Mercury

Application Software for Star-Oddi data logging system

STAR : ODDI
Logging Life Science

Table of Contents

This is the Quick Start Guide for **Mercury**. The whole user manual is included with the software under the **Help** menu.

Changes may be made without notice.

1   **Downloading and Installing Mercury**

Mercury runs under Windows operating systems. There are two versions of Mercury available, standard version and a Long-Term Support (LTS) version. An LTS version is a parallel version of the standard software but remains unchanged for a longer period of time, except for necessary bug fixes.

To download **Mercury** visit: www.star-oddi.com/support/software. To install the program, follow the automatic InstallShield Wizard.

During installation you need to enter the product key found on the inside of the accompanying cover. Please keep the product key in a safe location as you may need it for future use.

2 Connecting to a recorder

2.1 Communication Box

The Communication Box is a USB compatible communication interface, specially designed to communicate with DST recorders wirelessly via RF (radio frequency). The supplied USB cable connects directly from the box to a PC computer. The USB driver should automatically install on the computer, if not then download from www.star-oddi.com/support/software.

The Communication Box has three diodes:

1. **Red** – shows that power is fed to the Communication Box.
2. **Yellow** – shows that Mercury has made connection with the box and the correct COM port has been selected.
3. **Green** – shows that the recorder is connected

You may need to use the Connection Wizard to get the yellow and green lights. See chapter 2.2.

The green light will not turn on unless the red and the yellow lights are on. The recorder is inserted into the box as shown in the figure below. Please make sure that the logger is dry.
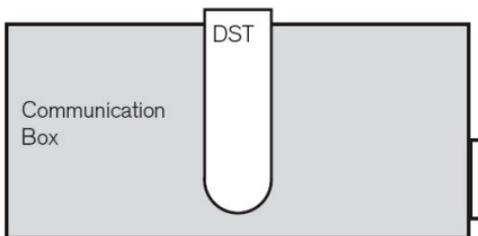

Figure 2.1 Inserting recorder into the Communication Box

2.2 Connection Wizard

If you are starting the software for the first time, you will be asked if you want the **Connection Wizard** to open automatically each time you start Mercury. If you change your mind you can always change the settings under **Settings-Options-Startup**.

If you wish to program and start up the logger manually go to chapter 3.

Connect the USB cable between the PC and Com Box and the selected port will appear in the wizard window.
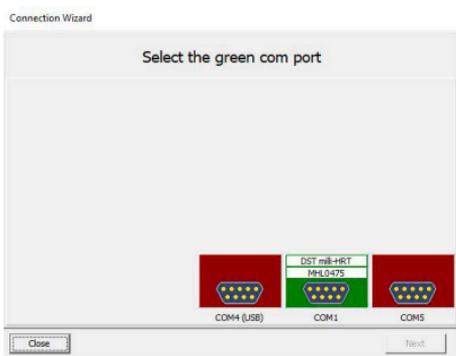
In the Connection Wizard, click once on the green-lit port and select **Next** or double-click on the port.

Figure 2.2 Com port wizard

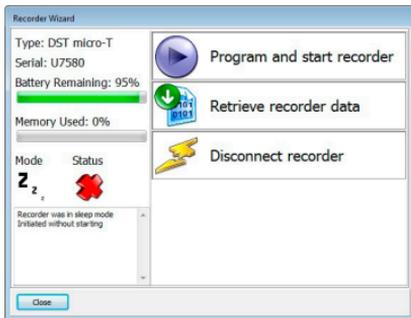The Connection Wizard opens: Follow the instructions in the wizard.

Figure 2.3 Recorder Wizard

3 Setting up the recorder and retrieving data

If you have already connected to the logger via the wizard, then please go to chapter 3.4.

3.1 Choose the recorder type

Choose the recorder type in the File menu, under **New Recorder Type**.

3.2 Communication

Connect the Communication Box as described in chapter 2.

3.3 Connect to the recorder

Choose the **Recorder** menu and then **Connect**.

