

SNMPDRV Installation Instructions

Custom Business Link's "SNMPDRV™ Print Server" utilizes the AS/400's IBMSNMPDRV OS/400 feature to communicate with an IP attached network printer and maintain up to date status of the printing function. This thereby enables the printer to be configured as an AS/400 printer with page range printing, error messaging, and standard spool file control features. The "SNMPDRV™ Print Server" eliminates the use of the Remote Output Queue for printing to an IP printer which provides no control over the printing. Typically, a user simply sends their print job to the Remote Output Queue and hopes that it will be printed.

Configuring for a *LAN 3812 SNMP Device Description

Support for SNMP is available in the IBM iSeries AS/400 base code for R450 OS/400 and above. *LAN 3812 SNMP device descriptions fully support the page range function. The "SNMPDRV™ Print Server" provides the required SNMP communication from the printer back over the network to the AS/400 for all parallel port printers, e.g. dot matrix, line printer, thermal transfer, and page printers.

Configuration Instructions

For a printer that is using a Custom Business Link "SNMPDRV™ Print Server" attached to its parallel port, configure the SNMP system device driver program by using the CRTDEVPRT command. The following parameters should be specified on the AS/400 (reference the summary on the last page):

Device Class (DEVCLS)

This needs to be set to *LAN.

Device Type (TYPE)

This needs to be set to 3812.

Device Model (MODEL)

This needs to be set to 1.

LAN Attachment (LANATTACH)

This needs to be set to *IP.

Port number (PORT)

This needs to be set to 9100.

Font (FONT) = 011

This is typically set to 011, which is the default 10 CPI font. A font ID is required to create the device description. Unless special requirements in your operation dictate something different, this should suffice.

Form Feed (FORMFEED)

This should be set to *CONT if printing to a continuous forms printer and set to *AUTOCUT if printing to a cut sheet printer. Leaving this set at *TYPE or setting it to the wrong value can cause problems with both drawer selection and paper size.

Printer Error Message (PRTERMSG)

This defaults to *INQ, but should be set to *INFO so the printer's message queue will receive informational messages whenever possible. If this is set to *INQ and a problem occurs on the printer (such as out of forms or a paper jam) a message will be sent to the printer's message queue that must be answered before printing can continue. Sometimes this can also cause the writer to end while in the middle of a spooled file.

Activation Timer (ACTTMR)

This defaults to 170 (seconds), but can be set to any value from 1 to 2550 seconds (or 42.5 minutes). The activation timer refers to the amount of time for the system to wait for the LAN-attached printer device to respond. The printer is considered not available and an error message is posted if there is no connection before this timer expires. For an AS/400 dedicated printer, use the max of 2550 seconds.

Inactivity Timer (INACTTMR)

This defaults to *ATTACH, but can be set to any value from 1 to 30 (minutes), as well as *SEC15 (15 seconds), *SEC30 (30 seconds) or *NOMAX (no maximum). This value determines when the print driver closes the connection to the printer (freeing it up to received spooled output from another source) once there are no OS/400 spooled files left in RDY (ready) status. It is recommended that this be set to *SEC30 so OS/400 will free up the printer 30 seconds after all RDY spooled files have been processed. Setting it to *NOMAX will cause OS/400 to maintain the connection until the writer ends, so the printer device will not be shared with other systems.

Host Print Transform (TRANSFORM)

This needs to be set to *YES so the OS/400 system's Host Print Transform (HPT) function will convert both SCS and AFPDS spooled files to the printer's data stream.

Manufacturer Type and Model (MFRTYPMDL)

This indicates the type of ASCII printer being used. This value is used by HPT to determine what ASCII controls to use when converting the spooled file from SCS or AFPDS to ASCII. The recommended values are determined by the ASCII emulation setting on the printer. A few common choices are : *IBM6400EP for Epson emulation, *IBM6400 or *IBM4203 for Proprinter emulation, etc. Press F4 to get a complete listing. IBM has created a very large list of printers that are supported by Host Print Transform. For further information, please refer to the following IBM document: 17690939 Support for Various ASCII Printers.

