

DataRay Inc. Application Note

OCX Software Version 5.xx Installation

www.dataray.com

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Initial release, 31 Dec. 2002

Applies to:

- BeamMap, BeamMap-C, BeamMap ColliMate, Beam'R, BeamScope-P7
- WinCamD & TaperCamD series
- The current Version 5.xx of the **iDataRayOcx.exe** software
- Windows 98, 98SE, Me, 2000, XP Home and XP Pro; Windows NT with limitations - see below.
- Systems with **iDataRayOcx.exe** software versions older than 5.00A1 showing a **No card found** or other card problem.

Fixes: Uses a completely new DataRay-authored PnP driver to fix installation difficulties seen with Notebook PCs using Magma CB1H, and the few desktop PCs that have given problems. All new software releases will be based on this OCX software.

You need to know that:

- a) This new driver is a fully compliant PnP (Plug and Play) driver.
- b) Windows does not know which driver to use until it has been told so by the **DataRay.inf** file. The Windows **Found new hardware Wizard** process introduces Windows to this file.
- c) For Windows NT, 2000 and XP Pro, **you must install as Administrator**, or you will fail. ('... with Administrator rights' is not adequate.)
- d) This software **does not work for WinCamD with Windows NT**, and requires a specific installation approach for other instruments. Installation for Windows NT is different to that for other Windows Operating Systems. It will not use the new PnP driver. Go straight to Section F.

If you are currently working with NT, we recommend that you upgrade to XP Pro. XP Pro in particular is a stable operating system and reboots quickly. [The big advantage of Windows NT was in corporate PC networking security. Other than that it was a 'dead-end' operating system. It is not 'Plug and Play' compatible. Despite what you may have been led to believe, Windows 2000 & XP are actually Windows98/Me descendents, with the NT network security functions bolted on.]

- e) When the PC boots up, if Windows finds a new (not there last time) PCI card, it will look for a driver.

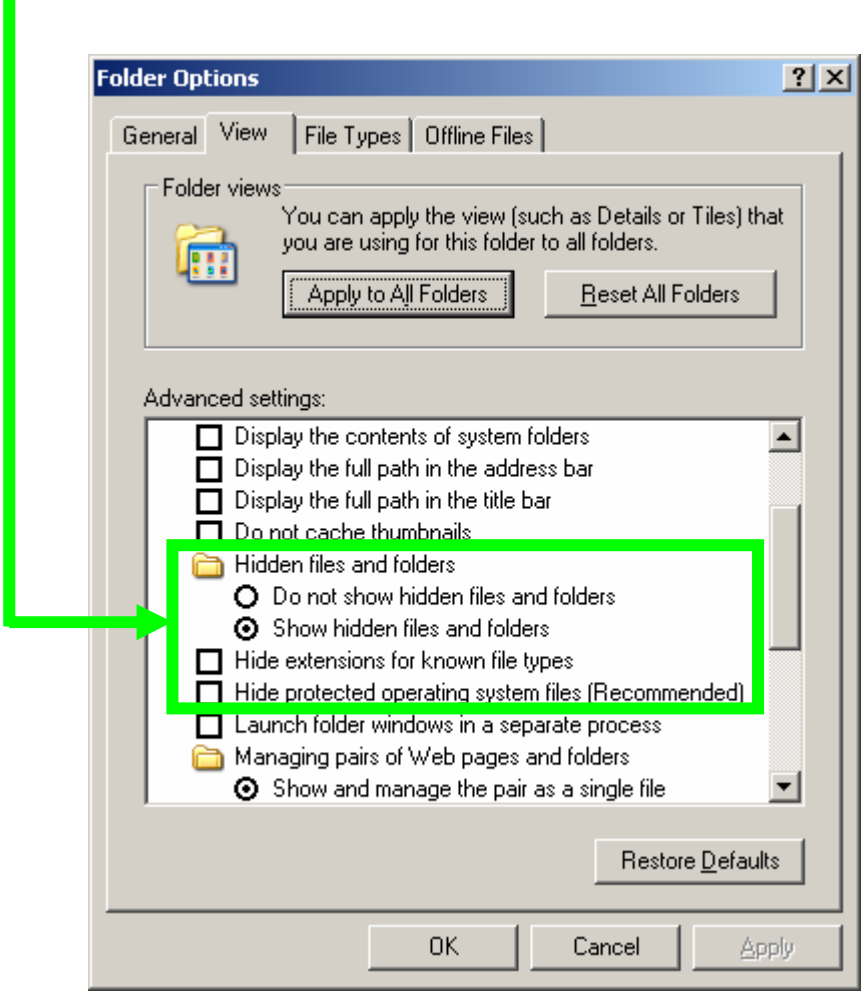
If a driver has already been installed for the card or card family that Windows has found, *and this driver has previously been used in connection with the installed card or card family*, then Windows may automatically install the card.

