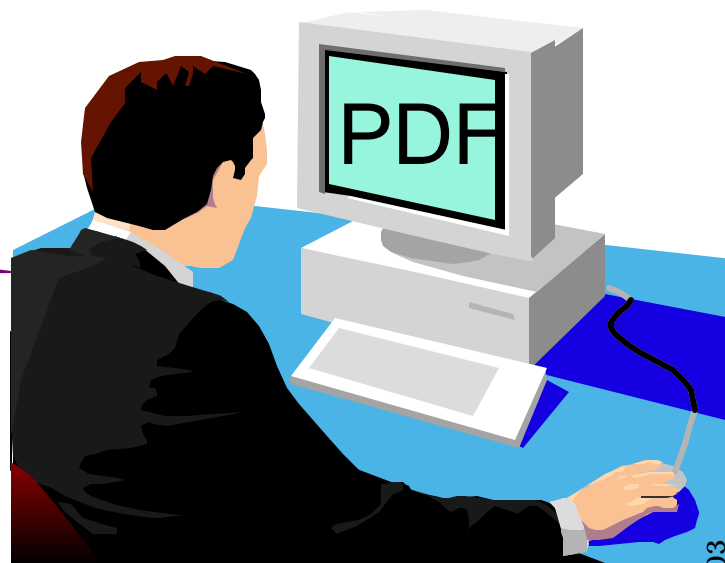
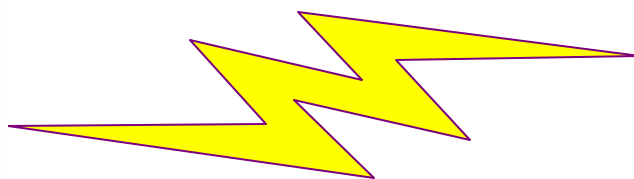




Infoprint Server - PDF Creation and e-mail

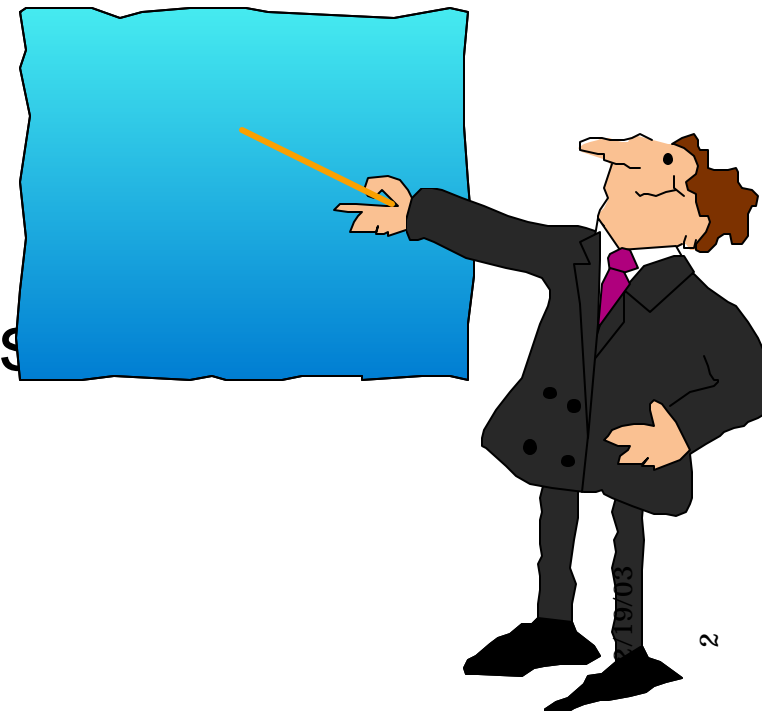
Glenn Rose
IBM PSD - Boulder, CO
agrose@us.ibm.com
(303) 924-4122





Agenda

- ▶ Set up PDF device and PSFCFG object
- ▶ PDF file creation
 - ◆ Spooled File
 - ◆ Stream File
 - ◆ E-mail
- ▶ Addressing a single file
- ▶ Segmenting a large file
- ▶ E-mail exit tricks
- ▶ Data queue
- ▶ Other considerations & tips



PDF Device Description

- ▶ *IPDS/AFP printer on *LAN
- ▶ Default font
- ▶ Loopback address (127.0.0.1)
- ▶ Unique Port number
- ▶ USRDFNOBJ Points to PSF Configuration object
- ▶ PRTCVT(*NO) fixes temp problem
- ▶ All other parameters left with default values



```

CRTDEVPRT DEVD(PDFMAIL)
  DEVCLS(*LAN)
  TYPE(*IPDS) MODEL(0)
  LANATTACH(*IP)
  AFP(*YES)
  PORT(5014)
  FONT(11)
  PRTCVT(*NO)
  RMTLOCNAME('127.0.0.1')
  USRDFNOBJ(MIRA/PDFMAIL *PSFCFG)
  TEXT('Device Description for PDF
  
