

Intermate

Printing Environment Guide for IBM OS/400 Systems

2nd Edition

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This document is a supplement to the *Print Server Administration Manuals* for the following and similar 10/100 Ethernet multi-protocol print servers: *Intermate 100 and Intermate 101 external print servers (firmware components G22 and G32); and Intermate LAN FS3 internal print server (firmware components K92 and IPDS API K65)*. Differences are explained in the manual.

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1. Introduction

This guide is a supplement to the Print Server Administration Manual for your print server and tells you how to use Raw Socket printing, LPR printing, FTP print, and the Host Print Options (HPOs) for IPDS and TN on IBM mid-range hosts. It applies primarily to AS/400 (iSeries) with PSF/400 installed.

Products Covered / Firmware Component Codes

The print servers covered by this manual are built on the following firmware component codes:

External print server for printers with Centronics ports:

- G22: *Intermate100*
- G32: *Intermate101*
- G34: *Intermate101 with JScribe* (no IPDS)

Internal print server for Kyocera-Mitra FS and KM printers

K92 (with K65 for IPDS): *Intermate LAN FS3*

Structure of the Guide and Conventions

“[Basic Services](#)” ([page 5](#)) covers how to configure the host and the print server for

- Raw Socket TCP/IP print jobs ([page 5](#)) using *Host Print Transform* (TRANSFORM)(*1) on the host. This possibility is supported from OS/400 V3R2 and V4R1. The special advantage of Raw Socket printing is that it can enable the AS/400 to communicate bidirectionally with the printer using HP PJI (printer status replies are sent to the AS/400). But even if you cannot or do not wish to exploit this possibility, the Raw Socket protocol is simpler and thus generally more robust than LPR. Raw Socket should be chosen in all environments where it is supported.

- LPR print jobs ([page 8](#)) using *Host Print Transform* (TRANSFORM) (*1) and *TCP/IP LPR* on the host. As a general rule, you should only use LPR if your system cannot support Raw Socket.

(*1) For both Raw Socket and LPR, the Host print transform on the AS/400 (TRANSFORM) must be set to *YES. This tells the AS/400 to perform EBCDIC to ASCII transformation before sending the job.

- Print jobs via FTP ([page 10](#)).

Host Print Options (HPOs) for OS/400 systems are covered in two major sections whose structures are described in the beginning of each:

- “SCS TN5250E” ([page 11](#))
- “AFP/IPDS” ([page 102](#))

The guide concludes with two chapters:

“HPO Trace Function (SCS and IPDS)” ([page 155](#))

“Troubleshooting on the AS/400” ([page 158](#))

Unless otherwise specified, all references to configuration pages, fields, buttons, etc. refer to the print server’s HTTP-menu.

Changes since the 1st Edition

The scope is now limited to Intermate’s own print servers; OEM partners now receive their own versions.

Descriptions of the HTTP menu for the [SCS Config#] pages and for selection of network printers have been updated according to release level 2111 for G22, G32, and G34.

The descriptions of Raw Socket and LPR printing have been considerably revised.

2. Basic Services

2.1. RAW Socket from AS/400

Setup on the Intermate print server

- 1 Choose [RAW Socket] in the "Configurations > Input Control" section.
 - Decide which of the up to four Raw Socket services (TCP ports) you will use; perhaps you will configure it yourself.
 - Take special note of where the output will be directed (more about this in step 3).
 - Note the "port number value" for that service. In the example below, we will use the value 39100.
- 2 Note the IP address and the host name (found on the [TCP/IP] page in the "Configurations > Basic" section). In the example below, we will use IMA100 and 192.168.0.227 respectively.
- 3 If you want to exploit the potential for bidirectional communication, you need to check a page in the "Configurations > Output Control" Section; the choice of pages depends on the choice of Target Printer—local or network.
 - a If you intend to print to the local printer (where the print server is attached—this does not apply to an internal print server such as the *Intermate LAN FS3* based on component K92):
 - Choose [Local Printer Parallel Port] in the "Configurations > Output Control" section.
 - The parameter "Parallel Port IEEE P1284 Negotiation Mode" should be set to "ECP" or "Nibble". If you choose "Auto" and the result falls back to "Compatible", you will not get bidirectional communication.
 - Make sure that the parameter "PJM Support" is activated with the "Yes" radio button.

- b If you intend to print to a Network Destination, check the configuration of the physical printer (Target Printer) on the [Network Destination Option (NDO)] page.
 - This printer must use Raw as the transportation protocol.
 - The choice of port number here has nothing to do with the print server port number value in step 1.
- 4 Remember to "Save & Cont." after each configuration page you change. Reboot to activate the new settings.

Setup on the AS/400

Create a new device description for a 3812 model 1 printer.

Syntax:

```
CRTDEVPRT DEVD(<host-name>)
DEVCLS(*LAN) TYPE(3812) MODEL(1)
LANATTACH(*IP) PORT(<tcp-port#>)
FONT(11) FORMFEED(*AUTOCUT)
PARITY(*NONE) STOPBITS(1)
TRANSFORM(*YES) MFRTYPMDL
(*<printer-type>) RMTLOCNAME('<ip-
address>') SYSDRVPGM(*HPPJLDRV)
```

<host-name> Replace this string with the host name you have given to your print server. In the example below, we use IMA100.

<tcp-port#> Replace this string with the print server's port number value (port designation) for the Raw Socket service you have chosen.

<printer-type> Replace this string with an appropriate printer type. The printer type can usually be set to *HP4* as most PCL-capable printers are HP4-compatible.

<ip-address> Replace this string with the IP address you have given to your print server. In the example below we use 192.168.0.227.

Example:

```
CRTDEVPRT DEVD(IMA100)
DEVCLS(*LAN) TYPE(3812) MODEL(1)
LANATTACH(*IP) PORT(39100) FONT(11)
FORMFEED(*AUTOCUT) PARITY(*NONE)
STOPBITS(1) TRANSFORM(*YES)
MFRTYPMDL (*HP4)
RMTLOCNAME('192.168.0.227')
SYSDRVPGM(*HPPJLDRV)
```

If you can not fit all CL parameters on the command line, just type the command `CRTOUTQ` and press <F4> (prompt). This brings up a menu, where you can fill in the CL parameters. The parameters and their values are listed in the menu. Pressing <F11> displays the keywords used in the above command. For additional information, place the cursor on a specific item and press <F1> for help.

Start and Test

- 1 Vary on the device.
VRYCFG CFGOBJ(IMA100)
CFGTYPE(*DEV) STATUS(*ON)
- 2 Start the printer writer.
STRPRTWTR DEV(IMA100)
- 3 Change your Login job to use the new printer as default.
CHGJOB OUTQ(IMA100)
- 4 Make a test print (for example a print of your User Profile)
PRTUSRPRF

2.2. LPR (ASCII data) from AS/400

This section explains how to send jobs to the print server from an AS/400. The approach described creates an output queue, which automates sending of LPR print jobs using *Host Print Transform* (TRANSFORM) and *TCP/IP LPR*.

Setup: Create Printer and Queue on the Host

Type the following CL command string at the AS/400 command line:

Syntax:

```
CRTOUTQ OUTQ(<host-name>)
RMTSYS(*INTNETADR)
RMTprtQ(<queue-name>)
AUTOSTRWTR(1) CNNTYPE(*IP)
DESTTYPE(*OTHER) TRANSFORM(*YES)
MFRTYPMDL(*<printer-type>)
INTNETADR('<ip-address>')
```

<host-name> Replace this string with the host name you have given to your print server. In the example below, we use IMA100.

<queue-name> This is the remote queue name seen from the host. Type in one of the queue names defined in the print server. You can use one of the the pre-configured LPR queues, all of which will direct the output to Logical Printer 0.

- PAR_A
ASCII transfer (LF => LF-CR conversion).
- PAR_B
Binary transfer, no conversion.
- PAR_AF
Same as ASCII transfer but with Form Feed.
- PAR_BF
Same as binary but with Form Feed.

Or you can define your own name (max 8 characters) for any one of the eight configurable queues and associate the desired characteristics as explained in the *Print Server Administration Manual*, chapter on Input Control, section on LPR Print

Queues. The queue must specify where the output will be directed. There are no special requirements for how the target printer involved is configured.

<printer-type> Replace this string with an appropriate printer type. The printer type can usually be set to *HP4* as most PCL-capable printers are HP4-compatible.

<ip-address> Replace this string with the IP address you have given to your print server. In the example below we use 192.168.0.227.

Example:

```
CRTOUTQ OUTQ(IMA100)
RMTSYS(*INTNETADR) RMTprtQ(PAR_B)
AUTOSTRWTR(1) CNNTYPE(*IP)
DESTTYPE(*OTHER) TRANSFORM(*YES)
MFRTYPMDL(*HP4)
INTNETADR('192.168.0.227')
```

If you can not fit all CL parameters on the command line, just type the command `CRTOUTQ` and press <F4> (prompt). This brings up a menu, where you can fill in the CL parameters. The parameters and their values are listed in the menu. Pressing <F11> displays the keywords used in the above command. For additional information, place the cursor on a specific item and press <F1> for help.

Test and start the LPR Printer (values from the example)

- 1 Verify the TCP/IP connection.
`PING RMTSYS('192.168.0.227')`
- 2 Start the Remote Writer. When creating (or changing) the queue, the writer program controlling the queue, is started automatically. The writer can also be started with the command.

```
STRRMTWTR OUTQ(IMA100)
```

For ending the writer (for instance for making changes to the queue) use the following command.

```
ENDWTR(IMA100)
```

- 3 Change your Login job to use the new printer as default.
`CHGJOB OUTQ(IMA100)`

- 4 Make a test print (for example a print of your User Profile)
PRTUSRPRF

2.3. FTP Print

FTP print is primarily meant for use in UNIX environments. It requires giving a command manually from the command line.

You can use this method to print any file which is application-independent printable and compatible with the printer. Typical examples are PCL formatted files, .prn files and .txt files.

The *Print Server Administration Guide* has a section on FTP print in the chapter on "*Services in Input Control*". This section includes a generalisable example of FTP Print from an AIX environment .

SCS TN5250E

3. Introduction to the SCS Options

3.1. Topics in This Chapter

- [“Setup Tasks” \(page 12\)](#)
- [“Introducing IDB and IDB-Terminology” \(page 14\)](#).
The Intermate Data Base (IDB) contains the SCS protocol conversion table definitions for SCS emulations used for host printing. To get the most out of our SCS emulations, you need to learn a little bit about the many facets of "IDB".
- [“Special Status Information and Actions” \(page 16\)](#).
This section describes special facilities connected with SCS TN5250E printing from the print server.

3.2. Setup Tasks

The tasks involved are as follows:

- 1 Host side: Printer-definition as described in the next chapter.
- 2 Print server side: License Key.
If you have bought a *License Key* to be able to do production printing, select the [License Keys] in the "Configurations > Permissions" group and enter the key. Consult the *Printer Administration Guide* if you need help on this. Save the changes.
- 3 Print server side: Network Settings per Host-Session as described in [“\[5250 Network Setup\]” \(page 20\)](#).

For each of the up to four host-sessions you want to configure, start by configuring the Network Setup settings on the print server. Save the changes. Reboot so that the settings take effect before going on to the [5250 SCS Config#] page for the host-session.

- 4 Print server side: Configuration of one or more host sessions [5250 SCS Config#] as described in the chapters beginning on [page 43](#).

You can define up to four TN5250E host-sessions using either SCS translation (IDB-based emulation) or Host Print Transform (HPT). Each host-session has its own unique set of network settings and configurations.

- 5 Check your settings

Always check your settings before trying to print, even if you have not made any changes yourself.

For everything except details within [5250 SCS Config#], it is usually easiest to check the configurations by printing the *Main Status Pages* which you can do from the HTTP menu's "Actions" group.

To check the details within [5250 SCS Config#], you can choose from SCS5250 IDB Status; SCS5250 IDB Dump; and SCS5250 Font Dump. For more information see [“Special Status Information and Actions” \(page 16\)](#) and [“How to find out what is in an IDB” \(page 49\)](#).

At the very least, you should check the settings for the country specific options (three settings as described in [“Country Definition” \(page 55\)](#)).

- Note:** The options described for the print server side are those that appear when logged in to the print server as user *admin*.

3.3. Introducing IDB and IDB-Terminology

3.3.1. IDB Understood as a Collection of IDB Configurations

It is possible to name and save a full collection of configurations in what we call "an IDB".

Understood in this way, an IDB can exist in three forms as explained in *"IDB Name-Syntax and Three Forms of IDBs"* (page 44).

3.3.2. IDB options and parameters

The IDB is organised in "options" and events.

"**IDB options**" is the term for **configuration parameters**; this is due to historical circumstances (IDB is more than 20 years old and has proved its worth in a long series of Coax-based, Twinax-based and LAN based print servers).

"**IDB parameters**" is the term used for **values** used in certain types of IDB commands for setting IDB options.

3.3.3. IDB Languages and IDB Commands

There are two IDB Languages.

The Advanced IDB Command Language (also called "Advanced IDB Language" or just "**Advanced IDB**"), can be used to set any and all IDB Options and Events. In tables describing the various settings, the column "IDB Value" refers to a value (always a number) in an "Advanced IDB" command governing the "option" under discussion.

TN5250E users have an additional programming tool in the form of the User IDB Command Language ("**User IDB**"). Its syntax is similar to that used in native AS/400 commands. The User IDB is a shell to a selected set of Advanced IDB commands. This means that not all options can be set this way. In tables describing the various settings, the column "User IDB Parameter" refers to a value in a "User IDB" command governing the option under discussion.

3.3.4. The work of specialists

IDB commands contains more options and values than you can set through the the usual configuration tools, as well as giving access to so-called events.

Therefore, specialists may find it useful to work directly with IDB commands as a supplement to the usual configuration tools. These possibilities are explained in *“Extended Configuration with IDB” (page 95)*.

Specialists may also work more extensively with collections of IDB settings (as described starting on [page 44](#)) than generalist users do.

In order to ease the work of specialists, each description of an IDB option includes the syntax for "Advanced IDB" commands and (where they exist) "User IDB" commands. The values shown correspond to the default setting. Generalist users can simply ignore this information.

3.3.5. IDB and Troubleshooting

IDB commands must go into the data stream, but will not print if they are written and executed properly. So, if you see the so called CSC lead-in string (usually &%) on a print-out, you should get in touch with a specialist familiar with the details of IDB.

If you often print jobs in which it is inconvenient to reserve the default characters as symbols in an IDB language, refer to *“Using [5250 SCS Config#] to Change CSC and Delimiters characters” (page 100)*.

When a technical specialist is troubleshooting, he or she may ask for information about current IDB settings; for information about how to get this information, see *“Special Status Information and Actions” (page 16)*.

3.4. Special Status Information and Actions

After TN5250E printing has been enabled, a number of *additional menu items* will be displayed on the HTTP menu. These are described below.

Note: "Enabling" includes rebooting after saving the configuration page where "enable" is set

In addition, the *Main Status Pages* will include information on your *active* TN5250E network configurations as well as an extract of the settings in [5250 SCS Config #].

Note: To be "active", the IP address, server port and DeviceName in the Network Configuration must be saved and activating through rebooting.

Finally, there may be special error messages in the *System Log* (printed directly to screen on your request, but also found as part of the printout in the *Main Status Pages*).

3.4.1. "Actions" Which Will Print Configuration Information

- SCS5250 IDB Status: covers only the settings in [SCS5250E Config#]
- SCS5250 IDB Dump - rather more extensive than IDB Status
- SCS5250 Font Dump

3.4.2. Special Features for Debugging and Troubleshooting

For print servers based on G22 or K92 there is a *Trace Function* which can be used in connection with problem localisation. It is typically used on request from technical support personnel. Procedures for starting a trace are common to all HPO options; see "[HPO Trace Function \(SCS and IPDS\)](#)" (page 155).

It is also possible (in all print servers) to make a Hex dump (see "[Enable Hexdump](#)" (page 20))

3.4.3. "Status" > [TN5250]

This menu item will appear after activation of the TN5250E option. Activation includes not only "enabling" but also including identifying information (IP address, host name, and so on)

for the particular session.

This status will display the following information on the screen per host-session:

- Last negotiation response from server :
- Session successfully started (or blank):
- If the host-session has been successfully established, the following information will appear (the values after each colon are examples):
 - Virtual printer established:
 - On system : INTER02
 - As device : JP207
 - Emulation : IBM-3812-1

4. Host Side SCS Configuration

The HPO for 5250 provides support for standard SCS and advanced SCS/DCA (Office Vision) for print jobs from the host traditionally requiring an IBM 3812 compatible Twinax printer. IDB configurations can be taken from a Twinax interface for loading into the LAN-based print server.

Printing via the TN5250E protocol requires OS/400 V4R1 modification 0 or later on the AS/400. Older versions can be upgraded with PTFs to support the TN5250E protocol. Check with IBM for PTF levels.

For the AS/400 (iSeries), the requirement is V3R2 ... V5R2.

TN5250 enables real-time reporting of printer errors such as paper out, cover open, etc., while eliminating the routing and traffic problems related to SNA.

The TN5250E printer auto-configures when you have configured the print server with the IP address (or DNS name) of the host and the device name you wish to recognize the printer by (this is a part of “[5250 Network Setup]” (page 20)). The device, writer and queue for the host printer are automatically created and started when you power the target printer on.

There are, however, some settings you need to check on the host:

System value	Comments
QAUTOCFG	Must be set to ' 1 ' <i>Sample commands:</i> DSPPSYVAL SYSVAL(QAUTOCFG) CHGSSYVAL SYSVAL(QAUTOCFG) VALUE('1')
QAUTORMT	Must be set to ' 1 ' <i>Sample commands:</i> DSPPSYVAL SYSVAL(QAUTORMT) CHGSSYVAL SYSVAL(QAUTORMT) VALUE('1')

System value	Comments
QAUTOVRT	Must be set to an adequate number of devices. <i>Sample commands:</i> DSPSYSVAL SYSVAL(QAUTOVRT) CHGSYSVAL SYSVAL(QAUTOVRT) VALUE(100)

5. [5250 Network Setup]

The order of the explanations in this book follow the order of fields on the configuration page, just adding some groupings to make it easier to get an overview.

Asterisk * indicates the default value. The maximum number of characters given here are correct; unfortunately, the screen text on releases to and including xxx-1491 sometimes shows the correct number plus one.

5.1. Enabling—Across Host-Sessions

5.1.1. Enable TN5250E Printing

Use this option to enable SCS printing via the TN5250E protocol.

Option Value	Comments
Yes	Enable SCS/DCA printing via the TN5250E protocol. This also enables setting options on the [5250 SCS Config #] configuration page.
No *	Disable SCS/DCA printing. This also disables setting options on the [5250 SCS Config #] configuration page.

Remember that you must have a license key for production printing.

5.1.2. Enable Hexdump

This is a special troubleshooting feature. If it is enabled, the data streams received in an SCS job will be printed out in hexadecimal representation. .

