



When product integrity counts...  
Manufacturers of laboratory calibrated temperature and  
humidity data loggers, real-time monitoring and cold chain solutions

# Temprecord Multi Logger Verification MLV Software

## Compare TRW files automatically with MLV Mapping Software

Import Temprecord logger files into this new Temprecord application; all graphs appear on one PDF document to make comparison of data easy. No more need for complex spread sheets!

Use MLV for mapping of storage areas such as warehouses, rooms, walk in chillers, freezers and incubators, as well as standard fridge, freezer, incubator cabinets, etc.

## How to download and install FREE MLV Software

1. Download MLV software for FREE from: [www.temprecord.com/our-software/mapping/](http://www.temprecord.com/our-software/mapping/) and click on the blue DOWNLOAD MLV tab;

## MLV (Multi Logger Validation) - Mapping / Spatial

Use MLV to map :

- warehouses
- rooms
- walk in chillers
- fridges & freezers
- incubators
- other

Features:

- Map temperature and humidity
- Summary data plus graph overlays available
- Optional - includes calibration expiry status of data loggers used
- Apply an electronic signature
- FREE software
- Save time! No more need for complex spreadsheets



2. Once downloaded, unzip the.zip file containing mlv-setup.exe to a temporary folder and run it. *PLEASE NOTE: MLV must be installed by a user with administrator rights; this may mean you need your IT representative to help you install the software.*
3. Now you can import your downloaded Temprecord TRW Software .tr logger files into the MLV (Multi Logger Validation) Software. For initial entry to the software:

**Username:** Admin

**Password:** Admin

**These should be changed at earliest opportunity once software is accessed.**

## Recommendation – before you start data loggers


It is recommended to use the “Start on Date” function in the TRW software when programming the loggers being used for mapping. This will ensure the loggers record the same period for comparison. Download as normal and import into MLV software application.

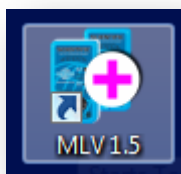
## Getting Started

This topic is designed to get the first-time MLV user started in as little time as possible. It provides step-by-step instructions for creating a new MLV project from scratch and generating a report. The software may be used in a basic manner or more complex if you wish.

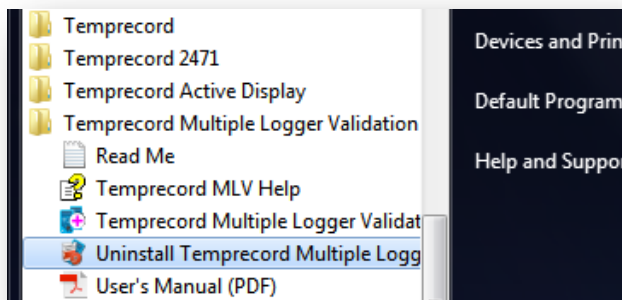
It is assumed that the user is familiar with the Temprecord software for programming Temprecord loggers and saving data files. To carry out the steps in this tutorial you will need one or more Temprecord data files. If you have more than one data file they should have all recorded data over approximately the same time interval.

1. Start MLV by:

- Clicking on the quick launch button  on the taskbar
- double clicking the MLV shortcut on the desktop

