

QNX[®] Momentics[®]
Development Suite 6.3.2

Installation Guide

For Windows[®], Linux[®], and QNX[®] Neutrino[®] hosts

© 2005–2007, QNX Software Systems GmbH & Co. KG. All rights reserved.

Published under license by:

QNX Software Systems International Corporation

175 Terence Matthews Crescent

Kanata, Ontario

K2M 1W8

Canada

Voice: +1 613 591-0931

Fax: +1 613 591-3579

Email: info@qnx.com

Web: <http://www.qnx.com/>

Publishing history

September 2005	First edition
July 2006	Second edition
August 2007	Third edition

QNX, Neutrino, Photon, Photon microGUI, Momentics, and Aviage are trademarks, registered in certain jurisdictions, of QNX Software Systems GmbH & Co. KG. and are used under license by QNX Software Systems International Corporation. All other trademarks belong to their respective owners.

Printed in Canada.

Part Number: 002550

Contents

	About This Guide	v
	What's in this guide?	vii
	Typographical conventions	vii
	Before you start	viii
	Getting started with the documentation	ix
	Technical support	ix
1	QNX Neutrino Hosts	1
	System requirements	3
	BIOS settings	3
	Installing QNX Momentics	4
	Activating QNX Momentics	6
	Activating automatically	6
	Activating manually	6
	Commercializing your evaluation software	7
	Creating a bootable floppy	8
	Updating disk drivers	8
	Applying a driver update patch after you've installed QNX Neutrino	10
	Uninstalling QNX Momentics	11
	Determining your base directory	11
2	Microsoft Windows Hosts	13
	System requirements	15
	Installing QNX Momentics	15

Activating QNX Momentics	17
Activating automatically	17
Activating manually	17
Important notes	19
Commercializing your evaluation software	20
Uninstalling QNX Momentics	21
Determining your base directory	22

3 Linux Hosts 23

System requirements	25
Installing QNX Momentics	25
Activating QNX Momentics	26
Activating automatically	27
Activating manually	27
Commercializing your evaluation software	28
Uninstalling QNX Momentics	29
Determining your base directory	29

About This Guide



What's in this guide?

Thank you for choosing the QNX Momentics development suite version 6.3.2. This guide tells you how to install it from CD. Please read this preface for information that applies to all host OSs, and then refer to the chapter for your specific OS (QNX Neutrino, Microsoft Windows, or Linux).

Typographical conventions

Throughout this manual, we use certain typographical conventions to distinguish technical terms. In general, the conventions we use conform to those found in IEEE POSIX publications. The following table summarizes our conventions:

Reference	Example
Commands	make
Environment variables	PATH
File and pathnames	/dev/null
Keyboard keys	Enter
Variable names	<i>stdin</i>
User-interface components	Cancel

We use an arrow (→) in directions for accessing menu items, like this:

You'll find the **Other...** menu item under **Perspective→Show View**.

Before you start

We use notes and cautions to highlight important messages:



Notes point out something important or useful.



CAUTION: Cautions tell you about commands or procedures that may have unwanted or undesirable side effects.

Before you start

Before you install this software, please note the following:

- The 6.3.2 installers do a fresh installation of the QNX Momentics development suite.
- If you've already installed QNX Momentics 6.3.0, and you want to replace it, you must uninstall it and any updates to it before installing 6.3.2. You should uninstall QNX products in the reverse order in which you installed them. To determine this order, use a command like this:

QNX Neutrino hosts

```
ls -lt `find base_directory -name "**uninstall*.sh"``
```

Windows hosts

```
ls -lt `find base_directory -name "**uninstall*.exe"``
```

Linux hosts `ls -lt `find base_directory -name "**uninstall*.bin"```

where *base_directory* is where you installed QNX Momentics.

- Any products that we've released for QNX Momentics 6.3.0 SP2 or SP3 are compatible with 6.3.2.

