# Important Installation Procedures

| Computer Administrators | Teachers |
|---|---|
| This document is for you. Select an installation task below and follow the instructions to prepare each computer for teacher and student use.<br>**Note: In most cases, installing the DataStudio software without additional setup is insufficient. Please follow these complete installation procedures.** | These installation procedures must be performed by someone with administrative control of your computers. If you are your own computer administrator, then this document is for you – see the Computer Administrators directions to the left. Otherwise, give this packet to your computer administrator. Once they have completed the installation, your computers will be ready for you and your students to use. |

*If you have questions or encounter problems, please contact PASCO Technical Support at the phone number or email address on the bottom of the page.*

Select your installation task below and proceed to the instructions cited.

**Install DataStudio for data collection with PASPORT probeware.**



| | | |
|---|---|---|
| Windows XP | → | p. 2 |
| Windows 98/Me/2000 | → | http://www.pasco.com/datastudio/install |
| Mac OS X | → | p. 20 |
| Mac OS 8.6-9.x | → | http://www.pasco.com/datastudio/install |

**Install DataStudio for data collection with ScienceWorkshop probeware.**



→ http://www.pasco.com/datastudio/install

**All other installation tasks.**

→ http://www.pasco.com/datastudio/install

# Installing DataStudio for PASPORT on Windows XP

## *Materials Required*

| | |
|---|---|
|  | DataStudio CD or downloaded DataStudio installer (available from http://www.pasco.com/software) |
|  | DataStudio Serial Number and License Key, if owned<br>(This DataStudio license information is on the registration card inside the colored license agreement envelope of all purchased versions of DataStudio. The free CI-6883x "DataStudio Lite" does not include this license information.) |
|  | WavePort Serial Number and License Key, if owned<br>(This WavePort license information is on the registration card inside WavePort's colored license agreement envelope.) |
|  | one PASPORT sensor (for example, a Temperature Sensor, shown) |
| *each of the following PASPORT interfaces that are used at your school:* | |
|  | one USB Link |
|  | one PowerLink (with Power Supply and USB cable)<br>(or, optionally, all of your school's PowerLinks if you will be upgrading their firmware) |
|  | all of your school's Xplorers (with USB cable) |

## *Estimated Time*

15-45 minutes per computer

## *Procedure*

Complete installation of DataStudio and PASPORT probeware involves the following steps, described in detail in this document:

- 1. Software Installation
- 2. Driver Installation
- 3. Software Licensing
- 4. Firmware Upgrades
- 5. Verification
- 6. Additional Recommendations

## *1. Software Installation*

*key points*

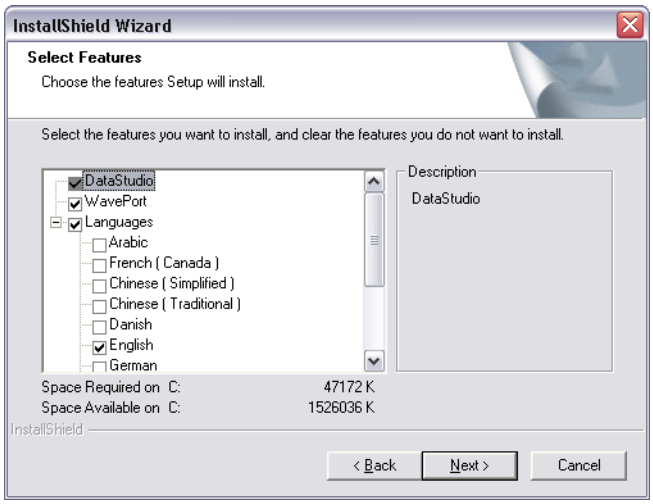
- Administrator privileges are required for the software installation.
- The installer offers options to install WavePort, a sound analysis and generation plug-in for DataStudio, and various language versions of DataStudio.

1. Boot up the computer and log in with an administrator account.
2. Run the DataStudio installer using any of these methods:
    - Insert the DataStudio CD and select Install DataStudio from the automatically launched interface (below), or




    - From the DataStudio CD's DataStudio folder, run *setup.exe,* or
    - Unzip and run the installer file *DS190.exe* downloaded from PASCO's website.

3. Step through the installer, noting in particular the following screen which allows you to select the features to install.




   - WavePort is a software plug-in to DataStudio which allows the analysis and generation of sound through the computer's sound card. Installation of WavePort is recommended even if you have not purchased a WavePort license, as a free 30-day demonstration is available.
   - If you own an early version of WavePort, when it was a standalone CD without a license number, cancel this installer and install WavePort from the old CD first, then run the current combined DataStudio/WavePort installer. A "grandfather" WavePort license key will automatically be applied for you.
   - Select the language(s) in which you would like to be able to run DataStudio. The default initial language will match your operating system's language setting (if installed).
4. Once the installer has finished, select Finish to exit. If you are prompted to restart the computer, restart and log back in with an administrator account. If you installed from CD, keep the DataStudio CD in the drive until all installation tasks have completed.

## *2. Driver Installation*

*key points*

- Each type of PASPORT interface (USB Link, Xplorer, and PowerLink) must be installed on *each* of a computer's USB ports by an administrator.
- The drivers for these interfaces have already been placed on the hard drive during the DataStudio installation and should be found automatically.
- The USB Link requires two driver installations.

You will now associate the drivers for each of your PASPORT interface types with each of the USB ports on the computer. Windows XP requires an administrator to individually install the PASPORT drivers on each USB port that might potentially host the device. The PASPORT driver files were placed on the hard drive during the installation of DataStudio.

1. Ensure that you are logged in to an administrator account.

2. If your school has **USB Links**:



1. Connect a USB Link (without a sensor) to one of the computer's USB ports.
2. The Found New Hardware Wizard should appear, seeking to install the PASCO USBLink loader driver. Choose "Install the software automatically (Recommended)" and click Next. (You do not need to insert a CD or disk).




3. The Wizard will search for and locate the driver on the hard drive and present the following message. Select Continue Anyway.



