

WIND RIVER



FIRST[®] Robotics Competition 2011

Installation Instructions

**Wind River[®]
Workbench and VxWorks[®]**

**National Instruments[®]
FRC[®] 2011 Tools and CompactRIO[®] Drivers**

1.0

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FIRST Robotics Competition 2011 README FIRST.pdf 1.0

10 October 2010

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Chapter 1

Overview

Use Wind River Workbench and VxWorks along with FRC-specific tools and CompactRIO Drivers from National Instruments to program your robot in C and C++.

You must install software from Wind River **and** National Instruments DVDs, as described in these two chapters:

- Chapter 2 Installing Wind River Workbench and VxWorks (page 5)
- Chapter 3 Installing National Instruments FRC 2011 Tools and CompactRIO Drivers (page 21)

After finishing your installations from both DVDs, all teams must get mandatory software updates from the FIRST Web site at:

<http://www.usfirst.org/frcontrolsysteem>.

After kickoff and for the Beta trials, go to the FIRST Web site and download all applicable software updates. Follow the specific installation instructions provided for installing each update.

At the FIRST Web site, you will also find FIRST documentation on how to set up CompactRIO and get started.

After starting Wind River Workbench, you can navigate through the Wind River Workbench environment to find Wind River documentation.

Chapter 2

Installing Wind River Workbench and VxWorks

2.1 Uninstall Older FRC Software

If you would like to uninstall software and updates from previous years of FIRST Robotics Competitions, use the uninstall tools provided with each programming language. After that, delete any remaining directories containing older tools.

Before uninstalling, you may want to move any application programs you previously coded into an archive directory to use as reference. Also, save your existing Wind River Workbench workspace directories by changing the subdirectory name. An example name would be from WindRiver\workspace (aka *installDir\workspace*) to WindRiver\workspace_FRC2010_old.

2.2 Uninstalling Wind River Software

Step 1

Start Menu >> All Programs >> Wind River >> Uninstall and Maintenance >> Maintenance Tool >> Uninstall

Step 2

Select **Uninstall** and click **Uninstall** on the next screen too

Step 3

Click **Finish**

Step 4

Delete any remaining Wind River directories as needed, but **save** any **workspace** directories

2.3 Installation and Activation Instructions

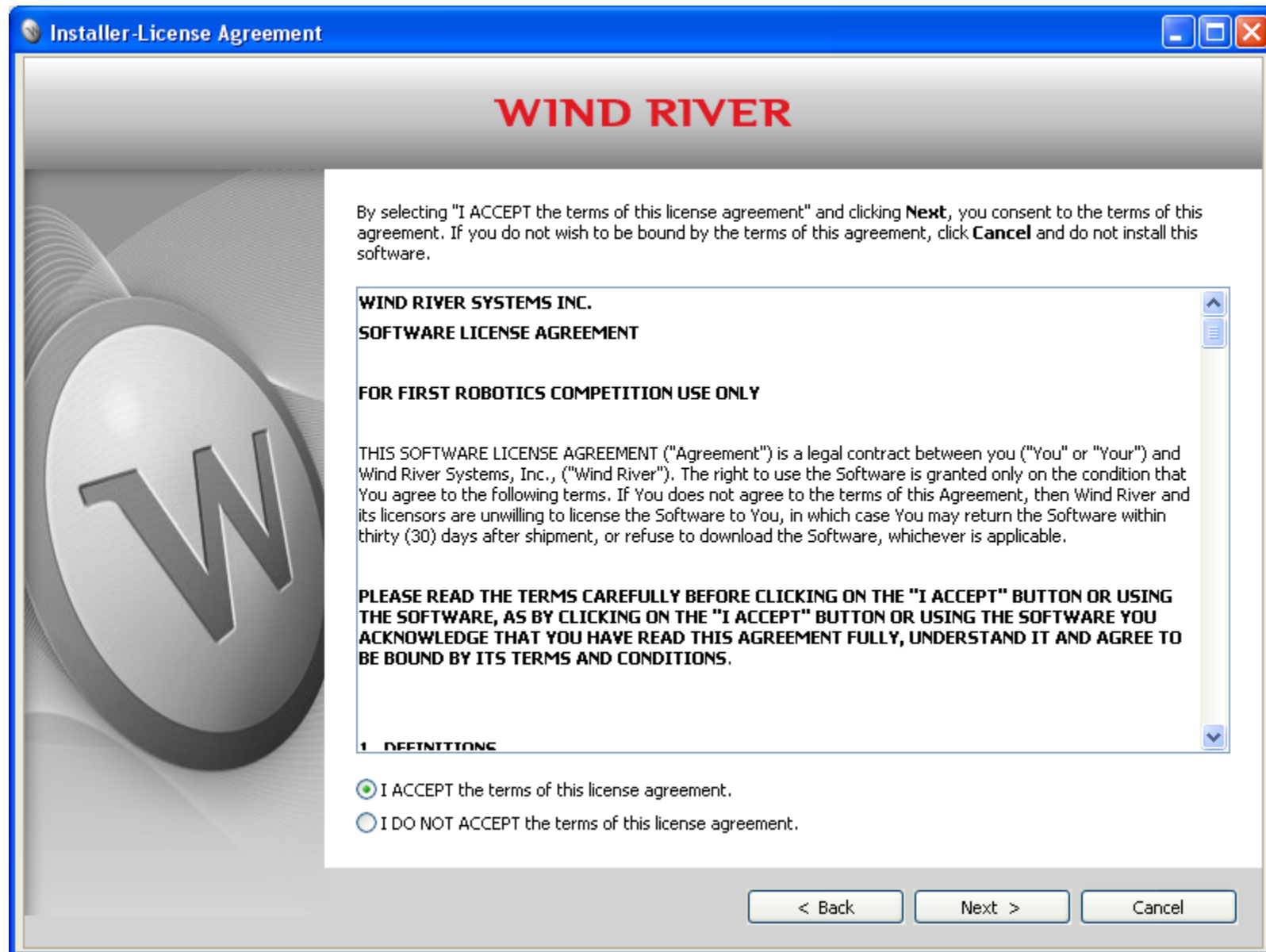
The following pages provide screen shots of the Wind River installer and brief instructions at the top or bottom of each page. Special instructions are provided for reinstalling Wind River Workbench and VxWorks. Also, use the instructions below to update your licensing for 2011 FRC. Internet connection is not required for installing and activating Wind River software, but it is needed for installing and activating the NI FRC-specific tools and CompactRIO Drivers. For NI instructions, see Chapter 3.