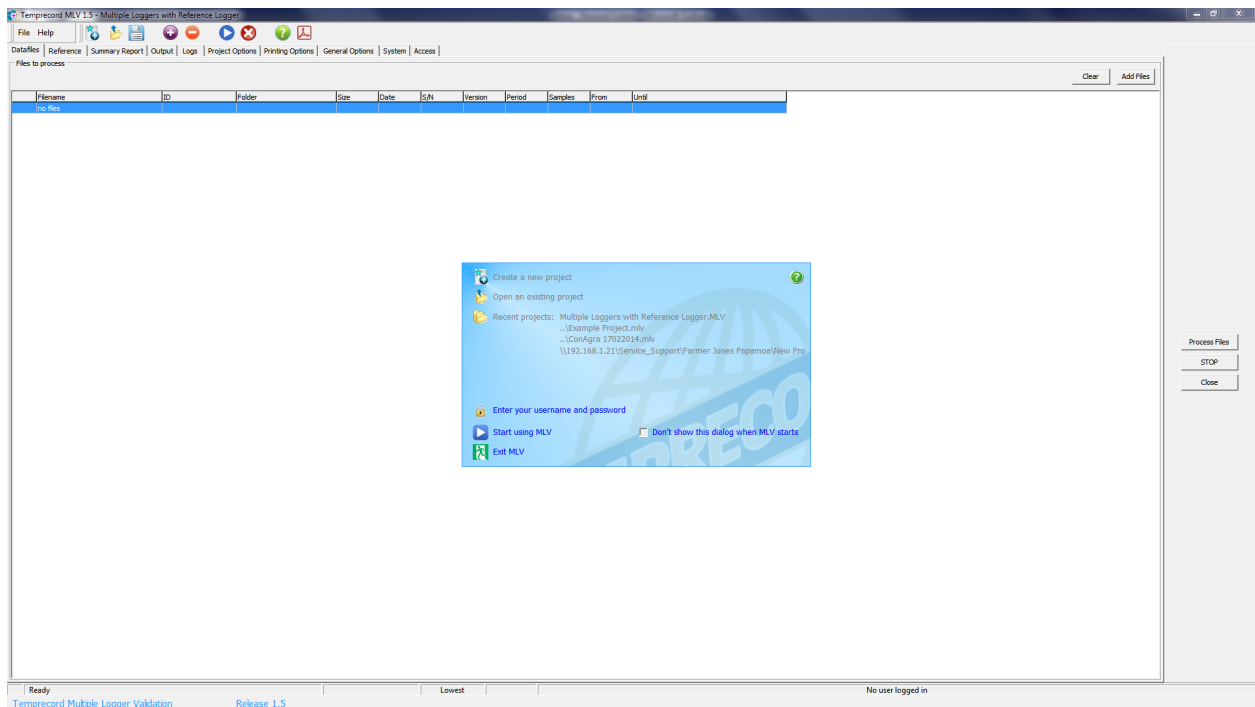


- or selecting Temprecord MLV/Multiple Logger Validation from the Start menu:

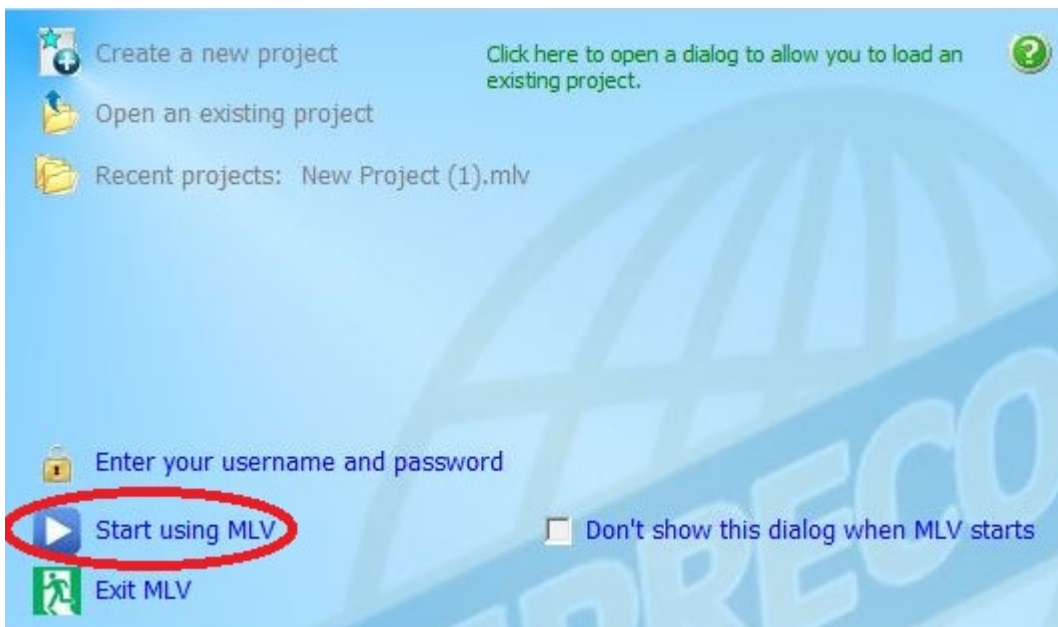


**Note: User's Manual is available here (shown in above diagram) via the Start Menu as well as in the Help Menu in the software.**

