

User response: Check your installation steps to see whether environment tailoring was done and whether the installation library in which load module FSNT100C/I was put is referenced in the job.

FSNA95E   Unable to find transaction tailoring for *transaction prefix*

Explanation: The transaction prefix is defined by parameter **ASPREF** for the used environment in load module FSNT100C/I. No corresponding transaction tailoring was found for this prefix in base tailoring FSNT000C/I.

System action: The job terminates.

User response: Check whether the transaction prefix specified in the environment tailoring was defined in base tailoring FSNT000C/I.

FSNB02E   Wrong key length defined for database *name*

Explanation: The utility that initializes the named database cannot write the initialization record to the

specified ASF database because the VSAM cluster has a wrong key length.

System action: The utility terminates abnormally.

User response: Correct the cluster definition input, redefine the cluster; then resubmit the job.

FSNB03E Paragraph *name* **is in maintenance status**

Explanation: The named paragraph, to which you wanted to get access, is currently marked as being in update mode. Another user is probably maintaining the paragraph record.

System action: The batch document-request record that refers to the paragraph is not processed but is saved on the data set FSNERR.

User response: Resubmit the job using data set FSNERR as input. If necessary, consult your ASF administrator.

FSNB04I **No allocation for database** *name*

Explanation: The job control for initializing the named database does not contain the definitions for the specified library.

System action: The database is not initialized.

User response: If the database is to be initialized, correct the JCL and resubmit the job.

FSNB05E **The database** *name* **already contains records**

Explanation: The named database to be initialized is not empty.

System action: The request to initialize the database is ignored.

User response: If you really want to initialize this database, delete and redefine the VSAM cluster. Then resubmit the job.

FSNB06E **Access code** *code* **is not valid, input ignored**

Explanation: The record header card contains an incorrect access code. The access code must be a number between **0** and **2048** or should not be specified at all.

System action: The respective record is not loaded.

User response: Correct the access code on the record header card. Then resubmit the job to process the records.

FSNB07E **Author** *name* **is missing or not valid, input ignored**

Explanation: The record header card does not contain the name of the author, or the name it contains is not valid.

System action: The respective record is not loaded.

User response: Specify an author name or correct the author name on the record header card. Then resubmit the job to process the records.

FSNB08E **Record** *record name* **already exists in library, input ignored**

Explanation: The record header card specifies a record name that already exists in the general information library.

System action: The respective record is not loaded.

User response: Specify another record name on the record header. Then resubmit the job to process the record.

FSNB09E **Record length exceeds** *maximum length*, **input ignored**

Explanation: The record to be loaded is a standard paragraph record (SP) that exceeds the maximum record length for the records in the GIL. The maximum record length is defined by base tailoring parameter **GILLTH**. An SP consists of two physical segments, one of which contains the text while the other contains the SP parameters. The maximum number of lines for the text of an SP varies since trailing blanks in a line are not stored.

System action: The record is not loaded.

User response: Rearrange the paragraph layout. If necessary, split the paragraph into two or more paragraphs. Then resubmit the job to process the records.

FSNB10E **Record type** *type* **is incorrect, input ignored**

Explanation: The record type specified on the record header card is not of type MENU, INFO, PARG, or PROF.

System action: The respective record is not loaded.

User response: Correct the record type on the record header card. Then resubmit the job to process the records.

FSNB11E   **Record name** *record name* **is missing or not valid, input ignored**

Explanation: The record header card does not contain a record name, or the name it contains does not comply with the naming conventions for the records in the general information library.

System action: The text records are skipped. The respective record is not loaded.

User response: Specify a record name or correct the record name on the record header card. Then resubmit the job to process the records.

FSNB12E   **No text records found**

Explanation: There are no text records following the header card.

System action: The respective record is not loaded.

User response: Specify text records and resubmit the job to process the records.

FSNB13I   *record type* **record** *record name* **is in maintenance status**

Explanation: The specified record is probably being maintained by an ASF user.

System action: Items referenced by this record are not listed. ASF continues to process the next record.

User response: Resubmit the job. If necessary, consult your ASF administrator to solve the problem.

FSNB14E   **Record owner** *name* **is missing or not valid, input ignored**

Explanation: The record header card does not contain the name of the owner, or the name it contains is not the name of a user or a project.

System action: The respective record is not loaded.

User response: Specify an owner name or correct the owner name on the record header card. Then resubmit the job to process the records.

FSNB15E   **Record author** *name* **is not registered**

Explanation: The record header card contains the specified author name. However, there is no user profile for this author in the UPL of ASF.

System action: The respective record is not loaded.

User response: Check the author name. If necessary, consult your ASF administrator. Otherwise, correct the input and resubmit the job.

FSNB16E   **Incorrect keyword in input record**

Explanation: The utility program found a character string in a keyword that it could not identify as a valid keyword.

System action: ASF continues checking control input until all input records are processed. Then the utility is terminated abnormally.

User response: Correct the control input; then resubmit the job.

FSNB17E   **Author** *name* **and owner** *name* **must be the same user**

Explanation: ASF attempts to load a private record, but the record header card specifies different names for the author and the owner of the record.

System action: The respective record is not loaded.

User response: Correct the input, then resubmit the job to process the records.

FSNB18I   **Database** *name* **not allocated or cannot be opened**

Explanation: Either an error occurred in the job control statements (for example, a statement is missing) or the database is exclusively used by another program.

System action: ASF terminates processing.

User response: Correct the error or wait until the database is available. Then resubmit the job.

FSNB19E   **Unexpected status code** *code* **received from** *name* **database call** *function*

Explanation: When ASF tried to get access to the specified database, this database returned a status code that is not expected due to the logic of the program.

System action: ASF terminates processing.

User response: You cannot intervene directly. Determine the reason for the problem by looking at the status code. The status codes mean:

Code	Meaning
AI	Insufficient access authority, PL/I "on undefined file" condition 89.
GE	Record not found in library or end of library; PL/I **on key** condition 51; Pl/I **on endfile** condition raised.
II	Duplicate record; PL/I **on key** condition 52.
IO	Transmission error; PL/I **on transmit** condition.
IV	Request not valid; internal error.
LE	Length error; PL/I **on record** condition raised.

ND No **DD** statement for library specified; PL/I **on undefined file** condition 84.

NS No more space in VSAM cluster; PL/I **on error** condition 1022.

RE **on key** or **on undefined file** condition raised; PL/I **on key** condition other than 51/52; PL/I **on undefined file** condition other than 84/89/92.

VE VSAM error; PL/I **on undefined file** condition 92.

For a description of the PL/I condition codes, refer to *Enterprise PL/I for z/OS and OS/390: Language Reference*.

The Document Export utility FSNCEXP may print an additional line. It contains the record key and record number used in the database call that failed and the ID and the type of the LRR. With DB2, failing call functions can be:

GTH Get header.

GNE Get next entry.

PARM Get parameter.

TEXT Get modified or individual text line.

FSNB20E   At least one control input statement must be specified

Explanation: The SYSIN data stream contains the control input parameter **SCAN** or **EXECUTE**, but no control input statement.

System action: ASF terminates processing.

User response: Correct the input; then rerun the job.

FSNB21I   Paragraph *paragraph* **changed after creation of the document**

Explanation: The document is represented by an LRR. The creation date of the LRR is prior to either the release date or modification date of the specified paragraph, or prior to both. This indicates that the paragraph has been changed since the creation of the document. Therefore, the contents of the document may have changed.

System action: Processing of the document continues.

User response: Check whether the change of the paragraph was intended. If this is not the case, you can change the paragraph again to reflect the status prior to the creation of the document. Then process the document again. This will cause the message to appear again.

FSNB22E   Missing operand for keyword *keyword*

Explanation: There must be an operand specified for the keyword.

System action: ASF continues checking the control input but does not process it.

User response: Correct the control input; then resubmit the job.

FSNB23E   Mandatory keyword *keyword* **missing in** *statement* **statement**

Explanation: The named keyword is missing in the control statement indicated in the message.