NOTE: Software from the 2010 FRC will expire before the 2011 FRC kick-off. You must reinstall to update your licensing.

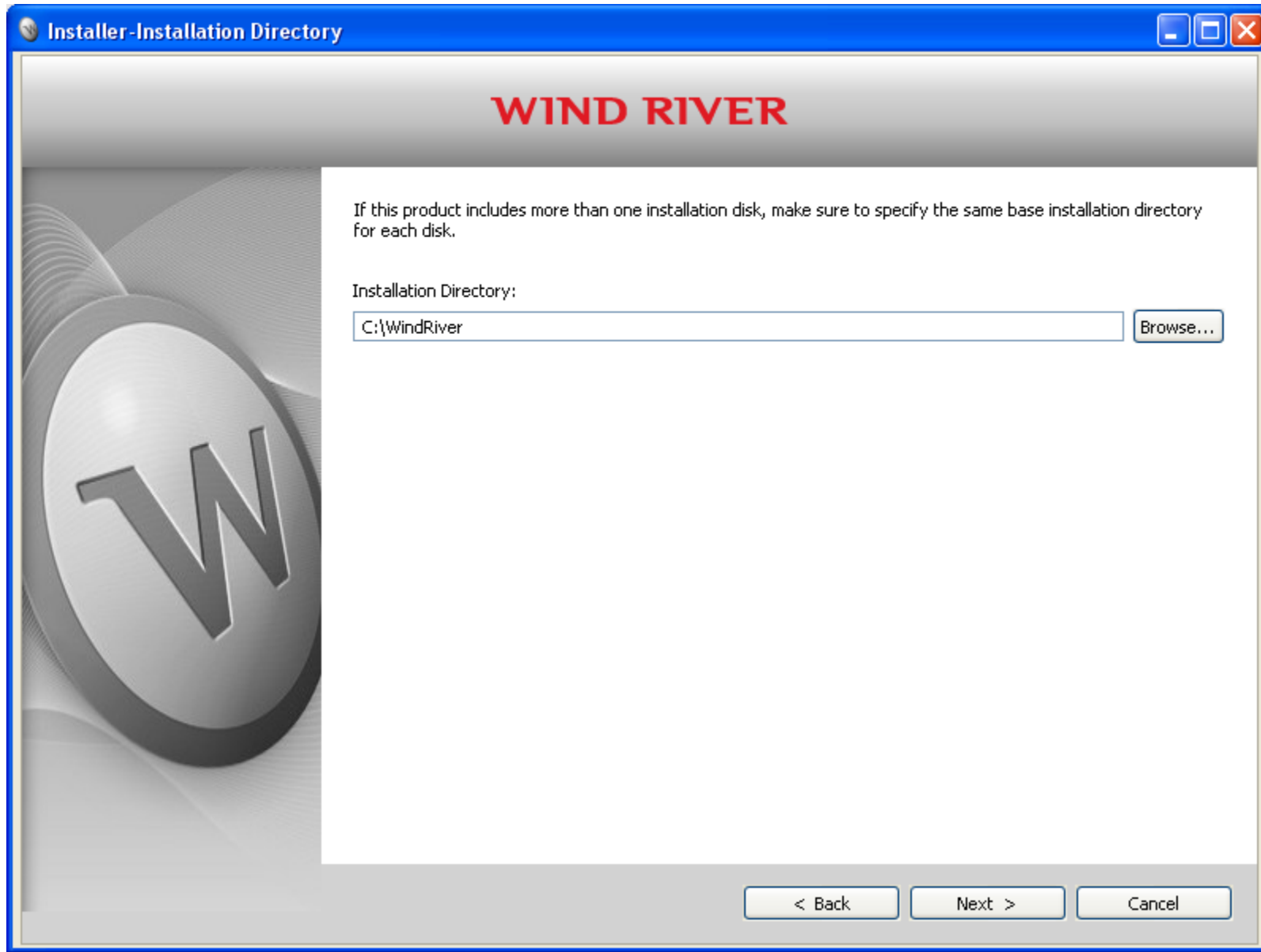
Insert the Wind River DVD into the media drive. After a few minutes the Installer-Welcome screen will appear. Click **Next**.



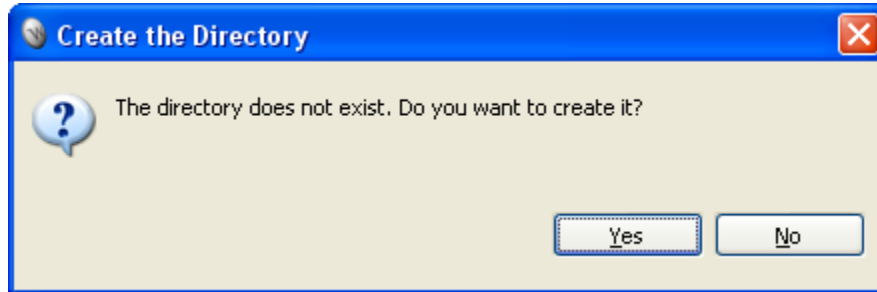
At the Installer-License Agreement screen, select **I ACCEPT** (if you agree to the terms and conditions) and click **Next**.



