

Mohr Graph Continued

Another interesting feature of the 3DStress Mohr Graph is the ability to switch between dependent and independent stress modes. When Dependent Stress Mode is selected, sliders and text boxes for the specification of the stress ratios appear.

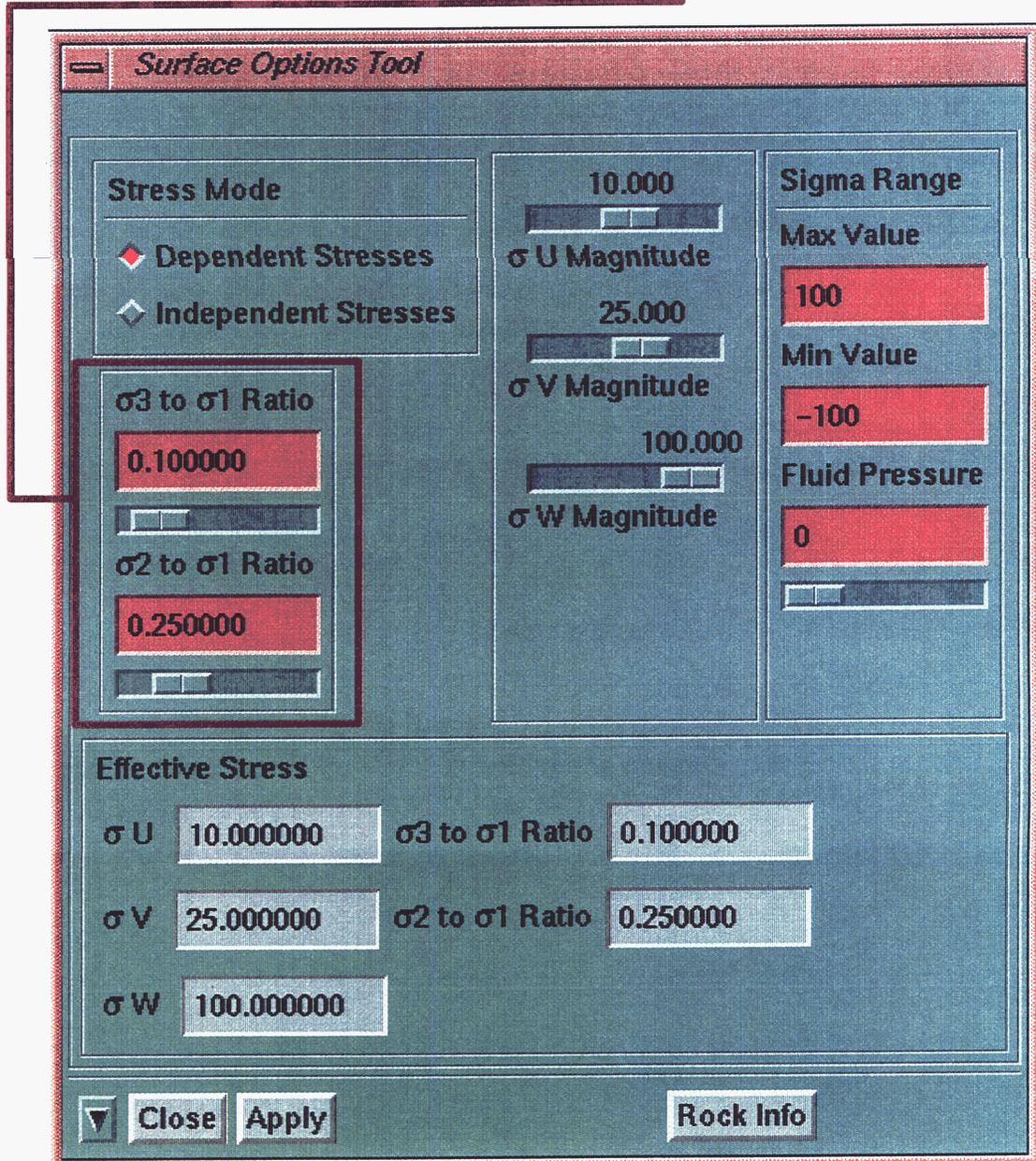


Table Of Contents

Overview

Tendency Plot

Magnitude Tool

Stress Ratio Graph

Mohr Graph

3D Fault Viewer

Map Viewer

Rose Diagram

Surface Viewer

Options

Appendix

Exit Help