System action: ASF continues checking the control input but does not process it.

User response: Correct the control input; then resubmit the job.

FSNB24I   Parameter name *parameter name* **is not valid**

Explanation: The named parameter is not a valid name for a parameter description record.

System action: The job terminates.

User response: Correct the control input; then resubmit the job.

FSNB25E   Input value is too long

Explanation: The keyword operand of a control statement or control option specifies a value that exceeds the maximum string length allowed for this value.

System action: ASF continues checking the control input but does not process it.

User response: Correct the control input; then resubmit the job.

FSNB26E   Incorrect paragraph type found while processing input record *number*

Explanation: In the specified input record, ASF found a paragraph entry that it cannot identify as a standard paragraph or individual text paragraph.

System action: ASF does not process the affected input record but continues with the next record.

User response: Correct the input record; then resubmit the job.

FSNB27E   Too many values specified for operand of keyword *keyword*

Explanation: The operand of the specified keyword contains more values than allowed.

System action: ASF continues checking the control input, but does not process it.

User response: See the correct control input specification and correct the control input; then resubmit the job.

FSNB28I   Database *name* **successfully initialized**

Explanation: ASF has successfully initialized the specified database.

System action: ASF finishes the processing of the specified database.

User response: None.

FSNB29E   Paragraph *name* **does not exist in library**

Explanation: The specified paragraph is not in the general information library (GIL). Either the standard paragraph was deleted from the GIL or the GIL is not the library you used to create a document.

System action: ASF does not process the batch document-request record but saves it in the FSNERR data set.

User response: If necessary, consult your ASF administrator to solve the problem. After correction, specify the data set FSNERR for input in the JCL; then rerun the utility.

FSNB30E   Record *record name* **is not of the desired type**

Explanation: The specified record is not a standard paragraph. The standard paragraph was probably deleted from the GIL and the record identifier was used for another type of record (for example, for an information record).

System action: ASF does not process the batch document-request record but saves it in the FSNERR data set.

User response: If necessary, consult your ASF administrator to solve the problem. After correction, specify the data set FSNERR for input and rerun the utility.

FSNB31E   Record not found in *library*

Explanation: You requested the export of a record, but the record could not be found in the library.

System action: ASF continues processing.

User response: Check whether a correct record name

was specified in SYSIN; then rerun the job.

FSNB32E   Record type *record type* **not valid for record** *record name*

Explanation: When ASF scanned the library, it found a record with an incorrect record type.

System action: ASF does not process the record but continues with the next record.

User response: Consult your ASF administrator to determine the cause of the problem.

FSNB33E   Error detected during entry processing. Do not use this record

Explanation: ASF found an error when writing entries to the output file. The affected record should not be used after reloading because the field containing the number of entries probably caused the error.

System action: ASF terminates the processing of the affected record and continues with the next record.

User response: Consult your ASF administrator to determine the cause of the problem.

FSNB34E   Lower limit missing in operand of keyword *keyword*

Explanation: ASF found the range delimiter **:** immediately after the delimiter **(**. This means that the lower limit of the range has not been specified.

System action: ASF continues checking the control input, but does not process it.

User response: Correct the control input; then resubmit the job.

FSNB35E   Upper limit missing in operand of keyword *keyword*

Explanation: ASF found the delimiter **)** immediately after the range delimiter **:**. This means that the upper limit of the range has not been specified.

System action: ASF continues checking the control input, but does not process it.

User response: Correct the control input; then resubmit the job.

FSNB36I   Record *name* **already existed in library and was replaced**

Explanation: Self-explanatory.

User response: None.

FSNB37E   Range in operand of keyword *keyword* **not allowed**

Explanation: ASF found a range of values in an operand that must not contain a range.

System action: ASF continues checking the control input but does not process it.

User response: Correct the control input; then resubmit the job.

FSNB38E   DELETE and COPY requests must be supplied in different job steps

Explanation: The SYSIN input data stream contains **COPYGIL**, **COPYDOC**, or **COPYSLL** statements as well as **DELGIL**, **DELDOC**, or **DELSLL** statements. This is not allowed.

System action: ASF terminates processing.

User response: Submit **COPY** and **DELETE** requests in separate job steps.

FSNB39E   Missing right parenthesis in operand of keyword *keyword*

Explanation: The operand of the specified keyword starts with a left parenthesis but does not end with a right parenthesis.

System action: The job is terminated.

User response: Correct the control input; then resubmit the job.

FSNB40I   Output file FSNLRR initialized for document export

Explanation: The utility program FSNRSETC has written an initialization record to the data set or file with the DD name or file name FSNLRR. It is now possible to export completed documents for batch printing.

System action: The export file FSNLRR has been flagged and now contains an initialization record.

User response: You can now request the Document Export function on the Document Disposition panel.

FSNB41E   Incorrect reference to *record type* **record** *record name*

Explanation: The input record to load a new menu record into the general information library (GIL) contains the character **R** in position 1 of the input. This character is followed by a record name that is already assigned to a GIL record.

System action: The affected menu record is not loaded.

User response: Correct the input record; then resubmit the job.

FSNB42I   Program took checkpoint with ID *identifier*

Explanation: IMS was terminated abnormally.

System action: Processing terminated.

User response: To restart the utility program, you have to tell IMS where the utility program was terminated. Specify this checkpoint with the named ID in parameter **CKPTID** of procedure IMSBATCH.

FSNB43E   Referenced record name *record name* **is not valid, input ignored**

Explanation: The name of the record that is referenced in a menu record, or in the control card for a help record (see input card columns 65 to 80) to be loaded does not comply with the naming conventions for the records in the general information library.

System action: The input for the menu record is bypassed.

User response: Correct the name of the record; then resubmit the job.

FSNB44E   GIL is full; job terminated

Explanation: You tried to load records into the general information library (GIL) with the utility FSNLOAD. It was not possible to load all the records as the GIL is too small.

System action: FSNLOAD loads as many records as possible into the GIL. When no more records can be inserted, the utility terminates.

User response: Define a larger GIL and start the utility again.

FSNB45E   Incorrect record name *record name*

Explanation: The control input statement contains a RECORD specification that does not follow the naming conventions for GIL records.

System action: The job terminates.

User response: Correct the control input statement and rerun the job.

FSNB46E   Missing left parenthesis in operand of keyword *keyword*

Explanation: The operand of the specified keyword ends with a right parenthesis but does not start with a left parenthesis.

System action: The job terminates.

User response: Correct the control input; then resubmit the job.

FSNB47I   Incorrect user ID *user ID/project*

Explanation: The control input statement contains a user ID or project name that does not comply with the naming conventions for UPL records.

System action: The job terminates.

User response: Correct the control input statement and rerun the job.

FSNB48E   Document number *number* **contains one or more DCF labels beginning with the characters** *string*

Explanation: When you specify the options **OUTSEP** or **DCFREST** in the utility control statement, the document must not contain any DCF labels beginning with the indicated character string.

System action: Processing of the indicated document is bypassed.

User response:
- The ASF administrator should correct any affected standard paragraphs in the general information library.
- The ASF user should not use labels that start with the character FSN or with the first two characters of the indicated string, followed by a number. After correction, the ASF user should supply the document again.

FSNB49E   Incorrect value specified for START control parameter

Explanation: You specified the **START** parameter in the utility control statement, but you did not specify at which input document-request record the FSNBDCF utility program should start.

System action: No processing is performed.

User response: Correct the utility control statement. Supply a number that is equal to, or greater than, 0.

FSNB50E   Upper limit less than lower limit for keyword *keyword*

Explanation: The operand of the specified keyword contains a range of values that are not valid. The upper limit of the range is less than the lower limit.

System action: ASF continues checking the control input but does not process it.

User response: Correct the control input; then resubmit the job.

FSNB51E   SIZE specification in BUFFER control statement not valid

Explanation: The operand of the keyword contains a value that does not comply with the keyword description. The BUFFER SIZE statement should be removed or the value must be 000K. For further information regarding BUFFER SIZE refer to the chapter on formatting documents and printing in the *Application Support Facility for z/OS: Administration Guide*.