Getting started with the documentation

After you've installed your development suite, you'll find an extensive set of online documentation in HTML format. You can read it in the Integrated Development Environment's help system on all host OSs; on self-hosted QNX Neutrino systems, you can also read it in the Photon helpviewer, or you can use a web browser to display:

```
${QNX_TARGET}/usr/help/product/momentics/bookset.html
```

This “roadmap” page contains links to the various HTML booksets that accompany the OS (e.g. *System Architecture*, *QNX Neutrino Programmer's Guide*, *Library Reference*, *Utilities Reference*, etc.).

The online documentation includes the installation and release notes. For the most up-to-date version of these notes, go to our website, www.qnx.com, log into your myQNX account, and then go to the Download area.

You can install and work with multiple versions of QNX Neutrino. Whether you're using the command line or the IDE, you can choose which version of the OS to build programs for. For more information, see the *IDE User's Guide* or the *QNX Neutrino Programmer's Guide*.



Coexistence of 6.3.x and 6.2.1 is supported only on Windows hosts (we didn't support Linux hosts in 6.2.1).

Technical support

To obtain technical support for any QNX product, visit the **Support + Services** area on our website (www.qnx.com). You'll find a wide range of support options, including community forums.



Chapter 1

QNX Neutrino Hosts

In this chapter...

System requirements	3
BIOS settings	3
Installing QNX Momentics	4
Activating QNX Momentics	6
Commercializing your evaluation software	7
Creating a bootable floppy	8
Updating disk drivers	8
Uninstalling QNX Momentics	11
Determining your base directory	11





If you've already installed an evaluation version of QNX Momentics 6.3.2, and you've purchased and received a commercial QNX License Certificate, please go to "Commercializing your evaluation software," below.

System requirements

	Minimum	Recommended
Processor	2 GHz or more Intel Pentium 4	2 GHz or more Intel Pentium 4
RAM	512 MB	1 GB
Disk space	2.1 GB	2.1 GB
Monitor	1024×768	1280×1024

The System Profiler in the IDE requires a minimum color depth of 16 bits.

BIOS settings

We recommend you use the following BIOS settings:

- Disable **Plug and Play OS**.
- Set any parallel ports and onboard serial ports to specific addresses, if possible, instead of using an automatic setting.
- Enable SATA if your system includes a SATA drive.
- If you want to boot QNX Neutrino from the CD — either to try it without installing it, or for troubleshooting — make sure that the CD is the first boot device.

- If your BIOS has an option for booting from “Other USB devices,” enabling it could make the BIOS take a very long time to start.

Installing QNX Momentics

QNX Momentics 6.3.2 includes everything you need to build for *all* supported platforms (ARM, MIPS, PowerPC, SH-4, and x86). This CD includes the runtime version of the QNX Neutrino RTOS, as well as development tools and the IDE.



-
- You must do a fresh installation of this software.
 - For QNX Neutrino self-hosted development, it’s possible to have more than one version of QNX Momentics installed on your computer at the same time, by having them in separate partitions. If you want to retain an earlier released version of QNX Momentics, install 6.3.2 in a new partition.
When you boot, you’re asked to choose the partition by its number. If you’re then prompted to choose from multiple `.diskroot` files, choose the one that corresponds to the partition that you already chose.
 - You can install QNX Momentics into a new partition without harming the contents of other partitions.
 - In text mode, we support only the US keyboard layout.
-

To install QNX Momentics 6.3.2, do the following:

- 1 Insert the QNX Momentics Neutrino Host CD in the CD drive.
- 2 Boot from the CD and follow the instructions on your screen. The installer asks you to do the following:
 - Decide whether to run from the CD or install QNX Neutrino into a new disk partition. Press F3 to install, and then choose between normal and verbose modes.

- Enter your license key. It doesn't matter if you include or omit the hyphens.
- Read the license agreement. To accept its terms and continue with the installation, press F1.
- Choose which disk you'd like to install QNX Neutrino on.
- Choose which filesystem you'd like to install QNX Neutrino from; choose the appropriate CD device.
- Choose the type for the new partition: 77, 78, or 79 (the default). If there's already a partition of the type you chose, you're given the choice of deleting a partition or choosing another type.
- Choose the size of the new partition. You can also choose to examine the partition table if you want to delete an existing partition.
- Choose a boot loader to use.
- Choose where to install the software. We recommend you use the default location, `/usr/qnx632`.

