



### 13 PLOT CONFIGURATION

SeisPos supports saved configuration and automatic printing of all available plots which can be seen in the Precondition and Quality Control modules. From the main menu select *Report | Configure/Print Plots*.

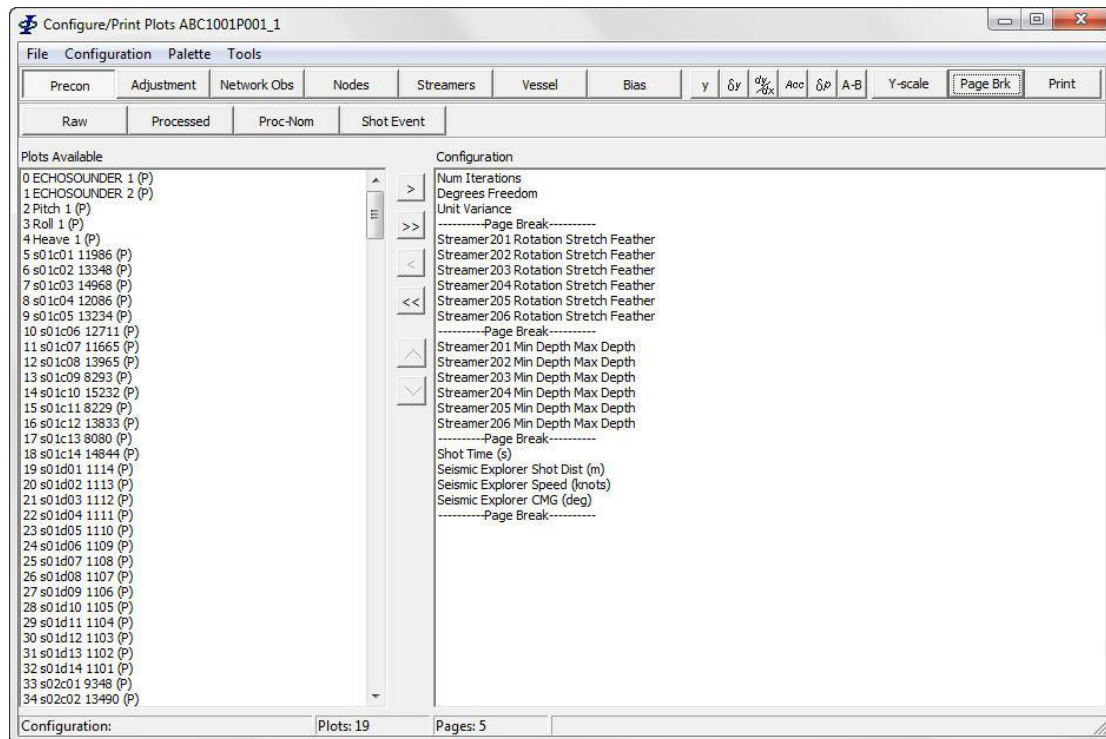


Figure 13-1

Plots are classified by *Group* and *Series*, and can be modified according to *Type*.

**Note:** Saved plot configurations apply to all lines in the project with the same number and ordering of nodes and observations. If the node or observation numbers change a new configuration will be required.



### 13.1 Groups and Series

Plot groups and the series available for each group are given in the table below:

Group	Series
Precon	Raw (time domain) Processed (time domain) Processed minus Nominal Shot Event (shot domain)
Adjustment*	Number of iterations Degrees of freedom Unit variance
Network Observations	Value Residual W Statistic (normalised residual) MDE (marginally detectable error) SD (a priori standard deviation)
Nodes	Across (distance across from pre-plot) Along (distance along from start of line) Easting Northing Position (only used for comparisons) SMA (semi-major axis 95% ellipse) External reliability Number of observations to/from a node
Streamers	Rotation Stretch Feather Mean depth Min depth Max depth
Vessel*	Shot time interval Inter-shot distance – grid or ellipsoid Speed – grid or ellipsoid CMG (course made good) – grid or ellipsoid
Bias	Compass bias

\* With the exception of the *Adjustment* and *Vessel* groups, all the series for each plot are overlaid. For the *Adjustment* and *Vessel* groups the associated series are plotted as separate plots and are not strictly series in the true sense.



