

TCP/IP Printing In VSE/ESA

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TCP/IP-TOOLS
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z/VM TCP/IP Printing

- LPR Line Print Requester
- LPD Line Print Daemon
- RSCS to TN3270E client

CSI/IBM TCP/IP Printing

- LPR (Batch/Auto)
- LPD (LPR data to POWER)
- GPS (LPR)

BSI TCP/IP Printing

- LPR (Batch/Auto)
- FTP (Instead of LPD)
- TN3270E
 - With Client
 - » non-SNA printer emulation
 - » SNA printer emulation
 - Without Client
 - » DIRECT, LPR, FTP
- VSE2PDF

BSI LPR

- Batch Line Print Requester
- Send data from POWER to LPD
- // EXEC BSTTLPRC
- Auto-LPR using REXX EXEC
- Emulation of CSI/IBM Auto-LPR Scripts
 - Via REXX EXEC

BSI FTP Server

- Use instead of LPD
- FTP data into POWER queues
 - RDR, LST, PUN, XMT
- Faster than LPR/LPD
- Simple, easy to use

BSI TN3270E Server

- External TN3270E Server
- Supports standard TN3270
- Supports TN3270E Terminals
- Supports TN3270E Printers
 - SNA and non-SNA
- Supports DIRECT, LPR, FTP Printing
 - No TN3270E client needed!

BSI TN3270E Server

- TN3270E Printer Clients
 - Win95/98/NT/2000/XP PC, X3270 (Linux/Unix)
- Multiple printers driven
 - Up to 1000 per TN3270E server
 - Client, Direct, LPR, IPP, FTP drivers
- Supports many applications
 - CICS Report Controller, CA-RAPS, RPS
 - BIM-PRINT, VTAM-PRINT (and more)

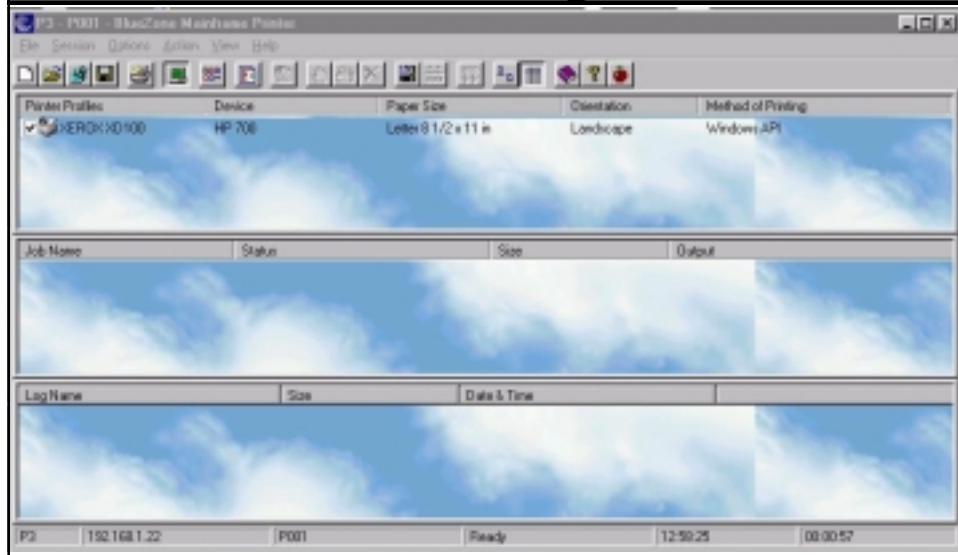
BSI TN3270E Client Based Printing

- PRINTER luname BSTTVNET <SCS>
- Supports non-SNA (DSC) printing
- Supports SNA (SCS) printing
- Application sends data to VTAM
- VTAM sends data to TN3270E server
- TN3270E server sends data to TN3270E client
- TN3270E client sends data to printer
 - Local or Network

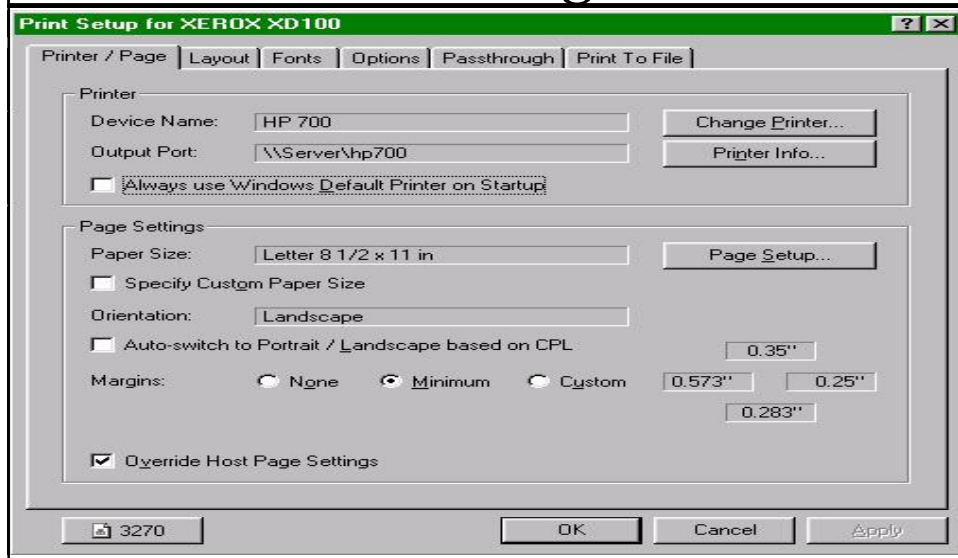
BSI TN3270E Client Based Printing

```
// EXEC BSTTVNET, SIZE=BSTTVNET, DSPACE=3M
ID 10
OPEN 127.0.0.1
*
APPLID BSTTVNET PRINTER SHARING APPLICATION
*
PRINTER P001 BSTTVNET
PRINTER P002 BSTTVNET
PRINTER P003 BSTTVNET SCS
*
ATTACH TN3270E
/*
```

