

EMpower Data Visualization Tools

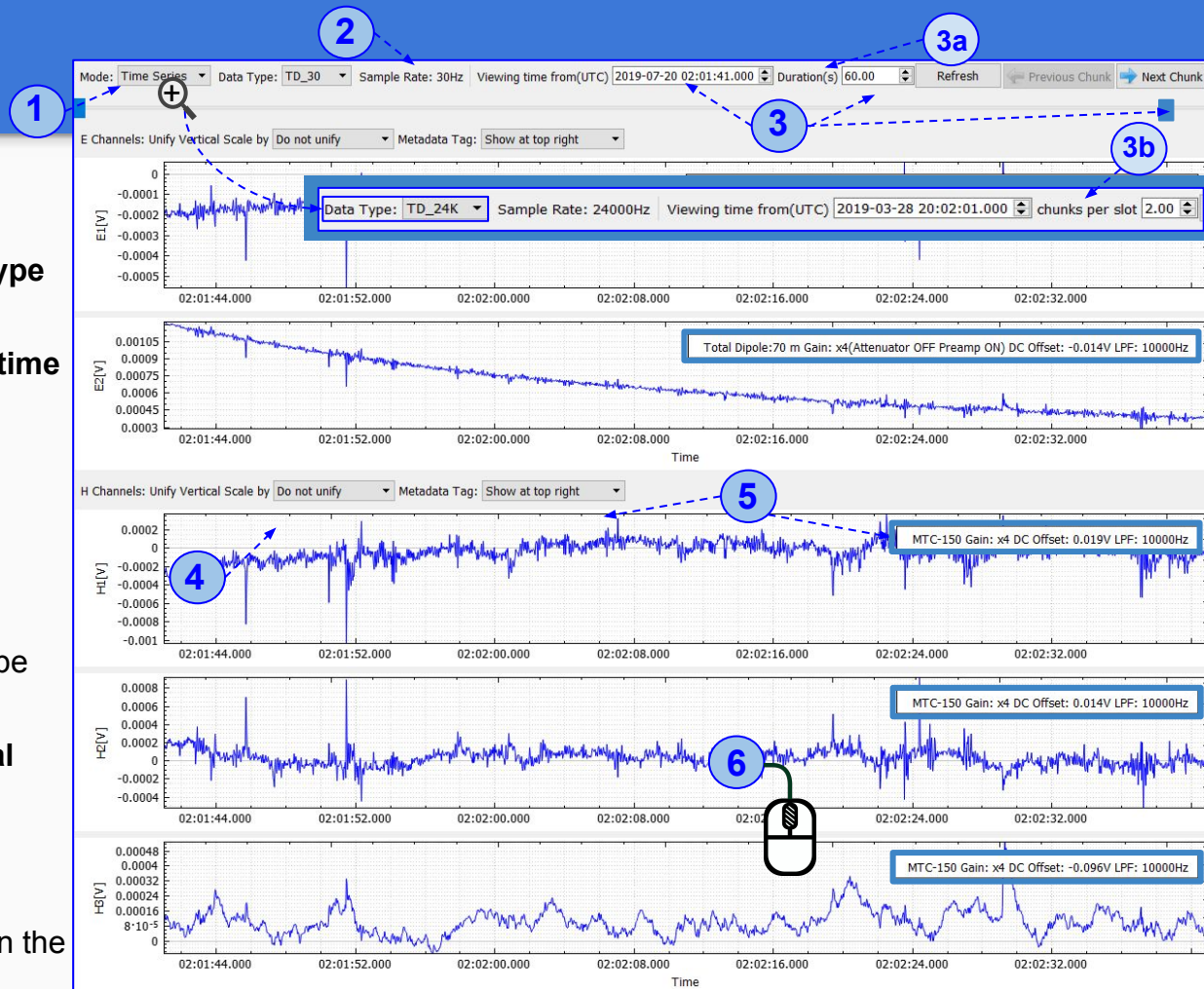


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Time Series and Spectra

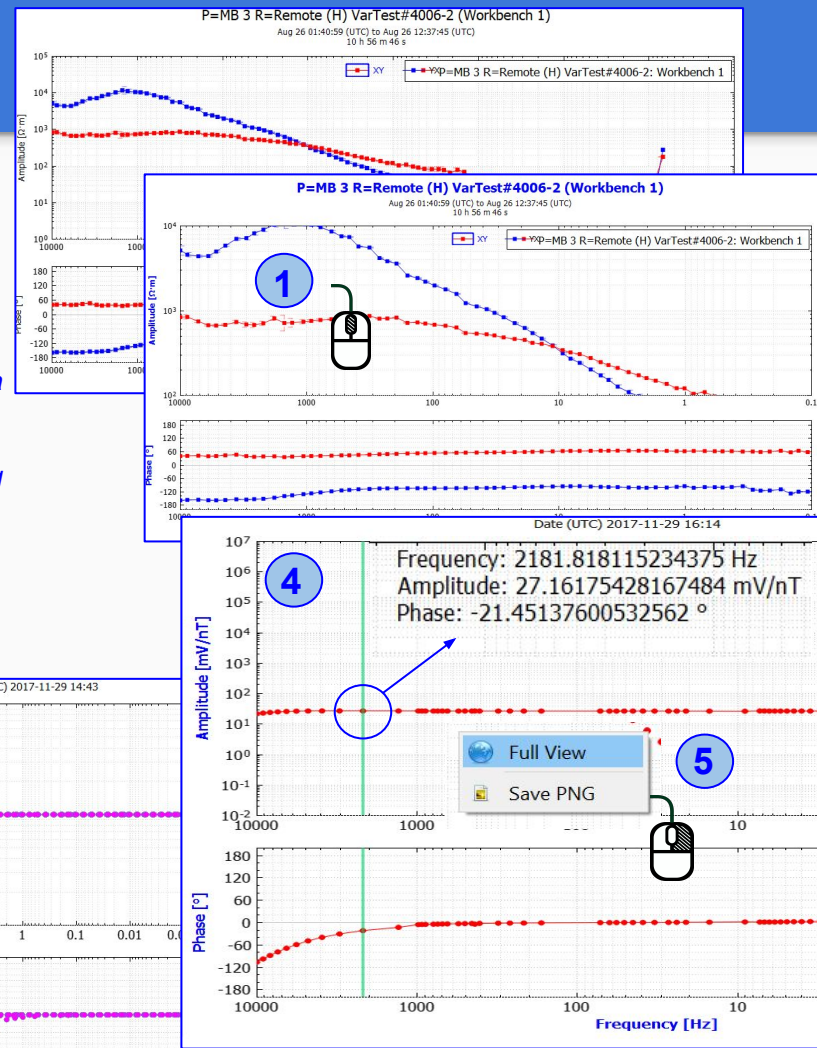
(Basic graphics)

1. Use the **Mode** drop-down list to switch between **Time Series** and **Spectra**
2. Select the **Sample Rate** using the **Data Type** drop-down list
3. Define the plot range start using **Viewing time from (UTC)**, the navigation buttons or the scroll selector
 - 3a. If viewing a continuous time series decimation level, define the view range length using the **Duration(s)** field
 - 3b. If viewing a sparse decimation level (i.e. TD_24) the length on the view will be on **chunks per slot**
4. Select scaling per plot using **Unify Vertical Scale by**
5. Use **Metadata Tag** to position the legend within the plot
6. Using the scroll wheel will zoom in or out in the X axis only.



General Features

1. Zoom in/out using the scroll wheel, this will zoom on the Y and X axis.
2. Clicking the X-axis (*highlighted in blue*) to zoom in/out using the scroll wheel will zoom on **X-axis** only.
3. Clicking the Y-axis (*highlighted in blue*) to zoom in/out using the scroll wheel will zoom on the **Y-axis** only.
**These features do not apply to Time Series and Spectra*
4. Click on a point to see information about the selected point (use the arrow keys to move between points). **This information may be different depending on the plot*
5. Right clicking on the plot, offers the options **Full View** or **Save PNG**



Toolbar Description

- 1
- 2
- 3
- 4
- 5
- 6

Toolbar available on:

- a. Processed Data tab
- b. Processing Queue

1. Error bars / Grid

- Shows/hides error bars
- Grid icon scales the view to the error bars or to the plot

