

# Ls2Win 1.0(SR9) Release Notes

Ls2Win 1.0(SR9)  
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## About Ls2Win

Ls2Win is the PC software for setting up and downloading data from the DL2 data loggers

### What's New in Ls2Win 1.0 (SR9)

1. Ls2Win 1.0(SR9) Provides new and updated sensor codes for
  - a. SM150 Soil Moisture Sensor
  - b. ML2 % volumetric (MXM, MXO), corrected valid reading range.
  - c. Updated Tensiometer (SWT) application notes wire colours.
  - d. RG2 Rain Gauge, updated application notes wire colours.

When upgrading from a previous version of Ls2Win, refer to **Upgrading from earlier Ls2Win versions**.

Sensor codes to be imported are:

For the SM150 two new codes S1O and S1M for Organic and Mineral soil types.

For the RG2 updated code RG2 Rain Gauge.

For the Tensiometer updated code SWT Tensiometer

For the ML2 % volumetric updated codes, MXM: ThetaProbe and MXO: ThetaProbe.

## Installation

### System Requirements

To install and use Ls2Win you will need:

- A PC running Windows 98, 2000, XP, Vista, 7.
- 10M of available hard disk space.
- One free RS232 serial port or USB-RS232 adapter.
- DL2e RS232 cable (supplied with the DL2e).

### To install Ls2Win

You need local administrator rights to install Ls2Win 1.0(SR8) under Windows 2000, XP, Vista and 7. Please contact your system administrator for further information.

Select the **Install Ls2Win 1.0(SR9)** link in the Contents page of the Delta-T Software and Manuals CD and follow the on-screen instructions.

Alternatively, download Ls2Win 1.0(SR8) from [www.delta-t.co.uk](http://www.delta-t.co.uk) and click **Run** when the download completes.

Setup creates the following shortcuts on the Windows desktop and in an **Ls2Win** program group in the Windows Programs menu:

- **DL2 Control Panel** for operating the DL2e Logger.
- **DL2 Program Editor** for viewing, creating, and maintaining DL2e logging programs.
- **Dataset Viewer** for viewing logged data and exporting in comma-separated ASCII format.

The installation program also creates the following shortcuts in the Ls2Win program group:

- **Online Documents** shortcuts to DL2 Quick Start Guide, DL2e Hardware Reference, Help, and Release Notes (this document).
- **Weather Station** sample weather station program and workbook, and application note.

### Upgrading from earlier Ls2Win versions

Ls2Win 1.0(SR6) or later cannot be installed without removing earlier installations.

Furthermore, uninstalling the earlier version intentionally leaves behind the sensor library file

DL.sn2, (as this may contain data which you have entered), and installing a later version into the original installation folder preserves the existing DL.sn2.

Note: See Modifying Ls2Win Sensor Library on Windows Vista and Windows 7 for additional step required for Windows Vista and Windows 7 users.

To upgrade from earlier versions and incorporate additional sensor types:

If you haven't added or modified any sensor types into your Ls2Win sensor library:

1. Uninstall the earlier Ls2Win version.
2. Manually delete DL.sn2 in the Ls2Win installation folder.
3. Install the newer version of Ls2Win, as described above.

If you want to preserve any changes that you have made to the Ls2Win sensor library:

1. Uninstall the earlier version and install the newer version into the same installation folder.
2. Start DL2 Program Editor
3. Select **File > Import Library**
4. In the Import Library dialog browse to the Software\Ls2Win folder on the Delta-T Software and Manuals CD and open DL.sn2.  
If upgrading from a downloaded copy of Ls2Win, also download the updated Ls2Win Sensor Library and import new sensor codes from the downloaded Sensor Library file.
5. In the Import Sensor Types dialog select the sensor types that you want to add to your Ls2Win sensor library.

### **Uninstalling previous versions on multi-user machines**

On multi-user PCs, Ls2Win installs itself for the exclusive use of the user who was logged in when the installation was performed.

For other users, login as the additional user and repeat the installation, selecting the same Ls2Win installation folder one each occasion. Note that uninstall will only remove Ls2Win shortcuts for the user who performs the uninstall. You will need to manually delete the other users' shortcuts.

### **Importing SM300 Temperature Sensor tables for additional cable lengths.**

Ls2Win includes SM300 temperature sensor tables for additional cable lengths. To use these they need to be imported into the sensor library.

1. Start **DL2 Program Editor**
2. From the **File** menu select **Import Library**
3. Select the file **SM300 Sensor Library.sn2**, which is located in Ls2Win installation folder which by default is C:\Program Files\Delta-T\Ls2Win\
4. The Select Sensor Types dialog offers sensor types for several different SM300 cable lengths. The cables lengths are based on available cables for the SM300. The sensor codes are Sxx, where xx is the cable length. Select the cable length(s) that you want and click OK.
5. You will see the additional sensor types in the Sensor Library tab.

### **Modifying Ls2Win Sensor Library on Windows Vista and Windows 7**

Windows Vista and Windows 7 prevent programs from modifying files that are in subfolders of Programs Files, without explicit administrative privileges. Ls2Win does not request these privileges so fails to write any changes to the sensor library with the error 'Access Denied'. Follow the steps below to modify the sensor library.

