

New features in ibaPDA v6.12.0

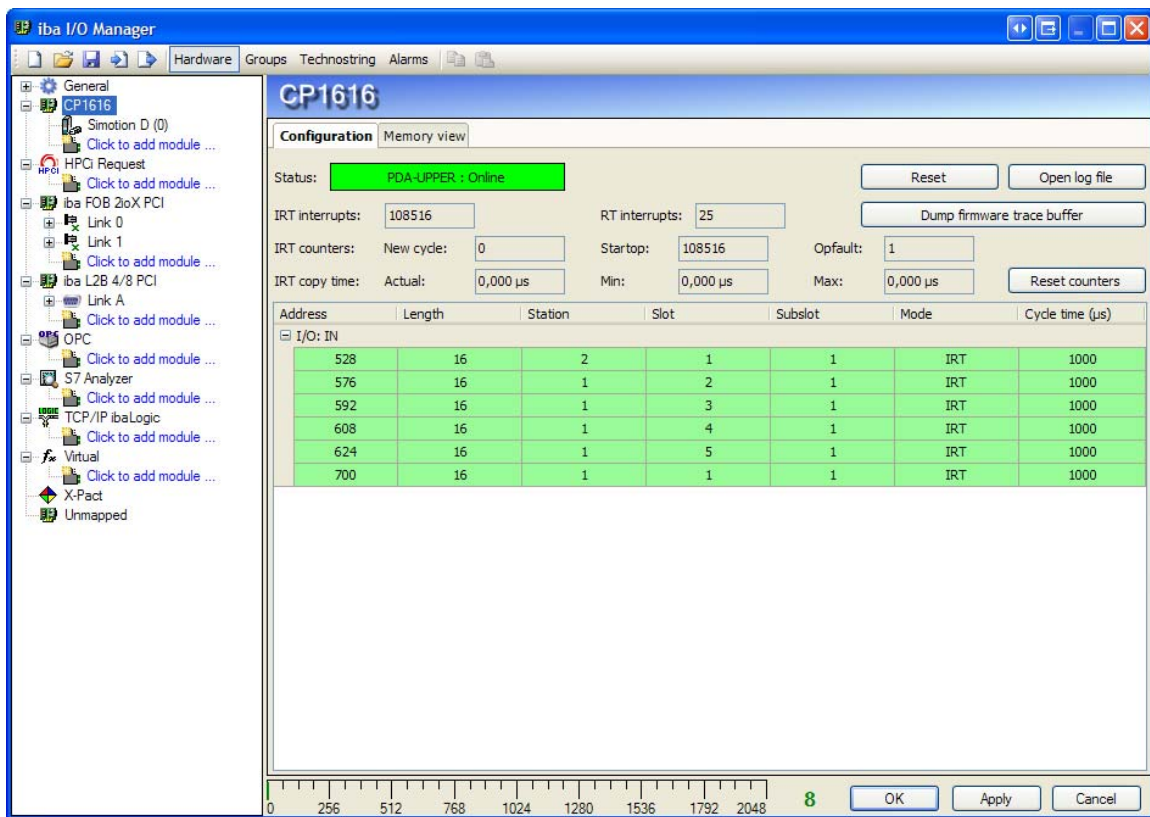
1 X-Pact interface

See the extra manual about X-Pact.

2 Profinet interface

The profinet interface uses the CP1616 board from Siemens. The card is used as a profinet **controller**. ibaPDA only supports IRT controller - controller communication, no RT communication. ibaPDA supports up to 4 CP1616 boards in 1 pc.

2.1 CP1616 interface



The screenshots shows the diagnostics of the CP1616 board. The diagnostics show the current configuration that is loaded on the board via the Siemens NetPro program.

Status: shows the name of the controller and the status of the controller (Online or Offline).

Receiver grid: shows an overview of all the configured receivers on the board. A receiver has a green background if there is a connection. It has a red background if there is no connection.

Interrupt counters: show the number of IRT and RT interrupts

IRT counters: show the number of times newcycle, startup and opfault have occurred

IRT copy time: shows the time it takes to copy the incoming profinet data from the board to the pc memory. The timing is only done when the acquisition is running.