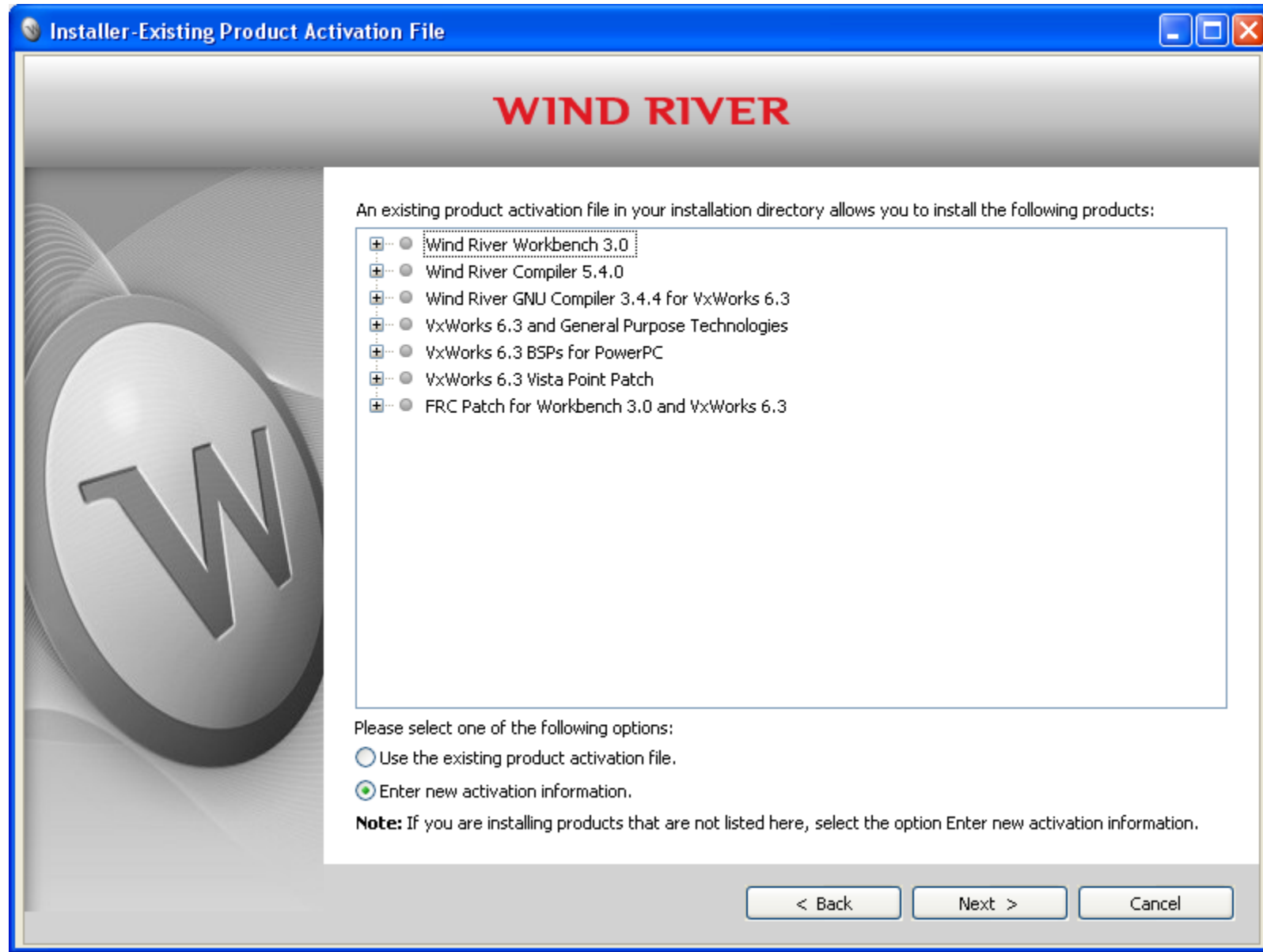
At the Installer-Installation Directory screen, keep the default *installDir* directory or enter one of your choosing. All Wind River products should be installed into the same *installDir* (root installation directory.) Click **Next**.



