

onset computer corporation

HOBOWare[®] Pro

Software for HOBOWare[®] Data Loggers & Devices

Getting Started

This software is furnished in accordance with a separate license agreement included with the software, and subject to any restrictions set forth therein. For more information about Onset's licensing terms and policies, contact Onset Customer Service at 1-800-LOGGERS, or visit <http://www.onsetcomp.com/legal>.

Thank you for purchasing Onset[®] products. Our loggers and software are designed to be easy to use, with many powerful capabilities. We recommend that you begin by installing the software, connecting your logger, and following the instructions in this manual to get up and running quickly. You can expect to be comfortable with HOBOWare Pro fundamentals within a few minutes. Consult the *HOBOWare Pro User's Guide* on your installation CD or the online help for a more detailed description of software capabilities.

Contact Information

For support, please contact the company that you bought the products from: Onset Computer Corporation or an Onset Authorized Dealer.

Onset Computer Corporation
470 MacArthur Blvd.
Bourne, MA 02532

Mailing Address:

P.O. Box 3450
Pocasset, MA 02559-3450

Phone: 1-800-LOGGERS (1-800-564-4377) or 508-759-9500

Fax: 508-759-9100

Hours of Operation: 8 AM to 5 PM ET, Monday through Friday

E-mail: loggerhelp@onsetcomp.com

Main Onset Web site: <http://www.onsetcomp.com>

If you purchased the products through an Onset Authorized Dealer, you can also refer to www.hobohelp.com for support information.

© 2003 – 2006 Onset Computer Corporation. All rights reserved.

Part #: MAN-BHW-GS-PC

Doc #: 10810-B

Onset, HOBOWare, and HOBOWare are trademarks or registered trademarks of Onset Computer Corporation for its data logger products and configuration/interface software. Microsoft and Windows are registered trademarks of Microsoft Corporation. Keyspan is a trademark of InnoSys Inc. All other trademarks are the property of their respective companies.

Contents

1: Introduction	4
2: Installing HOBOWare Pro	5
Using the HOBOWare Setup Assistant	6
3: Connecting devices	7
Connecting a device to a USB cable	7
Connecting a base station/coupler and logger	8
Connecting a device to a serial cable	9
Connecting multiple devices	10
4: HOBOWare Pro Quick Start.....	12
5: Data assistants & plug-in tools.....	18
Data assistants	18
Plug-in tools	19
6: Toolbar icons.....	20
Index	22

1: Introduction

HOBOWare Pro software is used for launching, reading out, and plotting data from HOBO data loggers. This manual explains how to:

- ✓ Install and start the software
- ✓ Connect loggers to the computer
- ✓ Launch, log, and read out loggers

For detailed information on all of HOBOWare Pro's features, use the online help or refer to the *HOBOWare Pro User's Guide*. The user's guide (and help) offers full coverage of logger and other device functions, data and graph customization features, and an extensive collection of preferences.

You can find the *HOBOWare Pro User's Guide* on your installation CD, or on Onset's product manual web page:

http://www.onsetcomp.com/Support/product_manuals.html

2: Installing HOBOWare Pro

To install the software from CD:

1. Refer to the README file on the installation CD for detailed information about the hardware and software needed to run HOBOWare Pro. If you have additional questions, please check the HOBOWare website at <http://www.onsetcomp.com/HOBOWare>, or call Onset Technical Support.
2. Insert the CD in your computer's CD-ROM drive. The installation program should start automatically. If it does not, navigate to the CD drive in My Computer or Windows® Explorer and double-click HOBOWarePro_Setup.exe to launch the HOBOWare Pro installer.

Tip: HOBOWare Pro requires the Java 2 Runtime Environment. If the correct Java 2 Runtime Environment version is not already installed on your computer, the HOBOWare Pro Setup program will ask if you want to install it now. (You must be logged in as an administrator on your computer to install the Java 2 Runtime Environment.) Click **Yes** and follow the prompts. After Java 2 Runtime Environment is installed, the HOBOWare Pro installation will continue.

3. Follow the prompts to install HOBOWare Pro.
4. HOBOWare Pro should open automatically when the installation is complete (unless you uncheck the **Launch HOBOWare Pro** box on the final dialog before clicking **Finish**). If it does not open by itself, double-click the HOBOWare Pro icon on your desktop or Quick Launch menu. Or, from the Start menu, select **Programs, Onset Applications, HOBOWare Pro**.

