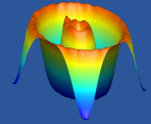
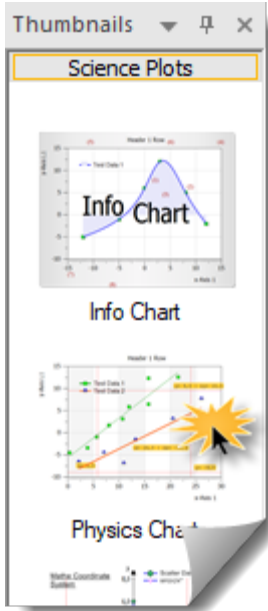


Info to SimplexNumerica

Import Data and spread it on Multiple Axes



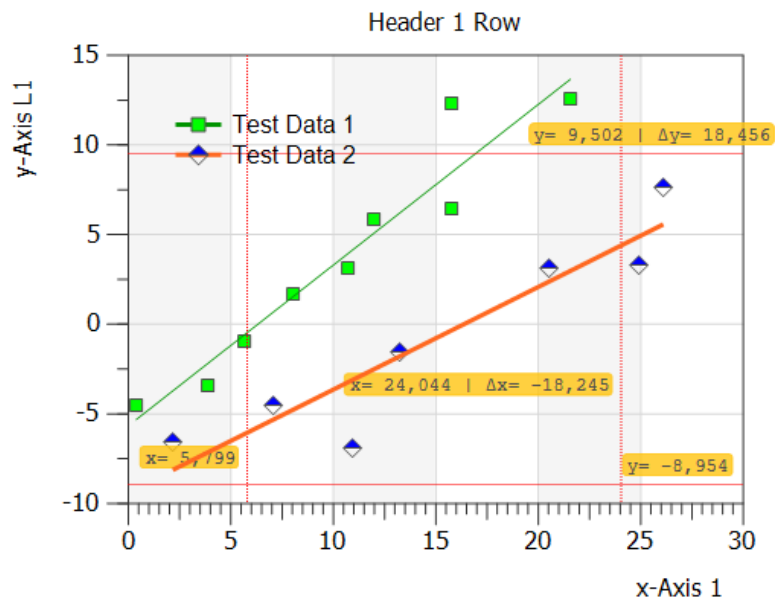
To spread data on Multiple Axes, first, we need a chart, e.g. from the Thumbnail Window:



Create a new chart - a so called *Cartesian Coordinate System* - by clicking on the *Physics Chart* thumbnail icon - shown on the left picture.

→ Physics Chart

Now, the physics chart should look like this (with dummy data) in the evaluation Graphics window:



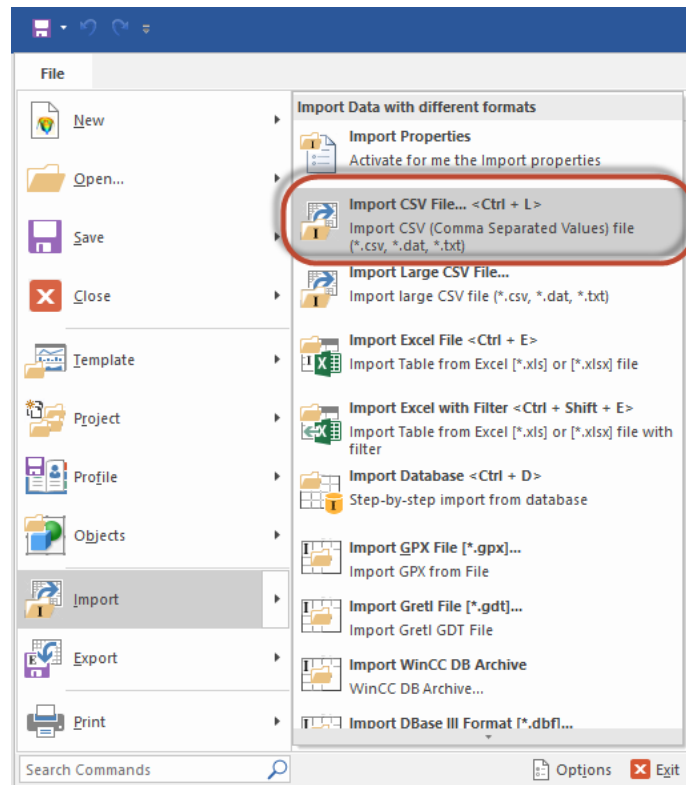
Next, we want to import any sample data. Here, we are looking into the sample folder that comes with the program installation. You can find this folder e.g. here:

```
x:\Documents\SimplexNumerica\Sample Data
```