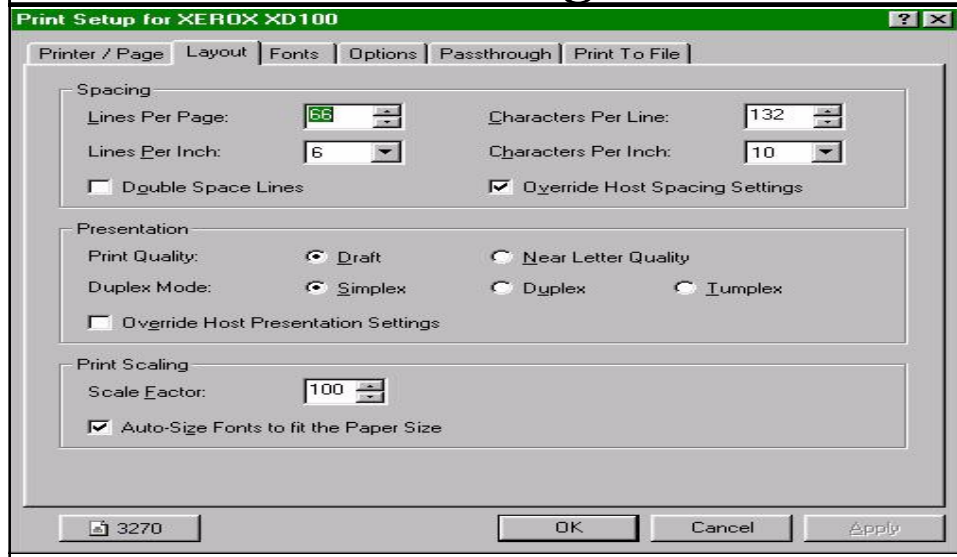
BSI TN3270E Client Based Printing



BSI TN3270E Client Based Printing



BSI TN3270E Client Based Printing



BSI TN3270E Printing Without a Client

```
// EXEC BSTTVNET,SIZE=BSTTVNET,DSPACE=3M
ID 10
OPEN 127.0.0.1 5023
*
APPLID BSTTVNET PRINTER SHARING APPLICATION
*
DIRECT DIR BSTTVNET 127.0.0.1 9100 *
LPR LPR BSTTVNET 192.168.1.1 * HP600L
FTP FTP BSTTVNET JCB * HP600L EPSON EPSON
*
ATTACH TN3270E
/*
```

BSI TN3270E Printing Without a Client

- **DIRECT** luname BSTTVNET ipaddr port insert
 - Prints directly to printer at specified ipaddr/port
- **LPR** luname BSTTVNET ipaddr port insert queue
 - Prints to LPD at ipaddr
- **FTP** luname **BSTTVNET** ipaddr port insert **userid passwd**
 - Prints to FTP server

BSI TN3270E DIRECT Printing

- **DIRECT** luname BSTTVNET ipaddr port insert
 - Prints directly to printer at specified ipaddr/port
- **Generally Port 9100**
 - Have seen Port 2501 used too
- **HP JetDirect 170x**
 - Watch out for the low end models
 - Ports 9100/9101/9102
- **Tally T2265/ T6212/ T6218**
 - More robust

BSI TN3270E LPR Printing

- LPR luname BSTTVNET ipaddr port insert queue
- Prints to LPD at ipaddr
- Large reports may overrun buffer
 - Data file sent first then control file
- Print to LPD on a server
 - Let server print to printer

BSI TN3270E FTP Printing

- **FTP luname BSTTVNET ipaddr port insert userid passwd**
- Prints to FTP server
- Some printer support this
 - No Solaris driver, use FTP to printer
- CICS print Appl, Screen Print (etc)
 - Output sent to FTP server
 - Post processing by another application
 - Archive

VSE2PDF

- Report Distribution via Email, FTP
- POWER Prints to VSE2PDF
 - VSE2PDF is POWER Device
- VSE2PDF Reformats the Report
- VSE2PDF Emails the Report to Users
- User Receive Report as Email Attachment
 - Printing only as needed

VSE2PDF

- Report Reformatted as PDF File
- User Can Not Alter Report
- Viewer is FREE
- Overlays are supported
 - Static Data, Graphic data
- Bookmarks (Indexes)

VSE2PDF

- Report Reformatted as HTML File
- Free Viewer
- No font guarantee
- No page layout guarantee
- Limited print facilities

VSE2PDF

- Report Reformatted as Text File
- No Viewer Required
- Warnings
 - User can alter report
 - No font guarantee
 - No page layout guarantee

VSE2PDF

- Push and Pull Delivery
- Push Report via Email to User
 - Available when job is finished
 - Delivered directly to users Inbox
- Pull Report from FTP server by User
 - Great for Archival

VSE2PDF

- Print Report to PDF printer
 - HP printer with PDF 'chip' (JetCaps)
 - Larger IBM, XEROX printers
- LPR
- DIRECT (Port 9100)

VSE2PS

- Post Script
- Same Facilites as VSE2PDF
- Replace PSF/VSE