Reset button: resets the board

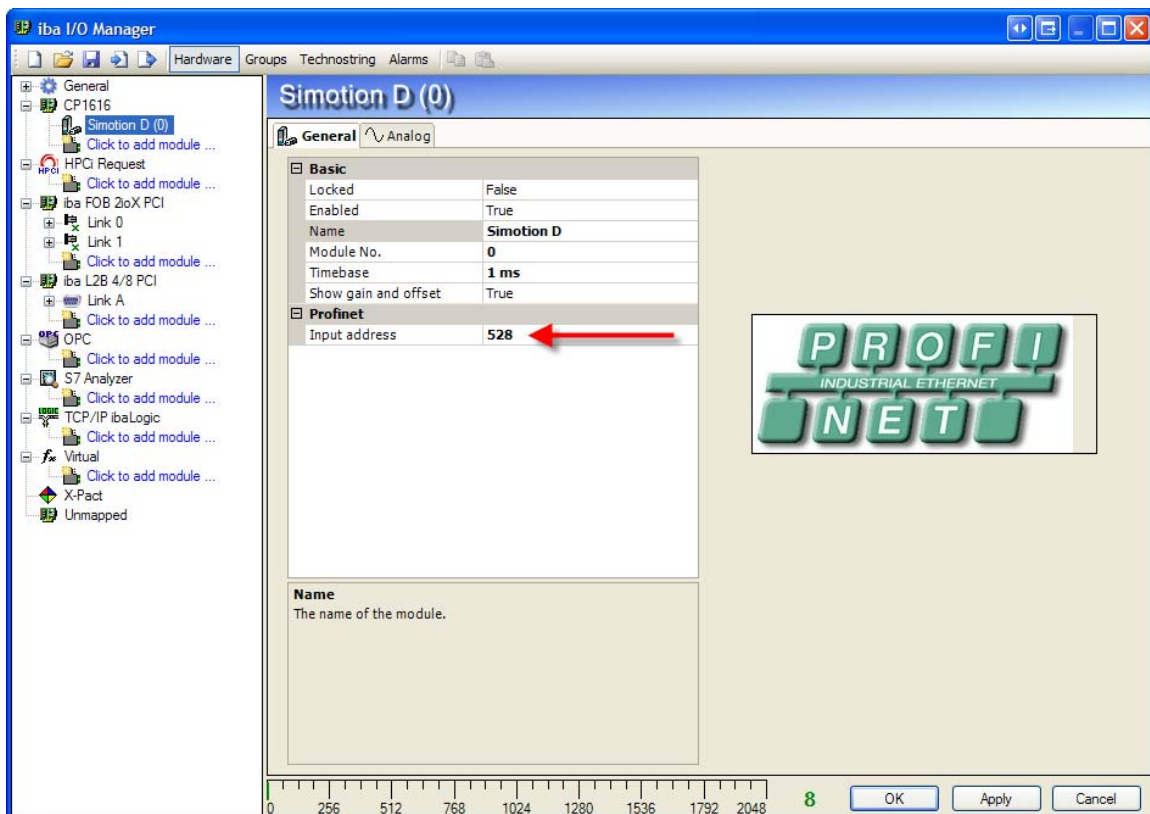
Open log file button: opens the profinet log file.

Dump firmware trace buffer: This buttons writes the firmware trace buffer in a text file. ibaPDA has the ability to detect CP1616 firmware exceptions automatically. When ibaPDA detects such an exception he will dump the firmware trace buffer automatically. ibaPDA will also add an error message to the eventlog.