System action: ASF continues checking the control input but does not process it.

User response: Correct the control input; then resubmit the job.

FSNB52E   Incorrect date *date*

Explanation: The control input statement contains a **DATE** statement that is not valid.

System action: The job is terminated.

User response: Correct the control input statement and rerun the job.

FSNB53I   Record not found in GIL

Explanation: The record is referred to in a record stored in the general information library (GIL), but it is not contained in the GIL.

System action: Processing continues.

User response: None.

FSNB54E   Empty value specified in operand of keyword *keyword*

Explanation: An empty value was specified, for example, by an empty operand specification **( )** or an empty list-element specification **, ,**.

System action: ASF continues checking the control input but does not process it.

User response: Correct the control input; then resubmit the job.

FSNB55E   Unexpected end of input file

Explanation: The input data set contains an incomplete multisegment batch document-request record (BLRR). This can occur when:
- The input was output of a program that terminated abnormally.
- The correct sequence of segments within the BLRR has been destroyed by an erroneous sort step or application program. In this case, the message may be printed more than once.

System action: The BLRR is not processed and is

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written to the data set FSNERR. Processing continues.

User response: Select the appropriate action:

- CICS only: If the input was created online, submit the input records already created on data set FSNDCF to DCF for formatting and printing. Then request function **export** again.
- IMS only: If the input was created by the FSNCEXP utility program, restart FSNCEXP at the last checkpoint. Then restart FSNBDCF with the completed input data set.
- If the input was output of an erroneous sort step, repeat the sort step with the correct sort field specifications and run the FSNBDCF utility program again.
- If the input was output of an erroneous application program, run your application program again after you have corrected it, but before you run the FSNBDCF utility program again.

FSNB56E **GIL is empty; no cross-reference list printed**

Explanation: The general information library (GIL) contains no records. The job was probably assigned to the wrong GIL.

System action: ASF terminates processing.

User response: If the job was assigned to the wrong GIL, correct the job control and resubmit the job.

FSNB57E **Incorrect generic value specified in operand of keyword** *keyword*

Explanation: In the control input statement, a **RECORD**, **PROJECT**, or **USER** This is not allowed.

System action: The job terminates.

User response: Correct the control input statement and rerun the job.

FSNB58E **Incorrect creation date specified for keyword DATE**

Explanation: The creation date of a document request record specified for the keyword **DATE** contains one or more incorrect characters or is out of the validity range.

System action: ASF continues checking the control input but does not process it.

User response: Specify a correct creation date in the format YYYYMMDD. The last two numbers of the year specification must be between **00** and **99**, MM must be between **01** and **12**, DD must be between **01** and **31**. Then resubmit the job.

FSNB59E **Incorrect creation time specified for keyword TIME**

Explanation: The creation time of a document request record specified for the keyword **TIME** contains one or more incorrect characters or is out of the validity range.

System action: ASF continues checking the control input but does not process it.

User response: Specify a correct creation time with four numbers in the format of HHMM. HH must be between **00** and **23**, MM must be between **00** and **59**. Then resubmit the job.

FSNB60E **Sort failed; return code =** *RC*

Explanation: This is an internal error. After completion of the sort function, the PL/I sort program PLISRTD returned the code *RC*. This code indicates that the sort function could not be performed successfully. Consult the diagnosis manual of your SORT program.

System action: ASF terminates processing.

User response: You cannot intervene directly. Ask your data processing department to check the JCL. They should, in particular, make sure that enough intermediate storage is available in the work data sets. If the cause of the problem cannot be determined, report the problem to IBM.

FSNB61E **List and range specification must not be mixed in operand of keyword** *keyword*

Explanation: ASF found a list and a range specification in one operand. This is not possible. The value *LIST* and the value *RANGE* must be specified in separate control options or statements.

System action: ASF continues checking the control input but does not process it.

User response: Correct the control input; then resubmit the job.

FSNB62E **Missing keyword**

Explanation: ASF found one of the separator characters **,**, **(**, **)**, or **:** although, according to the control input syntax, a keyword was expected.

System action: ASF continues checking the control input, but does not process it.

User response: Correct the control input, then resubmit the job.

FSNB63E **No more free entries in error table**

Explanation: ASF found more than 100 errors. Probably a wrong input data set or a wrong GIL has been allocated to the job.

System action: ASF terminates processing.

User response: Check the job control for correct data sets. Correct the job control and resubmit the job. If necessary, consult your ASF administrator.

FSNB64I   Document has been stored

Explanation: The document was stored before it was printed in batch mode.

System action: ASF continues processing.

User response: None.

FSNB65I   Document already printed online

Explanation: The document was already printed online before it was printed in batch mode.

System action: ASF continues processing.

User response: None.

FSNB66E   Control card incorrect or missing

Explanation: When loading records, ASF found that a control card was missing. This control card should contain

System action: ASF terminates processing.

User response: Correct the input and resubmit the job.

FSNB67E   Type *type* of text record is not R, T, D, or C

Explanation: The input text record for loading a new menu record into the GIL does not contain one of the following characters in position 1 of the input record:

Character

    Meaning
R   Supplying names of referenced records
T   Supplying description line
D   Supplying descriptions for referenced records
C   Supplying any other text

System action: The affected menu record is not loaded.

User response: Correct the input record and resubmit the job.

FSNB68E   More than 15 nested imbeds, document is bypassed

Explanation: A batch document-request record (BLRR) contains a paragraph with more than 15 nested imbeds. A standard paragraph was probably defined wrongly.

System action: ASF does not process the BLRR but saves it in the data set FSNERR.

User response: Inform your ASF administrator. After correction, load the document again.

FSNB69E   Input data set *name* is empty

Explanation: The named input data set is empty. This is probably a job control error.

System action: ASF terminates processing.

User response: Correct the error and resubmit the job.

FSNB70E   Document contains incorrect header information

Explanation: The header information of the input record is not valid. This is probably a job control error. If the input data set is output from the sort information exit, the sort field specification is wrong.

System action: ASF terminates processing.

User response: Correct the error and resubmit the job.

FSNB71E   User *user name* cannot load a DCF profile record

Explanation: The specified user is not authorized to maintain the DCF profile record FSN-PROF.

System action: The record is not loaded.

User response: Specify a user who is authorized to do this.

FSNB72E   User *user name* cannot load private information or menu records

Explanation: The specified user is not authorized to maintain information or menu records with the status **Private**.

System action: The record is not loaded.

User response: Specify a user who is authorized to do this.

FSNB73E   User *user name* cannot load private paragraphs

Explanation: The specified user is not authorized to maintain private paragraph records.

System action: The record is not loaded.

User response: Specify a user who is authorized to do this.

FSNB74E   User *user name* is not authorized for project *project name*

Explanation: The specified user is not authorized to work with records belonging to the project indicated in the message.

System action: The record is not loaded.

User response: Specify a user who is authorized to maintain records for the specified project.

FSNB75E   **User** *user name* **cannot load public records of project** *project name*

Explanation: The specified user is not authorized to maintain public records belonging to the specified project.

System action: The record is not loaded.

User response: Specify a user who is authorized to do this.

FSNB76E   **User** *user name* **cannot load project records of project** *project name*

Explanation: The specified user is not authorized to maintain project records belonging to the specified project.

System action: The record is not loaded.

User response: Specify a user who is authorized.

FSNB77E   **No second segment found for paragraph. Do not use this record**

Explanation: The exported paragraph record is not valid. The record in the general information library is probably corrupted.

System action: ASF continues to process the next record to be exported.

User response: Ask your ASF administrator to delete the record and to build it again.

FSNB78E   **Record owned by** *owner* **exceeds the record length of the output data set**

Explanation: The specified record is longer than the output buffer of the utility. This is not allowed.

System action: The record is not copied to the sequential output data set.

User response: Ask your administrator to check that the customized maximum ISL length corresponds to the record size of your source library.

