

# Introduction

## Abend-AID / FX

# Introduction

## Chapter 1:

## Objectives

You will learn:

- The features of Abend-AID for CICS.
- The components of Abend-AID.
- Transaction Abend Analysis functions.
- Selecting a server viewer.

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## Abend-AID / FX

### Abend-AID for CICS

- The Abend-AID for CICS architecture consists of three major components:
  - Transaction dump capture component
  - Region dump capture component
  - Viewing server component

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### Transaction Dump Capture Component

- For transaction dumps, the dump capture component consists of the transaction dump interface and the TDCAS - transaction dump capture address space.
- The transaction dump interface is the portion of the transaction dump capture component that runs in the CICS address space.
  - It is started and stopped using the AAON transaction, or with entries in the CICS PLT.
- The transaction dump interface determines whether Abend-AID for CICS is to process a transaction abend.
  - If the interface determines that the abend requires processing, it passes control to the TDCAS using the transaction dump capture subsystem to facilitate communication.

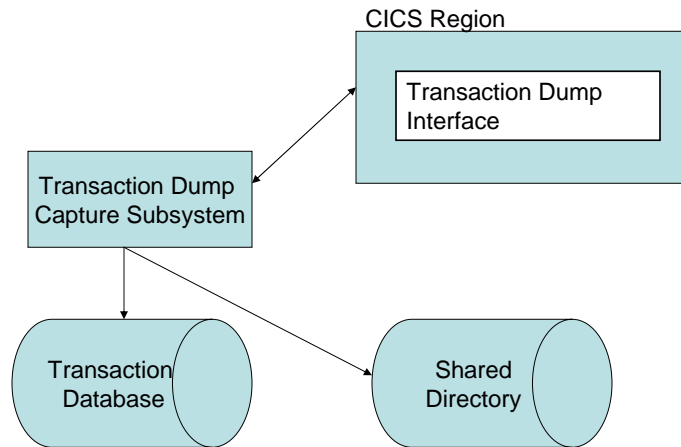
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### Transaction Dump Capture Subsystem



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### TDCAS: Transaction Dump Capture Address Space

- The TDCAS transaction dump capture address space is responsible for transaction dump capture and processing.
- One TDCAS is required on every z/OS image where Abend-AID for CICS is used.

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## Region Dump Capture Component

- The optional dump capture component for region dumps consists of a region dump interface, an SVC 51 interface, and an z/OS post-dump exit.
- Abend-AID for CICS uses these facilities to import dumps automatically, copy dumps, gather program change summary information, and notify users when CICS region dumps occur.

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## Viewing Server Component

- The viewing server is an z/OS address space that provides the capability to view captured dump information.
  - It also performs import and analysis of CICS region dumps for use by Abend-AID for CICS.
- The viewing server must be active for Abend-AID for CICS to display transaction abend information or to import or display region dumps.
  - The viewing server does not have to be active for Abend-AID for CICS to capture transaction or region dumps.

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### Dump-Independent Functions

- Dump-independent functions are always available.
  - If no dump is selected, access these functions by entering the fast-path command on the Command or Option line and pressing Enter.
- Fault Summary - SUMMARY
  - The Abend-AID for CICS Fault Summary lists the number of transaction, region, and non-CICS entries for each region and each user-defined region group.
- Abend-AID Directory - DIRECTORY
  - The Abend-AID Directory lists the type and number of transaction and region entries available for each described region or region group.
- Dataset Import - IMPORT
  - The import function makes region dumps available to Abend-AID for CICS.
- User Control Facility - USER
  - The User Control Facility provides a wide range of administrative features that enable the user interface to be tailored and access the product customization screens.
- Source Directory - SRCDIR
  - The Source Directory displays the source listings/source listing shared directories that have been written to a source support dataset.
- Distributed Viewing Support - DVS
  - This facility allows users to view dumps captured at remote sites using source information maintained at a central site.

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### Transaction Abend Analysis Functions

- Diagnostic Summary
  - Displays a thorough analysis of CICS transaction abends.
- Program Information
  - Identifies all programs involved in an abending task, and it provides direct access to specific program information, such as COBOL linkage, COBOL external data, and program storage.
- CICS Trace
  - Displays internal CICS trace information for an abending task in IBM format.
  - Full, short, and abbreviated trace tables in IBM format are available for CICS Transaction Server for z/OS and OS/390.
- Terminal Detail
  - Provides terminal-related information for the terminal associated with the task at the time of theabend.