4. Once this first driver installation has been completed, choose Finish.

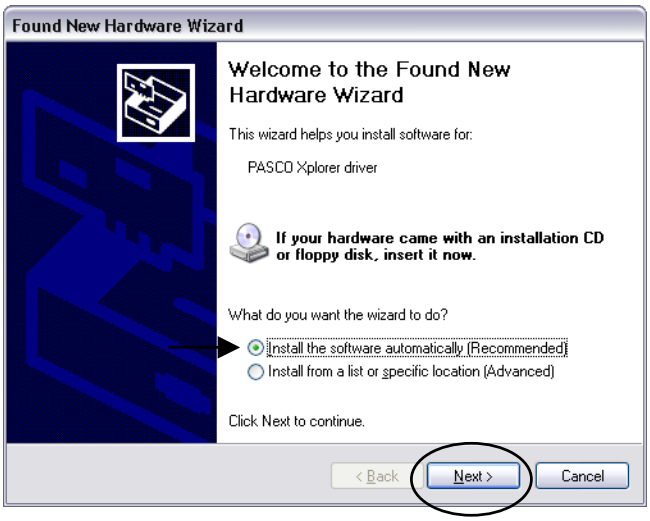



5. Momentarily, another Found New Hardware Wizard will appear seeking to install the "PASCO USBLink driver". Repeat steps 2-4 above to install this *second* USB Link driver.
6. Unplug the USB Link from this first USB port and repeat the driver installation procedure for *every* accessible USB port on the computer, including the ports on any USB hubs connected to the computer.
7. Unplug the USB Link before continuing. If you were prompted to restart the computer, defer the restart until step 5 at the end of the Driver Installation section.

3. If your school has **Xplorers**:



1. Connect an Xplorer (without a sensor) to one of the computer's USB ports with the provided USB cable. (Batteries are not required in the Xplorer, as it will be powered via the USB port.)
2. The Found New Hardware Wizard should appear, seeking to install the PASCO Xplorer driver. Choose "Install the software automatically (Recommended)" and click Next. (You do not need to insert a CD or disk).



3. The Wizard will search for and locate the driver on the hard drive and present the following message. Select Continue Anyway.




4. Once this driver installation has been completed, choose Finish.




5. Unplug the Xplorer and repeat this procedure for *every* accessible USB port on the computer, including the ports on any USB hubs connected to the computer.
6. Unplug the Xplorer before continuing. If you were prompted to restart the computer, defer the restart until step 5 at the end of this section.

4. If your school has **PowerLinks**:

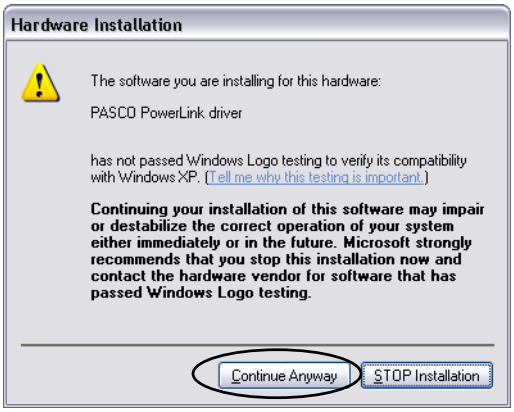



1. Connect a PowerLink to an electrical outlet with the supplied AC adapter.

2. Connect the PowerLink (without any sensors) to one of the computer's USB ports with the provided USB cable. Windows XP will quickly install a Generic USB Hub driver for the PowerLink's built-in hub, and then the Found New Hardware Wizard should appear, seeking to install the PASCO PowerLink driver. Choose "Install the software automatically (Recommended)" and click Next. (You do not need to insert a CD or disk).




3. The Wizard will search for and locate the driver on the hard drive and present the following message. Select Continue Anyway.



4. Once this driver installation has been completed, choose Finish.




5. Unplug the PowerLink and repeat this procedure for *every* accessible USB port on the computer, including the ports on any USB hubs connected to the computer.
6. Unplug the PowerLink before continuing.

5. If any of the driver installations requested a restart of the computer, restart now and log in again as an administrator.

*Troubleshooting Tip: All PASPORT interfaces use the setup and driver files \WINDOWS\INF\PSSENSOR.INF and \WINDOWS\SYSTEM32\DRIVERS\PSSensor.sys.*

## *3. Software Licensing*

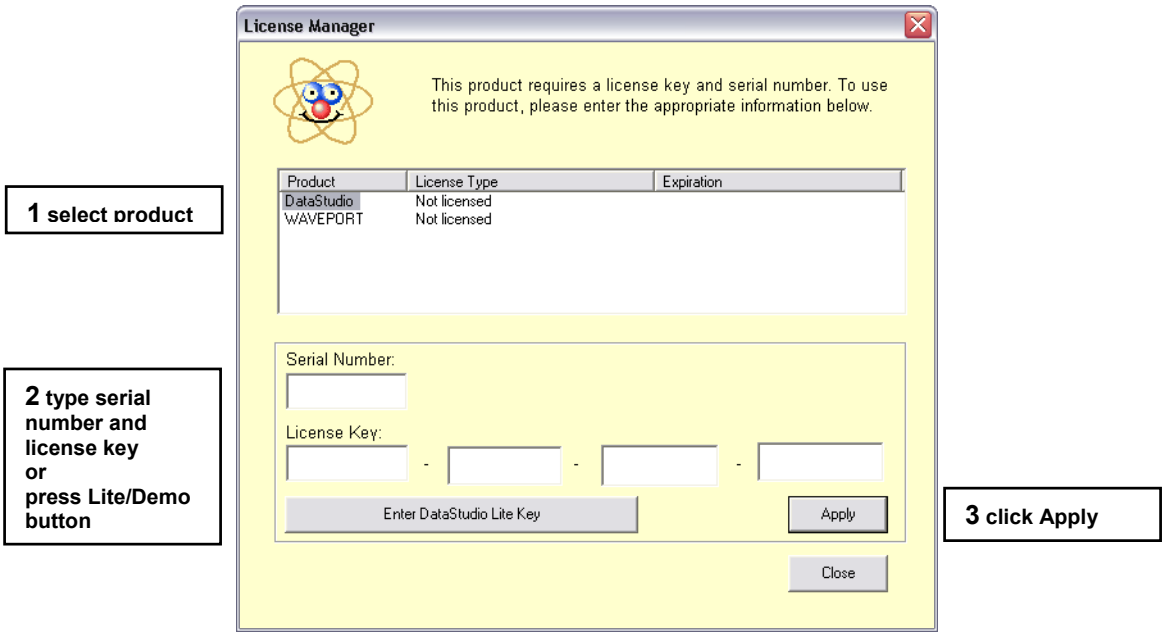
*key points*

- The DataStudio License Manager will request license information for DataStudio and WavePort (if installed) the first time DataStudio is launched on a computer.
- If you have purchased a license for DataStudio or WavePort, you can enter it to permanently unlock all of DataStudio's features.
- If you have not purchased a license for DataStudio, you can direct the License Manager to enter a "DataStudio Lite" key which will provide access to DataStudio's full features for 90 days and permanent access to the feature-limited DataStudio Lite.
- If you have not purchased a license for WavePort, you can direct the License Manager to enter a demonstration key which will provide access to the WavePort plug-in for 30 days.

