

Lab: Infoprint Server for iSeries

❖ Infoprint Server Lab

OBJECTIVES: Understand how the Infoprint Server Product Offering can be used to expand 'Line of Business' applications for e-business. The Lab objectives are to show how easy it is to activate the capabilities of the Infoprint Server to output PDF. The student will:

1. Create a PDF Printer Device (Often referred as a Virtual Printer)
2. Create a PSF Configuration Object to specify the destination of the PDF output
3. Activate the PDF Printer
4. Use Operations Navigator (iSeries 400's GUI Interface) to change an existing PSF Configuration object. The PSFCFG object currently outputs to e-mail and will be changed multiple PDF files in the IFS.
5. Call an existing demo application (created with Infoprint Designer), EMDEMO, to output the multiple customer Invoices to the IFS instead of to e-Mail.
6. Use Operations Navigator to verify that the PDF files are created and view the resulting PDF files.
7. You are on your own to exercise the iSeries Navigator Convert to PDF interface.

❖ Overview of Lab

The lab will allow you to develop an understanding of the role of the Virtual Print Writer and how to control it. You will use the traditional 'Green Screen' to create a device description and PSF configuration to output a pdf into the IFS on the iSeries 400. You will activate the device (only required when created), start the print writer and use a system job to print to the writer producing a PDF file. You will use the AS/400 Operations Navigator to locate the pdf file on the IFS and drag it to your desk top for viewing.

You will then modify an existing PSF configuration to move the output from e-mail to send the output to the IFS as multiple documents. You will modify the PSF configuration using the AFP Manager function of AS/400 Operations Navigator. The EMDEMO application will then be called and output sent to the IFS. You will be able to view the invoices by dragging the files to the desktop.

You will then use AS/400 Operations Navigator to modify the PSF configuration to not send fonts and run the application again, observing the difference in the size of the PDF files. This will conclude the lab.

❖ Beginning the Lab

You will log on to the iSeries using the Green screen session. If you would like to have more than one session, select the <SYSTEM NAME> icon a second time. Log on using your team **Team ID - AFPxx** (where xx is the Team number)

Note: The iSeries Commands in this document are usually given in upper case. This is not required for most commands.

Enter the following commands:

```
DSPDEVD AFPxxPDF *PRINT  
DSPPSFCFG AFPxxPSF *PRINT
```

This will print the PDF Print Writer device description and PSF Configuration object that you will be modifying later in the lab.

Use either of the following commands and print the device description and PSF Configuration to your lab printer, (**ITSOP1**.)

```
WRKOUTQ AFPxx or  
WRKSPLF
```

If you are not familiar with these commands, you may want to try both.

Then use the change option, '2' and change the ***OUTQ** for the printer to **ITSOP1**, the lab printer. You will want to reference these printouts as you do the next part of the lab. (Note - Check for your team number on the output to be sure that you get the correct printout)

❖ Creating PDF Writers - Lab Instructions

Once the Infoprint Server Product, 5722-IP1 has been installed on your iSeries 400, virtual printers to create PDF output can be defined. If you want to determine if Infoprint Server is installed on your customer's system, enter **go licpgm**, choose option '10', and use the scroll keys to scroll down to see the installed products.

Create Device Description

To create a new PDF writer with custom output options enter the following:

CRTDEVPRT and press the '**F4**' key

Fill in the blanks as follows (replace the **xx** with your team number):

AFPxxITSO

***LAN**

***IPDS**

0

Press **enter**, **enter**, **enter** observing the default values.

After the third enter, the cursor will be under the **0** in the port number value, Change the port number to **60xx**, where **xx** is your team number. Tab down and enter the value for the default font, **011** is courier 10 pitch. Hit the **enter** key and then scroll to the next page of the configuration entry screens.

Review the default options and on the lines for 'Remote Location Name or Address' enter the following:

127.0.0.1 which is the loop back address for our iSeries. Then scroll down one more page and enter the following values on the top three entry lines. Type over the *NONE value in the 'User Defined Object' value. Enter the following three values on the top three entry lines:

PSFxxITSO

AFPxx

***PSFCFG**

Then tab down to the text 'description' field and enter:

Device Description for PDF Lab - AFPxx

Then press the **enter** key to complete the creation of your virtual printer.

