

# STarStation Installation Guide

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**1. Introduction**

This document outlines the STarStation software installation procedure and the steps required to successfully setup the Luminex LX100 to communicate with STarStation.

STarStation 2.3 runs on Windows® 2000 and Windows® XP Professional or Home. For Windows® 2000, service pack 4 or later is required

The minimum recommended PC configuration for STarStation is:

Intel® Pentium III 850MHz or higher

256Mb RAM or higher

150 Mb of disk space is required for installation. Additional disk space is required to accommodate assay data files.

**1.1 STarStation Installation**

The installation process proceeds in three steps:

**Step 1.** Install STarStation.

**Step 2.** Install the Romlock Drivers required for detection of the STarStation Romlock.

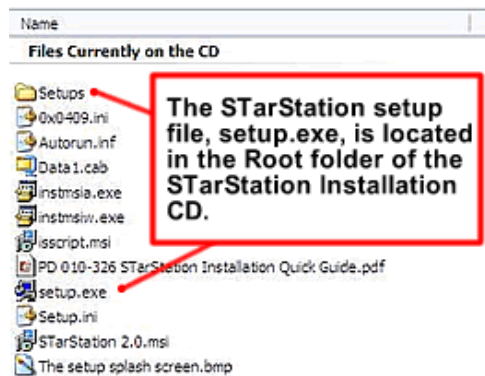
**Step 3.** Install the LXR Runtime Component which is required for System Control installations.

**Note: Analysis Only Installations of STarStation do not require step 3.**

**Before attempting to install STarStation you should confirm that you have the necessary administrative privileges for the Windows operating system and your local network.**

1) Insert your STarStation installation disk into your pc's cd-drive.

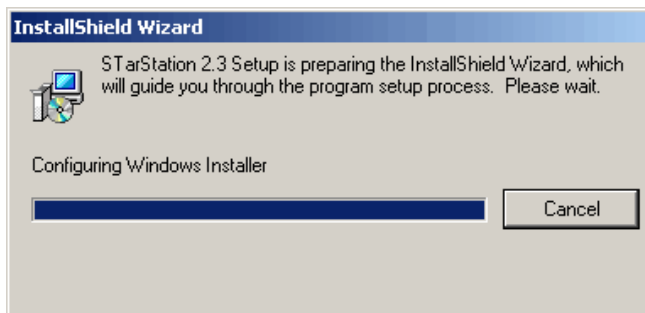
The STarStation Installation should begin automatically.



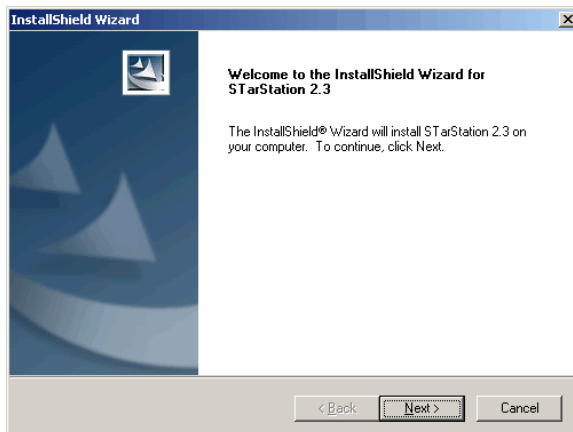
If your PC has its auto CD insert notification disabled and/or the splash screen does not appear you may need to manually start the setup process by selecting the Setup.exe file on the STarStation installation CD.

StarStation\_Installation\_CD

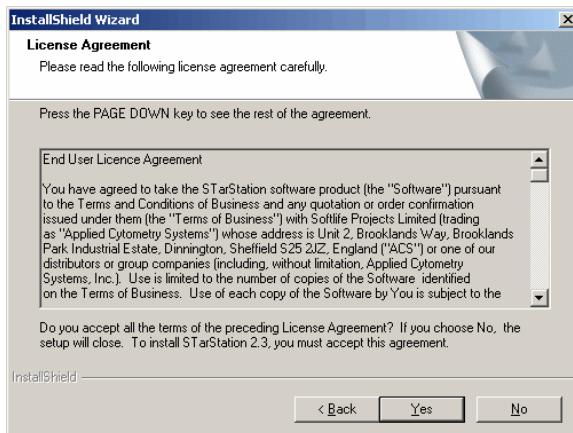
The setup program launches and displays the preparing InstallShield Wizard message.



The welcome screen is displayed indicating the build date and version of STarStation that is about to be installed.