1. Login as an local administrator
2. Run DL2 Program Editor as administrator by holding shift and right clicking on the shortcut on the desktop or under the start menu.
3. Make the changes to the sensor library and close DL2 Program Editor.

## To Start Ls2Win

1. Connect the DL2e to the PC's serial port using the RS232 cable supplied with the DL2e.
2. Double-click the **New DL2 Control Panel** desktop icon.
3. Enter connection information in the **DL2 Connection Properties** dialog and click **OK**.
4. If required, change the MyLogger.dl2 file name in the **Save DL2 Control Panel As** dialog, and click **OK**.
5. Ls2Win connects to the logger and displays status information about the DL2e.
6. Ls2Win also creates a desktop shortcut to the connection properties that you have just entered (e.g. MyLogger), so you can click on the shortcut next time you want to connect to the DL2e.

To create a DL2e logging program:

1. Double-click the **DL2 Program Editor** icon on your desktop.
2. Enter program details, and then select **File > Send To Logger** to install the program in the DL2e.

To view a dataset file:

1. Double-click the **Dataset Viewer** desktop icon.

## Dataset Import Wizard

Dataset Import Wizard imports Ls2Win datasets into Microsoft Excel spreadsheets.

To install Dataset Import Wizard select the **Install Dataset Import Wizard** link in the Contents page of the Delta-T Software and Manuals CD and follow the on-screen instructions.

Dataset Import Wizard is also available from the software downloads section of Delta-T's web site.

## Known Issues

### DL2 Program Editor: missing or duplicated sensor types in sensor library printout

In sensor library printouts, sensor types may be omitted from the bottom of each page, or duplicated at the top of the following page.

Resolution: none.

### WStation.xls is saved in Excel 2000 format

The changes required to adapt WStation.xls were done in Excel 2000. The resulting file opens successfully in Excel 97 – the only inconvenience is that on saving the file, Excel 97 persistently warns that the file has previously been saved in Excel 2000 and that Excel 2000 features may be lost in the process. In actual fact, no features do get lost, but the report persistently survives the Save operation. If this occurs when Dataset Import Wizard is saving the file prior to the actual import operation and the user chooses to not proceed with the Save, the import operation proceeds regardless and may proceed erroneously.

Resolution: do not decline to save the workbook when warned that workbook features may be lost because the workbook has previously been saved in a later version of Excel.

### Online Help fails to load under Windows Vista, Windows 7

When starting online help (Help, Topics... command or pressing F1), Ls2Win reports that Help failed to load. Windows also displays a message informing that the Help was designed for an earlier version of windows, and that Windows Help is no longer supported by this version of Windows.

Resolution:

Microsoft has made WinHelp available for download from their web site for both Windows Vista and Windows 7.

Follow Link to download WinHelp for either Windows Vista or 7.

<http://go.microsoft.com/fwlink/?LinkId=124718>

## Revision History

### Ls2Win 1.0 (SR9)

This is the current version of Ls2Win, and provides the following additional features over previous versions:

1. Provides updated sensor codes for:
  - a. ML2 % volumetric (MXM, MXO), corrected valid reading range.
  - b. Updated Tensiometer (SWT) application notes wire colours.

### Ls2Win 1.0 (SR8)

1. Provides new and updated sensor code for:
  - a. SM150 Soil Moisture Sensor
  - b. RG2 Rain Gauge, updated application notes wire colours.

Ls2Win 1.0 SR8 was not released outside of Delta-T Devices.

### Ls2Win 1.0 (SR7)

1. Provides sensor codes for:
  - a. BF5 Sunshine Sensor
  - b. BS5 Barometric Pressure Sensor.

### Ls2Win 1.0 (SR6)

1. Provides sensor codes for the SM300 Soil Moisture Sensor.
2. Resolves Windows Vista and Windows 7 issues. These include:
  - a. Installing for All Users
  - b. Default location of saved DL2 Control Panel files (\*.dl2) changed to All Users Application Data.
3. Allows serial port number greater than 9. Port names need to be typed into port selection box.
4. Setup no longer prompts for serial number.

### Ls2Win 1.0 (SR5)

1. Additional sensor codes for the SPN1 Sunshine Pyranometer.
2. Dataset Import Wizard is provided separately on the Delta-T Software and Manuals CD, and not installed by the LS2Win installation program.

### Ls2Win 1.0 (SR4)

1. Additional sensor codes for the SM200 soil moisture sensor.
2. Allows datasets to be saved from a program which contains an illegal file name character (i.e. one of /:\\*?"<|> ). In earlier versions, clicking Retrieve in the Datasets tab of DL2 Control Panel failed to pop up the Save As dialog and it was impossible to save a dataset. SR4 corrects this by replacing illegal filename characters with '\_'.

### Ls2Win 1.0 (SR3)

1. Additional sensor codes for the following sensor types: PR2 Profile Probe, AN4 Anemometer, BF3 Sunshine Sensor and RG2 Rain Gauge.