If Windows does not have an installed driver *that it has previously used in connection with the installed card or card family*, it will start the **Found new hardware Wizard**.

f) You should check and as necessary change the Windows Explorer default settings, or you may not be able to find **DataRay.inf** in Windows Explorer

In Windows Explorer, from the **View** pull-down menu select **Details**.

From the **Tools** menu select **Folder Options**. Choose the **View** tab and change the highlighted items to the settings shown.



INSTALLATION INSTRUCTIONS

If an installation is unsuccessful, *even after re-reading the instructions*, contact DataRay support.

A. 'New' PC system - one that has never previously seen the DataRay software.

(For a new installation in a Notebook PC systems with the Magma CB1H interface see the Application Note at the website.)

1) Install the **iDataRayOcx.exe** software **BEFORE** installing the PCI card.

From a CD: Go **Start, Run**, Browse to **d:\iDataRayOcx.exe**, [**d** is the CD drive letter], click **OK**.

For a downloaded version: In **Windows Explorer**, locate and double-click **iDataRayOcx.exe**.

Follow the installation procedure. Start the software by double-clicking on the icon. This loads the **DataRay.inf** file. Close the software.

2) Turn-off the PC, disconnect the power cord.


Install the PCI card using static-safe procedures. Reconnect the power cord and restart the PC. The **New hardware found** Wizard will appear. Click **Next** to let the Wizard follow its default choices.

As necessary **Browse** to find the **DataRay.inf** that the wizard seeks in **c:\Program files\DataRay** or the **c:\Windows\Inf** or **c:\WinNT\Inf** directory (Windows version dependent).

The Wizard should find and load the **DataRay.sys** file automatically, but if it does not, **Browse** to find it in the **c:\Windows\System 32\Drivers** or **c:\WinNT\System 32\Drivers** directory.

3) **Start the software**. In the pull-down menu, in **Device**, select the instrument that you have installed.

WinCamD, TaperCamD series Press **Go**. 

All others. Press **F** for find to initiate finding the beam. 

B. 'Clean' PC system - The DataRay card has been working just fine, but you wish to perform a complete software upgrade to Version 5.00A1 or higher. Go to 4) below.

C. 'Bad' PC system - Has the DataRay software & card installed, but the PCI card is not detected &/or the software does not appear to work.

4) **Rename the old directory**. For safety's sake rename the current DataRay file to its version number. E.g. if version 3.00H2 is currently on the PC (see the blue top line on the software display), close the software and rename the **c:\Program Files\DataRay** directory to **c:\Program Files\DataRay300H2**.

5) **Reading data files taken on earlier software versions**. DataRay tries to ensure that all new releases are backwards compatible in terms of reading files taken with earlier versions. If you wish to actually run the instrument on the older software version, see Section G, below.

6) a). In **Windows Explorer**, locate the **c:\Windows\Inf** or **c:\WinNT\Inf** directory (Windows version dependent). Perform a **Search** for all **Files** containing the text **DataRay**. This will include ***.inf** and ***.pnf** files, some with names starting **DataRay**, possibly some with names starting **oem**. Select and **Delete** them all.

b). **IMPORTANT – WinCamD only.** If you still want to occasionally run an older version of the old software, 3.XX or 4.XX, do not perform step b) Go straight to c). However, item E. on page 7 will annoy you on reboot.

In **Windows Explorer**, locate the **c:\Windows\System32\drivers** or **c:\WinNT\System32\drivers** directory (Windows version dependent). Locate and **Delete** both **windrvr.sys** and **winpnp.sys**, and, if present, **DataRay.sys** and/or **windrvr.vxd**.

c) Shut-down and then Restart the PC.

7) Install the **iDataRayOcx.exe** software.

From a CD: Go **Start, Run**, Browse to **d:\iDataRayOcx.exe**, (**d** is the CD drive letter), click **OK**.

