Introduction

This Quick Start Guide covers the key points of the installation of the device driver software and host card for your UltraPort product. To obtain the latest driver software, please refer to the download section of the Perle web site.

> **Note**
> For more detailed information, see the user documentation on the CDROM supplied with this product.

Installing UltraPort cards

> **Warning**
> Dangerous voltages exist inside computer systems. Before installing host cards in your system, turn off the power supply and disconnect the mains lead.

> **Caution**
> Full anti-static precautions should be taken when handling host cards.

1. Turn off the power to your system and disconnect the mains supply.
2. Remove the system cover to expose the inside of the connector panel for host cards.
3. Insert the UltraPort card you want to install into a vacant host card slot and secure in place.
4. Repeat steps **1.** to **3.** until you have installed all the UltraPort cards you want.
5. Replace and secure the system cover.
6. Plug in the mains and turn on the power.

> **Note**
> Do not turn on the power to your system until you have connected the distribution cable or box you are using with this host card.

Accessing the CDROM

Windows
The CDROM will be automatically mounted a short time after placing it in the CDROM drive. View with Windows Explorer.

Solaris
The CDROM will be automatically mounted a short time after placing it in the CDROM drive.

SCO OpenServer
1. Login to your system as super user, then load the CDROM into your system CD drive.
2. At the command prompt, type **mkdir /cdrom**.
3. At the command prompt, type:
   mount -f ISO9660 -r/dev/cd0 /cdrom

You can now browse the CDROM content using the File Manager tool in the SCO OpenServer desktop.

SCO UnixWare
1. Login to your system as super user, then load the CDROM into your system CD drive.
2. At the command prompt, type **mkdir /cdrom**.
3. At the command prompt, type:
   mount -r -F cdfs -o nmconv=c /dev/cdrom/c1b0t0l0 /cdrom

You can now browse the CDROM content using the File Manager tool in the SCO UnixWare desktop.

Linux
1. Login to your system as super user then load the CDROM into your system CD drive.
2. At the command prompt, type **mount /mnt/cdrom**.

You can now browse the CDROM content using any one of the file browsers available for Linux.

Installing driver software

Windows 95/98
To install under one of these Windows operating systems proceed as follows;

1. Install the UltraPort cards you require and allow the operating system to boot.

   A new hardware pop-up message is now displayed prompting you for a destination directory.

2. Load the CDROM.
3. In the popup window, select the **\drivers\ultraport\win9x\x.y.z** directory on the CDROM and click **OK**.

Windows NT 4
A device driver is installed with the PortDirector software, supplied on the CDROM. To install PortDirector:

1. Load the CDROM.
2. Access the **\drivers\ultraport\winnt\portdirector\x.y.z** directory in Windows Explorer and double-click on **Setup.exe**.
3. Follow the instructions on screen to install PortDirector.

> **Note**
> Any installed UltraPort cards will be automatically detected and assigned from PortDirector.

Windows 2000/XP/Server 2003/Vista/Server 2008
To install under one of these Windows operating systems, proceed as follows:

1. Install the UltraPort cards you require and allow the operating system to boot.
2. The Found New Hardware wizard opens, prompting you for a destination directory. Click Cancel.
3. Load the CDROM.
4. Access the **\drivers\ultraport\w2k\x.y.z** directory on the CDROM and double-click the **pserial-<arch>.exe** file, where <arch> is the architecture of your Windows machine. The UltraPort drivers will now be installed on your system.

Solaris (Intel)
To install under Solaris (Intel) proceed as follows;

1. Install any UltraPort PCI host cards into your system.
2. Login to your system as root, then load the CDROM into your system CD drive.
3. At the command prompt, type **pkgadd -d /cdrom/drivers/ultraport/solaris/x.y.z/fast-sol-x.y.z.pkg comf** and press Enter. The UltraPort drivers will now be installed on your system.

SCO OpenServer
To install under SCO OpenServer proceed as follows:

1. Install any UltraPort PCI host cards into your system.
2. Login to your system as super user, then load the CDROM into your system CD drive.
3. Mount the CDROM using the instructions for **SCO OpenServer** in **Solaris**.
4. In the SCO OpenServer desktop, double click on the System Administration folder.
5. In the System Administration window, double click on the software manager icon.
6. In the Software Manager menu, click **Software > Install New**.
7. In the Begin Installation window, click on the **From localhostname** button and then click on **Continue**.
8. In the Select Media window, select the **Media Images** option then click on **Continue**.
9. In the Enter Image Directory window, type; **/cdrom/drivers/ultraport/openserver/x.y.z** and then click on **OK**
10. In the Install Selection window, click on the **Install** button.
11. If you are installing other drivers, turn off the **Re-link Kernel** option to prevent an unwanted kernel link.

SCO UnixWare
To install the UltraPort device drivers and utilities for the SCO UnixWare operating system proceed as follows;

1. Install any UltraPort PCI host cards into your system.
2. Login to your system as super user, then load the CDROM into your system CD drive.
3. Mount the CDROM.
4. At the command prompt, enter the following; **pkgadd -d /cdrom/drivers/ultraport/unixware/x.y.z/spd-ose5-x.y.z.pkg spd**

Linux
To install the device drivers for Linux using the source RPM package proceed as follows:

> **Note**
> Patch files previous to Version 2.0 must be uninstalled before installing the latest version. See UltraPort Serial Adaptors User Guide for detailed instructions for installing using a compressed TAR file or source RPM.

