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HYDROTECHNIK

# HYDROTECHNIK Watchlog CSV Visualizer Software User Manual

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**Contents**

## Minimum PC Requirements

| Specification | Detail |
| --- | --- |
| Supported OS | Microsoft Windows 7 or higher |
| CPU | Intel or AMD dual core processor |
| Memory | 2 GB RAM |
| Connector | USB-A 2.0 |
| Hard disk space | 60 MB storage space for software installation |
| Display Resolution | 1280 x 800 |

## Prerequisites

- NET Framework 4.6.2 or higher
- Latest version of Microsoft Edge

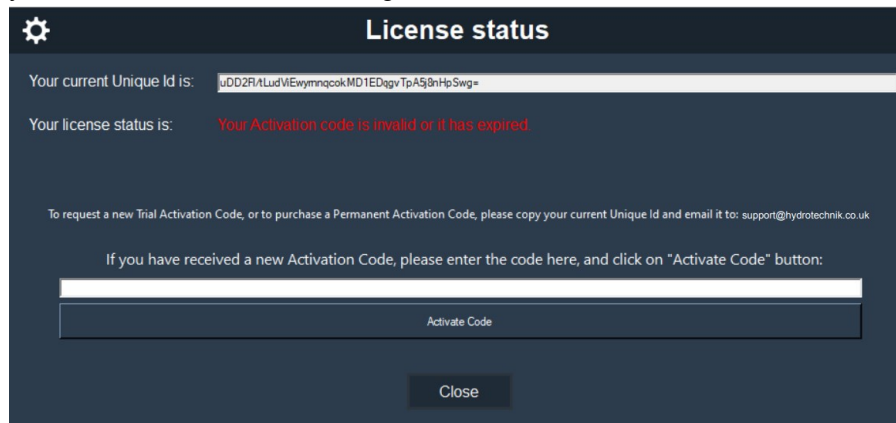**Watchlog CSV Visualizer Software Installation**

Run the installer and follow the onscreen instructions to complete installation. No reboot is required after installation.

**Opening Software**

Software can be run from either the desktop icon or the Start Menu. For quickly locating the app shortcut press the Windows button and begin typing "CSV Visualiser".

**Registering Licensing Details**

When the software is first run the licensing status window will appear. This contains a unique code relevant to your machine which is used to generate an activation code.



Please email your unique ID code to **support@hydrotechnik.co.uk** where an activation code can be provided.

Note that an activation code must be used on the same machine from which the unique ID was generated. For licences, please contact **support@hydrotechnik.co.uk**.

**Main Screen Layout**

1. **Exit** – Closes the application.

2. **Minimise** – Hides the application to the taskbar.

3. **Restore Down**/**Maximise** – Changes the application from full screen to window mode.

4. **Dashboard** – Shows the application main screen which displays the charts when a CSV file is loaded.

5. **Import CSV** – Click to import a CSV file stored on the PC.

6. **Test Files** – Shows a historical list of previous CSV files loaded and saved within the application.

7. **Report Templates** – Allows editing of report templates and choosing which template is used by default for exporting data.

8. **Licence Status** – When clicked the licence status window will open, showing the PC's unique ID, license code and remaining days the licence is valid for.

9. **Show**/**Hide** – Used to show or hide the graph selection window to control what data is displayed.

10. **Allow Scroll** – When viewing data/charts in split mode selecting allow scroll will increase the size of charts and display a scroll bar for navigate the viewing window.

11. **Decimal Places** – Select the number of decimal places data is show to, ranging from 0 to 4

12. **Filter** – Charts with many data points or noise can be smoothed using the filter feature. The filter can also be reset from here.

13. **Export** – Click to export data using the default template.

14. **Single Axis** – All data will be show on a single chart with a single axis.

15. **Multiple Axis** – All data will be shown on a single chart with multiple axes.

16. **Split** – Show data in multiple charts based on the predefined group name when using the CSV import feature.

