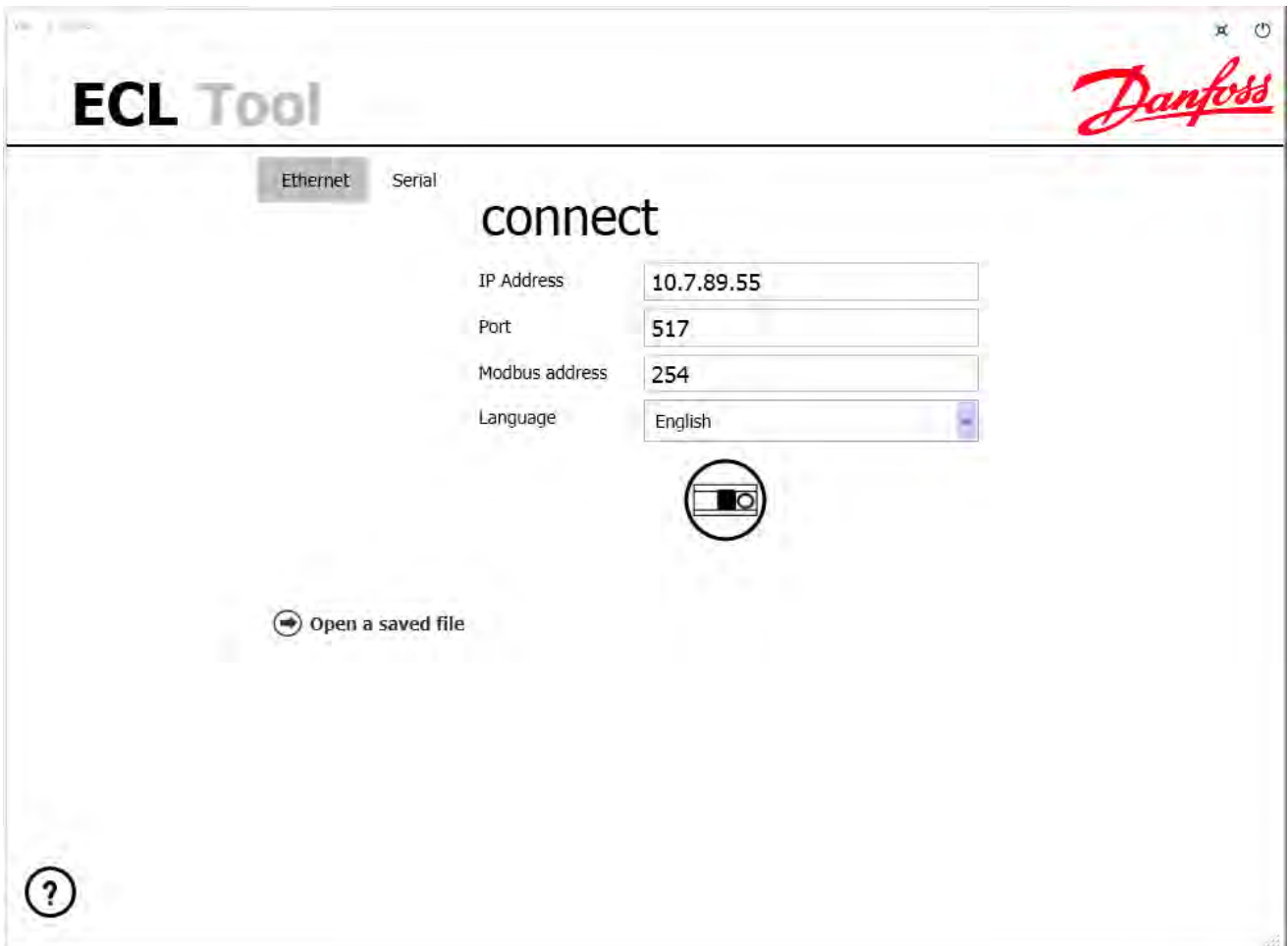