## 2. You should see the MLV main window



Select Start using MLV

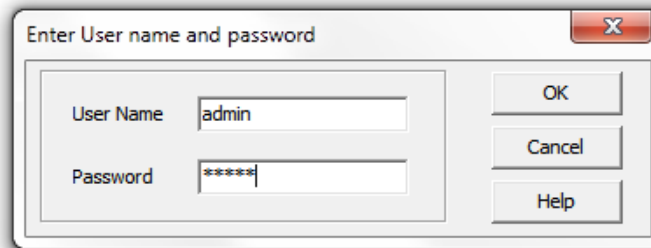


- Click on the panel that displays the access level (when MLV starts up the access level is set to the lowest



level, so this panel will probably show “lowest”):

- Enter you username and password into the dialogue and click on the OK button:



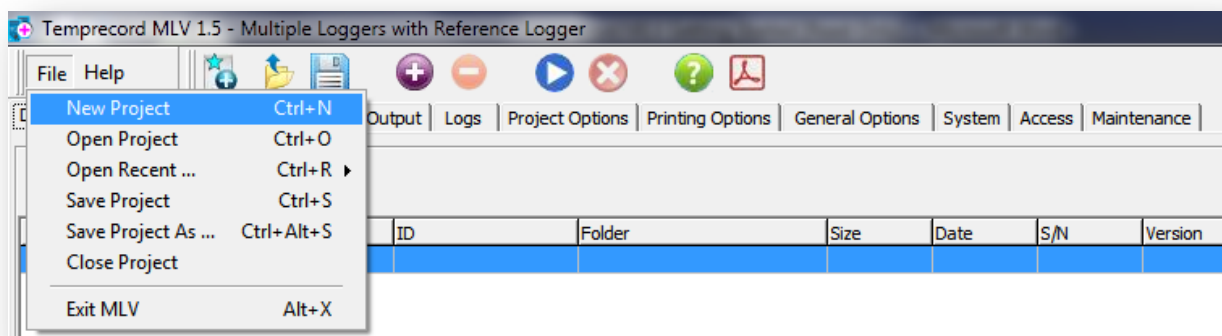
**NOTE: For initial entry to the software:**

**Username:** Admin

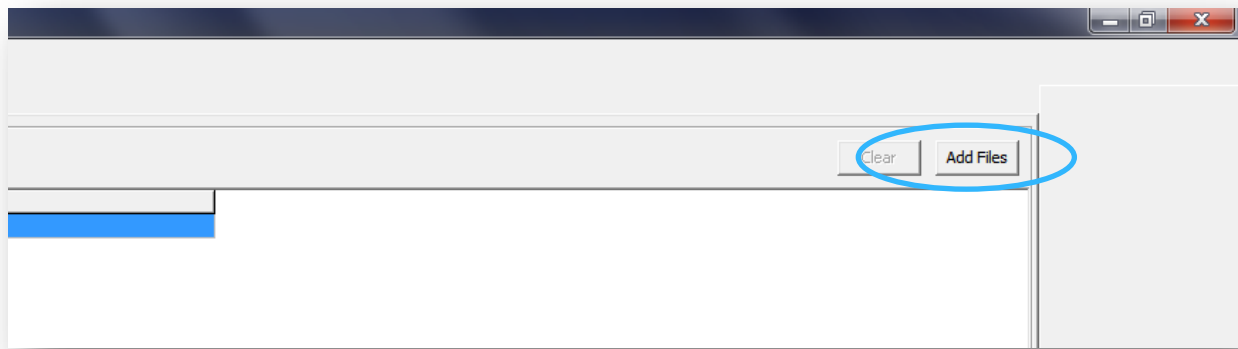
**Password:** Admin

These should be changed at earliest opportunity once software is accessed.

