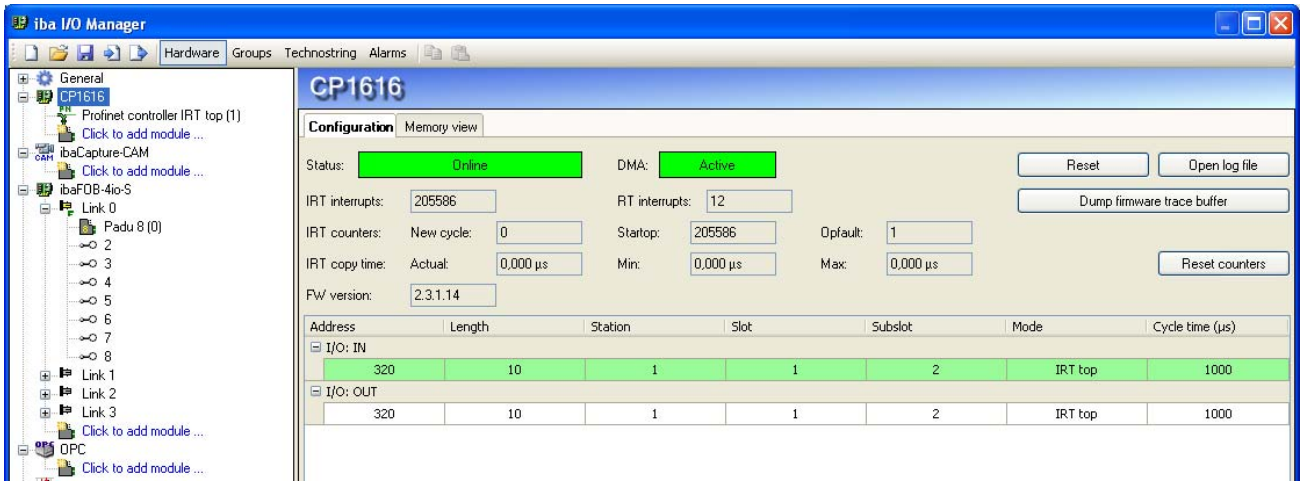
New features in ibaPDA v6.23.0

1 ibaCapture-CAM scenario player

See separate document ibaCapture-CAM Viewer manual.pdf

2 CP1616 firmware 2.3.1

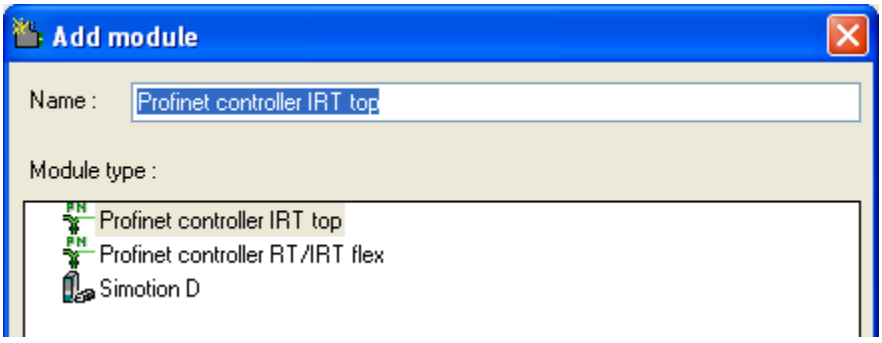
Pda now supports 2 firmware versions of the Siemens CP1616 board: 2.0.1 and 2.3.1. The firmware versions 2.1.x and 2.2.x are not supported. The firmware version is shown on the CP1616 interface in the I/O manager.



The following profinet modes are supported:

- FW 2.0.1: IRT and RT
- FW 2.3.1: IRT high performance (IRT top), IRT high flexibility (IRT flex) and RT

Pda always initializes the CP1616 board as a profinet controller. The CP1616 as profinet device is not supported. The configuration grid on the CP1616 interface shows the profinet mode for each slot.



There are 3 module types that can be mapped to the CP1616 interface:

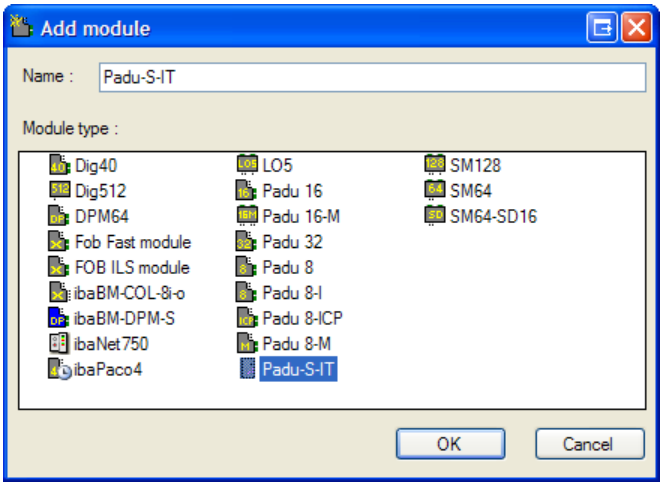
- Profinet controller IRT top
- Profint controller RT/IRT flex
- Simotion D