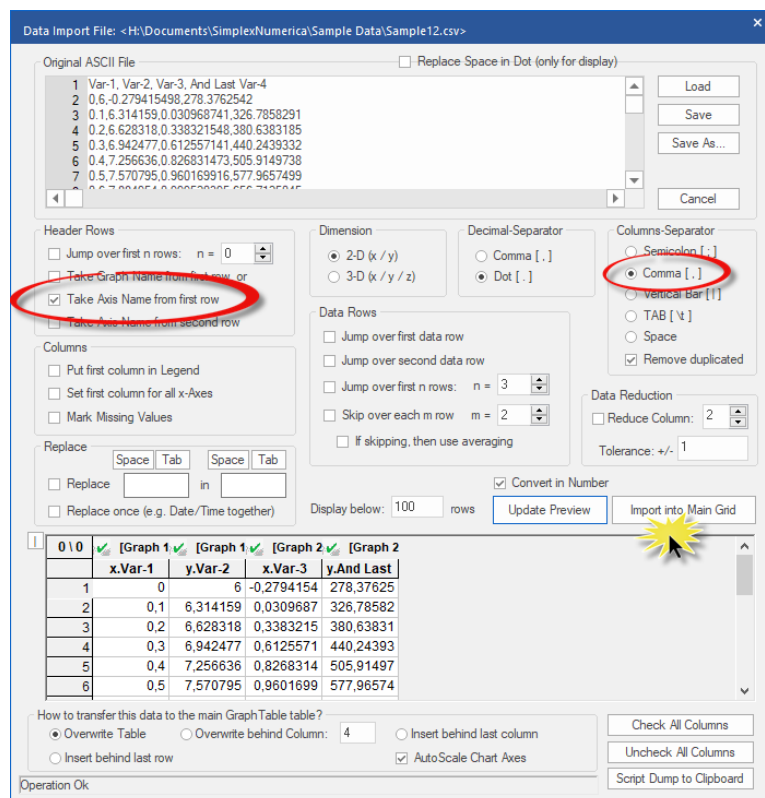
Inside the folder, let's use the file 'Sample12.csv' for this example.

Next, please call the import CSV dialog from the Ribbonbar File:

Import Data spread on Multiple Axes

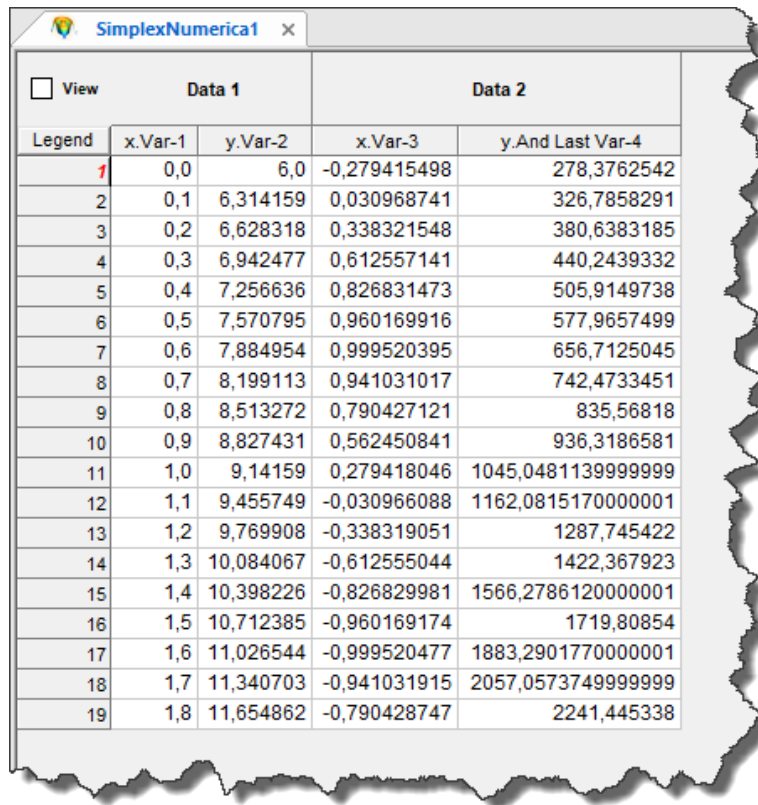


...or just use the key combination <Ctrl + L>. The program switches to the *GraphTable* associated with the chart: The data import dialog appears. Set it up like this:



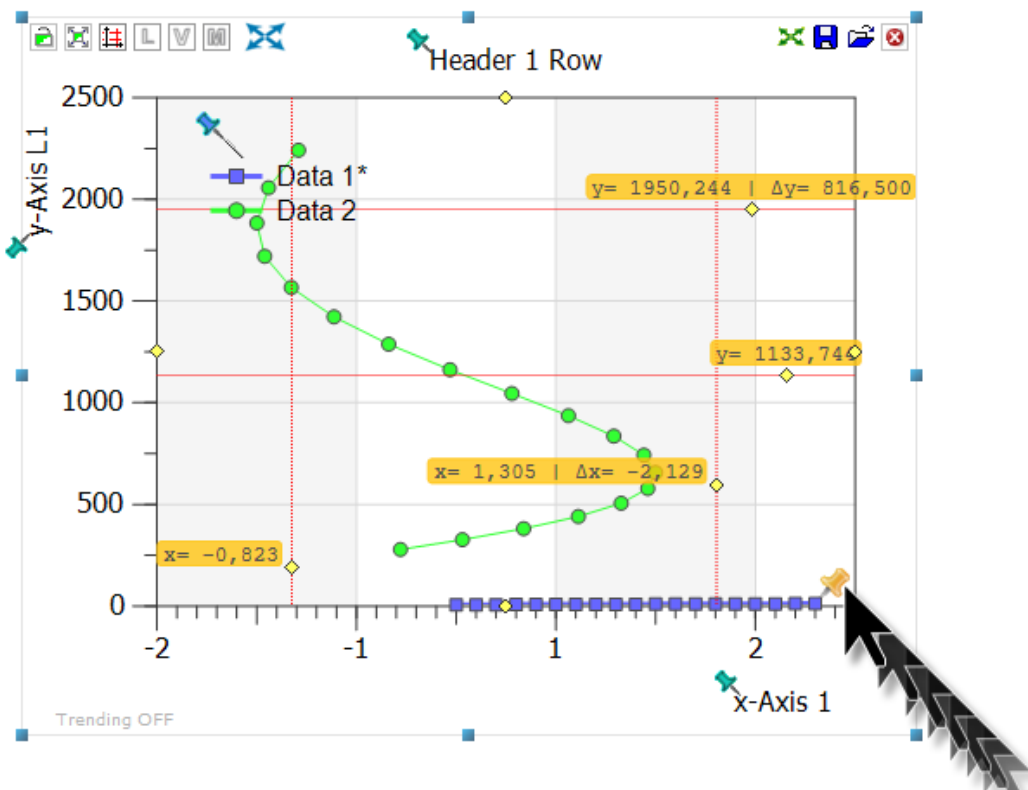
After setting the correct parameters and pressing the *Import into Main Grid* button, the data appears in the so-called *GraphTable*:

Import Data spread on Multiple Axes



View	Data 1		Data 2	
Legend	x.Var-1	y.Var-2	x.Var-3	y.And Last Var-4
1	0,0	6,0	-0,279415498	278,3762542
2	0,1	6,314159	0,030968741	326,7858291
3	0,2	6,628318	0,338321548	380,6383185
4	0,3	6,942477	0,612557141	440,2439332
5	0,4	7,256636	0,826831473	505,9149738
6	0,5	7,570795	0,960169916	577,9657499
7	0,6	7,884954	0,999520395	656,7125045
8	0,7	8,199113	0,941031017	742,4733451
9	0,8	8,513272	0,790427121	835,56818
10	0,9	8,827431	0,562450841	936,3186581
11	1,0	9,14159	0,279418046	1045,0481139999999
12	1,1	9,455749	-0,030966088	1162,0815170000001
13	1,2	9,769908	-0,338319051	1287,745422
14	1,3	10,084067	-0,612555044	1422,367923
15	1,4	10,398226	-0,826829981	1566,2786120000001
16	1,5	10,712385	-0,960169174	1719,80854
17	1,6	11,026544	-0,999520477	1883,2901770000001
18	1,7	11,340703	-0,941031915	2057,0573749999999
19	1,8	11,654862	-0,790428747	2241,445338