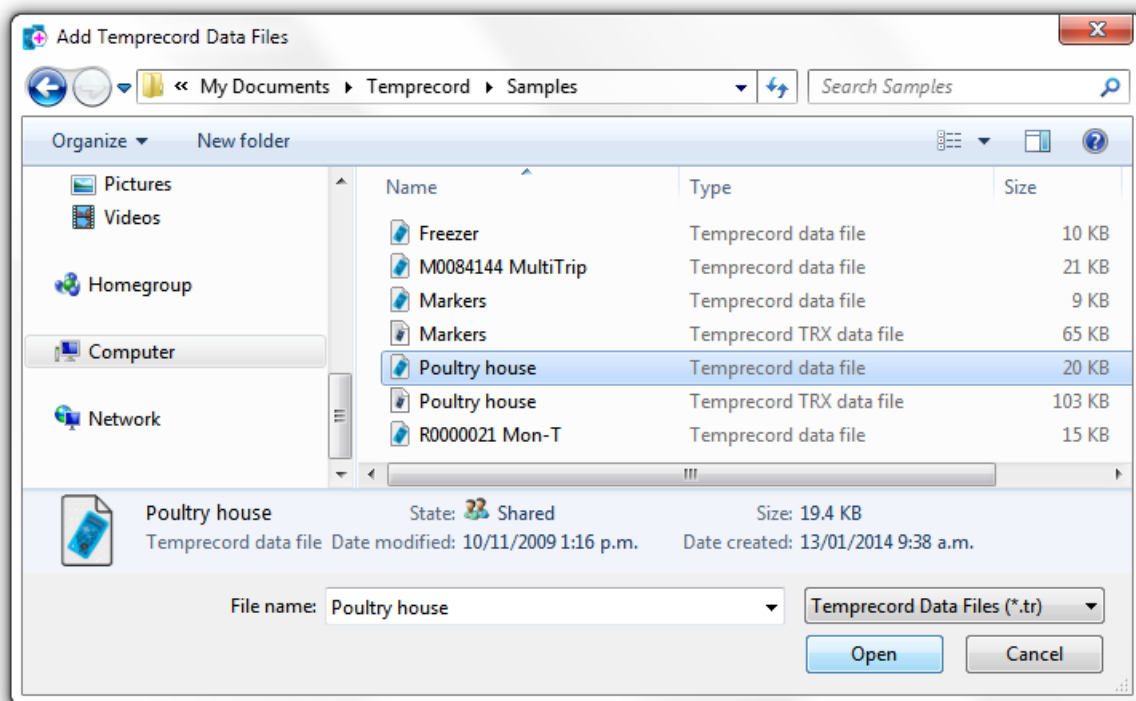
- Click on **File/New Project**



- Click the **Add Files** button:



7. You will be presented with a dialogue that by default only shows Temprecord data files (\*.TR):



8. If the folder shown is not the one with the files you wish to analyse you should navigate to that folder. Select one or more files. To select one file, just click on its name.

To select multiple files, hold the **Ctrl** key down as you click.