The installer will also ask if you wish to install some GNU Public License programs, such as `tar` and `sed`. We recommend that you do so for development machines.

- 3 Remove the CD from the drive and then reboot.



If your EIDE doesn't support DMA, boot using `.altboot`; press Esc when prompted.

If you have more than one partition on your disk, choose the one you installed QNX Neutrino in.

- 4 The first time you boot, a dialog asks you to choose the video driver, resolution, color depth, and refresh rate that are appropriate for your system. You can also choose whether to boot into text or graphical (Photon) mode.
- 5 Log in as `root` (or click `Superuser` in graphical mode). This account initially has no password; for instructions for setting

the password and creating other accounts, see the *Managing User Accounts* chapter of the *QNX Neutrino User's Guide*. You'll find this manual in the online documentation, as well as on our website.

For more information about booting, see the *Controlling How Neutrino Starts* chapter of the *QNX Neutrino User's Guide*.

Activating QNX Momentics

The QNX Momentics development suite and certain related products require activation. If you don't activate the product within the specified timeframe, the product will cease to function until you activate it. No personal data is transferred during the activation process.

Activating automatically

If your development host is connected to the Internet, you can activate QNX Momentics automatically.

Activating manually

if your machine isn't connected to the Internet, you must activate your software manually from a machine that is, by doing the following:

- 1 In the QNX Momentics Activation dialog, click **Activate Manually**.

The Manual Activation dialog appears with an activate-prompt key. This dialog has a button that you can use to save the activate-prompt key in a file, `/etc/qnx/license/activate_prompt_key.txt`. This can eliminate the need to retype the key, which can be error-prone.

- 2 Transfer the activate-prompt key to the machine that's connected to the Internet.
- 3 Go to our website, www.qnx.com, log into your myQNX account, and choose *Activate Products (6.3.x)*.

- 4 Enter the activate-prompt key into the form that appears, and then click **Generate Response Key**. This will return an activate-response key.
- 5 Copy the activate-response key and paste it in a file.
- 6 Transfer the file into
`/etc/qnx/license/activate_response_key.txt` on your QNX Momentics development host.
- 7 If you closed the QNX Momentics Activation dialog, open it again by selecting **Configure**→**Activate License** from the Launch menu, or by entering the following at a terminal prompt:

```
/etc/qnx/bin/qnxactivate -a
```
- 8 Choose **Activate Manually**, and use the **Load Response from File** button to load the activate-response key, and then click **Activate**.

If you choose not to activate at the time of installation, you can activate later by selecting **Configure**→**Activate License** from the Launch menu, or by entering the following at a terminal prompt:

```
/etc/qnx/bin/qnxactivate -a
```

Commercializing your evaluation software

If you installed an evaluation copy of QNX Momentics 6.3.2, and you've now received a commercial QNX License Certificate, do the following to add your commercial license:

- 1 Choose **Configure**→**Add License** from the Launch menu.
- 2 Enter the license-key information that's on your commercial QNX License Certificate.
- 3 Read the displayed End User License Agreement (EULA) and accept its terms if you wish to continue.

Creating a bootable floppy

We recommend that you install QNX Momentics on a machine that can boot from a CD-ROM. If your machine can't do this, you can create a bootable floppy.

The root directory of the QNX Momentics installation CD contains an image of a bootable floppy, named `instflop.dat`. To copy this file to a boot disk:

- On UNIX-style machines (including QNX Neutrino), use a utility such as `dd` to copy this image to a boot disk:

```
dd if=instflop.dat of=/dev/fd0
```

- On Windows, you need a raw-copy utility. Although we don't support any such utilities, we recommend you use `rawwrite`, which you can find at:

```
http://www.chrysocome.net/rawwrite
```

Download this utility and extract it to a folder.