Now switch to the Graphics window e.g. with the <F3> key and you will get this:

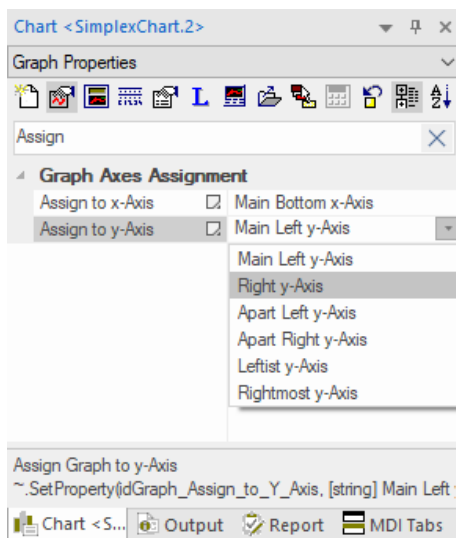
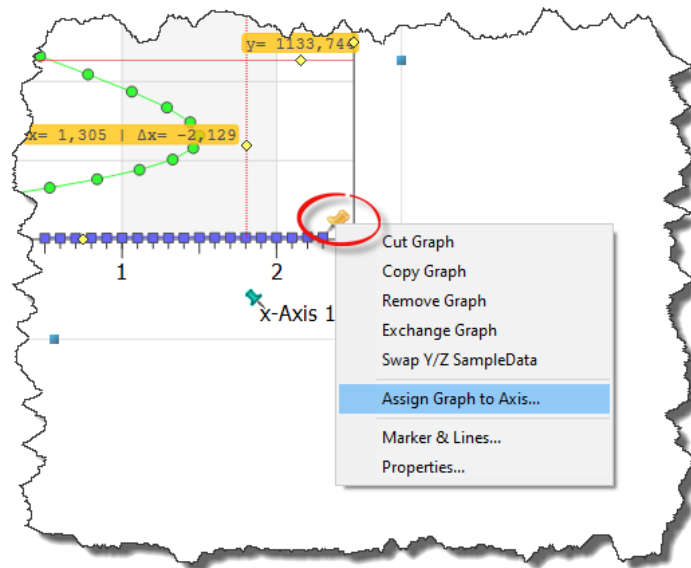


Yes, the blue graph seems to be wrong scaled. But the green graph matched the area of the chart right. To solve that, we should scale the blue markers (graph) by another y-Axis!

There are diverse methods to assign an axis to a graph. Let's start with the simplest method...

Import Data spread on Multiple Axes

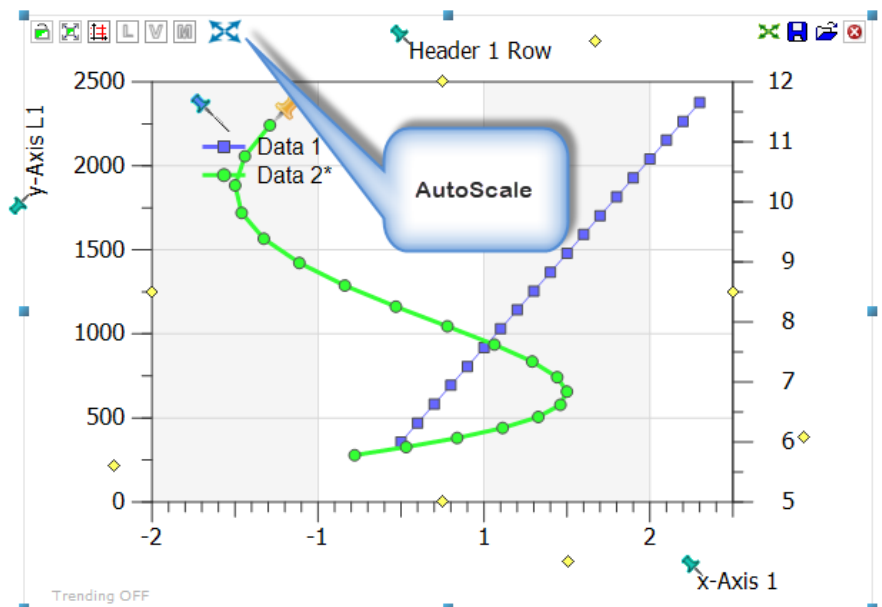
Method 1



Use the left mouse button to click on the yellow pin from the blue graph and select the menu point *Assign Graph to Axis...*