For a downloaded version.: In **Windows Explorer**, locate and double-click **iDataRayOcx.exe**.

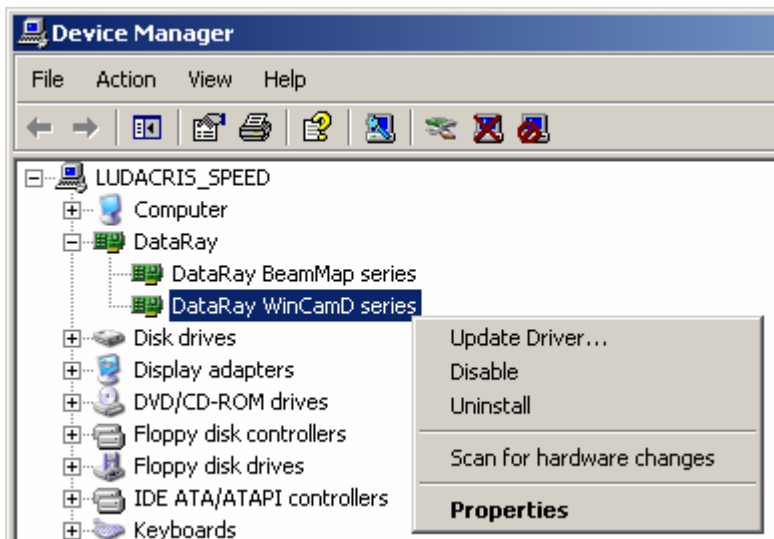
Follow the installation procedure. Start the software by double-clicking on the icon. This loads the **DataRay.inf** file. Close the software.

8) **‘Uninstall’ the current card.** Right-click on the **My computer** icon, and click on **Properties**. Click on the **Hardware** tab and click on **Device Manager**. (Varies between Windows versions. Not present in NT).

The card will appear as a **DataRay BeamMap series** or a **DataRay WinCamD series**.

Locate and right-click on the DataRay card, select **Uninstall**.

! Also uninstall any **Unknown Device** with an exclamation mark against it.



Then, from the pull-down menu, select **Scan for hardware changes**. The **New hardware found** Wizard will appear. Click **Next** to let the Wizard follow its default choices.

As necessary **Browse** to find the **DataRay.inf** file that the wizard seeks in **c:\Program files\DataRay** or the **c:\Windows\Inf** or **c:\WinNT\Inf** directory (Windows version dependent).

The Wizard should find and load the **DataRay.sys** file automatically, but if it does not, **Browse** to find it in the **c:\Windows\System 32\Drivers** or **c:\WinNT\System 32\Drivers** directory.

Shut-down and then Restart the PC. Perform 3), above.

D. Problems I - ‘I did all this and it does not work.’

9) The most likely cause is that the old driver is still hiding in the system and is being detected and installed. Right-click on the **My computer** icon, and click on **Properties**. Click on the **Hardware** tab and click on **Device Manager**. (Varies between Windows versions. Not present in NT).

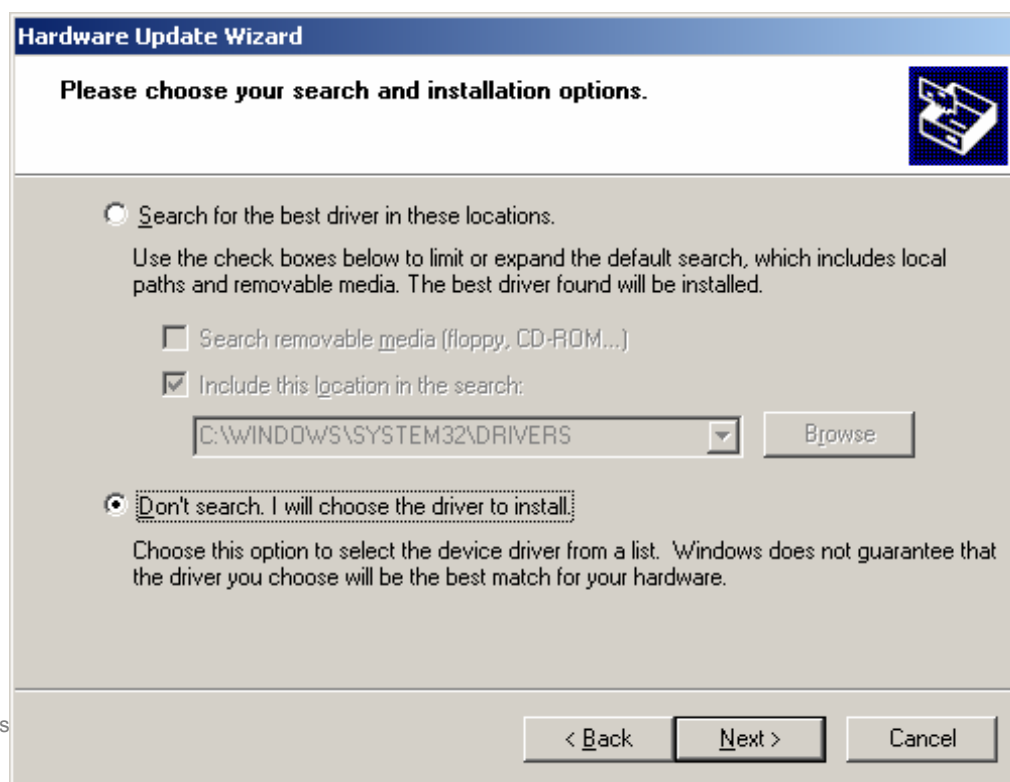
If the card appears as a **DataRay BeamMap series** or a **DataRay WinCamD series**, then it is still using the older driver.