You will see a message across the bottom of the screen that gives the following warning

User-defined object PSFxxITSO in library AFPxx not found. +

The + sign at the end of the line indicates that there are more messages. Use the arrow keys or the mouse to move the cursor to the message line and use the scroll, 'Page Down' key to view the second message.

Note: The device description or the PSF Configuration object can be created in any order.

Create PSF Configuration

We will now create the PSF Configuration object that controls the destination of the PDF file that is created. Enter the following on the command entry line:

CRTPSF CFG and press the '**F4**' key

You will see the entry line for the name of the PSF Configuration and a list of defaults for the other values. Review the defaults, noting that the default for 'Generate PDF output' is *NONE. Enter the PSF name and your team library and change the Generate PDF output value. The possible values for the PDF generation options are displayed to the right.

Enter

PSFxxITSO
AFPxx

***STMF**

And then **enter**.

You will see that you have two more options on the bottom of the screen and more on the next page (MORE on the bottom of the screen). Change the PDF device emulation type to

***IP40300**

To view all of the options, place the cursor anywhere under the *IP40300 and press the '**F4**' key. This will allow you to view all options and enter the value desired. IP40300 is recommended for most applications.

Then scroll to the next page and note the defaults, *NO for multiple PDF's and the Data Queue. Enter the following directory path for the destination of the PDF stream file in the IFS.

/pdf

And finish the PSF Configuration object creation by giving it a description.

Device Description for AFPxxITSO PDF Writer

Press enter and you should see the message that the PSF Configuration was successfully created in your library.

❖ Using the PDF Print Writer

In order to use the PDF Writer it must be activated and the print writer started. That is accomplished by doing the following two commands.

VRFCFG AFPxxITSO *DEV *ON

STRPRTWTR AFPxxITSO

The following commands will point your printouts to the your new PDF writer device and send the device description you created to the print queue for the PDF writer.

Type **CHGJOB** on the command line, then press '**F4**' and '**F10**'

Your current printer for your interactive job is PRT01. Replace the value 'PRT01', with your new device description. And point your output to the new queue that was created in library QUSRSYS when you created the new printer device.

AFPxxITSO For the Print Device and
AFPxxITSO For the Output Queue, then press **enter**.

Enter the following command or use the 'F9' key to scroll back through the commands you have entered to get to the DSPDEVD command we entered to start this lab. Enter or change the first command to print the newly created device description.

DSPDEVD AFPxxITSO *PRINT

Note: using the F9 key will return the commands with the keywords and complete command structure. The form above is the positional entry method.

❖ Finding Your PDF Output

The directory for your PDF output is in folder pdf, but finding and identifying your output is our next task. In order to do this we will be using Client Access Express 400's 'Operations Navigator.' To open the application find the icon on the desktop and double click.

This will open the AS/400 Operations Navigator and you will see a system tree in the left frame of the window. Click on the '+' sign in front of the <SYSTEM NAME> system (9.99.94.21 for the Class Room ThinkPads). This will expand your tree to show

- + **Basic Operations**
- + **File Systems**
- + **AFP Manager**

Expand the *File System* (click on the +), the *Integrated File System, root* and then the folder + *pdf* to show the file structure used for the storing of the PDF files.

- **File Systems**
 - **Integrated File System**
 - **Root**
 - +
 - +
 - **pdf**
 - + **xxxxx**
 - + **yyyyy**
 - + **AFPxxX**
- + **AFP Manager**

Your PDF file will be in the AFPxxX folder. The name will be dependent on the terminal session you used to create the print job. Click to expand this folder.

When you open the folder + **AFPxx** it should not expand, so **click** on the folder to see the contents. The contents will appear in the right frame of the AS/400 Operations Navigator window. Note the PDF name. If you cannot see the full name, place your mouse arrow on the vertical line between Name and Size headings, depress the left mouse button when the vertical line with the arrows appear, and move the line to the right until the complete name is in view.