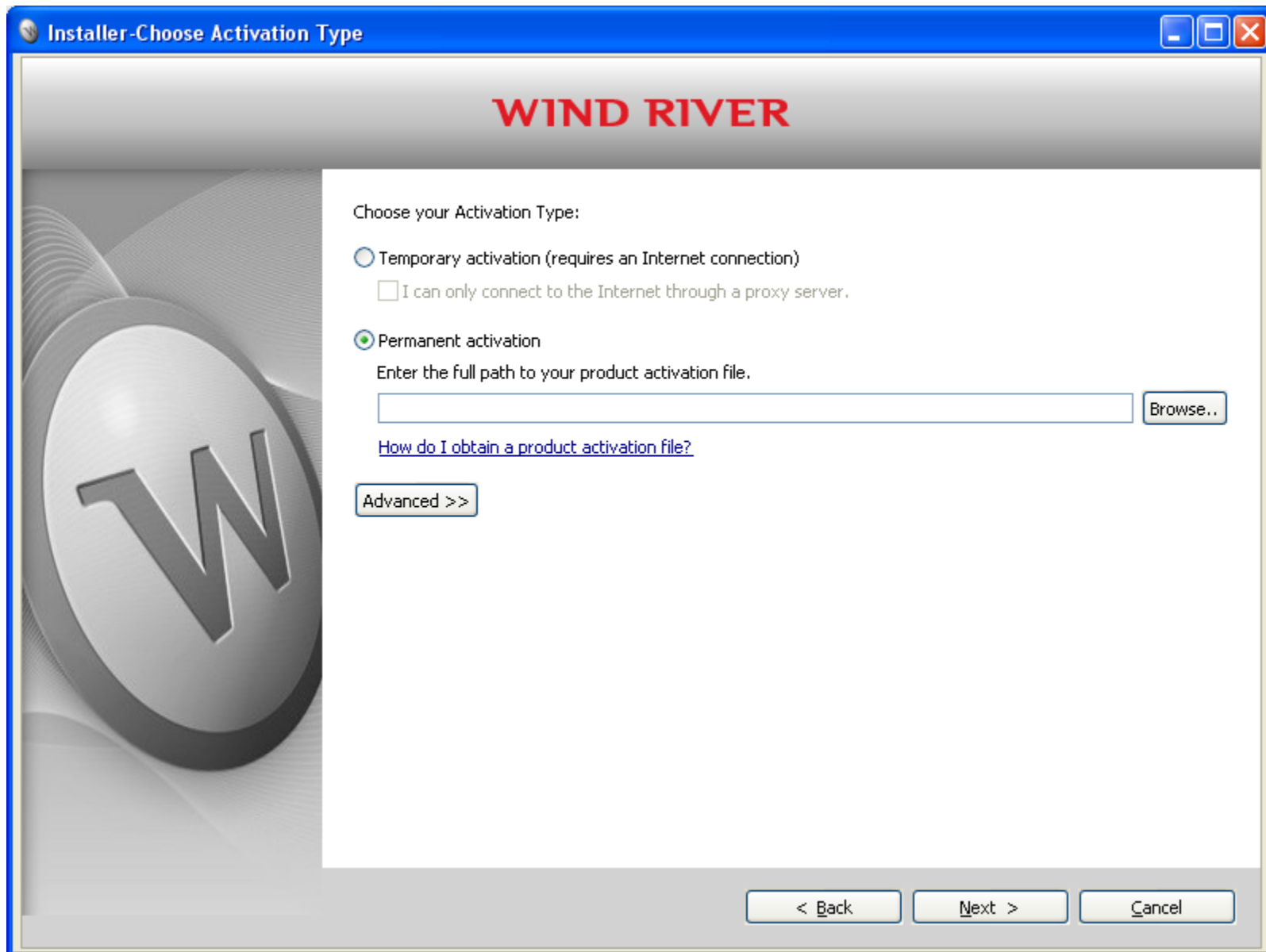
If you do not have a previous Wind River installation, you will be asked if you want to create the new directory. Click **Yes**.



If you are reinstalling and have not deleted your previous Wind River software installation, this screen will appear next. Select **Enter new Activation information**, and click **Next**.



At the Installer-Choose Activation Type screen, select **Permanent activation** and click **Browse**.

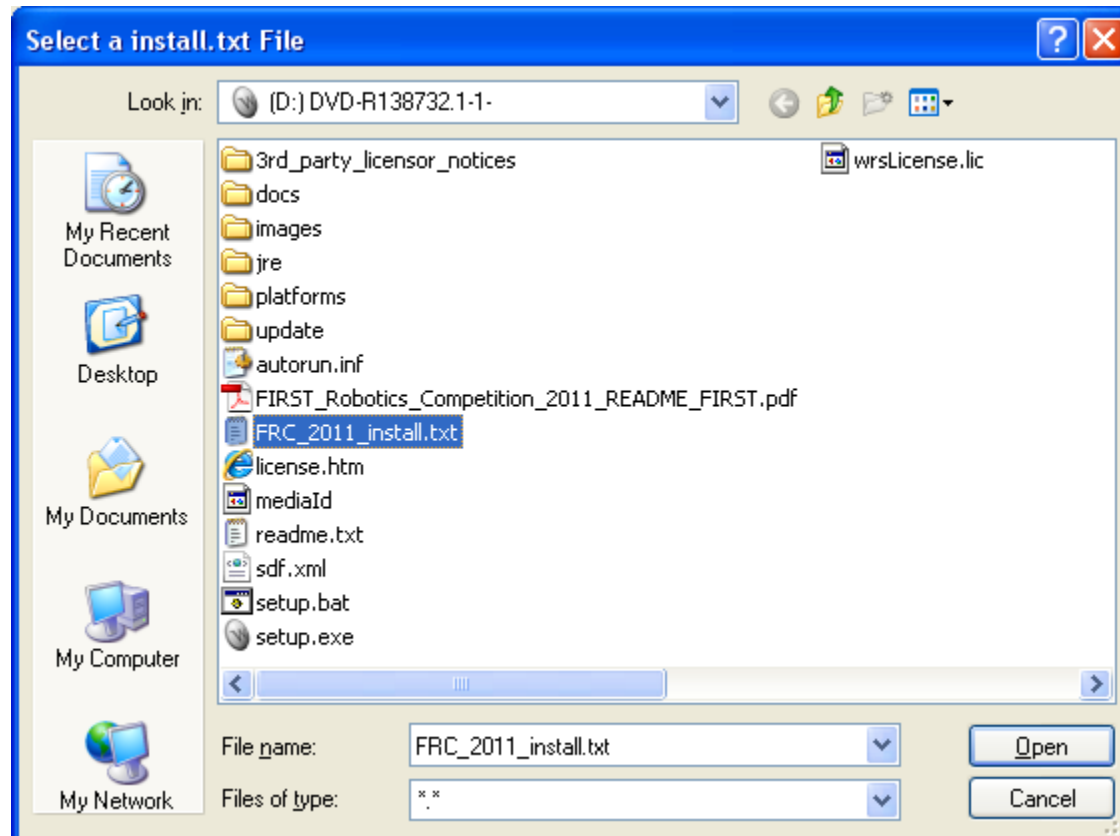


Browse to the media directory on your computer, DVD-R138732.1-1.