Option Value	Comments
Yes	Enable hex dump mode.
No *	Disable hex dump mode.

5.2. [Network Setup #]—Per Host-Session

After the "enabling" settings, the configuration page has room for four host-sessions, each of which has its own setup configuration.

You can distinguish between host-sessions either through the Server (Host) Address or by the Device Description (DEV D).

For example, you can use four DEV Ds on one AS/400, or spread your host-session definitions over several different AS/400s.

5.3. Identifying Information for the Host-Session

5.3.1. Server Address

This option specifies the address of the AS/400.

Option Value	Comments
>Blank< *	<p>This is normally an IP address. Maximum 47 ASCII characters.</p> <p>If an IP address is specified, then each address byte must be between 0 and 255. Contact your system administrator if in doubt.</p> <p>If you have a DNS server in your network, you can specify a name to look up on the server. This requires that the IP address of the DNS server has been specified on the [TCP/IP] configuration page in the "Basic" sub-group; consult the Server Administration Guide if you need help on this.</p> <p>The characters used in specifying a host name should be chosen from the ASCII 7-bit character set, decimal range 33-122. You may need to observe further restrictions according to your network environment. There is a table showing the 7-bit character set for decimal values 32-126 in an appendix in the Print Server Administration Manual.</p>

5.3.2. Server Port

Use this option to specify the Telnet server port number defined on the AS/400. Please note that your system administrator may have defined another port number for Telnet communications.

Option Value	Comments
23 * [23 or 1024..65535]	<p>23 is the default port number for Telnet sessions according to RFC 1700. The RFC can be found on the Internet. See for example: http://www-inf.enst.fr/~dax/services/rfc/.</p>

5.3.3. Device Description (DEVD) Name

Use this option to specify the device name of the TN5250E device used on the AS/400.

Option Value	Comments
>Blank< *	Maximum 11 ASCII characters. The characters used in specifying a device name should be chosen from the ASCII 7-bit character set, decimal range 33-122. You may need to observe further restrictions according to your network environment. There is a table showing the 7-bit character set for decimal values 32-126 in an appendix in the Print Server Administration Manual.

5.4. Message Queue Options

5.4.1. Message Queue (MSGQ) (name)#

Use this option to specify the message queue name on the AS/400 the print server should send Intervention Required conditions to. The message queue name must exist on the AS/400, as it is not created automatically. Refer also to the [MSGQ Library #](#) option below.

The option can be left at the default if you do not know the message queue name.

Option Value	Comments
QSYSOPR *	Maximum 10 ASCII characters. The characters used in specifying a queue name should be chosen from the ASCII 7-bit character set, decimal range 33-122. You may need to observe further restrictions according to your network environment. There is a table showing the 7-bit character set for decimal values 32-126 in an appendix in the Print Server Administration Manual.

5.4.2. MSGQ Library

Use this option to specify the message queue library for the message queue specified with the [Message Queue \(MSGQ\) \(name\)#](#) option. The message queue library must exist on the AS/400, as it is not created automatically.

The option can be left at the default if you do not know the message queue library.

Option Value	Comments
*LIBL *	Maximum 10 ASCII characters. The characters used in specifying a library name should be chosen from the ASCII 7-bit character set, decimal range 33-122. You may need to observe further restrictions according to your network environment. There is a table showing the 7-bit character set for decimal values 32-126 in an appendix in the Print Server Administration Manual.

5.5. Font Identifier (FONT)

Use this option to define the default font identifier used with this printer. Note that the device description will as default insert *NONE for the point size, indicating that the system chooses a point size for you.

Option Value	Comments
11 * [3,5,11...41803]	<p>The Printer Font Table (Font Parameter) in the CRTDEVPRT command lists the valid font identifiers, the display value, the characters per inch value implied with each font style, a description of each font style, and whether the font is supported on a particular printer. Note that some fonts may be substituted by the SCS to ASCII emulation.</p> <p>Maximum 5 ASCII characters. The characters used should be chosen from the ASCII 7-bit character set, decimal range 33-122. You may need to observe further restrictions according to your network environment. There is a table showing the 7-bit character set for decimal values 32-126 in an appendix in the Print Server Administration Manual.</p>

5.6. Form Feed (FORMFEED) # (not HPT)

Form Feed determines how paper is fed into the printer by specifying the form feed attachment used by the printer device file. It was introduced as a user-configurable option starting with G22_1252. Our implementation covers three of the values described in rfc2877 .

Option Value	Comments
Autocut*	Single-cut sheets are fed into the printer automatically. The printer must have the sheet feed attachment. The *AUTOCUT feature is valid for 4207, 4208, 4216, 4224, and 5204 printers that are emulating a 5219 printer.
Cut	Single-cut sheets are used by the printer. For cut sheets, the forms alignment message is not sent. This value is valid for all printers.
Continue	Continuous forms are used by the printer. The tractor feed attachment must be on the printer device. Even though some printers (3812, 4216) don't have tractor feed attachments (they don't actually support continuous forms), it can be necessary to use the Continue (CONT) setting in order to match what the emulated twinaxial printer supports.

The value to use is determined by the system based on printer type.

To determine whether or not your printer supports this option, use the command CRTPRTF (Create Printer File).

When the Host Print Transform function (HPT) is enabled, the FORMFEED option value is overridden by the value specified in *"Paper Source 1 (PPRSRC1) # (HPT Only)"* (page 27).

5.7. Paper Source 1 (PPRSRC1) # (HPT Only)

Use this option for deciding the size of paper in paper source one.

This option only takes effect when “*Host Print Transform (TRANSFORM)#*” (page 31) is set to “Yes”. It overrides settings in “*Form Feed (FORMFEED) # (not HPT)*” (page 26).

Depending on your choice of “*Manufacturer Type and Model (MFRTYPMDL)#*” (page 32) (device driver), your choice of paper for this paper source may give different results on the physical printer targeted through this TN5250E definition. Option introduced with G22_1071.

Option Value	Comments
*NONE	There is no paper source one or the paper is manually fed into the printer.
*MFRTYPMDL *	The suggested settings by the manufacturer for the printer are used by the system.
*LETTER	The paper for this source is letter-size (8.5 x 11 inches) and single-cut sheets are fed into the printer automatically.
*LEGAL	The paper for this source is legal-size (8.5 x 14 inches) and single-cut sheets are fed into the printer automatically.
*EXECUTIVE	The paper for this source is executive-size (7.25 x 10.5 inches) and single-cut sheets are feed into the printer automatically.
*A4	The paper for this source is size A4 (210 mm x 297 mm) and single-cut sheets are fed into the printer automatically.
*A5	The paper for this source is size A5 (148 mm x 210 mm) and single-cut sheets are fed into the printer automatically.
*B5	The paper for this source is size B5 (182 x 257mm).
*CONT80	The paper for this source is 8.0 inches wide and a continuous form.
*CONT132	The paper for this source is 13.2 inches wide and a continuous form.
*NONE	There is no paper source one or the paper is manually fed into the printer.

Note: For this paper source (one) *A3, *B4 and *LEDGER support starts at V3R7.

5.8. Paper Source 2 (PPRSRC2) # (HPT Only)

Use this option for deciding the size of paper in paper source two.

This option only takes effect when “*Host Print Transform (TRANSFORM)#*” (page 31) is set to “Yes”. Depending on your choice of “*Manufacturer Type and Model (MFRTYPMDL)#*” (page 32) (device driver), your choice of paper for this paper source may give different results on the physical printer targeted through this TN5250E definition. Option introduced with G22_1071..

Option Value	Comments
*NONE	There is no paper source two or the paper is manually fed into the printer.
*MFRTYPMDL *	The suggested settings by the manufacturer for the printer are used by the system.
*LETTER	The paper for this source is letter-size (8.5 x 11 inches) and single-cut sheets are fed into the printer automatically.
*LEGAL	The paper for this source is legal-size (8.5 x 14 inches) and single-cut sheets are fed into the printer automatically.
*EXECUTIVE	The paper for this source is executive-size (7.25 x 10.5 inches) and single-cut sheets are fed into the printer automatically.
*A4	The paper for this source is size A4 (210 mm x 297 mm) and single-cut sheets are fed into the printer automatically.
*A5	The paper for this source is size A5 (148 mm x 210 mm) and single-cut sheets are fed into the printer automatically.
*B5	The paper for this source is size B5 (182 x 257mm).
*CONT80	The paper for this source is 8.0 inches wide and a continuous form.
*CONT132	The paper for this source is 13.2 inches wide and a continuous form.
*NONE	There is no paper source two or the paper is manually fed into the printer.

Note: For this paper source (two) *A3, *B4, *LEDGER, *CONT80 and *CONT132 support starts at V3R7.

5.9. Envelope Source (ENVELOPE) # (HPT only)

Use this option for deciding the type of envelope in the third paper source.

This option only takes effect when "*Host Print Transform (TRANSFORM)#*" (page 31) " is set to "Yes". Depending on your choice of "*Manufacturer Type and Model (MFRTYPMDL)#*" (page 32) (device driver), your choice of paper for this paper source may give different results on the physical printer targeted through this TN5250E definition. Option introduced with G22_1071..

Option Value	Comments
*NONE	There is no paper source three or the paper is manually fed into the printer.
*MFRTYPMDL	The suggested settings by the manufacturer for the printer are used by the system.
*MONARCH	The envelope is monarch-size (3.875 x 7.5 inches).
*NUMBER9	The envelope is size number 9 (8.5 x 11 inches)
*NUMBER10	The envelope is size number 10 (4.125 x 9.5 inches).
*B5	The envelope is size B5 (176mm x 250 mm).
*C5	The envelope is size C5 (162 mm x 229 mm).
*DL	The envelope is size DL (110 mm x 220 mm).

5.10. Keep Alive

5.10.1. Keep Alive Type

This option specifies the type of keep alive signal sent to the AS/400. The signal is sent to keep the Telnet session active. The option can normally be left at its default setting.

The setting of the [Keep Alive Time #](#) option determines how often the keep alive signal is sent. Check the AS/400 parameters `TIMMRKTIMO` and `INACTTIMO` to help determine the type of keep alive signal to be used and the keep alive time value to set.

Option Value	Comments
None *	Do not send keep alive signals. When this setting is selected, the AS/400 should be configured to send a keep alive signal. The print server can receive and respond to a Telnet NOP or a Timing Mark keep alive signal.
Telnet NOP	Use a Telnet No Operation as keep alive signal.
Timing Mark	Use a Timing Mark as keep alive signal.

5.10.2. Keep Alive Time

This option specifies the time in seconds that expires between each keep alive signal sent to the AS/400. The setting of the [Keep Alive Type #](#) option specifies the type of signal sent to the AS/400.

If the keep alive type signal setting is set to *None*, this option value setting is ignored. If *Telnet NOP* or *Timing Mark* was selected, set this option value to a value less than the `INACTTIMO` value on the AS/400.

Option Value	Comments
45 * [1..32000]	The time is measured in seconds.

5.11. Host Print Transform (HPT)

When you activate TRANSFORM, any information you might have on the "IDB file" for that particular host-session (as described in "[5250 SCS Config#] > "IDB Name"" (page 43)) will be ignored. The IDB file itself will not be affected in any way and you can use it again if you disable TRANSFORM.

Note that the following options described above are only used in connection with TRANSFORM:

- "[Paper Source 1 \(PPRSRC1\) # \(HPT Only\)](#)" (page 27)
- "[Paper Source 2 \(PPRSRC2\) # \(HPT Only\)](#)" (page 28)
- "[Envelope Source \(ENVELOPE\) # \(HPT only\)](#)" (page 29).

5.11.1. Host Print Transform (TRANSFORM)#

Use this option to have the AS/400 perform Host Print Transform on jobs before they are sent to the print server. The printer driver to use is defined with the [Manufacturer Type and Model \(MFRTYPMDL\)#](#) option (next option).

Refer to the Help for the keyword TRANSFORM in the Printer device description on the AS/400. If this option is altered after the first successful connection, the auto created printer device should be deleted on the AS/400 before connecting again with the new settings. This is required to properly initialize other device parameters which are automatically defined based on the TRANSFORM parameter.

Option Value	Comments
Yes	Instruct the AS/400 to perform Host Print Transform.
No *	Recommended: Let the Intermate SCS emulation perform transformation using our "IDB-based" conversion.

5.11.2. Manufacturer Type and Model (MFRTYPMDL)#

Use this option to instruct the AS/400 which printer type and model should be used to transform the SCS job to PCL when the [Host Print Transform \(HPT\)](#) option is set to Yes. The selected printer emulation must be supported by the target printer. Refer to the Help for the keyword MFRTYPMDL in the Printer device description on the AS/400.

Normally this option can be left at its default.

Option Value	Comments
*HP4 *	Any ASCII text string with no more than 15 characters (expanded from 10 in release G22_1071, and now exceeds what is allowed in RFC2877). The characters used should be chosen from the ASCII 7-bit character set, decimal range 33-122. You may need to observe further restrictions according to your network environment. There is a table showing the 7-bit character set for decimal values 32-126 in an appendix in the Print Server Administration Manual.

5.11.3. Workstation Customizing Object (WSCST)#

Use this option to specify a name of a *Workstation customizing object* for the printer definition selected on the AS/400 with the [Manufacturer Type and Model \(MFRTYPMDL\)#](#) option. Refer to IBM's documentation for details on how to configure the *Workstation customizing object*.

This option requires the [Host Print Transform \(HPT\)](#) option to be set to Yes.

Option Value	Comments
*NONE *	Any ASCII text string with no more than 10 characters. The characters used should be chosen from the ASCII 7-bit character set, decimal range 33-122. You may need to observe further restrictions according to your network environment. There is a table showing the 7-bit character set for decimal values 32-126 in an appendix in the Print Server Administration Manual.

5.11.4. WSCST Library

Use this option to specify a library of a *Workstation customizing object* for the printer definition selected on the AS/400 with the [Manufacturer Type and Model \(MFRTYPMDL\)#](#) option. Refer to IBM's documentation for details on how to configure the

Workstation customizing object.

This option requires the [Host Print Transform \(HPT\)](#) option to be set to Yes.

Option Value	Comments
*LIBL *	Any ASCII text string with no more than 10 characters. The characters used should be chosen from the ASCII 7-bit character set, decimal range 33-122. You may need to observe further restrictions according to your network environment. There is a table showing the 7-bit character set for decimal values 32-126 in an appendix in the Print Server Administration Manual.

5.12. Job-Related Functions

5.12.1. IR Reply

Use this option to specify when the print server should send *Intervention Require Replies* to the AS/400.

Option Value	Comments
No Reply	Do NOT send any IR messages to the host.
Offline	Only send IR replies as offline, ie do not specify what kind of IR has occurred.
Normal *	Use normal IR replies.

5.12.2. Strict Status Reply

Use this option to control when print jobs are accepted and started.

Option Value	Comments
Yes *	Only accept print jobs if the printer is <i>Ready</i> . If the printer for example is out of paper, then an IR reply is sent. The job prints when the printer is <i>Ready</i> .
No	Accept all print jobs. This speeds up printing.

5.12.3. Auto Sense Writer END

Use this option to control if the print server should reconfigure automatically if the Writer ends on the AS/400.

Option Value	Comments
Yes *	Reconfigure automatically.
No	Do not reconfigure automatically.

5.13. Output To (or "Use Logical Printer")

For users of K92-based print servers and older products based on a G-component, this parameter sets the logical printer which will be used for SCS jobs. If the Network Destination Option (NDO) is enabled, the logical printer definition is the only medium through which a network printer (Netw#) can be chosen.

On print servers based on G22 or G32, the "Output To" parameter replaces "Use Logical Printer". "Output To" defines the target printer which will be used for SCS jobs, either directly indirectly through choosing a logical printer.

G22 release levels lower than 2111 and all K92 products "Use Logical Printer"	G32/G34 and G22 release levels at 2111 or higher "Output To"	Comments
PR0*	Logical Printer 0	No manipulation of data. Users of the Network Destination Option (NDO) please note: The target printer will be the printer designated as "System Target Printer" on the [General] configuration page in the "Configurations > Basic" sub-group.
PR1, PR2, PR3, PR4 PR5, PR6, PR7, PR8	Logical Printer 1 Logical Printer 2 Logical Printer 3 Logical Printer 4 Logical Printer 5 Logical Printer 6 Logical Printer 7 Logical Printer 8	Select one of these queues to have data manipulated by a logical printer definition. Users of the Network Destination Option (NDO) please note: The definition of the logical printer includes choice of target printer. An NDO Load Balancing Pool can only be chosen through a logical printer.
not available	Local Printer Network Destination 1 Network Destination 2 Network Destination 3 Network Destination 4	Direct selection of single target printer for users of the Network Destination Option (NDO)

If you need help in understanding what logical printers are and how they are used, please refer to the Print Server Administration Manual.

6. About Host-Session Configuration in [5250 SCS Config#] Pages

The instructions for setting the various parameters apply to **each** of the configuration pages [5250 SCS Config 1], [5250 SCS Config 2], [5250 SCS Config 3], [5250 SCS Config 4] in the "Configurations > TN5250E" sub-group.

6.1. First Things First!

You should do the following on the [5250 Network Setup] configuration page **before** proceeding to configure any given host-session:

- Enable TN5250E printing at the top of the [5250 Network Setup] page.
- Fill out the identifying information on the [5250 Network Setup] page (server address, server port and device description (DEVD) name) for that particular host-session
- Save the page settings [5250 Network Setup].
- Reboot the print server.

Important: Every time you change anything on the [5250 Network Setup] page, you should reboot the print server **before** going on to change anything on a [5250 SCS Config #] page.

Note: **Restoring factory defaults** on a [5250 SCS Config#] Page works somewhat differently than restoring factory defaults on other configuration pages. This is because the settings are collected in IDBs rather than being a part of the configuration file for all other settings on the print server. See ["How to Restore Factory Defaults for a \[5250E Config#\] Page" \(page 50\)](#), in the chapter ["\[5250 SCS Config#\] > "IDB Name"'](#).

6.2. About the Option Descriptions

As explained in *“IDB options and parameters” (page 14)*, the things you can set are called options.

Possible values are shown in tables. Asterisk * in these tables indicates the default value.

In connection with many options, a maximum number of characters is given. The maximum number of characters given here are correct; unfortunately, the screen text on releases to and including xxx_1491 sometimes shows the correct number plus one.

As mentioned in *“The work of specialists” (page 15)*, each option description includes information on how to make a setting using one of the IDB languages (see *“IDB Languages and IDB Commands” (page 14)*; and *“Extended Configuration with IDB” (page 95)*).

6.3. Fields on the Page and Field Descriptions

The field descriptions in this book are grouped in the following chapters

["\[5250 SCS Config#\] > "IDB Name"" \(page 43\)](#)

["\[5250 SCS Config#\]—Code Pages, Country Code, and Fonts" \(page 55\)](#)

["\[5250 SCS Config#\]—Paper Handling" \(page 67\)](#)

["\[5250 SCS Config#\]—Layouts and Page Formatting" \(page 72\)](#)

["\[5250 SCS Config#\]—The APO/COR Function" \(page 80\)](#)

["Extended Configuration with IDB" \(page 95\)](#)

This order follows the order of the fields on the [5250 SCS Config#] pages in all products based on G-components at release level 2111 or higher.