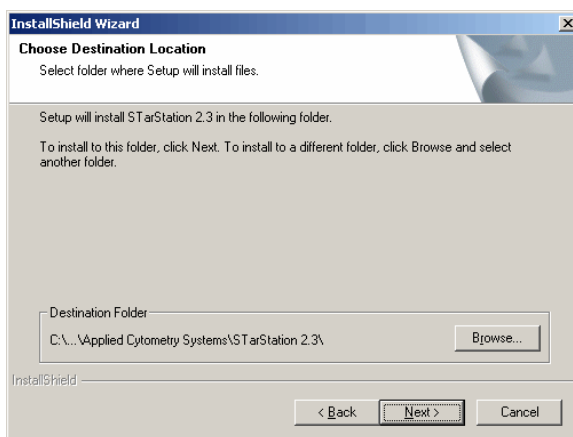
The startup screen is then displayed together with the Software license agreement. When you have read and accepted the Software License Agreement press **Yes** to continue.



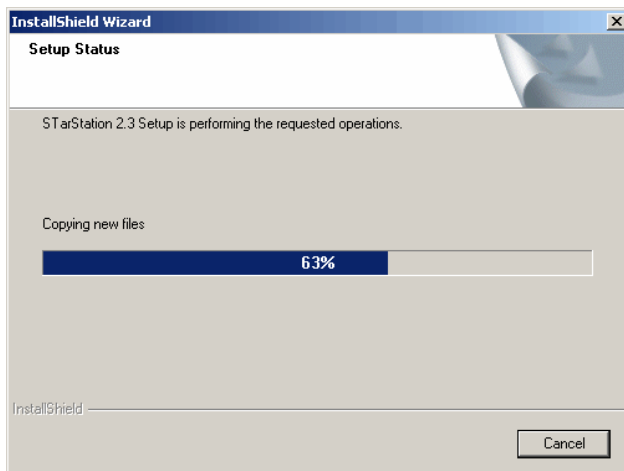
**1.1.1 Choose Destination Location**

You are next prompted to select the destination location where you wish to install STarStation. The default destination folder is C:\Program Files\STarStation2.3

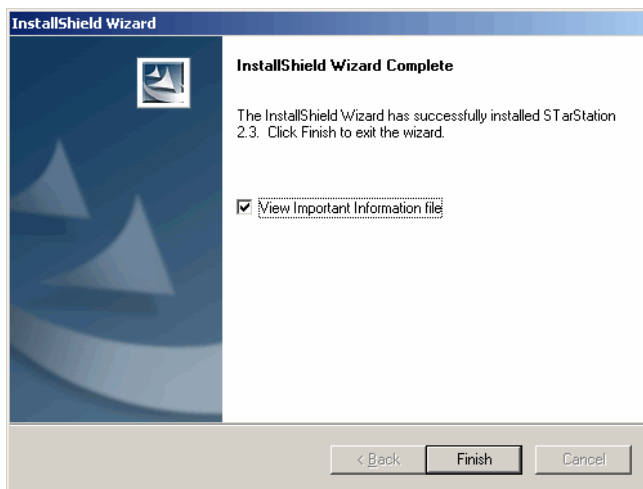
Select your desired location and press **Next** to continue



Next, the installation process begins copying files to your PC



Upon completion of installation, the wizard displays the Wizard Complete screen. Select the View read Me file checkbox to display the STarStation 2.3 important Information File. Step 1 of the installation process is now complete.



## 2. DESkey DK2 Romlock Driver Setup

Applied Cytometry Systems use a device called a Romlock (or dongle) as a means to protect our software against piracy. The Romlock connects to the parallel port of the PC on which the ACS software is installed. The Romlocks used by ACS are manufactured in the UK by Data Encryption Systems Limited.



### What is a "Romlock"?

Romlocks are small hardware plugs that attach to an output port on your computer. IBM/Intel/Windows based computers typically have a parallel printer port and the newer models have a Universal Serial Bus (USB) port also.

### What is the Romlock used for?

The Romlock prevents the unauthorized use of hardware or software. The Romlock has a piece of code permanently programmed in it. Whenever you attempt to run a piece of ACS software, the software attempts to locate the Romlock code, if the dongle cannot be located the Save and Save As functionality within STarStation is disabled.

### Do I lose the use of the port when the Romlock is fitted?

No. Non-USB Romlocks have two connection points. One side goes into the computer and an existing cable or connector goes back in the other side. This allows data to "pass through" the Romlock to retain the ports other use. The Romlock passes through all data coming through the port so it does not prevent the port from being used for other purposes.

Before proceeding with the Romlock installation ensure that the Romlock is attached to your pc's printer port or USB port if you have a USB Romlock.

