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PEX Show Manual

PEX Show

The PEX Show tool displays your inverted EM, Resistivity, MT and CSAMT data two-dimensionally. If you performed 1D inversion within EMIGMA, the **Data Sets in Survey** list on the **Database** page of the main dialog will contain a *.pex file. Select it and click the now active **PEX Show** button on EMIGMA's main toolbar to open the respective application.
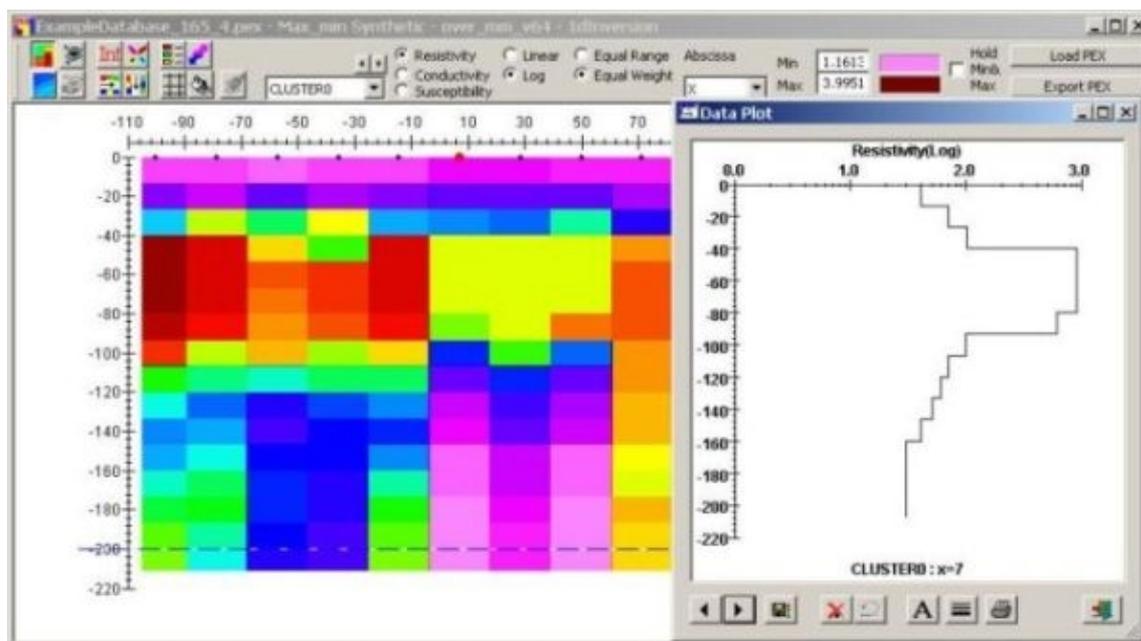
By default, the CDI (Conductivity Data Image) to appear will be the resistivity pattern for your first line. The separate **Data** dialog to simultaneously open on the right will contain the resistivity versus depth response for the first location of this line.

Note. If the **Data** dialog closes (and it does if you make any changes to your grid display), double-click anywhere in the grid to bring it back. The response it will show on reopening will match your current location.

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Go through all locations of a line

- Use the **Previous** and **Next** buttons in the bottom of the **Data** dialog appearing over your CDI in the main **PEX Show** dialog).

The plot in the dialog will switch to the previous or next location, respectively. The vertical red bar will simultaneously move across the CDI indicating the exact location of the plotted data

View cell information

- Click and hold down in a required cell of the CDI.

The location, depth and data will be displayed, while the **Data** dialog will automatically switch to the response obtained in the corresponding location.

Better view the CDI pattern

- Click the ⊞ button in the toolbar in the top left-hand corner of the **PEX Show** dialog. Your grid will be divided into equal cells, each containing one depth data

Switch between lines

- Select a required line from the dropdown list in the upper left-hand corner of the **PEX Show** dialog or toggle through all the lines using the scroll buttons above this list.