Using the HOBOWare Setup Assistant

When you open HOBOWare Pro for the first time, you are greeted by the HOBOWare Setup Assistant.



The Setup Assistant is a series of dialogs intended to help you quickly change some key preference settings for device types and serial ports, units of measurement, and data assistants. Click **Start** to begin, and follow the prompts.

The Setup Assistant is optional. If you click **Cancel**, you will be able to use HOBOWare Pro with its default settings:

- Support USB devices
- Support Serial devices on COM1
- Display data in US units
- Enable all installed data assistants

These are only a handful of the preferences available in HOBOWare Pro. To see all of the preferences, or to run the Setup Assistant at any time, go to the File menu and choose **Preferences**. Click the **Setup Assistant** button to run the Setup Assistant, or click the icons to explore other preferences. Refer to “Preferences” in the *HOBOWare Pro User’s Guide* for details.

3: Connecting devices

HOBOWare Pro supports HOBO U-Series data loggers and shuttles, which communicate with the computer by connecting to a USB port, as well as the HOBO Weather Station, HOBO Micro Station, and HOBO Energy Logger Pro loggers, which communicate with the computer by connecting to a serial port (or USB port with Keyspan™ serial adapter).

You can connect most devices to the USB port by using an Onset-supplied USB interface cable. Some loggers require an optic USB base station/coupler or serial cable to connect to the computer. Consult the manual that came with your device for specific information about required base stations/couplers or cables.

Tip: For instructions on connecting HOBOWare Pro-compatible shuttles, or using the HOBO Waterproof Shuttle as a base station, refer to the shuttle's user guide.

Connecting a device to a USB cable

1. Open HOBOWare Pro.
2. Plug the large end of the USB interface cable into a USB port on the computer.
3. Plug the small end of the USB interface cable into the port on the device. (Refer to the diagram and instructions that came with the device if you need help finding the port.)
4. If the device has never been connected to this computer before, it may take some time for the computer to detect the new hardware and report that it has connected successfully. One or more messages will appear, indicating that new hardware has been found. You may also hear a chime.

Tip: Your computer may tell you to reboot before you can use the device. It is not necessary to reboot.

5. When the device is recognized by HOBOWare Pro, the right side of the status bar at the bottom of the HOBOWare Pro window will

update to reflect the number of devices connected. At this point, you can begin using the device.

6. To disconnect the device, simply unplug it from the USB cable.
7. Wait for the status bar to update the number of devices before continuing.

Connecting a base station/coupler and logger

1. Open HOBOWare Pro.
2. Plug the base station/coupler cable into a USB port on the computer.
***Important:** Make sure the base station/coupler is the correct model for the logger you want to use. Consult the manual that came with the logger if you are not sure.*
3. If you are connecting a base station/coupler that has never been connected to this computer before, it may take some time for the computer to detect the new hardware and report that it has connected successfully. One or more messages will appear, indicating that new hardware has been found. You may also hear a chime.
4. Attach the logger to the base station/coupler as described in the documentation that came with your logger.


If the logger has never been connected to this computer before, it may take some time for the computer to detect the new hardware and report that it has connected successfully. Again, there will be one or more messages and possibly a chime indicating that new hardware has been found.

Tip: Your computer may tell you to reboot before you can use the logger. It is not necessary to reboot.

5. When the logger is recognized by HOBOWare Pro, the right side of the status bar at the bottom of the HOBOWare Pro window will update to reflect the number of loggers connected. At this point, you can begin using the logger.

6. To disconnect a logger, simply unplug it from the base station/coupler. Wait for the status bar to update the number of devices before continuing.
7. To attach another logger via a base station/coupler, remove the logger, leaving the base station/coupler connected. Then connect the next logger.
8. To disconnect the base station/coupler, just unplug it from the USB port.