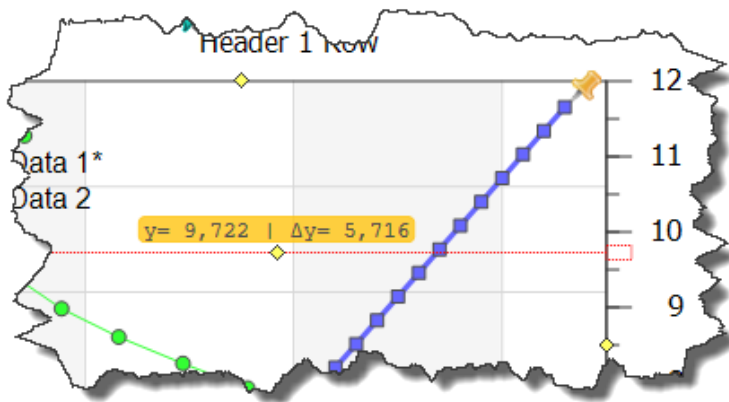
Then assign in the *Graph Properties* the y-Axis of the blue graph to the *Right y-Axis*.

Afterwards, press the *AutoScale* button on the chart.



Import Data spread on Multiple Axes

When you use the cursors, then the assigned axes can be identified by a rectangle cap of the red cursor line(s).



Method 2

Rows = 19 (Data 1)

Charts

- SimplexChart.2
 - Graphs
 - Data 1
 - Data 2
 - Labels
 - Legend
 - Header 1
 - X Axis 1
 - Y Axis L1
 - Axes
 - Shape

Chart <SimplexChart.2>

Graph Properties

Search

Curve Fill Opacity 200

Bar Chart for this Graph

- Show Bar Chart Off
- Use Auto Multi Col... Off
- Front Color 6694B3
- Width 30
- Types None

Graph Axes Assignment

- Assign to x-Axis Main Bottom x-Axis
- Assign to y-Axis Right y-Axis

Graph Labels

- Plus X Decimal Pla... 0
- Plus Y Decimal Pla... 0

Graph Axes Names & Units

- x-Axis x.Var-1, -
- y-Axis y.Var-2, -
- z-Axis -, -

Chart <S... Output Report MDI Tabs

Page 1/1 CAP NUM SCRL ..:

The next method is similar to Method 1.

To assign a Graph to x/y-Axes, you can always use the *Chart Explorer* by clicking on the Graph Name in the rubric *Graphs*. Then change the *Graph Axes Assignment* in the associated *Graph Properties*.