```



PDF Subsystem set-up

- ▶ PSF Configuration object
 - ◆ Select PDFGEN(*MAIL/*STMF/*SPLF)
 - ◆ Single or Multiple
 - ◆ Destination: Outq, IFS directory, or e-mail
 - ◆ Mapping program
 - ◆ Default SENDER
 - ◆ Data queue
 - ◆ PDF device type (Recommend: *IP40300)
 - ◆ Paper size

Note: The PDFSender must be enrolled in the system directory. Use ADDDIRE.

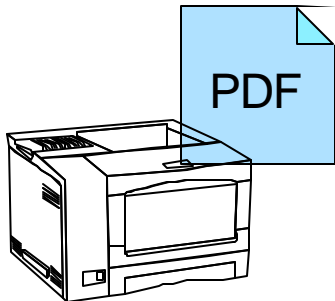


PSFCFG for PDF as a spooled file

Printing
Systems

The output
of e-business

- ▶ Select "printed output" and enter name of destination OUTQ
- ▶ Generate multiple files or keep as one file
- ▶ Change Device Emulation type from the default IP40240 to the recommended IP40300
- ▶ Select page size
- ▶ Optionally name a Data queue



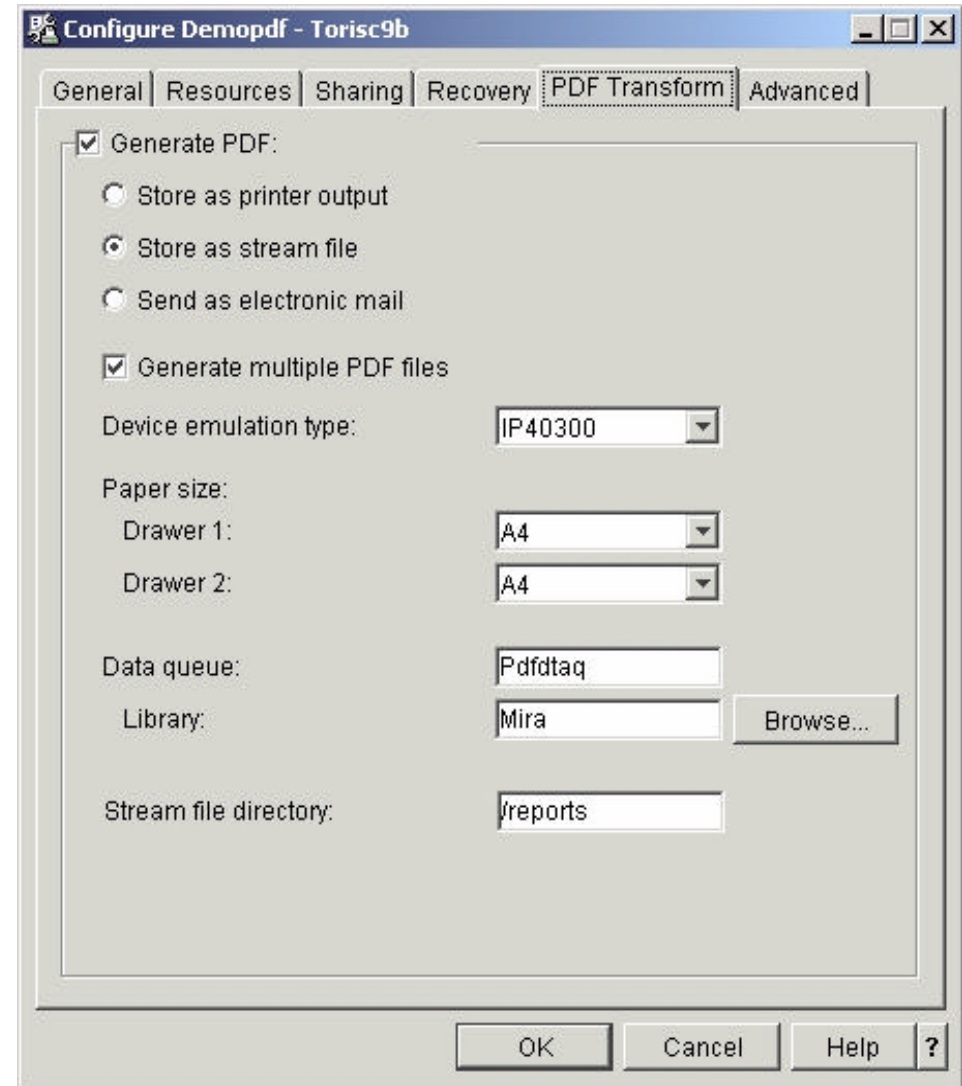
The screenshot shows the 'Configure Demopdf - Torisc9b' dialog box with the 'PDF Transform' tab selected. The 'Generate PDF' checkbox is checked. Under 'Generate PDF', 'Store as printer output' is selected. The 'Generate multiple PDF files' checkbox is unchecked. The 'Device emulation type' is set to 'IP40300'. The 'Paper size' for both 'Drawer 1' and 'Drawer 2' is set to 'Letter'. The 'Data queue' is 'PDFDTAQ' and the 'Library' is 'MIRA'. The 'Output queue' is 'PDFOUTQ' and the 'Library' is 'MIRA'. There are 'Browse...' buttons next to the library fields. At the bottom are 'OK', 'Cancel', and 'Help' buttons.