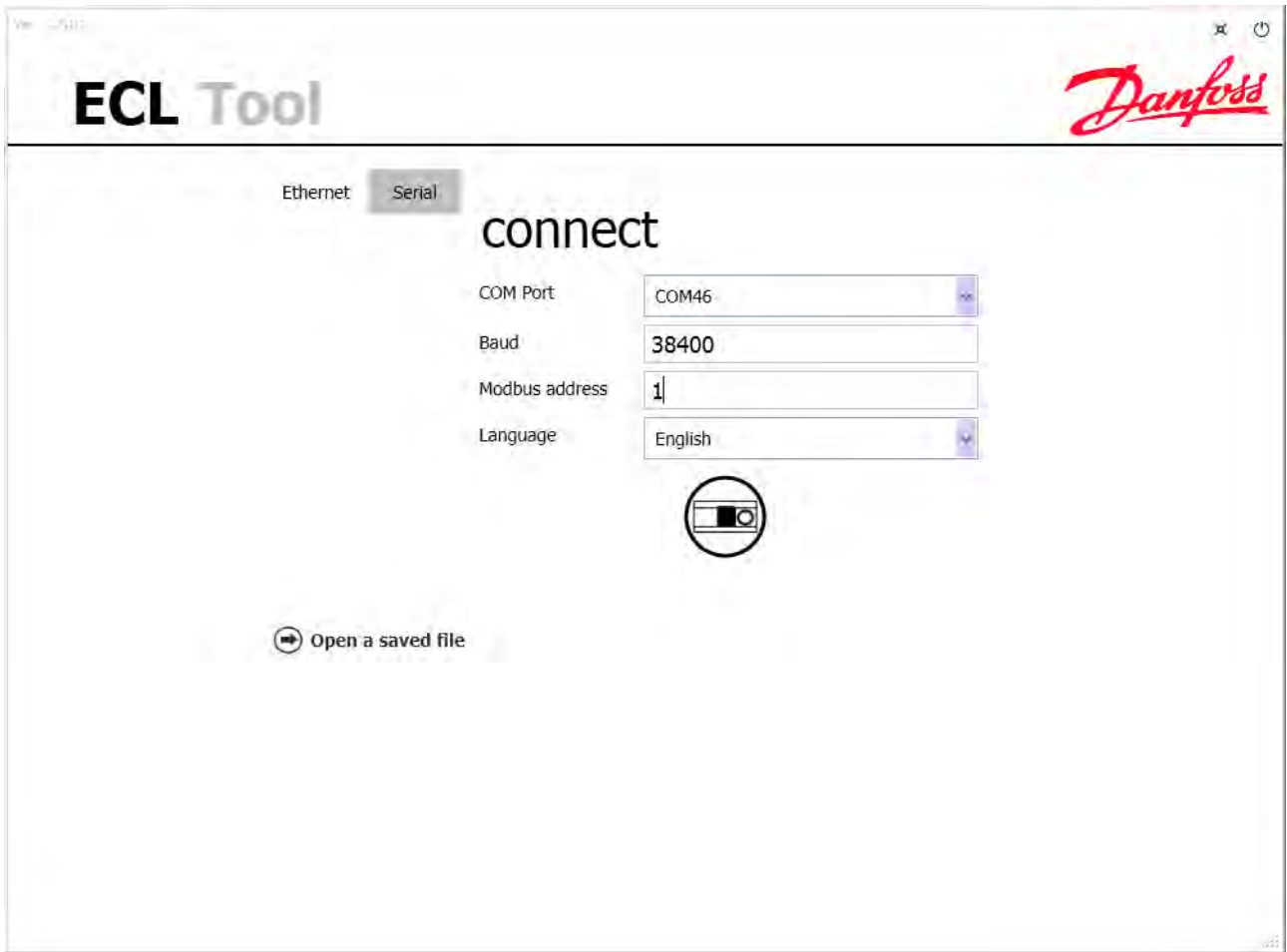


