

IBM Education Assistance for z/OS V2R2

Items: TSO/E Command for stopping a printer
Start individual daemons
Variable mail in-line message
Infoprint Central and Infoprint Server currency
Component/Element: Infoprint Server



Agenda

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Trademarks

- See url <http://www.ibm.com/legal/copytrade.shtml> for a list of trademarks.



Presentation Objectives

- This session provides information about new Infoprint Server functions:
 - TSO/E command that allows authorized users the ability to start and stop Infoprint Server managed output devices from TSO/E.
 - Infoprint Server has added support to allow starting and stopping individual Infoprint Server daemons as started tasks.
 - New function is added to IP PrintWay Extended mode to allow inclusion of personalized text, from each step of a batch job when sending output via email.
 - Infoprint Central enhancements:
 - Allow searching for output from TSO jobs.
 - Easier to use interface.
 - Redesigned to work with IBM HTTP Server – Powered by Apache (31bit version).



Overview - TSO/E Command to start, stop printers

- Problem Statement / Need Addressed

Customers have requested the ability to start and stop Infoprint Server managed output devices using TSO/E command.

- Solution

A new TSO/E command AOPCMND is provided for use by customers who need some control over IP PrintWay Extended Mode printers but for one reason or another cannot utilize the Infoprint Central.

- Benefit / Value

Fulfills customer requirement for migrating from competitor solution to Infoprint Server. This command can be exploited by MVS automation tools.



Usage & Invocation - TSO/E Command to start, stop printers

- The new TSO/E command, AOPCMND is shipped in SYS1.LINKLIB.
- To use the new command
 - Authorize the TSO/E command processor by editing the IKJTSOxx member of SYS1.PARMLIB and add AOPCMND to the AUTHCMD list.
 - Enable Dynamic Configuration.
 - Make sure Infoprint Server daemon aopoutd has started.
- Example: To start a printer definition named testprinter, issue the following command: (NOTE: The printer definition name is case-sensitive.)

```
aopcmnd printer 'testprinter' start
```
- You can run AOPCMND command from TSO/E READY prompt, ISPF command shell, a batch job, or a started task.
- If you move the command from SYS1.LINKLIB to another library make sure it is placed in an APF-authorized library.



Usage & Invocation – TSO/E Command to start, stop printers

- Format

```
AOPCMND PRINTER 'printer_definition_name'  
{START | STOP [(COMPLETE | HOLD | DELETE)] }  
[INVENTORY(inventory_name)]  
[XCFQUALIFIER(group_qualifier)]
```

- Options

See details in notes section.

- Description

You can use the TSO/E command, AOPCMND to start and stop IP PrintWay Extended mode printers instead of using Infoprint Central.



Overview – Start and stop procedures for Infoprint Server daemons

- Problem Statement / Need Addressed

Infoprint Server does not allow starting or stopping individual Infoprint Server daemons from MVS console or as started tasks.

- Solution

Infoprint Server will allow use of JCL procedures to start and stop individual Infoprint Server daemons.

- Benefit / Value

Customers can automate startup and recovery actions using existing z/OS automation options and simplify operation and procedures for managing Infoprint Server.

Customers can specify environment variables tailored for each Infoprint Server daemon, typically specified on aopstart EXEC or AOPSTART Proc, AOPTRACEON (and variations), CLASSPATH, _CEE_RUNOPTS, etc.



Usage & Invocation -Procedures for Infoprint Server daemons

- Infoprint Server is shipping new JCL procedures that can be customized to start and stop
- some or all of Infoprint Server daemons and obtain Infoprint Server status information.
- These new JCL procedures are being provided in SYS1.IBM.PROCLIB
 - AOPDEMON To start an individual Infoprint Server daemon.
 - Example: To start Infoprint Central daemon, enter following on MVS command line
 - *START AOPDEMON, TYPE=SSI*
 - AOPSTAR2 To start one or multiple Infoprint Server daemons.
 - Example: Customize before use and enter this command to start multiple daemons.
 - *START AOPSTAR2*
 - AOPSTOP2 To stop one or multiple Infoprint Server daemons.
 - Example: Customize before use and enter this command to stop multiple daemons.
 - *START AOPSTOP2*
 - AOPSTAT To display information and status of Infoprint Server.
 - Example: Enter this command to display Infoprint Server information.
 - **START AOPSTAT**



Usage & Invocation - Procedures for Infoprint Server daemons

Before using these new procedures make sure following requirements are met.