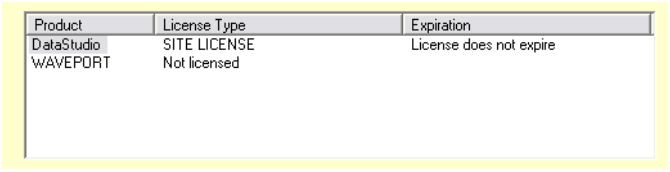
Now you will enter licensing information for the DataStudio program and WavePort plug-in (if installed).

1. Open DataStudio using either of these two methods:
   - Double-click the DataStudio icon on the desktop, or
   - From Start > All Programs > DataStudio, select DataStudio to open DataStudio in your system's default language, or select a specific language name to open DataStudio in that language.

   Upon this first launch of DataStudio, the License Manager opens.

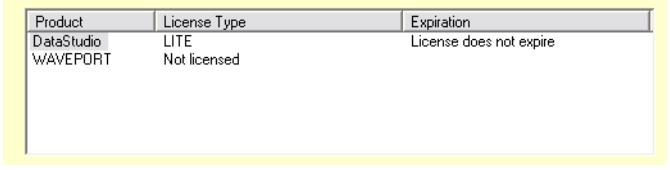



2. In the Product list, click on DataStudio to select it, then:
   - If you own an appropriate DataStudio license, enter your Serial Number and 28-letter License Key and select Apply. Your non-expiring license is registered, as shown at the top.

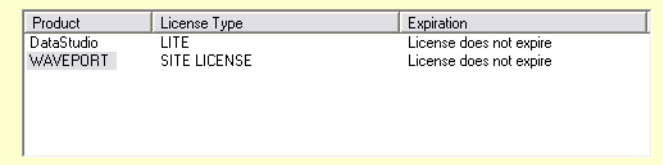



   - If you do not own a DataStudio license, press the Enter DataStudio Lite Key button (

). DataStudio's full features will be available for 90 days, after which time the limited feature set of DataStudio Lite will be available permanently. There is no expiration for DataStudio Lite in its limited feature mode.

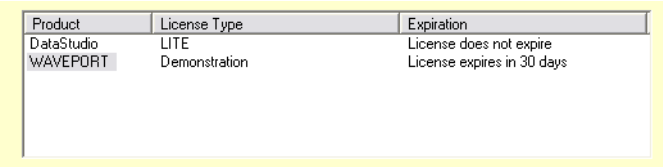


3. If you chose to install WavePort during the DataStudio installation, click on WavePort in the Product list to select it, then:
    - If you own an appropriate WavePort license, enter your Serial Number and 28-letter License Key and click Apply. Your license is applied as shown at the top.

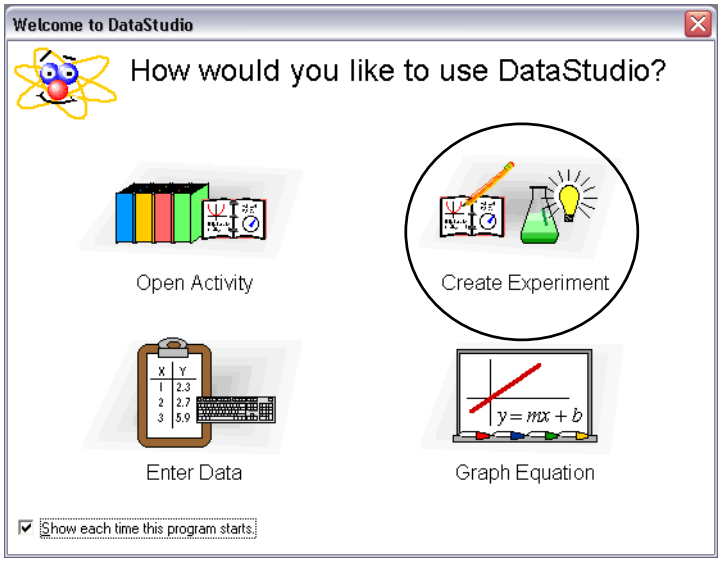



    - If you do not own a WavePort license key, you may select the Enter Demonstration Key button (

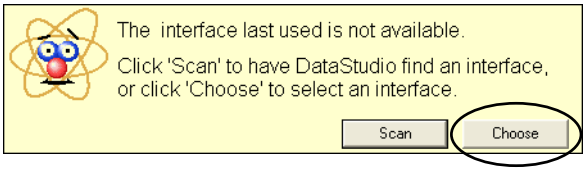
) to gain access to the WavePort plugs-in's features for 30 days.



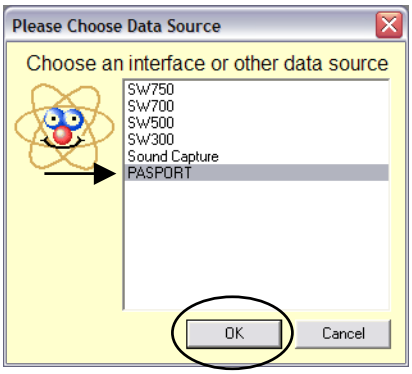

    - If you purchased an early version WavePort with a standalone WavePort installer CD and installed it according to the instructions in the preceding Software Installation section, a non-expiring WavePort license should have been automatically applied for you.
4. Click Close to save the licensing information and launch DataStudio.
5. Select Create Experiment from the Welcome to DataStudio window.