ECL Tool instruction



1. First connection to ECL

Choose between "Ethernet" or "Serial" – set the respective communication settings






Press the "Connect" button

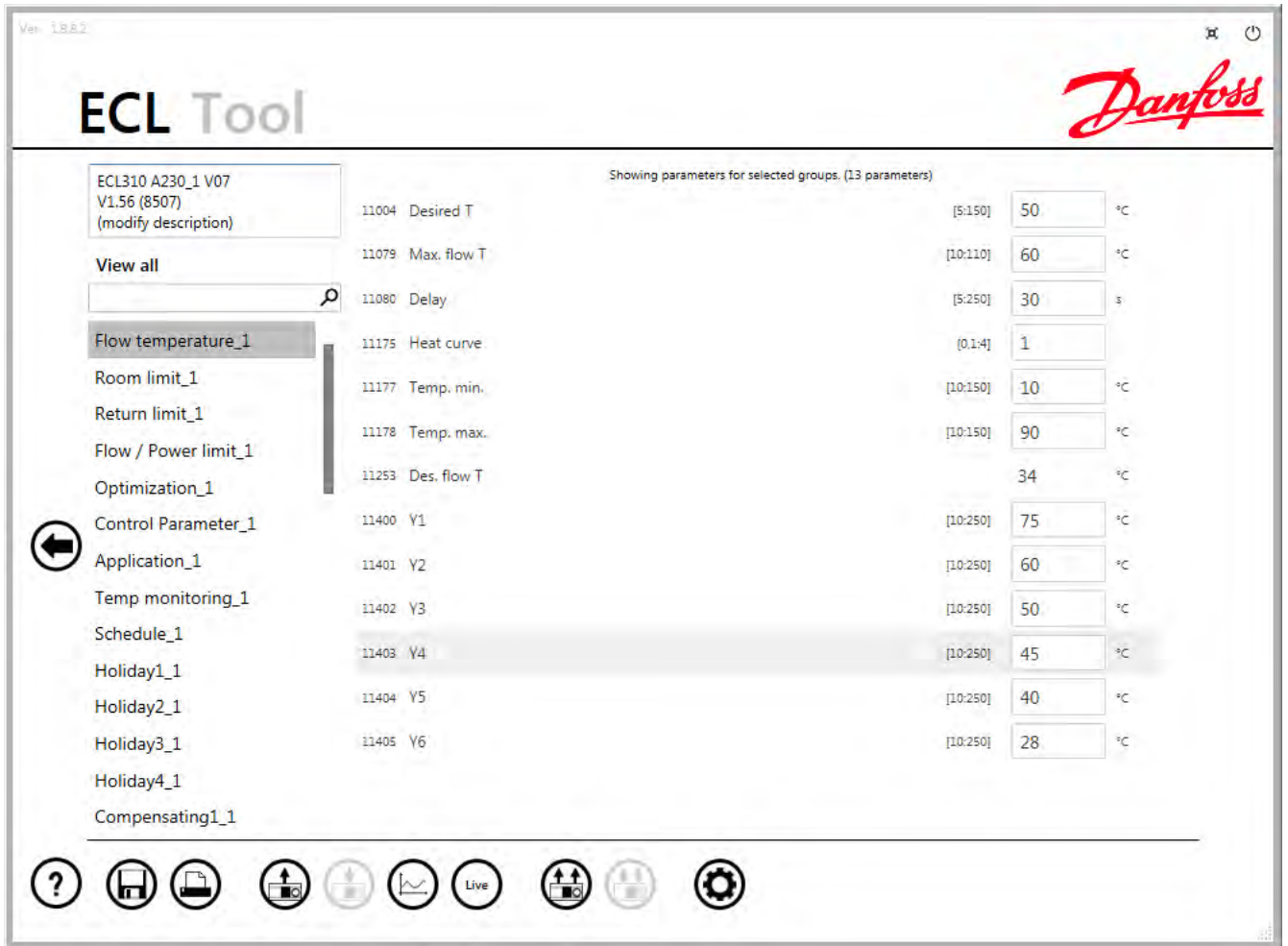


Select the "Load standard parameters (recommended)" button

Connection established to ECL310 v1_40 r5507 A266_1 V04

-  Open a saved file
-  Load standard parameters (recommended)
-  Load custom parameters




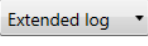







The ECL parameters will be loaded and ready for settings change, print of documentation etc.