PSFCFG for PDF stream file

Printing Systems

The output of e-business

- ▶ Select "stream file"
- ▶ Generate multiple files or keep as one file
- ▶ Change Device Emulation type from the default IP40240 to the recommended IP40300
- ▶ Select page size
- ▶ Optionally name a Data queue
- ▶ Name the stream file directory



Target Directory and File Name

Printing Systems

The output of e-business

If you specify a Root File System directory name, the file will be stored as:

```
/PDF-directory-name/job-name/job-user-name+
/job-number_file-number_spooled-file-name_date_sequence-number
```

In this example the target was specified as '/reports'

The screenshot shows a Windows Explorer window with the address bar set to `I:\reports\QPADEV000B\SIMON`. The left pane shows a folder tree with the following structure:

- QDLS
- QFileSvr.400
- QIBM
- QNetWare
- QNTC
- QOpenSys
- QCPT
- QSR
- QSYS.LIB
- QTCPTMM
- reports
 - QPADEV000B
 - SIMON

The right pane shows the contents of the `SIMON` folder, which is online. A single file is listed:

Name	Size	Type
026815_000001_QSYSVRT_11062001_000001.PDF	55 KB	Adobe Acrobat Doc..

The status bar at the bottom indicates 1 object(s) with 79.6 GB of free space, a file size of 54.7 KB, and the date 02/19/03.

Target Directory and File Name

Printing Systems

The output of e-business

If you specify a directory name in the QDLS System, the file will be stored as:

```
/QDLS/folder-name/job-name/job-number/job-user-name/file-number+
/spooled-file-name/date/sequence-number/
```

In this example the target was specified as '/QDLS/EMAILS'

The screenshot shows the AS/400 Operations Navigator interface. The left pane displays a tree view of the file system structure under 'Bldas51.penn.boulder.ibm.com'. The right pane shows a list of files in the selected directory.

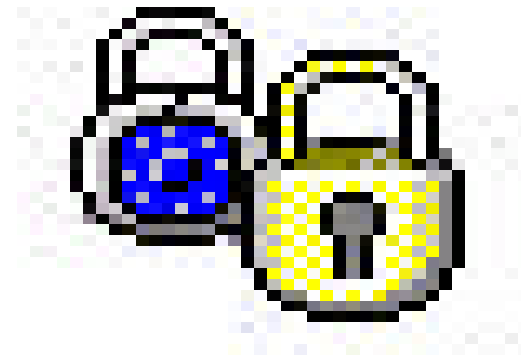
Name	Size	Type	Modified
000001.PDF	117KB	Adobe Acrobat Document	09/11/2001 10:13

Note: If Job-name is longer than 8 characters the extra characters will be added to the beginning of the job number.



More on Target Stream Files

- ▶ If you select "Generate multiple PDF files" the separate files will have sequence number 00001.PDF, 00002.PDF etc.
- ▶ File(s) will be generated as owned by the spooled file owner with public authority of ***EXCLUDE**
- ▶ Any directories that do not already exist are created by the PDF subsystem, are owned by QSPLJOB, and have a public authority of ***RX**