6. Click Choose to select the type of probeware you will be using on this computer.



7. Select PASPORT and press OK.




*Tip: You can make later changes to DataStudio's licensing via Help > Change License Key and to the interface choice via Experiment > Change Interface.*

## *4. Firmware Upgrades for Xplorers and PowerLinks*

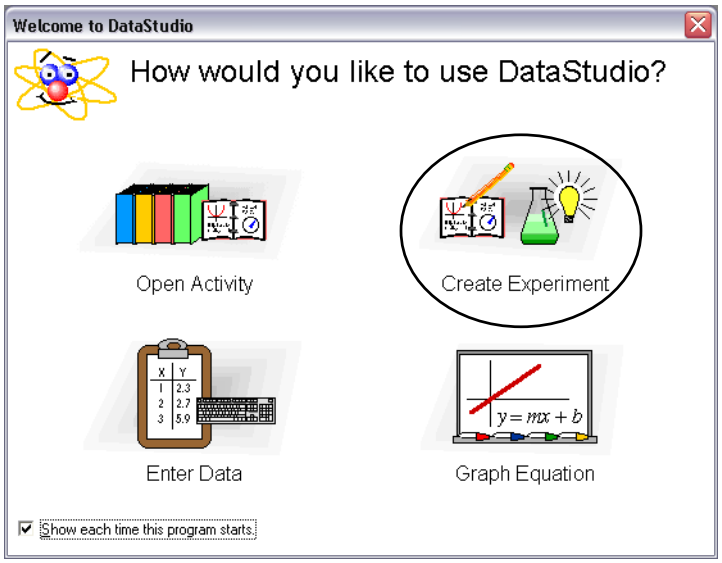
*key points*

- Firmware upgrades to the Xplorer and PowerLink interfaces are uploaded from DataStudio to the interfaces.
- Xplorer firmware upgrades must be installed by an administrator.
- PowerLink firmware upgrades can be installed by an administrator or a non-administrator.
- USB Links never require firmware upgrades.

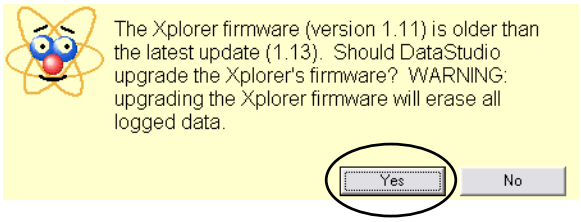
Occasional firmware upgrades for the Xplorer and PowerLink are delivered through new versions of DataStudio. While non-administrative accounts can upgrade the firmware of the PowerLink, the Xplorer's firmware must be upgraded by an administrator. Follow these steps to ensure that the Xplorer and PowerLink interfaces' firmware is up-to-date.

1. Ensure that you are logged in as an administrator.

2. If DataStudio is still open, continue to the next step. If DataStudio is not open, launch it and select Create Experiment from the Welcome to DataStudio window.




3. For each **Xplorer**:
   1. Connect the Xplorer (without a sensor) to one of the computer's USB ports.
      - If this Xplorer's firmware is current, nothing will happen. Proceed to step 7 below.
      - If this Xplorer's firmware is old, DataStudio will inform you. Continue with the next step.
   2. Select Yes to begin the upgrade process.



3. If this is the first Xplorer upgraded on this USB port, Windows detects the Xplorer as a new generic device (an Anchor USB chip) and opens the Add New Hardware Wizard. Ensure that "Install the software automatically (Recommended)" is selected and click Next. (You do not need to insert a CD or disk).



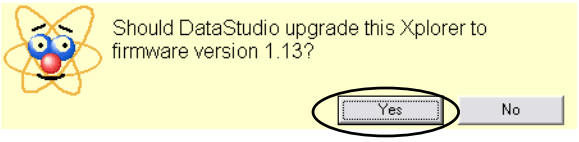

4. The Wizard will search for and locate the driver on the hard drive and present the following message. Select Continue Anyway.




5. Once the driver installation has finished, select Finish.



6. Back in DataStudio, select Yes to confirm that you would like to install the firmware upgrade. The firmware will be upgraded and the Xplorer will reboot.

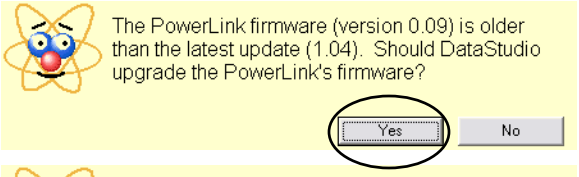


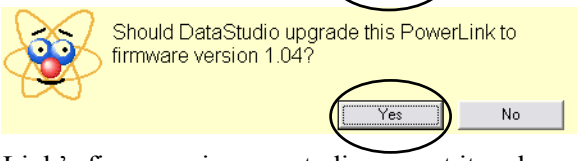

7. Once this Xplorer's firmware is current, disconnect it and repeat this process for every Xplorer you would like to upgrade. Use the same USB port to avoid the Found New Hardware Wizard (steps 3-5) during subsequent upgrades.

*Tip: You can view an Xplorer's current firmware version on its Xplorer Startup screen whenever it powers up.*

*Tip: Since the following PowerLink firmware upgrade procedure does not require an administrator login, you could leave it for teachers and students to perform when they use the PowerLinks for the first time.*

4. (optional) For each **PowerLink** in your school:
   1. Connect the PowerLink to an electrical outlet with the supplied AC adapter.
   2. Connect the PowerLink (without any sensors) to one of the computer's USB ports.
      - If this PowerLink's firmware is current, nothing will happen. Continue to step 3 below.
      - If this PowerLink's firmware is old, DataStudio will inform you. Choose Yes twice to proceed with the upgrade.




   3. Once this PowerLink's firmware is current, disconnect it and repeat this process for every PowerLink you would like to upgrade.
5. Disconnect any PASPORT interfaces from the computer and close DataStudio.

## *5. Verification*

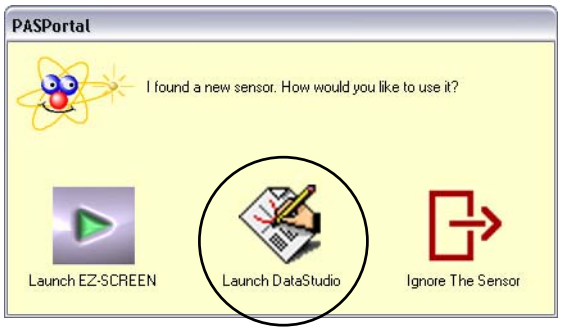
*key point*

- Verify that the installation process has succeeded by briefly collecting sensor data using a teacher or student login.

Verify that the installation has been successful.