When you have selected your data files, click the **Open** button. The files should then appear in the **Files to process** list:

Temprecord MLV 1.5 - Multiple Loggers with No Reference

File Help

Datatables | Reference | Summary Report | Output | Logs | Project Options | Printing Options | General Options | System | Access | Maintenance

Files to process

|                                     | Filename                        | ID | Folder                        | Size  | Date       | S/N      | Version  | Period | Samples | From         | Until     |
|-------------------------------------|---------------------------------|----|-------------------------------|-------|------------|----------|----------|--------|---------|--------------|-----------|
| <input checked="" type="checkbox"/> | S0062942 2010-08-16 13-04-46.tr |    | C:\Documents and Settings\All | 70564 | Mon 16 Aug | S0062942 | 3.2.14.0 | 10s    | 32512   | Sun 8 Aug 20 | Thu 12 Au |
| <input checked="" type="checkbox"/> | S0062951 2010-08-16 12-58-38.tr |    | C:\Documents and Settings\All | 70564 | Mon 16 Aug | S0062951 | 3.2.14.0 | 10s    | 32512   | Sun 8 Aug 20 | Thu 12 Au |
| <input checked="" type="checkbox"/> | S0062966 2010-08-16 12-55-56.tr |    | C:\Documents and Settings\All | 70564 | Mon 16 Aug | S0062966 | 3.2.14.0 | 10s    | 32512   | Sun 8 Aug 20 | Thu 12 Au |
| <input checked="" type="checkbox"/> | S0063004 2010-08-16 13-09-18.tr |    | C:\Documents and Settings\All | 70564 | Mon 16 Aug | S0063004 | 3.2.14.0 | 10s    | 32512   | Sun 8 Aug 20 | Thu 12 Au |

9. Now click on the **Reference** tab and select **Mean** as the **Temperature Reference Data Source** (this will compare the data in each of the loggers with the average mean value of the loggers as the reference):

Temprecord MLV 1.5 - Multiple Loggers with No Reference

File Help

Datatables | Reference | Summary Report | Output | Logs | Project Options | Printing Options | General Options | System | Access | Maintenance

Temperature Reference Data Source

None  
 Constant 0.000  
 MLV reference log  
 Logger data file C:\Users\Public\Documents\Temprecord\MLV\Pri ...  
 **Mean**  
 ASCII file C:\Users\Public\Documents\Temprecord\MLV\Pri ...  
 Use file date File not found  
 File Size  
 Use this date 10/08/2010  
 Apply reference correction