2. Print / Export to a CSV file

3. Amplitude (Log/Linear)

4. Frequency (Log/Linear)

5. Phase (Degrees/Radians)

6. Legend (Top right/left and Bottom right/left)

a

Resistivity [Ω·m] | Print | Export | Amplitude: Log Linear | Frequency: Log Linear | Phase Unit: Deg Rad | Phase Mode: Separate Overlaid | Legend: Bottom Left

Site / Workbench Name	Reference / Status	Filter / Geophysical Param
▼ P=S7_2 5C R=Rem 5C Dec04 (H) - (Workbench 1)	Magnetic	60Hz
Workbench 1	Unapproved	Resistivity
Unedited	Approved	Resistivity/Impedance
▼ P=S7_2 5A R=Rem 5A Dec04 (H) - (Unedited)	Magnetic	60Hz
Unedited	Approved	Resistivity/Impedance
▼ P=S7_1 5C R=Rem 5C Dec03 (H) - (Unedited)	Magnetic	60Hz
Unedited	Unapproved	Resistivity/Impedance

Highlighted Site: P=S7_2 5C R=Rem 5C Dec04 (H): Workbench 1

P=S7_2 5C R=Rem 5C Dec04 (H) (Workbench 1)
Dec 04 19:07:26 (UTC) to Dec 05 16:14:20 (UTC)
21 h 6 m 54 s

Amplitude [Ω·m] vs Frequency [Hz] plot showing XY and YX data series.

b

Processing Queue - EMpower

Processed Site Name	Reference	Status	Progress	Elapsed Time	Estimated Remaining Time
P=S6 5C R= (Local H)	Magnetic	Processing	11%	31 s	4 m 22 s

Resistivity [Ω·m] | Print | Export | Amplitude: Log Linear | Frequency: Log Linear | Phase Unit: Deg Rad | Phase Mode: Separate Overlaid | Legend:

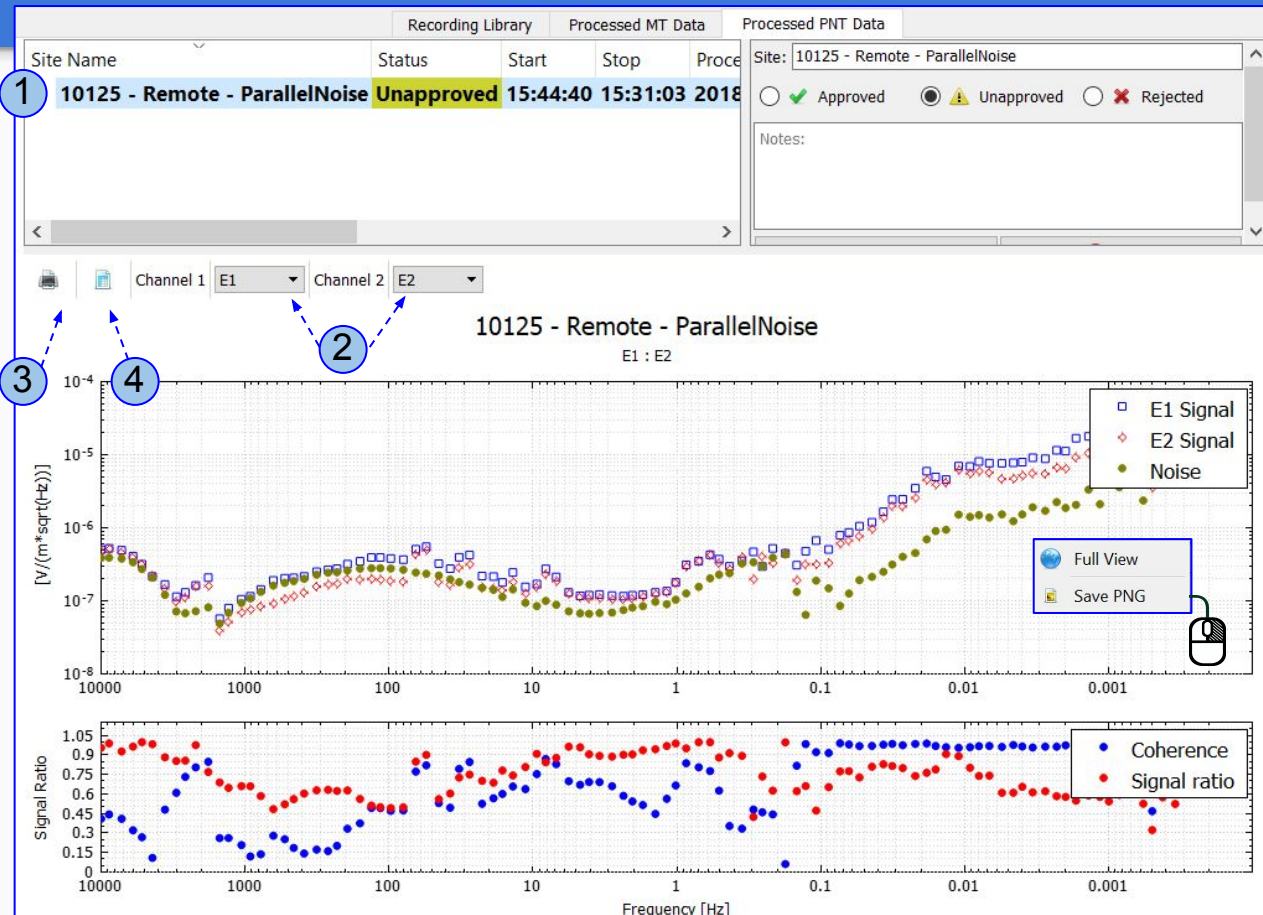
P=S6 5C R= (Local H) (Unedited)
Dec 02 20:35:06 to Dec 03 17:26:02 Local Time (20 h 50 m 56 s)