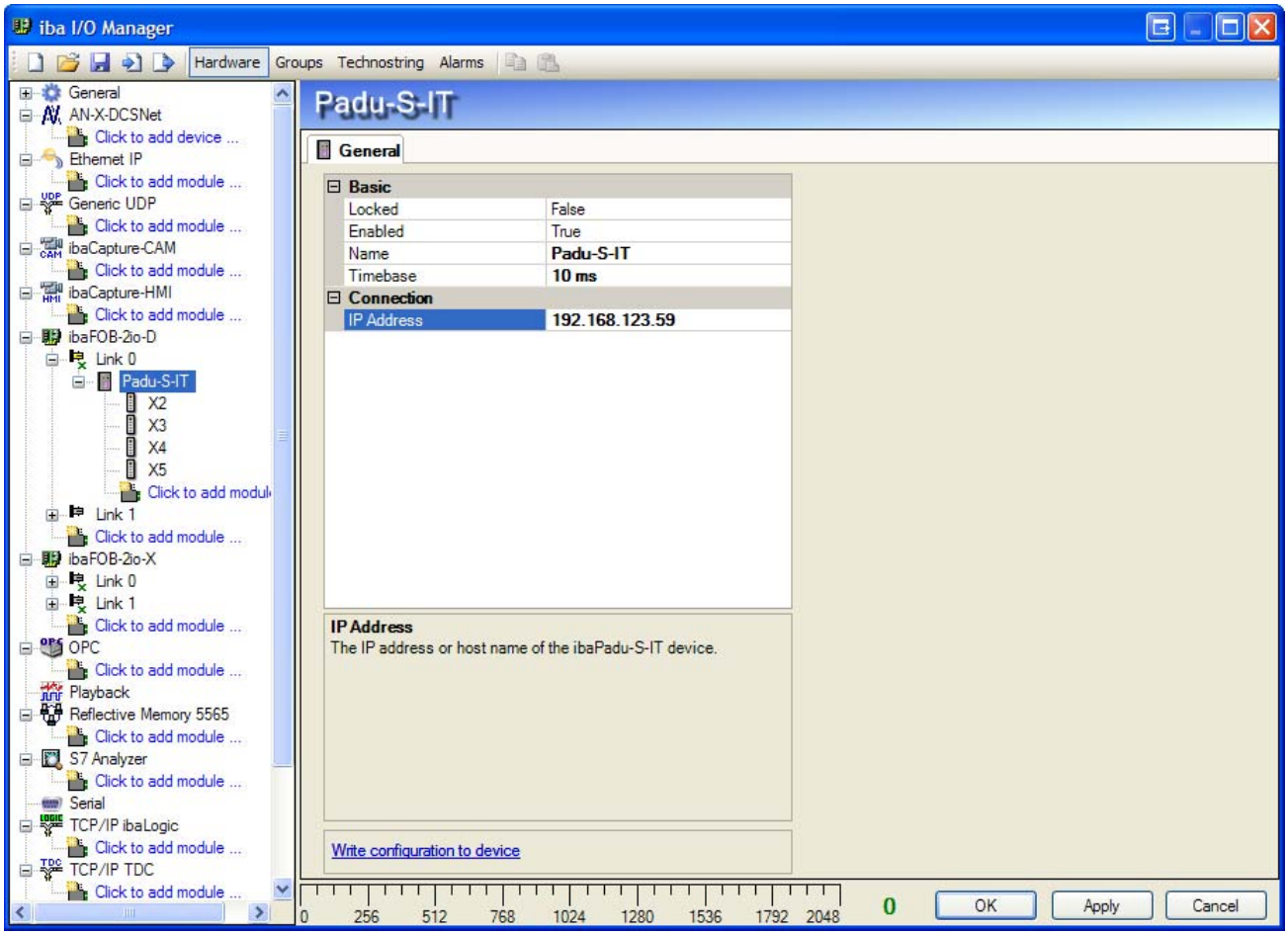
The Simotion D module is an IRT top module with predefined signals. An IRT top module can only measure signals on IRT top slots. An RT/IRT flex module can only measure signals on RT or IRT flex slots.

The IRT interrupts, IRT counters and IRT copy times only work in IRT top mode not in IRT flex mode.