FSNB79E   **D record found without preceding R record**

Explanation: The sequence of input records to load a menu record is incorrect. A **D** input record (which supplies descriptions for referenced records) must be immediately preceded by an **R** input record (which supplies the record name of the referenced record).

System action: The affected menu record is not loaded.

User response: Correct the input records; then resubmit the job.

FSNB80I   **Option** *option* **specified twice. Option ignored**

Explanation: The named control option has been specified twice in the control input.

System action: ASF processes only the first option.

User response: None.

FSNB81E   **Incorrect sort sequence keyword specified**

Explanation: ASF found an incorrect sort sequence keyword in the operand of the control option **SEQUENCE**. Valid sort sequence keywords are **AUTHOR**, **DATE**, and **TIME**.

System action: ASF continues checking the control input but does not process it.

User response: Correct the sort sequence keyword; then resubmit the job.

FSNB82E   **Sort sequence keyword** *keyword* **specified twice**

Explanation: ASF found the specified sort sequence keyword twice in the operand of the control option **SEQUENCE**. Each sort sequence keyword can only be specified once.

System action: ASF continues checking the control input but does not process it.

User response: Erase one of the sort sequence keywords; then resubmit the job.

FSNB83E   **Maximum number of errors exceeded for this input record**

Explanation: ASF found more than nine errors in one control input record.

System action: ASF reports only the first nine errors.

User response: Correct the control input record; then resubmit the job.

FSNB84E   **Control statement** *name* **specified more than once**

Explanation: The named control statement that should be specified only once is specified more than once.

System action: ASF processes only the first control statement.

User response: None.

FSNB85E **Keyword** *keyword* **specified twice within control statement** *name*

Explanation: Each keyword should only be specified once within the named control statement.

System action: ASF continues checking the control input but does not process it.

User response: Erase one of the specified keywords; then resubmit the job.

FSNB86E **Length of input record** *id* **exceeds the customized GIL or ISL length**

Explanation: The specified input record is longer than the GIL or ISL length defined in the base tailoring. The record cannot be reloaded.

System action: The record is not reloaded into the GIL or SLL database. Processing continues with the next item to be reloaded.

User response: Check database definitions (DBD, VSAM cluster definition) and base tailoring definitions for consistency. If the item to be reloaded consists of more than one input record, an incomplete item can remain in the database. Delete the item.

FSNB87I **No exportable LRR found in the CLL**

Explanation: The completed-document library (CLL) contains no document request record (LRR) that is ready for export. If the CLL is not empty, the LRRs are probably waiting to be stored.

System action: ASF terminates processing.

User response: If the CLL is not empty, request document storing; then resubmit the job.

FSNB88E **Incorrect input value** *value* **specified**

Explanation: The control input contains a value specification that is not valid.

System action: ASF continues checking the control input but does not process it.

User response: Correct the control input; then resubmit the job.

FSNB90E **Record** *id* **in source has wrong layout. Version** *exp-version* **expected. Version** *found-version* **found.**

Explanation: The program found an LRR record with the key *id* in the input file or in the specified database. The record has another layout as the program expected. The program expects records with version *exp-version*, but found version *found-version* in the record. The record cannot be processed. The message is printed by the Resource Unload program FSNBRUL and by the Export utility FSNCEXP when processing a VSAM or

DLI SLL or CLL. The message can also be printed by the Resource Reload utility FSNBRRL when it detects an input record that was created before the database layout was changed

System action: The program terminates if processing cannot be continued. Otherwise the wrong record is skipped and processing continues with the next record. The wrong LRR record header is dumped to file FSNXTRA to enhance problem resolution.

User response: The input file or the database may contain only records of the version *exp-version*.

The message was printed by FSNBRUL or FSNCEXP:

- If the LRR was created by classic ASF and has record type L1 or L2, migrate the database using the migration utility FSNMSLV.
- If the LRR was created using DC4ASF and has record type LW, the LRR cannot be processed anymore by the current version of ASF programs and utilities. It must be deleted from the database.

The message was printed by FSNBRRL. It detected an input record that was created before the database layout was changed. The FSNSAVE file cannot be used anymore. If you use VSAM or DLI databases containing L1 and L2 LRRs only, migrate the SLL and CLL database using FSNMSLV, then create a new FSNSAVE file with the latest version of FSNBRUL. If the SLL and CLL contain LW LRRs, too, reinitialize the databases or delete the LW LRRs using, for example, the IMS test program DFSDDLT0. If you use DB2 databases, create a new FSNSAVE file with the latest version of FSNBRUL.

FSNB91E **Item** *name* **is not valid**

Explanation: The specified item is incorrect.

System action: If the message is displayed after using the **del** command and if the record is not in maintenance status, the specified record will be deleted. If the message is displayed after using the **copy** command, the specified record will not be copied.

User response: Correct the record using the library maintenance functions; then rerun the job.

FSNB93E **Incorrect record type specified for keyword TYPE**

Explanation: The value specified for keyword **TYPE** is not valid.

System action: ASF continues checking the control input but does not process it.

User response: Specify a correct value for keyword **TYPE**. The following values are allowed: **G**, **I**, **L**, **M** or **P**.

FSNB94E   **You cannot select this record. It cannot be printed**

Explanation: The record type found in the GIL is not a **G**, **I**, **L**, **M** or **P** record.

System action: ASF continues checking the control input but does not print this record.

User response: None.

FSNB95I   **Program will be executed without checkpoints**

Explanation: Because IMS parameter **CHKAFT** was not specified, no checkpoints are issued. Therefore, the program cannot be restarted after system breakdown.

System action: Processing continues.

User response: None.

FSNB96I   **Program started without checkpoint**

Explanation: No IMS **CKPTID** parameter was specified. The export utility of the completed-document

library has overwritten the contents of the output file FSNLRR.

System action: Processing continues.

User response: None.

FSNB97I   **Program started at checkpoint ID** *identifier*

Explanation: The program continues writing the output file FSNLRR at the indicated identifier.

System action: ASF continues processing.

User response: None.

FSNB98I   **Program started with document number** *number*

Explanation: The program starts to build DCF input records at the indicated document number.

System action: Processing continues.

User response: None.

Messages issued by FSNBTCH (FSNBTC2)

Check if you can solve the problem with the help of the message text. Otherwise report the message number to IBM.

FSN5001E   **GSAM databases for batch monitor are incorrect or missing**

FSN5002E   **Checkpoint error return code** *code* **during** *checkpoint name* **writing**

FSN5003E   **Restart error return code** *code* **occurred during** *checkpoint name*

FSN5004E   **Database** *name* **not referred to in any application table**

User response: Check whether the database specified in the message is defined in the tailoring for FSNBTCH (FSNBTC2) and FSNTB00 via a call of macro FSNTBUDB.

FSN5005E   **Application table FSNTBUAP for user application** *name* **missing**

User response: Check whether the application specified in the message is defined in the tailoring for FSNBTCH (FSNBTC2) and FSNTB00 through a call of macro FSNTBUAP.

FSN5006E   **User application** *application name* **not found in load library**

FSN5007E   **Database entry in application table** *application name* **not initialized**

FSN5016E   **LTD contains** "**must be modified**" **paragraph** *xxx*

Explanation: The document type description (LTD) specified in the SIB contains the specified paragraph, which must be modified. The LTD cannot be processed

System action: The input SIB, together with the error message, is written to SIBOUT. No LRR or BLRR is created for this LTD. Processing continues with the next SIB.

User response: Check the LTD for paragraphs with the attribute **must be modified**. Change it to **can be modified** and resubmit the job.

FSN5017E   **Base tailoring parameter DBSETUP must be set to 2**

Explanation: The program is designed to use DB2 databases only, but base tailoring does not reflect that processing mode.

System action: The program terminates.

User response: If you are using DB2 databases only, specify DBSETUP=2 in the FSNTGEN macro of base tailoring, reassemble and re-link it. Rerun the program. If you are not using DB2 databases only, use the appropriate utility to process all types of databases.