Table Of Contents

Overview

Tendency Plot

Magnitude Tool

Stress Ratio Graph

Mohr Graph

3D Fault Viewer

Map Viewer

Rose Diagram

Surface Viewer

Options

Appendix



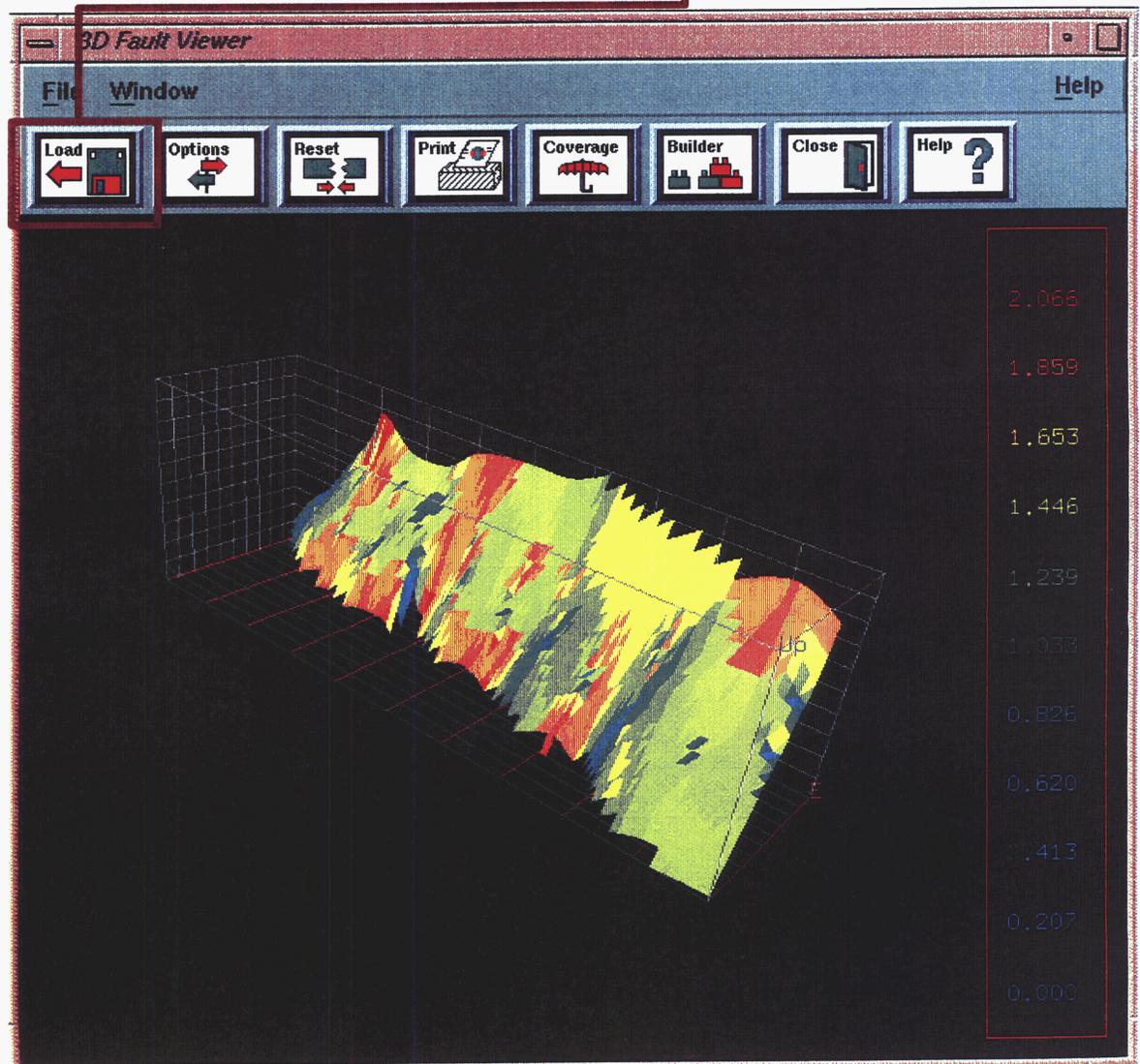
Exit Help

3D Fault Viewer



The 3D Fault Viewer enables the user to view and interact with faults defined in 3-space as polygons. The following formats for input files are currently supported: flt, vbl, and 3ds. The 3ds file format is the 3DStress application's own specific format not to be confused with the popular three-dimension modeling mesh format.