## 13.2 Creating/Modifying and Printing a Configuration

When any of the group buttons (see Figure 13-1) are clicked the series toolbar for that group appears, and the *Plots Available* list shows all plots that are available in that group.

The current configuration is shown in the *Configuration* list.

To add to the configuration:

1. Click on the required group button.
2. Select the required plots from the *Available* list. Multiple selections can be made by using the *Ctrl* and *Shift* keys in the usual manner.
3. Click on the *>* button to add the selected plots, or the *>>* button to add all plots in the group.
4. For all groups except *Adjustment* and *Vessel*, select the plots in the *Configuration* list and click on the required series button. The series name will be added to the plot name.

### 13.2.1 Series

Each plot can be configured to overlay multiple series. Highlight the required plots in the *Configuration* list and click in turn on each of the required series. Each time a series button is clicked that series will be toggled on or off for all the selected plots for which those series apply. The plot name in the *Configuration* list will be modified accordingly.

### 13.2.2 Types

Each plot can be configured to plot one of the following plot *Types* as indicated in the *Type* toolbar in Figure 13-1:

<i>y</i> :	Normal plot
$\delta y$ :	Delta plot – point to point difference
$dy/dx$ :	Rate of change plot
<i>Acc</i> :	Acceleration plot
$\delta p$ :	Polynomial delta plot – difference from least squares polynomial of specifiable order from 1 to 25 fitted through all good points.
<i>A-B</i> :	Comparison plot

To modify the plot *Type* highlight the required plots in the *Configuration* list and click on the appropriate *Type* button. The plot name(s) will be modified accordingly. Rate of change and delta plots are mutually exclusive but comparisons can be done with all plot *Types*.

To specify a plots highlight the required plots in the *Configuration* list. With the *A-B* button depressed select the required comparison plot in the *Available* list. Both plots must be of the same *Group*. The plot name(s) will be modified accordingly.

Click on the *y* button to reset selected plots to normal and no comparison.

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### 13.2.3 Y-Scale

Click on the *Y-scale* button to modify the Y-axis scaling for the highlighted plots in the configuration. Four options are available as shown in Figure 13-2:

- Auto:** This is the default mode – plots will be scaled by the maximum and minimum data values.
- Absolute Max/Min:** Enter the *maximum* and *minimum* values for the Y-axis.
- Mean  $\pm$  Value:** The Y-axis maximum and minimum values will be the mean data value plus and minus the entered *value*.
- Nominal  $\pm$  Value:** The Y-axis maximum and minimum values will be the entered *nominal* plus and minus the entered *value*. In the case of *Precondition* data the *nominal* is taken from the observation database and any entered *nominal* will have no effect. The nominal value will be plotted in red.
- Node Crossline Offset:** The entered value will be added to the data prior to plotting. This option is enabled only for data group *NODES*, series *Across*, plot type *Normal*.

If multiple plots are selected the dialog options and fields will be those of the *last* plot of the selection. On clicking *Ok* the scaling parameters will be applied to *all* plots in the selection.

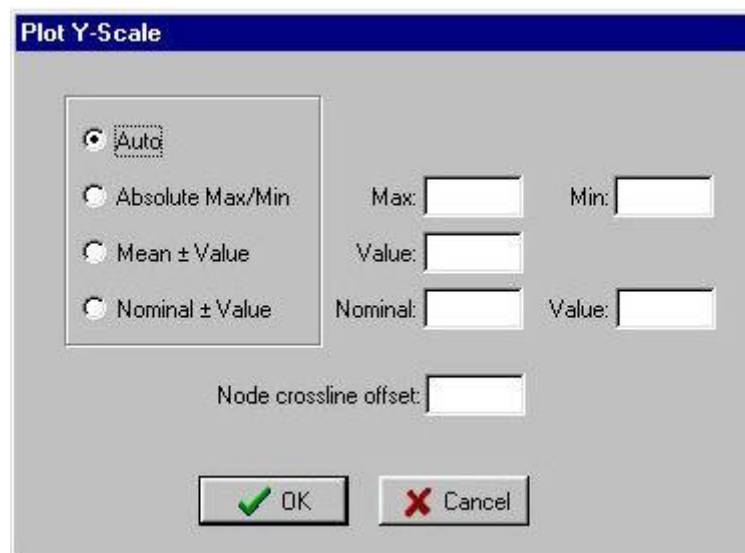


Figure 13-2

### 13.2.4 Page Setup

Select *File | Page Setup* from the menu to display the page setup dialogue box. Specify the orientation, number of rows and number of columns, and click on the *OK* button. The status bar at the bottom of the plot configuration window will indicate the number of pages which will be printed.