A window appears with information on the recorder's mode:

Figure 3.1 Connecting to the recorder

Press **OK**. The Recorder is now on-line, as indicated at the bottom of the Mercury window.

3.4 Set new measurement sequence (NMS)

Choose the **Edit menu** and **New Measurement Sequence Definition** and then either **Single recording interval** or **Multiple recording intervals**. If choosing single interval, the following window appears:

Figure 3.2 Measurement sequence definition

Set the start time of recording and the sampling interval.
Depending on recorder type, parameters can be set as primary and
secondary with different sampling frequency.

If you want to program several recorders with the same sampling
interval and start time, it is recommended to select **Multi Mode** under
Set Mode

Mercury offers the option of setting up more than one sampling
interval within a measurement sequence. Please refer to the **Multiple
Intervals** chapter in the user manual.

After the settings have been selected, press the OK button.

If you are using the wizard, the software will automatically start the new
measurement sequence (start recording) and disconnect the logger.
If not, choose the **Recorder** menu and **Start New Measurement
Sequence** command.

A window appears on the screen in order to verify the settings to be
downloaded into the recorder:

Start New Measurement Sequence Activation ✕

The recorder´s new measurement sequence settings are:

Start time: 7.2.2018 09:39:00
Measurement interval [hms]: 00:30:00

OK   Cancel

Figure 3.3 Start new measurement sequence

Press **OK** and the settings will be downloaded into the recorder. A window pops up confirming that it is in measurement mode.

New Measurement Sequence (NMS) Calculation

After acknowledging the interval programming window, an NMS file automatically opens showing calculations on when the recorder's memory fills up and battery consumption estimation. It can be helpful to do calculations on different interval examples to help deciding on what interval to use.
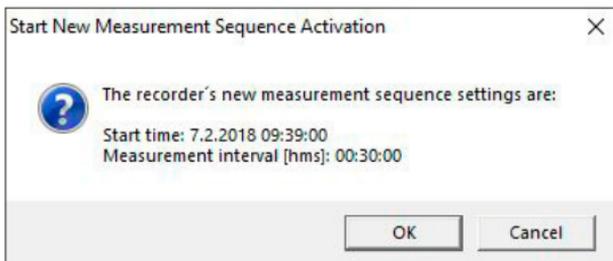

Figure 3.4 Results from NMS calculation

3.5 Disconnect recorder

After the recorder has been set up for measuring, it should be removed from the Communication Box. If the recorder is not put in measurement mode, it will automatically go into sleep mode when removed from the box.

3.6 Retrieve data

When connecting to a logger after a measurement period, the following window appears.

Figure 3.5 Retrieve recorder data?

Click **Yes** if you wish to retrieve the data, click **No** if you would like to retrieve it later. If you are not using the wizard choose the **Recorder** menu, **Connect** and the **Retrieve Data** command. Data is automatically stored in the **Mercury** directory on the computer.

You can repeatedly read the data without erasing it from the memory. Each time data is retrieved, a new file will automatically be created. The name of the data file consists of the measurement sequence number and the serial number of the recorder. The recorder cannot be programmed with new settings if it contains data that has not been retrieved. New recordings overwrite previous recordings that have been retrieved.

After you have retrieved the data you can either start a new measurement sequence or disconnect and put the recorder into sleep mode.

3.7 View data

When data is retrieved from the recorder, a new file will automatically be created and opened in graphical and tabular form.

To open existing data files on the computer, choose the **File** menu, and **Open > Browse for Recorder Information Files (*.INI *.RID)**. The data (DAT file) can be exported to other programs for further analysis. In the graphical window there is a button called **Export as Workbook** where you can export the data to Excel.

4 Help menu

User manual
Select **User Manual** to open the recorder user manual.

Troubleshooting
Select **Troubleshooting** to open the Trouble-Shooter.

Check for updates
Mercury will automatically search the Star-Oddi website every time
the program runs for the latest version of the software, User Manual,
Trouble-Shooter.
This can be changed under **Settings-Options-Updates**.
You can also check for updates manually by choosing
Help-Check for Updates.