To load a file, the user must click on the Load Button located at the top of the 3D Fault Viewer.



Upon clicking load, the user will be prompted with a file browser dialog window with which the file may be selected.

Table Of Contents

Overview

Tendency Plot

Magnitude Tool

Stress Ratio Graph

Mohr Graph

3D Fault Viewer

Map Viewer

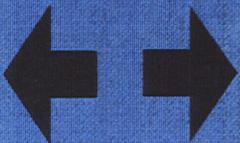
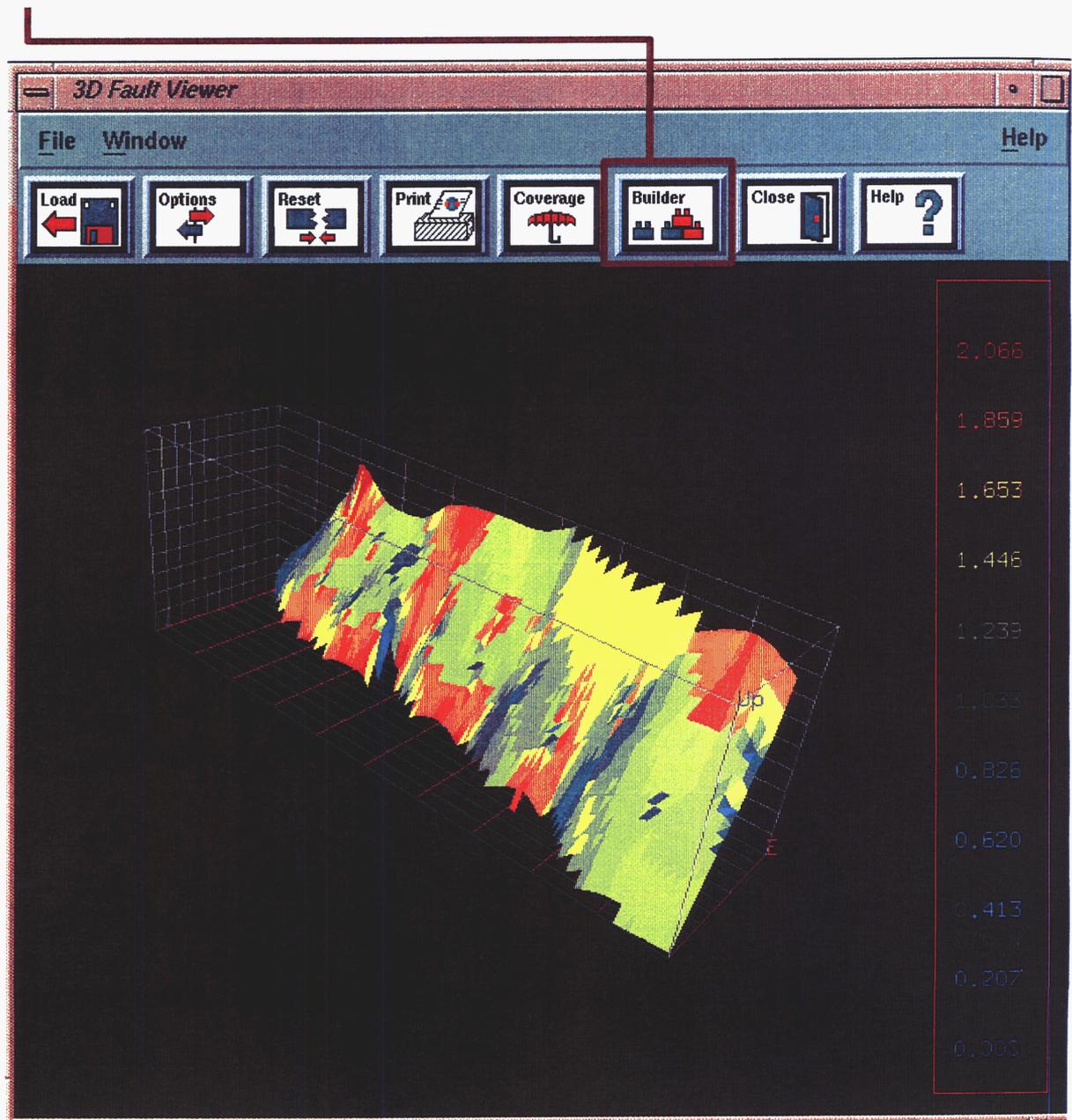
Rose Diagram