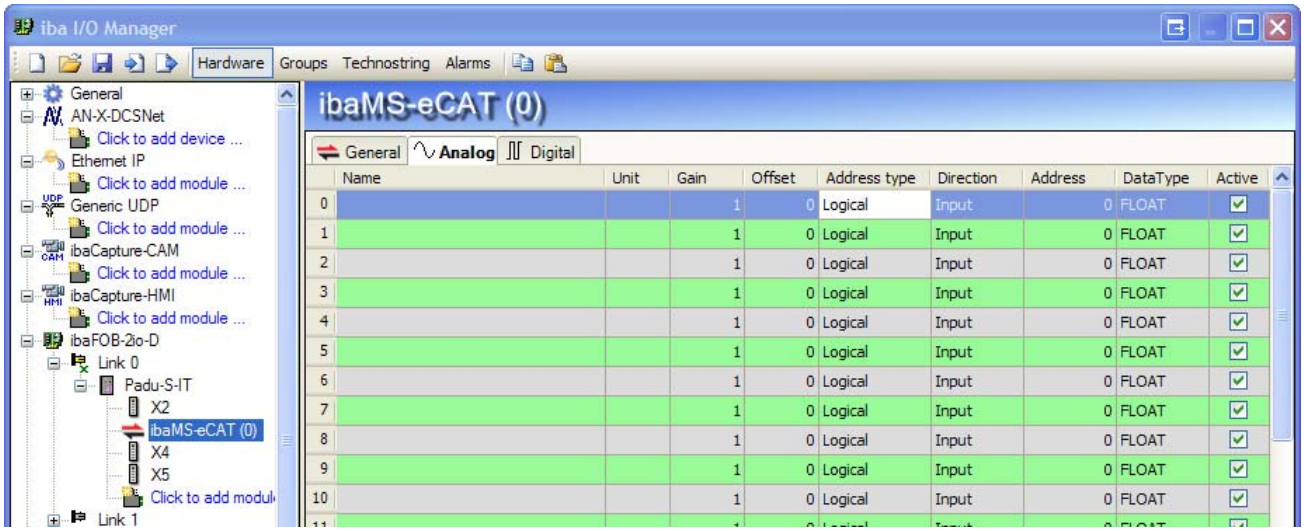
3 Padu-S-IT and ibaMS-eCAT

Pda has limited support for the Padu-S-IT. It currently only supports the ethercat sniffer submodule. The Padu-S-IT is supported both on the FOB-D and FOB-X.



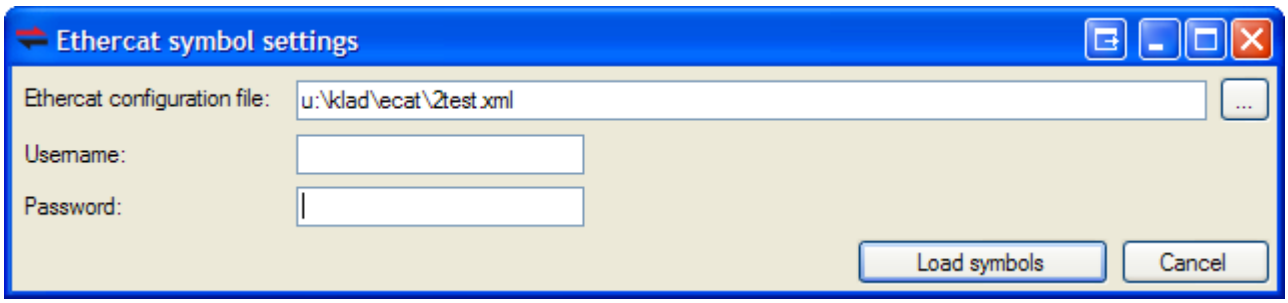


Add a Padu-S-IT module and then enter the correct IP address. Add the required submodules to the correct slot. A future version of pda will support autodetection of the submodules.