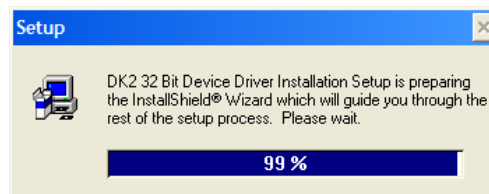
The DESKey Romlock drivers are required for all STarStation System Control and Analysis-Only installations.

### Installing the DESKey Romlock Drivers.

To install the Romlock Drivers

- Open windows Explorer (use the shortcut key sequence windows button + E).
- Explore the STarStation Installation CD.
- Navigate to the Setups Folder
- Locate the **Deskey Drivers** folder and start the Romlock installation file **dk2wn32.exe**

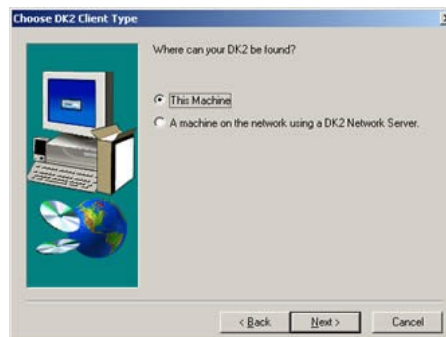
The Romlock Driver Installation Process begins.



Accept the License Agreement and press the Next button to continue.



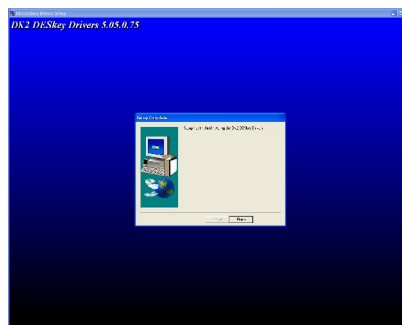
The user is prompted to choose the client type, choose the default option (This Machine). Click **next** to Continue Note: If there are older versions of the DK2 Romlock drivers installed on your machine, at this point you will be prompted to uninstall them. If this occurs select yes to uninstall.



The copying files dialog is then displayed



The DK2 Setup Complete dialog is then displayed.



Step 2 of the STarStation Installation is now complete.

### 3. Installing the Luminex Library Components

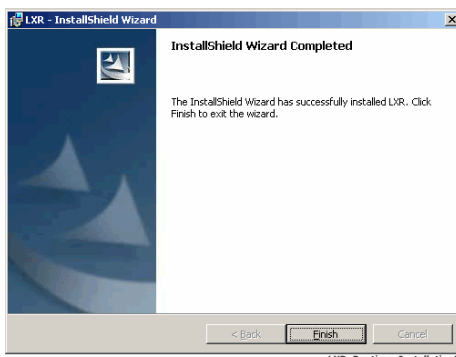
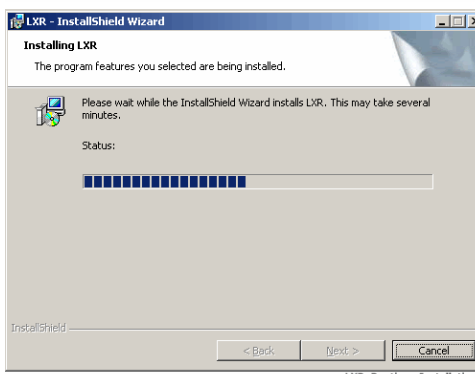
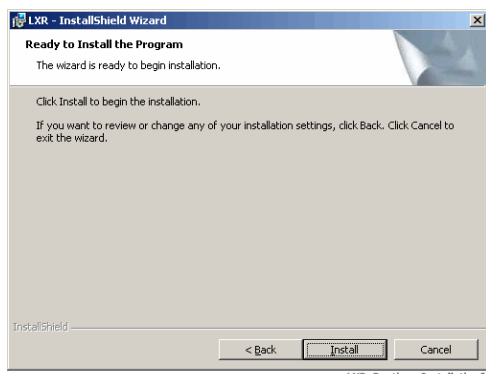
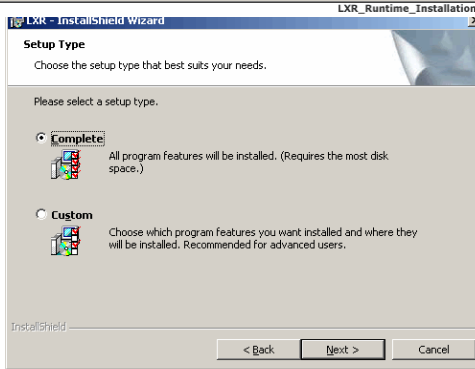
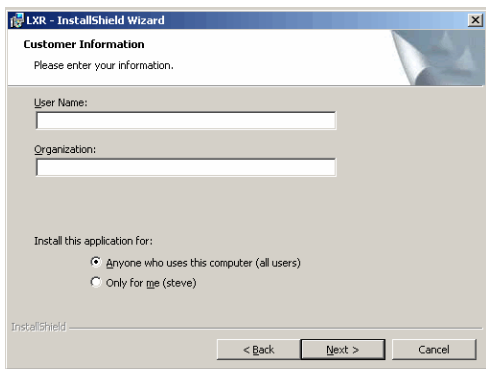
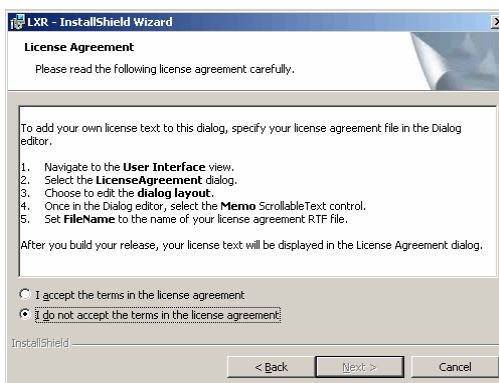
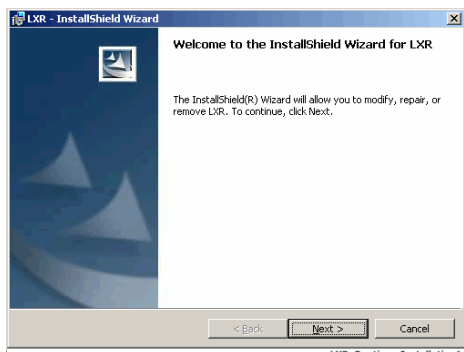
**If you are installing an Analysis-Only Version of STarStation proceed to step 4.** If you are performing a System Control installation on an IS 2.3 system which already has Luminex IS 2.3 software installed proceed to step 4.