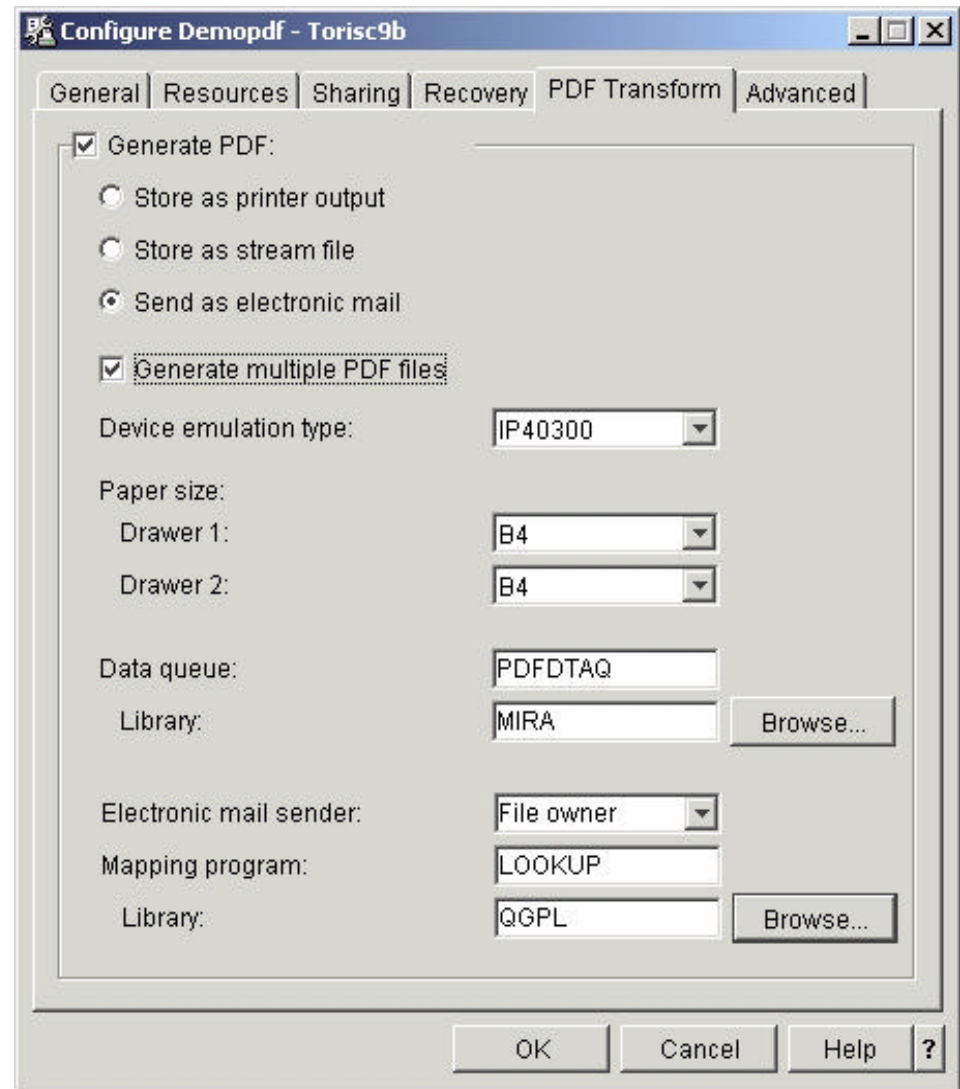


PSFCFG for PDF e-mail

Printing Systems

The output of e-business

- ▶ Select "Send as electronic mail"
- ▶ Generate multiple files or keep as one file
- ▶ Change Device Emulation type from the default IP40240 to the recommended IP40300
- ▶ Select page size
- ▶ Optionally name a Data queue
- ▶ Specify the e-mail SENDER
- ▶ Specify optional mapping program



Sample e-mail received (V5R1)

Printing Systems

The output of e-business

The screenshot displays an email interface with a toolbar at the top containing icons for 'New Memo', 'Reply', 'Forward', 'Delete', 'Folder', 'Copy into', 'Tools', and 'Change Document Expiration'. The email header shows the sender as 'MSHNIER@BLDASL1.PENN.BOULDER.IBM.COM' (marked with a red '1'), the recipient as 'Mira Shnier/Markham/IBM@IBMCA', and the subject as 'OS/400 softcopy of EINVOICE' (marked with a red '2'). The date and time are '06/24/2001 08:31 PM'. The body of the message begins with 'Hello Mira Shnier, this is your invoice for Los Arboles Del Mundo.' (marked with a red '3') followed by a PDF attachment icon labeled '000003.PDF' (marked with a red '4').

- 1** MSHNIER was the user on BLDASL1 who was the "SENDER"
- 2** Subject line info comes from PQT4133 in message file QPQMSGF.
 - ◆ you may "unofficially" modify the first 22 characters
- 3** Up to 255 characters of text message may be customized using mapping program.
 - ◆ (default message is, "Mail was sent by OS/400 process. Please do not reply to this address." Also stored in PQT4133.)
- 4** This was the 3rd segment of a file processed as "multiple"

Open the Attachment

Printing Systems


The output of e-business

Adobe Acrobat - [000003.PDF]

File Edit Document Tools View Window Help

400 CPU Parkway • Vegetation, NJ 55090 • Office: 555.499.2367 • Fax: 555.415.9794

SUPERSUNSEEDS.COM



Invoice

Sold To: **LOS ARBOLES DEL MUNDO**
32483 ARBOL LANE
MESA VERDE
IL 54078-9390

Ship To: **SAME**

Customer Number: 141 Invoice Number: 31341 Invoice Date: 3/28/01 Payment Date: 4/28/01