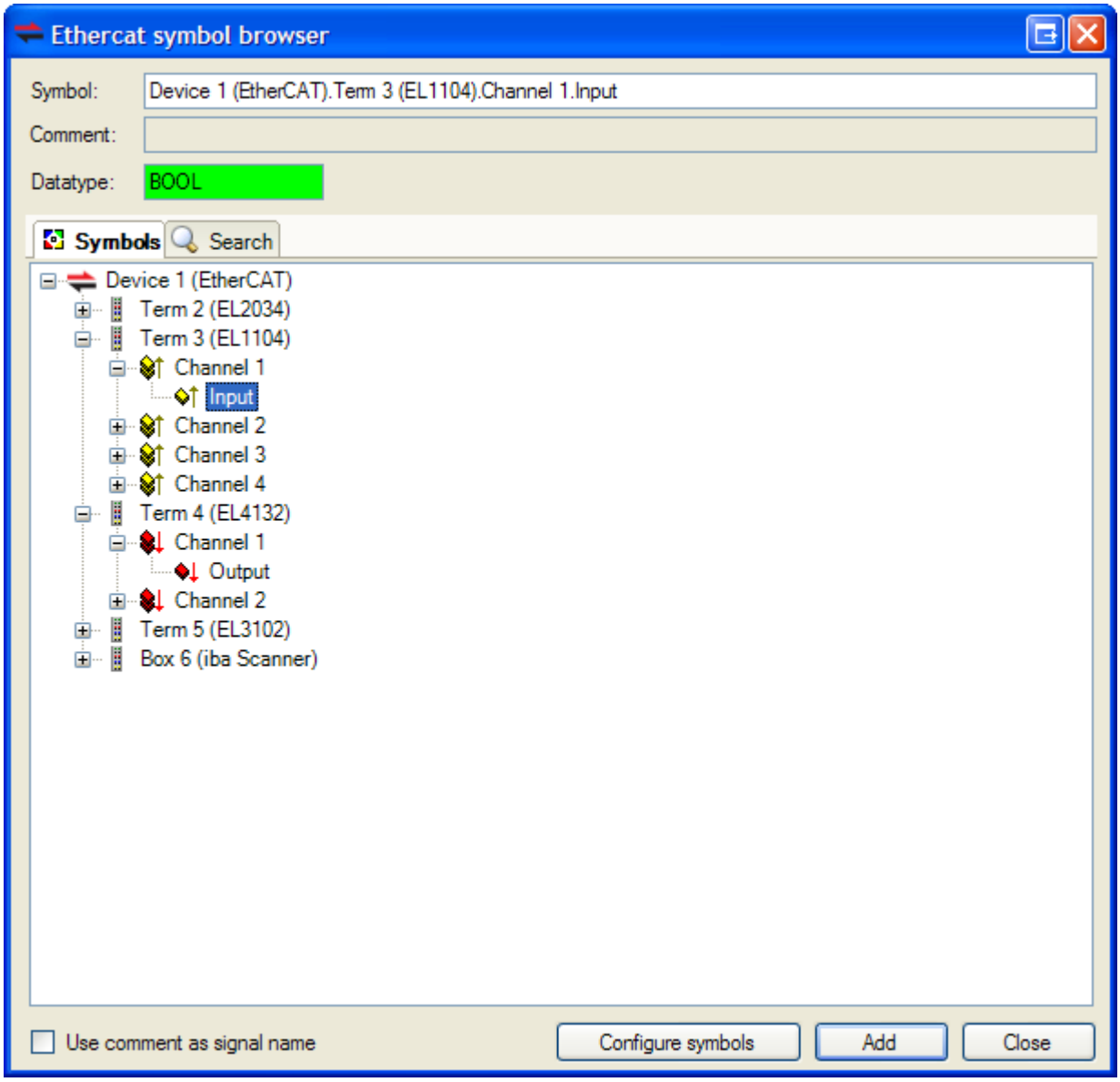
If there are no symbols configured on the ethercat sniffer module then you can enter the address type, direction, logical address, bit number and data type.

Alternatively Pda can use the ethercat configuration file that is generated by the ethercat configuration tool (e.g. Beckhoff ET9000 or Beckhoff Twincat). Use the configure symbols hyperlink on the general tab.

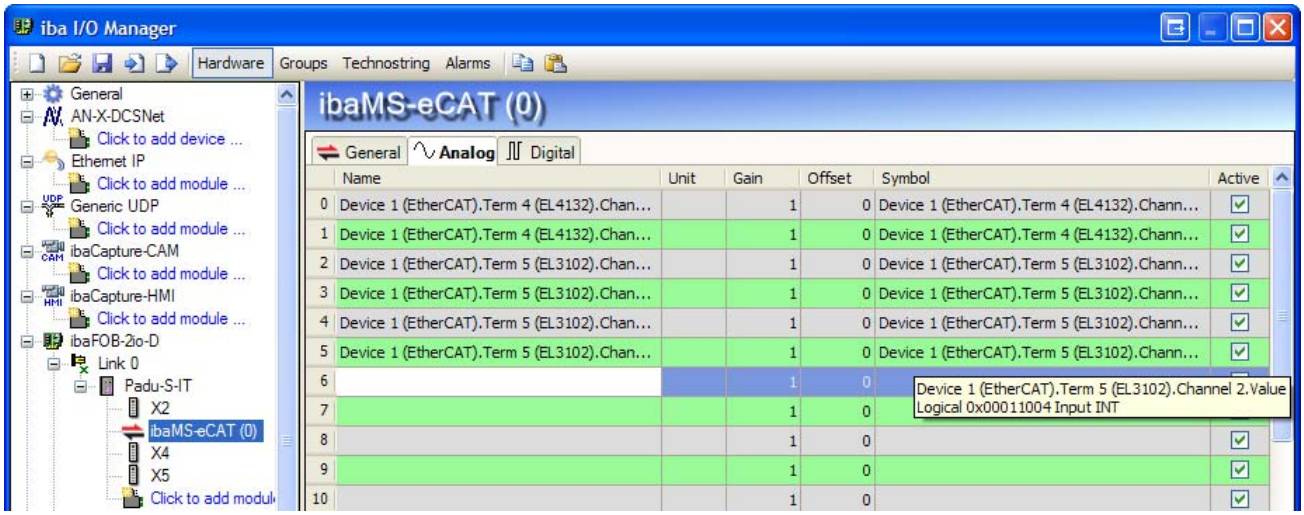


Enter the path to the configuration file. This path is relative to the pda server. If the configuration file is on a network share then you have to specify the username and password needed to access the network share. The load symbols button will try to load the symbols. Pda will show a messagebox if an error occurs. At each start of the acquisition pda checks the symbols path to see if the ethercat configuration file has changed. If it has changed then it is reloaded automatically.