Luminex Workstations shipped with IS 2.3 systems have version 2.0 or newer of the Luminex library (LXR) preinstalled. When installing STarStation on such a machine you **DO NOT NEED** to install the Luminex Library from the STarStation installation CD.

#### LXR Library Installation

The procedure outlined below should only be performed for System Control Installations on system on which the LX service (LX Runtime) has not been installed.

- i) Locate the **LXR Runtime Installation** folder in the Setups folder of the STarStation 2.3 installation CD.
- ii) Click the setup.exe file in the folder. The LXR library Installation Wizard should begin.
- iii) Proceed through the LXR Runtime installation wizard selecting the default options as shown in the screen shots below.



The installation routine will install and automatically start the LX service component through which STarStation communicates with the Luminex detector. When the LX Runtime installation completes an LX service icon should be visible in the windows system tray.



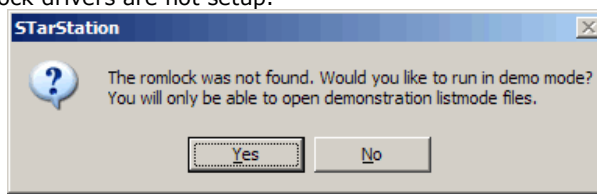
Step 3 of the installation process is now complete. Next we must configure the Luminex Instrument to allow STarStation to communicate with the cytometer and XY Platform.

### 3.1 Setting up the Luminex Detector to communicate with STarStation

After installation of STarStation the system must be configured for use with the STarStation software, before the user can begin using STarStation. The steps below outline the configuration process. If this step is not performed STarStation will not be able to detect the Luminex system.

**Note: For Analysis only Installations of STarStation this configuration process is not necessary.**

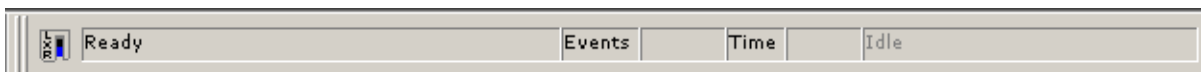
- i) Connect the USB communication cable to the P1 port on the Luminex detector and to a USB port on the system PC.
- ii) Connect the serial communication cable between the XY platform and a COM port on the system PC.
- iii) Ensure that the serial and USB communication cables are connected and that the LX Detector and the XY platform are switched on.
- iv) Launch STarStation.
- v) Confirm that the Romlock is detected correctly; the warning message below is only displayed if the Romlock is not attached or the Romlock drivers are not setup.



