



This is the tutorial for IBM's Fault Analyzer for z/OS[®], one of the IBM zSeries[®] problem determination tools.

Fault Analyzer tutorial



- **Fault Analyzer options in JCL for batch jobs**
- **Batch reanalysis**
 - Example of batch reanalysis
- **Using the web browser interface**



- **Fault Analyzer tips**

In this section you will see a few other hints and tips for Fault Analyzer.

Trace the source library search



- Add an IDITRACE DD to get trace information about why a particular compiler listing or side file was selected or rejected

- `//IDITRACE DD SYSOUT=*`

- [Sample output](#)

```
Listing/Side-file search trace for COBMST5
LE compile date 2010-12-17 time 16-11-10
DA.WDBLANGX
    Rejected - Member not found
    Rejected - Member not found
PATRICK.LISTING.COBOLE
    Accepted - Timestamp valid, size test valid
    - Timestamp date 2010-12-17 time 16.11.10
DA.LISTING.COBOLE
    - Search not required. LISTSEARCH(BEST) satisfied
    - Search not required. LISTSEARCH(BEST) satisfied
```

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You can request a trace to see why fault analyzer either used or rejected a side file or compiler listing. Consider doing this if you specified a file for source mapping, but it was not used, and you want to find out why.

Code an IDITRACE DD statement in your batch JCL before you run it, or allocate an IDITRACE DD to your TSO region before you perform a reanalysis.

Look up messages and codes on IBM's "LOOKAT" web site



- Go to www.ibm.com, and search for "LOOKAT"

The screenshot shows the IBM LOOKAT web site interface. At the top, there is a navigation bar with the IBM logo, a search box, and links for 'Home', 'Products', 'Services & industry solutions', 'Support & downloads', and 'My account'. Below the navigation bar, there is a breadcrumb trail: 'Servers > Mainframe servers > z/OS >'. The main content area is titled 'LookAt' and features a search box labeled '1. Enter a Message ID' with a 'Go' button. To the right of the search box, there are three columns of platform selection options under the heading '2. Select an area to LookAt'. The first column is for 'z/OS® and z/OS,e™' with radio buttons for V1R8, V1R7, V1R6 (selected), V1R5, V1R4, V1R3, and z/OS® only (V1R2). The second column is for 'z/VM®' with radio buttons for V5R2, V5R1, V4R4, and V4R3. The third column is for 'z/VSE™ and VSE/ESA™' with radio buttons for V3R1, V2R7, V2R6, and V2R5. Below the platform selection options, there is a note: 'Note: Platform selections below also include any IBM application software messages enabled for LookAt.' and a section for 'APAR and ++HOLD Docs' with a radio button for 'z/OS®' and 'All releases'. On the right side of the page, there are links for 'What's New' and 'LookAt Mobile Edition'. The page footer contains the number '4', the text 'IBM Fault Analyzer for z/OS - V12 Tutorial', and the copyright notice '© 2012 IBM Corporation'.

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There is a free page on the IBM web site called LOOKAT. Direct a browser to ibm.com and search for LOOKAT. You can use it to look up messages and codes that you get on z/OS systems. Type in the error code in the search box and click GO. It is tied to a lot of the IBM z/OS software error manuals, and it is an easy way to get explanations for error codes.

Take a “snapshot” from a program



- IDISNAP is a program supplied with Fault Analyzer
- To use it, code a CALL to program IDISNAP in your program
 - When IDISNAP is called, FA captures a fault entry
- After the snapshot is taken, control is restored to the calling program
- Optional parms can be used for a partial storage capture
- COBOL example:

```
.  
01 SNAP-PROGRAM PIC X(8) VALUE 'IDISNAP ' .  
PROCEDURE DIVISION.  
. .  
CALL SNAP-PROGRAM.  
. .
```

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Fault analyzer provides a special utility subroutine called IDISNAP. You can CALL it from your own programs to take what Fault analyzer calls a **snapshot**.

Your program calls IDISNAP, which invokes Fault Analyzer. Fault analyzer performs its **analysis**, generates a real-time report, and stores a complete **fault entry** in a fault history file. After it finishes, control is **returned** to your program, which continues to run.

This is an API to Fault analyzer. COBOL statements are shown, and you can also call it from other languages. By default, it collects complete information, just as if the program had abended. But there are optional parameters that tell it to capture only certain areas of storage. Consider coding a call to IDISNAP in standard abnormal termination routines, if the termination routine does not actually abend. That way, you will have **debugging** information available.

Here are couple of tips before you use it. Do not code it into a **loop** in your program. That is a fast way to fill up a history file. And it will not make you any new friends with the other people who had abends in the history file. Consider using your own fault history file, which you can do by coding an IDIHIST DD statement in your JCL.

That is the end of this section, Fault Analyzer tips.

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