To create a bootable floppy:

- 1 Start `rawwrite`.
- 2 Make sure the Floppy Drive combo box refers to your floppy drive.
- 3 Under the Write tab, specify the location of `instflop.dat` in the Image File field, and click **Write**.

Updating disk drivers

The Neutrino boot process can dynamically add block I/O (i.e. disk) drivers, letting you boot on systems with newer controllers. The mechanism is simple and not proprietary to QNX Software Systems, so third parties can offer enhanced block drivers without any intervention on our part.

The driver update consists of the drivers themselves (`devb-*` only) and a simple configuration file. The configuration file is in plain text

(DOS or UNIX line endings accepted), with the following fields separated by vertical bars:

drv_name | *type* | *timeout* | *add_args*

The first three fields are mandatory. The fields are as follows:

<i>drv_name</i>	The file name of the driver.
<i>type</i>	The string for the boot process to display when trying the driver.
<i>timeout</i>	The total time to wait for devices.
<i>add_args</i>	Any additional arguments to the driver (e.g. blk cache=512k).

The configuration file must be called **drivers.cfg**, and you must supply the update on a physical medium, currently a CD-ROM or a USB flash drive. The boot process looks in the root of the filesystem first, and then in a directory called **qnxdrv**. This can help reduce clutter in the root of the filesystem.

The source filesystem can be any of the supported filesystems. These filesystems are known to work:

- standard ISO9660 filesystems on CD-ROM
- DOS (e.g. t7, t11 partition) and QNX 4 (t77, t78, or t79 partition) filesystems on a USB flash drive

If the update is distributed over the web in **zip** or **tar** format with the **qnxdrv** structure preserved, an end user simply has to download the archive, unzip it to a USB drive, and insert the USB drive on booting.

You can apply a driver update by pressing **Space** during booting, and then selecting **F2**. The system then completes the startup of the standard block drivers, giving a source filesystem to apply the update from. You're then prompted to choose the filesystem and insert the update media.



If you need to rescan the partitions (for example, to find a USB drive that you inserted after booting), press F12.

Once the files have been copied, you're prompted to reinsert the QNX Momentics installation CD if applicable. The block drivers are then restarted.

This mechanism also lets you update existing drivers or simply modify their arguments (e.g. PCI ID specification).

If you're installing, then the installation program copies the updated drivers to `/sbin` and the configuration file to `/boot/sys`. It then makes copies of the standard build files in `/boot/build` (except multicore ones) and calls them `qnxbase-drvrup.build` and `qnxbasedma-drvrup.build`. These files are then used to create new image files called `qnxbase-drvrup.ifs` and `qnxbasedma-drvrup.ifs` in `/boot/fs`. The DMA version of this new file is copied to `.boot`, and the non-DMA version is copied to `.altboot`.



The installation program doesn't rebuild multicore (SMP) images.

Applying a driver update patch after you've installed QNX Neutrino

If you're updating or adding drivers to an already existing QNX Neutrino system using this mechanism, you must manually copy the drivers to the correct directory, and you must modify the boot image to use the new driver:

- 1 Boot the machine and apply the driver updates.
- 2 Once the machine has booted, copy the following from the driver update disk used in step 1:
 - 2a Copy the new `devb-*` drivers to `/sbin`.

- 2b** Copy `drivers.cfg` to somewhere under `/`. If you put it in a directory that's in the `mkifs` search path (e.g. `/sbin`, `/boot/sys`), `mkifs` will find it automatically.
- 3** Copy the build file (typically `qnxbasedma.build`) to `driverupdate.build`.
- 4** Edit the build file and do the following:
 - Add the names of the new block drivers (`devb-*`) after `devb-eide`.
 - Add the `drivers.cfg` file at the end. If the file is in the `mkifs` search path, then just add the file name. Otherwise add the full path:
`drivers.cfg=/path/drivers.cfg`
- 5** As a safety precaution (so you'll be sure to have at least one image that boots):

```
cp /.boot /.altboot
```
- 6**

```
mkifs driverupdate.build /.boot
```

Uninstalling QNX Momentics



You should uninstall QNX products in the reverse order in which you installed them. To determine this order, use a command like this:

```
ls -lt `find base_directory -name "**uninstall*.sh"``
```

where `base_directory` is where you installed QNX Momentics.