Select FRC_2011_install.txt file.

Click **Open**.

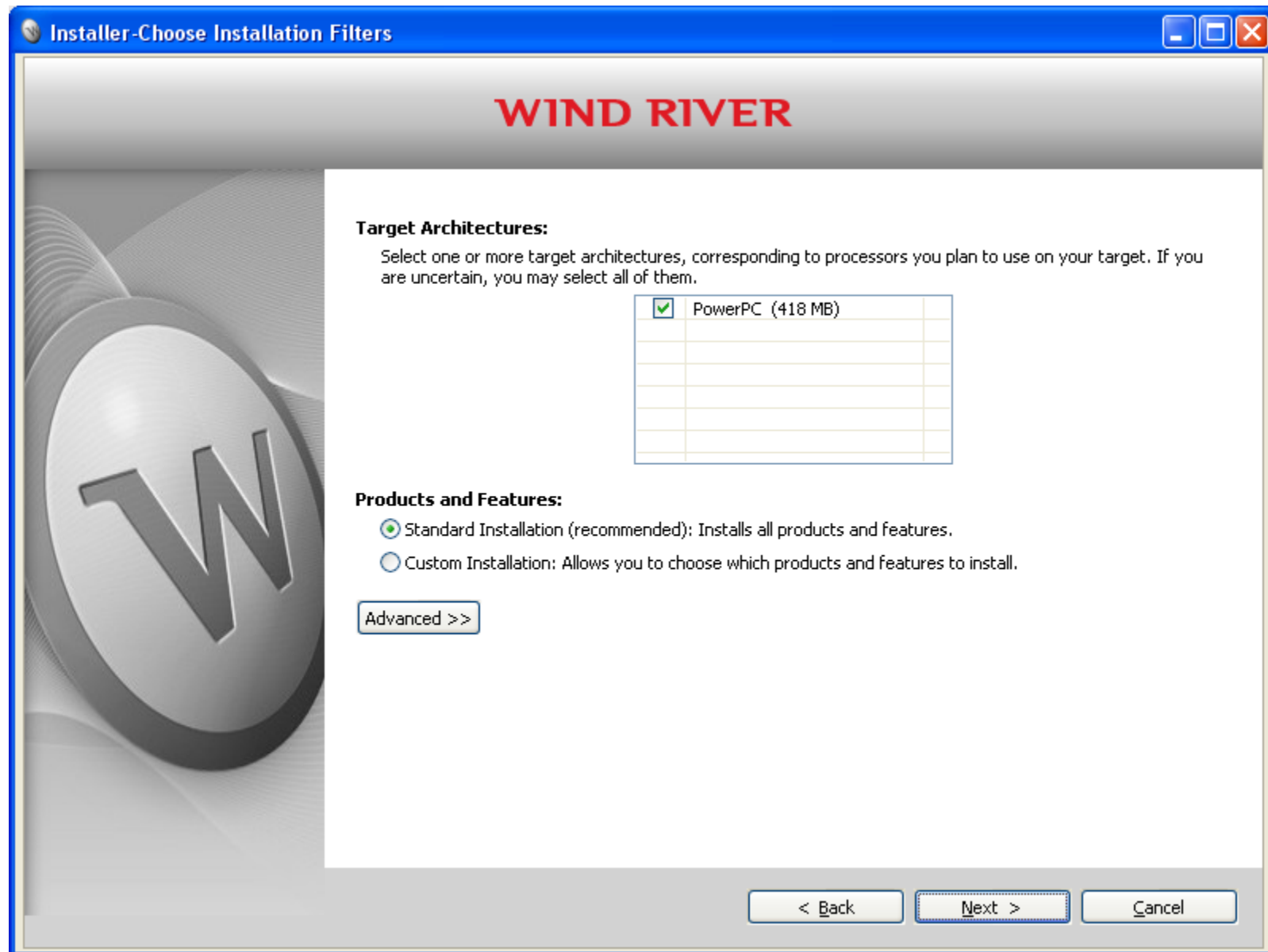
Note: No Internet connectivity is required for this activation process. The FRC_2011_install.txt file contains all the installation keys and licensing needed to install and activate Wind River software.



Once the path to the FRC_2011_install.txt (Product Activation File) is displayed under Permanent activation, click **Next**.



