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LaserWriter IINTX: Dual Connection to Macintosh and PC (2/95)

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TOPIC -----

Is it possible to connect a LaserWriter IINTX (with rev 2.0 ROMs) to a Macintosh, through an AppleTalk connection AND to an IBM PC, through a serial connection?

I want to have both cables connected at the same time and select the appropriate port to print from. How do I change from HP LaserJet mode to PostScript mode without changing the DIP switches?

And can I simultaneously have a serial connection and an AppleTalk connection with a LaserWriter IINTX?

DISCUSSION -----

The LaserWriter IINTX will not support simultaneous serial and LocalTalk connections. We recommend that if you are switching between both kinds connections you should disconnect the cable you're not using.

However, it is possible to connect a LaserWriter to an AppleTalk network and to an IBM PC, using software switching to change between the two.

- You must have the LaserWriter IINTX ROM upgrade to switch both ways.
- The following instructions assume that there is a LocalTalk connection to the LaserWriter through the RS-422 port, a serial connection to the IBM PC through the RS-232 port, and all DIP switches are up (default AppleTalk PostScript).
- Remember that the LaserWriter will need some time to respond to the procedures outlined below. Its Ready light flashes while the LaserWriter is setting each of these parameters. Wait for this light to stop flashing before you send another command, or the LaserWriter may not receive all of the next command.

Caution:

If you choose to use the PostScript code provided in this article, you assume all risks involved in making these changes. PostScript code, if not entered correctly, can place the LaserWriter into a condition requiring service.

To Switch From an AppleTalk Connection To a Serial Connection

Step 1:

To disable the RS-422 port, set its baud rate to 0. Send this PostScript file to the LaserWriter:

```
%=====
% Begin PostScript Code
%
serverdict begin 0 exitserver
statusdict begin
9 0 0 setsccbatch
9 0 0 setscinteractive
<Control-D> %(if in interactive mode)
%
% end PostScript Code
%=====
```

This prevents the printer from sending serial information over the AppleTalk network, causing unpredictable results.

Step 2

To set the LaserWriter to work in LaserJet Plus mode through the serial (RS-232) port, send this PostScript file to the LaserWriter:

```
%=====
% Begin PostScript Code
%
serverdict begin 0 exitserver
statusdict begin
5 setsoftwareiomode
0 sethardwareiomode
<Control-D> %(if in interactive mode)
%
% end PostScript Code
%=====
```

The LaserWriter now uses the RS-232 port, as if it were a LaserJet Plus. The LaserWriter no longer understands PostScript, is not available over the network, and does not appear in the Chooser.

But the IBM PC can now talk to the LaserWriter. To confirm this, type this command at the DOS prompt:

```
MODE COM1:96,n,8,1,p
```

This tells the IBM PC to send information at 9600 baud, the default for the LaserWriter through the serial port. You can now print as though you were connected to a LaserJet Plus.

To Return To a PostScript LaserWriter Over an AppleTalk Network

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Step 1

Send a file containing the characters Escape, Delete, 0, and Control-D. The best way to do this is to use BASIC to explicitly put these characters in a file.

For example, use this BASIC program:

```
open "psreturn.txt" for output as #1
print #1,chr$(27);chr$(127);"0";chr$(4)
close #1
```

and send this file to the LaserWriter using this command from the DOS prompt:

```
TYPE PSRETURN.TXT > COM1
```

whenever you want to switch to a PostScript LaserWriter.

The LaserWriter is now in PostScript mode and using serial communication. You can send PostScript programs from the IBM PC through the RS-232 port, and the LaserWriter will respond.

To Switch Back to AppleTalk Communication Through the RS-422 Port

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Step 1

At the DOS prompt, create this PostScript program:

```
COPY CON SET.MOD
%=====
% Begin PostScript Code
%
serverdict begin 0 exitserver
statusdict begin
0 setsoftwareiomode
2 sethardwareiomode
<control-Z>
%
% end PostScript Code
%=====
```

Step 2

Send the program to the LaserWriter with the DOS command:

```
TYPE SET.MOD > COM1
```

(this will take some time).

The LaserWriter is now back in AppleTalk PostScript mode, using the RS-422 port.

Step 3

Set the baud rate of the RS-422 port back to what it was. This can be done from your Macintosh using this PostScript program:

```
%=====
% Begin PostScript Code
%
serverdict begin 0 exitserver
statusdict begin
9 9600 0 setsccbatch
9 9600 0 setsccinteractive
%
% end PostScript Code
%=====
```

This assumes that you want to set the baud rate to 9600. Change this number if you want another rate.

This is not the LocalTalk baud rate; it is the baud rate that would be used if you connected serially to the RS-422 port. You are not required to set this number back to what it was to work over LocalTalk, but it is the default number set in the printer.

The LaserWriter's settings should now be what they were when you started.

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- 22 Feb 1995 - Added PostScript caution and reformatted.
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