Surface Viewer

Options

Appendix

The user may also build faults using the 3D Fault Viewer's Fault Builder tool. The user may access the Fault Builder by clicking on the Builder Button at the top of the 3D Fault Viewer Window.



Exit Help

Table Of Contents

Overview

Tendency Plot

Magnitude Tool

Stress Ratio Graph

Mohr Graph

3D Fault Viewer

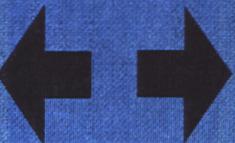
Map Viewer

Rose Diagram

Surface Viewer

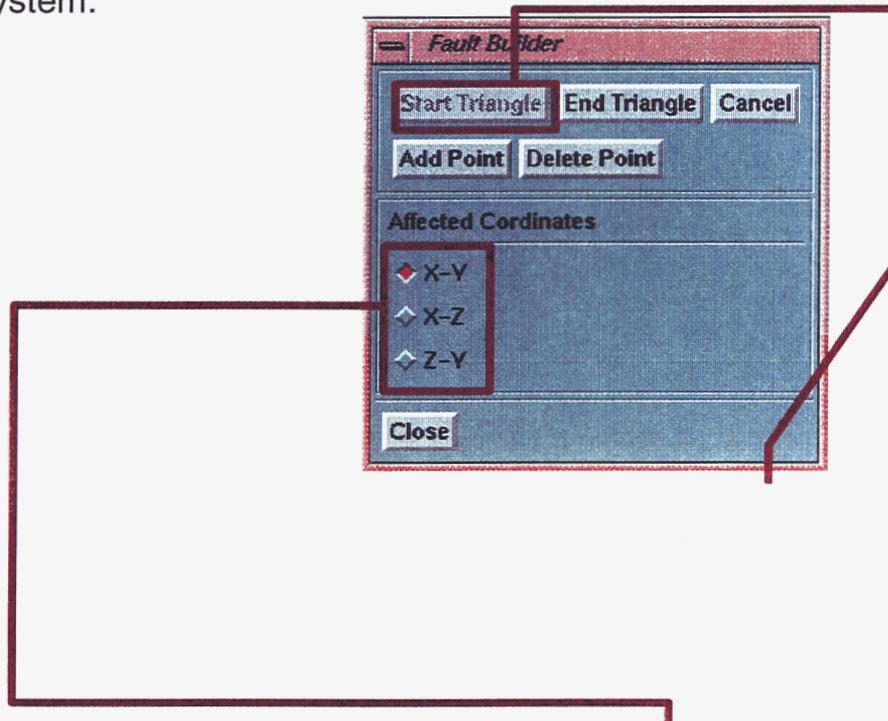
Options

Appendix



Exit Help

Upon pressing the Builder Button, the user will be presented with the Fault Builder Window. If a fault file is already loaded in the 3D Fault Viewer, the user may add to it. If no fault file is loaded, the user is presented with a default bounding box and may create a fault from scratch. The user should use the bounding box as a reference to the geographical coordinate system.