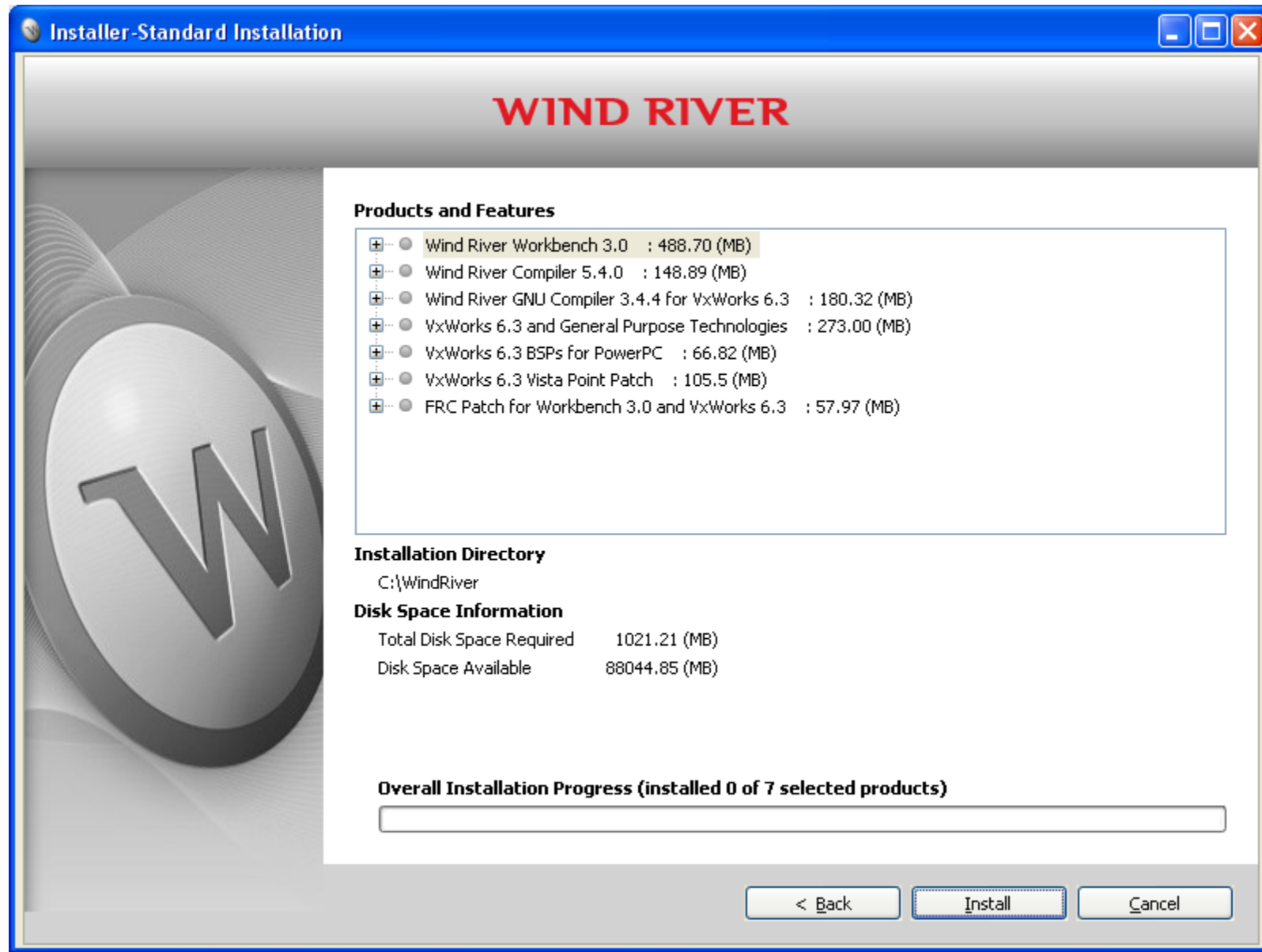
If you are installing for the first time, at the Installer-Choose Installation Filters screen, make no changes. Click **Next**.



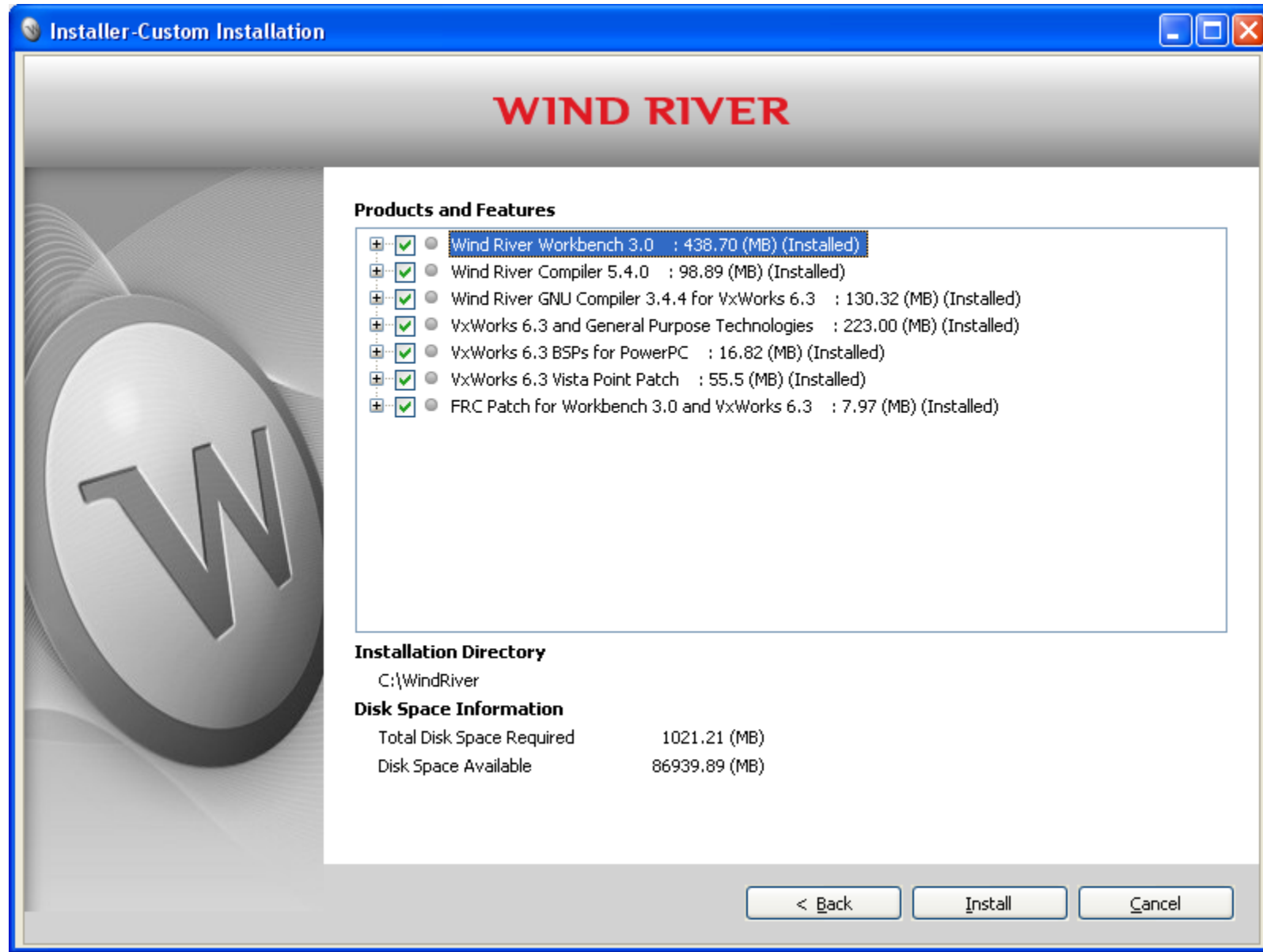
If you are reinstalling into a directory with an existing Wind River software installation, this screen will appear next. Click **Back** and select **Custom installation**. You will not see this screen with new installations.