17. **Zoom Pan** – Switch between zooming and panning around a chart when clicking and dragging.

18. **Autoadjust Axes** – Automatically adjusts the axis when required.

19. **Save** – Saves the test and data for future recall from the "Test Files" tab.

20. **Expand Chart** – Returns the chart to the default view showing all available data, typically used after zooming and panning.

21. **Chart Theme** – Choose the colour of the background and main labels.
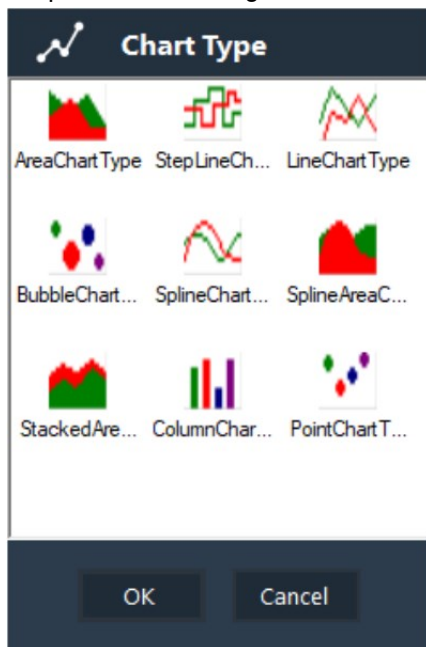

**Import a CSV File**
A CSV file can be imported in two different ways; either drag and drop the file from its location ontothe import area or click browse for the file.
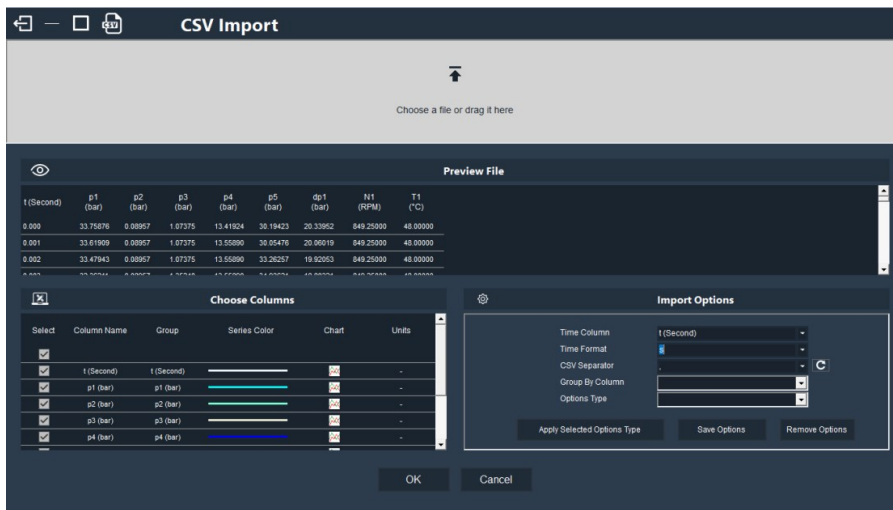
Once imported data can be previewed and the relevant columns selected for displaying in charts.

**Choosing and Customising Columns**
It's possible to change how data is displayed including:



**Column Name –** This is pulled though as per the column name in the CSV file, but by double clicking the field the name can be changed.

**Group –** Group will initially match that of the column name. By placing columns into the same group, they will be shown together in a chart.

**Series Colour –** This is the line colour used in charts.

**Chart –** Data can be displayed on a chart in several different ways.

**Units –** By default this is left blank and may not be relevant to the data set, but if useful for data such as temperature, pressure etc.

**Import Options**
**Time Column** – The software will try and automatically detect which column contains the time data. In some case a different column may be required for use as the common x-axis, but will still fall into this category

**Time Format** – The software will try and automatically detect the format of the time but can also be manually specified.