1.1 The buttons

The buttons are used for various operations and are explained here

| | | |
|--|---|--|
| | Help (F1) | |
| | Save the parameters to an ECL file The file can later be opened for modification, print or parameter upload to ECL In Print mode this button saves the ECL documentation print to a RTF file. (This can be opened in Microsoft Word) | |
| | Go to Print mode. In Print mode the shown parameters list can be printed | |
| | Read the selected parameters from the ECL (F5) | |
| | Write the selected changed settings to the ECL (F6) | Only the changed parameters are written! |

| | | |
|---|--|--|
|  | Go to log screen | |
|  | Read ECL log and show graph. When done the user will be prompted if the log csv file should be opened. Excel or a similar program must be installed for this function to work | |
|  | Read extended log and show graph. When done the user will be prompted if the log csv file should be opened. Excel or a similar program must be installed for this function to work | Only enabled for ECLs with version 1.56 and higher |
|  | Choose which of the read logs should be shown on the graph | Note that a "floor drying" log can only be shown if it has been activated in the ECL. |
|  | Add current graph or live ECL picture to the report | Up to 10 pictures can be added to the report |
|  | Remove latest graph or live ECL picture that was added to the report | |
|  1 | Go to Print mode from the log screen. The number shows how many graph or live ECL pictures that have been included in the report | |
|  | Open Live ECL view For "remote" usage of the ECL display and dial, save of ECL screen shot | The ECL 210B and ECL 310B can also be used |
|  | Read all parameters from ECL (Shift + F5) | |
|  | Write all parameters to ECL (Shift + F6) This must be used when a "restore" is intended | Note that there is some filtering of actual parameter writes – always check that parameter writes are successful |
|  | Go back to previous picture | |

2. Detailed function description

2.1 Restore

Connect to the ECL and select "Open a saved file". Use the Write All button to restore all settings.

The Write All function filters the settings in order to achieve a successful restore.

Errors during write will be reported

Rules:

Time & Date will be set to PC time & date.

Indexed schedule is skipped

M-bus command registers is skipped

Heat curve 6 points will be used – not the slope (PNU 1x175)


SCADA parameters are skipped (temporarily values)

For DHCP Ethernet, IP address etc are skipped

2.2 Print


The Print mode can be used to document the ECL parameter values.

ECL Tool




report

Full Auto




Description


ECL310 (modify description)

 ECL 310 System Information

087H2040 SW Version 1.40(5447) HW B Serial no. 5213
Application A206.1 V01



ECA 32 087H3202 Serial no. 123456789 SW Version 1.10 HW A



Values



Flow temperature_1

| | |
|-------------------|-------------|
| 11177 Temp. min. | -21 °C (10) |
| 11178 Temp. max. | 111 °C (90) |
| 11175 Heat curve | 0,2 (1,2) |
| 11233 Des. flow T | 72,32 °C |
| 11400 Y1 | 125 °C (75) |
| 11401 Y2 | 95 °C (60) |
| 11402 Y3 | 75 °C (50) |
| 11403 Y4 | 65 °C (45) |
| 11404 Y5 | 55 °C (40) |
| 11405 Y6 | 35 °C (28) |


Room limit_1

| | |
|--------------------|-----------|
| 11182 Infl. - max. | -1,4 (-4) |
| 11183 Infl. - min. | 0 |

1 of 14



ECL Tool



report

Full Auto

11187 Nz 3 K
 11185 Tn 30 s
 11184 Xp 80 K
 11017 Demand offset 0 °C

Application_1

11141 Ext. input 3 (o)
 11010 ECA addr. 0
 11093 Frost pr. T 10 °C
 11142 Ext. mode 0
 11050 DHW priority 0
 11077 F frost T -11 °C (a)
 11078 P heat T 20 °C
 11189 Min. act. time 10
 11022 P exercise 1
 11023 M exercise 0

Temp monitoring_1

11147 Upper difference 2 K (o)
 11148 Lower difference 2 K (o)
 11149 Delay 1 m (10)

11150 Lowest temp. 30 °C

Schedule_1 (3110)




| Day: | Start1 | Stop1 | Start2 | Stop2 | Start3 | Stop3 |
|-----------|--------|-------|--------|-------|--------|-------|
| Monday | 1100 | 1330 | 1800 | 2200 | 2300 | 2330 |
| Tuesday | 900 | 1200 | 1800 | 2200 | 2400 | 2400 |
| Wednesday | 900 | 1200 | 1430 | 2200 | 2400 | 2400 |
| Thursday | 900 | 1200 | 1900 | 2200 | 2400 | 2400 |
| Friday | 900 | 1200 | 1800 | 2200 | 2400 | 2400 |
| Saturday | 900 | 1200 | 1800 | 2200 | 2400 | 2400 |
| Sunday | 900 | 1200 | 1800 | 2200 | 2400 | 2400 |

Holiday1_1 (10714)