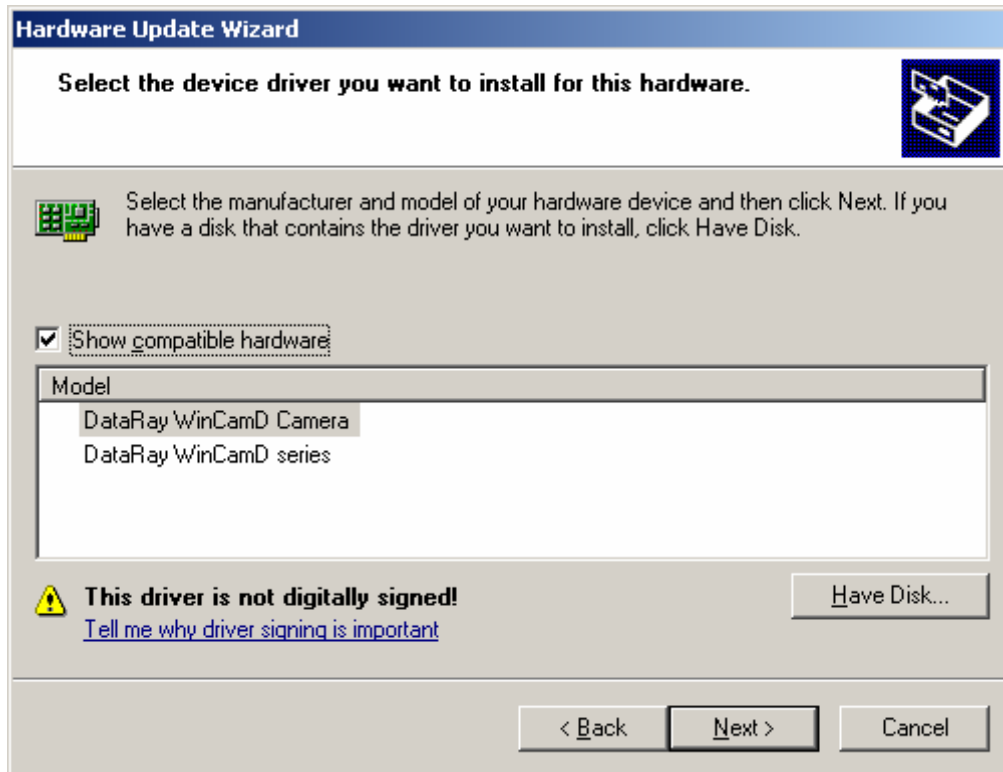
Right-click on the DataRay card and select **Update Driver...** . The **Hardware Update Driver** will appear. The examples shown below are from Windows XP Professional. Other Windows versions will have minor differences in wording.

Select **Install from a list or a specific location (Advanced)** and click **Next >**.