FSN5018E	Specified environment *environment* **not defined for DB2 processing**

Explanation: The programs FSNBTCHN and FSNBTC2N are designed to use DB2 databases only, but the current user's environment is a non-DB2 environment.

System action: The program continues with the next input SIB.

User response: In the passed SIB, specify a user whose environment is defined for use with DB2.

The messages described above may be accompanied with one of the following status codes:

Code   Meaning

AI   Insufficient access authority, PL/I "on undefined file" condition 89.

GE   Record not found in library or end of library; PL/I **on key** condition 51; Pl/I **on endfile** condition raised.

II   Duplicate record; PL/I **on key** condition 52.

IO   Transmission error; PL/I **on transmit** condition.

IV   Request not valid; internal error.

LE   Length error; PL/I **on record** condition raised.

ND   No **DD** statement for library specified; PL/I **on undefined file** condition 84.

NS   No more space in VSAM cluster; PL/I **on error** condition 1022.

RE   **on key** or **on undefined file** condition raised; PL/I **on key** condition other than 51/52; PL/I **on undefined file** condition other than 84/89/92.

VE   VSAM error; PL/I **on undefined file** condition 92.

For a description of the PL/I condition codes, refer to *Enterprise PL/I for z/OS and OS/390: Language Reference*.

Return codes issued by FSNBTCH (FSNBTC2)

The batch utility FSNBTCH (FSNBTC2) ends with one of the following return codes:

00

Explanation: Normal return.

04

Explanation: An internal error occurred; at least one input record, for example a SIB record, was not processed correctly by FSNBTCH (FSNBTC2).

08

Explanation: A severe internal error occurred; at least one input record, for example a SIB record, was not processed at all by FSNBTCH (FSNBTC2).

16

Explanation: A program error occurred with ABNORMAL END condition.

Appendix C. Messages and codes in the DB2 environment

Messages

The following messages are printed on the output lists of the batch utility programs of ASF if DB2 is used.

FSN1300E   **CAF error: RC =** *code***; reason =** *reason*

Explanation: The connection to DB2 could not be established.

System action: Processing stops.

User response: Refer to *IBM DB2 Messages and Codes* for more information on the reason code.

FSN1301E   **DB2 subsystem** *name* **is unknown to z/OS**

Explanation: z/OS was unable to locate a DB2 subsystem with the specified name.

System action: Processing stops.

User response: Check whether the correct DB2 subsystem was used or refer to *IBM DB2 Messages and Codes* for information on DB2 code X'00F30006'.

FSN1302E   **Plan** *plan* **does not exist or there is no authorization to use this plan**

Explanation: The authorization ID associated with this connection is not authorized to use the specified plan name, or the specified plan name does not exist.

System action: Processing stops.

User response: Check that the correct plan name was specified or refer to *IBM DB2 Messages and Codes* for information on DB2 code X'00F30034'.

FSN1310I   **FSNCF00 - Enter command**

Explanation: This message is displayed in the job log and on the operator console.

System action: System waits for operator command.

User response: Enter one of the valid operator commands as described in the section "Continuous formatting (DB2 only)" in the chapter "Formatting documents and printing" in the *Application Support Facility for z/OS: Administration Guide*.

FSN1312I   **LRR ID** *id* **SYSTEM ID** *id* **successfully processed, DCF time:** *value* **sec** *value* **hsec;** *number* **pages**

Explanation: The LRR specified by LRR ID and

SYSTEM ID has been successfully processed by continuous formatting. The column DLRR_FORM_STAT in table FSNTCLL_H was set to *2* for this LRR.

System action: The next LRR is processed.

User response: None.

FSN1313E   **LRR ID** *id* **SYSTEM ID** *id* **in error; reason** *reason*

Explanation: Processing of the specified LRR could not be completed successfully. Column DLRR_FORM_STAT in table FSNTCLL_H was set to *E* for this LRR. The reason code indicates the subprocess in continuous formatting where the error occurred.

System action: The next LRR is processed.

User response: Check the message following this one in the error log for more detailed information. Before reprocessing this LRR, column DLRR_FORM_STAT in table FSNTCLL_H must be set to *0* again. Use the RESET command to do this.

FSN1314E   **No LRR retrieved with SQL statement**

Explanation: No LRR could be found on the CLL using the SQL statement specified in the command file.

System action: Processing stops.

User response: Check whether the specified SQL statement is correct.

FSN1315E   **Module** *name* **could not be loaded**

Explanation: The specified module could not be loaded.

System action: Processing stops.

User response: Check whether the module is a member of the load library.

FSN1320E   **Control statement** *statement* **not recognized**

Explanation: The specified statement, which is located in the command file, is not valid.

System action: Processing stops.

User response: For valid statements, refer to the section "Continuous formatting (DB2 only)" in the chapter "Formatting documents and printing" in the *Application Support Facility for z/OS: Administration Guide*.

FSN1321E   Control statement *statement* **in error**

Explanation: The syntax of the specified control statement in not valid.

System action: Processing stops.

User response: For the correct syntax, refer to the section "Continuous formatting (DB2 only)" in the chapter "Formatting documents and printing" in the *Application Support Facility for z/OS: Administration Guide*.

FSN1326E   Too many characters in one of the control statements

Explanation: One of the parameters is too long.

System action: Processing stops.

User response: For the correct syntax, refer to the section "Continuous formatting (DB2 only)" in the chapter "Formatting documents and printing" in the *Application Support Facility for z/OS: Administration Guide*.

FSN1327E   Too few characters in one of the control statements

Explanation: One of the parameters is too short.

System action: Processing stops.

User response: For the correct syntax, refer to the section "Continuous formatting (DB2 only)" in the chapter "Formatting documents and printing" in the *Application Support Facility for z/OS: Administration Guide*.

FSN1334E   Parameter value missing

Explanation: One of the mandatory parameters is missing.

System action: Processing stops.

User response: For the correct syntax, refer to the section section "Continuous formatting (DB2 only)" in the chapter "Formatting documents and printing" in the *Application Support Facility for z/OS: Administration Guide*.

FSN1335E   Parameter value not valid

Explanation: One of the parameters is not allowed.

System action: Processing stops.

User response: For the correct syntax, refer to the

section section "Continuous formatting (DB2 only)" in the chapter "Formatting documents and printing" in the *Application Support Facility for z/OS: Administration Guide*.

FSN1339E   SQL statement and RESET statement are mutually exclusive

Explanation: Both an SQL statement and the RESET command have been specified in the command file. Only one of them can be used at the same time.

System action: Processing stops.

User response: Remove either the SQL statement or the RESET statement.

FSN1340I   Reset from status *status* **to status** *status* **finished**

Explanation: The processing status of the LRRs identified by the specified status has been changed. The status is represented by column DLRR_FORM_STAT in table FSNTCLL_H.

System action: None.

User response: None.

FSN1341E   LRR ID *id* **SYSTEM ID** *id* **not found in CLL**

Explanation: The specified LRR has been identified to be processed. It was created by another environment than the one specified with parameter **ENV** in the command file. Because parameter **KEEP_ENVIRONMENT** is set to *NO*, the environment used to create the LRR was used to process this LRR. The LRR was not found on the CLL belonging to that environment.

System action: The next LRR is processed.

User response: Determine the environment that should be used to process this LRR.

FSN1342E   Update of SQL table *table* **failed; SQLCODE** *code*

Explanation: Access to the specified SQL table failed.

System action: Processing stops.

User response: Refer to *IBM DB2 Messages and Codes* for more information.

FSN1343W   Paragraph *paragraph* **does not contain text**

Explanation: The specified paragraph is a modified or an individual paragraph. The paragraph does not contain any text.

System action: The next LRR is processed.

User response: None.

FSN1344W   LRR ID *id* SYSTEM ID *id* processed; no output created from DCF

Explanation: DCF could not produce any output from the selected macros, specified DCF options, and source document.

System action: The next LRR is processed.

User response: Check the input data submitted to DCF.

FSN1360E   Control statement not valid in environment *name*

Explanation: The specified control statement is only valid in a release-controlled system. The specified environment is not a release-controlled system.