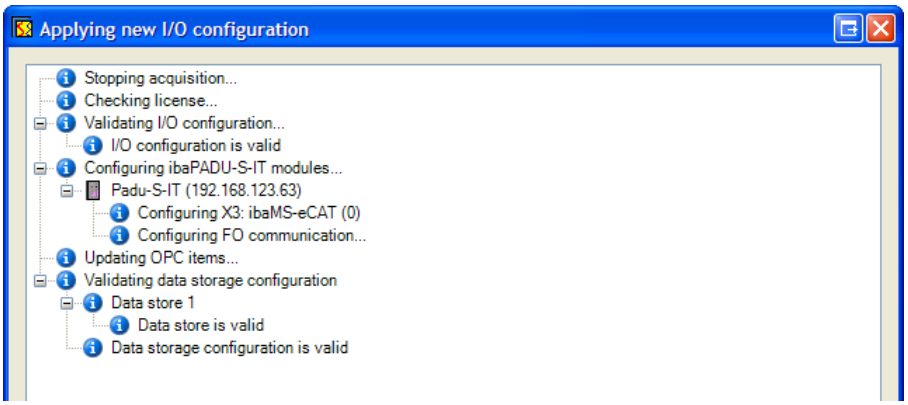
Click the select symbols hyperlink to open the symbol browser.



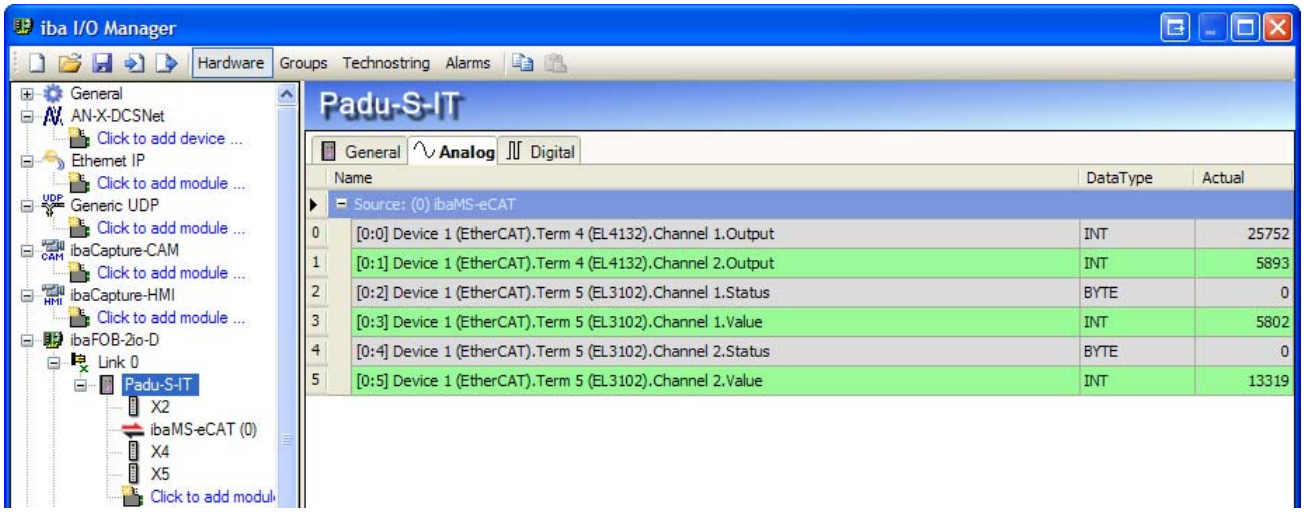
When symbols are configured then you can only enter the symbol. The address information will be generated automatically by pda. The tooltip on the signal grid shows the generated address information.



You can apply the configuration on the device by clicking the “write configuration to device” hyperlink on the Padu-S-IT device. The configuration is also automatically applied when you start the acquisition.