If you want to uninstall QNX Momentics completely, simply erase or delete the partition you installed it in.

Determining your base directory

To determine the base directory for QNX Momentics, open a command shell and use the `qconfig` command. For example:

Determining your base directory

```
$ qconfig
QNX Installations

  Installation Name: QNX Momentics 6.3.2
        Version: 6.3.2
  Base Directory: /usr/qnx632/
    QNX_HOST: /usr/qnx632/host/qnx6/x86/
    QNX_TARGET: /usr/qnx632/target/qnx6/
```

The base directory in this example is `/usr/qnx632/`, but it could be different on your machine, depending on where you installed QNX Momentics.

Chapter 2

Microsoft Windows Hosts

In this chapter...

System requirements	15
Installing QNX Momentics	15
Activating QNX Momentics	17
Important notes	19
Commercializing your evaluation software	20
Uninstalling QNX Momentics	21
Determining your base directory	22





If you've already installed an evaluation version of QNX Momentics 6.3.2, and you've purchased and received a commercial QNX License Certificate, please go to "Commercializing your evaluation software," below.

System requirements

Host OS:

- Windows Vista
- Windows XP SP2
- Windows 2000 SP4

	Minimum	Recommended
Processor	Pentium III, 700 MHz	Pentium 4, 2 GHz or more
RAM	256 MB ^a	512 MB ^a
Disk space	2.1 GB	2.1 GB
Monitor	1024×768	1280×1024

^a Windows Vista requires an additional 512 MB of available RAM.

The System Profiler in the IDE requires a minimum color depth of 16 bits.

Installing QNX Momentics

QNX Momentics 6.3.2 includes everything you need to build for *all* supported platforms (ARM, MIPS, PowerPC, SH-4, and x86).



CAUTION: If you install Neutrino in a partition on a Windows machine and later use Windows software to create another partition, you'll lose your Neutrino partition.

To install QNX Momentics 6.3.2, do the following:

- 1 Boot into Windows and log in as a user with system-administrator privileges.
- 2 Insert the QNX Momentics Windows Host CD. The installation should start automatically; if it doesn't, double-click `qnxSetupWin32.exe` in the root directory of the CD.



Java's AWT and Swing aren't supported in 16-color mode; they require a minimum of 256 colors. If you get a message, "Unable to run in graphical mode," run the installer in console mode, by typing this in a DOS prompt window:

```
drive:\qnxSetupWin32.exe -console
```

where *drive* is the drive letter for your CD drive.

- 3 Follow the instructions provided by InstallShield.



If you install 6.3.2 on a machine that already has 6.2.1, be sure to select "Yes" when prompted about upgrading the environment variables. Otherwise, you won't be able to install future releases. For more information, see "Important notes," below.

If QNX Software Systems has a contract with you to support server-based licenses, you have a special license key that tells the software to enforce these licenses. In this case, the installer presents a panel where you can specify the hostname or IP address of the server, and the port on which the server is listening for connections. If you're using the default port, you can leave the port blank.

- 4 Log out and log back in again, so that the environment is set up correctly.

Your desktop should now include an icon for the QNX Momentics IDE.

Activating QNX Momentics

The QNX Momentics development suite and certain related products require activation. If you don't activate the product within the specified timeframe, the product will cease to function until you activate it. No personal data is transferred during the activation process.

Activating automatically

If your development host is connected to the Internet, you can activate QNX Momentics automatically.

Activating manually

If your machine isn't connected to the Internet, you must activate your software manually from a machine that is, by doing the following:

- 1 In the QNX Momentics Activation dialog, click Activate Manually.

The Manual Activation dialog appears with an activate-prompt key. This dialog has a button that you can use to save the activate-prompt key in the file:

```
drive\Program Files\QNX Software Systems\license\activate_prompt_key.txt
```

where *drive* is the name of the drive where you installed QNX Momentics. This can eliminate the need to retype the key, which can be error-prone.