Modes: Start: End:
 1 1 2010 1 1 2010

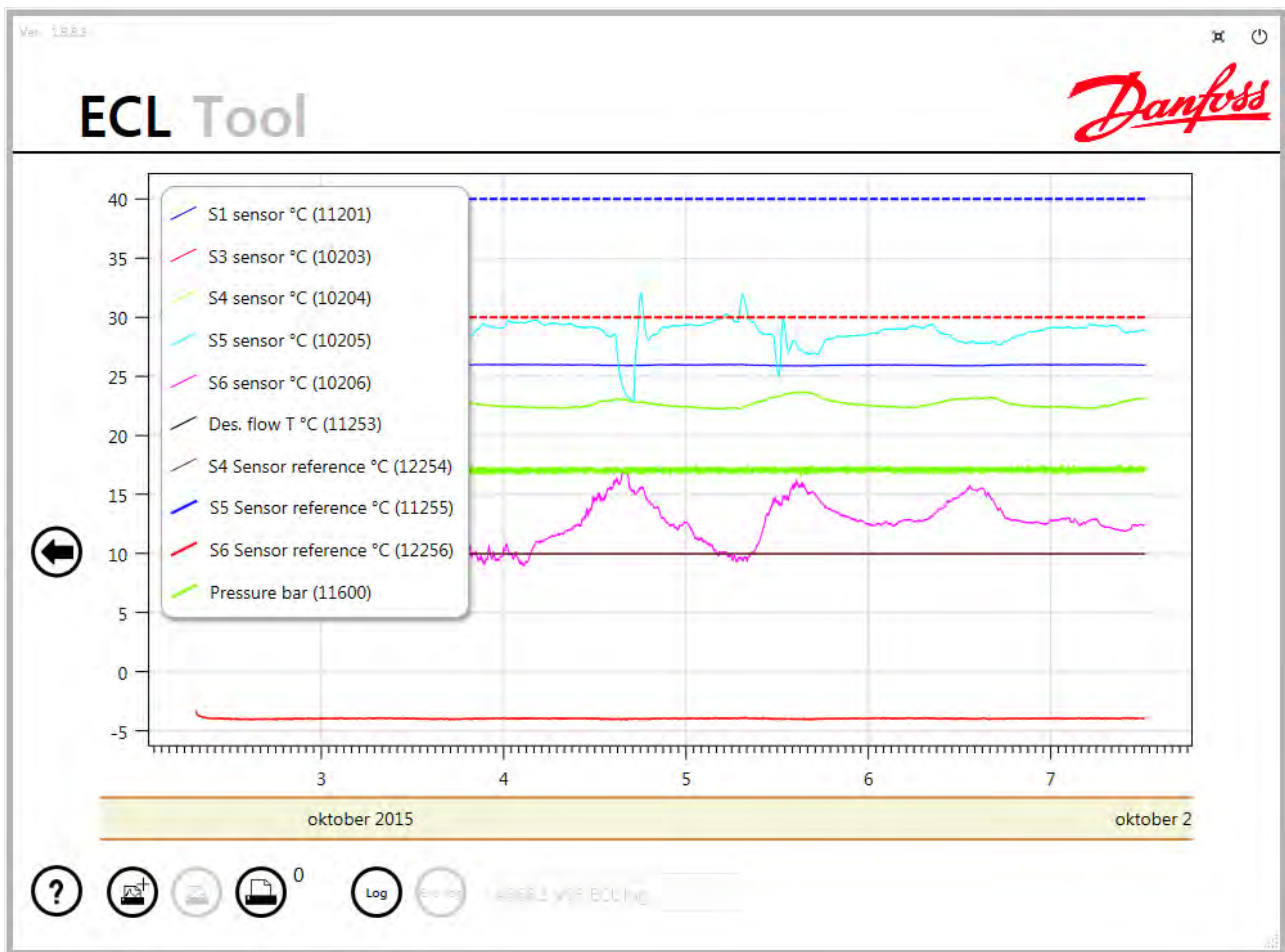
Holiday2_1 (10721)

3 of 14

2.3 Log graphs

Logs can be read from an ECL and be shown as graphs in the ECL Tool



It is possible to zoom and pan on the graph by scrolling with the mouse wheel over the axes or dragging the axis in the desired direction.

Please refer to the application instruction for a description of what the sensors are used for.