Connecting a device to a serial cable

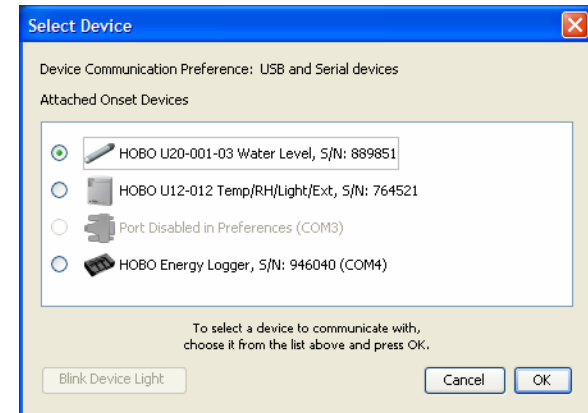
1. Open HOBOWare Pro.
2. Plug the 9-pin end of the serial interface cable into a serial port on the computer or Keyspan adapter.
3. Plug the other end of the serial interface cable into the communications port on the device. (Refer to the diagram and instructions that came with the device if you need help finding the port.)
4. Click the Select Device icon  on the toolbar to ensure that the device is listed in the Select Device dialog. Click the button next to the logger in the dialog, then click **OK**.


Tip: If you are using a serial port other than COM1, you will need to set up HOBOWare Pro to look at another COM port. From the File menu, go to **Preferences**. Choose **Communications** and change the **Serial Ports** setting as needed. Note that checking multiple serial ports can take some time, even when no devices are attached.

5. The status bar at the bottom of the HOBOWare Pro window will update to reflect that the device is connected and selected. At this point, you can begin using the device.
6. To disconnect the device, simply unplug it from the serial cable.

Connecting multiple devices

If the computer has multiple USB and serial ports, you can connect multiple devices and work with one at a time. When multiple devices are connected, the Select Device window opens every time you choose the Launch, Readout, Stop, or Status command:




Tip: If you would prefer not to see the Select Device window each time you launch, read out, stop, or check the status when multiple devices are connected, use the Preferences to turn off the feature. From the File menu, go to **Preferences**. On the **General** pane, choose **Selecting Devices**, and click the button next to the **Only show Select Device window if a device has not been selected** option. The selection window will then display automatically only when more than one device is connected and no device is selected. You can still access the window manually by clicking the Select Device icon .

Click the button next to a device on the list to select it, then click **OK**. The launch, readout, stop, or status check will proceed with the selected device.

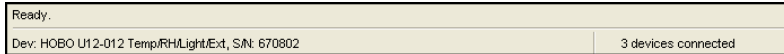
If serial devices are selected in Preferences, it may take some time for HOBOWare Pro to scan all of the serial ports. You can select the device you want as soon as it is displayed. You do not have to wait for all of the ports to be scanned.


If the **Blink Device Light** button is available, you can click it to verify that you have selected the appropriate device. This briefly illuminates the light on the device that you have selected.

If the device does not have a light, or if the light is not visible when the device is in the base station/coupler, simply check the serial number (S/N) on your device to make sure that it matches the one that is selected in this window.

To access the Select Device window at any time, click the Select Device icon  on the toolbar, or choose **Select Device** from the Device menu.

When the Select Device window is not open, you can check the status bar at the bottom of the screen to quickly determine which device is selected.




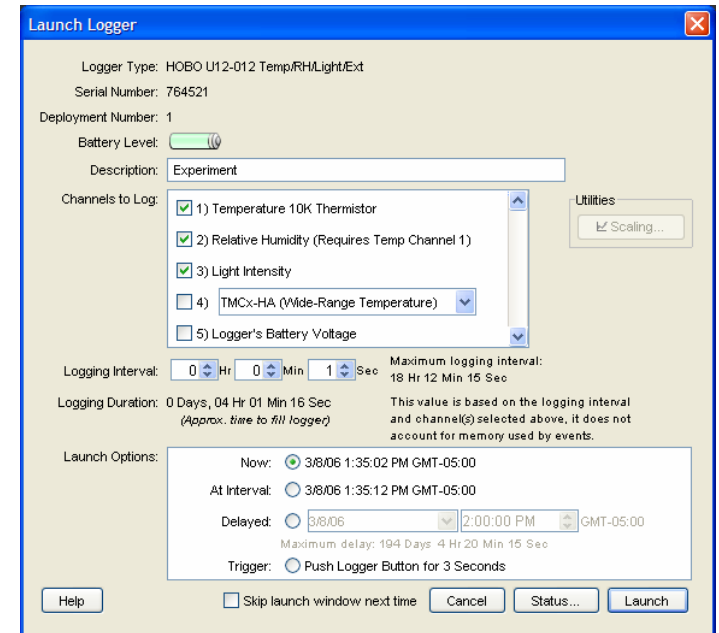
The left side of the status bar indicates the model, description, and serial number of the device; the right side indicates the total number of devices connected. (Serial devices that you have added or removed are not reflected in the device count until you click the Select Device icon  on the toolbar to update the device list.)