- Dynamic configuration is enabled.
- Operating Mode field is set to z/OS V2R2 on the ISPF System Configuration Panel.

Operating Mode is a new element introduced with V2R2 to provide customers the ability to decide whether new product functions are activated during or after installation.

When Dynamic configuration is enabled the element can be set using ISPF System Configuration Panel (Default value is set to z/OS V2R1).

When Operating mode is set to z/OS V2R2, the *aopstart* EXEC and the start-daemons attribute in *aopd.conf* are ignored.



Overview – Variable mail in-line message

- Problem Statement / Need Addressed

Customers have requested the ability to include variable messages, as in-line text when using IP PrintWay Extended mode when sending output data via email.

- Solution

Infoprint Server is providing a new function in IP Printway Extended mode to allow personalized text to be included in each step of a batch job used to send print output via email.

Benefit / Value

This will allow customers to insert customized greeting (such as “Dear Mr. Jones,”) ahead of generated email or a standard email text that accompanies an attachment.



Usage & Invocation – Variable mail in-line message

IP Printway Extended mode can include a text job attribute in-line as a text string on the first line of an email. You request this function with the **Inline text attribute** field in the printer definition.(see Notes for details)

- The text job attribute can be specified in these ways:
 - For a job spooled to JES, with the JCL parameter when the document is allocated on the JES spool.
 - NAME='Dear Mr. Jones,'*
 - PRTATTRS='name-text="Dear Mr. Jones,"'*
 - For an lp or AOPPRINT job, with a -o parameter:
 - o 'name-text="Dear Mr. Jones,"'*
 - For a NetSpool job, in a data stream as a NetSpool Job Attribute:
 - <<IBMJOBATTR0020name-text=Dear Mr. Jones,*



Usage & Invocation – Variable mail in-line message

- Here is a JCL example that instructs IP Printway Extended mode to
- include the name or department in the first line of the email.

■ *//...EX1*

```
//NAMEOUT  OUTPUT DEST=xxx,
```

```
//          NAME='Dear Mr. Jones',
```

```
//          PRTATTRS='mail-inline-text-attribute="name-text"'
```

```
//....
```

■ *//...EX2*

```
//DEPTOUT  OUTPUT DEST=YYY,
```

```
//          DEPT='Department Z',
```

```
//          PRTATTRS='mail-inline-text-attribute="department-text"'
```

```
//...
```



Overview – Search output from TSO jobs using Infoprint Central

- Problem Statement / Need Addressed

Customers have requested the ability to search for outputs from TSO jobs using Infoprint Central.

- Solution

Infoprint Server is providing a new function in Infoprint Central to allow searching for output from TSO jobs among JES print jobs.

- Benefit / Value

This fulfills customer requirement and allows users search capability when using Infoprint Central to search for output from TSO jobs.



Usage & Invocation - Search output from TSO jobs using Infoprint Central

- Infoprint Central no longer limits searching output from TSO jobs.
- You can now search for these jobs using **Work with Print Jobs** tab on the Infoprint Central and use the **find** button to search any job, including output from TSO jobs. This change applies only when searching for **JES Print Jobs**. In JES2, TSO output jobs typically have a job ID prefix of TSU.



Overview Infoprint Central redesign & IBM HTTP Server Powered by Apache

- Problem Statement / Need Addressed

Starting with this release IBM is removing support for IBM HTTP Server powered by Domino. Infoprint Central requires changes to work with IBM HTTP Server Powered by Apache.

- Solution

Infoprint Central has been redesigned to work with IBM HTTP Server Powered by Apache (31 bit version).