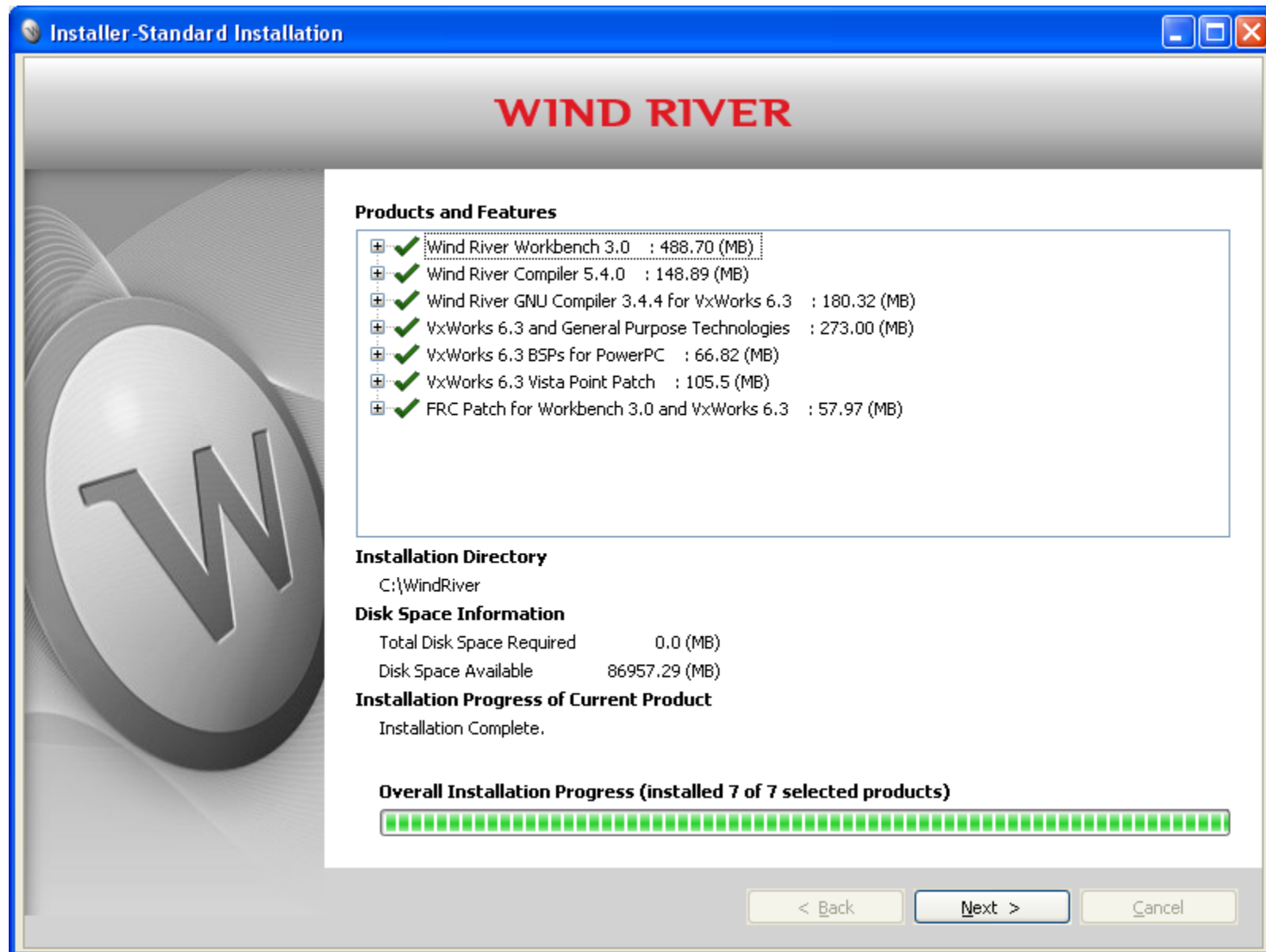
If you are installing for the first time, make no changes at the Installer-Standard Installation screen and click **Install**. After a few minutes, the installation process will begin by showing a green status bar in the Overall Installation Progress box.



If you are reinstalling, you must manually select every box. A check mark must appear in each box to install all products. Click **Install**. The installation process will begin in a minute by showing a green status bar in the Overall Installation Progress box.