If you work with multiple U-Series devices frequently, the **Default Action** option on the Device menu and the time-saving preferences may help you work more efficiently. Refer to “Working with multiple U-Series devices” and “General pane” in the *HOBOWare Pro User’s Guide* for details.

4: HOBOWare Pro Quick Start

After you have installed and opened the HOBOWare Pro software and connected a logger as described earlier in this manual, follow these steps for a quick demonstration of launching and collecting data with a logger:

1. Click the Launch icon  on the toolbar. This displays the logger’s Launch window. Launch windows vary slightly for each type of logger, but most look similar to this:

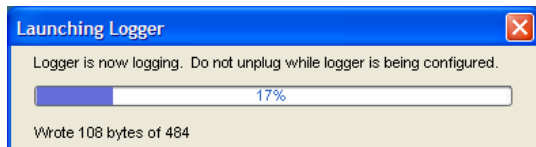


2. Review the default Launch settings and change them if you wish. Enter a new name in the **Description** field, and select or deselect **Channels to Log** (and connect appropriate sensors, if applicable). Make sure that at least one of the channels you log is a measurement of something that will be easy to change, such as light or temperature. Set a short (five seconds or less) **Logging Interval**, and choose the **Now** launch option.

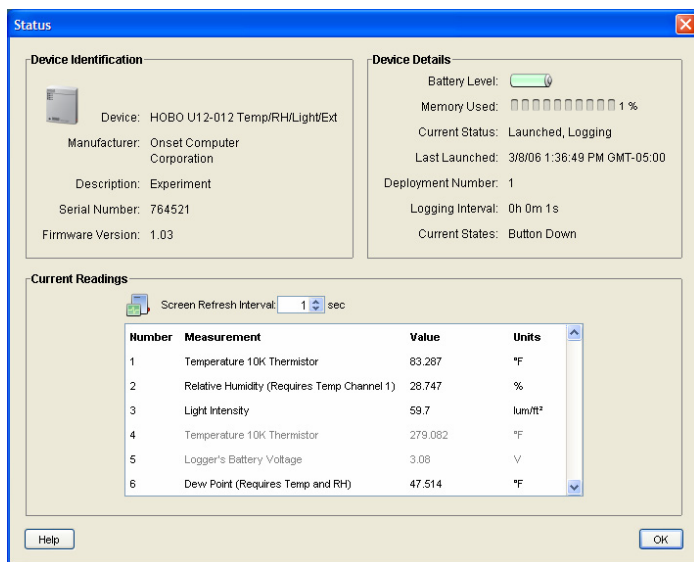
Tip: Launch settings are discussed in depth in the *HOBOWare Pro User's Guide*.


- Click **Launch** to begin logging. HOBOWare Pro displays the progress of the launch and warns you not to unplug the logger while it is being configured.

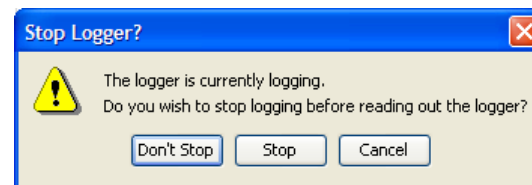
Normally, you will unplug the logger and deploy it when the launch is finished. For this tutorial, leave the logger plugged in.