To add a triangle to the fault, click the Start Triangle button. A new triangle will appear with vertices on the corners designated N, E, and Up by the bounding box. To adjust any one of the vertices, hold down the control key and select the vertex with the left mouse button while dragging the vertex with the mouse.

The three buttons designated Affected Coordinates control the plane in which the vertices are allowed to move. For example, to move a vertex along the X-Y plane, select the X-Y button. X, Y, and Z correspond to a right-handed coordinate system with +Z coming out of the screen. Thus, +X runs horizontal from right to left across the screen, and +Y runs vertically from top to bottom. This coordinate system is distinct and independent of the geographical coordinate system defined by the bounding box.

Points may be deleted and added to the triangle using the Delete Point and Add Point buttons, located directly below the triangle buttons. The current fault in progress may be aborted by clicking the Cancel button, located directly to the right of the End Triangle button. When finished, click the End Triangle button, located directly to the right of the Start triangle button.

Table Of Contents

Overview

Tendency Plot

Magnitude Tool

Stress Ratio Graph

Mohr Graph

3D Fault Viewer

Map Viewer

Rose Diagram

Surface Viewer

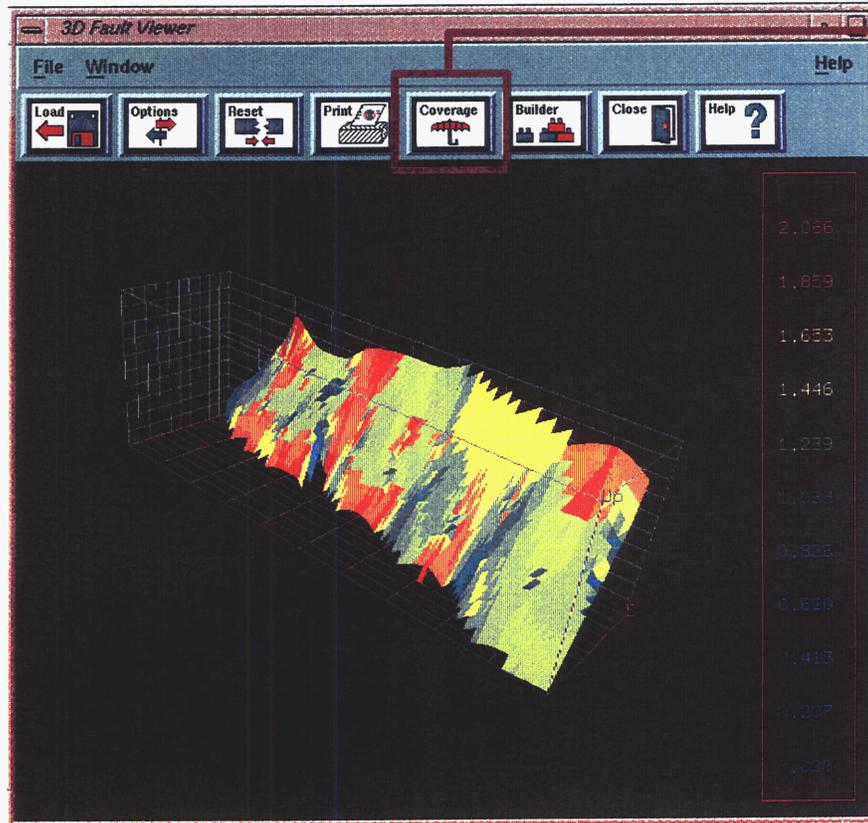
Options

Appendix

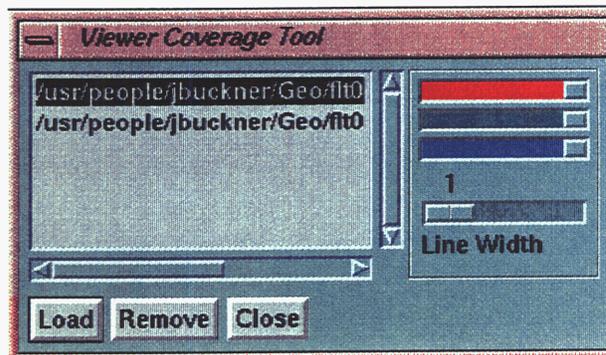


Exit Help

The user should also note that coverages may be placed over 3D objects. To access the coverage tool, the user should click on the Coverage Button located at the top of the 3D Fault Viewer Window.



Upon clicking the Coverage Button, the user is presented with the Coverage Tool.



To load a coverage file, click the **Load** button and a file selector will appear. After selecting a coverage file, the name of the file is displayed in the Viewer Coverage Tool. Each loaded coverage may be manipulated by clicking on the coverage name, then adjusting the color sliders or adjusting the Line Width slider. To remove a coverage select the name and click the Remove button.