- 2 Transfer the activate-prompt key to the machine that's connected to the Internet.

Activating QNX Momentics

- 3 Go to our website, www.qnx.com, log into your myQNX account, and choose Activate Products (6.3.x).
- 4 Enter the activate-prompt key into the form that appears, and then click Generate Response Key. This will return an activate-response key.
- 5 Copy the activate-response key and paste it in a file.
- 6 Transfer the file into:

```
drive\Program Files\QNX Software Systems\license\activate_response_key.txt
```

on your QNX Momentics development host.

- 7 If you closed the QNX Momentics Activation dialog, open it again by selecting **Programs→QNX Momentics 6.3.2→License Management→Activate License** from the Start menu, or by entering the following at the command prompt:

```
drive\Program Files\QNX Software Systems\bin\qnxactivate -a
```

- 8 Choose Activate Manually, and use the Load Response from File button to load the activate-response key, and then click Activate.

If you choose not to activate at the time of installation, you can activate later by selecting **Programs→QNX Momentics 6.3.2→License Management→Activate License** from the Start menu, or by entering the following at the command prompt:

```
drive\Program Files\QNX Software Systems\bin\qnxactivate -a
```

where *drive* is the name of the drive where you installed QNX Momentics.

Important notes

- We provide two shells:
 - Bash shell (**bash.exe**)
 - Korn shell (**ksh.exe**)

You'll find these executables under `${QNX_HOST}/usr/bin` (e.g. `C:\QNX632\host\win32\x86\usr\bin`). You may want to create desktop shortcuts for these or other executables you'll use often.

- The QNX Momentics IDE shortcut has a working directory set to `C:\QNX632` (or wherever you installed the software). Users who aren't system administrators might not have write access for this directory. You might want to change the shortcut so that it starts the IDE in a directory that nonadministrator users can write in.
- If you install 6.3.2 on a machine that already has 6.2.1, and you select "No" when prompted about upgrading the environment variables, you won't be able to install future releases. (Ref# 19585)

Workaround: Do the following:

- 1 Open
`%PROGRAMFILES%\QNX Software Systems\qconfig\qnx_momentics_6.3.2.xml`
in a text editor.
- 2 Edit the file so that `<host>` and `<target>` tags use the proper base directory. For example, if your `<base>` tag is `<base>C:/QNX632</base>`, then your `<host>` tag should be `<host>C:/QNX632/host/win32/x86</host>`, and your `<target>` tag should be `<target>C:/QNX632/target/qnx6</target>`.
- 3 From the Start menu, choose **All programs** or **Programs**, then choose **QNX Momentics 6.3.2**→**Configuration**.
- 4 Switch your configuration either from 6.2.1 to 6.3.2, or from 6.3.2 to 6.2.1. Click **OK**.
- 5 Repeat steps 3 and 4 to make sure that the environment is set correctly.

- 6 Repeat steps 3 and 4 to set the configuration you really need (if applicable).
- On Windows, the QNX-provided **echo.exe** interprets the Windows \ separator as an escape character. As a result, environment variable settings won't work if you use \ as a path separator; use / instead. (Ref# 19924)
 - If your **PATH** contains quotation marks, **ln-w** doesn't work properly. (Ref# 20046)
 - Our recursive makefiles use the value of the **NAME** environment variable (if set) to name the resulting binary. This is too generic a variable to use for this purpose; if you have a **NAME** environment variable set on your system for some other purpose (e.g. your name or email address), its value will be used as the name of your binaries. (Ref# 29843)
Workaround: Unset the **NAME** environment variable before you build any executables.
 - When you install QNX Momentics, the installer sets the **QNX_HOST** and **QNX_TARGET** environment variables. If you want to install any additional products from our website, and you want to run the installer from the website instead of saving it on your machine, don't use a browser or shell that was open before you installed QNX Momentics. Such a browser or shell won't have those environment variables set, so the installer will think that you haven't installed QNX Momentics.