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### Transaction Abend Analysis Functions

- Task Detail
  - Provides a detailed analysis of the selected task at the time of the transaction abend.
- Control Blocks/Storage
  - Lists the control blocks related to the failing transaction and provides access to the dump's hexadecimal storage.
- File Request Summary
  - Lists all files with areas remaining on the storage chain for the abending transaction.
  - For each file, detailed statistics are available, including information on file access and file requests.
- DB2 Information
  - Displays DB2 information such as SQL information, pertinent dates, and DB2 subsystem information.
- Last 3270 Screen
  - Shows the exact screen image that was displayed when the abend occurred.

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### Transaction Abend Analysis Functions

- Duplicate History
  - Displays a log of duplicate dump suppression activity.
  - Abend-AID for CICS can suppress duplicate transaction dumps, which allows recurring transaction failures to be tracked without having to store redundant information.
- WebSphere MQ Information
  - Provides access to WebSphere MQ Information associated with the selected transaction abend.
- CICS Web Interface Information
  - Provides enhanced diagnostics with web-specific information for abending applications that use the CWI: CICS Web Interface.
- Language Environment Info
  - Provides access to the LE: Language Environment information, including the LE Options Control Block screen, which lets customers using Language Environment identify LE runtime options in effect at the time of the failure in their COBOL or PL/I program and the LE Information Summary screen.
  - The LE Information Summary screen also provides LE heap and stack analysis.

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### Additional Features

- Abend-AID for CICS has several features that enhance its analysis capabilities, including:
  - Tab-selectable fields that display control blocks in interpreted, hexadecimal, or DSECT format, or that display additional related information.
  - WHO, MATCH, and WHERE analysis commands for region dumps that allows the ownership of any piece of storage to be determined, the tasks having addressability to the storage, and the location and ownership of data that matches data having overlaid storage.
  - Extensive print capabilities that allow individual screens to be printed, groups of screens, formatted DSECTs, and storage.

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### Logging On to Abend-AID for CICS

- ISPF/PDF
  - Select the option defined for Abend-AID for CICS on the menu, or execute the CLIST defined for Abend-AID for CICS.
- VTAM
  - Enter the following logon command:  
`LOGON APPLID(applid-name)`

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### Logon via CICS

- Enter an AADF transaction command directly from CICS on any blank screen.
- The following AADF transaction commands are valid:
  - AADF:
    - Displays the Abend-AID Directory for all transaction and region abends matching the job name of the CICS region.
  - AADFS:
    - Displays the Fault Summary.
  - AADFT:
    - Displays the Diagnostic Summary for the most recent transaction abend that occurred at the terminal in the CICS region.
  - AADFTM:
    - Displays the Primary Options menu for the most recent transaction abend at the terminal in the CICS region.

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### Logon via CICS

- AADFX:
  - Displays the Diagnostic Summary for the most recent transaction abend in the CICS region.
- AADFXM:
  - Displays the Primary Options menu for the most recent transaction abend in the CICS region.
- AADF number:
  - Displays the Diagnostic Summary for the specified directory entry.
- AADM:
  - Displays the Abend-AID for CICS demonstration transaction menu.

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### Selecting a Viewing Server

- When accessing a viewing server from ISPF and the site has only one active viewing server, Abend-AID for CICS automatically logs onto that viewing server and displays the Fault Summary screen.
  - However, if a site has more than one active viewing server, Abend-AID for CICS displays the Server Selection screen.
- In order to select a viewing server, place the cursor on the appropriate application ID (APPLID) and press Enter.
  - After selecting a viewing server, its APPLID is retained in the ISPF profile.
  - In order to select this same viewing server in the next session, press Enter from the Server Selection Screen.

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### Selecting a Viewing Server

```
Abend-AID 5.2.1 ----- Server Selection ----- ROW 1 TO 2 OF 2
COMMAND ==> SCROLL ==> CSR
                                     Copyright Compuware Corporation 1994-2007

Current Server Name: SERVER2

Press Enter to reselect the current server, or place your cursor on a listed server and press Enter.

Name      Description
SERVER1   Fault Management Server1
SERVER2   Fault Management Server2
***** BOTTOM OF DATA *****
```

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### Exiting Abend-AID for CICS

- In order to exit Abend-AID for CICS from any screen, type EXIT or =X in the COMMAND or OPTION field, and then press Enter.
  - Pressing the END PF key will back out one screen at a time.
  - PF3 is the default END PF key.
    - Pressing the RETURN PF key returns either the Fault Summary - ISPF or VTAM access or the Abend-AID Directory - CICS access.
  - PF4 is the default RETURN PF key.
  - Press the END PF key to exit from either of these screens.