**CSV Separator** – The CSV separator is automatically detected and is a comma or semicolon.

**Group by Column** – This is used when importing a CSV file that has sensor names in one column and can be used to group sets of data together. When using this feature an additional window will open during import to arrange the data groups.

**Options Type** – The format, naming, and style of data in the "Choose Columns" section can be saved and applied during future imports. A name can be entered, and the "Save Options" button clicked, where this can be recalled from the drop-down menu. Clicking the "Apply Selected Options Type" will apply the customisations.

Once all data has been correctly formatted for import, click the "Ok" button to display the data graphically.

## Displaying Graphs

When first importing data, everything will be shown on a single chart with one axis. By clicking the button along the bottom row data can also be shown on a single chart with multiple axes. When clicking the "Split" button, data will be separated out into multiple graphs, categorised as per the group names that we have specified in the "Choose Columns" section during import setup.
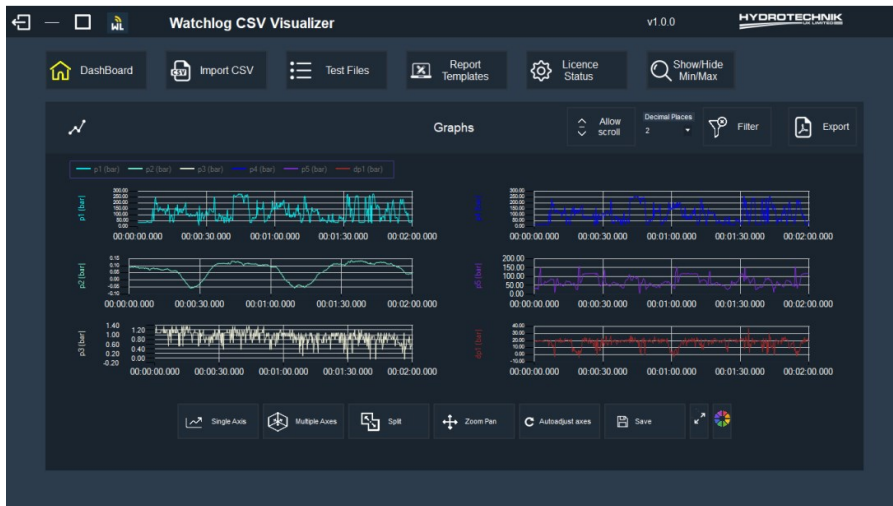


### Zooming/Panning
By clicking and dragging a chart you can zoom into specific areas. Once the "Zoom Pan" button is clicked you will switch from the zoom function to pan. Clicking the button again will then switch back to zoom mode. You can return all charts to their normal size by clicking the expand chart icon.

