

## QNX 6.0 built-in driver installation guide for PCI PORT card

1. To use PCI PORT card in QNX system we will use the built-in driver in QNX system.
2. The built-in driver for serial port in QNX system is "devc-ser8250". Please check the manual of "devc-ser8250" for more information about usage.
3. Because our PCI PORT card is PCI card and "devc-ser8250" driver need to know the I/O address and IRQ vector in each serial port. So we need to know such information in PCI PORT card. And "pci" command in QNX system will offer such information. Please check the manual of "pci" for more information about usage.
4. Following is the procedure to install driver for PCI PORT card in QNX.
  - a) Please run "pci" command to get information of PCI device in your system.

```
pci -v > pci.inf
```

- b) From above "pci.inf" file we can get information for our PCI PORT card. We have two vendor ID for PCI PORT card. In P584/P588/P584U/P588U card we have vendor ID "10B5". In P514/P518 card we have vendor ID "144A". Please search vendor ID "10B5" or "144A" in "pci.inf" file to find our PCI PORT card's information. You may have similar information as following structure.

```
Class           = Communication (Serial Controller)
Vendor ID       = 10B5h or 144Ah
Device ID      = 9050h
PCI index      = 0h
Class Codes    = 070080h
Revision ID    = 1h
Bus number     = 0
Device number  = 7
Function num   = 0
PCI IO Address = C800h length 128 enabled
PCI IO Address = C400h length 64 enabled <=====I/O base for PCI PORT
PCI IO Address = C000h length 8 enabled
Max Lat       = 0ns
Min Gnt       = 0ns
PCI Int Pin   = INT A
Interrupt line = 10 <=====IRQ value for PCI PORT
```

- c) From above example we can know the I/O base address for PCI PORT card is "c400" and IRQ value for PCI PORT card is "10".
  - d) So we can use such information to install serial port driver in following I/O address  
c400, c408, c410, c418, c420, c428, c430, c430 for 8 serial port in P588 card. Each serial port need 8 byte I/O map.
  - e) We need to run following command line under QNX to install driver:  
devc-ser8250 -u3 c400,10 -u4 c408,10 -u5 c410,10 -u6 c418,10  
-u7 c420,10 -u8 c428,10 -u9 c430,10 -u10 c438,10
  - f) So you have PCI PORT card with device name as /dev/ser3----/dev/ser10
5. For more information you can check manual for "pci and devc-8250" command to know more option about QNX standard device driver usage.