Graph Axes Assignment

- Assign to x-Axis Underlying Bottom x-Axis
- Assign to y-Axis Leftist y-Axis

Graph Labels

- Main Left y-Axis
- Right y-Axis
- Apart Left y-Axis
- Apart Right y-Axis

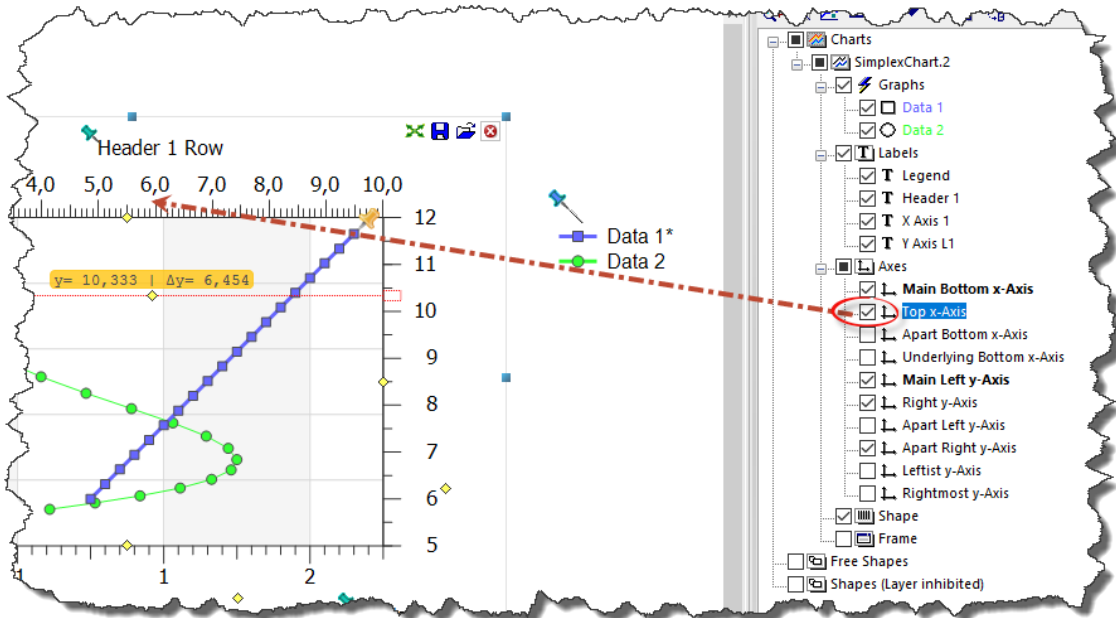
Graph Axes Names &

- Leftist y-Axis
- Rightmost y-Axis
-

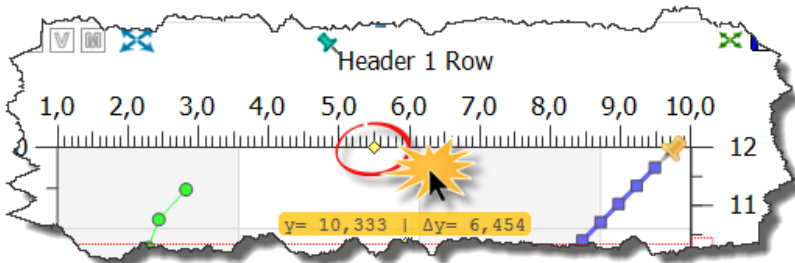
Import Data spread on Multiple Axes

Method 3

Instead to assign a graph to an axis, now we want to assign an axis to a graph! Again, the blue graph, but this time the x-Axis should be scaled from 0 to 3 on the top axis (see 'Top x-Axis' in the *Chart Explorer*).




Use the *Chart Explorer* to checkmark the 'Top x-Axis' axis name. The axis will be displayed, too.



Click here on the top yellow marker...

...and the top axis properties will be selected by the program, automatically.

Here, in the properties, press the button *Assign Graphs*  and the following dialog box appears:

The screenshot shows the 'Chart <SimplexChart.2>' properties window. The 'Top x-Axis Interval' section is highlighted with a red box. The 'Assign Graphs' button is visible in this section.

Property	Value
x-Axis Format	<input type="checkbox"/> Normal
Add Unit Text	<input type="checkbox"/>
AutoScale	<input type="checkbox"/> AutoScale the Axes
Assign Graphs	<input type="checkbox"/> Assign Graphs to this axis
Xmin Axis	<input type="checkbox"/> 1,0000
Xmax-Axis	<input type="checkbox"/> 10,0000
Sub AutoScale	<input type="checkbox"/> Automatic
Division dx	<input type="checkbox"/> 1,0000
Decimal Places	<input type="checkbox"/> 1

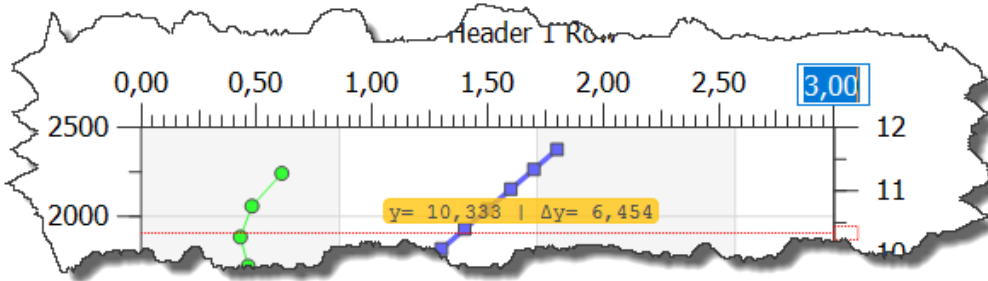
The dialog box 'Assign Graphs to this Axis' shows a list of graphs. 'Data 1' is checked, and 'Data 2' is unchecked.