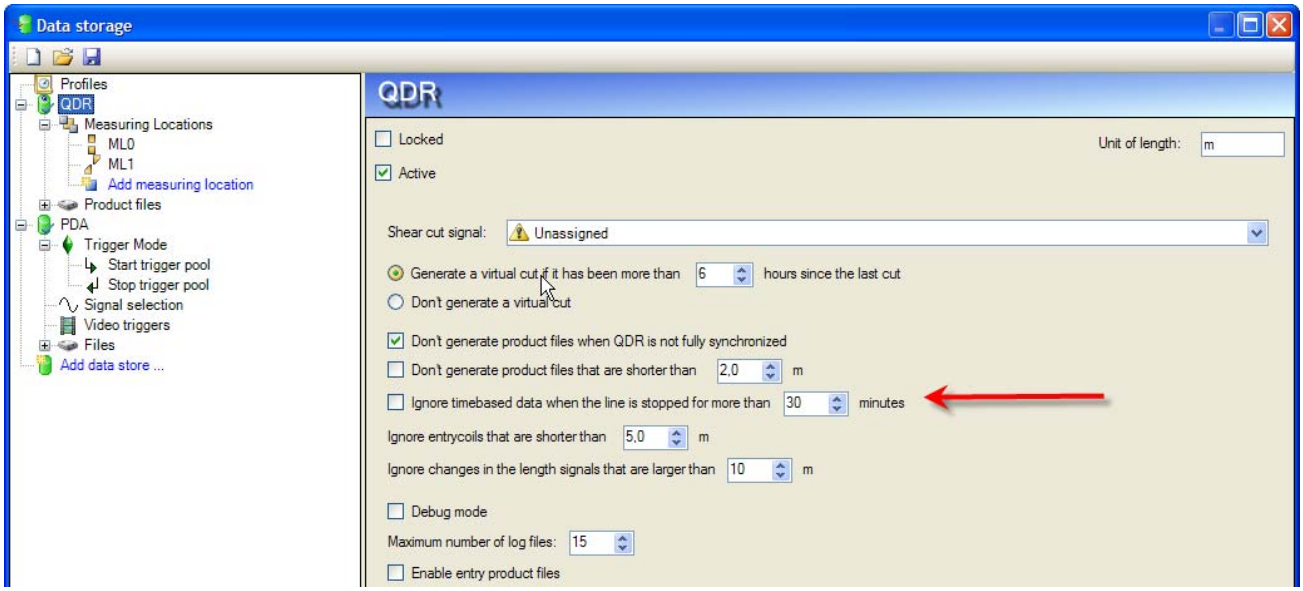


On the Padu-S-IT device you can see the actual configuration and you can see the current values of all the configured signals.