System action: Processing stops.

User response: Change either the control statement or the environment; then rerun the job.

FSN1361E   Release functions not supported without DB2

Explanation: Either control statement RLSGIL or RELEASE was specified. These control statements are used to unload and reload items from and into DB2 tables, respectively. Therefore, these control statements can only be used in a DB2 system, indicated by tailoring parameter **DB2OPR** being set to *1*. In this case **DB2OPR** is set to *0*.

System action: Processing stops.

User response: Correct the job input; then rerun the job.

FSN1363E   Release functions can only be used with suitable FSNSINP file

Explanation: Control statement RELEASE was specified for reload into the database. The file identified by the DD statement FSNSINP in the job input has not been generated by unloading a database with control statement RLSGIL. Therefore the FSNSINP file can only be loaded in a system that is not release-controlled.

System action: Processing stops.

User response: Either generate the FSNSINP file again or load it into a system that is not release-controlled by removing the control statement RELEASE.

FSN1364E   Item *name* with release status 9 cannot be replaced

Explanation: The specified item already exists in the database with release status 9. This means that it has

been cleared to be taken into production and therefore cannot be replaced.

System action: Processing continues.

User response: To load the specified item, either assign release status 8 to the item again or move the integrated items into production using the resource unload and resource reload utilities.

FSN1365E   Environment *name* is inconsistent

Explanation: The definition of the environment specified in the message is inconsistent because:

- The DB2 object defined by the collection specified in parameter **DB2TBCID** is not a DB2 table.
- The ALIAS or VIEW defined by the collection specified in parameter **DB2CID** is not dependent on the DB2 table defined by the collection specified in parameter **DB2TBCID**.

Note: Parameters **DB2CID** and **DB2TBCID** are defined in environment tailoring FSNT000C/I.

System action: Processing stops.

User response: Contact your administrator to correct the DB2 definitions or the environment tailoring.

FSN1366E   Either KEEPPROD or RELEASE control statement allowed

Explanation: The Resource Reload utility found both control statements KEEPPROD and RELEASE in the control input. They are mutually exclusive.

System action: The program continues checking the control input and then terminates. No item will be reloaded.

User response: Depending on the function you want to perform, delete the improper control statement.

FSN1367E   Document *id* with big individual text cannot be processed

Explanation: The specified document contains a big individual text which is longer than the ITXTSIZE defined in the base tailoring. The message was printed by the resource reload utility which tried to reload documents into a DB2 SLL or CLL. A document of type L2 contained the big text, but these documents cannot be processed in a DB2 environment.

System action: Processing of the document in error is stopped. Processing is discontinued and the changes are backed out up to the last checkpoint.

User response: Remove the document from the FSNSINP file and rerun the resource reload utility.

FSN1368E   **Individual text** *n* **of document** *id* **is greater than ITXTSIZE**

Explanation: The n-th individual text of the specified document is longer than the ITXTSIZE defined in the base tailoring. The message was printed by the resource reload utility.

System action: Processing of the document continues. If document composition of the document is resumed, editing of the big individual text could be inhibited.

User response: To allow processing of big individual texts without problems specify ITXTSIZE=0 or ITXTSIZE>ISLLTH in the FSNTGEN macro of the base tailoring.

FSN1380E   **Base tailoring parameter DBSETUP must be set to 2**

Explanation: The utility is designed to use DB2 databases only, but base tailoring does not reflect that processing mode.

System action: The program continues checking the control input and then terminates.

User response: If you are using DB2 databases only, specify DBSETUP=2 in the FSNTGEN macro of base tailoring, reassemble and re-link it. Rerun the utility. If you are not using DB2 databases only, use the appropriate utility to process all types of databases.

FSN1381E   **Specified environment** *environment* **not defined for DB2 usage**

Explanation: The utility is designed to use DB2 databases only, but the environment specified in the input is a non-DB2 environment.

System action: The utility continues checking the control input and then terminates.

User response: Specify an environment for which DB2 is operational.

FSN1382I   **SQL COMMIT performed after processing of LRR** *id*

Explanation: Checkpointing is active for this run of the utility. A SQL COMMIT has been performed after processing of the specified record.

System action: None.

User response: None.

FSN1820E   **Maintenance not allowed in environment** *name*

Explanation: Tailoring parameter **MAINTACT** has been set to *0* in the specified environment. Maintenance is inhibited.

System action: Processing stops.

User response: Check whether you are using the correct environment or contact your administrator to change parameter **MAINTACT** for the environment.

FSN1821E   **DB2 must be operational when MAINTACT = 1**

Explanation: Tailoring parameter **MAINTACT** has been set to *1* for the used environment. This indicates that it is a release-controlled system. Tailoring parameter **DB2OPR** has been set to *0*, indicating that it is not a DB2 system. A release-controlled system must be a DB2 system. Therefore, the request cannot be completed.

System action: Processing stops.

User response: Contact your administrator to check your base tailoring and environment tailoring.

FSN1850E   **Access to a** *table* **table failed; SQLCODE** *code*

Explanation: The request submitted to DB2 could not be completed because the specified DB2 tables could not be accessed.

System action: Processing stops.

User response: Note the complete error message and provide it to your administrator with a description of the actions which have caused the message or refer to *IBM DB2 Messages and Codes* for more information on the specified SQL code.

FSN1851E   **Requested data not found in the** *tables* **tables**

Explanation: The request could not be completed because the data was not found in the specified DB2 tables.

System action: Processing stops.

User response: Note the complete error message and provide it to your administrator with a description of the actions which have caused the message or refer to *IBM DB2 Messages and Codes* for more information on the specified SQL code.

FSN1852E   **Specified data already exist in the** *tables* **tables**

Explanation: Data could not be added because it already exists in the specified DB2 tables.

System action: Processing stops.

User response: Note the complete error message and provide it to your administrator with a description of the actions that caused the message or refer to *IBM DB2 Messages and Codes* for more information on the specified SQL code.

FSN1853E Access to DB2 failed; SQLCODE *code*

Explanation: The request submitted to DB2 could not be completed.

System action: Processing stops.

User response: Note the complete error message and provide it to your administrator or refer to *IBM DB2 Messages and Codes* for more information on the specified SQL code.

DB2 error table of utility FSNCF00

DB2 table FSNTERR contains error information from continuous formatting with utility FSNCF00. For a complete list of the table columns refer to the installation job FSNIDT1 in the installation library JCLLIB, which also provides the sample jobs FSNUCF0. Some of the table columns are described in the following:

Table column	Description
DERR_PROC_ID	Process that detected the error condition
DERR_PROC_RSN_CODE	Reason code of process
DERR_PROC_MSG_NUM	Number of the error message
DERR_PROC_MSG_TEXT	Text of the error message

The following values are possible for table column DERR_PROC_ID, identifying the process that detected the error:

Process	Description
CFFMTDCF	DCF formatting
CFLRRRET	LRR retrieve
CFDOCCMP	Document composition
CFLRRUPD	Update of LRR on table FSNTCLL
CFAFPUPD	Update of table FSNTAFP

If the process detecting the error is CFFMTDCF, the following values are possible for the other table columns:

Table column	Value
DERR_PROC_RSN_CODE	Reason code returned by DCF
DERR_PROC_MSG_NUM	0
DERR_PROC_MSG_TEXT	Text of the message returned by DCF

If the process detecting the error is not CFFMTDCF, the following values are possible for the other table columns:

Table column	Value
DERR_PROC_RSN_CODE	0
DERR_PROC_MSG_NUM	Number of the ASF message
DERR_PROC_MSG_TEXT	Text of the ASF message

Appendix D. Dumps from the batch utility programs

When a batch utility program finds an unrecoverable error, it issues a PL/I dump with one of the user identifications listed in Table 2. The reasons for such an error can be:

- The input record is too long. The input batch document-request record (BLRR) is too long for the internal storage buffer. The reason can be:

  The record length of the FSNBDCF is smaller than the length of the program that created the input BLRR because the input BLRR was expanded by a user program and therefore became too large.

