How to jazz up your reports and documents with overlays and page segments - without it costing you a penny!

It's easy to create fancy looking documents and reports on your AS/400 by using overlay (*OVL) and page segment (*PAGSEG) objects in your applications. An overlay (maximum one per page) is normally used to provide a backdrop for an entire page, like a preprinted form, while a page segment (multiple per page possible) is a small predefined area of the page, such as a graphic or logo.

To attach an overlay to your spooled file, use the DDS OVERLAY keyword or specify the name of your overlay on the FRONTOVL parameter of the CRTPRTF command when creating your printer file. To print page segments, use the DDS PAGSEG keyword. DDS lets you condition overlays and page segments (e.g. so you can print a different company logo for different customers, depending on which subsidiary they deal with), and you can vary the position on the page. You will need to specify DEVTYPE(*AFPDS) when creating your printer file.

Please note that CoolSpools also provides another easy way of adding the look of preprinted forms, watermarks, logos and graphics etc. to your PDFs by means of the INCLFILE parameter of the CVTSPLPDF command, which allows you to include one or more JPEG or GIF images in with your spooled file as your PDF is created.

To create overlays and page segments without having to buy any expensive overlay design software, follow these simple instructions.

1. **Install the IBM AFP printer drivers on a PC.**

The drivers are an optional component of Client Access/iSeries Access but can also be downloaded for free from http://www.printers.ibm.com/afpdr.html

The XP driver is at ftp://ftp.software.ibm.com/printers/drivers/afp/ibmafp2000.exe

When you run the .exe file, it unzips into a directory called AFP Driver. See the file called readme2000.txt for details of how to create a dummy printer to use this driver.

Ignore any instructions that mention VM or MVS.

Select FILE: (Print to file) as the port.

When prompted to select your printer type, choose a generic printer such as IBM AFP 600 (this is a generic 600 dpi AFP printer) or IBM 3812 or 3820.

2. **Configure the printer**

Go into the Control Panel on the PC, select Printers, then select Properties against the printer you just installed. On the General tab, click on Printing Preferences. Against Output Type, select "Overlay" or "Page Overlay" from the drop down list if you wish to create overlays using this printer, or select "Page segment" if you wish to create page segments. Do not choose "Medium overlay".

3. Design your overlay or page segment in any convenient PC program

If you're going to create an overlay for a document that contains both text and graphics, you can do this in something like Word, leaving space for the variable data to be printed over the top of the fixed overlay.

If you're going to create a page segment which is something like a company logo, you might use a graphics package such as Adobe PhotoShop, or just Windows Paint.

Make sure the page size is set correctly when creating an overlay: it should match the page size in your spooled file, otherwise you might have alignment problems. Your document should have only a single page.

4. Convert your design to an AFP data stream

When you're ready, simply print the document you created, but make sure you choose to print to the dummy AFP printer you installed and configured in steps 1 and 2. The printer driver will convert your document to equivalent AFP printer instructions. Because you choose to print to a file, you will be prompted to specify the name of a file where the AFP printer data stream will be saved. We suggest something like overlay_name.prn or page_segment_name.prn, where overlay_name and page_segment_name or the name of the overlay or page segment you propose to create. Note that the names of overlays and page segments are restricted to 8 (not 10) characters on the system i.

5. Transfer your AFP data stream to your system i

There are two main methods of doing this. Whichever one you choose, you will ultimately need to get the AFP printer data stream into a physical file, so first create that. We suggest you create one file to store overlay data streams and another to store page segment data streams and think of them as being a little like source files. You will store the printer data streams used to create different overlay and page segment objects in different members in these files, just as you store the source of different program objects in the members of your source files.

Create the files something like this:

```
CRTPF  FILE(your_lib/OVLSRC)
       RCDLEN(32766)
       MAXMBRS(*NOMAX)
       LVLCHK(*NO)
       TEXT('AFP data streams for overlay objects')
```

```
CRTPF  FILE(your_lib/PAGSEGSRC)
       RCDLEN(32766)
       MAXMBRS(*NOMAX)
       LVLCHK(*NO)
       TEXT('AFP data streams for page segment objects')
```

Note LVLCHK(*NO) here: you will have problems if you omit this.

Clearly, you only need to create these files the first time you follow these instructions.

Now use one of the following methods to transfer your AFP data stream to a member in one of these files.

a) FTP Method

Assuming you saved the printer data stream on your PC, you now need to transfer it to the appropriate physical file, as just created above. You can do this using FTP, but it is vital that you do this in **binary** mode, otherwise the data stream will be corrupted due to ASCII-EBCDIC conversion being applied unnecessarily.

At a DOS prompt, enter **FTP your_systemi**, where your_systemi is the name or IP address of your system i.

Log on using your system I user id and password when prompted, then enter the FTP commands in bold below:

 bin

(this puts the session in binary mode)

 quote site na 0

(this ensures you are using library/file.member naming)

put c:\your_dir\your_file your_lib/your_file.your_mbr

(where c:\your_dir\your_file is the file you saved when printing your document to the dummy printer and your_lib/your_file is the physical file you created earlier and your_mbr is the name of the member in the file where the AFP data stream will be stored)

quit

(to end the session)

b) IFS Method

If you have a network drive mapped from your PC to your system I, you could either save the AFP printer data stream directly to the IFS using that network drive, or you could save it locally on your PC, then copy the file to the IFS usng the network drive.

Either way, you then need to copy the data into the physical file created earlier, making sure the data is not corrupted by any unwanted ASCII-EBCDIC conversion or other data conversion in the process.

Use a command similar to this one:

```
CPYFRMSTMF      FROMSTMF('/your_dir/your_file')
            TOMBR('/qsys.lib/your_lib.lib/your_file.file/your_mbr.mbr')
            MBROPT(*REPLACE)
            CVTDTA(*NONE)
            ENDLINFMT(*FIXED)
             TABEXPN(*NO)
```

Where:

/your_dir/your_file is the AFP data stream file on the IFS of your system i

your_file is the physical file created above

your_lib is the library in which you created it

your_mbr is the name of the member in the file you want to use

6. Create your overlay or page segment object

To create an overlay object, use the CRTOVL command. To create a page segment object, use the CRTPAGSEG command.

Specify the file and member in which you stored the AFP printer data stream on the FILE and MBR parameters, e.g.:

```
CRTOVL      OVL(your_lib/your_overlay)
            FILE(your_lib/your_file)
            MBR(your_mbr)
            DATATYPE(*AFPDS)
```
When creating a page segment, use the following command:

```
CRTPAGSEG   PAGSEG(your_lib/your_pagseg)
            FILE(your_lib/your_file)
            MBR(your_mbr)
```