Commercializing your evaluation software

If you installed an evaluation copy of QNX Momentics 6.3.2, and you've now received a commercial QNX License Certificate, do the following to add your commercial license:

- 1 Choose **Programs**→**QNX Momentics 6.3.2**→**License Management**→**Add License** from the Start menu, or enter the following at the command prompt:

```
drive\Program Files\QNX Software Systems\bin\qnxactivate -l
```

where *drive* is the name of the drive where you installed QNX Momentics.

- 2 In the QNX Momentics License Key Entry dialog, fill in the field with the license-key information that's on your commercial QNX License Certificate.
- 3 When you've finished entering the information, click **Add** to save the license-key information and configure your QNX Momentics tools to use this file.

Uninstalling QNX Momentics



You should uninstall QNX products in the reverse order in which you installed them. To determine this order, open a **bash** shell and use a command like this:

```
ls -lt `find base_directory -name "**uninstall*.exe" `
```

where *base_directory* is where you installed QNX Momentics.

To uninstall QNX Momentics, do the following:

- 1 Log in as a user with system-administrator privileges.
- 2 Do one of the following:
 - Choose **Programs**→**QNX Momentics 6.3.2**→**Uninstall QNX Momentics 6.3.2** from the Start menu.
 - or:
 - Choose **Add or Remove Programs** from the Control Panel, select “QNX Momentics Development Suite 6.3.2,” and then click the **Remove** button.
 - or:
 - Go to the *base_dir*_uninstall\qnx632 directory and run **uninstaller.exe**.
- 3 Log out and back in again.

Determining your base directory



In some cases, if you uninstall QNX Momentics, the Add or Remove Programs window still lists some BSPs, DDKs, and TDKs. Press F5 while in Add or Remove Programs to refresh the list and show what's actually installed.

Determining your base directory

To determine the base directory for QNX Momentics, open a command shell and use the `qconfig` command. For example:

```
C:\>qconfig
QNX Installations

Installation Name: QNX Momentics 6.3.2
Version: 6.3.2
Base Directory: C:/QNX632/
QNX_HOST: C:/QNX632/host/win32/x86/
QNX_TARGET: C:/QNX632/target/qnx6/
```

The base directory in this example is `C:/QNX632/`, but it could be different on your machine, depending on where you installed QNX Momentics.

Chapter 3

Linux Hosts

In this chapter...

System requirements	25
Installing QNX Momentics	25
Activating QNX Momentics	26
Commercializing your evaluation software	28
Uninstalling QNX Momentics	29
Determining your base directory	29





If you've already installed an evaluation version of QNX Momentics 6.3.2, and you've purchased and received a commercial QNX License Certificate, please go to "Commercializing your evaluation software," below.

System requirements

Host OS:

- Red Hat Enterprise Linux Workstation 4 or 5
- Red Hat Fedora Core 6 or 7
- Ubuntu 6.0.6 LTS or 7.0.4
- SUSE Linux 10

	Minimum	Recommended
Processor	Pentium III, 700 MHz	Pentium 4, 2 GHz or more
RAM	256 MB	512 MB
Disk space	1.6 GB	1.6 GB
Monitor	1024×768	1280×1024

The System Profiler in the IDE requires a minimum color depth of 16 bits.

Installing QNX Momentics

QNX Momentics 6.3.2 includes everything you need to build for *all* supported platforms (ARM, MIPS, PowerPC, SH-4, and x86).



If you're running `selinux` (secure Linux), disable it before installing QNX Momentics. Otherwise, after you've entered the license key and clicked Next, the installation will fail with this error:

```
java.lang.UnsatisfiedLinkError: no qnxlic in java.library.path
```

To install QNX Momentics 6.3.2, do the following:

- 1 Boot into Linux and log in as `root`.
- 2 Insert the QNX Momentics Linux Host CD in the CD drive.
- 3 If the system offers to run `autorun`, choose Yes; otherwise run `qnxSetupLinux.bin`, which you'll find in the root directory of the CD.