Fields covered in each chapter

["\[5250 SCS Config#\] > "IDB Name"" \(page 43\)](#)

- IDB Name

["\[5250 SCS Config#\]—Code Pages, Country Code, and Fonts" \(page 55\)](#)

- Code Page
- Country Code
- Euro Support
- Disable Font Download
- Font
- Disable Prop Font Move
- Compress CPI
- Default CPI
- Non-Print Char

["\[5250 SCS Config#\]—Paper Handling" \(page 67\)](#)

- Source Input

- Default Page Orient 1
- Default Page Orient2
- Forms Media
- Ouput Bin
- Simplex/duplex

["\[5250 SCS Config#\]—Layouts and Page Formatting" \(page 72\)](#)

- Enable Overlay Call
- Move Hor/Ver
- Format Control Code
- Default LPI
- Lines Per Page
- Max Print Position
- Left Margin
- Right Margin
- Top Margin
- Left Margin Lan
- Top Margin Lan

["\[5250 SCS Config#\]—The APO/COR Function" \(page 80\)](#)

- COR Action 1
- COR Action 2
- PPM Quality Disable
- COR LSI Reduction %
- Page Length
- Page Width
- Left Margin COR
- Top Margin COR

“Extended Configuration with IDB” (page 95)

- IDB First Char
- IDB Second Char
- Ignore Second IDB Char
- IDB Delimiter

The order of the fields in products based on K-92 or on older release levels of G-components is as shown in the table below.

Field (old order)	Section in Manual
IDB Name	<i>“[5250 SCS Config#] > "IDB Name"” (page 43)</i>
IDB First Char	<i>“CSC "IDB First Char" (Option 8)” (page 100)</i>
IDB Second Char	<i>“CSC "IDB Second Char" (Option 9)” (page 100)</i>
Ignore Second IDB Char	<i>“CSC "Ignore Second IDB Char (Use Option 8 only)”” (page 101)</i>
IDB Delimiter	<i>“"IDB Delimiter" (Option 7)” (page 101)</i>
Enable Overlay Call	<i>“Enable Overlay Call (Option 28) / Page Heading” (page 72)</i>
Disable Prop Font Move	<i>“Disable Prop Font Move (Option 118)” (page 63)</i>
Compress CPI	<i>“Compress CPI (Option 128)” (page 64)</i>
Move Hor/Ver	<i>“Move Hor/Ver (Option 158)” (page 73)</i>
Format Control Code	<i>“Format Control Code (Option 177)” (page 74)</i>
Disable Font Download	<i>“Disable Font Download (Option 244)” (page 60)</i>
Euro Support	<i>“Force "Euro Support": Yes/No (Option 139)” (page 58)</i>
Default Page Orient 1	<i>“Default Page Orient 1 (Option 121) - Paper Tray 1” (page 68)</i>

Field (old order)	Section in Manual
Default Page Orient 2	“Default Page Orient 2 (Option 122) - Paper Tray 2 and Above” (page 68)
COR Action 1	“COR Action 1 (Option 123) - Paper Tray 1” (page 81)
COR Action 2	“COR Action 2 (Option 124) - Paper Tray 2 and Above” (page 82)
PPM Quality Disable	“Text Mode “PPM Quality Disable” (Option 126)” (page 83)
COR LSI Reduction %	“COR LSI Reduction % (Option 127)” (page 84)
Country Code	“Country Definition by “Country Code” (Option 2)” (page 57)
Codepage	“Country Definition by “Codepage” (Combined Options 240 & 241)” (page 55)
Font	“Select “Font” (Combined Options 242 & 243)” (page 61)
Default CPI	“Default CPI (Option 100)” (page 65)
Max Print Position	“Max Print Position (Option 102)” (page 76)
Left Margin	“Left Margin (Option 103)” (page 77)
Right Margin	“Right Margin (Option 104)” (page 77)
Default LPI	“Default LPI (Option 105)” (page 75)
Lines Per Page	“Lines Per Page (Option 107)” (page 75)
Top Margin	“Top Margin (Option 108)” (page 77)
Source Input	“Source Input (Option 113)” (page 67)
Forms Media	“Forms Media (Option 114)” (page 69)
Output Bin	““Output Bin” (Option 115) / Destination Drawer” (page 70)
Simplex/duplex	“Simplex/duplex (Option 116)” (page 71)

Field (old order)	Section in Manual
Non-Print Char	<i>"Non-Print Char [ASCII] (Option 3)" (page 66)</i>
Left Margin COR	<i>"Left Margin COR [1/1440] (Option 78+79)" (page 88)</i>
Top Margin COR	<i>"Top Margin COR [1/1440] (Option 80+81)" (page 89)</i>
Left Margin Lan	<i>"Left Margin Lan [1/1440] (Option 86+87)" (page 78)</i>
Top Margin Lan	<i>"Top Margin Lan [1/1440] (Option 88+89)" (page 79)</i>
Page Length	<i>"Page Length [1/1440] (Option 82+83)" (page 85)</i>
Page Width	<i>"Page Width [1/1440] (Option 84+85)" (page 86)</i>

7. [5250 SCS Config#] > "IDB Name"

7.1. EITHER Host Print Transform OR IDB

The field "IDB Name" in [5250 SCS Config#] allows you to specify a name which is used to identify the collection of settings you have want used for a particular host-session.

Any given configuration will use either Host Print Transform **or** our IDB-based SCS conversion.

If you want to use IDB, it is not enough to just have a name in this field. You must also be sure to de-activate Host Print Transform in the corresponding [5250 Network Setup#] for the host-session; see "[Host Print Transform \(HPT\)](#)" (page 31).

If you should prefer using Host Print Transform, it is ok that there is a name in the "IDB Name" field; it will simply be ignored.

7.2. IDB Name-Syntax and Three Forms of IDBs

The name of an IDB has maximum 12 characters in all and must be split into two parts separated by a period (full stop). The first part must contain minimum 1 and maximum 8 characters (following DOS rules), and the extension must be IDB. For example `john01.idb`

The name is not case-sensitive.

In order to manage and use IDBs, you need to know that there are actually three physical forms.

1 An IDB which is the collection of default configuration settings.

This is placed in the print server in such a way that a user cannot destroy them, no matter how much you .

2 An IDB in the FTP directory.

Multiple IDBs: Starting with firmware components `xxxx_1071`, the FTP directory for 5250 IDBs in the print server can contain up to 8 IDBs. (On older versions you could only load a single IDB to the FTP directory, and all host-sessions would use it.)

One of IDBs in the FTP directory should be reserved for a copy of factory default settings.

The IDBs can come to the FTP directory from the collection of default settings, from saved configurations in [5250 SCS Config#] pages, or from a PC-file.

IDBs will stay in the FTP directory until you delete them. You will be able to use up to four of them at any time, one per host-session configured. Keeping more IDBs in the FTP directory than you actually use at any one time makes it possible to change a host-session configuration very quickly.

3 A PC-file.

It is possible to download the settings from the FTP directory in the print server to a PC-file. And it is possible to load the PC-file into the FTP directory. The PC-file can even be edited. This kind of functionality is especially useful if you want to re-use IDB settings made on one print server to configure another.

7.3. How to Inspect the FTP Directory

- 1 Start an FTP session on the print server (sample IP address):
`ftp 192.168.0.227`
- 2 You will be asked to give your user name (admin) and the password (case-sensitive!).
- 3 Change to the correct directory
for print servers based on G22 or K92
`cd tn5250idb`
for print servers based on G32 or G34
`cd Misc`
`cd TN5250idb`
- 4 List the directory contents.
`dir`

The following name will probably (hopefully) always be there:

`tn5250e1.idb`

This is the name of the IDB containing factory default settings.

If the print server is not factory-new, you may see additional names, such as

`tn5250e4.idb`
`mary1.idb`
`john01.idb`
`john02.idb`

- 5 Close the FTP session.
`bye`

Note: The entire structure of the FTP directory for your print server is documented in the Print Server Administration Manual.

For inspection of the directory, the method shown above is easiest. We will return to the question of IDB management in ["Working with PC-files and IDBs in the FTP directory"](#) (page 53).

7.4. Naming, Saving, and Choosing IDBs

When you start with a **factory-new** print server, the "IDB Name" field on **any** [SCS Config#] page will be filled out with the string `tn5250e1.idb`, which is the name for the default settings.

Important: This assumes, of course, that you have followed our instructions in "*First Things First!*" (page 36)—i.e. you have enabled TN5250E printing, set up identifying information for your first host-session, and rebooted—before you start working on the [SCS Config#] page. If you haven't done so, you're on your own.

When you **save your own configurations, you should use another name** so that it is clear to any user that the IDB in question does not match factory defaults.

Recommended procedures:

Here is a good way to make sure that you do not inadvertently overwrite `tn5250e1.idb`. This procedure will also ensure that you don't save a configuration page without setting a name in the "IDB name" field.

- 1 Start your configuration of the session by filling out the "IDB name" field with a new name—that is, a name not yet known to your print server. For example `mary2.idb`.
- 2 Then save and reboot without doing anything else. When you do this, the contents of `mary2.idb` will be factory defaults.
- 3 Return to the configuration page, make new settings, save them ("save & continue") and then activate them by rebooting the print server. When you do this, `mary2.idb` will contain your own configurations.

If you want to start with existing settings not known to the session and then modify them, you must, of course, use the name of the set of existing settings. For example: Start with `mary1.idb`. Save the configuration page and reboot without doing anything else. When you return to the page, set the new name (`mary2.idb`, save and reboot. Then return to the page to make `mary2.idb` different from `mary1.idb`.

What Happens if an "IDB File" Name Is Invalid?

If the name entered is invalid (for example no delimiter, no extension, too many characters, etc), the new filename is ignored and the host-session will not be activated. An error message will appear in the system log. The field's contents will not be erased because a blank field is more dangerous than a field with an unusable name.

On-going management of IDB names

The changes you make to **any** [SCS Config#] page will affect all the others that use an IDB with the same name. So if you want to use the same configurations in all host-sessions, the system automatically takes care of synchronising.

The price for this is that the system is biased to protect already named IDBs. If you use an existing name, for example `mary1.idb` when you "save & continue", your new settings will be overwritten by those in `mary1.idb`.

Therefore it is very important print server to be sure that the new name you want to use really doesn't exist yet. See ["How to Inspect the FTP Directory" \(page 46\)](#).

Leaving "IDB Name" blank

With one exception (deliberately restoring factory defaults in the situation described as ["... if there are no IDBs or just one if it is an intact tn5250e1.idb" \(page 50\)](#)), you must never save the settings on a configuration page with the "IDB Name" field blank. These are the consequences of doing so:

- If there is only one IDB in the FTP directory, your settings will be overwritten by the settings in that IDB (usually the defaults in `tn5250e1.idb`).
- If there is more than one IDB in the FTP directory, the system cannot determine which IDB to use. An error will be written to the [System Log] when you save and reboot the offending configuration, and the host-session will not be able to be initiated.

7.5. How to find out what is in an IDB

If you inspect the FTP directory and find one or more IDBs whose contents are unknown to you, use the following procedure.

- 1 Choose a host-session to configure.
- 2 Type in the name you want to investigate the contents of.
- 3 Save & Continue.
- 4 Reboot.
- 5 To inspect the settings, you can choose from three methods.
 - a Inspect the configuration page itself on the screen.
 - b Use one or more of the "Actions" on the menu:
 - * Main Status Pages (to capture Network settings)
 - * SCS5250 IDB Status
 - * SCS 5250 IDB Dump
 - c Send a job from the host to order an IDB print as shown in *"Special Commands" (page 99)* in the chapter on *"Extended Configuration with IDB"*.

If you inspect the FTP directory and find no IDBs, you need to restore defaults as shown in the next section.

7.6. How to Restore Factory Defaults for a [5250E Config#] Page

The usual "Types of Resets" cannot be used here

In the Print Server Administration Manual there is a chapter on "Types of Resets", including how to restore factory defaults. These instructions are not applicable for SCS configurations.

In the first place, "All Defaults" on the HTTP Menu does not affect the settings on a [5250E Config#] page, but does affect the settings on the [5250 Network Setup] page. This is because IDBs, which contain the settings for each [5250E Config#] page, are not a part of the configuration file for the other settings on the print server.

In the second place, you cannot just use the "Factory Default" button on a [5250E Config#] page without considering the interactions between IDB names associated with individual [5250E Config#] page and the IDB names in the FTP directory.

What to do ...

If there is an IDB named `tn5250e1.idb` in the FTP file, and you have reason to believe that it no longer contains a copy of the factory defaults, you must delete it in the FTP directory before proceeding.

What you do next depends on how many and which IDBs are present in the FTP directory.

... if there are no IDBs or just one if it is an intact `tn5250e1.idb`

1 Go to the [5250E Config#] page for each session you want to have configured with defaults.

a Leave the "IDB Name" field **blank**.

Important: If you save the page at this point with the name `tn5250e1.idb`, you will end up filling `tn5250e1.idb` with the current page settings instead of a copy of default settings.

b Click on "Factory Default".

c Click on "Save & Continue".

- 2 When you are done with all of the [5250E Config#] page(s) you are interested in, reboot the print server.
- 3 When you return to the affected session(s), each will be configured with factory defaults, with the value `tn5250e1.idb` displayed in the "IDB Name" field.

... if there are more than one IDBS or just one that is not an intact tn5250e1.idb

- 1 Choose the [5250E Config#] page(s) you want to have configured with default settings.
 - a Fill in the "IDB Name" field with a name not known to the FTP directory, for example `def.idb`.
 - b Click on "Factory Default".
 - c Click on "Save & Continue".
- 2 When you are done with all the [5250E Config#] page(s) you are interested in, reboot the print server.
- 3 When you return to the affected session(s), each will now be configured with factory defaults, with the value `def.idb` displayed in the "IDB Name" field.

How to ensure that you have an intact tn5250e1.idb

It is a good idea to clean up the naming of IDBs in the FTP directory, so that an "FTP-copy" of defaults is always named `tn5250e1.idb`. Here is how to do this.

- 1 Go back to the [5250E Config#] page(s) in question
 - a Type `tn5250e1.idb` in the "IDB Name" field, being careful to not change anything else.
 - b Click on "Factory Default".
 - c Click on "Save & Continue".
- 2 When you are done with all the [5250E Config#] page(s) you are interested in, reboot the print server.

- 3 When you return to the affected session(s), each will be configured with factory defaults, with the value `tn5250e1.idb` displayed in the "IDB Name" field.

7.7. Working with PC-files and IDBs in the FTP directory

As mentioned in ["IDB Name-Syntax and Three Forms of IDBs" \(page 44\)](#), an IDB becomes an actual file if you download the current settings from your print server to your pc. The IDB files made available on our web-site and CD-ROMs have been made in exactly this way.

You can edit the file on your PC and then load the changed file to the original and/or to others print servers. Or, you can just load the file to several different print servers without having edited..

Two methods are available:

- The Windows-based *IMCU*, which allows you to do all steps.
- A process involving both FTP and a DOS-based editing utility.

The IMCU Starting with release level 1491 (Intermate Management and Configuration Utility, P19p-xxxx), the *IMCU* includes an IDB Manager and Editor for TN5250 IDB files. Information on installing the free *IMCU* is in the Print Server Administration Manual. Instructions for using the *IMCU* to handle your 5250e IDB files are in the on-line help.

7.7.1. FTP and DOS-based Editor

Retrieval From the Print Server

- 1 Start an FTP session on the print server, choose your directory and list the contents (as shown in ["How to Inspect the FTP Directory" \(page 46\)](#)).
- 2 The data will be transferred in binary mode, so set the FTP client as follows:
binary
- 3 Retrieve the IDB file you want using this command and store it in an appropriate place on your PC. The example below uses the root directory C:\
get tn5250e3.idb c:\tn5250e3.idb

If you have good reason to save the IDB under another name, this is also possible, and might be quite relevant in the following situation where start with the default settings which you want to edit. By giving the PC-file another name before you start editing, you can ensure that you don't overwrite the FTP-copy of the default IDB when you load your changed file it to the print server:

```
get tn5250e1.idb c:\tn5250e2.idb
```

- 4 End the FTP session.
bye

Editing

Edit the *IDB configuration file* with the the *Intermate 5250 IDB configuration file editor* program (*P02-xxxx.exe*). The utility program is included on the *Documentation and Utilities* CD-ROM and can also be found on the web-site for the manufacturer of your particular print server.

Storage / Loading to a Print Server

- 1 Start an FTP session on the print server you want to load to (it needn't be the same one you took the file from). Attach to the correct directory.
- 2 The data will be transferred in binary mode, so set the FTP client as follows:
binary
- 3 Download the (modified) *IDB configuration file*.
put c:\tn5250e2.idb tn5250e2.idb
- 4 Activate the new settings. If you do it from the FTP session:
cd .. Move one directory level up
cd \reboot Change to the "reboot" directory
get immediate Perform an immediate reboot **or**
get controlled perform a controlled reboot

The FTP session is automatically terminated. If you want to terminate before activating (and then activate from the HTTP menu), end the FTP session with the `bye` command.

8. [5250 SCS Config#]—Code Pages, Country Code, and Fonts

8.1. Country Definition

8.1.1. Country Definition by "Codepage" (Combined Options 240 & 241)

This option defines the default code page. IDB Option 242 settings reflect the LSB of the desired code page; IDB Option 243 settings reflect the MSB of the desired code page. When you use the HTTP menu, you do not have to concern yourself with these distinctions.

Caution:

Country definition by "Code Page" is commonly used by **AS/400** computers.

If you are using **System 36** and intend to use national characters, you should set "Codepage" to 500. This is because "Code Page" settings have a higher priority than "Country Code" settings (shown below); a setting of 500 will prevent interference with the settings in "Country Code"

About Support for Printing the Euro Character

In order to be able to print the Euro character a font supporting the character also has to be selected and available in the printer. Ten Code pages can be remapped by using *"Force Euro Support": Yes/No (Option 139)" (page 58)*; these are marked in the table below.

A large number of Code Pages have Euro Support built in; these are listed at the bottom of the table.

