Release Notes for the QNX Neutrino 6.4.0 BSP for x86 BIOS 1.0.0#

System requirements#

Target system#

- QNX Neutrino RTOS 6.4.0
- Board version: An x86 board with BIOS

Host development system#

- QNX Momentics 6.4.0, one of the following host systems:
  - QNX Neutrino 6.4.0
  - Microsoft Windows Vista, XP SP2 or SP3, 2000 SP4
  - Linux Red Hat Enterprise Workstation 4 or 5, Red Hat Fedora Core 6 or 7, Ubuntu 6.0.6 LTS or 7, or SUSE 10
- 150 MB of free disk space
- RS-232 serial port
- 64 MB of RAM

Getting Started#

The purpose of this documentation is not to describe the all possible communication methods in detail, due to the variety of x86 boards with BIOS that are supported by this BSP. We're assuming that you're familiar with your x86 board and that you already know the best possible way of communication with the board (i.e. through a serial line, Ethernet, CDROM or hard drive).

Step 1: Connect your hardware#

Step 2: Generate the OS image#

You can build OS images from the buildfiles provided in this BSP archive or from the buildfiles available, by default on your host, in {$QNX_TARGET/boot/build/*.build}. These buildfiles provide complete examples for booting QNX Neutrino on an x86 BIOS system:

- bios.build

A basic OS image.

- Other buildfiles may be provided as examples. For instructions about building an OS image, please refer to the chapter Working with a BSP in the Building Embedded Systems manual.

Step 3: Transfer the OS image to the target#

Once you've built the appropriate OS image for your x86 target system, you can transfer it to the target using the method of your choice. Please refer to the QNX Momentics documentation for further details.

Once you've transferred the OS image to the target board and reset it, you should see QNX Neutrino boot on it. You should also see the Neutrino welcome message on your terminal screen:

```
Welcome to QNX Neutrino on a PC compatible BIOS system
```

You can now test the OS simply by executing any shell builtin command or any command residing within the OS image (e.g. ls).

System layout#

With the buildfile examples provided with this BSP, the memory layout is as follows:

Item	Address	
OS image loaded at:	0x400000	
OS image begins execution at:	0x400000	

Summary of driver commands#

The driver command lines below are specific to an x86 board with BIOS. See the online docs for each driver for additional command-line options and other details.

Serial#

Command:

devc-ser8250 -b115200

PCI#

Commands:

pci-bios

Flash#

Commands:

devf-generic -s<FlashAddr>,<FlashSize>

The devf-generic driver is provided as an example since not all x86 boards have a flash device. If your x86 target board has a flash device, you'll need to specify the flash address and the flash size on the command line when starting the flash driver. Although this flash driver is generic, it might not recognize the flash device on your target. If that's the case, you might need to customize the flash driver for your target. Refer to the Customizing the Flash Filesystem chapter in the Building Embedded Systems guide for more details.