Romlock\_Not\_Found

- vi) Login to STarStation by selecting the demo level 1 user account, enter the password "demo level1" and press the **Login** button.

When the STarStation software interface is displayed confirm that STarStation correctly detects the system components. The instrument Status Toolbar should display that STarStation is in the "Ready" state and the Luminex Controller in the "Idle" State.



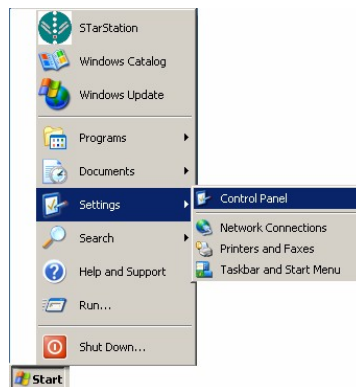
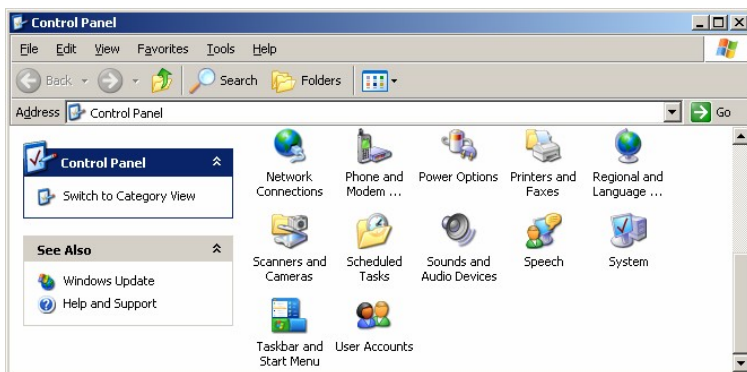
Ready\_Idle

### 3.2 Installing the Luminex 100 IS USB Device Drivers

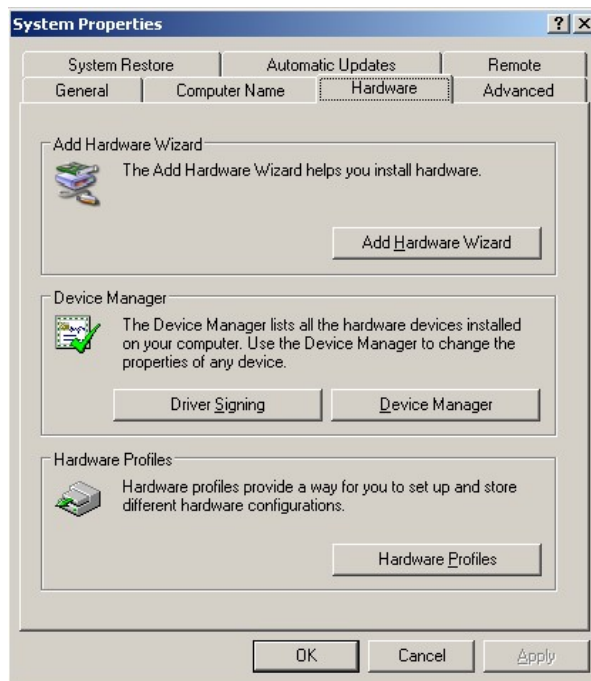
If you are connecting a Luminex IS version cytometer to a computer that has not previously been connected to a Luminex instrument. Or for some other reason your computer does not have installed the device drivers required for USB connectivity the steps below outline the procedure for installing a Luminex Detector IS USB connection.

**Step 1.** Start the windows control panel from the Start button->Settings ->Control Panel.

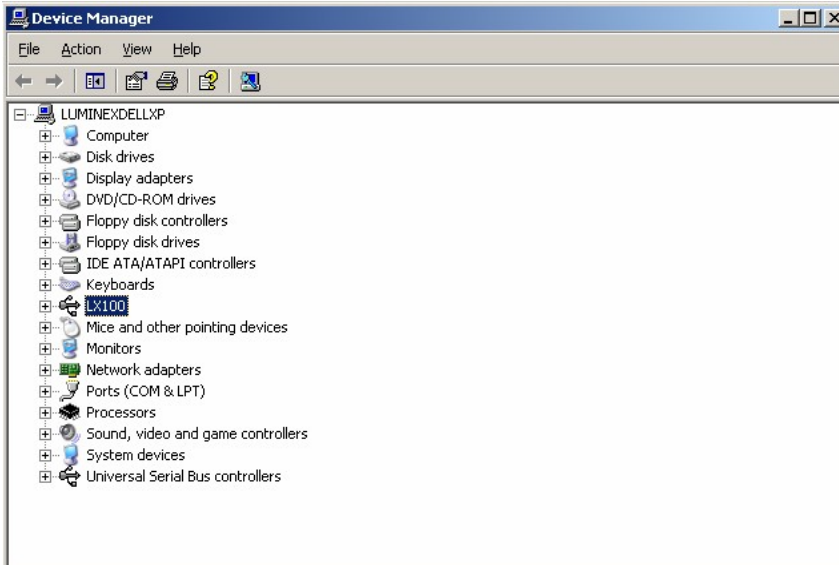
**Step 2.** Next select the **System** applet from the control panel.