1. Log in to the LINUX system as root user.

> **Note**
> The <packages directory> path name in the following instructions will be different depending on the LINUX distribution you have installed. (i.e. Redhat will have a "redhat" directory; Suse will have a "packages" directory)
> The <rpm build command> will change depending on the version of the RPM utilites installed. For newer versions (i.e. 4.2) , the <rpm build command> is "rpmbuild". For older versions use "rpm".

2. At the LINUX prompt, copy the supplied perle-serial-<version>-<release>.**src.rpm** file onto your system in the **/tmp** directory.
3. Install the source rpm by typing the following command:
   rpm –ivh perle-serial-<version>-<release>.src.rpm
4. Build the binary RPM package for your system by entering the following commands:
   cd /usr/src/<packages directory>/SPECS
   <rpm build command> -bb perle-serial-<version>.spec
5. Install the binary RPM which was just created. Enter the following commands:
   cd /usr/src/<packages directory>/RPMS/<arch>
   rpm –ivh perle-serial-<version>-<release>.<arch>.rpm

The <arch> value is the architecture of your LINUX machine such as "i386" or "alpha".

UltraPort4 RJ45 socket pinouts

The connector pinout for each RJ45 socket fitted to the UltraPort4 cards is as follows;

RJ45 10-pin	RJ45 8-pin	Signal	Direction	Description
1	N/A	RI	In	Ring Indicator
2	1	DCD	In	Data Carrier Detect
3	2	RTS	Out	Request To Send

RJ45 10-pin	RJ45 8-pin	Signal	Direction	Description
4	3	DSR	In	Data Set Ready
5	4	TXD	Out	Transmit Data
6	5	RXD	In	Receive Data
7	6	S-GND		Signal Ground
8	7	CTS	In	Clear to Send
9	8	DTR	Out	Data Terminal Ready
10	N/C			Not Connected
Shell	Shell	C-GND		Chassis Ground

UltraPort8i RJ12 socket pinouts

The connector pinout for each RJ12 socket fitted to the UltraPort8i cards is as follows;

RJ12 6-pin	Signal	Direction	Description
1	DCD	In	Data Carrier Detect
2	RXD	In	Receive Data
3	DTR or RTS	Out	Data Terminal Ready/ Request To Send
4	S-GND		Signal Ground
5	TXD	Out	Transmit Data
6	CTS	In	Clear to Send
10			Not Connected
Shell	C-GND		Chassis Ground

Configuring the ports

Windows 95/98
Use the Device Manager to change the default settings that are applied by the operating system.

Windows NT
PortDirector will automatically recognise the installed card and its ports. The ports will have the default settings, although this can be changed using PortDirector.

Windows 2000/XP/Server 2003/Vista/ Server 2008
Use the Device Manager to change the default settings that are applied by the operating system.

Solaris (Intel)
The admin tool within the Solaris operating system allows you to configure the extra serial ports you have added to your system.

1. At the command pormpt, type **admintool** and the Admintoll utility window will be displayed.
2. In the Admintool window, click on **Browse->Serial Ports** and seletec the port you want to configure by clicking **Edit >Modify.**The Modify Serial Port window will be dispalyed
3. In the Modify Serial Port window, set the parameters that you require and click **OK** to accept the changes.
4. Repeat the above step for each serial port you wish to configure.
5. In the Serial Manager menu click on **Host>Quit** to quit Serial Manager and close window.

SCO OpenServer
The Port Configuration utility allows you to configure the UltraPort serial ports you have added to your system. To do this proceed as follows;

1. In the SCO OpenServer desktop, double click on the **System Administration** Folder.
2. In the System Administration window now displayed, double click on the **Speed** folder, then in the Speed window now displayed, double click the **Port Configuration** icon.

3. In the Port Configuration window now displayed, select the ports you want you want to configure and select the getty definition and terminal type you want.
4. If required, click on the **ixon** button to enable flow control for Transparent printing (to enable sending of data on receipt of the next character, click on the **ixany** button).
5. Click on either the **Enable** or **Disable** buttons as required to enable or disable login sessions on the selected ports.
6. In the Port Configuration menu, click **Ports > Save & Exit**.

SCO UnixWare
The UltraPort utilities for the SCO UnixWare operating system includes a utility called **Serial Manager** which allows you to configure the extra UltraPort serial ports you have added to your system. To invoke **Serial Manager**;

1. At the command prompt, type **scoadmin** to display the System Administration window.
2. In the System Administration tool window, click on the **Hardware** folder and then select **Serial Manager.**

Linux
After the Ultraport cards and the new driver have been installed, terminal devices will need to be created for the added ports. This can be done be using the **ps_addports** utility.

To use the ps_addports script, enter the following command:
    ps_addports m n

where:
    m is the first port device (starting at 0)
    n is the last port device to add.

The port devices will be created in the /dev directory and will have the following format:
    /dev/ttyPSnn

where **nn** is the 2 digit port number.

Once the port devices have been created, they may be used as standard LINUX serial TTYs.

perle

UltraPort

Multiport Serial Cards

Quick Start Guide

• Universal 3.3V/5V bus support

• Ease of installation and configuration

• 1, 2, 4, 8 or 16 ports

• Bi-directional speeds up to 921Kbps