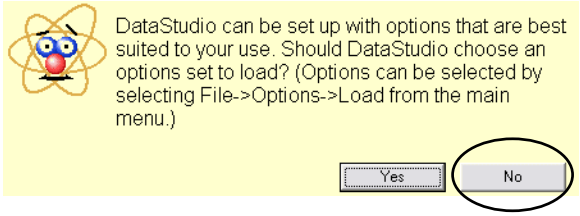
1. Log out your administrator account and log back in using the same account type as your teachers or students.
2. Plug a USB Link, Xplorer, or PowerLink into one of the computer's USB ports.
3. Connect a PASPORT sensor (such as the Temperature Sensor) to the USB Link, Xplorer, or PowerLink.

4. The PASPortal monitor, which is automatically running in the background, should detect the sensor and open the PASPortal window. Choose Launch DataStudio.

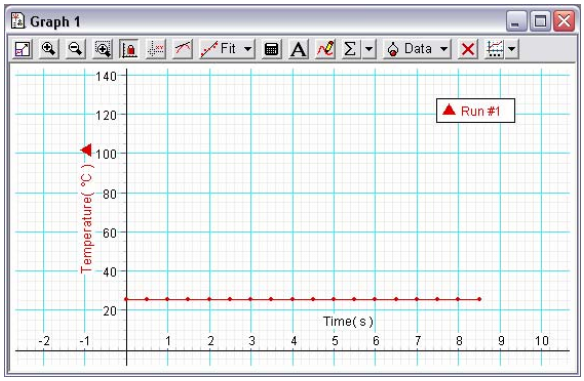


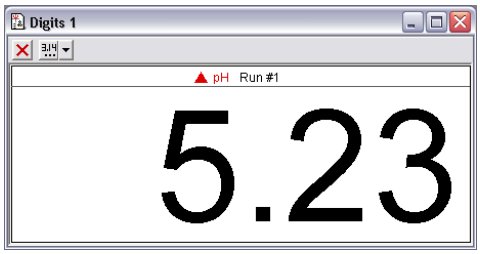

*Troubleshooting Tip: A shortcut to the PASPortal monitor application is placed by the DataStudio installer in the default location C:\Documents and Settings\All Users\Start Menu\Programs\Startup\PASPortal. When PASPortal is running, its blue and green icon ( ) resides in the system tray notification area.*

5. If this is this account's first use of DataStudio, DataStudio will ask if you would like to select a default options set. Select No.




6. DataStudio opens the default display for the sensor you have connected, usually a Graph or Digits display. Press the main toolbar's Start button ( Start ) to begin collecting data. After a few seconds, press the Stop button ( Stop ) to end data collection. If data appears in the display (examples below), your installation of this type of PASPORT interface on this USB port was successful. Congratulations!




7. If you followed this document's installation procedure for the USB Link, Xplorer, and PowerLink on *every* USB port of this computer, then you can reasonably assume that the installation on this computer was successful. If you are unsure if the USB Link, Xplorer, and PowerLink have all been installed on every USB port on this computer, repeat this verification procedure for a USB Link, Xplorer, and PowerLink on each accessible USB port.
8. Close DataStudio (File > Quit). You do not need to save the activity.

*Tip: If you would like to also verify the installation of the WavePort plug-in, see the Verification section of the WavePort installation instructions.*

## *6. Additional Recommendations*

*key points*

- Install QuickTime 5 or later to enable DataStudio's movie playback feature.
- Install any PASCO Curriculum products to place DataStudio experiment configuration files on each computer.
- Provide teachers with the DataStudio Tutorial on the DataStudio CD to get them started using probeware.

While your computer is now ready for teachers and students to collect and analyze data from PASPort sensors, performing these final steps will allow them to get the most out of your school's probeware.

### Install QuickTime

DataStudio's new movie playback feature requires the free QuickTime Player version 5 or later.

1. To install QuickTime, log in as an administrator and do one of the following:
   - Insert the DataStudio CD and select Install QuickTime from the automatically launched interface (below), or

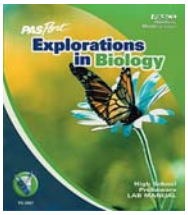



   - From the DataStudio CD's QuickTime folder, run *QuickTimeFullInstaller.exe,* or
   - Download and run the latest QuickTime installer from http://www.apple.com/quicktime/download/
2. Follow the installer's onscreen instructions to complete the installation.

*Tip: A purchased QuickTime Pro license is not required for DataStudio's movie playback feature; the free QuickTime Player is sufficient.*

### Install PASCO Curriculum

Your school may have purchased curriculum products like these from PASCO or its partners:



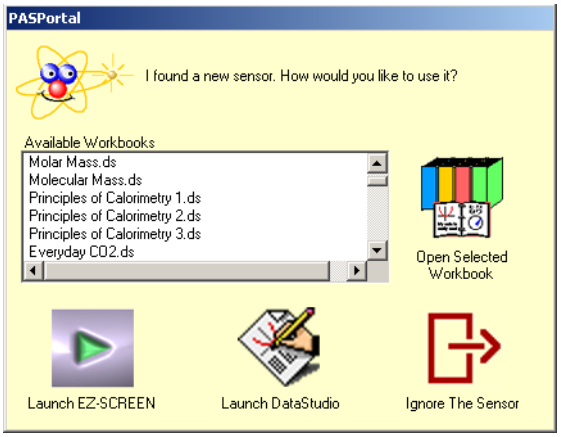



PASCO's curriculum products typically consist of a binder of printed experiment procedures with a CD installer for the corresponding DataStudio experiment configuration files. Run the CD installer to place these experiment configuration files on the hard drive for easy access by teachers and students.

1. To install any DataStudio curriculum you have purchased, log in as an administrator and follow the installation instructions for your particular curriculum product(s).

*Tip: Most curriculum installers place the DataStudio experiment configuration files in the DataStudio eLabs folder, which is C:\Program Files\DataStudio\eLabs\ by default. After a restart, files placed here will be accessible from the PASPortal window when the appropriate sensor is plugged in, as shown below for a Temperature Sensor.*

**DataStudio configuration files installed in the DataStudio eLabs folder**




*Tip: To prevent the installed DataStudio experiment files(.ds) from accidentally being modified, use Windows Explorer to turn on their Read-only property.*

### Provide the DataStudio Tutorial to Teachers

The DataStudio Tutorial included on the DataStudio installer CD is an interactive multimedia orientation for teachers who are new to probeware. We recommend that you provide the CD to your teachers so they can work through the tutorial at their own pace. They should run the tutorial from the CD as described below.