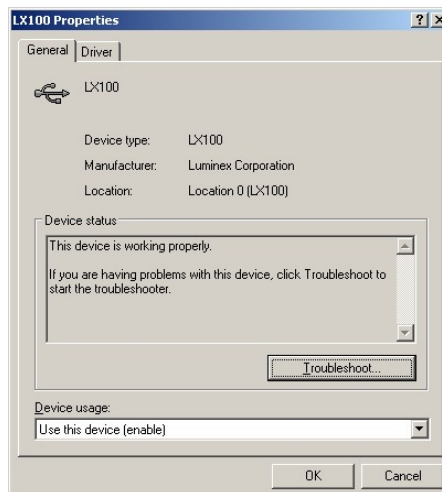
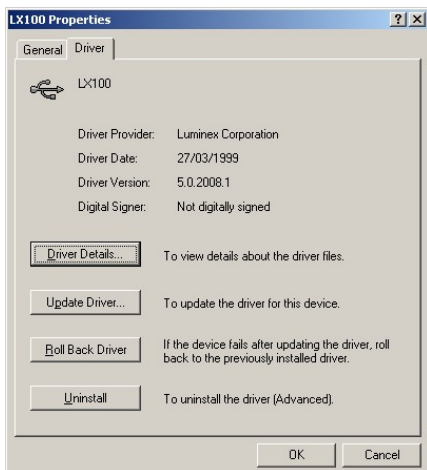
**Step 3.** When the System Properties Dialog is displayed select the **Hardware** tab and press the button labeled **Device Manager**.



**Step 4.** When the Device Manager is displayed there should be a LX100 entry in the device list. If there is no device listed check that the USB connection from the Luminex 100 is connected to a USB port on your computer and that the instrument is switched on, then right-mouse click on root item in the tree control and select the **Scan for Hardware Changes** item. If following these checks there is still no entry in the Device Manager for LX100 jump to step 6 to install the device drivers.



**Step 5.** Right Mouse Click the LX100 item in the Device Manager List and select the properties option from the context menu, dialogs detail the properties of a correctly installed and functioning Luminex 100 are shown below. If the device is not working properly proceed to step 6 to install the device drivers.



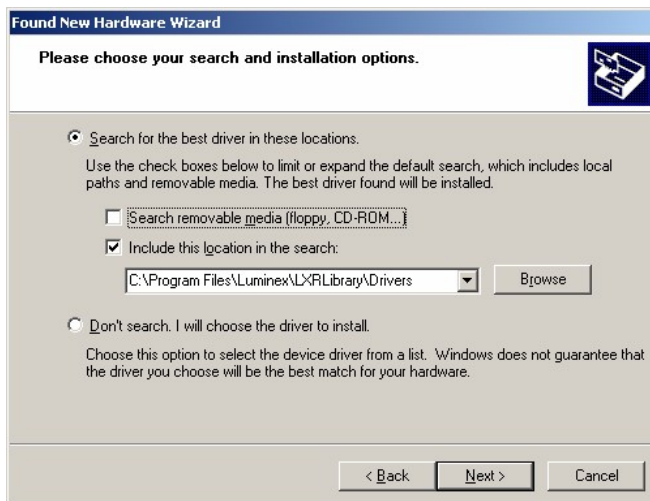
**Step 6.** Power up the Luminex 100 and connect the USB cable to the USB port of your computer. Once the USB cable is connected your computer should detect the new hardware and automatically start the **Found New Hardware Wizard**.



**Step 7.** On the first page of the **Found New Hardware Wizard** select the *Install from a list or specific location* option, and press the **Next** button.



