

Introduction

This Quick Start Guide covers the key points of the installation of the SX device driver software and hardware. It is intended for systems administrators familiar with Windows NT, Windows 2000, SCO OpenServer 5, SCO UnixWare and Linux operating systems. To obtain the latest driver software please refer to the driver matrix page under technical support in Perle web site.

Accessing the CDROM

Solaris

1. Login to your system as super user then load the CDROM into your system CD drive.

Solaris will automatically mount the CDROM when inserted, and start the file manager application.

You can now browse the CDROM content using the File Management tools within Solaris.

SCO OpenServer

1. Login to your system as super user then load the CDROM into your system CD drive.

2. Mount the CDROM using the **mount -fISO9660 -r /dev/cd0 /cdrom** command.

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. Mount the CDROM using the **mount -r -Fcdfs -o nmconv=c /dev/cdrom/cdrom1 /mnt** command.

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

Windows NT

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

Windows 2000

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

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

Solaris

To install under Solaris proceed as follows;

1. Install any SX PCI host cards into your system.
2. Login to your system as super user, begin a terminal session then load the HandyWEB CDROM into your system CD drive.
3. At the command prompt, type: **pkgadd -d/cdrom/handywebx/drivers/sxplus/solaris/sx-sol-<ver>.pkg** and press the **Enter** key (where **ver** is version number).
4. At the resulting question prompt, select **Y** and press **Enter**.

SCO OpenServer

To install under SCO OpenServer proceed as follows;

1. Install any SX PCI host cards into your system.
2. Login to your system as super user.
3. Load the HandyWEB CDROM into your system CD drive.
4. Mount the CDROM using the **mount -fISO9660 -r /dev/cd0 /cdrom** command.
5. In the SCO OpenServer desktop, double click on the System Administration folder.
6. In the System Administration window, double click on the Software Manager icon.
7. In the Software Manager menu, click on **Software > Install New**.
8. In the Begin Installation window, click on the **From localhostname** button and then click on **Continue**.
9. In the Select Media window, select the **Media Images** option then click on **Continue**.
10. In the Enter Image Directory window, type; **/cdrom/drivers/sx/openserver** and then click on **OK**
11. In the Install Selection window, click on the **Install** button.

12. If you are installing other drivers, turn off the **Re-link Kernel** option to prevent an unwanted kernel link.
13. In the Specialix SX Configuration window now displayed, click on the **Cards > Exit** menu option to close the window.
14. In the pop-up window that now appears (for successful installation) click on **OK** to close the window.

The software manager window is now updated to include the SX driver in the list of installed software. You can now install any ISA host cards and Device concentrators you require.

SCO UnixWare

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

1. Install any SX PCI host cards into your system.
2. Login to your system as super user then load the HandyWEB CDROM into your system CD drive.
3. Mount the CDROM using the **mount -r -Fcdfs -o nmconv=c /dev/cdrom/cdrom1 /mnt** command.
4. At the command prompt, type **pkgadd -d /mnt/drivers/sx/unixware/sx.pkg sxos** and press **Enter**.
5. At the command prompt that now appears, type **shutdown -y -i6** and press **Enter** to shutdown and re-boot the system.

Upon completion of the system re-boot the SX drivers you have installed are ready to use. You can now install any ISA host cards and Device concentrators you require.

Linux

To install the SX device drivers and utilities for the Linux operating system proceed as follows;

1. Install any ISA or PCI host card(s) and device concentrator(s) onto your system.
2. Mount the cdrom using the **mount /mnt/cdrom** command.
3. Apply the kernel driver patch to kernel sources in **/usr/src/linux: patch -p1 </mnt/cdrom/drivers/sx/linux/sx.patch-1.30-2.2.14**
4. Set the Kernel Configuration->Character Devices->Specialix SX (and SI) card support flag to **m**.
5. Use either the **make config** or **make xconfig** commands to apply this setting. Now rebuild and install the new kernel and modules then reboot using the new kernel.

6. Install utilities **RPM: rpm -i /mnt/cdrom/drivers/sx/linux/specialix_sxtools-4-1.i386.rpm**.
7. Load the SX driver: **sbboot** then load the host card firmware: **sxmkernel -f**.

Your system is now ready to use the attached SX serial ports.

Windows NT

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

1. Load the CDROM then access the \drivers\portdirector directory, in Windows Explorer and double-click on Setup.exe.
2. Follow the instructions on screen to install PortDirector

Note

Any installed SX cards will be automatically detected and assigned from PortDirector.

You can now install any ISA host cards and Device concentrators you require.

Windows 2000

To install under Windows 2000 proceed as follows;

1. Install the SX cards you require and allow the operating system to boot.
2. Load the CDROM then in the popup window now displayed, select the \drivers\sx\w2k directory and click on **OK**.