Option Value / Code Page Number in the HTTP menu	Remapping when used with Forced Euro Support	Advanced IDB Values for Option 240 + 241 respectively	User IDB parameter DEFCODPAG
37:USA/Can	1140	37 + 0	37
259:Mathematical		3 + 1	259

Option Value / Code Page Number in the HTTP menu	Remapping when used with Forced Euro Support	Advanced IDB Values for Option 240 + 241 respectively	User IDB parameter DEFCODPAG
273:Germany/Australia	1142	17 + 1	273
274:Belgium		18 + 1	274
275:Brazil		19 + 1	275
277:Denmark/Norway	1142	21 + 1	277
278:Finland/Sweden	1143	22 + 1	278
280:Italy	1144	24 + 1	280
281:Japan-Englist		25 + 1	281
282:Portugal		26 + 1	282
284:Spanish Speaking	1145	28 + 1	284
285:United Kingdom (English UK)	1146	29 + 1	285
297:France	1147	41 + 1	297
340:OCR-A / OCR-B		84 + 1	340
500:Multinational *	1148	244 + 1	500
871:Iceland	1149	103 + 3	871
1023:Turkey		255 + 3	1023
Code pages with native Euro support below this box			
1140:USA/Can		116 + 4	1140
1141:Ger/Aus		117 + 4	1141
1142:Den/Nor		118 + 4	1142
1143:Fin/Swe		119 + 4	1143
1144:Italy		120 + 4	1144
1145:Spain		121 + 4	1145
1146:Eng (UK)		122 + 4	1146

Option Value / Code Page Number in the HTTP menu	Remapping when used with Forced Euro Support	Advanced IDB Values for Option 240 + 241 respectively	User IDB parameter DEFCODPAG
1147:France		123 + 4	1147
1148:Multi.		124 + 4	1148
1149:Iceland		125 + 4	1149

User IDB: &%IDB_EDIT: DEFCODPAG 500:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 240:244:
OPTION 241:1:EXIT or

 &%IDB_EDIT: OPTION 240:244,1:
EXIT

The values stored in option 240 and 241 are calculated using the formulas below.

241: $\frac{\text{Code Page}}{256}$ Reduce to nearest whole number

240: Code Page – (256 × Value stored in option 241)

8.1.2. Country Definition by "Country Code" (Option 2)

This option defines the character set. The *International* country code forms the basis for all country codes. In country codes other than *International* country specific characters replace selected characters

Caution:

Country definition by Country Code was commonly used on **System 36 and System 38**, and applications migrated from these systems. "Code Page" settings (previous section) have a higher priority than "Country Code" settings. If you are using System 36, need to specify the country through "Country Code," and intend to use national characters, you should set "Codepage" to 500. "Code

Page" settings have a higher priority than "Country Code" settings; a setting of 500 will prevent interference with the settings in "Country Code".

Option Value	IDB Value	User IDB Parameter DEFCNTCOD	Comments
International *	0	0	
USA/Can	1	1	
Ger/Aus	2	2	
Belgium	3	3	
Brazil	4	4	
Can/Fre	5	5	
Den/Nor	6	6	
Fin/Swe	7	7	
France	8	8	
Italy	9	9	
Jap (Latin)	10	10	
USA/Can bil.	11	11	
Portugal	12	12	
Spain	13	13	
Latin America	14	14	
English (UK)	15	15	

User IDB: &%IDB_EDIT: DEFCNTCOD 0:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 2:0:EXIT

8.1.3. Force "Euro Support": Yes/No (Option 139)

If this option is set to Yes, the normal code pages are re-mapped to code pages containing the Euro character. This means that the international currency symbol is replaced with the Euro character in the EBCDIC code pages. The affected code pages are shown on the table in ["Country Definition by](#)

"Codepage" (Combined Options 240 & 241)" (page 55).

Option Value	IDB Value	User IDB Parameter	Comments
Yes	1	ON	Normal, i.e. Euro Support is not forced
No *	0	OFF	Force Euro Support

User IDB: &%IDB_EDIT: EURSUP OFF:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 139:0:EXIT

8.2. Font Download

8.2.1. Disable Font Download (Option 244)

This option extends the fonts available to the print server by loading additional fonts into the printer memory.

Option Value	IDB Value	User IDB parameters	Comments
No *	0	not applicable	Enable Font Download
Yes	1	not applicable	Disable Font Download

The additional fonts are listed in the table below. The fonts marked with a "+" contain the Euro character.

Font	IBM font no.	PCL font no.
OCR-B	003 +	10003
Boldface	155	10155
Boldface italic	159 +	10159
Essay	160 +	10160
Essay Bold	163 +	10163
Document	175 +	10175

User IDB: Not supported

Advanced IDB: &%IDB_EDIT: OPTION 244:0:EXIT

8.2.2. The SCS Font File

The file with additional fonts is firmware component K66-xxxx.FFS. The latest version as of the date of this guide is K66-0151, released in the spring of year 2000. It is very rarely changed. If you should need an update, follow the instructions in the Print Server Administration Manual. You can choose between "Using FTP Directly" or "Upgrades Using the ". Note the library for the placement of K66:

Servers based on G22 or K92: TN5250FONT

Servers based on G32 or G34: Misc > TN5250font

8.3. Select "Font" (Combined Options 242 & 243)

You select a default font by entering the Font ID.

This option setting is usually overwritten by the first control buffer from the system.

Fonts in shaded rows are those that are made available by allowing font download (as described in ["Font Download"](#) (page 60)).

Option Value (Font Name)	Font ID to be entered in the HTTP menu's field	Advanced IDB Value for Option 242 + 243 respectively	User IDB parameter DEFNT
OCR-B	3	3 + 0	3
Courier 10 *	11	11 + 0	11
Courier It. 10	18	18 + 0	18
Got.Text Bld 10	39	39 + 0	39
Got.Text 10	40	40 + 0	40
Courier Bold 10	46	46 + 0	46
Got.Text 12	66	66 + 0	66
Got.Text Italic	68	68 + 0	68
Got.Text Bld 12	69	69 + 0	69
Courier 12	85	85 + 0	85
Let.Got. 12	87	87 + 0	87
Let.Got. Bld 12	110	110 + 0	110
Pres. Bold 12	111	111 + 0	111
Pres. It 12	112	112 + 0	112
Boldface It	155	155 + 0	155
Boldface	159	159 + 0	159
Essay	160	160 + 0	160
Essay Bold	163	163 + 0	163
Document	175	175 + 0	175

Option Value (Font Name)	Font ID to be entered in the HTTP menu's field	Advanced IDB Value for Option 242 + 243) respectively	User IDB parameter DEFFNT
Got.Text 13	204	204 + 0	204
Prestige 15	221	221 + 0	221
Gothic 15	222	222 + 0	222
Courier 15	223	223 + 0	223
Gothic-Text 15	230	230 + 0	230
Courier 5	244	244 + 0	244
Courier Bld 5	245	245 + 0	245
Courier 17	252	252 + 0	252
Courier Bld 17	253	253 + 0	253
Got.Text 20	281	25 + 1	281
Got.Text 27	290	34 + 1	290
Son.Ser. 7	751	239 + 2	751
Son.Ser. 10	1051	27 + 4	1051
Son.Ser.Bld 10	1053	29 + 4	1053
Son.Ser.It 10	1056	32 + 4	1056
Son.Ser. 12	1351	71 + 5	1351
Son.Ser.Bld 16	1653	117 + 6	1653
Son.Ser.Bld 24	2103	35 + 8	2103

User IDB: &%IDB_EDIT: DEFFNT 11:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 242:11:
 OPTION 243:0:EXIT

8.4. Disable Prop Font Move (Option 118)

Tip: When proportional font handling is allowed (Option Value = No), the print server adjusts each character to obtain the correct width value. This ensures that the individual character width values of the printer's native fonts correspond to the width value which the AS/400 expects the characters to have. This is necessary in order to use bold text, underscored text, and to align the right margin.

Option Value	IDB Value	User IDB parameters	Comments
No *	0	OFF	Use the print server's proportional font handling
Yes	1	ON	Do not use the print server's proportional font handling

User IDB: &%IDB_EDIT: PRPFNTMOV OFF:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 118:0:EXIT

8.5. Character Spacing (CPI—characters per inch)

8.5.1. Compress CPI (Option 128)

This option defines the compression of the horizontal character spacing. The command is used to compensate for the reduced printable area of the printer. The option makes it possible to print 80 characters on a line using 10 CPI, 96 characters on a line using 12 CPI and 120 characters on a line using 15 CPI.

If the option is set to Yes, the CPI is compressed as shown.

$$\begin{array}{l} 10 = 10.2 \\ \text{CPI} > \text{CPI} \end{array}$$

$$\begin{array}{l} 12 = 12.2 \\ \text{CPI} > \text{CPI} \end{array}$$

$$\begin{array}{l} 15 = 15.3 \\ \text{CPI} > \text{CPI} \end{array}$$

Formula for calculating other values:

$$\text{Compress CPI} = \frac{\text{CPI} \times 50}{49}$$

Option Value	IDB Value	User IDB Parameter	Comments
Yes	1	ON	
No *	0	OFF	

User IDB: &%IDB_EDIT: COMCPI OFF:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 128:0:EXIT

8.5.2. Default CPI (Option 100)

This option selects the CPI (characters per inch).

Option Value	IDB Value	User IDB Parameter	Comments
5 CPI	5	5	
10 CPI *	10	10	
12 CPI	12	12	
15 CPI	15	15	
16.7 CPI	16	16	

User IDB: &%IDB_EDIT: DEFCPI 10:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 100:10:EXIT

8.6. Non-Print Char [ASCII] (Option 3)

This option defines the replacement character to substitute for an unprintable character found in the data stream. The character is printed when the AS/400 sends an unprintable character or a character not supported by the print server.

Option Value	IDB Value	User IDB Parameter UNPCHR	Comments
45 * [0..255]	45	45	<p>It is best to choose a value in the ASCII 7-bit character set, decimal range 33-126.</p> <p>There is a table showing the 7-bit character set for decimal values 32-126 in an appendix in the Print Server Administration Manual</p> <p>A hyphen is printed out when the value 45 is used.</p>

User IDB: &%IDB_EDIT: UNPCHR /2D:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 3:45:EXIT

9. [5250 SCS Config#]—Paper Handling

9.1. Source Input (Option 113)

This option selects the paper source input tray. This setting will trigger definitions made by the Source Drawer (SRCDRW) command.

Option Value	IDB Value	User IDB Parameter DEFSRCDRW	Comments
Printer Default *	0	0	
Tray 1	1	1	
Tray 2	2	2	
Tray 3	3	3	
Tray 4	4	4	
Tray 5	5	5	

User IDB: &%IDB_EDIT: DEFSRCDRW 0:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 113:0:EXIT

This option can also be used to choose trays with a higher number (6 - 8). However, this can only be done using IDB commands directly. The IDB commands trigger the events 76 - 78, which correspond to the parameter values 6 - 8. The events can be set to point to any string. The string pointed to should contain a string which selects a specific tray in the printer. Refer to the *IDB Technical Reference* guide for further information.

9.2. Default Paper Orientation (per Tray)

Default paper orientation only works if the corresponding APO/COR function is disabled (see “[COR Action 1 \(Option 123\) - Paper Tray 1](#)” (page 81) and “[COR Action 2 \(Option 124\) - Paper Tray 2 and Above](#)” (page 82))

9.2.1. Default Page Orient 1 (Option 121) - Paper Tray 1

This option defines the page orientation for paper tray 1.

Option Value	IDB Value	User IDB Parameter ORTDRW 1	Comments
No Change	0	DEF	This means no change in relation to the target printer's default.
Portrait Orientation *	1	POR	
Landscape Orientation	2	LAN	

User IDB: &%IDB_EDIT: ORTDRW 1 POR:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 121:1:EXIT

9.2.2. Default Page Orient 2 (Option 122) - Paper Tray 2 and Above

This option defines the page orientation for paper tray 2 and above.

Option Value	IDB Value	User IDB Parameter ORTDRW 1	Comments
No Change	0	DEF	This means no change in relation to the target printer's default.
Portrait Orientation *	1	POR	
Landscape Orientation	2	LAN	

User IDB: &%IDB_EDIT: ORTDRW 2 POR:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 122:1:EXIT

9.3. Forms Media (Option 114)

This option selects the paper tray. The setting will trigger definitions made by the Select Media (SLTMED) command. .

Option Value	IDB Value	User IDB Parameter DEFFRMSEL	Comments
Printer Default *	0	DEF	
Paper Media	1	PAP	
Envelope Med	2	ENV	

User IDB: &%IDB_EDIT: DEFFRMSEL DEF:EXIT
 (In User IDB, SLTMED is subsumed in the DEFFRMSEL command covering forms selection, source drawer and jogging)

Advanced IDB: &%IDB_EDIT: OPTION 114:0:EXIT

9.4. "Output Bin" (Option 115) / Destination Drawer

This option selects the paper output bin. The setting will trigger definitions made by the Destination Drawer (DSTDRW) command.

Option Value	IDB Value	User IDB Parameter DEFDSTRDW	Comments
Printer Default *	0	DEF	
Output Bin 1	1	1	
Output Bin 2	2	2	
Output Bin 3	3	3	

User IDB: &%IDB_EDIT: DEFDSTRDW DEF:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 115:0:EXIT

9.5. Simplex/duplex (Option 116)

This option selects simplex or duplex as the print setting. The setting will trigger definitions made by the Select Simplex/Duplex Printing (SLTSIMDUP) command. The "Duplex (Tumble)" setting is used for pages connected or bound at the top.

Option Value	IDB Value	User IDB Parameter DEFSIMDUP	Comments
Printer Default *	0	DEF	
Simplex	1	SIM	
Duplex	2	DUP	
Duplex (Tumble)	3	TUM	

User IDB: &%IDB_EDIT: DEFSIMDUP DEF:EXIT
 (In User IDB, SLTSIMDUP is carried out
 by the DEFSIMDUP command)

Advanced IDB: &%IDB_EDIT: OPTION 116:0:EXIT

10. [5250 SCS Config#]—Layouts and Page Formatting

10.1. Enable Overlay Call (Option 28) / Page Heading

This option defines if an overlay call (predefined string) is printed on the top of each page. The overlay may contain a call to an electronic form, a macro, or the string stated by the `OVLDRW` command itself. It has a maximum of 255 characters. A string for paper tray 1 and paper tray 2 can be defined.

When the overlay call is enabled, either `OVLDRW` command 1 or 2 will be executed at the top of each page. `OVLDRW` command 1 will be executed if paper tray 1 has been selected and `OVLDRW` command 2 will be executed if paper tray 2 has been selected.

Option Value	IDB Value	User IDB Parameter OVLCAL	Comments
Yes	1	ON	
No *	0	OFF	

User IDB: &%IDB_EDIT: OVLCAL OFF:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 28:0:EXIT

10.2. Move Hor/Ver (Option 158)

This option determines how horizontal and vertical moves are performed.

For further information refer to the *IDB Technical Reference*:

- IDB options 211 - 213 if *escape sequences* (ESC) are used for horizontal movement
- IDB option 238 if *spaces* (SP) are used.

Option Value	IDB Value	User IDB Parameters HORMOV and VERMOV	Comments
Use Line Feed	0	HORMOV SP: VERMOV LF	
Use Escape *	1	HORMOV ESC: VERMOV ESC	
Space + Escape	2	HORMOV SP: VERMOV ESC	
Linefeed + Esc	3	HORMOV ESC: VERMOV LF	

User IDB: &%IDB_EDIT: HORMOV ESC: VERMOV
ESC:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 158:1:EXIT

10.3. Format Control Code (Option 177)

This option is used for enabling and disabling the auto newline feature of the print server.

Troubleshooting Tip:

If the printout is incorrectly double spaced, disabling this option will in most cases solve the problem.

Option Value	IDB Value	User IDB Parameter CTLCODSUP	Comments
Do Not Suppress Auto NL / Suppress Host Generated NL *	0	ON	
Suppress Auto NL / Suppress Host Generated NL	1	OFF	
Do Not Suppress Auto NL / Do Not Suppress Host Generated NL	2	Not available	
Suppress Auto NL / Do Not Suppress Host Generated NL	3	Not available	

User IDB: &%IDB_EDIT: CTLCODSUP OFF:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 177:1:EXIT

10.4. Lines Per Inch and Lines Per Page

10.4.1. Default LPI (Option 105)

This option selects the number of lines per inch (LPI).

Option Value	IDB Value	User IDB Parameter	Comments
3 LPI	3	3	
4 LPI	4	4	
6 LPI *	6	6	
8 LPI	8	8	
9 LPI	9	9	

User IDB: &%IDB_EDIT: DEFLPI 6:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 105:6:EXIT

10.4.2. Lines Per Page (Option 107)

This option defines the number of lines per page.

Option Value	IDB Value	User IDB Parameter	Comments
68 * [1..255]	68	68	

User IDB: &%IDB_EDIT: DEFLPP 68:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 107:68:EXIT

10.5. Max Print Position (Option 102)

This option defines the maximum horizontal print position.

Option Value	IDB Value	User IDB Parameter	Comments
80 * [1..254]	80	80	

User IDB: &%IDB_EDIT: DEFMPP 80:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 102:80:EXIT

10.6. Margins

10.6.1. Left Margin (Option 103)

This option defines the left margin in characters. The character width is either controlled from the host or through the setting in *“Default CPI (Option 100)” (page 65)*.

Option Value	IDB Value	User IDB Parameter	Comments
0 * [1..255]	0	0	

User IDB: &%IDB_EDIT: DEFLFTMRG 0:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 103:0:EXIT

10.6.2. Right Margin (Option 104)

This option defines the right margin in characters. The character width is either controlled from the host or through the setting in *“Default CPI (Option 100)” (page 65)*.

Option Value	IDB Value	User IDB Parameter	Comments
0 * [1..255]	0	0	

User IDB: &%IDB_EDIT: DEFRTGMRG 0:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 104:0:EXIT

10.6.3. Top Margin (Option 108)

This option defines the top margin in lines. The line height depends on the setting in *“Default LPI (Option 105)” (page 75)*.

User IDB: &%IDB_EDIT: DEFTOPMRG 0:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 108:0:EXIT

10.7. Margins in Landscape

10.7.1. Left Margin Lan [1/1440] (Option 86+87)

This option defines the offset to be added to the left margin when printing in Landscape mode. 1 inch = 1440.

Option Value	IDB Value (Option 78 and 79)	User IDB Parameter	Comments
0 * [0..2880]	0 + 0	I 0.00 [0.00..2.00] C 0.00 [0.00..5.08]	The User IDB uses I for inches and C for centimeters.

User IDB: &%IDB_EDIT: LFTOFFLAN I
 0.00:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 86:0: OPTION
 87:0:EXIT

The option values for option 86 and 87 are calculated using the formulas below.

$$87: \frac{\text{Marg. inch} \times 1440}{256} \quad \text{Round off to nearest whole number.}$$

$$86: (\text{Marg. inch} \times 1440) - (256 \times \text{Value stored in option 87})$$

Round off to nearest whole number.

The values stored in option 86 and 87 for a left margin offset in Landscape of 1 inch are calculated like this:

$$87: \frac{1 \times 1440}{256} \approx 5$$

$$86: (1 \times 1440) - (256 \times 5) = 160$$

Tip: Inches can be converted to centimeters by dividing with 0.3937 inch/cm.

10.7.2. Top Margin Lan [1/1440] (Option 88+89)

This option defines the offset to be added to the top margin when printing in Landscape mode. 1 inch = 1440.

Option Value	IDB Value (Option 78 and 79)	User IDB Parameter	Comments
147 * [0..2880]	147 + 0	I 0.10 [0.00..2.00] C 0.26 [0.00..5.08]	The User IDB uses I for inches and C for centimeters.