To **rename** the PDF file, simply **right click** on the name, then **select** the rename function, typing in the new name with the extension of .pdf. (If you do not use the correct extension, the file may become unusable.)

To view the PDF file, simply depress and hold either mouse button on the file name in the frame and drag it to the desktop. Release the button and the PDF will be on the desktop. Double click to open the acrobat viewer.

When you have opened the pdf you will notice that the report is rotated 90 degrees and in the landscape mode. Click on the '**Document**' function at the top of the Acrobat window and choose 90 degree Counter Clock Wise (CCW) to view the page.

❖ Using AS/400 Operations Manager to Modify PSF Configurations

We are to modify the AFPxxPDF print writers PSF configuration to move the output from processing by the e-mail exit to sending the files to the IFS. In order to modify the PSF Configuration object the writer must be ended. On your green screen session enter.

ENDWTR AFPxxPDF *IMMED

On you AS/400 Operations Navigator session, **close** the view of the IFS by clicking on the '-' in front of the **File Systems** in the left frame. Open the AFP Manager by clicking on the '+'. You will see the following:

- + **Basic Operations**
- + **File Systems**
- **AFP Manager**
 - + **Resources**
 - PSF Configuration**
 - + **Font Mapping Tables**

Click on the PSF Configuration to open a view of the PSF configuration objects in your library list. You should see a number of objects in the right frame of the Navigator window, including the **Afpxxpsf** PSF configuration object in your library.

Right click on the *Afpxxpsf* object and select configure.

Click on the PDF Transform tab at the top of the view

You will see that **send as electronic mail** is picked, click on **store as stream file** and enter **/pdf** into the stream file directory box and press enter.

❖ Calling the Application

Once the configuration is updated (previous step), go to the green screen and start the print writer and call the EMDEMO program. This program was designed to take a output file that generates multiple invoices, index the file using the Infoprint Server CRTAFPDTA command, then respool the file to the output queue for e-mail using an exit program to multiple customers. Your modification of the PSFCFG object will now have the multiple PDF files stored in the IFS directory.

STRPRTWTR AFPxxPDF

ADDLIBLE IPDATA

Key **INV** and Prompt (**F4**) Change the following entries:

User Data - **AFPxx** (Type your team Number)

Page Definition - **EMBASIC** (replace *NONE)

Form Definition - **EMBASIC** (replace *NONE)

We will change the PSF Configuration object to not include fonts in the PDF files created.

For **V5R2** the Navigator GUI can be used to change the PDFINCFNT from *YES to *NO. For Green Screen users, replace the CHGPSFCFG command with:

```
ENDWTR AFPxxPDF *IMMED  
CHGPSFCFG PSFCFG(AFPxx/AFPxxPSF) PDFINCFNT(*NO)
```

In order to do this (in V5R1) we needed to go to the green screen and enter the following commands:

```
ENDWTR AFPxxPDF *IMMED  
CHGPSFCFG PSFCFG(AFPxx/AFPxxPSF) PSDFNOPT('pdfincfnt(*no)')
```

Then restart the writer and prompt, 'F9' to the INV command

STRPRTWTR AFPxxPDF

Prompt - '**F9**' until you see the following on your command line

INV USRDTA('AFPxx') PAGDFN(EMBASIC) FORMDF(EMBASIC)

Press the **enter** key to run the command

❖ **Using iSeries Navigator Manager to View the IFS**

Then use the iSeries Navigator to view the pdf files in the IFS and look at their size. (If you need a refresher on viewing the IFS go back to page 6 and review 'Finding Your PDF Output') To refresh the frame view, click on the '**VIEW**' above the left frame and select '**Refresh**'.

After you have completed the above exercise you have completed the Lab.

❖ **Using iSeries Navigator 'Convert to PDF' to Create PDF in the IFS**

You may however want to continue to explore the capabilities of the iSeries Navigator by opening the Basic Operations and selecting a printer or printer output. Also experiment with the right and left mouse buttons to see additional functions in controlling the iSeries.

Right click on a spool file, and then click on Convert to PDF in the dialog box. You may want to create the PDF in a new directory. Call the new directory, /afp`xx` where the `xx` is your team number.

Have Fun.