

Maxspeed Port Testing

Here are some guidelines for testing Maxspeed Ports.

First, the ports to be tested with a terminal should be enabled. This may, for the time being, include those ports that will be used for printers, even if they have already been configured as printers. Simply enable them for this testing section and then disable them again when you are done testing the ports.

To enable all the Maxspeed ports, type:

```
# cd /dev (Go to the devices directory)
```

```
# enable tty[(boards)][a-h] (Enable all lowercase Maxspeed devices)
```

For this last command, substitute the letters of the boards that are installed. For example, if boards a, b, & c are installed (which may be a 16-port card and an 8-port card), you would type:

```
enable tty[abc][a-h]
```

To make the enable take immediate effect, type:

```
# init q (Be *very* careful with the linit' command!)
```

However, you must remember to disable the ports that will be used as system printers. The exception to this is if **llpsetup**, will be run later--it automatically disables the printer ports for you.

A simple method to test the ports involves placing a heavy object (such as a screwdriver) on a terminal keyboard, and then plugging that terminal into successive ports. The enabled ports will produce "login:" messages to appear on the terminal. Once you find that the port works for output from the computer, you may proceed to the next port. There are some things to keep in mind, however:

- Have your terminal configured to the same baud rate as the ports you are testing. For the most part, this will be 38400, but for the modem port (probably ttyaa) and printer ports that have already been the object of an lttysset' (performed automatically by llpsetup', and by luserdef, each successive system boot) the baud rate will likely be different. Hence, for these ports you will need to change the terminal to the corresponding baud rate (probably 9600)
- Make sure you get some *clear* output from each port. Do not assume that the output is garbled because there is a mismatch in the baud rates between the terminal and the port. In one case, for example, it was found that the Maxspeed board would not communicate at a baud rate higher than 48001 (This meant that the Maxspeed board was unusable)
- The repetition of a "login:" message on a terminal does not mean that a terminal account was successfully created for that port; it simply means that it was enabled. Hence this is not a valid confirmation of the "Terminal Account Creation" section above. (See also next point)
- A safer way to test the ports is to actually log in to each port. This ensures that a terminal account was indeed created for each successive port

If you have problems with a port (such as no output or garbled output), you may try the following:

- Make sure the 8-port card you are testing is not really a 4-port card. 4-port cards are missing 2 large controller chips, which means that the 4 ports closest to the motherboard will not work. Note that the unavailability of these ports will not produce **llgettyll** errors on the system console like

they would if you enabled ports on a card that was not installed on the motherboard

- Make sure the port is enabled. Check the process running on that port by using the following syntax:

ps -ftad

Where "ad" is the terminal number. The response should be in this form:

UID	PID PPID C	STIME TTY	TIME COMMAND
root 11413	1	0 12:23:52	ad 0:00 /etc/getty ttyad m

Please note the following items:

- If there is no line below the `lUIDl` line, enables the port by using this syntax:

`enable ttyad`

`init q` (Be **very** careful with the `linit`, command!)

Now try the `llps -ft 11` command again

- The `l'm` at the end of the line means the `getty` (login process) is running at 9600. (The `l'm` refers to the 9600 baud line in the `/etc/gettydefs` file.) Hence the terminal should be set at 9600 baud to properly test this port (`l'n` refers to 19200; `l'oll` refers to 38400.)
- Make sure that the `lITTYl` column does not contain a `l,?.` If it does, try the following steps in succession, redoing the `"ps -ft "` command after each attempt:
- type `llinit qll` (be **very** careful with the `linit`, command!)
- disable and re-enable the port
- reboot the system
- replace the Maxspeed board
- reinstall the Maxspeed driver software (follow the instructions given above--they are different the second time around!)
- If you cannot get good output at 38400 baud and this is to be a terminal (not a printer) port, make sure that the `/etc/rc.d/8/userdef` or `/etc/rc.d/8/printerlist` files are not performing a `l'ttyset'` on this port.

`l'ttyset'` forces the baud rate of a port to 9600 baud regardless of which `getty` definition is being used. `l'ttyset'` is likely effective until the next system reboot, so if too many ports have been configured as printers, you may have to re-run `llpsetupl` and reboot the system.

- The modem port (probably `ttyaa`) needs to operate only at 9600 baud
- If you find that **no** ports on a board are working, check to make sure that all the Maxspeed boards are addressed properly before blaming the problem on a bad card. This may be done by examining the file `/usr/adm/messages`. If the number of boards found during the system boot matches the number of **logical** (not physical) boards installed, the board addresses are at least not overlapping one another.

NOTE: Once the Maxspeed ports have been tested, make sure those ports used for system printers are

not enabled. That would cause a login message to appear on those printers! However, if you will be performing the "System Printer Configuration" section later and will be using llpsetup, you may leave these ports enabled, as llpsetup, will automatically disable them for you.