Switch between resistivity, conductivity and susceptibility

- Select the required option on the toolbar of the **PEX Show** dialog

Switch between linear and logarithmic scales

- Select between **Linear** and **Log** on the toolbar of the **PEX Show** dialog

Specify the draw mode

On the toolbar of the **PEX Show** dialog:

- Select **Equal Range** to assign different colors to different ranges which are equal independently of the number of data falling within these ranges
- Select **Equal Weight** to assign colors to different ranges which are unequal but covering the same number of data

Switch between the X and Y axes

- Select between the **X** and **Y** buttons on the toolbar of the **PEX Show** dialog. They both will be active unless the direction of survey lines is known exactly.

Customize the range of data to be displayed

On the toolbar of the **PEX Show** dialog:

- Type in new minimum and maximum data in the respective boxes to set the new extreme data values. You can select "Hold Min & Max" option to keep displayed data extremes while you navigate through profiles
- Click on the color squares to the right to bring up the standard color palette to specify the range of used color

Perform interpolation

In the toolbar of the **PEX Show** dialog:

- Click on the **Interpolate** button Int

OR

- Use the **Single Row Interpolation (Depths)** and **Single Column Interpolation (Locations)** buttons to specify the kind of linear interpolation. The first interpolates between different depths at the same location, the second   between different locations at the same depth
- To cancel interpolation results and return to the initial view, click the **Reset** button .

Display and customize the legend

- Click on the **Show Legend** button on the **PEX Show** toolbar or select **View/Show Legend** from the menu. The legend will appear to the right of the CDI. It can be repositioned by dragging it with the mouse.
- To customize your legend, open the **Legend Data** dialog by double-clicking anywhere in the legend area or select **Settings/Legend** from the menu:
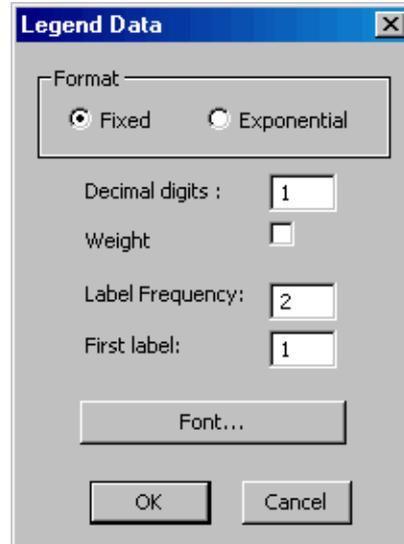
In the dialog:

- Select between **Fixed** and **Exponential**
- Specify the number of decimal digits in the respective box
- Check the **Weight** box to display the number of data covered by each color range
- Specify the amount of value labels on the legend in the **Label Frequency** box.
- Specify how many labels to skip before displaying the first label in the **First label** box.
- Click the **Font** button to change the font, size and style of the legend labels in the standard Font dialog to open
- Click **OK**

Customize the CDI axes

- Double-click in the region of the axis you want to adjust. The respective dialog will open:

- Edit the step between major ticks in the respective box. The number of major ticks to be displayed will change accordingly
- Check the **Show Major Tick Lines** box and the **Show Minor Tick Lines** box to display the coordinate grid
- Edit the **Axis Min** and **Axis Max** values as desired in the **Axis Limits** section
- Specify the format (fixed or exponential, number of decimal digits), font, size and color of the tick labels in the respective boxes
- Type in the title of your X or Y axis in the **Title** field; use the **Font** button to specify the format of the title
- Click **Apply**

Note. For the proportional scaling of the axes, use the **Proportional View** button on the toolbar of the **PEX Show** dialog.