Humidity Reference Data Source

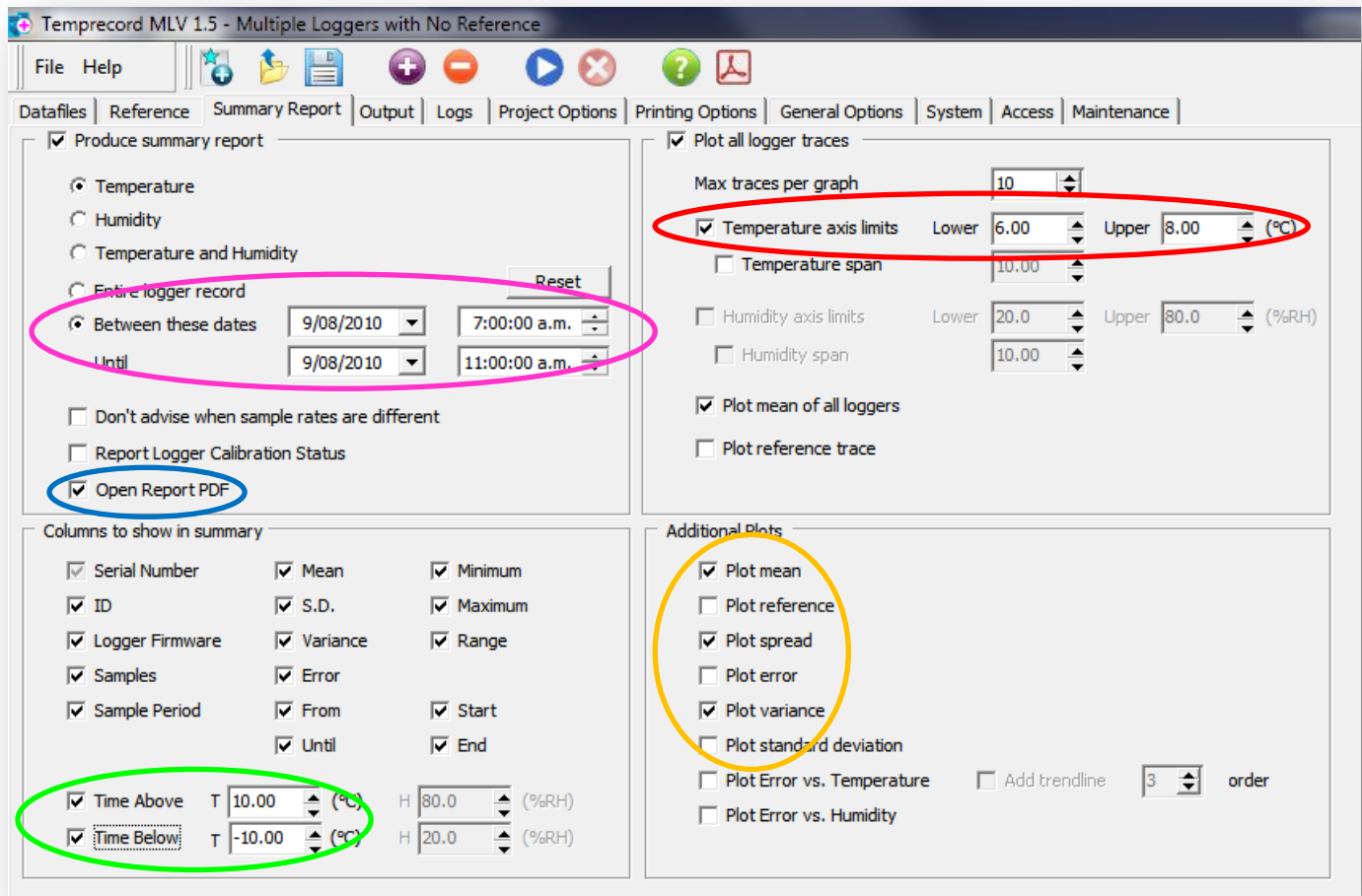
None  
 Constant 0.000  
 MLV reference log  
 Logger data file C:\Users\Public\Documents\Temprecord\MLV\Pri ...  
 Mean  
 ASCII file C:\Users\Public\Documents\Temprecord\MLV\Pri ...  
 Use file datestamp File not found  
 File Size  
 Use this date 30/12/1899  
 Apply reference correction

Temperature Serial Port Reference

Enable Reference Thread COM Port COM1  
 Apply reference correction

CSV date format dd/mm/yy Date separator /  
 CSV time format hh:nn:ss Time separator :

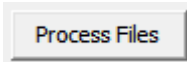
10. Now click the **Summary Report** tab, and set the reporting options according to your requirements.



11. In this example, the following specific features have been made use of:

- ■ Reporting over a specific time interval.
- ■ Automatically opening the PDF report for inspection when MLV has completed processing.
- ■ Getting additional statistics for time spend above and below temperature limits (these limits will also be shown as a horizontal dotted line on the graph).
- ■ Specifying a fixed upper and lower temperature axis range (if this option is not selected MLV will scale the vertical axis to show the full range of the plotted parameters).
- ■ Specifying additional plots for the mean, spread and variance of the plotted data.

12. Now all there is left to do is to click the **Process Files** button, and wait a few seconds for MLV to produce and open your PDF report.



Remember to save the MLV software file to a folder and give it a name. The name provided will then become the Project Name. The project may contain multiple PDF generated reports all filed under the same project.

Note, there are many more features in this software. Please use the Help document built into the software either in **Help Menu** or in the **User's Manual** via the Start Menu as shown at foot of page 1.



## User name and Password for MLV software Users

For initial entry to the software:

**Username:** Admin

**Password:** Admin

These should be changed at earliest opportunity once software is accessed.

## Help Resources and Information

There is a help document built into the MLV software, as in the TRW software. Help documentation, frequently asked questions and other resources are also available online at:

<http://www.temprecord.com/support/user-manuals-tutorials/>

## Contact us...

Please do not hesitate to let us know if you have any queries.

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