**Step 8.** On the second page of the hardware wizard check the **include this location in the search tick box**.



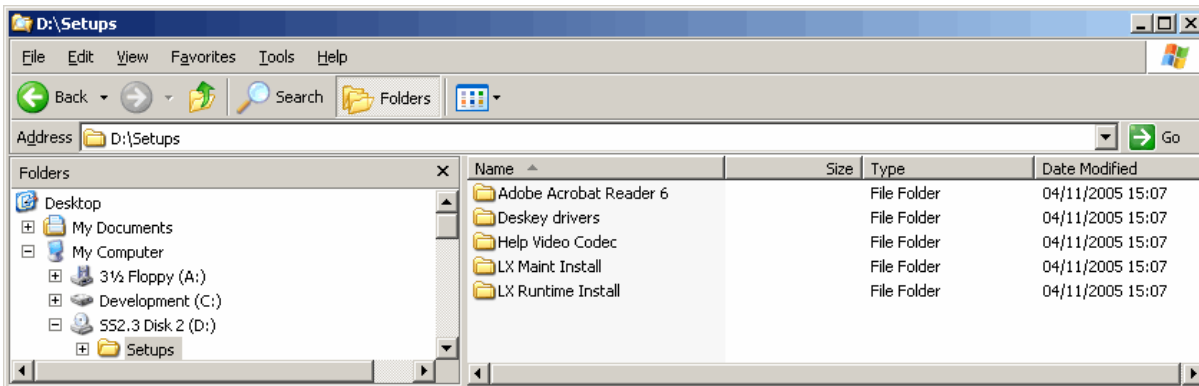
**Step 9.** The file required for installation of the LX100 device driver is called LX100.sys and is installed as part of the Luminex Library.



**Step 10.** The Installation process should complete and the hardware wizard should inform you that the software required for the LX100 has been installed.

**4. Installing Additional Software Utilities.**

The STarStation Installation CD has additional software utilities that may be optionally installed. The documents installed by the User Information Pack are portable document format (pdf) files and require Adobe Acrobat Reader to be viewed. The Adobe Acrobat Reader 6.0 installation file is located in the Setups folder on the STarStation Installation CD.



STarStation\_2\_3\_CD\_Setups\_Folder

## 5 Installation FAQ

### What files are installed onto my workstation by the STarStation installation Process?

The following ACS Components are installed by the STarStation installation process

File	Target Directory
STarStation.exe	C:\Program Files\Applied Cytometry Systems\STarStation 2.3
CurveFit3.dll	C:\Program Files\Applied Cytometry Systems\STarStation 2.3\
Beadmaps.xml	C:\Program Files\Applied Cytometry Systems\STarStation 2.3
STarStationImport2_3.xla	C:\Program Files\Applied Cytometry Systems\STarStation 2.3\Excel Plugin\
ACSplot2.ocx	C:\Program Files\Applied Cytometry Systems\STarStation 2.3\
PlatePreview.ocx	C:\Program Files\Applied Cytometry Systems\STarStation 2.3\
MBT01.tlb	C:\Program Files\Applied Cytometry Systems\STarStation 2.3\
ReadMe.txt	C:\Program Files\Applied Cytometry Systems\STarStation 2.3\
Licence.txt	C:\Program Files\Applied Cytometry Systems\STarStation 2.3\
UtilityPlate2.ocx	C:\Program Files\Applied Cytometry Systems\STarStation 2.3\
Atl.dll	C:\Windows\System32
Msvcp60.dll	C:\Windows\System32
SS HelpFile.cnt	C:\Program Files\Applied Cytometry Systems\STarStation\
STarStation2_3.hlp	C:\Program Files\Applied Cytometry Systems\STarStation 2.3\
footer.gif	C:\Program Files\Applied Cytometry Systems\STarStation 2.3\
centermain.gif	C:\Program Files\Applied Cytometry Systems\STarStation 2.3\
acsheader.gif	C:\Program Files\Applied Cytometry Systems\STarStation 2.3\
GDIPlus.dll	C:\Program Files\Applied Cytometry Systems\STarStation 2.3\
AcsSupportPage.htm	C:\Program Files\Applied Cytometry Systems\STarStation 2.3\
roboex32.dll	C:\Windows\System32
inetwh32.dll	C:\Windows\System32
htmlwh.dll	C:\Windows\System32
rhmmplay.dll	C:\Windows\System32

### 5.1 Shortcuts Created By STarStation Installation

Desktop->STarStation 2.3

Desktop-> HTML shortcut to <http://www.appliedcytometry.com/starsupport/>

Start Menu->Programs->Applied Cytometry Systems->STarStation 2.3

Start Menu->Programs->Applied Cytometry Systems->STarSystem User information Pack