Draw and customize contours

- On the toolbar of the **PEX Show** dialog, click the **Show Contour** button . Select **Settings/Contour Attributes** and the **Contour Attributes** dialog will open:
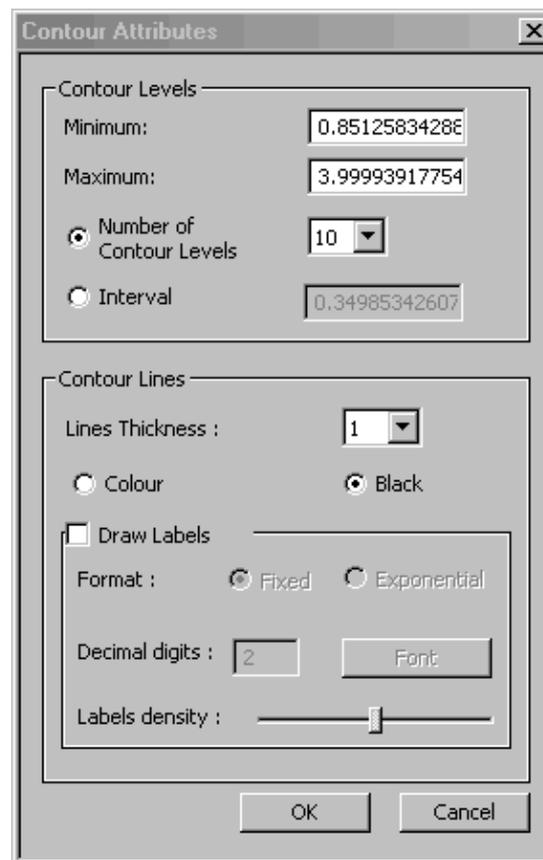
- The limits of the data values can defined in **Minimum** and **Maximum**.
- Specify the number of contour levels in the respective dropdown box
  OR
  enter the interval between contour lines in the **Interval** box.
- Select between the black and color options to have your contours in black or different colors
- Choose the contour line thickness from the respective dropdown list
- Select the **Draw Labels** box to add contour labels
- Specify the label format (fixed or exponential, the number of decimal digits, the density of labels and their font)
- Click **OK** to close the dialog and view the results

Export To A XYZ Format

- Click the **Export PEX** button on the toolbar of the **PEX Show** dialog. The following window appears:
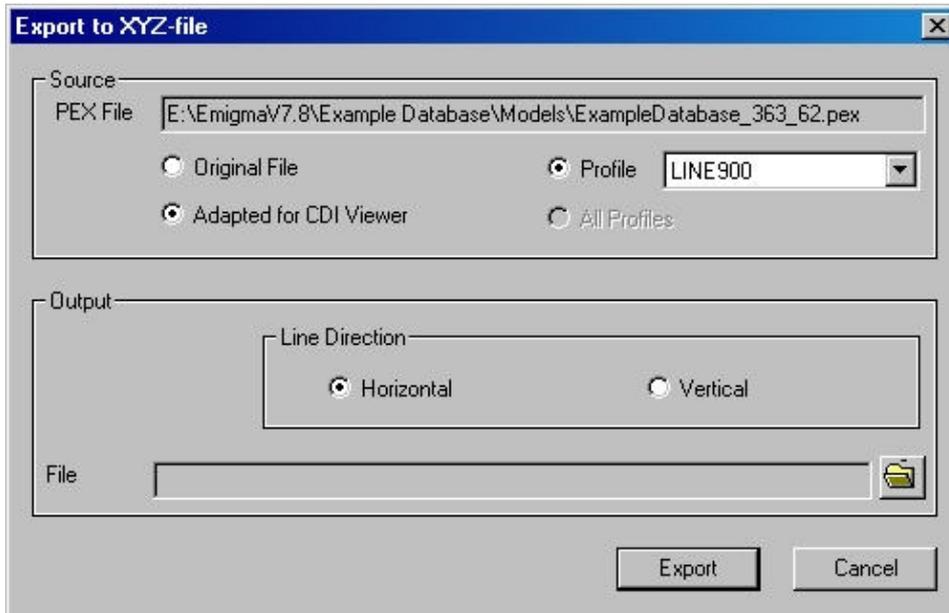
- Select **Original File** or **Adapted for CDI Viewer** to specify the source used to create the xyz file.
- Select one profile from the **Profile** dropdown box or select **All Profiles**.
- Specify the Line Direction in the file as horizontal or vertical.
- Click the 📂 button to select a name for the output file.
- Click **Export** to create the file.

Load another PEX file

- Click the **Load PEX** button on the toolbar of the **PEX Show** dialog
- In the dialog to appear, select the file to open and click **Load**

Print your CDI

The **File** menu offers the standard Windows-style **Print**, **Print Preview** and **Print Setup** interface.