- PL/I ON ERROR condition. An internal program error was detected. Report the error to IBM specifying the PL/I dump containing the error condition code and the PL/I call trace.

Table 2 shows the user identifications in PL/I dumps:

Table 2. User identifications

Utility name	CICS	IMS	PL/I Dump User identification	Reason
FSNACPM	Yes	Yes	FSNACPM ABENDED	PL/I ON ERROR condition
FSNBCDF	Yes	Yes	FSNBCDF: SYSTEM ERROR	PL/I ON ERROR condition
FSNBDCF	Yes	Yes	FSNBDCF: BLRR TOO LONG	Input record too long
FSNBRRL	Yes	Yes	FSNBRRL ABENDED	PL/I ON ERROR condition
FSNBRUL	Yes	Yes	FSNBRUL ABENDED	PL/I ON ERROR condition
FSNBTCH	Yes	Yes	FSNBTCH ABENDED	PL/I ON ERROR condition
FSNBTC2	Yes	Yes	FSNBTC2 ABENDED	PL/I ON ERROR condition
FSNCEXP	No	Yes	FSNCEXP ABENDED	PL/I ON ERROR condition
FSNLGIL	Yes	Yes	FSNLGIL ABENDED	PL/I ON ERROR condition
FSNLOAD	Yes	Yes	FSNLOAD ABENDED	PL/I ON ERROR condition
FSNMDOC	Yes	Yes	FSNMDOC ABENDED	PL/I ON ERROR condition
FSNMSLL	Yes	Yes	FSNMSLL ABENDED	PL/I ON ERROR condition
FSNPGIL	Yes	Yes	FSNPGIL ABENDED	PL/I ON ERROR condition
FSNRSET	Yes	Yes	FSNRSET ABENDED	PL/I ON ERROR condition

Table 2. User identifications (continued)

FSNUTHB	Yes	Yes	FSNUTHB ABENDED	PL/I ON ERROR condition

Note: A PL/I dump is only created if base tailoring parameter **DUMPCR** has been set to *1* or *3*.

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Glossary of terms and abbreviations

This glossary defines terms and abbreviations used in this publication. If you do not find the term you are looking for, refer to the *IBM Dictionary of Computing*, New York: McGraw-Hill, 1994.

A

ACB.   Application Control Block.

access code.   A number from 0 to 2048 assigned to public ASF records for controlling who has access to that record.

ACR.   Application Control Record.

administrator.   A user responsible for the maintenance functions. Administrators create and maintain the ASF resources.

advanced function printer (AFP).   A printer that can address all points, and is capable of high-quality text and graphics.

AFP.   Advanced Function Printer.

AOR.   Application-owning region.

API.   Application Programming Interface.

application-owning region (AOR).   A CICS environment that contains programs. Contrast with *terminal-owning region (TOR)*.

Application Programming Interface (API).   An interface into ASF that allows other programs to use ASF functions.

application-type description (ATD).   A record containing the name of an application program to be called. It can also contain the names and attributes of parameters to be passed to the called program and, optionally, the name of an application program that retrieves the data for the defined parameters.

ATD.   Application-type description.

ATD parameter.   Application-type description parameter. A parameter contained in an ATD.

author.   The name of the person who created a document.

B

base document.   An existing document that users can use as a model when creating a new document.

basic sequential access method (BSAM).   An access method for storing or retrieving data blocks in a continuous sequence, using either a sequential access or a direct access device.

batch message processing (BMP).   In IMS, a batch processing program that has access to online databases and message queues.

batch processing.   The asynchronous processing of data accumulated over a period of time.

BLRR.   Batch document request record.

BMP.   Batch message processing.

BSAM.   Basic sequential access method.

bulk printing.   The process of printing large stacks of documents created by Document Composition feature on batch printers.

C

CFL.   Continuous formatting output library.

CICS.   Customer Information Control System. Represents CICS/ESA®.

CLL.   Completed document library.

command.   An instruction that a user types on a panel for ASF to perform a task. See also *fast-path command*.

command column.   The column marked "Act" that appears on the left side of a list panel; users can type commands in the command column next to items they want to work with. See also *list panel*.

completed document library (CLL).   A data set used to store completed documents created during Document Composition feature for later disposal; for example, for printing them in bulk. The documents are stored in the form of document-request records.

D

data collection program (DCP).   A user-written program for collecting data from parameters used in documents created with during Document Composition feature. The data is used to update user databases.

DCF.   Document Composition Facility.

DCF profile.   A record containing DCF control words, symbols, and text. The DCF profile is embedded at the

beginning of each document created during Document Composition feature before formatting the document online.

DCP. Data collection program.

default. An alternative value or option that is assumed when nothing has been specified. See also *system defaults* and *user defaults*.

DJL. Document job library.

DLF. Document Library Facility.

document. In ASF, a general term for all types of letters, memos, and notes.

Document Composition Facility (DCF). An IBM text-processing licensed program that formats text for printing on terminals and printers. The component for text processing in DCF is SCRIPT/VS.

Document Composition feature. (1) The functions of ASF that enable the user to produce documents mainly from predefined text parts. It uses DCF for formatting the documents. (2) The process of creating and producing documents.

document disposition. Indicates the processing stage of documents being printed.

Document Library Facility (DLF). An IBM licensed program that supports the storage of documents and other types of data. Together with DCF, it enables the SCRIPT/VS formatter to run as a batch job.

document-request record (LRR). A description of a completed document, containing references to parameters, standard paragraphs, and individual text.

document-type description (LTD). A record that describes a set of predefined text parts used during Document Composition feature.

DSA. Dynamic Storage Area.

dynamic storage area (DSA). The area where data is stored in a manner that permits the data to move or vary.

F

fast-path command. A command that lets users skip directly to the panel they want, bypassing intermediate panels.

FLL. Formatted-document record.

FLR. Formatting document library.

FMID. Function modification identifier.

folding. The substitution of a character set for another character set, usually to convert lowercase characters (typed on a keyboard) into uppercase characters.

formatted document library (FLL). A library used to hold the documents that are formatted with DCF for deferred online printing.

G

general information library (GIL). A library with records that contain the information and data required to use ASF, for example, document-type description items or menu items.

generalized sequential access method (GSAM). In IMS, a database access method that provides accessing support for simple physical sequential data sets, such as tape files, SYSIN, SYSOUT, and other files that are not hierarchical in nature.

Generalized Markup Language (GML). The language used to code macros and tags in SCRIPT/VS.

GIL. General information library.

GML. Generalized Markup Language.

graphic character global identifier (GCID). An identifier of how graphic data is encoded; used when translating a document into the appropriate character set for the output device when a user makes a request to print or view a document.

GXL. GIL index library. It contains alternate index records to establish lists of GIL items for viewing by users.

H

help record. An information or menu record that contains information to be displayed online.

I

IMS. Information Management System. Represents IMS/ESA.

individual paragraph. In ASF (1) text in a document that is not previously defined in a standard paragraph but is added by the person composing the document, (2) a standard paragraph that was modified with individual text.

individual text. Text the user writes that can be used to change, extend, or replace SPs.

information item. An item that contains text to be displayed on information panels.

installation-wide exits. General-purpose programming interfaces that allow system programmers to attach other applications to ASF.

interactive system productivity facility (ISPF). An IBM licensed program that serves as a full-screen editor and dialog manager. Used for writing application programs, it provides a means of generating standard screen panels and interactive dialogs between the application programmer and terminal user.

internal system library. A library containing specific control information, in particular, specifying whether ASF is connected with other programs. In addition, it contains documents being processed during Document Composition feature.

intersystem communication facility (ISC). Communication between separate systems by means of SNA networking facilities or by means of the application-to-application facilities of an SNA access method.

IPCE. Individual-paragraph control entry.

ISA. Initial Storage Area.

ISL. Internal system library.

ISPF. Interactive system productivity facility.

ISR. ASF status record.

