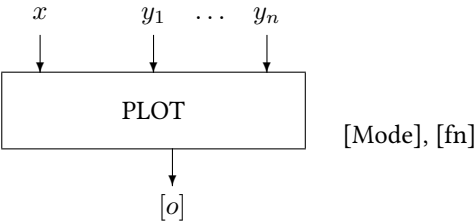


Block PLOT

The PLOT block generates graphical output of its connected input data via gnuplot.



Name	PLOT
Function	fb0044
Inputs	2...[20]
Outputs	0...[1]
Parameters	0
Strings	0...[1]
Group	S

Inputs

- 1 Any signal x
- 2 Any signal y_1
- n Any signal y_{n-1}

Outputs

- 1 User defined block number (if available)

Parameters

None

Strings

- 1 File name fn of a gnuplot command file. If no file name is provided, a default file `insel.gnu` is generated with default gnuplot commands.

Description The **PLOT** block uses the open-source software gnuplot to generate graphical output of x - y data. As long as a model is executed the block collects all connected data and writes them to a temporary file named `insel.gpl` (gnuplot data).

Many parameters can be set in the graphical interface, e.g. title, labels, ranges, units, axis (y_1 or y_2), colors. By default, the plot will be displayed in a window, but it can also be exported to PNG, PDF, SVG,

Once the plot is displayed, it is possible to zoom and pan with arrows, mouse or + - keys. The window can be closed with the mouse or by pressing q.

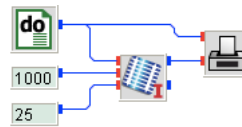
According to the Gnuplot documentation, here are the available commands:

<B1>	doubleclick	send mouse coordinates to clipboard (pm win wxt x11)
<B2>		annotate the graph using 'mouseformat' (see keys '1', '2') or draw labels if 'set mouse labels is on'
<Ctrl-B2>		remove label close to pointer if 'set mouse labels' is on
<B3>		mark zoom region (only for 2d-plots and maps)
<B1-Motion>		change view (rotation); use <Ctrl> to rotate the axes only
<B2-Motion>		change view (scaling); use <Ctrl> to scale the axes only
<Shift-B2-Motion>		vertical motion -- change xyplane
<B3-Motion>		change view (azimuth)
<wheel-up>		scroll up (in +Y direction)
<wheel-down>		scroll down
<shift-wheel-up>		scroll left (in -X direction)
<shift-wheel-down>		scroll right
<Control-WheelUp>		zoom in on mouse position
<Control-WheelDown>		zoom out on mouse position
<Shift-Control-WheelUp>		pinch on x
<Shift-Control-WheelDown>		expand on x
q		* close this plot window
a		'builtin-autoscale' (set autoscale keepfix; replot)
b		'builtin-toggle-border'
e		'builtin-replot'
g		'builtin-toggle-grid'
h		'builtin-help'
i		'builtin-invert-plot-visibility'
l		'builtin-toggle-log' y logscale for plots, z and cb for splots
L		'builtin-nearest-log' toggle logscale of axis nearest cursor
m		'builtin-toggle-mouse'
r		'builtin-toggle-ruler'
V		'builtin-set-plots-invisible'
v		'builtin-set-plots-visible'
1		'builtin-previous-mouse-format'
2		'builtin-next-mouse-format'
5		'builtin-toggle-polar-distance'
6		'builtin-toggle-verbose'
7		'builtin-toggle-ratio'
n		'builtin-zoom-next' go to next zoom in the zoom stack
p		'builtin-zoom-previous' go to previous zoom in the zoom stack
u		'builtin-unzoom'

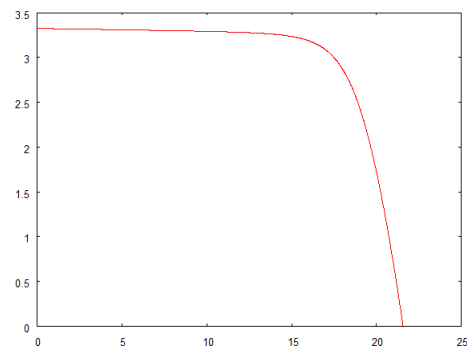
+	'builtin-zoom-in' zoom in
=	'builtin-zoom-in' zoom in
-	'builtin-zoom-out' zoom out
Right	'scroll right in 2d, rotate right in 3d'; <Shift> faster
Up	'scroll up in 2d, rotate up in 3d'; <Shift> faster
Left	'scroll left in 2d, rotate left in 3d'; <Shift> faster
Down	'scroll down in 2d, rotate down in 3d'; <Shift> faster
<	'rotate azimuth left in 3d'; <ctrl> faster
>	'rotate azimuth right in 3d'; <ctrl> faster
Escape	'builtin-cancel-zoom' cancel zoom region

Limitations Only one **PLOT** or **PLOTP** block can be used per INSEL model.

plot.vseit



A **DO** block varies the voltage of a PV module between 0 and 25 Volt in steps of 0.01 Volt. Two **CONST** blocks provide solar radiation of 1000 Watt per square meter and a module temperature of 25 degrees Celsius, i. e., Standard Test Conditions. A **PVI** block calculates the module current. Finally, the **PLOT** block displays the I - V characteristic on screen.



See also Block **PLOTP**.