Ship Via: Shipped Date: 3/28/01 Terms: N10 Salesman: MICHELE GOODACRE

QTY	UOM	ITEM #	DESCRIPTION	PRICE	EXTENSION
900	EA	00001200	ARBOLES DEL SUR	45.00	40,500.00
951	CT	11005011	LASSO RED SEEDS	892.23	48,510.73
46	DZ	11005014	SCARLET NANTES SEEDS	5.90	271.40
45	BZ	11005015	CHANTENAY SEEDS	2.19	98.55
951	PK	11005018	EARLY BANTAM SEEDS	.38	361.38
4	BX	11057893	AFRICAN DAISY, SEEDS	2.35	9.40
100	EA	31321655	SEMILLAS DEL SUS SOMBEROS	24.95	2,495.00
1000	BX	56413213	POT POT	7.65	7,650.00
98	PK	84512023	OREGON SPRING TOMATO SEED	.97	95.06

124% 1 of 1 8.5 x 11 in

Sample e-mail received (V5R2)

Printing

Subject: TESTING123

Date: Fri, 15 Nov 2002 19:20:48 +0000 (UTC)

From: MIRA@TORISC6EReply-To: mslruier@ca.ibm.comTo: mira@torisc6bCC: emusr@torisc6b

did you get this?

 [/PSFSMTP/006021/QPADEV0003/MIRA/003683_000007_EMINVOICE_11152002_000001.PDF](#)

Name: /PSFSMTP/006021/QPADEV0003/MIRA/003683_000007_EMINVOICE_11152002_000001.PDF
 Type: Acrobat (application/pdf)
 Encoding: base64

This is a sample HTML document to be included in an SMTP e-mail.

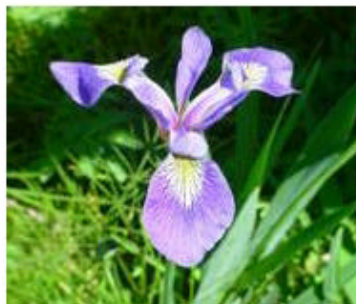
Links to other web sites: www.ibm.com/printers

Change fonts and Colour if you want for *Emphasis*.

Centre your text.

Order your Bulbs today and enjoy them next spring!

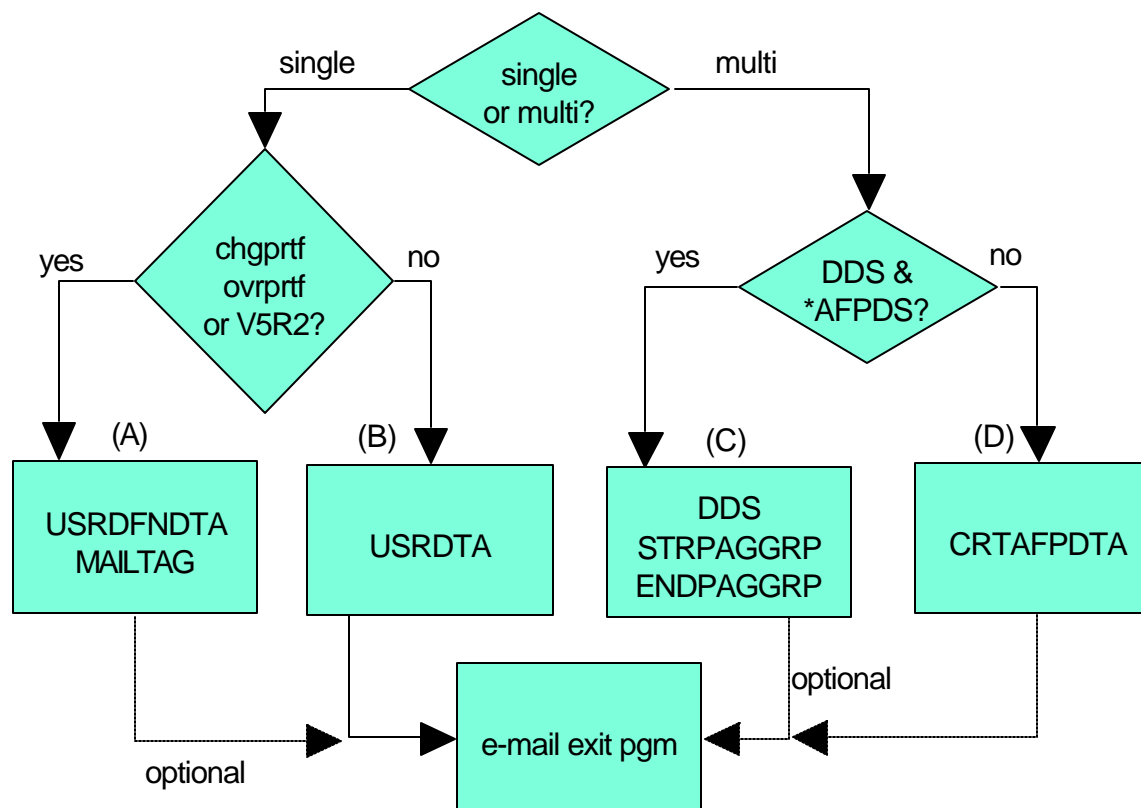
25% off with your next order over \$100.00.