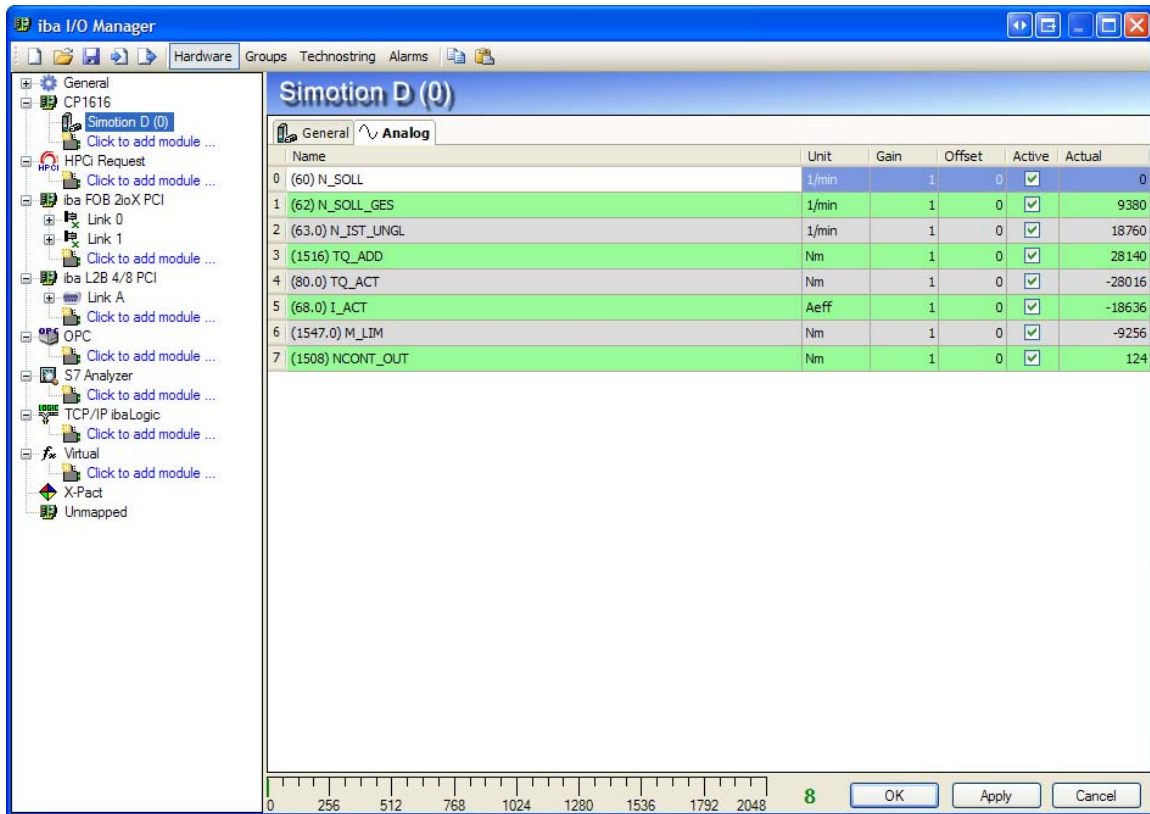
Reset counters button: resets the all the diagnostic counters and copy times

2.2 Simotion D module

The Simotion D module is a profinet module created for 1 drive connected to a Simotion D controller. There can be a maximum of 1024 modules mapped to the CP1616.



On the general tab you have to configure the input address. This input address is the address you configured for the receiver in NetPro. You can also see the address on the receiver grid of the CP1616 interface.



The Simotion D module has 8 analog signals with datatype INT (16 bit signed integer). The signals have a default name, unit and comment. These properties can be changed if the defaults are not correct. The Actual column shows the current value received via Profinet. If the connection is ok then the values have a black color. If the connection is not ok then the values have a red color. If the input address is not available then “Unknown” appears in the actual column.

2.3 Generic profinet controller module

The generic profinet controller module has a variable number of analog and digital signals. The input address and the datatype of each analog signal can be configured. The input address and bit number of each digital signal can be configured.

iba I/O Manager

Hardware Groups Technosting Alarms

General CP1616

Simulation D (0)

Profinet controller (1)

Click to add module ...

HPG Request

Click to add module ...

iba FOB 2toX PCI

Link 0

Click to add module ...

Link 1

Click to add module ...

iba L2B 4/8 PCI

Link A

Click to add module ...

OPC

Click to add module ...

S7 Analyzer

Click to add module ...

TCP/IP ibaLogic

Click to add module ...

Virtual

Click to add module ...

X-Pact

Unmapped

Profinet controller (1)

General Analog Digital

Basic

Locked	False
Enabled	True
Name	Profinet controller
Module No.	1
Timebase	1 ms
Show gain and offset	True

Module Layout

No. analog signals	32
No. digital signals	32

No. analog signals
This is the number of analog signals in this module.