Amplitude [Ω·m] vs Frequency [Hz] plot showing XY and YX data series with error bars.

Processed PNT Data Plot

This tab shows the Parallel Noise recordings

1. Select the **Site**
2. Select the **Channels Signal** to be displayed
3. Control to **Print** the plot
4. Control to **Export** the values in CSV format



Edit Cross Powers

1. Workbench manager

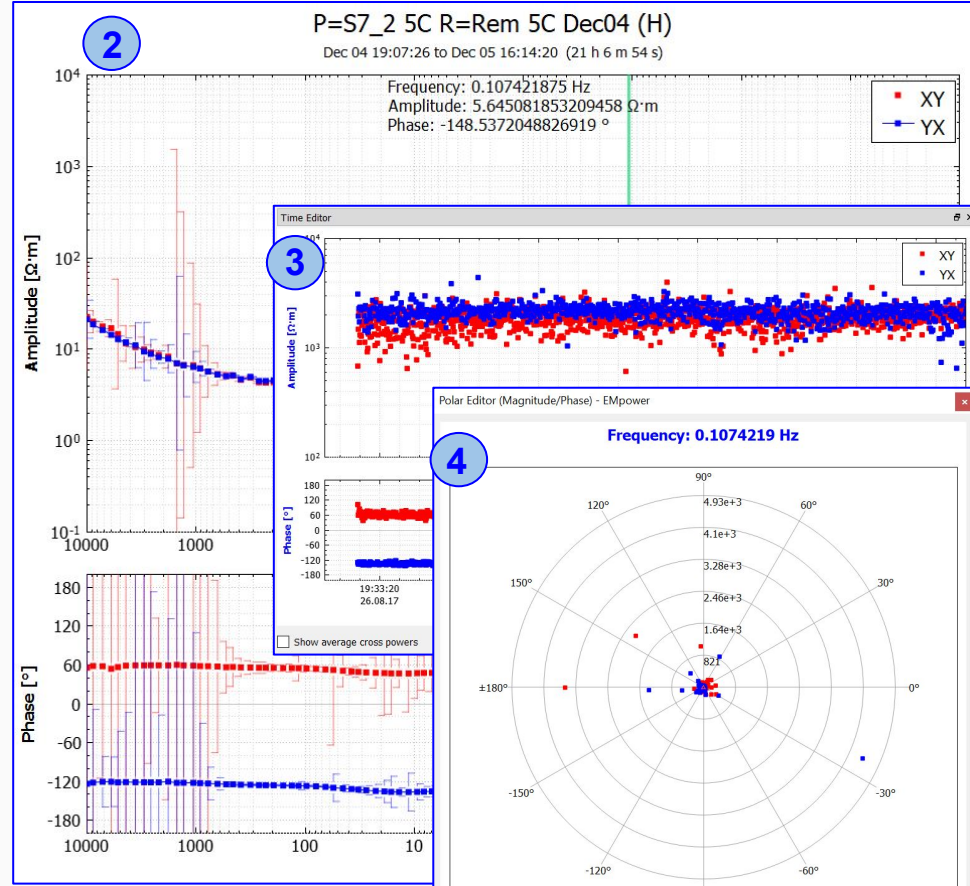
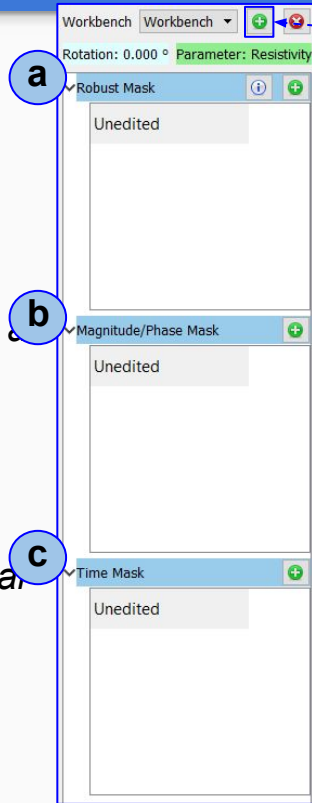
- **Create** a new workbench
- **Create** masks for
 - a - Robust Mask
 - b - Polar Editor
 - c - Time Editor