This is simple text from a .txt file.

Preparing for Addressing and Segmenting

- ▶ Different ways to set e-mail address
- ▶ single vs. multiple
- ▶ V5R1 vs. V5R2
- ▶ Access to and type of application
 - ◆ segmenting also used for stream file generation





Single Spooled File

- ▶ **USRDFNDDTA - Option (A)**
 - ◆ parameter of Printer File -- CRT/CHGPRTF
 - ◆ Cannot change with CHGSPLFA after spooled file created (V5R1)
 - (Can be done using system API's)
 - ◆ Also used to override the mail Sender
 - ◆ up to 80 character mail tag
 - ◆ Mapping program optional if MAILTAG value is a valid e-mail address

```
CHGPRTF mylib/myprt f
        USRDFNDDTA( 'MAILTAG(user@abc.com) MAILSENDER(MSHNIER) ' )
                or V5R2
CHGSPLFA FILE(MYOUTPUT)
        JOB(123456/USER/JOB) SPLNBR(2)
        USRDFNDDTA( 'MAILTAG(user@abc.com) ' )
```



Single Spooled File

- ▶ USRDTA - Option (B)
 - ◆ parameter of printer file -- CRT/CHGPRTF
 - ◆ Change spooled file attributes after spooled file created
 - ◆ Max length 10 characters
 - ◆ Must use mapping program to lookup actual e-mail address

```
CHGSPLFA FILE(INVOICE) USRDTA(CUST123)
```




Multiple Spooled Files with DDS

- ▶ DDS keywords - Option (C)
 - ◆ STRPAGGRP and ENDPAGGRP
 - ◆ only pages between these pairs will be sent
 - ◆ up to 250 character address or tag
 - ◆ Spooled file type must be *AFPDS
 - ◆ Use mapping program if tags do not contain actual e-mail address

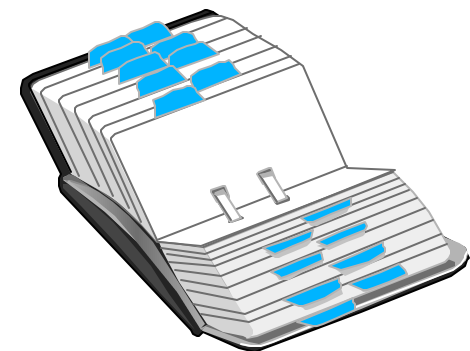
```

|...+...1...+...2...+...3...+...4...+...5...+...6...+...7...+...
  A      R RECORD1
  A
  A      STRPAGGRP('CUST68839')
  A      R RECORD2
  A      STRPAGGRP('mira_s@ca.ibm.com')
  A
  A      R RECORD3
  A      STRPAGGRP(&GROUP)
  A      GROUP                50A  P
  A
  A      R RECORD4
  A      ENDPAGGRP
    
```



Multiple Spooled Files with CRTAFPDTA

- ▶ CRTAFPDTA - Option (D)
 - ◆ Use if application generates *LINE with Page Definition
 - Infoprint Designer for iSeries
 - ◆ If DDS source not available
 - ◆ Data must be in predictable locations
 - ◆ Use to identify group separation points and insert Tag information
 - ◆ Use mapping program if tags do not contain actual e-mail address
 - ◆ More details in separate lectures on CRTAFPDTA and End-to-end example





Mapping program tips

- ▶ Convert mail tag to valid e-mail address
 - ◆ i.e. "Dept842" to "bills@us.ibm.com"
- ▶ Build 255 byte message
 - ◆ use information from lookup or other spooled file attributes
- ▶ If lookup fails, send a message to an operator
- ▶ If lookup fails, copy the file to IFS
- ▶ Decide not to e-mail (Disposition = 0)
- ▶ Use meaningful names for storage in IFS
- ▶ Control security of files & directories in IFS
- ▶ Send file to multiple destinations
 - ◆ up to 16M space for addresses
- ▶ Write a record to your own log file
- ▶ C-language samples in User's Guide
- ▶ RPG sample in Redbook (V5R1)
- ▶ RPG sample in V5R2 User's Guide