### 13.2.5 Page Breaks

To insert a manual page break to the configuration highlight the plot in the *Configuration* list before which the page break is to be inserted and click on the *Page Break* button.

### 13.2.6 Saving/Loading a Configuration

To save the current configuration as appears in the *Configuration* list, select *Configuration | Save* from the menu to display the File Save dialogue box. Enter an appropriate name and click on *Save*. The current page setup is also saved with the configuration.

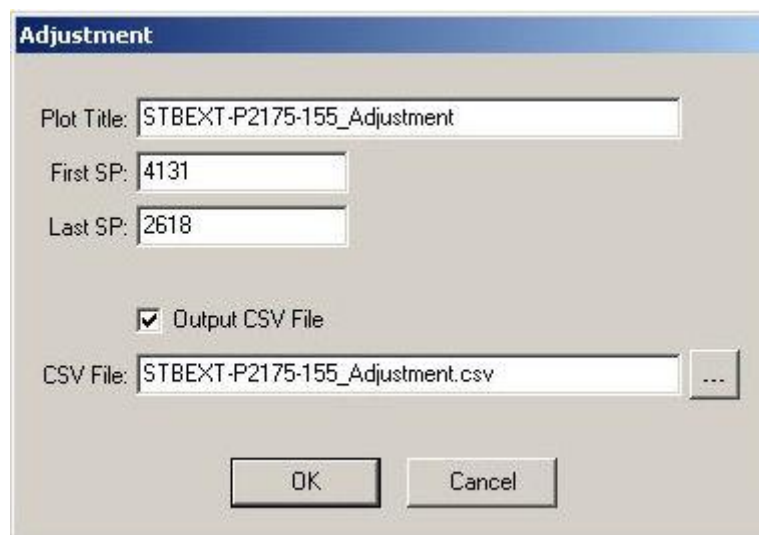
There is no limit to the number of different configurations which may be saved.

To load a previously saved configuration select *Configuration | Load* from the menu to display the File Open dialogue box and select the required configuration. If the current configuration has not been saved a message box prompting to save will appear.

### 13.2.7 Printing

To send the current configuration as appears in the *Configuration* list to the printer for the selected line click on the *Print* button.

Multiple lines may be printed in one go by first selecting the required lines from the *File | Select Line* menu option.



**Figure 13-3**

If only one line has been selected a dialog box as shown in Figure 13-3 will appear prompting for the shotpoint range and title to appear at the top of the plot. The default values for the shotpoint range are the first and last good shot point as given in the project details. The default title is the line name and configuration name.

If multiple lines have been selected then for each line the default first and last good shotpoint ranges and plot title will apply, without any prompt.

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### 13.2.8 Output to CSV File

By checking the *Output CSV File* checkbox and entering a file name in the Print Dialog, shown in Figure 13-3, all data will be written to a comma separated value (CSV) file in addition to being plotted.

Each series will be written to file in a separate column.

The Raw and Processed series observation data in Precon cannot be written to CSV file because of the variable number of samples. To write Precon data select the Shot Event series.

Selecting an existing file will cause the new data columns to be appended alongside existing columns of data in the file.

When saving parameters for the Plot Configuration module the state of the *Output CSV File* checkbox will be saved.

## 13.3 Palette

To change the plotting colours select *Palette | Edit | Series #* from the menu where # is the series number from 1 to 6. The palette dialog defaults to the current colour for the selected series.

To save the current palette select *Palette | Save* from the menu. To load a previously saved palette select *Palette | Load* from the menu. The palette files are compatible with those used in the Precondition and QC modules.

## 13.4 Parameters

To save the current window settings and plot configuration select *File | Save Parameters*. Each time the module is subsequently invoked these parameters will be automatically applied.

## 13.5 Auto-configured Plots

If DGPS comparison nodes and/or sub-array separation nodes have been created in the database utility then these plots can be automatically configured by selecting the appropriate items under the Tools menu.

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