- Benefit / Value

This is necessary for continued availability and use of Infoprint Central which is the primary operator interface to Infoprint Server.

The redesign also improves user experience by adopting IBM UI design guidelines.



Usage & Invocation - Infoprint Central - IBM HTTP Server Powered by Apache

- Customers that want to use Infoprint Central will need to customize the configuration of IBM HTTP Server Powered by Apache which is shipped with the release.
- To start Infoprint Central, you must log on with an authorized user ID and password.
- To log on to Infoprint Central, enter a URL in the browser:
 - `http://hostname:port/Infoprint/En_US/IPS.html`
- If the IBM HTTP Server Powered by Apache uses Secure Sockets Layer (SSL):
 - `https://hostname:port/Infoprint/En_US/IPS.html`
- Infoprint Central contains an integrated online help system. To view the general help system and help for individual web pages, select the question mark (?) on the title bar.



Usage & Invocation - Infoprint Central - IBM HTTP Server Powered by Apache

- The IBM HTTP Server Powered by Apache files are shipped with z/OS V2R2, the default location is:

/usr/lpp/ihsa_zos/.31bit/

- Make necessary configuration changes prior to using IBM HTTP server Powered by Apache with Infoprint Central(see notes section for details).



Usage & Invocation - Infoprint Central - IBM HTTP Server Powered by Apache

- Edit and update configuration files for the IBM HTTP Server Powered by Apache. These files are located in the target directory where the HTTP Server was installed. You need to make this change before you start the HTTP Server.

conf/httpd.conf

- This configuration file contains directives that customize the HTTP Server. Add directives to the configuration file so that the HTTP Server can display Infoprint Central web pages. (See notes section for an example).



Usage & Invocation - Infoprint Central - IBM HTTP Server Powered by Apache

- When IBM HTTP Server Powered by Apache is installed , the default environment variable file, *bin/envvars* is created. To use the IBM HTTP Server Powered by Apache with Infoprint Central you must customize the environment variable file by adding Infoprint Server related environment variables at the end of the file.

bin/envvars

- See the notes section for environment variables you might need to add.



Interactions & Dependencies

- Search capability for output from TSO jobs using Infoprint Central.
- JCL procedures to start stop individual Infoprint Server Daemons.

The function listed above require following setting before use.

- Enable Dynamic configuration.
 - Set Operating Mode field to z/SO V2R2 on the ISPF System Configuration panel.
-
- Software Dependencies (Infoprint Central)
IBM HTTP Server Powered by Apache (31 bit version) (FMID HHAP90P)



Migration & Coexistence Considerations

- Users of Infoprint Central are required to make necessary changes to customize the configuration of the IBM HTTP Server Powered by Apache (31 bit version) in order to use it with Infoprint Central.



Installation

- In order to use the new command AOPCMND:
 - Authorize the TSO/E command processor by editing the IKJTSOxx member of SYS1.PARMLIB and add AOPCMND to the AUTHCMD list.
- In order to use Infoprint Central:
 - Customize the configuration of IBM HTTP Server Powered by Apache(31 bit version).



Presentation Summary

- This session has provided you information about new functions added by Infoprint Server:
 - New TSO/E command to allow start and stop Infoprint Server managed output devices from MVS command line.
 - New Infoprint Server support to allow starting and stopping individual Infoprint Server daemons.
 - New function in IP PrintWay to allow inclusion of personalized text, from each step of a batch job when sending output via email.
 - Infoprint Central has been enhanced to allow searching for output from TSO jobs.
 - Redesigned Infoprint Central for improved user experience and to work with IBM HTTP Server Powered by Apache (31 bit version).



Appendix

- For detailed description and use of the new function described please review the following publications:
- *z/OS Infoprint Server Customization Version 2 Release 2 (SA38-0691)*
- *z/OS Infoprint Server Operations and Administration Version 2 Release 2 (SA38-0693)*
- *z/OS V2.2 Program Directory (GI11-9848)*