Mapping program tips (V5R2)

- ▶ imbed additional text or HTML files *
- ▶ add additional attachments *
- ▶ change subject line *
- ▶ set Reply-to: CC: and BCC: addresses *
- ▶ set CCSID
- ▶ process files multiple times

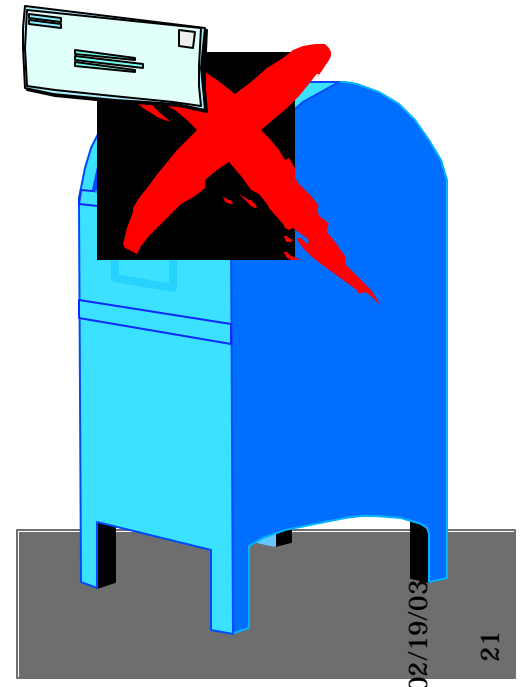
* only supported if using
an SMTP server





Non-delivered mail

- ▶ iSeries doesn't really know if e-mail address is accurate
- ▶ "standard" Internet return messages
 - ◆ wrong recipient
 - ◆ wrong domain
- ▶ messages sent to "SENDER"
- ▶ to pick up mail
 - ◆ Enroll sender in System Directory
 - ◆ Associate an SMTP user ID
 - ◆ Configure an e-mail client
 - i.e. Eudora, Netscape, etc.
- ▶ see examples in Redbook





File size considerations

- ▶ By default PDF includes Adobe fonts
- ▶ Files may be large if many fonts used
- ▶ Recommendation: Suppress inclusion of fonts
- ▶ PTF needed for V5R1 - SI03186

```

V5R1
CRT or CHGPSFCFG PSFCFG(mylib/mypsfcfg)
      PSFDFNOPT( 'PDFINCFNT(*NO) ' )
or V5R2
CRT or CHGPSFCFG PSFCFG(mylib/mypsfcfg)
      PDFINCFNT(*NO)
    
```

File Description	no. of pages	size of PDF with fonts	size of PDF without fonts
Short JOBLOG	2	58 KB	
Medium JOBLOG	19	94 KB	
Long JOBLOG	217	493 KB	
Single Invoice	1	752 KB	52 KB
Multiple Invoices	6	761 KB	59 KB

Are you getting garbage?

- ▶ In some cases recipient receives garbage output
- ▶ This command should fix it:
 - ◆ CHGPOPA MSGSPLIT(*NOMAX) AUTOSTART(*YES)

```
BRADUSR?S105RYYM@AS400.li
berty-i.net
```

```
To:          BRAD@LIBERTY-I.NET
cc:
03/11/2002 07:21 PM
Subject:     OS/400 softcopy of
```