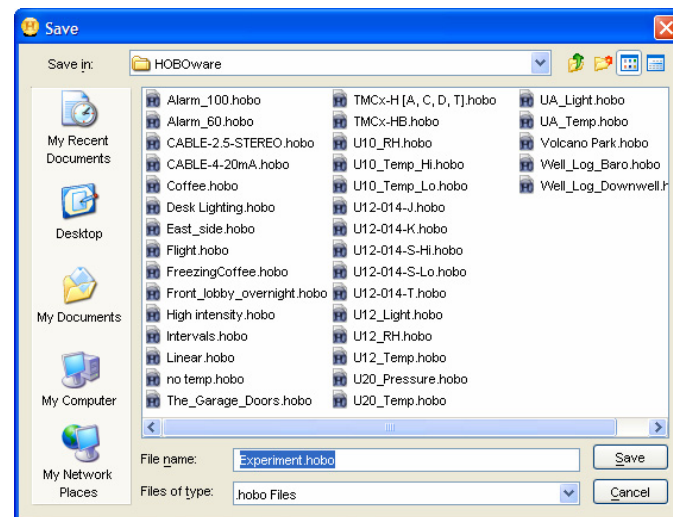
- On the toolbar, click the Status icon  to open the Status window. Watch as the **Current Readings** update in real time.



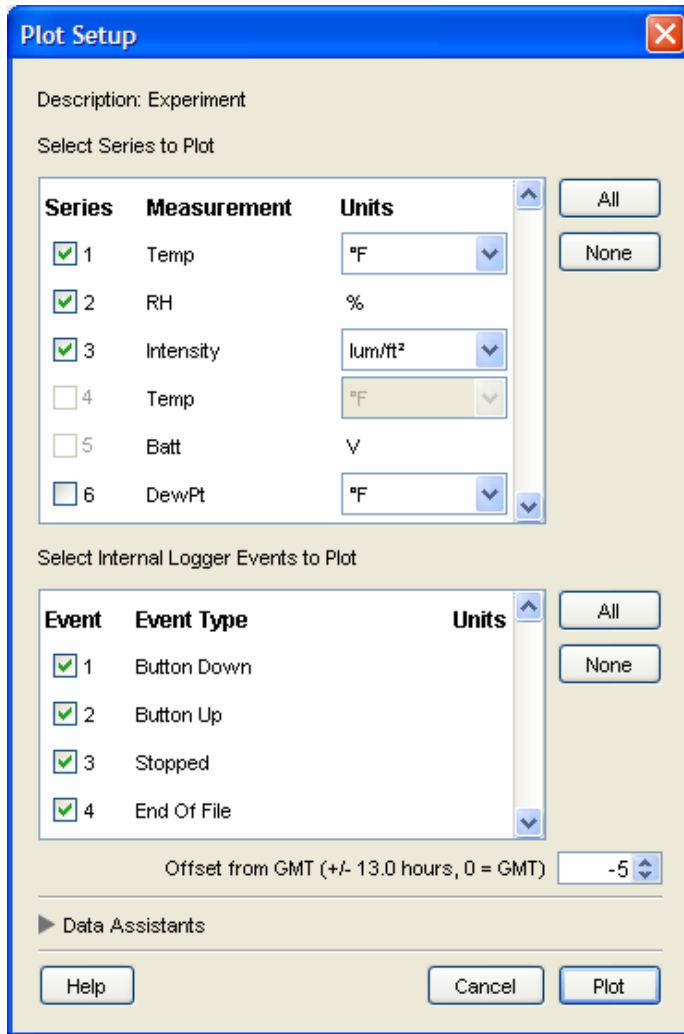
- If you are using a U-Series logger that has a button, press and hold the button down for several seconds. Watch the **Current States** in the Status window change to Button Down. Release the button.
- Change the sensor readings by changing the conditions. For example, if you are measuring temperature, change the temperature reading by holding the logger or sensor in your hands for a minute or two. Watch the **Current Readings** in the Status window change as the conditions change.
- Close the Status window by clicking **OK**.
- Click the Readout icon  on the toolbar. Click **Stop** when HOBOWare Pro asks if you want to stop the logger before reading out.



