

# THE MAIN PLOTTING TOOL – PROGRAM aaspi\_plot

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### Basic interaction with aaspi\_plot GUI

By default, the display panel will scale the vertical axis using a 3000ft/s conversion velocity (for inline and cross-line display type) or using the correct 1 inline: 1 cross-line (for time-slice display type). Click on 2A to switch to the window-size fitting mode. Click again to switch back to scaling using velocity conversion mode. You can change the replacement velocity and hit Apply to rescale the plot to your need.



Click on 2B to turn on/off bilinear interpolation of the image. Interpolation makes the image look smoother. However, in some cases, it should be turned off to prevent interpolation artifacts, such as azimuthal wrap-around.

Click on the double right arrow button (3A) to move to the next panel (e.g. move to the next inline in inline display type). Similarly, click on the double left arrow button to move to the previous panel.

The single right arrow is used to "play forward" the panel as a "movie". To play the movie in a loop, check-mark the loop option (3B). Left arrow button is for playing backward. The square button is for stopping the movie. This is useful to animate through different panels in order to see the change of a geologic feature (such as a fault or a bedding surface).

The right most and left most button is used to quickly switch to the last or the first panel view, respectively.

To view the coordinate and value of a data point, left click on the data point of interest (3C). The coordinate and value of the data point is displayed in the bottom status bar (3D). Note that the value is the number inside the parentheses.



To go to a specific panel of interest, click (4A) *File, Goto* to open the *Goto panel*. In this panel, you can either (4B) move the slider, or alternatively, type in the panel number on the right (4C) and click (4D) *Apply*. The label of the panel will change accordingly (4E).



### Settings

**AASPI Plot** GUI allows you to manually change plotting parameters after a data is displayed. Click on (5A) File  $\rightarrow$  Settings to open the settings dialog.

| AASPI - Plot (temp_crop_pDd0tA.   | Display Settings   | Display Settings  |
|---|--|---|
| File   Open Ctrl-O   Open for Blending Ctrl-B   Goto Ctrl-G   Settings Ctrl-T   Change Color Table Ctrl-B 5A   Close Ctrl-C   Save Image Ctrl-S   Quit Ctrl-Q | General Title/Labels 5C   Plot Title: Input Seismic Amplitude Data   X-Axis Label: Line no.   Y-Axis Label: CDP no.   Color Bar Label: [ | General Title/Labels Data Ranges 5D<br>V Use Histogram Ranging:<br>Histogram Ranging<br>Minimum Percentage Value:<br>Maximum Percentage Value: 9 5F |
| Display Settings<br>5B<br>General THE/Labels Data Ranges<br>Show Color Bar:   |  | Symmetric ABout Bias:<br>Data Bias:<br>Basic Data Ranging<br>Minimum Value: -57987.4<br>Maximum Value: 57987.4                                      |
| Transpose Axes:<br>Reverse X Axis:<br>Reverse Y Axis:<br>Reverse Y Axis:<br>Reverse Color Bar:<br>□   | Apply QK Cancel  | Apply OK Cancel   |

In the general tab (5B), you can specify whether to show color bar, transpose image, reverse axes, and reverse color bar. If you are comparing two data of the same type but with different ranges of values (for example, seismic amplitude reprocessed in different workflow), it is better to turn off the color bar to maintain the exact size of the main plot area.

In the Title/Labels tab (5C), you can change the title of the plot, as well as the axes labels and color bar label.

The data ranges tab (5D) is probably the most important one that you will regularly use. This tab allows you to change from statistical scaling mode using histogram percentage distribution to fixed scale mode using minimum and maximum values (5E). These modes are mutually

exclusive, so you can only use one of them at a time. Statistical scaling parameters are in box (5F), while fixed scaling parameters are in box (5G). Note that if "Symmetric about bias" is activated and Data bias is 0, then it would correspond to "All-positive" set to "n" in the QC plotting tab of **aaspi\_util**, meaning your data has both positive and negative values (e.g. amplitude, curvatures, etc.) and you want to set zero value as the middle color of the color bar. If your data values are all positive, uncheck "Symmetric about bias".

#### **Changing Color Bar**

The color bar can be browsed in the QC Plotting tab. However, if you want to change the color bar after the data is displayed, go to (6A) File  $\rightarrow$  Change Color Table. The color bar dialog will pop up, allow you to change the color bar to your need (6B) and to reverse it if needed. Then click (6C) Apply (or OK) to see the change.



### **Exporting Graphics Files**

Program **aaspi\_plot** allows you to export PNG (Linux only), JPEG (Linux only), GIF, and BMP format graphics files for use in reports and publications. This may be particularly useful in exporting images that appear better when using 24-bit color tables.

There are two options to export the image.

- 1. Save the entire image: click (7A) File  $\rightarrow$  Save Image. This will save the entire image, including color bar, titles, and axes labels to an image file (7B).
- 2. Save only the plotting area: click (7C) File  $\rightarrow$  Save. This will only save the plotting area to an image file (7D).

Give the file a name (7E), choose export format (7F), and click OK (7G).