You can now install PortDirector if required for management of your serial ports. Alternatively, use the Windows 2000 Device Manager.

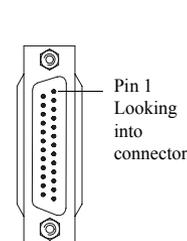
The device drivers and software are now installed automatically into the selected destination.

You can now install any Device concentrators you require.

Device concentrator pinouts

MX type device concentrators

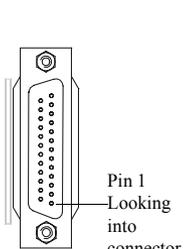
All MX type SX device concentrators are fitted with DB25 male connectors as shown in the next table.



Pin	Signal	Direction
1	Chassis	
2	TXD	Out
3	RXD	In
4	RTS	Out
5	CTS	In
6	DSR	In
7	GND	
8	DCD	In
20	DTR	Out
22	RI	In

DX type device concentrators

All DX type SX device concentrators are fitted with DB25 female connectors as shown in the next table.



Pin	Signal	Direction
1	Chassis	
2	RXD	In
3	TXD	Out
4	RTS	In
5	CTS	Out
6	DSR	Out
7	GND	
8	DCD	In
20	DTR	In
22	RI	In

RJX type device concentrators

All RJX type SX device concentrators are fitted with RJ45 female connectors as shown in the next table.

Pin 1
(looking into connector)



Pin	Signal	Direction
1	DCD	In
2	DTR	Out
3	DSR	In
4	S/GND	
5	TXD	Out
6	RXD	In
7	RTS	Out
8	CTS	In
Shield		

Installing host 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.

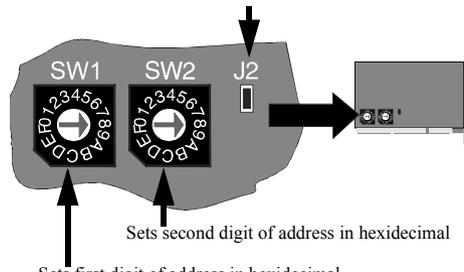
Caution
Full anti-static precautions should be taken when handling host cards.

PCI host cards

1. Turn off the power to your system and remove the cover.
2. Insert each card into a vacant PCI slot.
3. Replace and secure the cover of your computer and restart your machine. The SX card(s) should be detected automatically.

ISA host card

Sets third digit of address in hexadecimal.
Jumper fitted=8, No jumper fitted=0



Sets second digit of address in hexadecimal
Sets first digit of address in hexadecimal

1. Set the address on each ISA host card using the address on each ISA host card using the rotary switches **SW1**, **SW2** and jumper **J2** to the first three digits of the address you want as shown by the next example.

Address	SW1	SW2	J2	J3
C0000	0	C	No jumper	No jumper
C8000	0	C	Jumper fitted	
D0000	0	D	No jumper	

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

Installing device concentrators

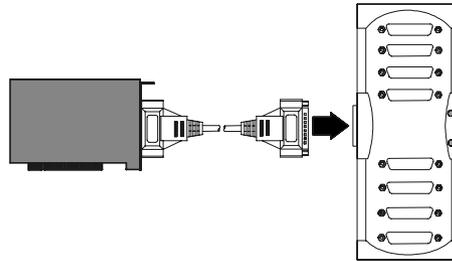
To install SX device concentrators (SXDCs) on your system proceed as follows:

Warning
Before installing or removing device concentrators on your system, turn off the power supply to your system and disconnect the mains lead.

1. Turn the power off to your computer system and disconnect the supply.
2. If you want to use more than one unit, add extra units to the first one.

Note
Do NOT join together different device concentrator types. You can only connect device concentrators as follows;
SXDC8s to SXDC8s
MTAs to MTAs, and
TA4s/TA8s to TA4s/TA8s
No other combinations are permitted.

3. If required mount the unit(s) in the location you require.
4. Connect each host card to the first of the SXDCs you want to use using the 1.5 metre bus extension cable supplied with the host card.



5. Attach the peripherals you want to the device concentrators using suitable cables.
6. Power up your computer system.



SX

Serial connectivity system

Quick start guide



Contacting Perle Technical Support

Perle offers free technical support to Perle Authorised Distributors and Registered Perle Resellers.

To access technical support please visit the Perle website at www.perle.com/support. Here you will find:

- latest drivers and firmware updates for download
- technical tips
- frequently asked questions
- documentation
- configuration support
- cabling information
- maintenance contract information
- and much more...

If you are unable to find the information you require, please feel free to contact our technical support teams by email at:

USA

Email: ptac@perle.com

Europe

Email: ptacemea@perle.com

Asia

Email: ptacasia@perle.com

Internet

www.perle.com/support

- Up to 32 ports per card
- Up to 4 cards per server

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