0 256 512 768 1024 1280 1536 1792 2048 72 OK Apply Cancel

iba I/O Manager

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X-Pact

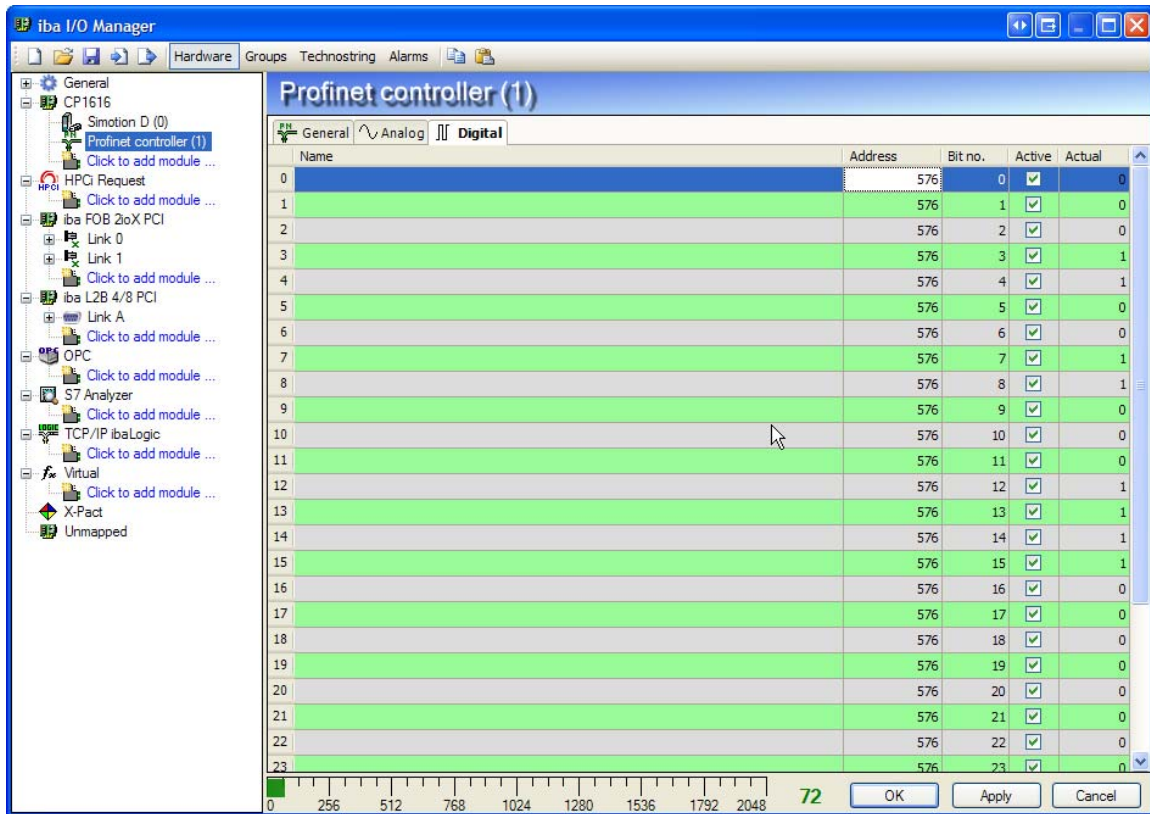
Unmapped

Profinet controller (1)

General Analog Digital

Name	Unit	Gain	Offset	Address	DataType	Active	Actual
0		1	0	544	INT	✓	Unknown
1		1	0	546	INT	✓	Unknown
2		1	0	548	INT	✓	Unknown
3		1	0	550	INT	✓	Unknown
4		1	0	552	INT	✓	Unknown
5		1	0	554	INT	✓	Unknown
6		1	0	556	INT	✓	Unknown
7		1	0	558	INT	✓	Unknown
8		1	0	560	INT	✓	Unknown
9		1	0	562	INT	✓	Unknown
10		1	0	564	INT	✓	Unknown
11		1	0	566	INT	✓	Unknown
12		1	0	568	INT	✓	Unknown
13		1	0	570	INT	✓	Unknown
14		1	0	572	INT	✓	Unknown
15		1	0	574	INT	✓	Unknown
16		1	0	576	INT	✓	0
17		1	0	578	INT	✓	32394
18		1	0	580	BYTE	✓	-748
19		1	0	582	INT	✓	31646
20		1	0	584	WORD	✓	-1496
21		1	0	586	DWORD	✓	30898
22		1	0	588	FLOAT	✓	-2244
23		1	0	590	INT	✓	30150

0 256 512 768 1024 1280 1536 1792 2048 72 OK Apply Cancel



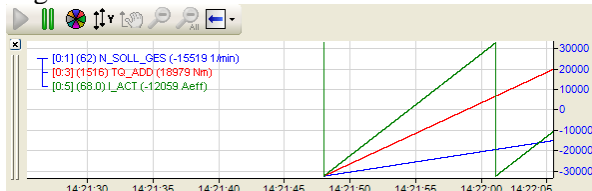
3 Plugin framework for custom views in the client

The graphs component is extracted from the ibapda client code and implemented as a plugin. Tobias has added an oscilloscope component to the graphs plugin. It is not yet decided if the plugin interface will be opened to the public.