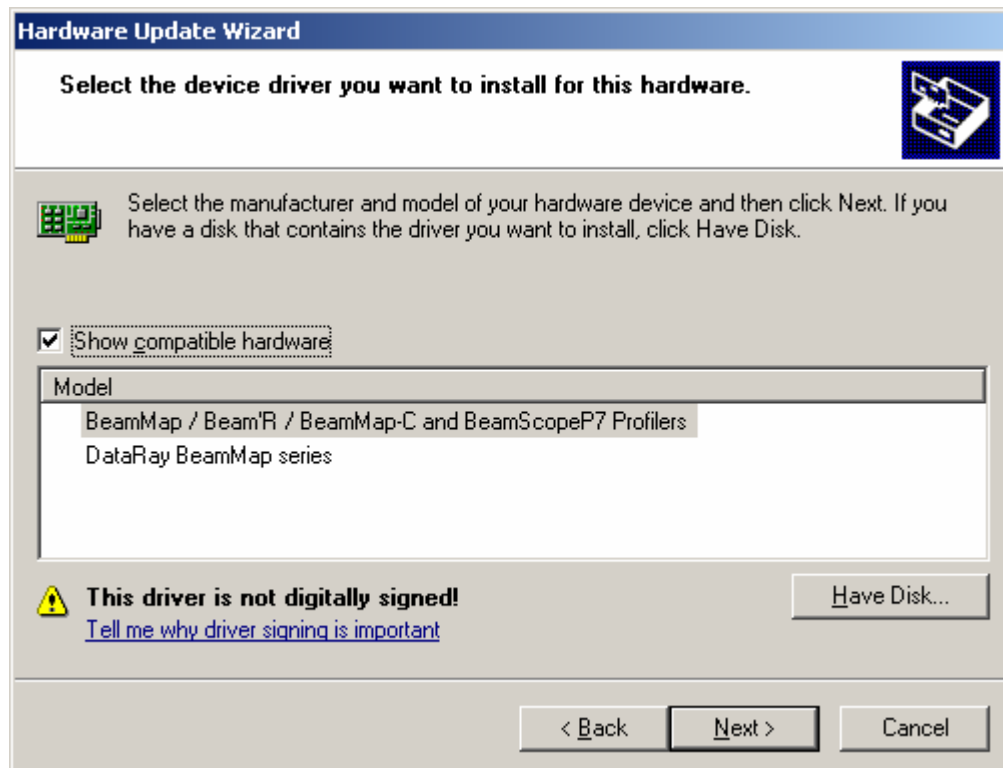
Select **Don't search, I will choose the driver to install** and click **Next >**.



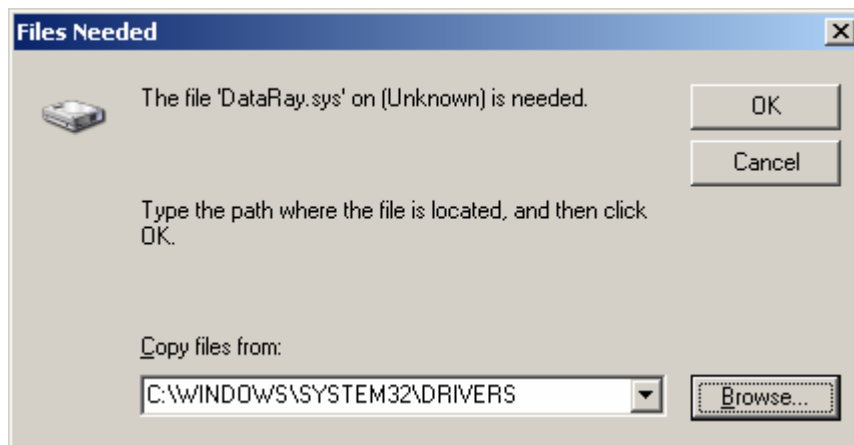
For WinCamD you will see the following screen. Choose **DataRay WinCamD Camera** and click **Next >**.