Graph	Selected
(Select All)	<input type="checkbox"/>
Data 1	<input checked="" type="checkbox"/>
Data 2	<input type="checkbox"/>

Import Data spread on Multiple Axes

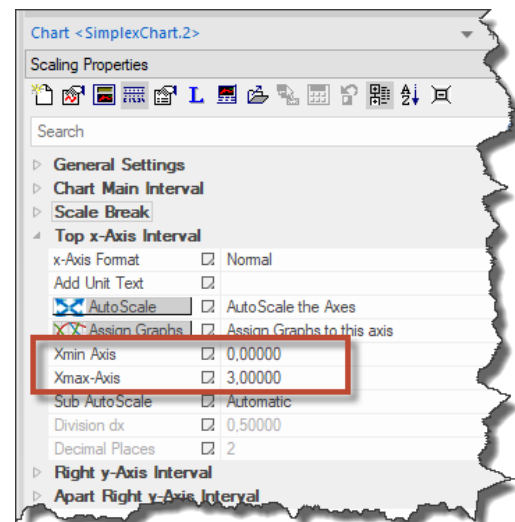
Select the blue graph named **Data 1** (see Chart Explorer). In general, this assigns a graph to an axis – or vice versa as demonstrated here in this example.

To scale the top axis from 0 to 3, you can double-click on the min/max values:

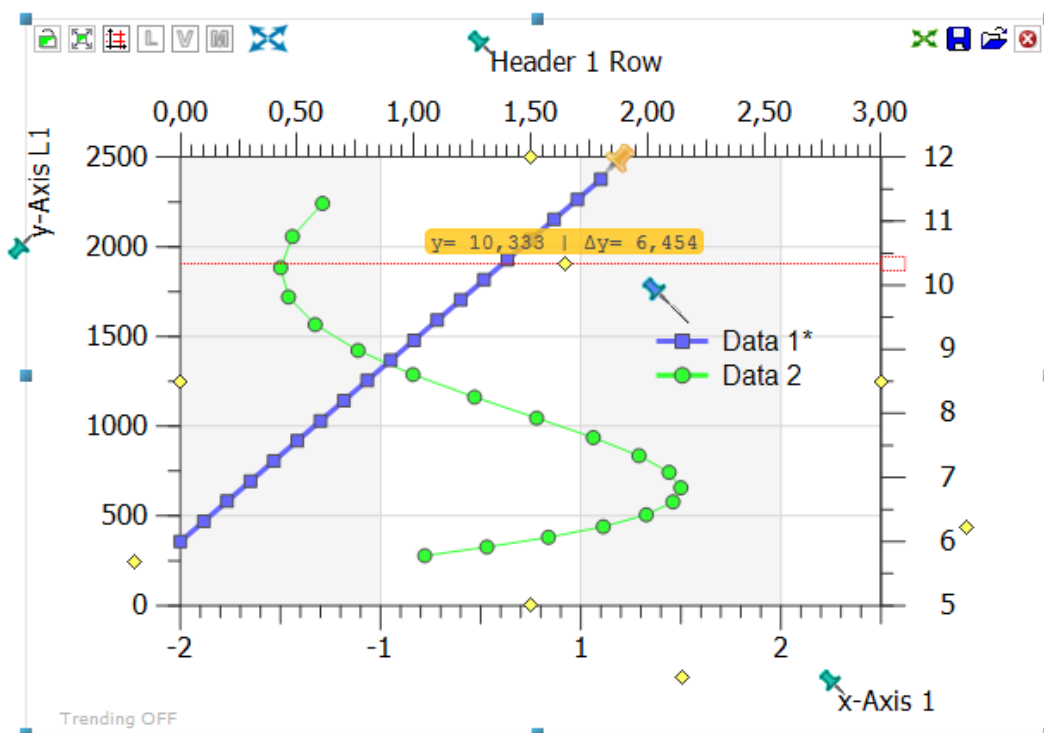


or

use the *Scaling Properties* again:



See the result plot:



Import Data spread on Multiple Axes

Thumbnails with Multiple Axes

To find more examples, please have a look to the *Thumbnail Window* or the folder **Examples**.

Thumbnails ▼ 🔍 ✕

Science Plots



Trending

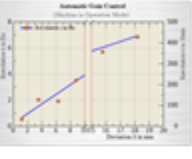
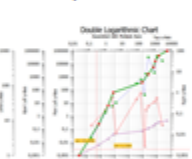


Chart in a Box



Multiple Axes



Log Multiple Axes



Smith Diagram



- 2D Line Charts
- 2D Bar Charts
- 2D Business
- 3D Business
- Polar Charts
- Pie Charts
- Contour Plots
- Surface Plots
- Meter Charts
- Misc. Charts
- User Evaluations