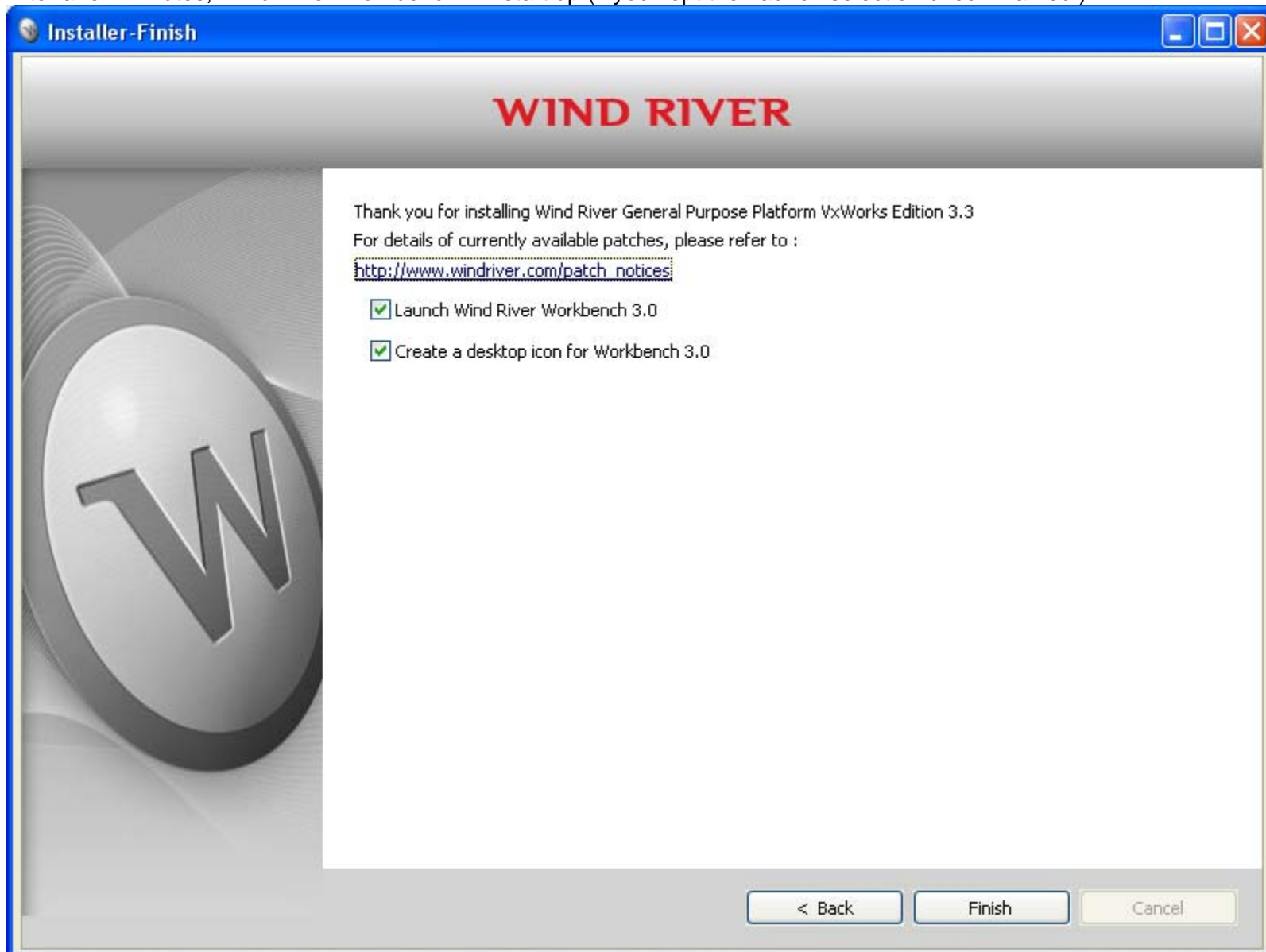
Once the Overall Installation Progress shows (installed 7 of 7 selected products), click **Next**.



Read the information shown on the Installer-readme.txt screen. This readme is installed as FRC_readme.txt in your *installDir*. Click **Next**.



At the Installer-Finish screen, we recommend keeping both choices selected with a check mark. Click **Finish**. After a few minutes, Wind River Workbench will start up (if you kept the Launch selection check marked.)



Note: The Product Activation File, FRC_2011_install.txt, is renamed as install.txt when the installer puts it into your *installDir*. To start Workbench manually, see the instructions in the readme.txt file located in your *installDir*.

Chapter 3

Installing National Instruments FRC 2011 Tools and CompactRIO Drivers

3.1 Introduction

Your installation and licensing activation of Wind River Workbench and VxWorks programming environment for C and C++ is now completed.

You must also install the FRC-specific tools and CompactRIO Drivers from NI. Complete the following steps to install these NI tools and drivers. Ensure that you have a working Internet connection to complete activation of your NI software.

3.2 Installing and Activating FRC-specific tools and CompactRIO Drivers from NI

1. Log onto your machine as an administrator or as a user with administrator privileges.
2. Disable any automatic virus detection programs before you install.
Some virus detection programs interfere with installation.
3. **Get NI DVD.** Insert the NI LabVIEW 8.6.1 for FRC 2011 and FRC 2011 Tools & CompactRIO Drivers DVD.
4. Click the **Install only the FRC Tools link** and follow the instructions that appear on the screen.
5. When prompted, enter the serial number **L13R02200** in the Serial Number text box.
6. On the Installation Summary page, choose to **Run License Manager** to activate the product(s).
Click the **Next** button to display the NI Activation Wizard.
7. Select the **Automatically activate through a secure Internet connection option**. Click the **Next** button.
8. Enter the serial number **L13R02200** in the LabVIEW 8.6.1 FIRST Robotics Competition text box.
9. Follow the instructions that appear on the screen to **complete activation**.

Chapter 4

Mandatory Software Updates from FIRST

As a reminder, after completing the software installation instructions contained in this document, all teams must get mandatory software updates at the FIRST Web site:

<http://www.usfirst.org/frcontrolsysteem>.

After kickoff and for the Beta trials, go to the FIRST Web site and download all applicable software updates. Follow the specific installation instructions provided for installing each update.