1. Ensure that DataStudio and QuickTime are already installed.
2. To run the tutorial from the DataStudio CD, do one of the following:
    - Insert the DataStudio CD and select Launch Tutorial from the automatically launched interface (below), or




    - From the DataStudio CD's Tutorial folder, run *Tutorial.exe.*

*Tip: Because of its large multimedia files, the tutorial is designed to be run directly from the DataStudio CD. However, if you have approximately 200MB of available hard drive space, you can copy the Tutorial folder from the DataStudio CD to your hard drive and run the tutorial from there.*

*Tip: Additional copies of the DataStudio Tutorial on CD can be requested at http://www.pasco.com/training/tutorialcd/tutorial_order.html.*

## The installation on this computer is completed.

# Installing DataStudio for PASPORT on Mac OS X

## *Materials Required*

| | |
|---|---|
|   | DataStudio CD or downloaded DataStudio installer (available from http://www.pasco.com/software) |
|  | DataStudio Serial Number and License Key, if owned<br>(This DataStudio license information is on the registration card inside the colored license agreement envelope of all purchased versions of DataStudio. The free CI-6883x "DataStudio Lite" does not include this license information.) |
|  | WavePort Serial Number and License Key, if owned<br>(This WavePort license information is on the registration card inside WavePort's colored license agreement envelope.) |
|  | one PASPORT sensor (for example, a Temperature Sensor, shown) |
| *at least one of the following PASPORT interfaces that are used at your school:* | |
|  | USB Link |
|   | PowerLink (with Power Supply and USB cable)<br>(if you will be performing the optional firmware upgrade, gather all of your school's PowerLinks) |
|  | Xplorer (with USB cable)<br>(if you will be performing the optional firmware upgrade, gather all of your school's Xplorers) |

## *Estimated Time*

7-25 minutes per computer

## *Procedure*

Complete installation of DataStudio and PASPORT probeware involves the following steps, described in detail in this document:

- 1. Software Installation
- 2. Software Licensing
- 3. Firmware Upgrades (optional)
- 4. Verification
- 5. Additional Recommendations

## *1. Software Installation*

*key points*

- Administrator privileges are required for the software installation.
- The installer offers the option to install WavePort, a sound analysis and generation plug-in for DataStudio.

1. Boot up the computer and log in with an administrator account.
2. Run the DataStudio installer using any of these methods:
    - Insert the DataStudio CD, double-click its icon on the desktop, and run *Launcher*. Select Install DataStudio from the Launcher interface, or




    - From the DataStudio CD's DataStudio folder, run *DS Install,* or
    - Uncompress and run the installer file *DS Install* downloaded from PASCO's website.

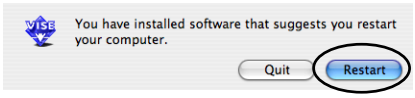
3. Enter your administrator name and password, then step through the installer, noting in particular the following screen which allows you to select the features to install and the installation location.




- WavePort is a software plug-in to DataStudio which allows the analysis and generation of sound through the computer's sound card. Installation of WavePort is recommended even if you have not purchased a WavePort license, as a free 30-day demonstration is available.
- If you own an early version of WavePort, when it was a standalone CD without a license number, cancel this installer and install WavePort from the old CD first, then run the current combined DataStudio/WavePort installer. A "grandfather" WavePort license key will automatically be applied for you.

*Tip: After installation, don't move the location of the DataStudio folder, as some external dependencies are set during installation.*

4. When the installer finishes, it will request a restart. Restart the computer and log back in as an administrator.



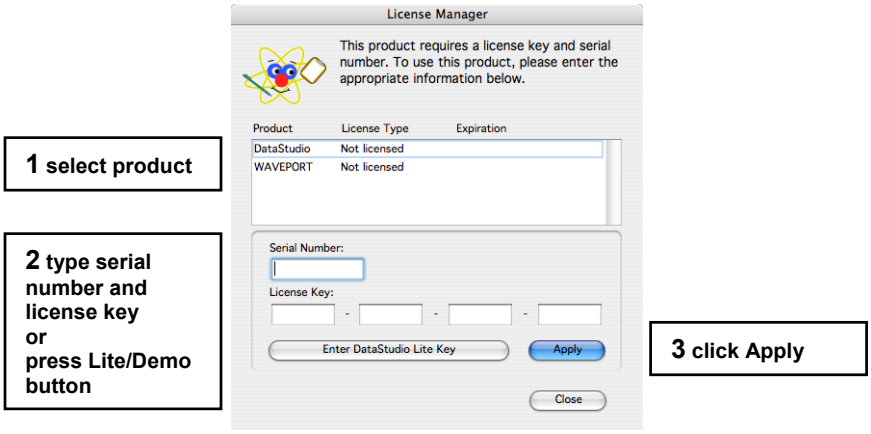

## *2. Software Licensing*

*key points*

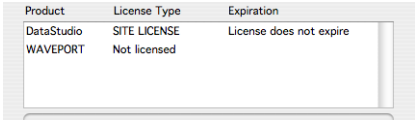
- The DataStudio License Manager will request license information for DataStudio and WavePort (if installed) the first time DataStudio is launched on a computer.
- If you have purchased a license for DataStudio or WavePort, you can enter it to permanently unlock all of DataStudio's features.
- If you have not purchased a license for DataStudio, you can direct the License Manager to enter a "DataStudio Lite" key which will provide access to DataStudio's full features for 90 days and permanent access to the feature-limited "DataStudio Lite".
- If you have not purchased a license for WavePort, you can direct the License Manager to enter a demonstration key which will provide access to the WavePort plug-in for 30 days.

Now you will enter licensing information for the DataStudio program and WavePort plug-in (if installed).

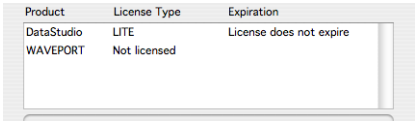
1. Open *DataStudio* from the hard drive's Applications > DataStudio folder.
   Upon this first launch of DataStudio, the License Manager opens.