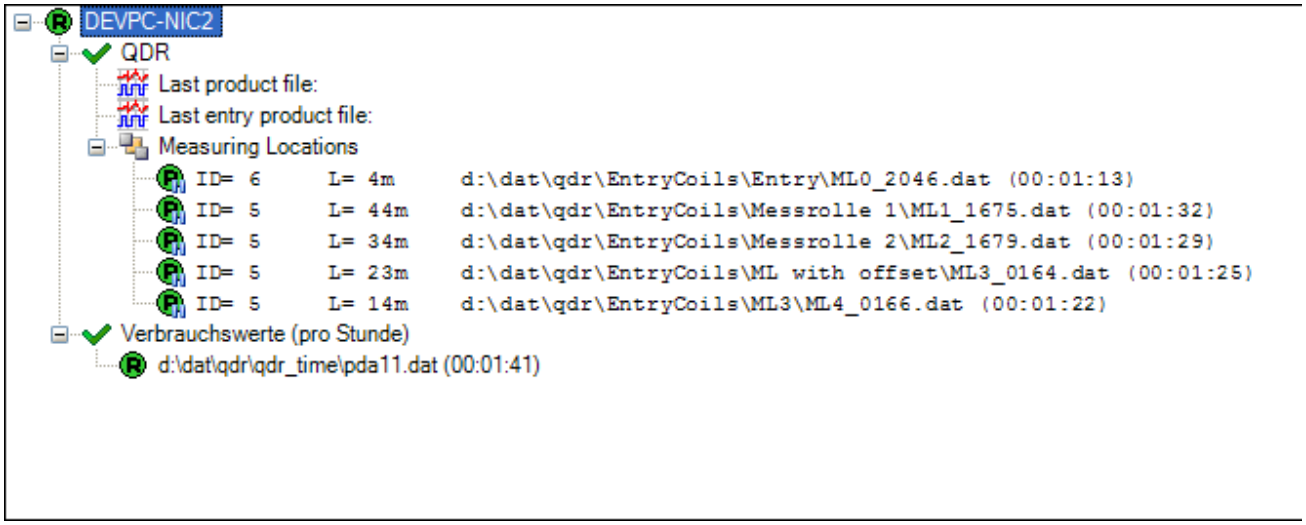


4 QDR supports gaps in timebased data

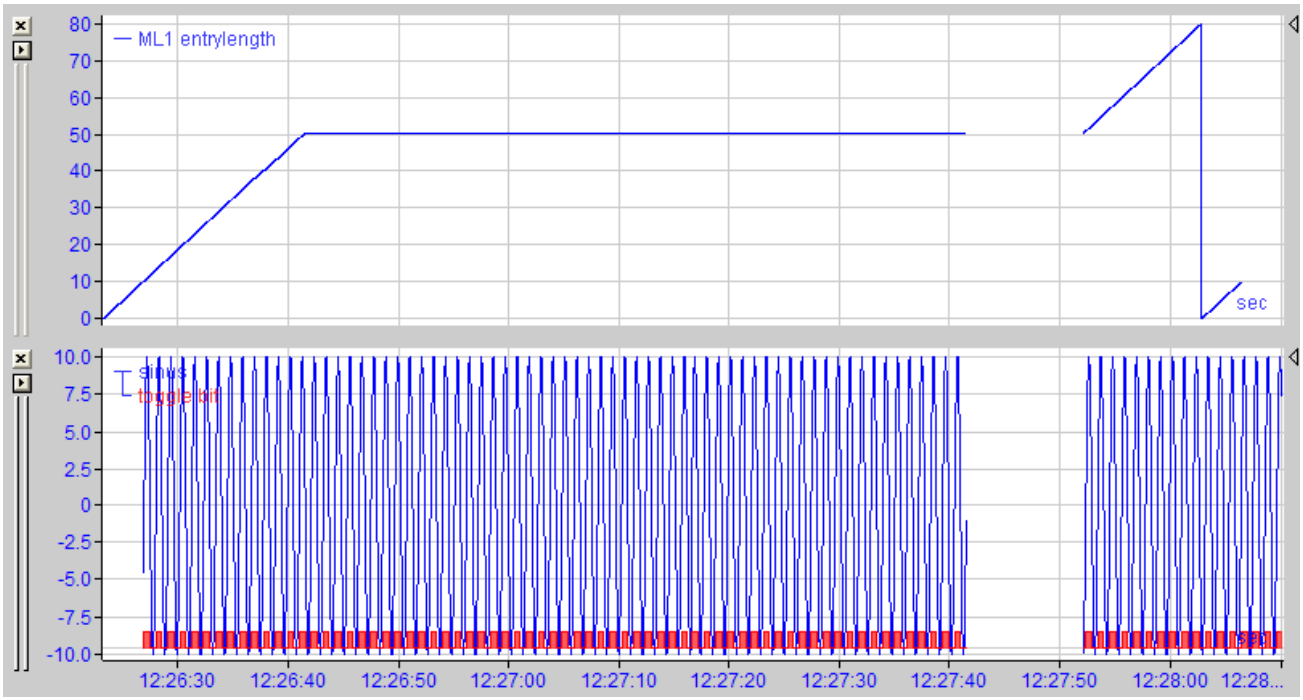
If a processing line is stopped for multiple hours then it can take QDR a long time to produce a product file when the line restarts. This is because there is a lot of timebased data that needs to be processed in the product file. This problem can be fixed by using the virtual cut feature of QDR. Customers that don't want to use the virtual cut because they don't want to generate multiple product files for the same product can now use the new timebased gap feature.



You can configure QDR to stop recording timebased data when the line is stopped for longer than x minutes. A line stop is detected if the length signals of all measuring locations remain constant. When a line stop is detected a message appears in the event log. The datastore status window shows a pause icon when QDR has detected a line stop and is no longer storing the timebased data.



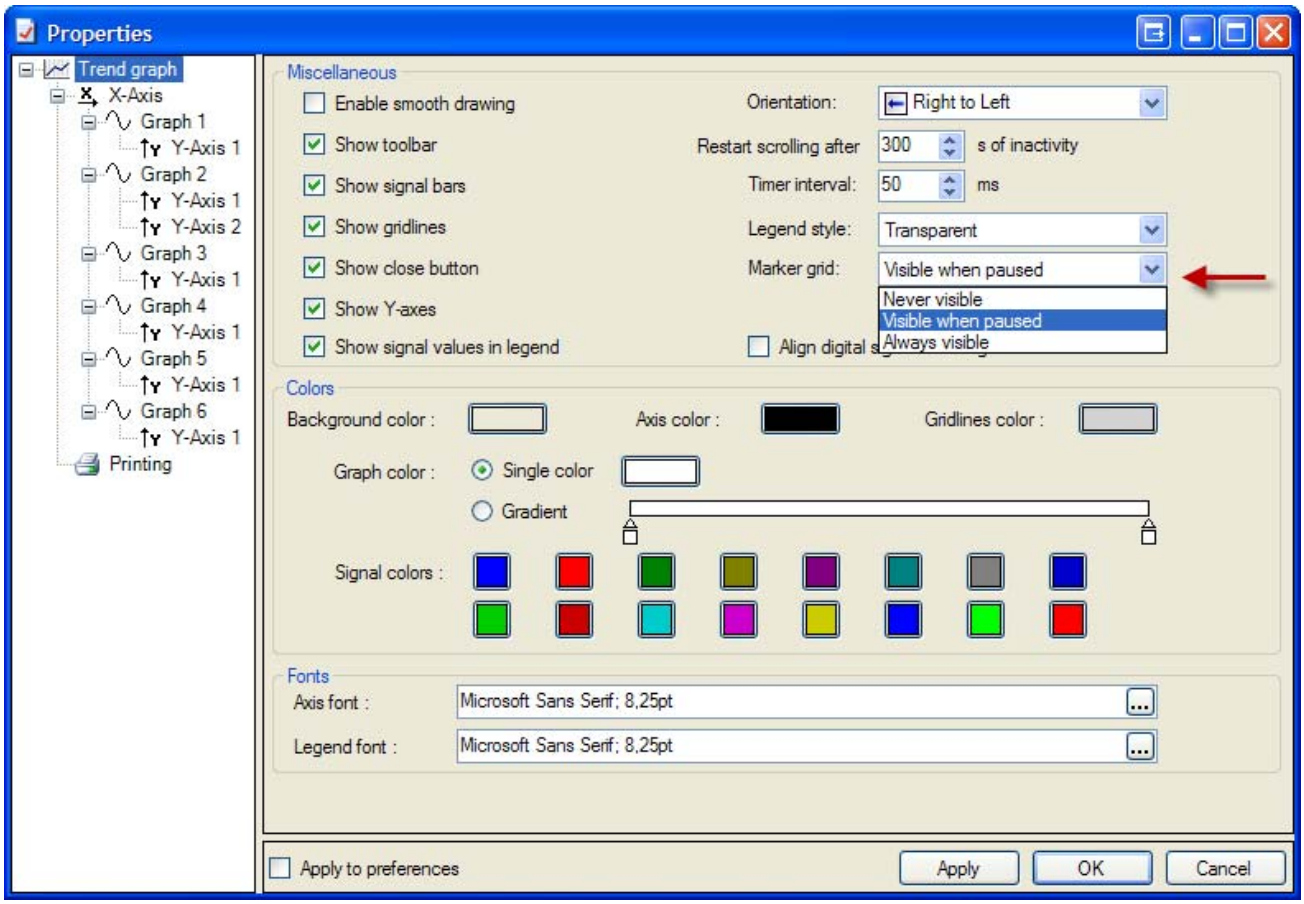
When a length signal of one of the measuring locations is changing then all measuring locations will start recording timebased data again. The following screenshot shows a product file with a gap in ibaAnalyzer.