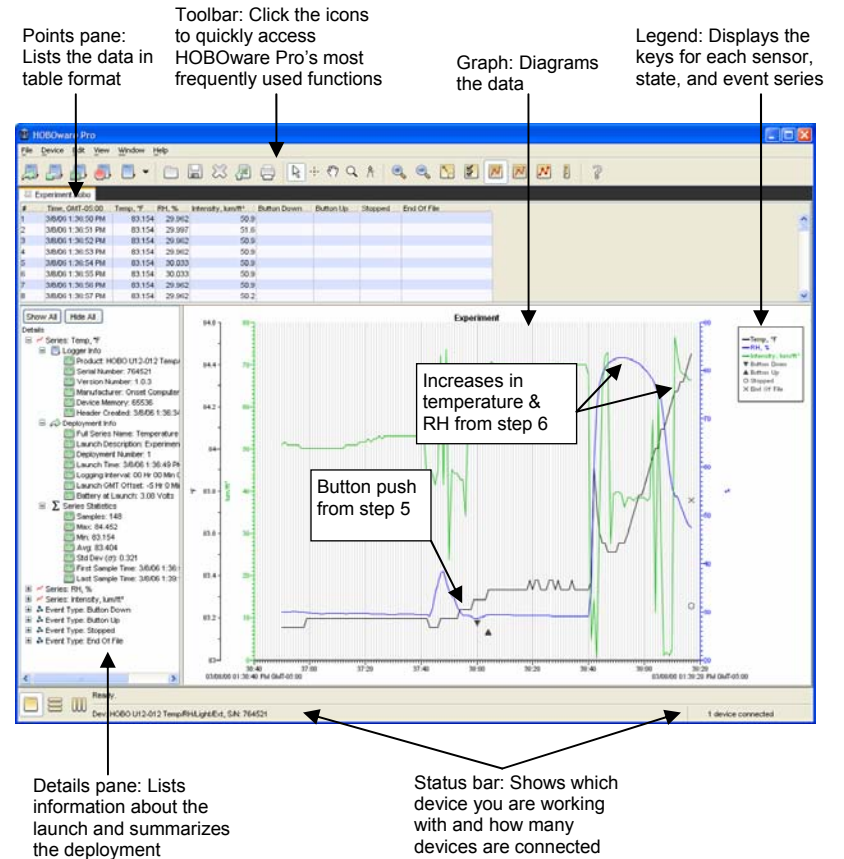
- After reading out the logger, HOBOWare Pro prompts you to save the datafile. Click **Save**.



- Review the settings on the Plot Setup dialog. The channels you enabled in step 2 should be checked, along with button and other events (if applicable). Click **Plot**.



- View the results of your deployment. Your screen will not match this example exactly, but you should see Button Up and Button Down events (if applicable) and the graph should reflect the change in conditions that you caused in step 6.



12. Use the tools on the toolbar to experiment with the export, print, and many viewing and customization tools available within HOBOWare Pro. Pause the pointer over each icon on the toolbar for a description of each tool.

Tip: Viewing, customization, export, and print options are discussed in depth in the *HOBOWare Pro User's Guide*.

13. Choose **HOBOWare Help** from the Help menu. The browser-based Help system provides detailed information on all the features of HOBOWare Pro, in convenient electronic form.
14. If you have an Internet connection, choose **Check for Updates** from the Help menu. It is important to check for updates periodically. By default, HOBOWare Pro automatically asks to perform this check each week. For more information about this and other preference settings, refer to "Preferences" in the *HOBOWare Pro User's Guide*.

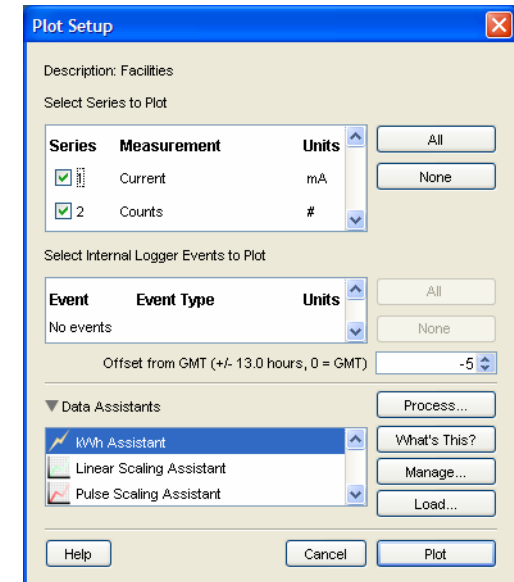
5: Data assistants & plug-in tools

Additional products are available to expand HOBOWare Pro's features and capabilities. Some are included with HOBOWare Pro, and others can be purchased separately.