By pressing a button the shown graph can be included in the report which can then be printed or saved as a file for later reference. Up to 10 graphs can be included in a report.

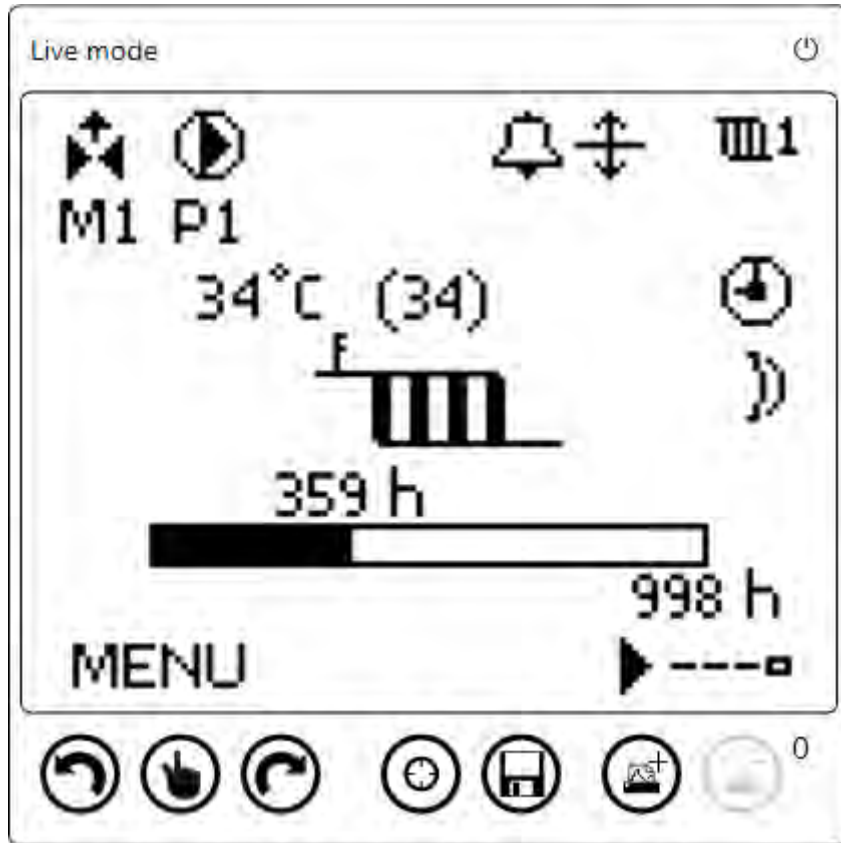
If the ECL has software version 1.56 or higher then it contains an extended log with a lower time resolution. If the application includes settings for "floor drying" and if it has been activated then a "floor drying" log is included in the extended log and can be shown as a graph as well. The purpose of the extended log is to document the "floor drying" program so if the "floor drying" function is not activated then the extended log only contains a standard log with low time resolution. The extended log only covers the first 6 weeks of the installation and is not erased if the application is re-installed.

If the log contains more than seven logged parameters then the line colours are thicker and dashed to better distinguish between parameters with the same colour.

2.4 Live ECL

The Live ECL functionality can be accessed when connected to an ECL Comfort 210, 296 or 310. It makes it possible to remotely navigate the display as if operated locally. Even blind controllers without dial and display can be operated this way.

Including display pictures makes it possible to document settings or log pictures that are usually not included in the report.



The cursor can be moved either left or right by pressing the arrow buttons and the dial can be pressed by pressing the "Dial push" button.

It is possible to make the physical display of the ECL Comfort controller wink by pressing the "Locate device" button. This makes it possible to locate the connected controller in a room full of controllers.

By pressing the "Save image" button the current display image can be saved as a file on the local computer.

Only when parameters have been loaded for a specific device are the "Copy picture to report page" and "Remove newest picture from report page" visible. Using these buttons can add or remove Live ECL display pictures to or from the report where they can be inserted like the log graphs. The counter counts both Live ECL pictures and log graphs so only 10 pictures of either type can be included in a report.