If your system won't let you execute from a CD, unmount the CD and remount it by hand.

- 4 Follow the instructions provided by InstallShield.
If QNX Software Systems has a contract with you to support server-based licenses, you have a special license key that tells the software to enforce these licenses. In this case, the installer presents a panel where you can specify the hostname or IP address of the server, and the port on which the server is listening for connections. If you're using the default port, you can leave the port blank.
- 5 Log out and log back in again, so that the environment is set up correctly.

Activating QNX Momentics

The QNX Momentics development suite and certain related products require activation. If you don't activate the product within the specified timeframe, the product will cease to function until you activate it. No personal data is transferred during the activation process.

Activating automatically

If your development host is connected to the Internet, you can activate QNX Momentics automatically.

Activating manually

If your machine isn't connected to the Internet, you must activate your software manually from a machine that is, by doing the following:

- 1 In the QNX Momentics Activation dialog, click **Activate Manually**.
The Manual Activation dialog appears with an activate-prompt key. This dialog has a button that you can use to save the activate-prompt key in a file, `/etc/qnx/license/activate_prompt_key.txt`. This can eliminate the need to retype the key, which can be error-prone.
- 2 Transfer the activate-prompt key to the machine that's connected to the Internet.
- 3 Go to our website, www.qnx.com, log into your myQNX account, and choose **Activate Products (6.3.x)**.
- 4 Enter the activate-prompt key into the form that appears, and then click **Generate Response Key**. This will return an activate-response key.
- 5 Copy the activate-response key and paste it in a file.
- 6 Transfer the file into `/etc/qnx/license/activate_response_key.txt` on your QNX Momentics development host.
- 7 If you closed the QNX Momentics Activation dialog, open it again by selecting **Configure**→**Activate License** from the Launch menu, or by entering the following at a terminal prompt:

```
/etc/qnx/bin/qnxactivate -a
```

- 8 Choose **Activate Manually**, and use the **Load Response from File** button to load the activate-response key, and then click **Activate**.

If you choose not to activate at the time of installation, you can activate later by selecting **Configure**→**Activate License** from the Launch menu, or by entering the following at a terminal prompt:

```
/etc/qnx/bin/qnxactivate -a
```

Commercializing your evaluation software

If you installed an evaluation copy of QNX Momentics 6.3.2, and you've now received a commercial QNX License Certificate, do the following to add your commercial license:

- 1 Choose **Programming**→**QNX Momentics 6.3.2 Add License** from the Applications menu, or type the following at a terminal prompt:

```
/etc/qnx/bin/qnxactivate -l
```

- 2 In the QNX Momentics License Key Entry dialog, fill in the field with the license-key information that's on your commercial QNX License Certificate.
- 3 When you've finished entering the information, click **Add** to save the license-key information and configure your QNX Momentics tools to use this file.

Uninstalling QNX Momentics



You should uninstall QNX products in the reverse order in which you installed them. To determine this order, use a command like this:

```
ls -lt `find base_directory -name "**uninstall*.bin"``
```

where *base_directory* is where you installed QNX Momentics.

To uninstall QNX Momentics, do the following:

- 1 Log in as **root**
- 2 Either:
 - Choose **Programming**→**QNX Momentics 6.3.2**→**Uninstall** from the Applications menu.
 - Or:
 - Go to the *base_directory/_uninstall/qnx632* directory (see “Determining your base directory,” below) and run:


```
./uninstaller.bin
```
- 3 Log out and back in again.

Determining your base directory

To determine the base directory for QNX Momentics, open a command shell and use the **qconfig** command. For example:

```
$ qconfig
QNX Installations

Installation Name: QNX Momentics 6.3.2
Version: 6.3.2
Base Directory: /opt/qnx632/
QNX_HOST: /opt/qnx632/host/linux/x86/
QNX_TARGET: /opt/qnx632/target/qnx6/
```

The base directory in this example is **/opt/qnx632/**, but it could be different on your machine, depending on where you installed QNX Momentics.