Data assistants

Data assistants let you create new data series by combining data recorded by the logger with additional data that you enter before you display the plot. For example, the kWh Assistant converts logged pulse data from an energy transducer to kWh, average kW, and energy cost.

When you read out a logger or open a datafile, all available assistants are listed in the Data Assistants section at the bottom of the Plot Setup dialog. To use an assistant, click its name to select it, then click **Process** to proceed as described in the assistant's help (accessed by the **Help** button on the assistant's dialog) or user guide (located on the CD or web page where you downloaded the assistant).



For an overview of each assistant, select the assistant and click the **What's This?** button. For instructions and more detailed information about supported data types and filters, refer to each assistant's user guide.

To prevent unwanted assistants from appearing in the Plot Setup dialog, or to bring back assistants that you have previously hidden, click the **Manage** button. This will open the Preferences dialog to allow you to change these settings.

To install a new assistant, click the **Load** button. In the resulting file dialog, locate the assistant's .jar file and click **Open**. If the new assistant is compatible with the series in this datafile, it will be added to the list of available assistants as soon as it is installed. If it is not compatible with the series in this datafile, it will still be loaded into HOBOWare Pro, but will not be visible until you open a datafile with a compatible series.
















Plug-in tools










Plug-in tools are software that works in conjunction with HOBOWare to provide additional functionality. For example, the Real-Time Alarm Software monitors HOBOWare data loggers and notifies you when sensor and logger conditions fall outside the limits you specify.

For instructions on installing and using plug-in tools, refer to the tool's user guide (located on the CD or web page where you downloaded the tool).

6: Toolbar icons

The toolbar, located at the top of the main HOBOWare Pro window, allows point-and-click access to HOBOWare Pro's most frequently used functions. Pause the pointer over each icon on the toolbar for a description of each tool.

-  **Launch** sets up the logger to begin logging.
-  **Readout** offloads data from the logger.
-  **Status** displays the logger's state and current readings.
-  **Stop** stops a logging logger.
-  **Select Device** displays available devices. The accompanying pulldown allows you to specify whether you want HOBOWare Pro to look for USB devices, serial devices, or both.
-  **Open** opens a .hobo or .dtf file.
-  **Save** saves the plot as a project (.hproj) file.
-  **Close** closes the currently focused plot.
-  **Export** creates a text file of the data (in .csv or .txt format) for use in spreadsheet and other applications.
-  **Print** prints the graph as it appears on your screen.
-  **Arrow** points to and selects items on the graph to edit their properties.
-  **Crosshair** displays values for points on the graph and cross-references them to cells in the Points table.
-  **Hand** scrolls an axis or the entire graph.
-  **Zoom** adjusts the scaling of an axis or the entire graph.
-  **Subset statistics** lets you view statistics for a particular time span.

-  **In** zooms in on a smaller area of the graph.
-  **Out** zooms out to a larger area of the graph.
-  **Revert** rescales the graph to full scale.
-  **Properties** modifies the properties of various graph items.
-  **Vertical Gridlines** toggles vertical gridlines on and off.
-  **Horizontal Gridlines** toggles horizontal gridlines on and off.
-  **Mark Points** toggles all point markers on and off.
-  **Units** allows you to convert some or all of the series on the currently focused plot to other units (for example, from degrees Fahrenheit to degrees Celsius).
-  **Help** opens HOBOWare Pro's browser-based Help pages.

Index

A

Assistant, 6
Assistants, 18–19

B

Base stations, 8–9
Blink device light, 10

C

Connecting a logger, 7–11
Couplers, 8–9

D

Data assistants, 18–19
Device menu, 11
Disconnecting a logger, 8, 9

I

Icons, 20–21
Installation, 5

J

Java Runtime Environment, 5

K

Keyspan adapter, 7, 9

L

Light, 10
Logger: connecting, 7–11; disconnecting, 8, 9; multiple, 10–11

M

Minimum requirements, 5
Multiple loggers, 10–11

P

Plug-in tools, 19
Preferences, 10

Q

Quick start, 12–17

R

Requirements, 5

S

Serial number, 11
Serial ports, 7, 9
Setup Assistant, 6
Status bar, 7, 8, 9, 11
System requirements, 5

T

Toolbar icons, 20–21
Tools, 17, 19
Tutorial. *See* Quick start

U

Units, 21
Updates, 17