L

LCE. Letter control entry.

library maintenance functions. Functions that provide maintenance of GIL records.

list panel. A panel that lists a number of items a user can choose to work with.

local printer. A printer that is controlled by ASF through CICS or IMS.

LRR. Document-request record.

LTD. Document-type description.

M

main menu. The panel that lists the major tasks users can perform with ASF.

menu. A panel that shows the options users can choose from to perform a task in ASF.

message area. The area on a panel where ASF shows messages to users.

message processing program (MPP). In IMS, an application program that is driven by transactions and

has access to online IMS databases and message queues. See also *batch message processing (BMP)*.

MLP. Multilingual code page table.

MMDDYY. Format used to indicate the date in the form month/day/year.

MPCE. Modified standard-paragraph control entry.

MPP. Message processing program.

MRO. Multiregion operation.

multiregion operation (MRO). Communication between CICS systems in the same processor without the use of SNA network facilities.

N

NEP. Node error program.

NLS. National language support.

node error program (NEP). Any program that handles workstation node errors on your system.

O

online printing. The printing of single documents created with ASF on a local printer, as opposed to printing them in bulk on a remote, high-speed host printer.

P

paging commands. Commands that allow users to move to a particular line, column, or page in a document.

panel. The format in which ASF displays information on the screen.

panel flow. The path users take through a task from one panel to the next by issuing commands or choosing options.

parameter. Variable data that is contained in the standard paragraphs of a document, or that can be passed to a program called by ASF.

parameter description record (PDR). A record that describes the attributes of a parameter.

parameter determination program (PDP). A user-written program to get values for parameters.

parameter verification program (PVP). A user-written program to check the values of parameters.

password. A secret "word," up to 8 characters long, which a user must type to sign on to ASF.

pattern document. A document consisting only of preselected standard paragraphs.

PCB. Program control block.

PCT. Program control table.

PDP. Parameter determination program.

PDR. Parameter description record.

PEP. Program error program.

personal defaults. See *default* and *user defaults*.

personal profile. Customized use of the system by entering personal data and setting defaults to a selected format.

PPT. Processing program table.

private. Any item that only one user has access to.

private item. An item to which only the owner has access.

Program Control table (PCT). A CICS table defining all transactions that may be processed by the CICS system.

project item. An item to which only the members of the project owning the record have access.

PSB. Program specification block.

public item. An item to which users have access whose access code, as defined in their user profile, matches the access code specified for the item. Members of the project owning the item can also gain access.

PSW. Program status word.

PVP. Parameter verification program.

R

required field. A field where users must type something after the prompt; the prompt for a required field is highlighted.

resources. Records in the GIL.

RSL. Resource security level.

S

saved document library (SLL). A library for incomplete documents produced with the Document Composition feature that are to be completed at a later time.

scratchpad area (SPA). In IMS conversational processing, a work area in main storage or on direct access storage used to retain information from the application program for executions of the application program from the same terminal.

SCRIPT/VS. Another name for the formatter component of the DCF.

scrolling command. A command that tells ASF to move across a panel or document either vertically or horizontally so that a user can see additional information.

SIB. Standard interface block.

SLL. Saved document library.

SNA. Systems Network Architecture.

software. Programs, procedures, rules, and any associated information pertaining to the operation of a computer system.

SP. Standard paragraph.

SPA. Scratchpad area.

SPG. Standard-paragraph group.

standard interface block (SIB). A string of variable-length data used for communications between ASF and application programs.

standard paragraph (SP). A predefined part of a document. It can contain text, SCRIPT/VS control words, and SCRIPT/VS symbols.

standard-paragraph group (SPG). An item in Document Composition feature that describes a set of related standard paragraphs that can be selected to create a document, normally with other standard paragraphs belonging to the same document type.

standard-paragraph parameter. A parameter whose value is specified in the various standard paragraphs, and which is valid for that standard paragraph only.

structured text. Documents that consist of predefined text parts.

system defaults. The system-supplied values that can be changed to customize ASF after it is installed.

system parameter. A parameter whose value is specified in a parameter description record and that is valid for the whole ASF system, for example, the company's letterhead.

systems network architecture (SNA). The description of the logical structure, formats, protocols, and operational sequences used for transmitting information through networks and for controlling the configuration and operation of networks.

T

terminal node error. Any failure in a network that occurs in the host computer, in session links, or in a workstation that causes CICS to call the node error program (NEP). See *node error program (NEP)*.

terminal-owning region (TOR). A CICS environment that contains workstation definitions. Contrast with *application-owning region (AOR)*.

TOR. Terminal-owning region.

transaction ID. A group of up to 4 characters that identifies a particular CICS transaction.

TS. Temporary storage.

TSO. Time Sharing Option.

TSQ. Temporary-storage queue (CICS).

U

UPL. User profile library.

UPR. User profile record.

user defaults. The user-specified values that can be changed for individual users' sessions.

user ID. The name by which a user is known to ASF. It consists of up to 8 characters and identifies a user to ASF during signon.

user name. A user's true name defined in the user profile and used in the author field. See *author*.

user parameter. A parameter whose value is specified in the user profile record, and which is valid for that particular user, for example, name and address.

user program. A user-written application program, for example, a parameter determination program to obtain parameter values or a data collection program to update related data.

user profile record (UPR). A record that contains user-specific information, for example, about the functions the user is authorized to select.

user session library (USL). This library contains the user session record for the host-server session for each user.

USL. User session library.

V

VTAM. Virtual Telecommunications Access Method.

W

Web client. The browser interface provided with the feature Document Connect for ASF.

terminal-owning region (TOR). A CICS environment that contains workstation definitions. Contrast with *application-owning region (AOR)*.

WSL. An internal system library.

X

XCTL. Transfer control command.

Z

ZSL. An internal system library.

Related publications

This section lists each book in the ASF library. There is also a list of publications for other IBM products that you might use with ASF.

The ASF library

Administration Guide, SH12-6734, gives an overview of ASF from the administrator's point of view, tells you about user administration, security considerations, setting up ASF to suit your company's needs, and working as an administrator.

Application Programming Interfaces, SH12-6735, explains how to use the ASF application programming interfaces to add applications to the ASF environment.

Diagnosis Guide, SH12-6739, tells the system administrator what to do if ASF is not functioning correctly. It describes how to isolate, diagnose, and report problems.

Licensed Program Specifications, GH12-6738, describes the requirements, capabilities, and functions of the IBM licensed program ASF as warranted by IBM.

Program Directory, GI19-0020, describes the requirements and installation of ASF.

The unlicensed ASF books with prefix SH are also available on the following collection kit:

- IBM Transaction Process and Data Collection Kit
  SK2T-0730 CD-ROM

The most current versions of all ASF publications are available from the following Web site:

http://www-306.ibm.com/software/applications/office/asf

Other IBM publications

You can order many IBM publications, such as product manuals and IBM Redbooks®, online at the following Web site:

http://www.elink.ibmlink.ibm.com/public/applications/publications/cgibin/pbi.cgi

You can find online versions of the DCF publications on the ASF Web site:

http://www-306.ibm.com/software/applications/office/asf

The most current versions of the publications are available from these Web sites:

- CICS and CICS Transaction Server for z/OS: http://www.ibm.com/software/cics
- CICS Transaction Gateway for z/OS: http://www.ibm.com/software/cics/ctg
- DB2 for z/OS: http://www.ibm.com/software/data/db2/zos/library.html
- IMS: http://www-3.ibm.com/software/data/ims.
- z/OS V1R7: http://www.ibm.com/servers/eserver/zseries/zos/bkserv/v1r7books.html
- Enterprise PL/I for z/OS Version 3 Release 7: http://www..ibm.com/software/awdtools/pli/plizos/library/
- MQSeries: http://www.ibm.com/software/mqseries
- WebSphere MQ for z/OS Version 6: http://www.ibm.com/software/integration/wmq/library/
- WebSphere Application Server: http://www.ibm.com/software/webservers/appserv

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Readers' Comments — We'd Like to Hear from You

IBM Application Support Facility
Diagnosis Guide

Publication No. SH12-6739-01

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