3. Command line options

The command line options can be used to start the ECL Tool, assigning e.g. the IP address and automatically press the Connect button.

| Command line options | Description |
|---|--|
| /IP= e.g. "/IP=192.168.1.111" | Use to set the IP Address of the Ethernet connection |
| /Port e.g. "/Port=502" | Used to set the Port of the Ethernet connection |
| /ComPort E.g. "/ComPort=COM4" | Used to set the Com Port of the Serial connection |
| /Address E.g. "/Address=44" | Used to set the serial address of the Serial connection |
| /Connect E.g. "/Connect" | Used to instruct the ECL Tool to automatically connect to the specified device (only if button " <i>Load standard parameters (recommended)</i> " is available). If "/IP" is given, the Ethernet connection will be chosen If "/ComPort" is given, the Serial connection will be chosen |

Example of a bat file that opens an Ethernet connection

```
cd "C:\Program Files (x86)\Danfoss\ECL Tool"
start "" "ECL Tool.exe" "/IP=192.168.1.111" "/Connect"
```


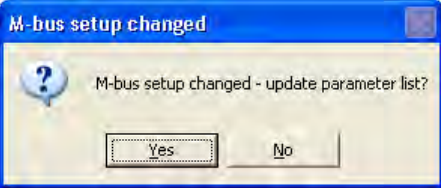
Example of a Windows shortcut that opens an Ethernet connection

The "Target"

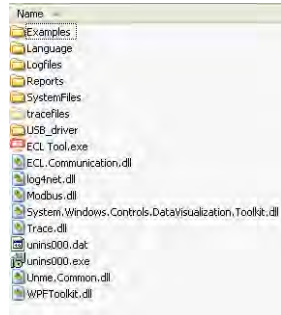

"C:\Program Files (x86)\Danfoss\ECL Tool\ECL Tool.exe" /IP=192.168.1.111 /Connect

Target: "C:\Program Files (x86)\Danfoss\ECL Tool\ECL Tool.exe" /IP=192.168.1.111 /Connect

4. FAQ

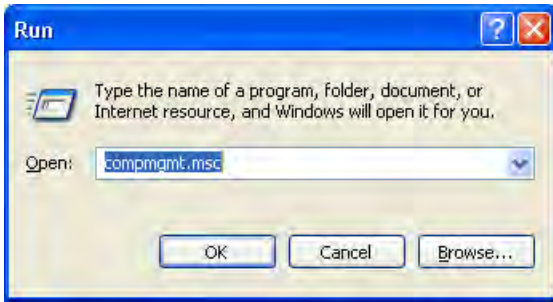
| Question | Description |
|---|--|
| <p>ECL instruction</p> <p>Application instructions</p> | <p>ECL instructions and Application instruction can be found here: http://www.ecl.doc.danfoss.com</p> |
| <p>The "Load standard parameters (Recommended)" is not available</p> | <p>The ECL and/or the Application are not known.</p> <p>Check whether an ECL Tool update is available or use the "Load custom parameters" and select an ECL / Application pair that matches the installed system best.</p> <p>The warning must be accepted to continue</p> |
|  | <p>Warning for imperfect and/or unknown ECL parameter list.</p> <p>The warning must be accepted</p> <p>The user are in this case particularly advised to verify all operations</p> |
|  | <p>The M-bus configuration has changed in the ECL.</p> <p>Select Yes to update the Energy-meter parameters.</p> <p>In most cases Energy-meter values should be re-read after a minute from change, to get the correct data.</p> |
| <p>Application Drawings - print</p> | <p>The application for application x is not available.</p> <p>The application drawings are added over time, if a specific drawing is missing, it can be added in the application drawing folder. The file must start with the application name and have png extension.</p> |