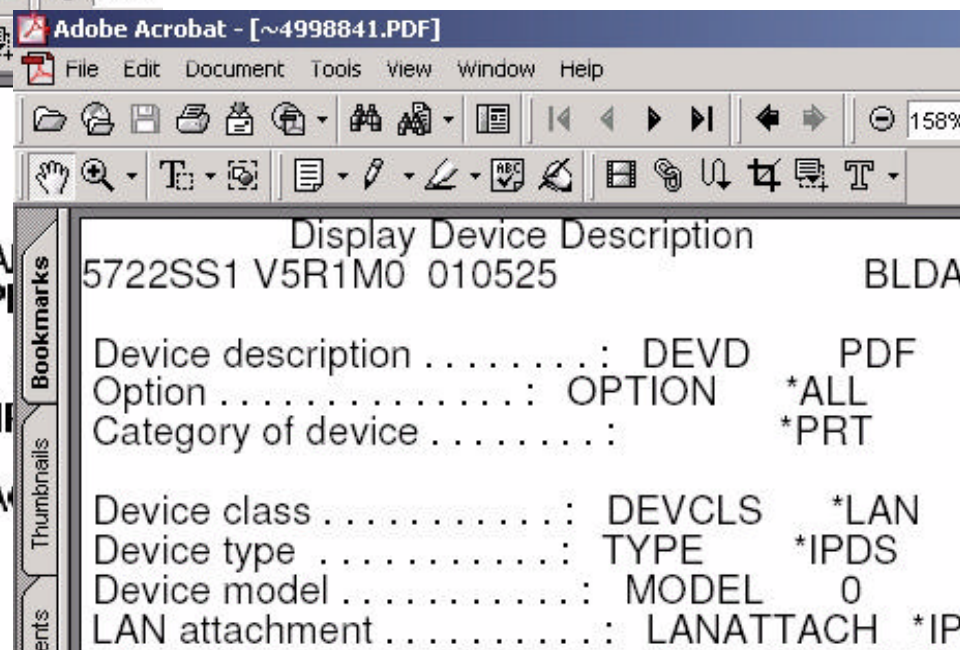
```
Fax to:
ALX300I
```

```
BgI9HfmAlpMtCL83PckWMEtsTPmz8A+Ja+BvrdJV5EaRvdBjMDmry06VvKoLSvN1Q1KJsM3J
BEH+LNxayegM6UgFH7PzhlzTpzDPkkmRz5gbyxFJEV+oJNzK4r/O08pbUIOIx1Wr79/rxOEw
5sR88pvC6jjbtPNffVvWAltET72U8gE8vR/c+A1N1WxEo+FA8TtjP+k/acQmET1PrAwOgBGE
oq+c9mS58w+8S ZbHmloX8USBtrY4q5TOCdINaBZLdAsYloQgF2+Rd4KgWKulJiwjfoTeTa5n
WzVWJCVTV72ONHiKj4R6x2Sh+uhlFkY2e71S36ZoMypeOFoeDWfm5w7coSNq4c1cKed9BlAX
UOw8EEX4q290AfJOTQmz1vfiSfTvLnMwoGTiPW3VOfushf6rnkzkCY8LbyCIOCMiW2fHCwAD
CLcF+SfS3QLnFqEn5LQHyMw10Z3czv9z4H+A1Q1S+oRy2ozI+OjQtHSC41LZbXOGbgkpHm6
PJcbrEZYducq97VLCnAP+9tIqGGbYRrabtqh5A18o5miziW4c2LP1UaUkXOLxm89KP6Z5kC1
```


Improve quality with Outline Fonts

Printing Systems

The output of e-business



- iSeries Raster fonts produces Type-3 pdf fonts
- Note: The difference is only evident when viewing the pdf. Printing both versions produces the same quality results.
- iSeries Outline fonts produces Type-1 pdf fonts
- Use USEOUTLFNT(*YES) on your PSFCFG to force outline fonts to be used

The file sits in RDY state.

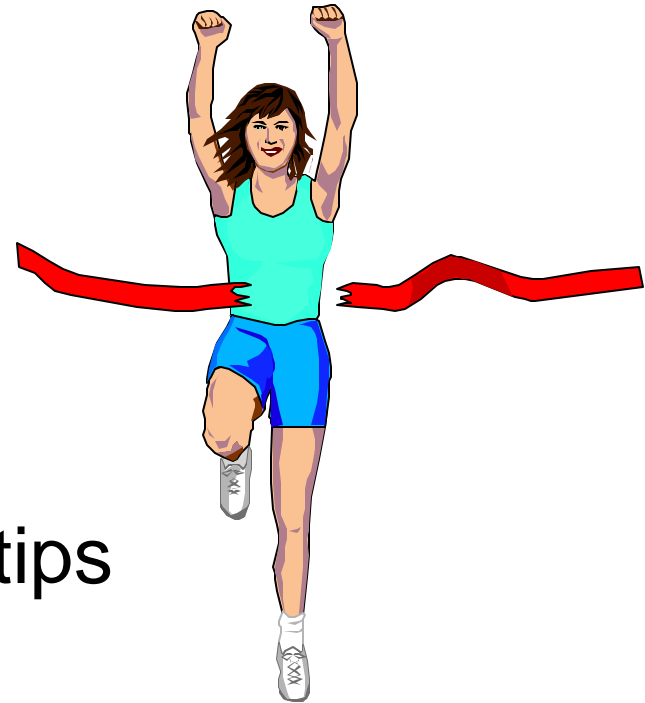
- ▶ Make sure the device is Varied On, and the Writer is started.
- ▶ This might sound trivial, but a couple of customers have called the support line with this one.





What we've covered

- ▶ How it works
- ▶ Set up PDF device and PSFCFG object
- ▶ PDF file creation
 - ◆ Spooled File
 - ◆ Stream File
 - ◆ E-mail
- ▶ Addressing a single file
- ▶ Segmenting a large file
- ▶ E-mail exit tricks
- ▶ Data queue
- ▶ Other considerations & tips





**Printing
Systems**

The output
of e-business

Any Questions?

Hands On with the Lab