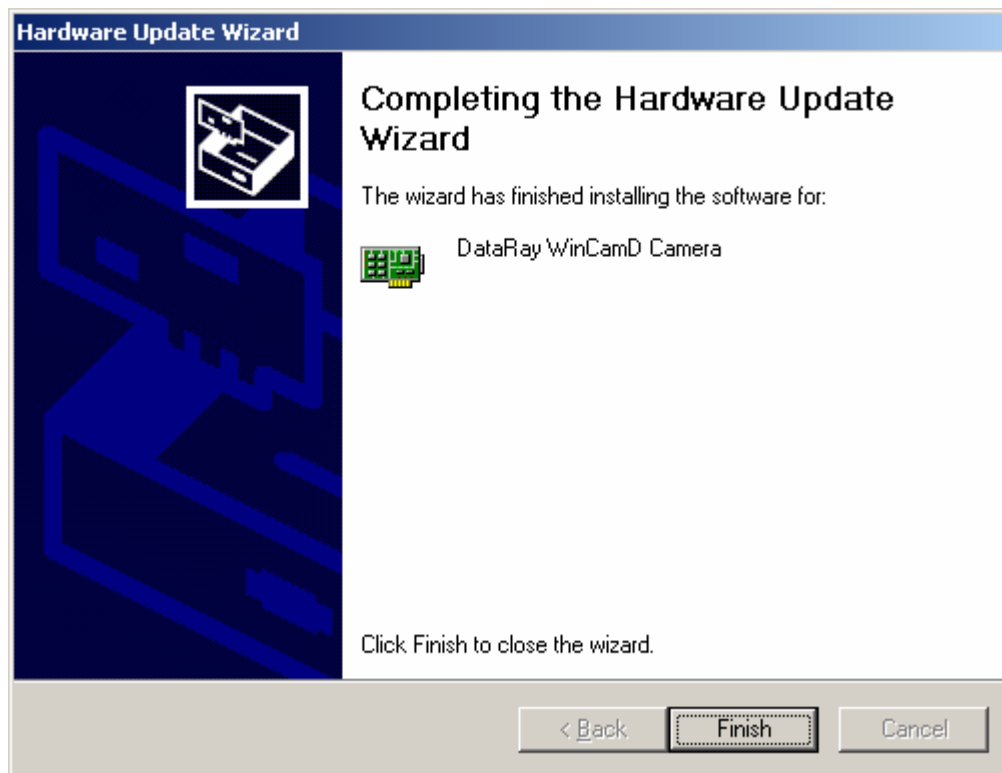
For BeamMap, BeamMap-C, Beam'R, BeamScope-P7 and ColliMate you will see the following screen. Choose **BeamMap / Beam'R / BeamMap-C and BeamScopeP7 Profilers** and click **Next >**.



The Wizard should find and load the **DataRay.sys** file automatically, but if it does not, **Browse** to find it in the **c:\Windows\System 32\Drivers** or **c:\WinNT\System 32\Drivers** directory.



The screen below will appear. Click **Finish**.

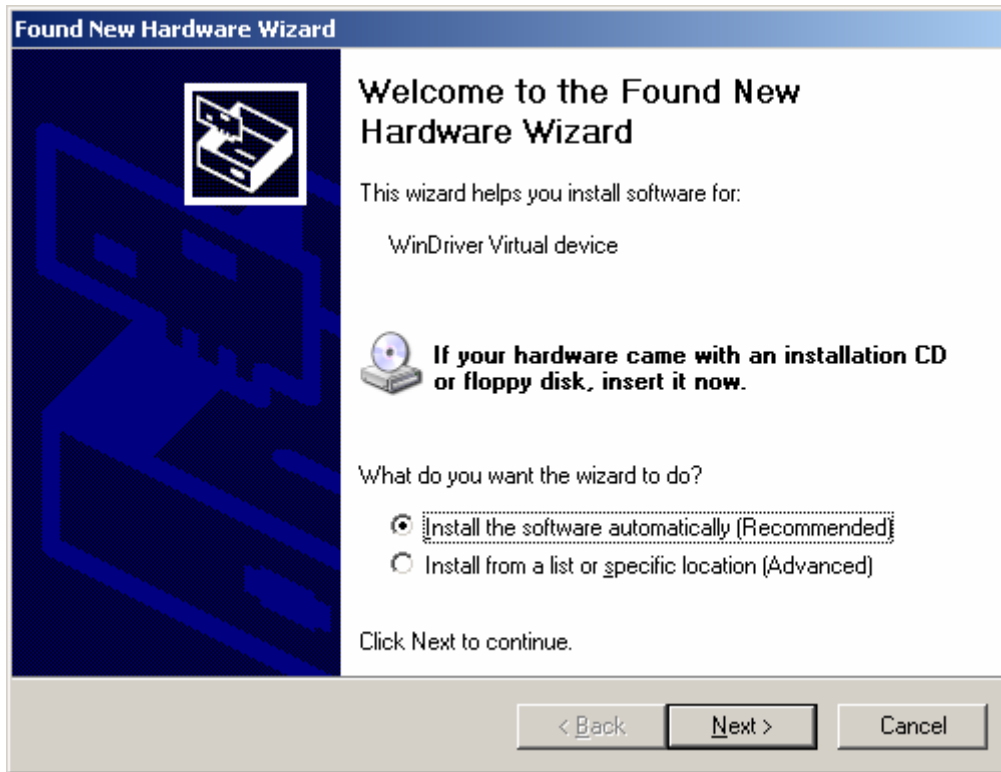


The Device Manager should now have changed to show the installed card as follows:



Shut-down and then Restart the PC. Perform 3), above.

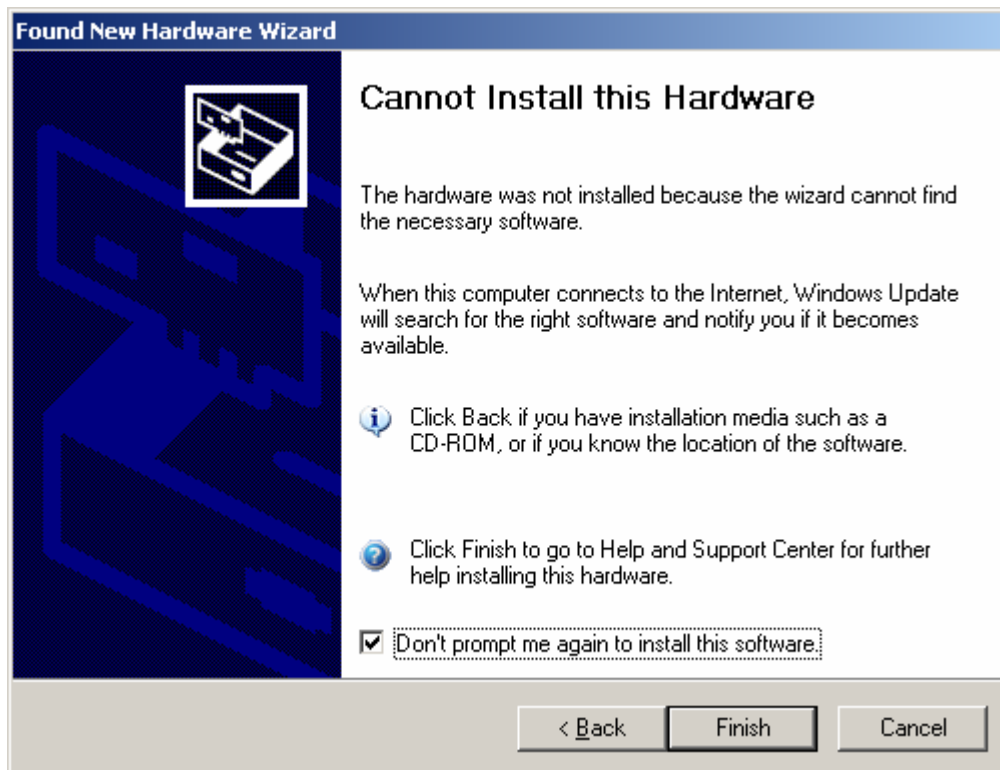
E. Problems II – ‘Whenever I reboot my PC, a Found New Hardware Wizard appears.’