User IDB: &%IDB_EDIT: TOPOFFLAN I
 0.10:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 88:147:
 OPTION 89:0:EXIT

The option values for option 88 and 89 are calculated using the formulas below.

$$89: \frac{\text{Marg. inch} \times 1440}{256} \quad \text{Round off to nearest whole number.}$$

$$88: (\text{Marg. inch} \times 1440) - (256 \times \text{Value stored in option 89})$$

Round off to nearest whole number.

The values stored in option 88 and 89 for a top margin offset in Landscape of 0.102 inch are calculated like this:

$$89: \frac{0.102 \times 1440}{256} \approx 0$$

$$88: (0.102 \times 1440) - (256 \times 0) \approx 147$$

Tip: Inches can be converted to centimeters by dividing with 0.3937 inch/cm.

11. [5250 SCS Config#]—The APO/COR Function

The print server can rotate the printout from portrait to landscape based on menu option settings. A combination of automatic page orientation (APO) and computer output reduction (COR) is used for this. COR is a feature that allows data processing reports to fit on A4 size paper.

Background information and explanations of how the automatic logic works are found in [“COR/APO Logic \(TN5250E\)” \(page 90\)](#).

11.1. Activation

When COR Action 1 is activated, it overrides the setting in “[Default Page Orient 1 \(Option 121\) - Paper Tray 1](#)” (page 68); similarly, when COR Action 2 is activated, it overrides the setting in “[Default Page Orient 2 \(Option 122\) - Paper Tray 2 and Above](#)” (page 68).

11.1.1. COR Action 1 (Option 123) - Paper Tray 1

When *Enable APO* is selected, the print server calculates the print area required for printing the document. If the document does not fit on the page in portrait orientation, the orientation is changed to landscape.

The *Enable Auto COR* function is an extension of the *Enable APO* function. If the page does not fit after the APO has been performed, the COR function is activated. This is done using the CPI compressions specified with “[Compress CPI \(Option 128\)](#)” (page 64). If the page cannot be made to fit, the setting of “[Default Page Orient 1 \(Option 121\) - Paper Tray 1](#)” (page 68) option is used together with the compressed CPI.

When the *Disable STO* function is selected, all STO commands in the data stream are ignored. STO commands = all text orientation commands.

Option Value	IDB Value	User IDB Parameter CORDRW 1	Comments
Disable	0	OFF	
Enable APO	1	APO	
Enable Auto COR *	2	COR	
Disable STO	3	STODIS	

User IDB: &%IDB_EDIT: CORDRW 1 COR:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 123:2:EXIT

11.1.2. COR Action 2 (Option 124) - Paper Tray 2 and Above

This option defines how the APO/COR function (Automatic Page Orientation/Computer Output Reduction) works for paper tray 2 and above.

With this option it is possible to disable the APO/COR function so that the page orientation change only can be made manually. It is also possible to select between Landscape and Portrait (APO) only, or it can be stated that automatic reduction (COR) is performed after the APO as well.

When *Enable APO* is selected, the print server calculates the print area required for printing the document. If the document does not fit on the page in portrait orientation, the orientation is changed to landscape.

The *Enable Auto COR* function is an extension of the *Enable APO* function. If the page does not fit after the APO has been performed, the COR function is activated. This is done using the CPI compressions specified with "[Compress CPI \(Option 128\)](#)" (page 64). If the page cannot be made to fit, the setting of the "[Default Page Orient 2 \(Option 122\) - Paper Tray 2 and Above](#)" (page 68) is used together with the compressed CPI.

When the *Disable STO* function is selected, all STO commands in the data stream are ignored. STO commands = all text orientation commands.

Option Value	IDB Value	User IDB Parameter CORDRW 2	Comments
Disable	0	OFF	
Enable APO	1	APO	
Enable Auto COR *	2	COR	
Disable STO	3	STODIS	

User IDB: &%IDB_EDIT: CORDRW 2 COR:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 124:2:EXIT

11.2. Text Mode "PPM Quality Disable" (Option 126)

This option controls the text mode used in the APO/COR function.

In the APO/COR function, the print quality parameter is used (text mode on/off) to disable/enable computer output reduction mode.

To print in computer output reduction mode, the print quality must be set to Data Processing (Text mode off). If "Letter Quality" or "Draft" (Text mode on) is selected, the computer output reduction mode will be disabled and the print job will be printed in Portrait orientation (Text mode).

As it will not always be possible to control the print quality of the jobs printed from the AS/400, this option is used to disable text mode. When text mode is disabled, the APO/COR function will ignore the print quality parameter and print all print jobs fulfilling the requirements in computer output reduction mode.

Option Value	IDB Value	User IDB Parameter	Comments
Off *	0	OFF	Normal IBM interpretation.
On	1	ON	Ignore the system TEXT parameter.
Enable APO	2	APO	Observe TEXT parameter in APO as well.

User IDB: &%IDB_EDIT: TXTMOD OFF:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 126:0:EXIT

11.3. COR LSI Reduction % (Option 127)

This option defines the line spacing in Computer Output Reduction mode. The spacing is normally set to 70% of the normal line spacing (100%).

Option Value	IDB Value	User IDB Parameter	Comments
70 * [1..100]	70	70	

User IDB: &%IDB_EDIT: LINSRPED 70:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 127:70:EXIT

11.4. Page Length and Page Width

11.4.1. Page Length [1/1440] (Option 82+83)

This option defines the page length used by the APO/COR to calculate page orientation.

Option Value	IDB Value (Option 78 and 79)	User IDB Parameter	Comments
16848 * [1..65535]	208 + 65	I 11.70 [0.00..45.51] C 29.72 [0.00..115.60]	The User IDB uses I for inches and C for centimeters.

Value for common page lengths include:

Paper sizes	Length in cm	Length in inch.	Option values
A4 *	29.70	11.70	16848
Letter	27.94	11.00	15840
Legal	35.56	14.00	20160
Executive	26.67	10.50	15120

User IDB: &%IDB_EDIT: PAGLNG I 11.70:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 82:208:
 OPTION 83:65:EXIT

The option values for option 82 and 83 are calculated using the formulas below.

$$83: \frac{\text{Length inch} \times 1440}{256} \quad \text{Round off to nearest whole number.}$$

$$82: (\text{Length inch} \times 1440) - (256 \times \text{Value stored in option 83})$$

Round off to nearest whole number.

The values stored in option 82 and 83 for a page length of 11.70 inch are found like this:

$$83: \frac{11.70 \times 1440}{256} \approx 65$$

$$82: (11.70 \times 1440) - (256 \times 65) = 208$$

Tip: Inches can be converted to centimeters by dividing with 0.3937 inch/cm.

11.4.2. Page Width [1/1440] (Option 84+85)

This option defines the page width used by the APO/COR to calculate page orientation.

Option Value	IDB Value (Option 78 and 79)	User IDB Parameter	Comments
11908 * [1..65535]	132 + 46	I 8.27 [0.00..45.51] C 21.00 [0.00..115.60]	The User IDB uses I for inches and C for centimeters.

Value for common page widths include:

Paper sizes	Width in cm	Width in inch.	Option values
A4 *	21.00	8.27	11908
Letter	21.59	8.50	12240
Legal	21.59	8.50	12240
Executive	18.42	7.25	10440

User IDB: &%IDB_EDIT: PAGWDT I 8.50:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 84:132:
 OPTION 85:46:EXIT

The option values for option 84 and 85 are calculated using the formulas below.

$$85: \frac{\text{Width inch} \times 1440}{256} \quad \text{Round off to nearest whole number.}$$

$$84: (\text{Width inch} \times 1440) - (256 \times \text{Value stored in option 85})$$

Round off to nearest whole number.

The values stored in option 84 and 85 for a page width of 8.50

inch are found like this:

$$85: \frac{8.50 \times 1440}{256} \approx 47$$

$$84: (8.50 \times 1440) - (256 \times 47) \approx 208$$

Tip: Inches can be converted to centimeters by dividing with 0.3937 inch/cm.

11.5. Margins

11.5.1. Left Margin COR [1/1440] (Option 78+79)

This option defines the offset to be added to the left margin when printing in Computer Output Reduction mode (COR). COR is a feature that allows data processing reports to fit on A4 size paper. 1 inch = 1440.

Option Value	IDB Value (Option 78 and 79)	User IDB Parameter	Comments
634 * [0..2880]	122 + 2	I 0.44 [0.00..2.00] C 1.12 [0.00..5.08]	The User IDB uses I for inches and C for centimeters.

User IDB: &%IDB_EDIT: LFTOFFCOR I
 0.44:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 78:122:
 OPTION 79:2:EXIT

The option values for option 78 and 79 are calculated using the formulas below.

$$79: \frac{\text{Marg. inch} \times 1440}{256} \quad \text{Round off to nearest whole number.}$$

$$78: (\text{Marg. inch} \times 1440) - (256 \times \text{Value stored in option 79})$$

Round off to nearest whole number.

The values stored in option 78 and 79 for a left margin offset of 0.440 inch are calculated like this:

$$79: \frac{0.440 \times 1440}{256} \approx 2$$

$$78: (0.440 \times 1440) - (256 \times 2) \approx 122$$

Tip: Inches can be converted to centimeters by dividing with 0.3937 inch/cm.

11.5.2. Top Margin COR [1/1440] (Option 80+81)

This option defines the offset to be added to the top margin when printing in Computer Output Reduction mode (COR). COR is a feature that allows data processing reports to fit on A4 size paper. 1 inch = 1440.

Option Value	IDB Value (Option 78 and 79)	User IDB Parameter	Comments
0 * [0..2880]	0 + 0	I 0.00 [0.00..2.00] C 0.00 [0.00..5.08]	The User IDB uses I for inches and C for centimeters.

User IDB: &%IDB_EDIT: TOPOFFCOR I
 0.00:EXIT

Advanced IDB: &%IDB_EDIT: OPTION 80:0: OPTION
 81:0:EXIT

The option values for option 80 and 81 are calculated using the formulas below.

$$81: \frac{\text{Marg. inch} \times 1440}{256} \quad \text{Round off to nearest whole number.}$$

$$80: (\text{Marg. inch} \times 1440) - (256 \times \text{Value stored in option 81})$$

Round off to nearest whole number.

The values stored in option 80 and 81 for a top margin offset of 1 inch are calculated like this:

$$81: \frac{1 \times 1440}{256} \approx 5$$

$$80: (1 \times 1440) - (256 \times 5) = 160$$

Tip: Inches can be converted to centimeters by dividing with 0.3937 inch/cm.

12. COR/APO Logic (TN5250E)

12.1. Background

The print server can rotate the printout from portrait to landscape based on menu option settings.

The distinction is between control of text, orientated according to a set text orientation command (STO) in the data stream (the FCB - format control buffer) and control of the text orientation from the text orientation automatic of the print server. The print server reacts to the page format stated in the FCB. This is found in fanfold lists which are normally printed on matrix printers with wide platens. The automatic controls can easily be tested by using the "Print Screen" key from the system. The screen dump is usually printed in landscape and compressed if the automatic page orientation (APO) and computer output reduction (COR) in the print server is switched on with the CORDRW command.

The focus of this discussion is on how the printer automatic controls operate, as the user does not always have the possibility of defining whether a printout is to be rotated and compressed in the system. It is assumed that no STO commands are present in the data stream from the system. The STO commands always take priority over the automatic controls of the printer.

The following points refer to the ["Page Orientation Logic Flowchart"](#) (page 94), at the end of this chapter.

12.2. How the COR/APO logic works

- 5 The calculation of the page format is based on information found in the FCB.

$$\text{page width (inches)} = \frac{\text{characters per line}}{\text{characters per inch (pitch)}}$$

$$\text{page length} = \frac{\text{line per page}}{\text{lines per inch (LPI)}}$$

These two measures are compared with values set in the `PAGLNG` and `PAGWDT` option settings. The maximum valid page size is specified by a combination of [“Page Length \[1/1440\] \(Option 82+83\)” \(page 85\)](#) and [“Page Width \[1/1440\] \(Option 84+85\)” \(page 86\)](#).

Example:

Use an A4 page format as valid page.

`PAGLNG = A4` and `PAGWDT = A4`

- 6 If the page format stated in the FCB is within (or equal to) the page size settings of the `PAGLNG` and `PAGWDT` option settings, the page size is "valid". In that case the printout will be in landscape provided the page length is smaller than the width, otherwise it will be in portrait. In both cases the font selected by the system is used.
- 7 The page size is "invalid" if either the page width or the page length from the system exceeds the size configured in the print server. The result is a compressed landscape printout by means of the COR algorithm in the print server.
- "Vertical spacing" is reduced from normal line spacing to a percentage value according to the `LINSURED` option setting. Refer to [“COR LSI Reduction % \(Option 127\)” \(page 84\)](#).

- Margins (offset) are set according to the LFTOFFCOR and TOPOFFCOR option settings. Refer to “[Page Length \[1/1440\] \(Option 82+83\)](#)” (page 85) and “[Page Width \[1/1440\] \(Option 84+85\)](#)” (page 86)
 - 10 pitch fonts are reduced to 13 pitch (font type stated in font table position no. 51)
 - 12 pitch fonts are reduced to 15 pitch (font type stated in font table position no. 52)
 - 15 pitch fonts are reduced to 20 pitch (font type stated in font table position no. 53)
 - Other pitch sizes are compressed to the nearest smaller font.
- 8 Most program applications normally have a set of standard values for page length, characters per line etc. The user might have few or no possibilities of changing, e.g., the number of characters per line, which is normally set to 132 characters. Therefore a final control exists, which allows the user to prevent a compressed landscape printout and force it into portrait with a font selected by them.

Portrait can be forced with one of the statements below.

- TEXT=YES or ROTATE=0 for System/36 OCL.
- PRTQLTY (*STD) or (*NLQ) or PAGRTT(0) for System/38 CL and AS/400.

Note: If only APO is enabled in the CORDRW 1 and CORDRW 2 options the statements TEXT/PRTQLTY forces the printout into landscape. The ROTATE/PAGRTT forces the printout into portrait if only APO is enabled.

The previously mentioned "screen dump" will use the default printer profile on the AS/400 for the device. On the AS/400 it is possible to affect the system print parameters in the FCB by changing the printer file containing default settings for the device. This is done by either changing the existing system printer file QSYSPT (CHGPRTF FILE(QSYSPT)) or creating your own printer file (CRTPRTF). Please consult your AS/400 manuals for information on this subject. Defining the printer file

to make the COR is normally done in connection with IPDS page printers as these printers do not support the APO/COR function.

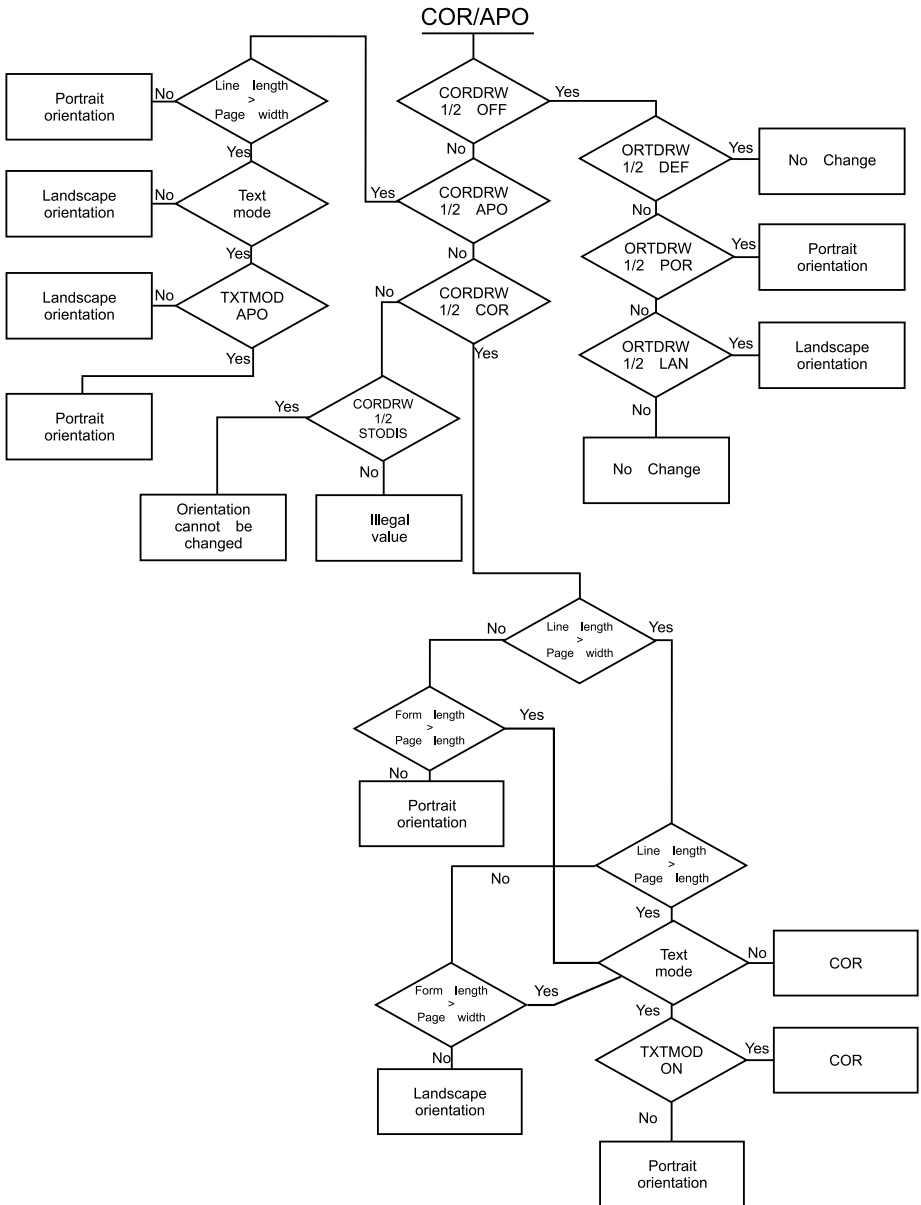
If the APO/COR is disabled (`CORDRW 1/2 = OFF`), the `STO` command will control the rotation of the printout. This means that if a landscape print job controlled by the `STO` command is received, and this is followed by a print job without the `STO` command, then the second job is affected by the `STO` command received with the first job. The result is a landscape printout. This is the only way an original IBM 3812 can operate. However, a default page orientation can be set with the `ORTDRW #` option. Refer to [“Default Page Orient 1 \(Option 121\) - Paper Tray 1” \(page 68\)](#) and [“Default Page Orient 2 \(Option 122\) - Paper Tray 2 and Above” \(page 68\)](#) for paper tray 1 and 2, respectively.

Example:

Disable COR and set Portrait as default orientation for drawer 2 only.

```
CORDRW 2 = OFF and ORTDRW 2 = POR
```

Page Orientation Logic Flowchart



13. Extended Configuration with IDB

13.1. Introduction

This chapter covers the following topics:

13.1.1. Working Directly with IDB Commands

Each option description shows the syntax for setting an option directly with an IDB command. To use this, you should consult [“How to Send IDB Commands From the Host” \(page 96\)](#).