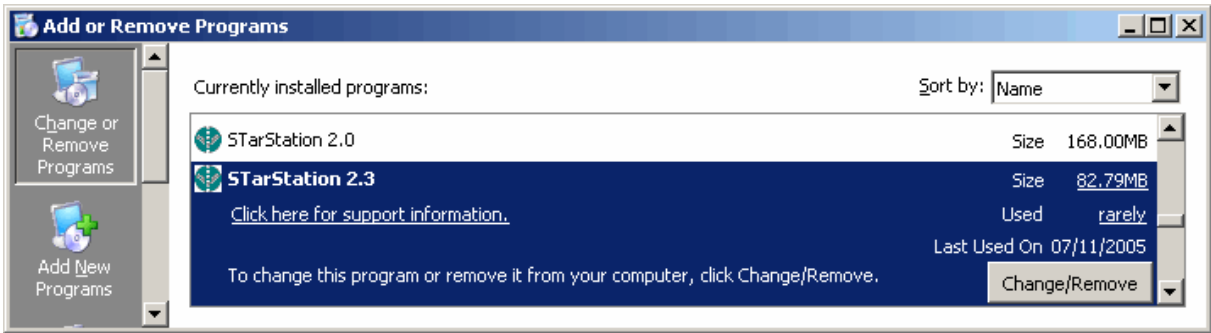
Start Menu->Programs->Applied Cytometry Systems->Restart Service

## 6. Uninstalling STarStation.

The STarStation uninstall sequence can be started in one of two ways.

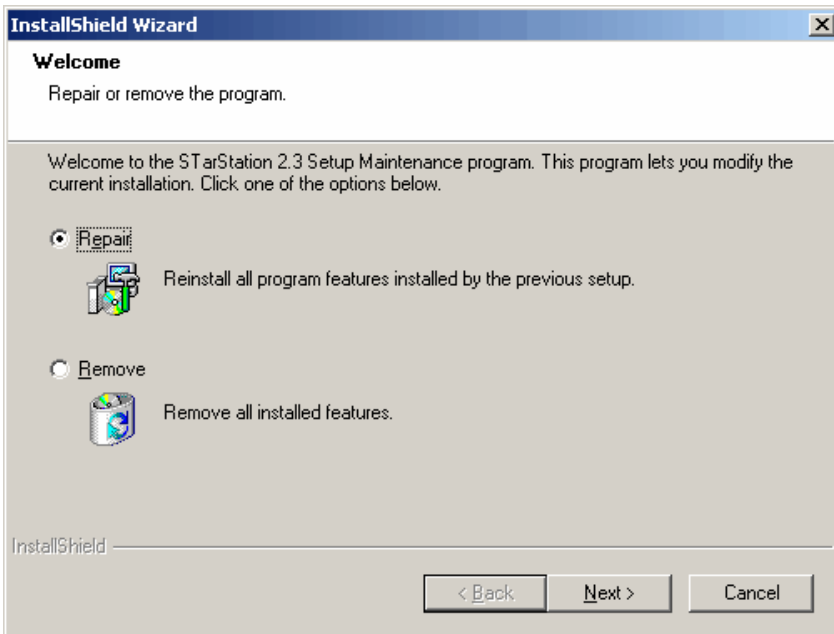
Note: The process of Uninstalling STarStation does not remove any Assay Data Files the DESKey Drivers or the LXR library. If the user wishes to remove these components they can be removed via the Remove Programs Applet in Windows Control Panel.

- 1) By inserting the STarStation installation CD into the PC and selecting Step one from the Launcher Menu.
- 2) From the Add/Remove Programs Applet in Windows Control Panel.
  - i) Select the STarStation 2.3 option in the list of currently installed programs.



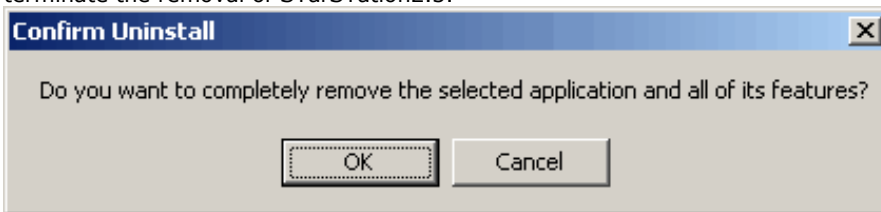
Add\_Remove\_STarStation

- ii) Click the **Change/Remove** button.
- iii) The Repair or |Remove screen is displayed. Select the **Remove** option and click the **Next** button.



Add\_Remove\_STarStation2

- iv) If the Confirm Uninstall message is displayed, select **OK** to proceed with the install or the **Cancel** button to terminate the removal of STarStation2.3.



STarStation\_Confirm\_Uninstall

- v) The uninstall process should delete all of the STarStation shortcuts that were added to your PC during the installation process.
- vi) When STarStation software removal is complete the InstallShield Wizard displays the following screen.