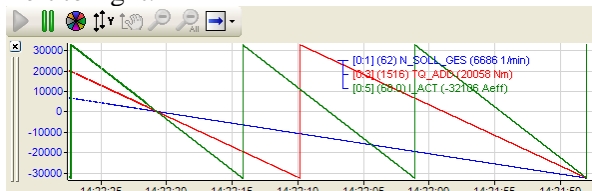
4 Position of legend

The legend in a trend graph is always positioned at the end of the X-axis so that it is always over the oldest data. Check out the screenshots:

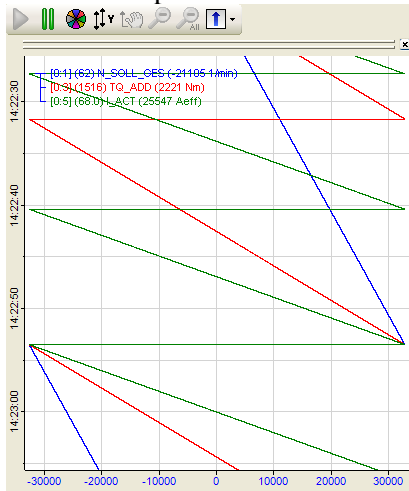
Right to left:



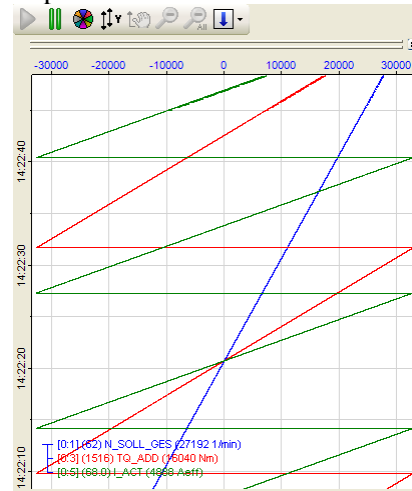
Left to right:



Bottom to top:

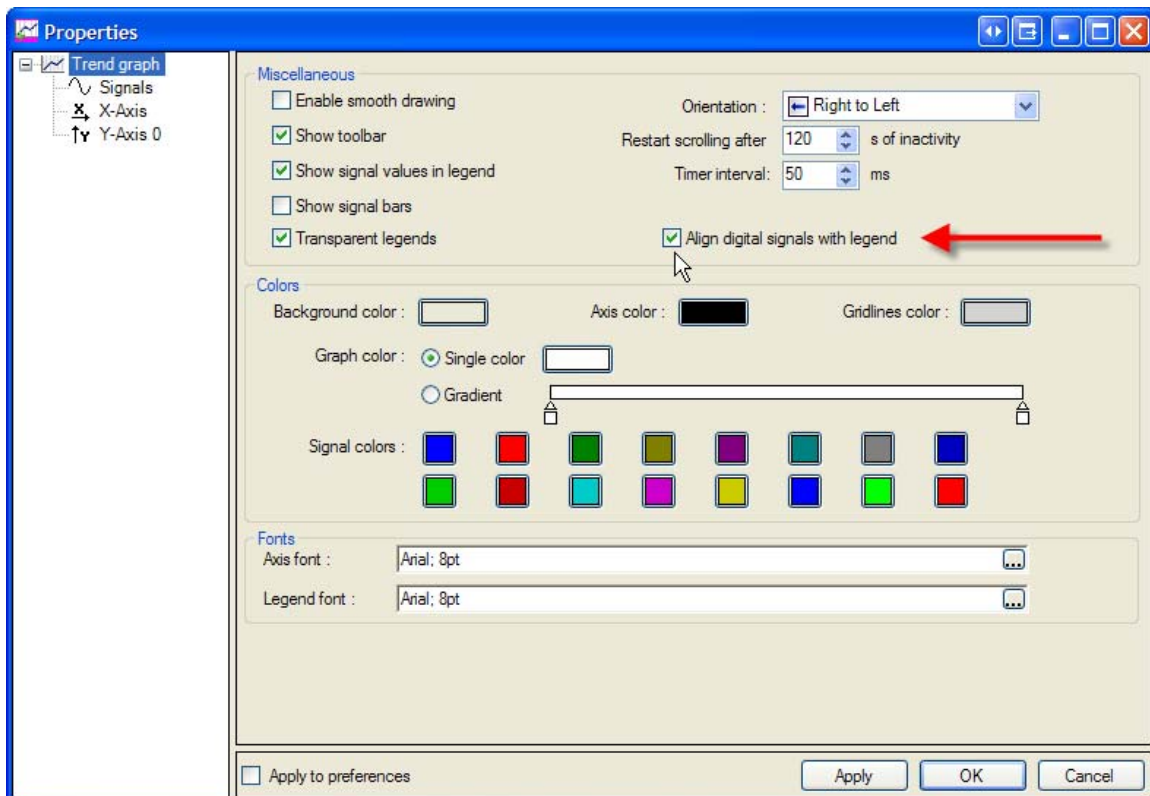


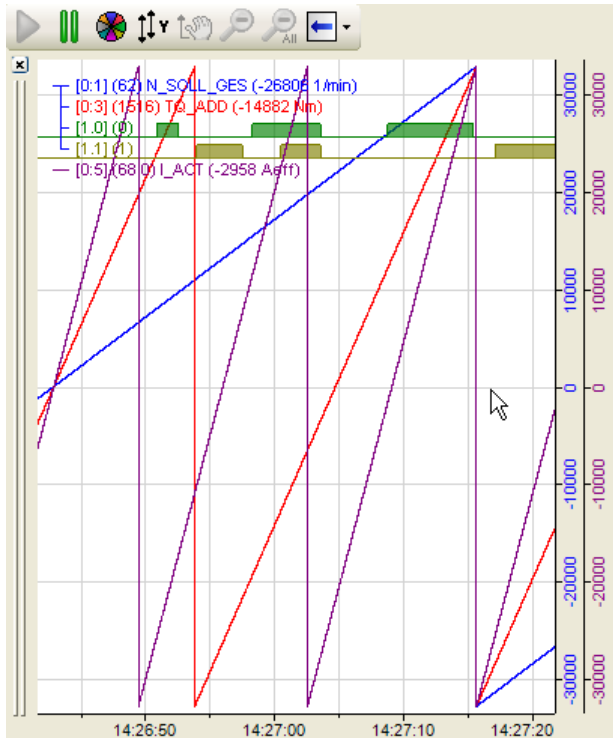
Top to bottom:



5 Digital signals can be aligned with the legend

You can configure that the digital signals are aligned with their entry in the legend like the digitals on top function in ibaAnalyzer.





6 DataStoreInfo

`DataStoreInfo('DatastoreIndex', 'InfoType')`

This function returns information about the selected datastore.

'DatastoreIndex' >= 0 : normal datastore

'DatastoreIndex' < 0 : QDR datastore

The following info types are supported:

0: Recording status:

0=Stopped

1=Waiting for trigger

2=Recording

3=Posttrigger recording

1: Storing to backup directory:

0=Base directory is used

1=Backup directory is used

2: Recorded time in the current file expressed in seconds

3: The free space on the current disk expressed in MB

4: Is QDR synchronized?

0=QDR is NOT synchronized

1=QDR is synchronized

7 Scaling points are saved

The screenshot shows a software interface with a table of scaling points and a dialog box for saving points X1 and X2.

Table:

Name	Unit	Min	Max	Active	Actual
0		-10	10	<input checked="" type="checkbox"/>	0
1			10	<input checked="" type="checkbox"/>	0
2			10	<input checked="" type="checkbox"/>	0
3			10	<input checked="" type="checkbox"/>	0
4			10	<input checked="" type="checkbox"/>	0
5			10	<input checked="" type="checkbox"/>	0
6			10	<input checked="" type="checkbox"/>	0
7		-10	10	<input checked="" type="checkbox"/>	0

Dialog Box:

The dialog box contains a coordinate system with a red line passing through points (x1, y1) and (x2, y2). The input fields are:

- X1: 10
- Y1: 10
- X2: -10
- Y2: -10

Buttons: OK, Cancel

The scaling points X1 and X2 are saved.