The following sections give a more general understanding of the possibilities.

- [“Syntax” \(page 97\)](#)
- [“Special Commands” \(page 99\)](#).

Important:

Working directly with IDB commands will often require more information than we have printed here. You may need to consult the *Intermate IDB Technical Reference* (document no. GG-013-x). This manual is found on the CD and on our web-site.

13.1.2. Changing CSC and Delimiter Characters

The sections on [“Using \[5250 SCS Config#\] to Change CSC and Delimiters characters” \(page 100\)](#) may be useful for non-specialists who often print jobs in which it is inconvenient to reserve the characters used default as symbols in IDB commands.

13.2. How to Send IDB Commands From the Host

For minor alterations, type the IDB command(s) on the host terminal at the command prompt. Submit a "Print Screen" to the printer you want to adjust.

If you want to send several commands, but don't need to overhaul the whole configuration (as you might do by working with whole IDBs), you might want to use the following method to embed IDB commands into a data stream:

Create a file with a text editor. If you don't have a job you want printed, but do want to affect settings for later jobs, or if you want to test your commands before running an actual job, just include some kind of printable text after the commands.

Send the file as a print job.

The job that comes out will have run the IDB commands. Inspect the print-out. If the IDB commands print, check the commands for spelling and syntax errors, make corrections and run the job again.

13.3. Syntax

There are two IDB Languages.

With the Advanced IDB Command Language (also called "Advanced IDB Language" or just "Advanced IDB"), you can set any and all IDB Options and Events.

5250 users have an additional programming tool in the form of the User IDB Command Language ("User IDB"). Its syntax is similar to that used in native AS/400 commands. The User IDB is a shell to a selected set of Advanced IDB commands. This means that not all options can be set this way; you will have to use Advanced IDB in some situations.

13.3.1. Types of Command Strings

There are two basic types of command strings:

"Commands in Edit Mode" (page 97)

Commands in Edit Mode (sometimes called Configuration Mode) are used to change the settings of parameters in all kinds of IDB Tables. After the options are saved, they will be active on the next SCS job.

"Special Commands" (page 99)

These commands have a number of functions outside the normal sphere of configuration.

13.3.2. Commands in Edit Mode

The commands used for entering (&%IDB_EDIT:) and leaving Edit Mode (EXIT or QUIT) are common to the two languages.

EXIT or QUIT causes options to be saved, but for some commands, activation requires recycling the printer power.

Editing commands have three parts, the lead-in, the setting(s), and the lead-out.

Example - see next page:

Example

Set Option 1 to the value 2.

```
&%IDB_EDIT: OPTION 1:2: EXIT
```

- 1 The lead-in string and the command to start Edit Mode is
&%IDB_EDIT:

We call the &% lead-in string the CSC, where CSC stands for "Command String Characters", the first being option 8 and the second option 9

- 2 Information on the option or event for which a value is to be set. This information is composed with two elements:

OPTION n: (or EVENT n:) where n is the Option Number or Event Number.

This element must end with an IDB Edit Delimiter, which is usually a colon (this can be changed using Option 7, but we recommend not doing so).

x: where x is the Value or Settings Number. This element must also end with an IDB Edit Delimiter.

- 3 The lead-out string, which is EXIT or QUIT.

You may insert as many settings as you like between a lead-in string and a lead-out string, as long as each setting ends with an IDB Edit Delimiter.

Example:

Set "Power Up Time - Extra Delay at Power On" to wait 120 seconds and the number of minutes to wait before sending the "Intervention Required" signal to the host to 5.

```
&%IDB_EDIT: OPTION 20:120: OPTION 21:5:  
EXIT
```

All configuration options must be separated by a colon. Line feed, form feed etc. should be avoided, but are in some cases accepted.

13.4. Special Commands

"Special commands" have only two parts:

- The lead-in string written in the table below as <CSC>. Default is &%, but this can be changed as explained below.
- The command itself

The table shows all command strings for Advanced IDB, except EXIT/QUIT.

With the exception of the command for entering IDB edit mode, all of the commands on the list are all "special commands".

Precedence	Command	Comments
5	<CSC>IDB_EDIT	Enter IDB edit mode
5	<CSC>IDB_PRINT	Dump IDB (small format). Prints all options, events and strings in the active IDB.
5	<CSC>IDB_PRINT_FULL	Dump IDB (large format). Prints the complete IDB including inactive options and events.
5	<CSC>/...	Enter Intermate transparent mode
5	<CSC>+<CSC>	Suppress format control codes
5	<CSC>-<CSC>	Standard handling of format control
5	<CSC>{XY}....	Enter special transparent mode (X = Option 171, Y = Option 172)
2	<CSC><CSC>	Double CSC (prints <CSC>)
1	<CSC>{XY}	Single or Multibyte transparent character
5	<CSC>IDB_STATUS	Print status dump
5	<CSC>IDB_FONT	Print font list
5	<CSC>-X	Trig event no. X
<p>Notes: Large numbers indicate higher precedence. <CSC> represents the Command String Characters. The default CSC is "&%", but they may be changed. IDB First Character (Option 8) and IDB Second Character (Option 9). See next section.</p>		

13.5. Using [5250 SCS Config#] to Change CSC and Delimiters characters

The CSC is the unique two-character sequence must be used every time IDB commands are sent to the print server. It can also be used for passing single hex values to the printer, e.g. `&%1B = <esc>`.

If you need to print a lot of ampersands & or percent characters %, you may want to change one or both of the characters in the CSC (Command String Characters) sequence.

The character used should be chosen from the ASCII 7-bit character set in the decimal range 33 -122. There is a table showing the 7-bit character set for decimal values 32 -126 in an appendix in the Print Server Administration Manual.

- Note for specialists: The CSC is also used in front of the Lead-in characters defined with option 171 and 172; see the *IDB Technical Reference*.

13.5.1. CSC "IDB First Char" (Option 8)

Option Value	IDB Value	User IDB Parameter	Comments
& *	38 [ampersand]	Not supported	<i>ASCII character as described above</i>

User IDB: Not supported

Advanced IDB: `&%IDB_EDIT: OPTION 8:38:EXIT`

13.5.2. CSC "IDB Second Char" (Option 9)

Option Value	IDB Value	User IDB Parameter	Comments
% *	37 [percent]	Not supported	<i>ASCII character as described above</i>

User IDB: Not supported

Advanced IDB: `&%IDB_EDIT: OPTION 9:37:EXIT`

13.5.3. CSC "Ignore Second IDB Char (Use Option 8 only)"

This option controls whether the character defined with the CSC "IDB Second Char" (Option 9) option should be ignored.

Option Value	IDB Value	User IDB Parameter	Comments
Yes	Not supported	Not supported	
No *	Not supported	Not supported	

It is also possible to limit the CSC character sequence to a single character by using the *Advanced IDB* command line below, which does **not**, however affect the setting of "Ignore Second IDB Char".

Advanced IDB: &%IDB_EDIT: OPTION 9:0:EXIT

13.5.4. "IDB Delimiter" (Option 7)

This option defines the delimiter used in the User IDB and Advanced IDB command languages to separate programming commands.

Option Value	IDB Value	User IDB Parameter	Comments
.*	58 [colon]	Not supported	ASCII character as described above (page 100).

User IDB: Not supported

Advanced IDB: &%IDB_EDIT: OPTION 7:58:EXIT

AFP/IPDS

14. Introduction to the IPDS Options

14.1. Overview

AFP/IPDS printing is supported over the TCP/IP protocol PPD/PPR. The print server automatically detects installed media sized, duplex, etc. by means of the HP PageJob Language (PJM). PJM is also used to monitor page counting while printing, thus providing an exact reporting to the host PSF.

The IPDS HPO allows the host to address the optional input trays and output bins of the printers, allowing the user to assign IPDS IBM-IDs individually to different trays and bins. You can print to any PCL5 or PCL5e compatible printer.

It is possible to configure one IPDS host session (service).

You can direct your IPDS print directly towards the local printer or (providing you have the Network Destination Option, NDO) towards a network printer.

If you want data manipulation, you must first choose and configure a logical printer which, in turn, carries the data stream to the target printer. If you need help in understanding these concepts, please consult the Print Server Administration Manual

The IPDS-related information in this manual starts with a chapter on how to configure an IPDS printer on the host running an OS/400 system. .

On the print server, there are three configuration pages to work with in the "IPDS Option" Sub-Group, and each of these is described in its own chapter:

- [IPDS]. This is where you enable IPDS printing, choose IPDS emulation and codepage, choose a target printer (or a logical printer, which in turn selects the target printer), and configure the target printer. See [page 115](#).
- [IPDS Margins]. This is used for fine adjustment (offset) of left and top margins for simplex, duplex front side of paper; and duplex back side of paper. It is possible to define settings to be used for all cassettes (input trays) or settings to be used on individually specified

cassettes (up to 8 in all). If you combine these two types of settings, the individual specifications are added to the settings for all cassettes. Finally, this configuration page allows you to adjust left and top margins for envelopes. See [page 136](#).

- [IPDS Mappings]. Our print servers support many different kinds of printers, and this means that PCL values are used in many different ways. The [IPDS Mappings] page allows you to map paper sources requested by the host to paper sources available on the target printer; and to map output bins requested by the host to output bins available on the target printer. See [page 141](#).

Our print servers are delivered with two alternative font sets whose use depends on the emulation you use. The final chapter in the IPDS section describes these font sets and tells you how to manage their use. See [page 147](#).

14.2. Practical Matters

14.2.1. Enabling IPDS Printing

Enabling IPDS printing without a *License Key* opens the printing feature in test mode only, and a "DEMO MODE" banner will appear on each printed page. Production printing is enabled by entering a *License Key*. Consult the Print Server Administration Manual for information on how to do this.

14.2.2. Upgrades and Print Server Differences

G32 (*Intermate101*)

The product was first publically released in January 2002.

G22 (*Intermate100*)

If you are upgrading from a main firmware version without IPDS functionality (G22_0131 or older), you will have to copy the font file font300.ffs or font240.ffs (F09-8481 or F08-8481) via FTP to the "IPDSFONT" directory in the print server. See [page 148](#).

K92 (*Intermate LAN FS3*): Upgrades

If you want to update main firmware (K92), you must be sure that your boot firmware is K91_1071 (February 2001) or higher before upgrading the main code. If you fail to do this, the special IPDS component (K65) in this print server will be deleted and will have to load it manually.

***Intermate LAN FS3* (K92): Special Printer Requirements**

IPDS printing can be enabled in the following monochrome printers:

FS-600, -680, -800, -1000, -1200, -1700+, -1750, -1800, -3700+, -3750, -3800, -6700, -6900, -7000, -7000+, -9000.

Use the newest available firmware. The printer will stall unless it has 12-16 MB RAM **before** you install the *Intermate LAN FS3*.

14.3. Status Information and Troubleshooting

Always check settings before beginning to print.

You can do this easily by printing the *Main Status Pages* as described in the *Print Server Administration Manual*.

You should also check the country-specific settings, "*IPDS Codepage*" ([page 117](#)).

IPDS error messages in the *System Log* have the keyword IPDS in them and usually concern fonts.

For products based on G22 or K92, but not G32, there is also a *Trace Function* which can be used in connection with problem localisation. It is typically used on request from technical support personnel. See [page 155](#).

15. IPDS Host Side (AS/400) Setups

15.1. Introduction

This chapter describes how to set up an AS/400 (including necessary software components) so you can send IPDS data via a TCP/IP connection to the print server, and from there to any one of five designated printers (being able to print to more than one printer requires the Network Destination Option, NDO).

The following sample configurations are described:

[“Printer Device Configuration - V3R1” \(page 108\)](#)

[“Printer Device Configuration - V3R2” \(page 111\)](#)

[“Printer Device Configuration V3R7 - V4R3” \(page 113\)](#)

In addition, the following common procedure is described:

[“Testing and Starting the Printer” \(page 114\)](#)

In the following examples we will use

- IMA100 as the device name for the (in some contexts, this will be thought of as a host name) 192.168.0.227 as the IP address for the

15.2. Printer Device Configuration - V3R1

System requirements for OS/400 V3R1

- OS/400 V3R1 Modification 0
- PSF/400
- PTF/FIX SF27170 or newer
- TCP/IP configured and loaded

It is important that you use the latest cumulative PTF package which includes the command interface called `WRKAFF2`.

Installing WRKAFF2 on AS/400 V3R1

The PTF/FIX SF27120 (or newer) includes the command `QSYS/QPQXWAFP`. This provides an interface to a data area used by PSF/400 to obtain additional configuration information not provided through use of the native `CRTDEVPR` command. `QPQXWAFP` creates a data area in the library `QGPL` with authority of `*LIBCRTAUT`.

The following instructions assume you have the physical source file `QCLSRC` and the AS/400 applications PDM and SEU in order to create the command.

- 1 Enter the command below and press <Enter>.
`WRKMBRPDM QGPL/QCMDSRC`
- 2 Press <F6> to create a new member. Name it `WRKAFF2` with type `CMD` and give it a suitable description. Press <Enter>.
- 3 You now have the SEU edit screen. Press <F15> to Browse/Copy member.

4 Select:

Selection: I = Member
 Copy all records: N
 Member: QSF29249
 File: QAPZCOVER
 Library: QGPL

Press <Enter>. This should give you a split screen.

- 5** At the command line for the screen type `F `WRKAFF2 : CMD`` and press <Enter>. After the character string is located, press <F16> twice. You will see a line that begins with "`WRKAFF2 : CMD`". Type `CC` in the control space (line no.) at the beginning of the line.
- 6** Now go to the end of the program. Type `B` at the command line to go to the end of the member. Type `CC` in that line.
- 7** Move the cursor back to the new member you are creating and type `A` at the first line. Press <Enter>.
- 8** Press <F12> to end the split screen. <F3> to end the edit session and <Enter> to save the new source.
- 9** You must now compile the command. It can be compiled by entering the following command:

```
CRTCMD CMD(QGPL/WRKAFF2)PGM(QSYS/QPQXWAFP)
SRCFILE(QGPL/QCMDSRC)
```

After the command has been successfully compiled, you are ready to use the `WRKAFF2` command.

To set up the AS/400

In the following instructions all values and characters such as `'` and `*` should be entered exactly as listed—except for the bolded values (for `CRTDEVPRT` `DEVD` and IP address, and possibly the value for `FONT`).

- 1** Create a device description.

Type the following CL command string at the command line.

```
CRTDEVPRT DEVD() DEVCLS(*RMT)
TYPE(*IPDS) MODEL(0) AFP(*YES)
AFPATTACH(*APPC) FONT(011)
PRTCVT(*YES) RMTLOCNAME(TCPIP)
```

If you can not fit all CL parameters on the command line, just type the command `CRTDEVPRT` and press <F4> (prompt). This brings up a menu, where you can fill in the CL parameters. The parameters and their values are listed in this menu. Pressing <F11> displays the keywords used in the above command. For additional information, place the cursor on a specific item and press <F1> for help.

2 Create a TCP/IP PSF Configuration.

A special command has to be used, in order to create a PSF configuration object for specifying a TCP/IP-attached printer.

The command `WRKAFF2` adds the values for remote location and TCP/IP port which are missing in the `CRTDEVPRT` command. It overrides the SNA configuration parameters specified in the printer device description, which were created in the previous step.

```
WRKAFF2 DEVD() TCPIP(*YES)
RMTSYS('192.168.0.227') PORT(5001)
ACTTMR(170) INACTTMR(*NOMAX)
```

If you cannot fit all CL parameters on the command line, just type the command `WRKAFF2` and press <F4> (prompt). This brings up a menu, where you can fill in the CL parameters. The parameters and their values are listed in the menu. Pressing <F11> displays the keywords used in the above command. For additional information, place the cursor on a specific item and press <F1> for help.

3 Proceed with section *"Testing and Starting the Printer"* (page 114).

15.3. Printer Device Configuration - V3R2

System requirements OS/400 V3R2

- OS/400 V3R2
- PSF/400
- TCP/IP configured and loaded
- PTF/FIX C6317320 or newer

A complete description of how to install and configure a TCP/IP attached LAN printer on V3R2 can be found in the IBM manual *AS/400 Advanced Series, Printer Device Programming Version 3, Document Number SC41-3713-01*.

In the following instructions all values and characters such as ' and * should be entered exactly as listed—except for the bolded values (for CRTDEVPRT DEVD and IP address, and possibly for the value for FONT).

To set up the AS/400

- 1 Create a device description.

Type the following CL command string at the command line.

```
CRTDEVPRT DEVD() DEVCLS(*RMT)
TYPE(*IPDS) MODEL(0) AFP(*YES)
AFPATTACH(*APPC) FONT(011)
PRTCVT(*YES) RMTLOCNAME(TCPIP)
```

If you can not fit all CL parameters on the command line, just type the command `CRTDEVPRT` and press <F4> (prompt). This brings up a menu, where you can fill in the CL parameters. The parameters and their values are listed in the menu. Pressing <F11> displays the keywords used in the above command. For additional information, place the cursor on a specific item and press <F1> for help.

2 Create a TCP/IP PSF Configuration on the AS/400.

A special command has to be used, in order to create a PSF configuration object for specifying a TCP/IP-attached printer.

The command `WRKAFP2` adds the values for remote location and TCP/IP port which are missing in the `CRTDEVPRT` command. It overrides the SNA configuration parameters specified in the printer device description, which were created in the previous step.

```
CRTPSFCFG PSFCFG()  
RMTLOCNAME('192.168.0.227') PORT(5001)  
ACTTMR(170) RLSTMR(*NOMAX)
```

If you cannot fit all CL parameters on the command line, just type the command `CRTPSFCFG` and press <F4> (prompt). This brings up a menu, where you can fill in the CL parameters. The parameters and their values are listed in the menu. Pressing <F11> displays the keywords used in the above command. For additional information, place the cursor on a specific item and press <F1> for help.

3 Proceed with section [“Testing and Starting the Printer”](#) (page 114).

15.4. Printer Device Configuration V3R7 - V4R3

System requirements OS/400 V3R7

- OS/400 V3R7
- PSF/400
- TCP/IP configured and loaded

In the following instructions all values and characters such as ' and * should be entered exactly as listed—except for the bolded values (IP address and possibly the value for ACTTMR).

To set up the AS/400

- 1 Create a device description.

Type the following CL command string at the AS/400 command line.

```
CRTDEVPRT DEVD() DEVCLS(*LAN)
TYPE(*IPDS) MODEL(0) LANATTACH(*IP)
AFP(*YES) PORT(5001) FONT(011)
PRTCVT(*YES) RMTLOCNAME('192.168.0.227')
ACTTMR(170)
```

If you can not fit all CL parameters on the command line, just type the command `CRTDEVPRT` and press <F4> (prompt). This brings up a menu, where you can fill in the CL parameters. The parameters and their values are listed in the menu. Pressing <F11> displays the keywords used in the above command. For additional information, place the cursor on a specific item and press <F1> for help.