Remote Location (RMTLOCNAME)

This should be set to the printer's IP address, host name or DNS name. If an IP address is used, it should be entered without leading zeros (for example, use 192.186.10.2 instead of 192.186.010.002).

If an IP address is used, verify that OS/400 can reach the printer by using either the PING or Verify TCP/IP Connection (VFYTCPCNN) command with that IP address. If a host name or DNS name is used, verify that OS/400 can reach the printer by using either the PING or Verify TCP/IP Connection (VFYTCPCNN) command with that host name or DNS name.

User-Defined Options (USRDFNOPT)

Specifies, for spooled output only, one or more user-defined options to be used by user applications, user-specified programs or the writer. A maximum of four user-defined options can be specified. This should be set to *IBMSHRCNN whenever configuring a *LAN 3812 SNMP.

Specifying *IBMSHRCNN will cause the print driver to open and close the connection to the data port on the printer for every copy of every spooled file. This allows multiple writers and systems to access the printer, while the print driver is active and there are files in ready status. However, you may not want to specify *IBMSHRCNN if you want the printer to be dedicated. When this option is specified, the printer is capable of being shared and the value that is specified for the Inactivity Timer is ignored.

System Driver Program (SYSDRVPGM)

Specifies the name of a system-defined driver program, which provides the capability to send OS/400 printer output to a printer attached over a TCP/IP network. This should be set to *IBMSNMPDRV whenever configuring Custom Business Link's "SNMPDRV™ Print Server".

Workstation Customizing Object (WSCST)

This is typically set to *NONE, but can be used to specify a modified workstation customer object.

All other parameters should be specified like any other printer.

Configuration Example

To configure a *LAN 3812 SNMP device description, type "CRTDEVPRT" and press the F4 (Prompt) key. Following is an example of using the Create Device Printer (CRTDEVPRT) command to create a *LAN 3812 SNMP device description for Custom Business Link's "SNMPDRV™ Print Server":

```
CRTDEVPRT DEVD(SNMPDotMatrix) DEVCLS(*LAN) TYPE(3812) MODEL(1) LANATTACH(*IP)
PORT(9001) FONT(011) FORMFEED(*CONT) PARITY(*NONE)
STOPBITS(1) TRANSFORM(*YES) MFRTYPMDL(*IBM4203) RMTLOCNAME ('169.254.0.24')
USRDFNOPT(*IBMSHRCNN) USRDRVPGM(*NONE) SYSDRVPGM(*IBMSNMPDRV)
```

Create Device Description (Printer) (CRTDEVPRT)

Type choices listed below, then press Enter.

```
Device description..... SNMPRT1 (This is the name you assign to the printer)
Device class .....*LAN
Device type .....3812
Device model..... 1
LAN attachment .....*IP
Port number .....9100
Online at IPL .....*YES
Font:
Identifier .....11
Point size .....*NONE
Form feed..... *CONT .
Separator drawer..... *FILE
Separator program..... *NONE
Library Name,..... *LIBL
Printer error message .....*INFO
Message queue .....*CTLD
Library Name, .....*LIBL
Activation timer .....2550
Inactivity timer .....*SEC30
Host print transform..... *YES
Manufacturer type and model..... (e.g. *IBM4203 for Proprinter emulation on matrix printer---PRESS F4 to
get a complete listing of supported printers and select one most similar to the printer you are using.)
Paper source 1 .....*LETTER
Paper source 2 .....*LETTER
Envelope source..... *NONE
ASCII code page 899 support..... *NO
Image configuration .....*NONE
Character identifier:
Graphic character set..... *SYSVAL
Code page 1-32767
Remote location:
Name or address .....'169.254.0.24' (Set to Printer's IP address, hostname, or DNSname)
User-defined options..... *IBMSHRCNN
+ for more values
User-defined object:
Object..... *NONE
Library Name, .....*LIBL
Object type .....*DTAARA
Data transform program .....*NONE
Library Name, .....*LIBL
System driver program .....*IBMSNMPDRV
Text 'description' .....'SNMP Device Description for Printer' (Use the text that is appropriate)
```