ML1 entrylength
80
70
60
50
40
30
20
10
0
sec
slows
toggle bit
10.0
7.5
5.0
2.5
0
-2.5
-5.0
-7.5
-10.0
12:26:30
12:26:40
12:26:50
12:27:00
12:27:10
12:27:20
12:27:30
12:27:40
12:27:50
12:28:00
12:28...

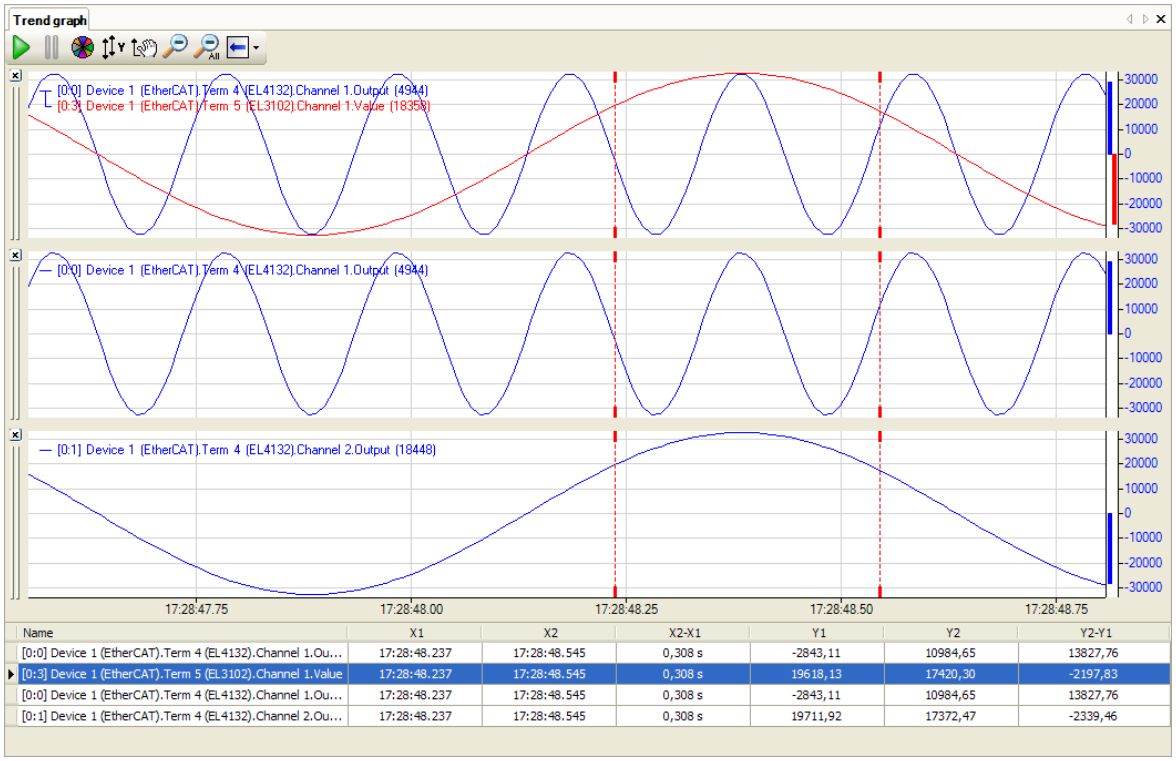
5 Trend graph marker grid

The trend graph in pda can show 2 markers and a marker grid. There are 3 options for the marker grid visibility:

- Never visible
- Visible when paused
- Always visible



By default the visibility is set to visible when paused. The marker grid shows the X-values of the 2 markers and the Y-values of the signals at the markers. The Y-values are interpolated.



The height of the marker grid can be changed by dragging and dropping. If the visibility is set to always and the graph is not paused then the Y1 column shows the latest Y value and the X1 column shows the latest timestamp. All other columns are empty.