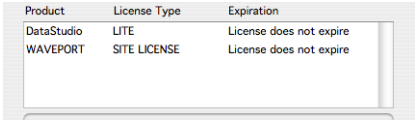

2. In the Product list, click on DataStudio to select it, then:
   - If you own an appropriate DataStudio license, enter your Serial Number and 28-letter License Key and select Apply. Your non-expiring license is registered, as shown at the top.



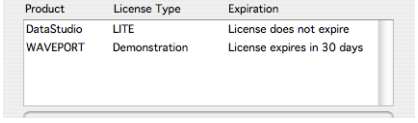

   - If you do not own a DataStudio license, press the Enter DataStudio Lite Key button (Enter DataStudio Lite Key). DataStudio's full features will be available for 90 days, after which time the limited feature set of DataStudio Lite will be available permanently. There is no expiration for DataStudio Lite in its limited feature mode.




3. If you chose to install WavePort during the DataStudio installation, click on WavePort in the Product list to select it, then:
   - If you own an appropriate WavePort license, enter your Serial Number and 28-letter License Key and click Apply. Your license is applied as shown at the top.

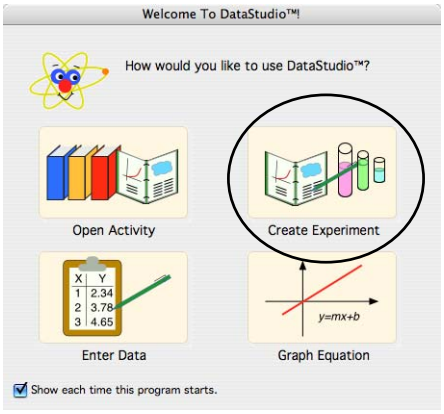



   - If you do not own a WavePort license key, you may select the Enter Demonstration Key button (Enter Demonstration Key) to gain access to the WavePort plugs-in's features for 30 days.

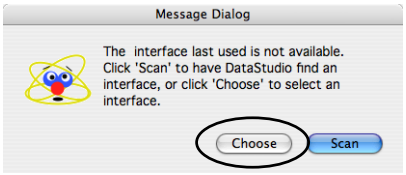


- If you purchased an early version WavePort with a standalone WavePort installer CD and installed it according to the instructions in the preceding Software Installation section, a non-expiring WavePort license should have been automatically applied for you.

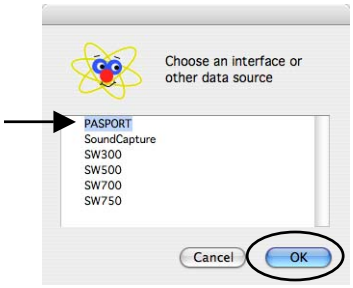
4. Click Close to save the licensing information and launch DataStudio.
5. Select Create Experiment from the Welcome to DataStudio window.




6. Click Choose to select the type of probeware you will be using on this computer.




7. Select PASPORT and press OK.




*Tip: You can make later changes to DataStudio's licensing via Help > Change License Key and to the interface choice via Experiment > Change Interface.*

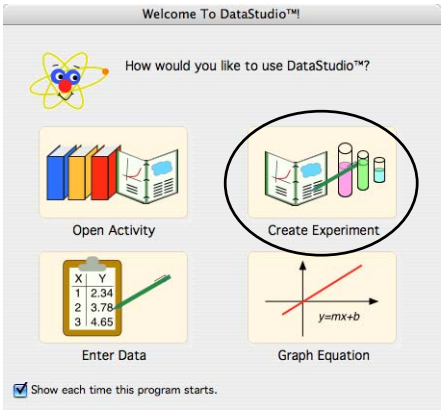
## *3. Firmware Upgrades for Xplorers and PowerLinks (optional)*

*key points*

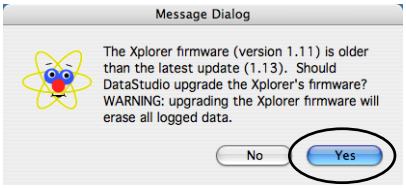
- Firmware upgrades to the Xplorer and PowerLink interfaces are uploaded from DataStudio to the interfaces.
- USB Links never require firmware upgrades.
- You can choose to upgrade the firmware of your Xplorers and PowerLinks now, or skip this section and have your teachers or students upgrade the firmware the first time they use these interfaces.

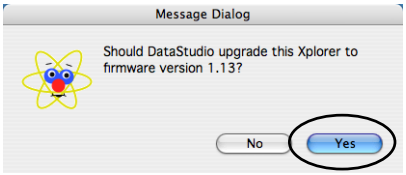
Occasional firmware upgrades for the Xplorer and PowerLink are delivered through new versions of DataStudio. Follow these steps to ensure that the Xplorer and PowerLink interfaces' firmware is up-to-date.

1. If DataStudio is still open, continue to the next step. If DataStudio is not open, launch it and select Create Experiment from the Welcome to DataStudio window.




2. For each **Xplorer**:
   1. Connect the Xplorer (without a sensor) to one of the computer's USB ports with the provided USB cable. (Batteries are not required in the Xplorer, as it will be powered via the USB port.)
      - If this Xplorer's firmware is current, nothing will happen. Proceed to step 2 below.
      - If this Xplorer's firmware is old, DataStudio will inform you. Choose Yes twice to proceed with the upgrade.



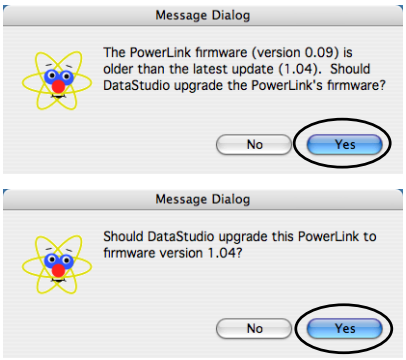




   2. Once this Xplorer's firmware is current, disconnect it and repeat this process for every Xplorer you would like to upgrade.

*Tip: You can view an Xplorer's current firmware version on its Xplorer Startup screen whenever it powers up.*

3. For each **PowerLink** in your school:
   1. Connect the PowerLink to an electrical outlet with the supplied AC adapter.

2. Connect the PowerLink (without any sensors) to one of the computer's USB ports with the provided USB cable.
   - If this PowerLink's firmware is current, nothing will happen. Continue to step 3 below.
   - If this PowerLink's firmware is old, DataStudio will inform you. Choose Yes twice to proceed with the upgrade.




3. Once this PowerLink's firmware is current, disconnect it and repeat this process for every PowerLink you would like to upgrade.