2. From the resultant plot (select frequency)

3. Time Editor

- Shows how data changes over time

4. Polar Editor (Expressed in polar coordinates, with radius as a function of angle)



Polar Editor Features

1. Create a new Workbench
2. Create a new Mask for the Polar Editor
 - **Adjust** the Global **XY** and **YX** rejection settings as needed
3. Choose a Frequency and select from the **Linear** or **Cubic** views
4. Click **XY** or **YX** button to switch between ranges. Edit the ranges by either dragging the handles with your mouse or manually entering values into the spin boxes. (see the [Crosspower Editor](#))

The image shows a software interface for creating and editing masks. It is divided into three main sections:

- Workbench List:** On the left, there is a list of workbenches: "Robust Mask", "Magnitude/Phase Mask", and "Time Mask". Each has a plus icon to create a new one. A blue circle '1' points to the plus icon in the top workbench.
- EMpower Dialog:** A dialog box titled "EMpower" is open. It has a "Mask Name" field containing "Mag/Phase Mask". Below are two columns of "Global rejection settings" for XY and YX. Each column has four checkboxes for "Amplitude lower than", "Amplitude higher than", "Phase lower than", and "Phase higher than", each with a corresponding spin box. A blue circle '2' points to the "Amplitude higher than" spin box in the XY section. At the bottom are "Reset", "Create", and "Cancel" buttons.
- Polar Editor Plot:** A plot titled "Polar Editor (Magnitude/Phase) - EMpower" is shown. It displays a polar plot for a frequency of "0.002288818 Hz". The plot has concentric circles representing magnitude (171, 342, 513, 684, 855, 1.03e+3) and radial lines for phase (0°, 30°, 60°, 90°, 120°, 150°, 180°, -180°, -150°, -120°, -90°, -60°, -30°). A red shaded region is visible. At the bottom, there are radio buttons for "Linear" (selected) and "Cubic", and spin boxes for "Amplitude from" (225.382Ω·m to 927.852Ω·m) and "Phase from" (18.217° to -51.699°). A blue circle '3' points to the "Linear" radio button, and a blue circle '4' points to the "Amplitude from" spin box.

Times Editor Features

1. Create a new **Workbench**
2. Create a new **Mask** for the **Time Editor**
3. To Add a New rejection area
 - Click the a **Add New Section** button
 - **Select** the area by dragging the handles with the mouse to the right or left.
4. Right-click to delete the selection