### Saving & Viewing Test Files
Once a CSV file has been imported it can be saved. Saved tests are found by clicking the "Test Files" button along the top row, where they can be opened and exported to PDF.
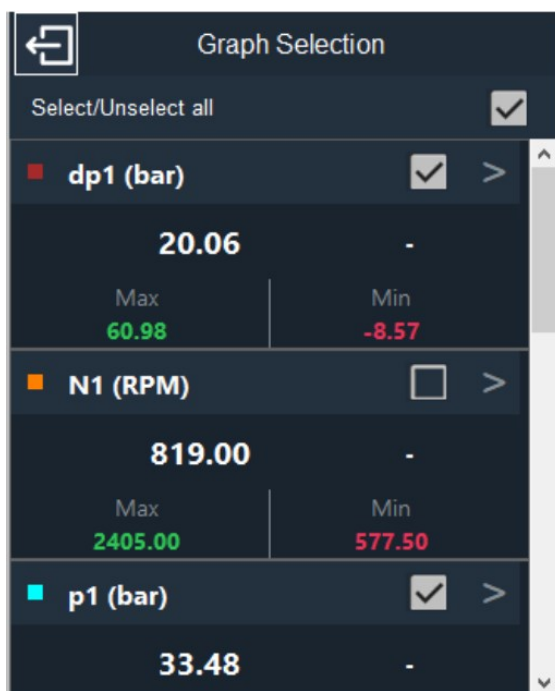
**Show/Hide Graph Items**
Clicking the "Show/Hide Min/Max" button at the top of the main screen will control displaying the Graph Selection Window. From here chart elements can be switched on and off, line colours edited, and values will automatically update when hovering the cursor over the charts.
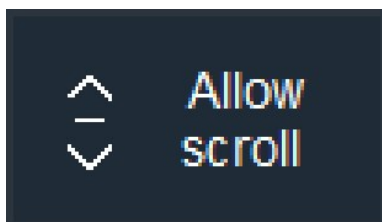
**Changing Chart and Line Colours**
Clicking the colour wheel will open a window which allows changing the background colour of the chart, the main colour of the labels and each of the data categories
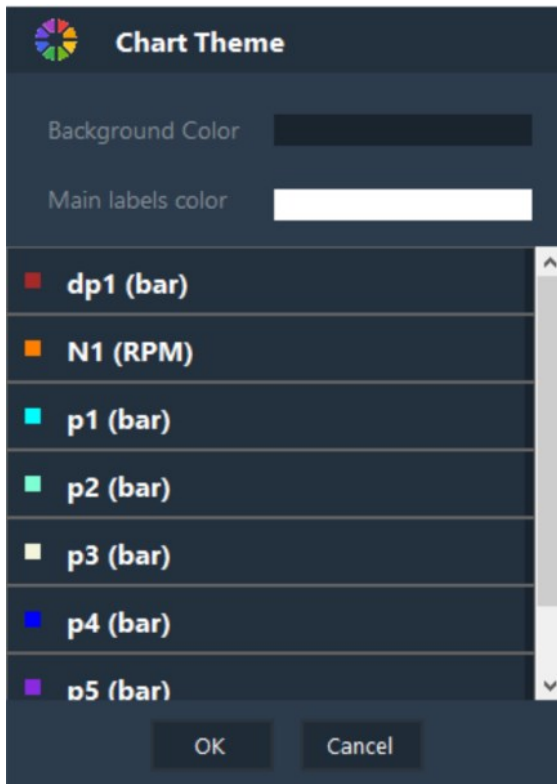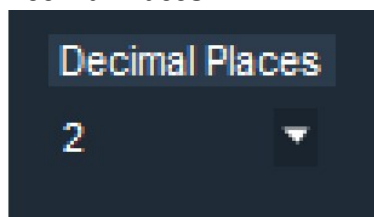


## Additional Chart Controls

**Allow Scroll**



When in the graph split mode an "Allow Scroll" button will appear. When clicked this will increase the size of the graph and show a scroll bar to navigate the page.

**Decimal Places**



Used to round data from 0 to 4 decimal places on all graphs

**Filter**

The "Filter" button will open a small window where a numerical value can be entered to smooth data based on an average number of samples. This is particularly useful when dealing with large volumes of data which may have a lot of noise.