Table Of Contents

Overview

Tendency Plot

Magnitude Tool

Stress Ratio Graph

Mohr Graph

3D Fault Viewer

Map Viewer

Rose Diagram

Surface Viewer

Options

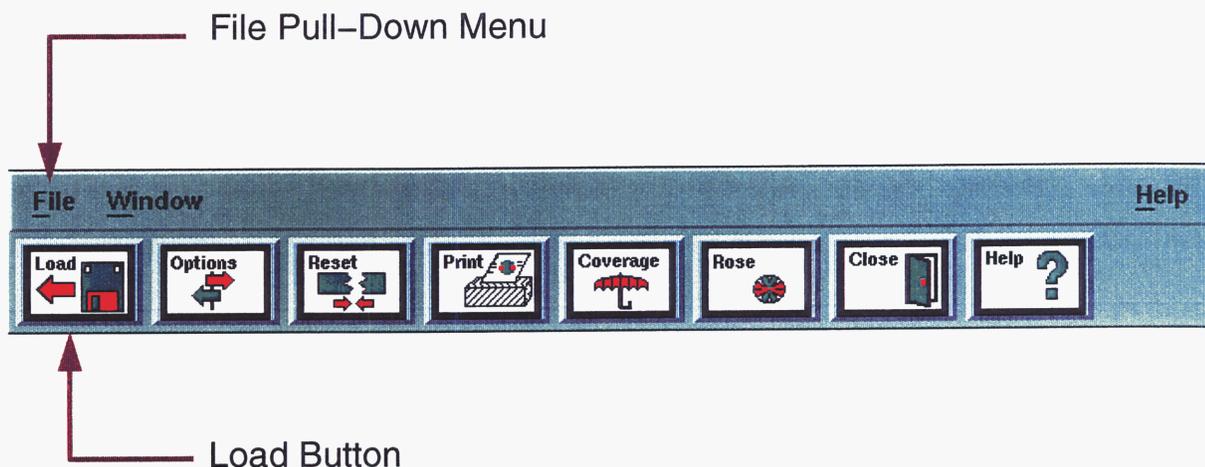
Appendix



Exit Help

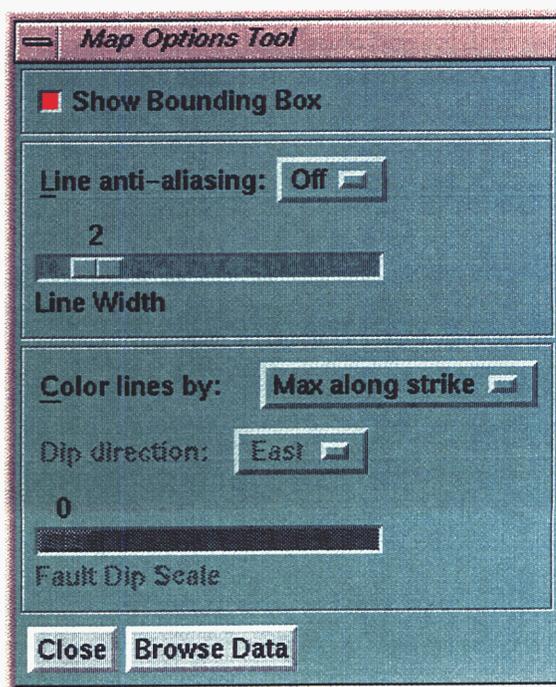
Map Viewer

The Map Viewer is used to display files of faults displayed as lines and overlay those images with coverages. To load a file, either choose Load from the File pull-down menu at the top of the Map Viewer window, or click on the Load button just below the File pull-down menu.



A File Selection box will then appear prompting for the selection of a map. Use this dialog box to navigate the file-system and select the appropriate file as described in the Appendix.

The Options tool may be used to toggle display of the bounding box, toggle anti-aliasing, set line width, set the color scheme, set the dip direction, set the fault dip scale, and browse the data file. The Options tool may be accessed in a similar manner to the Load File dialog box. Either select Options from the File pull-down menu or click the Options button just below the Window pull-down menu.