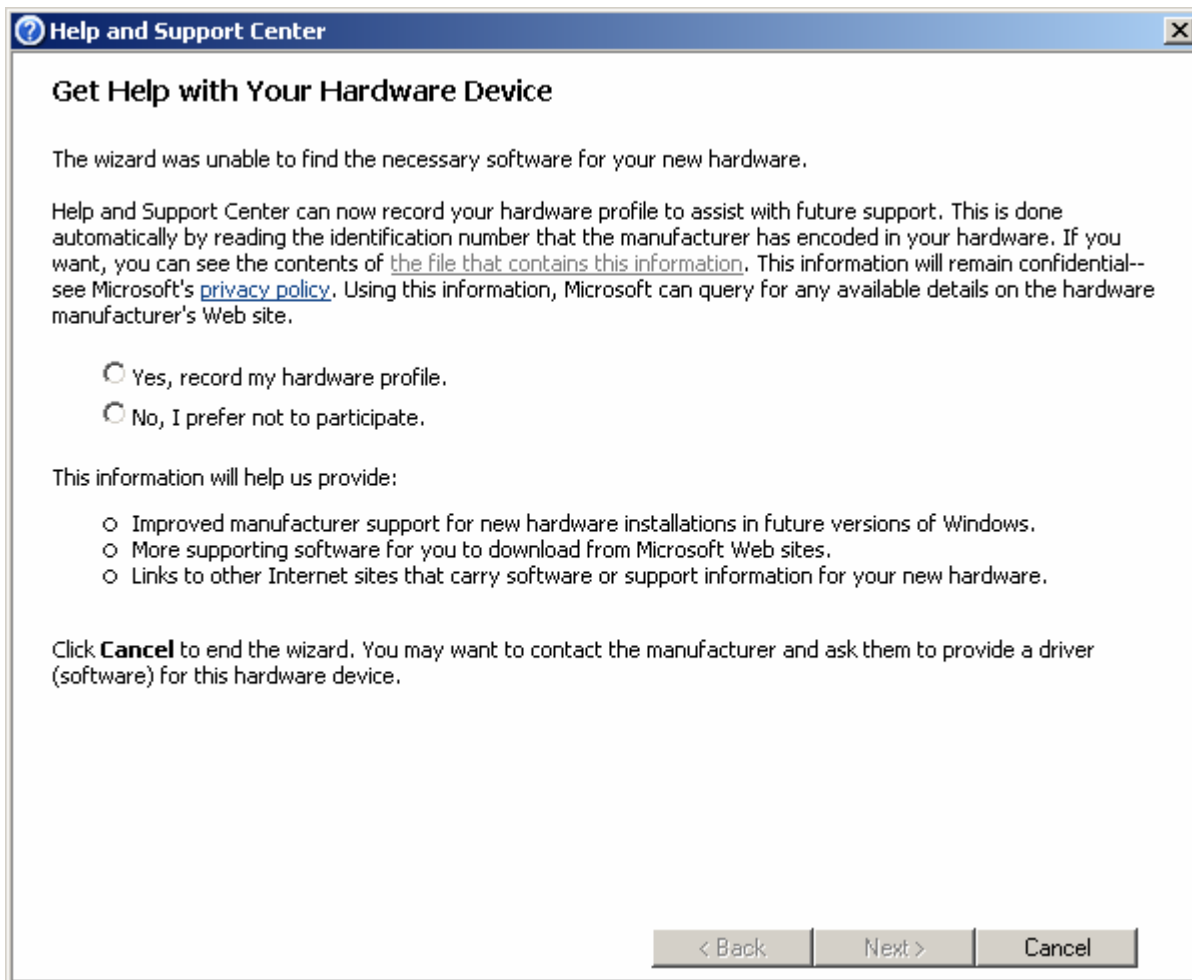
10) The problem is that **windrvr.sys**, still lurking in your PC, is causing a **WinDriver Virtual Device** phantom to be detected. To prevent a recurrence on reboot proceed as follows:

Click **Next>**. The following screen will appear.

Check the box for **Don't prompt me again to install this software**. Click **Finish**.



The following screen will appear. Do not choose **Yes, ...** or **No, ...**. Simply click **Cancel**.



If we ever have a fix for the phantom so that it never ever appears, we will release it.

F. Windows NT operation

Applies to BeamMap, BeamMap-C, BeamMap ColliMate, Beam'R only.

Does not apply to WinCamD series products – they will not operate under NT with 5.00xx software. If you must work with NT, download the most recent 4.xx version from the website.

- 11) Install the DLL version of the software from the website, Version 3.XX for BeamMap, BeamMap-C, ColliMate. Follow any instructions associated with this software at the website. Install and run the PCI card.
- 12) Rename the **c:\Program Files\DataRay** and its desktop icon to **DataRayDII**.
- 13) Install the iDataRay Ocx.exe version of the software. **DO NOT ATTEMPT TO CHANGE THE DRIVER THAT IT IS USING.** Run the software. The system should work fine. If it does not, Contact DataRay Technical Support.
- 14) See **E.** above for **WinDriver Virtual Device** issues.

G. Running heads on prior versions of the software.

BeamMap, BeamMap-C, BeamMap ColliMate, Beam'R. Simply run the older version of the software. The head will run just fine with the new driver.

BeamScope-P7. Never did run under versions prior to 5.00.

WinCamD series products. Simply run the older version of the software. The head will run just fine with the new driver.