5. Troubleshooting

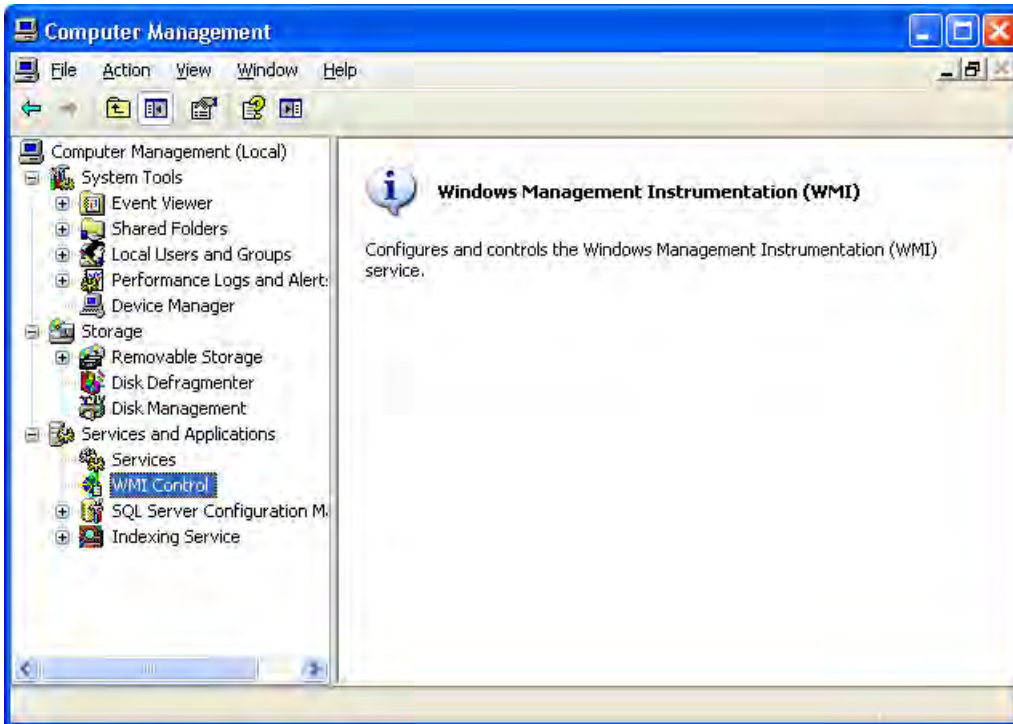
| Problem | Description | Solution |
|--|--|---|
| The ECL Tool can't start | <p>Check that installation folder contains all files</p>  | The installation must be done with Administrator rights |
| No Serial COM Port available | <p>Observed on Windows XP PC's WMI Service</p>  | <p>Check Windows WMI Service</p> <p>See separate section below</p> |
| Serial connection fails | <p>Connection to ECL can't be established</p> | <p>Check COM Port selection, baud rate and Modbus address settings.</p> <p>Verify that no other programs are using the COM Port</p> |
| Ethernet connection fails | <p>If communication settings are correct, failure on connection can be caused due to connection limitation by the ECL. Maximum two Ethernet connection can be established to the ECL</p> | <p>Check Modbus address and Port setting</p> <p>Wait 75 seconds (ECL Connection timeout) and try again</p> |
| Setting the Language don't change anything | <p>Not all texts are translated</p> <p>As a rule of thumb, if the parameter has a local text in the ECL, it will also be available in the Tool</p> | <p>Contact Local representative, Danfoss Heating Commercial Controls product manager</p> |
| Program crashes | <p>The program shuts down with no warning</p> | <p>Stop read or write before navigating back to the connection page</p> |
| ECL USB Connection - driver | <p>Where to find the ECL USB driver and how to install</p> | <p>Locate the "USB_driver" folder in the folder where the program has been installed. Follow the installation guide.</p> |

5.1 WMI Service check

Type compmgmt.msc in the run dialog



Go to WMI Control and select properties



General WMI information must look something like this:



If WMI Service is not running, it must be repaired.

Table of Contents

1. **First connection to ECL** **2**
 1.1 The buttons 3
 2. **Detailed function description** **5**
 2.1 Restore 5
 2.2 Print 5
 2.3 Log graphs..... 8
 2.4 Live ECL..... 8
 3. **Command line options** **10**
 4. **FAQ** **11**
 5. **Troubleshooting** **12**
 5.1 WMI Service check 12
 5.2 Revision History 15
 5.3 License - Use of Dynamic Data Display 15

5.2 Revision History

| Version | Date | Description |
|---------|------|--|
| | | Initial release |
| | 2012 | WMI information added to troubleshooting |
| | 2015 | Added description about new graph functionality and Live ECL |
| | 2016 | Added description about command line options |

5.3 License - Use of Dynamic Data Display

The ECL Tool uses the Dynamic Data Display library for generating graphs

The license and source code for Dynamic Data Display is included with this distribution and can be found in the installation folder

The home page for Dynamic Data Display is: <https://dynamicdatadisplay.codeplex.com/>

The specific version used in the ECL Tool is generated from source version v0.3.4703.0

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Produced by Danfoss A/S © 10/2015