Map Viewer Continued

Table Of Contents

Overview

Tendency Plot

Magnitude Tool

Stress Ratio Graph

Mohr Graph

3D Fault Viewer

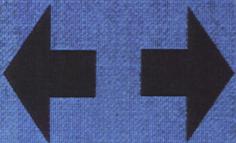
Map Viewer

Rose Diagram

Surface Viewer

Options

Appendix

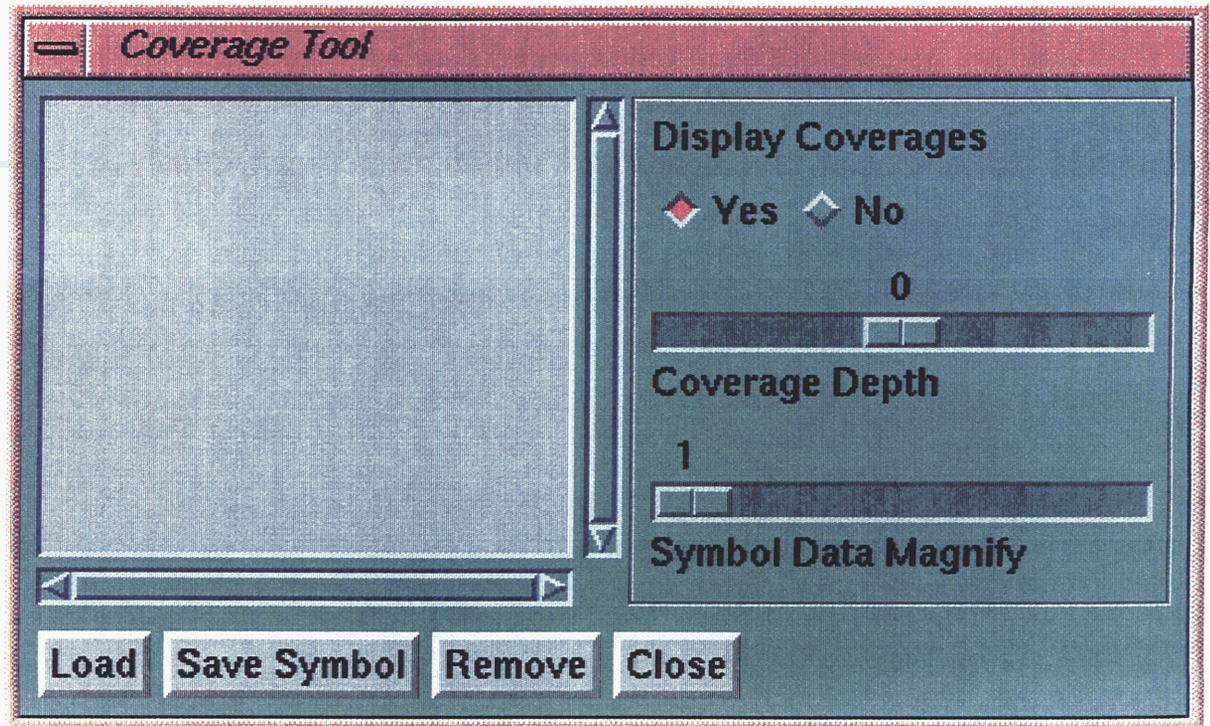


Exit Help

The Reset feature is used to reset the point-of-view in the Map Viewer window to the default, start-up location. Either select Reset from the File pull-down menu or click the Reset button just below the Window pull-down menu to reset the point-of-view.

The Print feature is used to print the Map Viewer window to an SGI RGB file. Either select Print from the File pull-down menu or click the Print button just below the Window pull-down menu to access the Save File dialog box. Use this dialog box to navigate the file-system and select the appropriate filename to call the saved image.

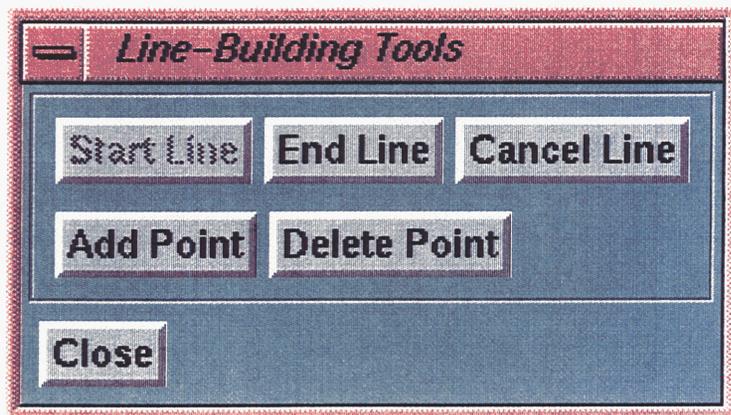
The Coverage tool is used to overlay a coverage image on top of the fault image. To access the coverage tool, either choose Coverage from the Window pull-down menu at the top of the Map Viewer window, or click on the Coverage button just below the pull-down menu bar. With the coverage, the user may load several files at once and toggle the displaying of each loaded file individually. Also, coverage depth may be set, the degree of magnification of the symbol data may be set. Symbols may be saved, and coverage files may be removed from the list. To load a coverage file, click on the Load button at the bottom of the Coverage Tool window. A dialog box will then appear prompting for the selection of a file. Use this dialog box to navigate the file-system and select the appropriate file.



Map Viewer Continued

A rose diagram is displayed by pressing the Rose button below the pull-down menu bar or selecting Rose from the Window pull-down menu. See the Rose Diagram chapter for more information on the Rose Viewer.

The Line-Building Tools dialog box may be used to place lines on existing maps. To begin a line, click the Start Line button. A new line will appear along the left edge of the bounding box with its end points at the corners. To select a point and move it, hold down the control key while clicking and dragging the point with the left mouse button. Points may also be added and deleted using the Add Point and Delete Point buttons. Added points always appear in the lower left corner of the bounding box. The point currently selected is the one deleted. A point may be selected by holding the control key and clicking the left mouse button over it. The selected point is displayed as yellow.



To exit the Map Viewer, select Close from the File pull-down menu or click the Close button below the pull-down menu bar. To access the online help for 3DStress, use the Help pull-down menu or click the Help button below the pull-down menu bar.

Table Of Contents

Overview

Tendency Plot

Magnitude Tool

Stress Ratio Graph

Mohr Graph

3D Fault Viewer

Map Viewer

Rose Diagram

Surface Viewer

Options

Appendix



Exit Help