- 2 Proceed with section [“Testing and Starting the Printer”](#) (page 114).

15.5. Testing and Starting the Printer

Except for the bolded values (IP address and device name), all values and characters such as ' and * should be entered exactly as listed.

To test and start the printer

- 1 Verify the TCP/IP Connection.
PING RMTSYS('192.168.0.227')
- 2 Vary the device ON.
VRYCFG CFGOBJ() CFGTYPE(*DEV)
STATUS(*ON)
- 3 Start the Printer Writer.
STRPRTWTR DEV()
- 4 Change your Login job to use the printer as default.
CHGJOB OUTQ()
- 5 Make a test print (for example your *User Profile*).
PRTUSRPRF

16. [IPDS] Basic Configuration Page

An asterisk in " * " indicates the factory default setting.

The parameters are presented in the same order as they appear on the HTTP-menu.

16.1. Enable IPDS Printing and Select TCP Port

16.1.1. Enable IPDS Printing

If an IPDS *License Key* has been entered, IPDS is enabled in production printing mode. Otherwise it is enabled in test mode, which means the banner text "DEMO MODE" is printed on each IPDS page.

Value	Comments
Yes	Enable IPDS printing.
No *	Disable IPDS printing. Note concerning the <i>Intermate LAN FS3</i> : This means that no API code is downloaded to the printer.

16.1.2. IPDS TCP Port

This parameter selects the TCP port used for IPDS printing on the target printer.

Value	Comments
5001 * [1024..65500]	Other commonly used port numbers are 3700 and 9600.

16.2. IPDS Timeout and IPDS Emulation

16.2.1. IPDS Timeout

This parameter prevents the print server from activating another logical port on the target printer during host printing. The setting value indicates the time in seconds from the latest host data is received until the first pending job is printed.

Troubleshooting tip:

If bits of job language commands (for example PCL or Postscript commands, or on Kyocera printers Prescrib L) appear in the middle of a host print, you should increase the setting of this parameter.

Value	Comments
30 * [30..255]	The time is measured in seconds.

16.2.2. IPDS Emulation

This parameter selects the IBM printer emulation to be used by the print server.

Value	Comments
3812	IBM 3812/3816 (240 dpi only). The 3812 and 3816 replies are identical. If for instance duplex is enabled, then this is reported to the host independently of the emulation.
3916 *	IBM 3912/16; 3112/16 (300 dpi only)
4028	IBM 4028 (300 dpi only)

If an emulation which uses another font resolution than the current is selected, another font file must be downloaded via FTP, because the print server only has room for one font file (the procedures are described in [“IPDS Font Management”](#) (page 147)).

16.3. IPDS Codepage

This parameter controls what code page is used. See also [“IPDS Codepage ver.” \(page 119\)](#).

Code Page	Value	Comments
500 *	IntSet5	International Set 5 (multinational)
37	USA/Can	USA/Canada
256	IntSet1	International Set 1
259	SymSet7	Symbol Set 7
260	Can French	Canadian French
273	Aus/Ger	Austria/Germany
274	Belgian	Belgium
275	Brazil	Brazil
277	Den/Nor	Denmark/Norway
278	Fin/Swe	Finland/Sweden
280	Italy	Italy
281	Japan Eng	Japan-English
282	Portugal	Portugal
284	Spain Spk	Spanish Speaking
285	UK	United Kingdom
286	Aus/Ger Alt	Austria/Germany (alternate)
287	Den/Nor Alt	Denmark/Norway (alternate)
288	Fin/Swe Alt	Finland/Sweden (alternate)
289	Spain Alt	Spain (alternate)
290	Japan Kat	Japan-Katakana
293	APL	APL
297	France	France
500	-	Reserved 340 OCR

Code Page	Value	Comments
361	Int Typo	International Typographic
437	PC	Personal Computer
37	Portugal Alt	Portugal (alternate)
871	Iceland	Iceland
892	OCRA	OCR-A
893	OCRB	OCR-B
37	Can Bil	Canadian Bilingual
500	Swiss Bil	Swiss Bilingual
284	Spain	Spanish
1026	Turk1	Turkey
905	Turk2	Turkey
423	Greek1	Greece
875	Greek2	Greece
Code pages with Euro Support are shown below this line		
1140	USA EU	USA/Canada
1141	Aus/Ger EU	Austria/Germany
1142	Den/Nor EU	Denmark/Norway
1143	Fin/Swe EU	Finland/Sweden
1144	Italy EU	Italy
1145	Spain Spk EU	Spain
1146	UK EU	United Kingdom
1147	France EU	France
1148	Multi Lang EU	Multinational
1149	Iceland EU	Iceland

16.4. IPDS Codepage ver.

This parameter controls which code page version is used.

Note:

The code pages differ on a few special characters. Refer to the *IBM font reference manual* for details.

Value	Comments
Ver. 0	Use old code page version 0.
Ver. 1 *	Use standard code page version 1 for code pages close to 37 or 500 (non typographic standard code pages).

16.5. Exception Override and Enable IR Reply

16.5.1. Exception Override (= Exception Suppression)

This parameter overrides/ suppresses the error reporting known as Exception Handling Control (EHC) in the IPDS data stream.

It is often practical to suppress exception reporting on undefined characters and on position errors (printing outside the valid printable area).

Value	Comments
None *	No suppression of exceptions.
Position	Exception reporting for position errors (outside VPA) is suppressed.
Undefined	Exception reporting, when an undefined character is found, is suppressed.
Both	Both position errors and undefined character exceptions are suppressed.

16.5.2. Enable IR Reply

This parameter allows you to enable or disable "intervention required" reporting to the PSF when paper out, paper jam or other incidents needing user intervention occur.

Value	Comments
Yes *	Interventions are reported.
No	Interventions are NOT reported.

16.6. Page Count Update

This parameter controls when the page counter for the target printer is updated.

Value	Comments
Early*	Update the page counter after pages have been <i>processed</i> . This usually gives the maximum print speed.. If the printer does not support bidirectional printing, the fall-back setting on external servers will be Trans.
Trans	External servers only (G22, G32): Update the page counter after pages have been <i>transferred</i> or sent to the printer. This setting will be forced if the target printer does not support bidirectional printing.
Late	Update the page counter after pages have been <i>printed</i> . External servers only (G22, G32): Do not use this setting if you are printing to a local printer working in "Compatible Mode" — set in [Local Printer Parallel Port], "Parallel Port IEEE P1284 Negotiation Mode".

Troubleshooting tip:

If the host doesn't receive a message when an IPDS job is finished printing, check the "Page Count Update" parameter. The setting will probably be "Late", and if so, the solution to the problem is to change the setting to "Early" and then reboot.

16.7. Resource Memory

This parameter controls the allocation of memory between the IPDS resource memory and the output buffer used for pages ready for print.

Increasing resource memory can be a good idea if you are printing large IPDS jobs with many downloaded fonts, page segments and overlays.

Value	Comments
Normal *	Normal memory allocation.
Less	Allocate less memory for resource memory but more for output buffer.
More	Allocate more memory for resource memory but less for output buffer.

16.8. Printable Area

This parameter controls reporting of printable area and logical corners, which is reported in the IPDS Obtained Printer Characteristics reply on the 4028 emulation .

Value	Comments
3816	Normal. Printable area and paper size is the same.
4028 *	4028 <i>compatible</i> . Printable area is smaller than the paper size, thereby allowing the host to compensate for the reduced printable area of the printer.
Page	4028 <i>Print Page</i> . The upper left corner (0,0) of the Logical Page is forced inside the 4028 Printable Area.

16.9. Enable MICR Reply

This parameter allows you to enable or disable magnetic ink printing being reported to the host.

Value	Comments
Yes	Magnetic ink is supported.
No *	Magnetic ink is NOT supported.

16.10. Enable Output Jogging

This parameter tells the IPDS emulation if jogging should be performed. Refer also to [IPDS Mappings] > [“Output Mappings” \(page 145\)](#). .

Value	Comments
Yes	Enable the use of the JOG command.
No *	Disable the use of the JOG command. The print server continues to report to the host that it is capable of jogging. Note: This setting does NOT disable the use of a stacker.

16.11. Skip Blank Pages

This parameter allows you to choose whether or not to skip the printing of valid blank pages.

Value	Comments
Yes	Skip printing of valid blank pages.
No *	Print valid blank pages.

16.12. Rotate Simplex Pages

This parameter allows you to rotate simplex pages 180 degrees relative to duplex pages.

The option is intended for use with mixed printing of simplex and duplex jobs or letterhead paper on printers feeding the paper on the long edge.

Value	Comments
Yes	Rotate the paper 180 degrees.
No *	Do NOT rotate the paper.

16.13. Cass Select On All Pages

Note: This option is only for use on certain older Kyocera printers (for example the FS-3750 printer when using printer firmware version 56.08). The option was provided as a work-around to paper being taken randomly from wrong cassettes when printing certain kinds of single page IPDS jobs.

This parameter allows you to enable cassette selection on each page.

Value	Comments
Yes	Force cassette selection on each page instead of only when switching between different cassettes. This decreases print speed.
No *	Disable cassette selection on each page.

16.14. Cass Linking

This setting works together with the printer's automatic linking setting, enabling automatic switching between the printer's input cassettes when one cassette runs out of paper.

The printer's linking setting is set up using the printer's control language.

The printer's linking parameter and the setting for the print server's "Cass Linking" parameter must have the same setting in order for the linking to function properly.

The tables below show the possible settings from within the print server.

Value	Comments
No_Link *	Do NOT link any cassettes, i.e. do not switch cassette when the current cassette runs out of paper.
1, 2	Link cassettes 1 and 2. When the current cassette is reported empty, paper is fed from the alternative cassette. If the current cassette is no. 1, cassette no. 2 is used when this is empty or vice versa.
3, 4	Link cassettes no. 3 and 4 in the same manner as described for "1,2."
5, 6	Link cassettes no. 5 and 6 in the same manner as described for "1,2"
1 to 4	Link cassettes 1, 2, 3 and 4. When the current cassette is reported empty, paper is fed from the alternative cassettes, starting from the bottom. If printing is done from cassette no. 1, cassette no. 4 is used when cassette no. 1 runs out of paper. If cassette no. 4 also is empty, cassette no. 3 is used and so on.
3 to 6	Link cassettes 3, 4, 5 and 6 in the samme manner as described for "1 to 4".
1, 2, 5, 6	Link cassettes no. 1, 2, 5 and 6 in the samme manner as described for "1 to 4".
1 to 6	Link cassettes no. 1, 2, 3, 4, 5 and 6 in the samme manner as described for "1 to 4".

Refer to your printer documentation for details about your printer's language and how to send commands to the printer.

16.15. Duplex Printing

This parameter controls the reporting of duplex printing capabilities to the host.

Note:

G22 and K92: Before release level 1071, the default was auto detect. Because the product can now support network printers as well as a local printer, the auto detect has been removed. If you have used an earlier version and set "Duplex Printing" to "Auto", the setting will change to the new default "Simplex" when you do the firmware upgrade.

Value	Comments
Simplex *	Do NOT report duplex capabilities to the host, even if the duplex unit is physically present. All pages are printed in simplex.
Duplex	Force duplex capabilities to be reported to the host. If duplex support is missing duplex pages are printed in simplex.

16.16. Paper Types (LAN FS3 - K92 only)

The [IPDS] configuration page for this print server includes the parameters for setting paper types. Paper types for the other print servers are set on the [IPDS Mappings] configuration page (see [“Paper Types \(External Print Servers Gxx\)”](#) (page 144)) because of a very close association between paper type and input cassette.

You can set paper types for the following 8 trays, depending, of course, on what is how many cassettes are installed on the target printer.

- MP Tray (MP = Manual Paper)
- Cass1
- Cass2
- Cass3
- Cass4
- Cass5
- Cass6
- Manual Feed (or Envelope Feed)

Paper Types for the LAN FS3 (K92)	
Value	Comments
NONE	No paper type reported to the host.
AUTO *	Auto detect (equal to the paper type in the auto-cassette)
MONARCH	Monarch envelope (4.125 x 7.5 inch)
BUSINESS	Business envelope (4.125 x 9.5 inch)
DL	DL envelope (11 x 22 cm)
C5	C5 envelope (16.2 x 22.9 cm)
EXEC	Executive (7.25 x 10.5 inch)

Paper Types for the LAN FS3 (K92)	
Value	Comments
LETTER	US letter (8.5 x 11 inch)
LEGAL	US legal (8.5 x 14 inch)
A4	A4 (21 x 29.7 cm)
JIS B5	JIS B5 (18.2 x 25.7 cm)
A3	A3 (29.7 x 42 cm)
B4	B4 (25.7 x 36.4 cm)
LEDGER	US ledger (11 x 17 inch)
A5	A5 (14.8 x 21 cm)
A6	A6 (10.5 x 14.8 cm)
JIS B6	JIS B6 (12.8 x 18.2 cm)
COMM_9	Commercial envelope no. 9 (3.875 x 8.875 inch)
COMM_6	Commercial no. 6 (3.625 x 6.5 inch)
ISO B5	ISO B5 envelope (17.6 x 25 cm)
CUSTOM	Custom (11.7 x 17.7 inch)
C4	C4 (22.9 x 32.4 cm)
HAGAKI	Hagaki (10 x 14.8 cm)
OFUKU HAGAKI	Ofuku-Hagaki (14.8 x 20 cm)

16.17. Output To—or "Use Logical Printer"

For users of K92-based print servers and older products based on a G-component, this parameter sets the logical printer which will be used for SCS jobs. If the Network Destination Option (NDO) is enabled, the logical printer definition is the only medium through which a network printer (Netw#) can be chosen.

On print servers based on G22 or G32, the "Output To" parameter replaces "Use Logical Printer". "Output To" defines the target printer which will be used for SCS jobs, either directly indirectly through choosing a logical printer.

G22 release levels lower than 2111 and all K92 products "Use Logical Printer"	G32/G34 and G22 release levels at 2111 or higher "Output To"	Comments
PR0*	Logical Printer 0	No manipulation of data. Users of the Network Destination Option (NDO) please note: The target printer will be the printer designated as "System Target Printer" on the [General] configuration page in the "Configurations > Basic" sub-group.
PR1, PR2, PR3, PR4 PR5, PR6, PR7, PR8	Logical Printer 1 Logical Printer 2 Logical Printer 3 Logical Printer 4 Logical Printer 5 Logical Printer 6 Logical Printer 7 Logical Printer 8	Select one of these queues to have data manipulated by a logical printer definition. Users of the Network Destination Option (NDO) please note: The definition of the logical printer includes choice of target printer. An NDO Load Balancing Pool can only be chosen through a logical printer.
not available	Local Printer Network Destination 1 Network Destination 2 Network Destination 3 Network Destination 4	Direct selection of single target printer for users of the Network Destination Option (NDO)

If you need help in understanding what logical printers are and how they are used, please refer to the Print Server Administration Manual.

16.18. Enable Adaptive Compression

Value	Comments
Yes*	<p>Improves processing speed.</p> <p>The PCL full page graphics image generated for each IPDS page is compressed according to the Adaptive Compression Method 5 as specified in the PCL5 Technical Reference Manual, first edition (1992). This method is supported on HPIIIP- and HP4-compatible printers and later models.</p>
No	<p>Must be chosen if the printer does not support PCL 5e.</p> <p>The PCL full page graphics image generated for each IPDS page is compressed according to the TIFF 4.0 Encoding Method 2 as specified in the PCL5 Technical Reference Manual first edition (1992). This method is supported by HPIII-, HPIIID- and HPIISi-compatible printers and later models.</p>

16.19. Reserved Option

This option is reserved for future use.

Option Value	Comments
0 *	

17. [IPDS Margins]

17.1. What This Configuration Page Contains

This configuration page has two main groupings:

- 1 Margin adjustments (offsets) to be applied to Front Page Top, Front Page Left, Back Page Top, and Back Page Left.

Within this main grouping, there are nine groups (seven in the LAN FS3 (K92)).

- a "All Mappings"
(for LAN FS3 (K92) the label is "All Cass")
- b ## Mapping, meaning 1st Mapping, 2nd Mapping ... 8th Mapping
(for LAN FS3 (K92) the label is ##Cass, meaning 1st Cass, 2nd Cass ... 6th Cass).

The settings for "1st...", "2nd...", etc. are added to the settings in "All".

- 2 Envelope margins adjustments. You can configure Envelope Top Margin and Envelope Left Margin.

17.2. All Mappings / All Cass

The unit is always 1/300 of an inch. Negative values will make a margin smaller/narrower than the job would do itself, while positive values make the margin larger/broader.

17.2.1. Front Page Top Margin (Front Page = Front Side)

This parameter is used to adjust the top margin for all mappings/cassettes. If the job is duplex, it affects the front side of the page.

Value	Comments
0 * [-128..+127]	-

17.2.2. Front Page Left Margin (Front Page = Front Side)

This parameter is used to adjust the left margin for all mappings/cassettes. If the job is duplex, it affects the front side of the page.

Value	Comments
0 * [-128..+127]	The print server interprets "left" as the left of a printed page according to its orientation, which is either portrait or landscape. In other words, the result is not dependent on which edge of the paper is the physical leading edge.

17.2.3. Back Page Top Margin (Back Side in Duplex)

This parameter is used only with duplex printing. It is used to adjust the top margin for all mappings/cassettes.

Value	Comments
0 * [-128..+127]	-

17.2.4. Back Page Left Margin (Back Side in Duplex)

This parameter is used only with duplex printing. It is used to adjust the left margin for all mappings/cassettes.

Value	Comments
0 * [-128..+127]	The print server interprets "left" as the left of a printed page according to its orientation, which is either portrait or landscape. In other words, the result is not dependent on which edge of the paper is the physical leading edge.

17.3. ## Mapping / ## Cassette

For each tray/cassette you can adjust Front Page Top Margin, Back Page Top Margin, Front Page Left Margin, and Back Page Left Margin. The definitions of these margin types is the same as indicated above in connection with All Mappings / All Cassettes.

The unit is always 1/300 of an inch. Negative values will make a margin smaller/narrower than the job would do itself, while positive values make the margin larger/broader..

The setting for any given given tray / cassette is always added to the settings specified in All Mappings / All Cassettes.

17.4. Envelope Margins

The unit is always 1/300 of an inch. Negative values will make a margin smaller/narrower than the job would do itself, while positive values make the margin larger/broader.

17.4.1. Envelope Top Margin

This parameter controls the top margin for envelopes.

Value	Comments
0 * [-128..+127]	-

17.4.2. Envelope Left Margin

This parameter controls the left margin for envelopes.

Value	Comments
0 * [-128..+127]	The left margin is always located at the edge of the paper to the left of the leading edge.

18. [IPDS Mappings] for Input and Output Sources

18.1. Introduction

These parameters control

- how the host's IPDS requests for input sources are mapped to an input source in the target printer
- how the host's IPDS requests for output sources are mapped to an output source in the target printer.

Any host source can be mapped to any printer source. Thus, a mapping always consists of two values: an IBM ID and a value identifying the source in the target printer.