**Report Templates**

CSV data can be quickly exported to PDF files using a customisable template. Templates can be created and edited by clicking the "Report Templates" button.
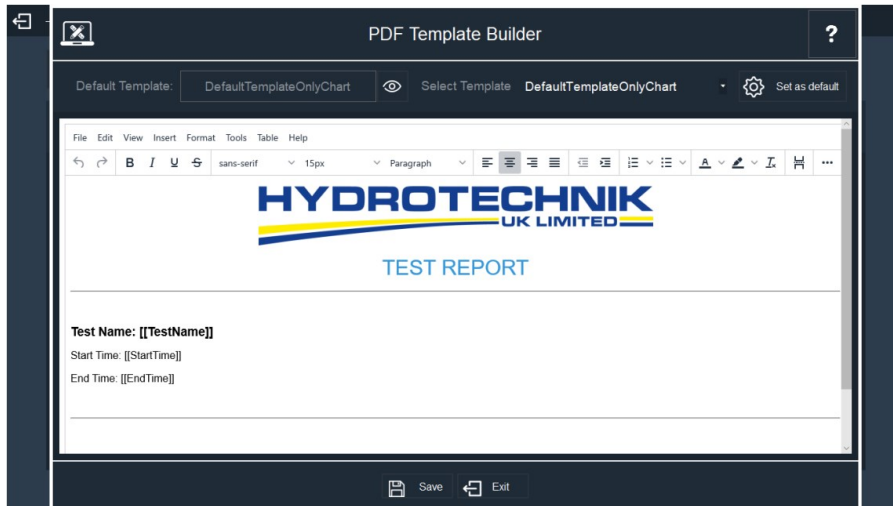


The template builder can store multiple templates, found in the drop-down box at the top. When a template is selected and the "Set as default" button clicked, that template will always be used by default for exporting reports to PDF. The template builder works like a web-based version of Microsoft Word. Images can be inserted, resized and custom text entered throughout. The existing Hydrotechnik logo can be changed by right clicking, selecting "Image…" and choosing an alternative logo.

The templates can include items known as variables and when entered will pull through specific items to place inside the report. The list of variables includes:

**[[TestName]]** – Name of the test.
**[[StartTime]]** – Start time, of the first piece of test data.
**[[EndTime]]** – End time, of the last piece of test data.
**[[Chart]]** – Single chart with a single axis containing all data.
**[[ChartMultiArea]]** – Single chart with multiple axes containing all data.
**[[ChartMultiAxes]]** – Multiple charts separated as per the defined group names.
**[[Table]]** – Table showing all data.
**[[Custom Text]]** – Allows entering custom text into the report during the export process.

Further details on using the template editor can be found by clicking the question mark symbol at the top right of the window.

## Exporting a Report

Click the "Export" button to begin the export process, where data can be arranged for display in multiple tables in a PDF report and additional comments included.
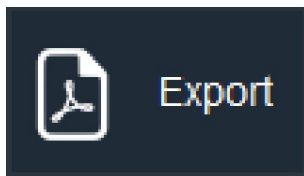
**Table Layouts**



After clicking the "Export" button a window will appear called "Table Layout". Here you will find each set of data and be able to assign it to a specific table and set the font size for exported tables. The purpose of the table layouts functions is to split data into multiple tables, rather than trying to fit all data into a single table on a page.

It's possible to save and assign table group configurations which will speed up the exporting process. Saving a new configuration involves assigning the tables names, entering a description in the "Options Type" drop-down box and clicking the "Save Options" button. To apply a pre-saved options type select this from the drop-down box and click "Apply Selected Options Type".

**Saving/Exporting a Test**

The same window will be displayed when saving a test to memory for future recall or for the final stage of export.

When saving a test for future recall, enter the test name which will be displayed in the "Test Files" category.

Comments can be entered in the "Test Comments" area, this is used to describe test files to help understand the test when re-visiting them, for example any events which occurred during the test. Text entered into the "Custom Text" area can be inserted onto reports that are exported using the "Default Template Table Custom Text" template. This text area would be used to enter information regarding the test or equipment, for example the serial number of a vehicle which was tested. If you have zoomed into an event and want to save only the currently viewed graph, select "Saved viewed area only" and then "Save". This will then only save whatever is on the visualizer now.

To save the entire test, select "Save entire test" and then "Save".

## Documents / Resources



**HYDROTECHNIK Watchlog CSV Visualizer Software** [pdf] User Manual
Watchlog CSV Visualizer Software, CSV Visualizer Software, Visualizer Software, Software

## References

- 📡 **Watchlog USB, Bluetooth & Wireless Sensors & Software | Hydrotechnik UK Ltd**