4. Disconnect any PASPORT interfaces from the computer and close DataStudio.

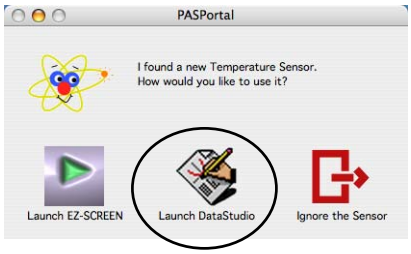
## *4. Verification*

*key point*

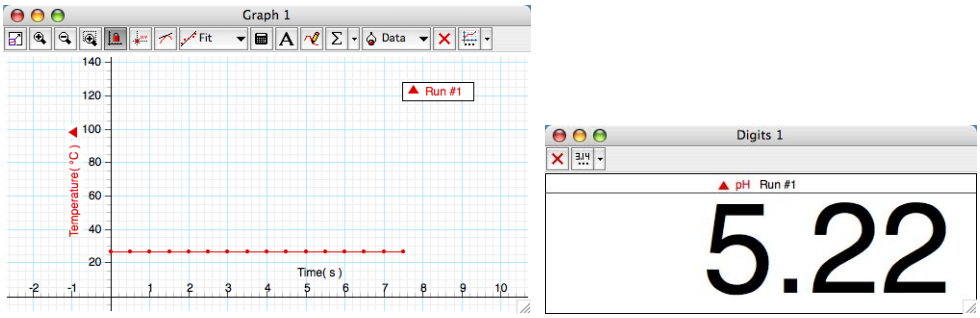
- Verify that the installation process has succeeded by briefly collecting sensor data using a teacher or student login.

Verify that the installation has been successful.

1. Log out your administrator account and log back in using the same account type as your teachers or students.
2. Plug a USB Link, Xplorer, or PowerLink into one of the computer's USB ports.
3. Connect a PASPORT sensor (such as the Temperature Sensor) to the USB Link, Xplorer, or PowerLink.
4. The PASPortal monitor, which is automatically running in the background, should detect the sensor and open the PASPortal window. Choose Launch DataStudio.



5. DataStudio opens with the default display for the sensor you have connected, usually a Graph or Digits display. Press the main toolbar's Start button (Start) to begin collecting data. After a few seconds, press the Stop button (Stop) to end data collection. If data appears in the display (examples below), your installation was successful. Congratulations!




6. Close DataStudio (DataStudio > Quit DataStudio). You do not need to save the activity.

*Tip: If you would like to also verify the installation of the WavePort plug-in, see the Verification section of the WavePort installation instructions.*

## *5. Additional Recommendations*

*key points*

- Ensure that QuickTime 5 or later is installed to enable DataStudio's movie playback feature.
- Install any PASCO Curriculum products to place DataStudio experiment configuration files on each computer.
- Provide teachers with the DataStudio Tutorial on the DataStudio CD to get them started using probeware.

While your computer is now ready for teachers and students to collect and analyze data from PASPort sensors, performing these final steps will allow them to get the most out of your school's probeware.

## Install QuickTime

DataStudio's new movie playback feature requires the free QuickTime Player version 5 or later. It is likely that your Mac OS X computer already has QuickTime installed, but if you should need to install or upgrade it, follow this procedure.

1. To install QuickTime, log in as an administrator and do one of the following:
    - Insert the DataStudio CD, open the *Launcher* interface, and select Download QuickTime to launch your browser to the QuickTime download website, or

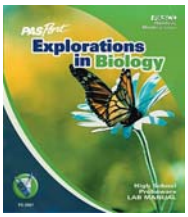



    - Directly download the QuickTime installer from http://www.apple.com/quicktime/download/
2. Run the installer and follow its onscreen instructions.

*Tip: A purchased QuickTime Pro license is not required for DataStudio's movie playback feature; the free QuickTime Player is sufficient.*

## Install PASCO Curriculum

Your school may have purchased curriculum like these from PASCO or its partners:





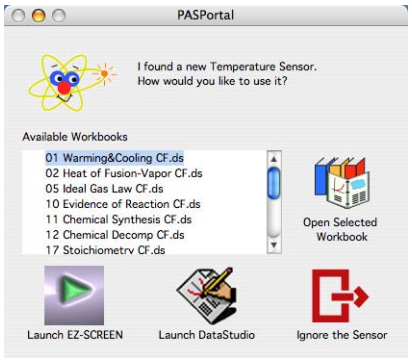


PASCO's curriculum products typically consist of a binder of printed experiment procedures with a CD installer for the corresponding DataStudio experiment configuration files. Run the CD installer to place these experiment configuration files on the hard drive for easy access by teachers and students.

1. To install any DataStudio curriculum you have purchased, log in as an administrator and follow the installation instructions for your particular curriculum product(s).

*Tip: Most curriculum installers place the DataStudio experiment configuration files in the Applications:DataStudio:eLabs folder (though some older installers might use the top-level DataStudio™:eLabs folder). After a restart, files placed in the eLabs folders will be accessible from the PASPortal window when the appropriate sensor is plugged in, as shown below for a Temperature Sensor.*

**DataStudio configuration files installed in the DataStudio eLabs folder**




*Tip: To prevent the installed DataStudio experiment files (.ds) from accidentally being modified, use the Finder to turn on the files' Locked property.*

### Provide the DataStudio Tutorial to Teachers

The DataStudio Tutorial included on the DataStudio installer CD is an interactive multimedia orientation for teachers who are new to probeware. We recommend that you provide the CD to your teachers so they can work through the tutorial at their own pace. They should run the tutorial from the CD as described below.

1. Ensure that DataStudio and QuickTime are already installed.
2. To run the tutorial from the DataStudio CD, do one of the following:
    - Insert the DataStudio CD, open the *Launcher* interface, and select Launch Tutorial, or




    - From the DataStudio CD's Tutorial folder, run *Tutorial.apm*.

*Tip: Because of its large multimedia files, the tutorial is designed to be run directly from the DataStudio CD. However, if you have approximately 200MB of available hard drive space, you can copy the Tutorial folder from the DataStudio CD to your hard drive and run the tutorial from there.*

*Tip: Additional copies of the DataStudio Tutorial on CD can be requested at http://www.pasco.com/training/tutorialcd/tutorial_order.html.*

## The installation on this computer is completed.