The [Input Mappings] page for external print servers (G22, G32) also includes a third field containing a definition of paper type because of a very close association between paper type and input cassette. The available values are listed in *"Paper Types (External Print Servers Gxx)"* (page 144).

(Paper type definitions for the LAN FS3 (K92) are found on the [IPDS] page—see *"Paper Types (LAN FS3 - K92 only)"* (page 131)).

18.2. Input Mappings

The configuration page allows you to make up to 8 input mappings on external print servers and 6 on internal (LAN FS3 - K92). Each pair is labeled as follows:

1st Cass IBM ID = IPDS Input Number

1st Cass PCL Value (LAN FS3 (K92): 1st Cass Input Drawer)

....

nth Cass IBM ID = IPDS Input Number

nth Cass PCL Value (LAN FS3 (K92): 1st Cass Input Drawer)

The IPDS input number is reported to the host by the print server. It has a value between 0 and 255, both included.

The Cassette number selects the physical tray in the printer. How it is set depends on which type of print server and which type of target printer is being used.

A single IPDS input number can be mapped to only one input tray (PCL Value / Input Drawer number). Said in another way, each IPDS input number can only be stored once in the print server, while a single physical input tray can be mapped to several IPDS input numbers, thus linking them to that tray.

The example below sets the first mapping to its default setting.

External Print Servers:

1st Cass IBM ID = 0

1st Cass PCL Value = 1

LAN FS3 (K92):

1st Cass IBM ID = 0

1st Cass Input Drawer = Cass1

This pair of settings says: For IPDS input number "0", select the physical input tray number 1.

The factory default tray mapping setup is shown below.

Mapping no.	IBM ID = IPDS Input Number	External print servers (G-components) Cassette number	LAN FS3 Input Drawer (see note*)
1st	0	1	Cass1
2nd	1	4	Cass2
3rd	2	5	Cass3
4th	3	20	Cass4
5th	4	21	Cass5
6th	72	6	Envelope
7th	99	2	MP Tray
8th	7	0	Disabled

Note: On the LAN FS3 (K92) you must choose the value from a pull-down list.

- Disabled
- Cass1
- Cass2
- Cass3
- Cass4
- Cass5
- Cass6
- Envelope
- MP Tray

18.3. Paper Types (External Print Servers Gxx)

Your choice of paper type is mapped together with the mappings between IBM ID and PCL Value.

The paper type for each cassette is reported to the host, which will format the print job according to the setting for Paper Type. So you must be sure that the chosen Paper Type corresponds to the physical tray associate by the Cass PCL value in the mapping. Refer to the technical reference guide for your printer for information on the association between PCL values and the physical paper trays.

Note, however, that the manual association between the Cass PCL value and the Paper Type option can also be used deliberately to make the host format a print job according to a certain paper type but have it printed on another paper type available in the printer.

The default paper type for the 1st through the 7th mappings is A4. The default paper type for the 8th mapping is "Disabled". Note that the value AUTO (Auto detect = the paper type in the auto-cassette), which was default before G22_1071, is no longer used because of inconsistency in different printer manufacturers' way of handling the relation between the PCL "tray select" value and the tray information retrieved by PJI. If you used the AUTO setting from an older firmware version, it will be forced to A4.

The available paper types are shown below.

18.4. Output Mappings

Scroll down the [IPDS Mappings] Configuration Page to find the parameters for controlling how the host's IPDS requests for physical output bins are mapped.

The configuration page allows you to make up to 11 output mappings. Each pair is labeled as follows:

1st Output Bin IBM ID = IPDS Output Number

1st Output Bin PCL Value

(LAN FS3 (K92): 1st Bin Output Drawer)

....

11th Output Bin IBM ID = IPDS Output Numb

11th Output Bin PCL Value

(LAN FS3 (K92): 1st Bin Output Drawer)

Any host IPDS output bin can be mapped to any output bin in the printer.

The IPDS input number is reported to the host. It has a value between 1 and 255, both included. If the IPDS Output Number is set to 0, this means disable mapping.

An IPDS output number can be mapped to only one output bin. Said in another way, each IPDS output number can only be stored once in the print server, while an output bin can be mapped to several IPDS output numbers, thus linking them to the same physical printer input tray.

See also [“Enable Output Jogging” \(page 125\)](#).

The example below sets the first mapping to its default setting.

External Print Servers:

1st Output Bin IBM ID = 1

1st Output Bin PCL Value = 1

LAN FS3 (K92):

1st Output Bin IBM ID = 0

1st Output Drawer = Cass1

Each pair of settings says: For IPDS output number "1", select the physical output bin number 1 (External print servers) or the physical output drawer number BIN0 (LAN FS3 (K92)).

The factory default output bin mapping setup is shown below.

Mapping no.	IBM Output Bin ID = IPDS Output Number	External print servers (G-components) Output Bin PCL Number	LAN FS/3 Output Drawer (see note*)
1st	1	1	Bin0
2nd	2	2	Bin0F
3rd	0	0	Bin1
4th	0	0	Bin0
5th	0	0	Bin0
6th	0	0	Bin0
7th	0	0	Bin0
8th	0	0	Bin0
9th	0	0	Bin0
10th	0	0	Bin0
11th	0	0	Bin0

Note:

On the LAN FS3 you must choose the value from a pull-down list.

- Bin0 - Bin 10 (11 separate values) These values will send the printout face down to the output bins 0 - 10. Use of these bins requires that a sorter (eg SO-30) is installed. If a stacker (eg DF-30 or ST-30) is installed output bins cannot be selected individually. Refer to your printer documentation for details.
- Bin0F - Bin 10F (11 separate values). These values will send the printout face up to the output bins 0 - 10. These bins also require that a sorter or stacker is installed. Only a sorter can be used to direct the printout to individual output bins.

19. IPDS Font Management

19.1. General Information

There are two sets of bitmap fonts available (240 dpi and 300 dpi). Choice of font type depends on the emulation you work with

File Name	File included	Latest version as of the date of this Guide; Comments
F08-xxxx.zip	font240.ffs	F08-8481 (publically released in March 1999) This font file contains 240dpi IPDS fonts, and is equivalent to the resident fonts of the IBM 3812 and IBM 3816 printers.
F09-xxxx.zip	font300.ffs	F09-1421 (publically released in January 2002, released as Beta in October 2001). This font file contains 240dpi IPDS fonts, and is equivalent to the resident fonts of the IBM 4028 and IBM 3916 printers. The print server is delivered with this font set.

A summary description of both font sets is found at the end of this chapter.

19.1.1. About the Euro Symbol

All fonts except OCR and APL were updated with the Euro symbol in both sets effective March 1999. At the same time, the IPDS main code was updated to ensure support of code pages using the Euro symbol.

19.2. Why to Replace a Font File

- 1 If you switch emulations, you may need to switch sets between 300 dpi and 240 dpi because there is only room for one set of IPDS fonts. On delivery the unit contains the 300 dpi set.
- 2 You may want to load an updated version or load the fonts for the first time after upgrading from very old firmware.
- 3 You may want to replace the font set currently loaded because of an error message in the *System Log* / on the *Main Status Pages*.

Possible error messages are:

- a "Missing IPDS Font. Please FTP the Font File".
- b "Missing IPDS Font dir."
- c "Can't open IPDS Font file"
- d "Can't read IPDS Font"

Message <a> tells you to load a font file as explained below ([page 149](#)).

If you get one of the other messages, try to correct the problem by loading a fresh font file. If this does not work, please contact your point of purchase

19.3. How to "FTP a Font File"

- 1 When you extract the "ffs" file from F0x-xxxx.zip to an accessible drive (for example C:\Fontupdates), you will also notice a "dl" file, which is not used in connection with LAN-based print servers (you are free to delete it from the drive)
- 2 Start an FTP session on the print server (sample IP address; the precise FTP syntax may vary):
`ftp 192.168.0.227`
- 3 Give the user name (admin) and password (case-sensitive) for the print server.
- 4 Change to the correct library
for print servers based on G22 or K92
`cd IPDSFONT`
for print servers based on G32
`cd Misc`
`cd IPDSFont`
- 5 List the library (directory) contents
`dir`
- 6 Delete the unwanted file (the file name you type in must match the case you see in the directory list)
`del font300.ffs`
- 7 Choose binary mode
`binary`
- 8 Download the file from your PC to the print server. The syntax is: `put <source> <target>`. In order to avoid making typographical errors in the file name, leave out <target>. Example:
`put C:\Fontupdates\font240.ffs`
- 9 End the FTP session
`bye`

If these instructions are not sufficient, or if you want to do bulk upgrades, consult the chapters on Maintenance in the Print Server Administration Manual.

19.4. IBM 3812 Emulation 240 dpi Fonts

"Subs/Bold ID": b = created by bolding algorithm; s = simulated by substitution			
No.	IBM font ID	Subs/Bold ID	Equivalent IBM font
1	3		OCR-B
2	5		Orator 10
3	11		Courier 10
	12	s 11	Prestige 10
	13	s 11	Artisan 10
4	18		Courier Italic 10
5	19		OCR-A
	20	s 12	Pica 10
	26	s 40	Matrix Gothic 10
	30	s 11	Math-symbol 10
	38	b 5	Orator bold 10
	39	b 40	Gothic-text bold 10
6	40		Gothic-text 10
	41	s 40	Roman-text 10
	42	s 40	Serif-text 10
	43	s 68	Serif-text Italic 10
7	44		Katakana-gothic 10
8	45		APL 10
	46	b 11	Courier bold 10
	60	b 12	Prestige bold 10
9	66		Gothic-text 12
10	68		Gothic-text Italic 12
	69	b 66	Gothic-text bold 12

"Subs/Bold ID": b = created by bolding algorithm: s = simulated by substitution			
No.	IBM font ID	Subs/Bold ID	Equivalent IBM font
	70	s 66	Serif-text 12
	71	s 68	Serif-text Italic 12
	72	s 69	Serif-text bold 12
	80	s 86	Math-symbol 12
11	84		Script 12
12	85		Courier 12
13	86		Prestige 12
14	87		Letter-gothic 12
	91	s 112	Light-Italic 12
	107	s 85	12 Pitch
	108	b 85	Courier bold 12
	110	b 87	Letter-gothic bold 12
	111	b 86	Prestige bold 12
15	112		Prestige Italic 12
16	155		Boldface Italic
	158	s 175	Modern
	159	b 175	Boldface
17	160		Essay
18	162		Essay Italic
	163	b 160	Essay bold
19	173		Essay light
20	175		Document
	176	s 159	Boldface
	177	s 155	Boldface Italic

"Subs/Bold ID": b = created by bolding algorithm: s = simulated by substitution			
No.	IBM font ID	Subs/Bold ID	Equivalent IBM font
21	204		Gothic-text 13
	221	s 230	Prestige 15
	222	s 230	Gothic 15
	223	s 230	Courier 15
	225	s 86	Math-symbol 15
	229	s 230	Serif 15
22	230		Gothic-text 15
23	244		Courier 5
	245	b 244	Courier bold 5
24	252		Courier 17
	253	b 252	Courier bold 17
25	254		Courier 17ss
26	280		APL 20
27	281		Gothic-text 20
28	290		Gothic-text 27
29	751(4407/54)		Sonoran serif 8pt
30	1051(4407/66)		Sonoran serif 10pt
31	1053(4427/66)		Sonoran serif bold 10pt
32	1056(4535/66)		Sonoran serif Italic 10pt
33	1351(4407/78)		Sonoran serif 12pt
34	1653(4427/108)		Sonoran serif bold 16pt
35	2103(4427/162)		Sonoran serif bold 24pt

19.5. IBM 4028 (3916) Emulation 300 dpi Fonts

About the columns for "CPI" and "Point Size"

For fonts with fixed pitch, figures for point size are shown as a secondary information (in parentheses).

In the "CPI" column:

PS = Proportional Spaced Typeface
 Typo = Typographical Typeface (not fixed pitch).

Our IPDS Font	IBM font ID	CPI	Point Size	Equivalent IBM font
OCR-B	3	10	(12)	OCR-B
Courier 10	11	10	(12)	Courier
Prestige Pica	12	10	(12)	Prestige Pica
Courier Italic 10	18	10	(12)	Courier Italic
OCR-A	19	10	(12)	OCR-A
Courier Bold 10	46	10	(12)	Courier Bold
APL 12	76	12	(10)	APL
Courier 12	85	12	(10)	Courier
Prestige Elite	86	12	(10)	Prestige Elite
Courier Italic 12	92	12	(10)	Courier Italic
Prestige Elite Bold	111	12	(10)	Prestige Elite Bold
Prestige Elite Italic	112	12	(10)	Prestige Elite Italic
Boldface	159	PS	12	Boldface
Prestige PS	164	PS	12	Prestige
Gothic-text 13	203	13.3	(9)	Gothic Text (311x)
Prestige	221	15	(9)	Prestige
Courier 15	223	15	(9)	Courier
Courier 17	254	17.1	(8.5)	Courier

Our IPDS Font	IBM font ID	CPI	Point Size	Equivalent IBM font
Prestige	256	17.1	(8.5)	Prestige
Letter Gothic 20	281	20	(7.5)	LetterGothic
Gothic-text 20	283	20	(6)	Gothic Text (311x)
Gothic-text 27	290	26.7	(5)	Gothic Text (311x)
Nimbus Roman	5687	Typo	6	Times Roman
Nimbus Roman	5687	Typo	8	Times Roman
Nimbus Roman	5687	Typo	10	Times Roman
Nimbus Roman	5687	Typo	12	Times Roman
Nimbus Roman Bold	5707	Typo	10	Times Roman Bold
Nimbus Roman Bold	5707	Typo	12	Times Roman Bold
Nimbus Roman Bold	5707	Typo	14	Times Roman Bold
Nimbus Roman Bold	5707	Typo	18	Times Roman Bold
Nimbus Roman Bold	5707	Typo	24	Times Roman Bold
Nimbus Roman Italic	5815	Typo	10	Times Roman Italic
Nimbus Roman Italic	5815	Typo	12	Times Roman Italic
Nimbus Roman Bold Italic	5835	Typo	10	Times Roman Bold Italic
Nimbus Roman Bold Italic	5835	Typo	12	Times Roman Bold Italic

Nimbus Roman is a functional equivalent of *Times Roman*.
Times Roman is a registered trademark of Linotype AG and/or its subsidiaries.

20. HPO Trace Function (SCS and IPDS)

20.1. Availability

The trace function is only available in products built on G22 and K92.

In order to trace SCS or IPDS data, the corresponding protocol has to be enabled in the print server. After enabling and rebooting, the HTTP menu will display "Stop IPDS Trace" and/or "Stop SCS Trace."

The *Trace Function* is not affected by whether or not a *License Key* has been entered.

20.2. How to Trace

The actual tracing of data is started from a FTP session and stopped by using the "Stop xxxx Trace" item in the "Actions" group on the HTTP menu. The "Stop xxxx Trace" item only appears after you have activated the HPO option concerned. Activation includes not only "enabling" but also including identifying information (IP address, host name, and so on) for the particular session.

Trace data	FTP directory	File to retrieve
SCS (TN3270E)	SCS3270TRACE	SCS3270TRACE
SCS (TN5250E)	SCS5250TRACE	SCS5250TRACE
IPDS	IPDSTRACE	IPDSTRACE

When the trace is running, the FTP session must NOT be stopped, as the traced data otherwise will be lost. After the trace is stopped and saved, the FTP session can be closed. Refer to the procedure below.

- 1 Start an FTP session on the print server.
ftp 192.168.0.227
- 2 Give your user name and password (case sensitive).
- 3 Set the FTP client to binary transfer mode.
binary
- 4 Begin the trace with the following command; the examples assume that you want the output written to a file called `trace.tmp` located in the root of your C-drive.

Example - Starting an SCS5250 trace

```
get /scs5250trace/scs5250trace c:\trace.tmp
```

Example - Starting an SCS3270 trace

```
get /scs3270trace/scs3270trace c:\trace.tmp
```

Example - Starting an IPDS trace

```
get /ipdstrace/ipdstrace c:\trace.tmp
```

- 5 Send a print job from the host.
- 6 Wait for the print job to complete.
- 7 Log in to the print server with a web browser.
- 8 Stop the trace by clicking the [Stop XXX Trace] link found under the "Actions". This saves the trace automatically to the file and location specified in step 4.
- 9 End the FTP session.
bye
- 10 Log out of the print server by closing the web browser window.

21. Troubleshooting on the AS/400

21.1. Overview

This chapter describes some error situations that may occur when preparing to use OS/400 TCP/IP support and presents possible reasons for the problems.

Important: The section does not describe all the possible error situations that may occur. When necessary, please refer to the appropriate IBM publications.

[“Cannot PING the printer” \(page 158\)](#)

[“PING command does not work” \(page 159\)](#)

[“Cannot print a test page” \(page 159\)](#)

[“PSF/400 Message CPF5379 is logged” \(page 159\)](#)

[“Messages in the Print Server’s System Log” \(page 160\)](#)

21.2. Cannot PING the printer

- The print server (or printer in the case of an internal print server such as *Intermate LAN FS3*) is not powered on.
- You are pinging the wrong *IP address*.
- The print server has the same *IP address* as another device in the network.
- The print server has not received its configuration information through use of BOOTP. This can happen if an IP router in the network does not permit BOOTP to flow through it. The problem must be corrected at the router.
- The print server is configured to reside in the wrong sub-segment. This can happen, if the AS/400 is configured to have more than one TCP/IP interface. You must verify the print server’s *IP address*. You may also have to verify the sub-net masks used for each TCP/IP interface defined on the AS/400.

21.3. PING command does not work

- The AS/400 TCP/IP support has not been started. Issue the `STRTCP CL` command to start AS/400 TCP/IP support.
- The TCP/IP interface for your line description has not been started. Use the `STRTCPIFC CL` command, or work your way through the menu provided by using the `CFGTCP CL` command, to start the TCP/IP interface for the line description you are using.

21.4. Cannot print a test page

- The print server is not installed correctly.
- The printer is not ready.

21.5. PSF/400 Message CPF5379 is logged

- The PSF/400 has not been configured for TCP/IP support. Use the `WRKAFFP2` command to configure the PSF/400 for TCP/IP.
- If you are using V3R1, you may need to install `WRKAFFP2`.
See [“Installing WRKAFFP2 on AS/400 V3R1” \(page 16\)](#)

21.6. Messages in the Print Server's System Log

key word	where to find information and help
IPDS	IPDS messages usually describe problems with fonts.
The following kinds of messages can affect users of SCS TN5250E.	
IDB	When you get a message about "IDB", you will probably be able to fix the problem using the information in "[5250 SCS Config#] > "IDB Name" (page 43) .
5250	if you get a message containing "5250" and "memory allocation failed" or "unexpected error", please contact your point of purchase.
All other messages:	
	The Print Server Administration Manual chapter on "Monitors" describes the most important general messages you can either display on the screen by choosing "Status" > [System Log] or print out (as a part of the <i>Main Status Pages</i>).

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