

Chart Tracer Tool in Antenna Magus

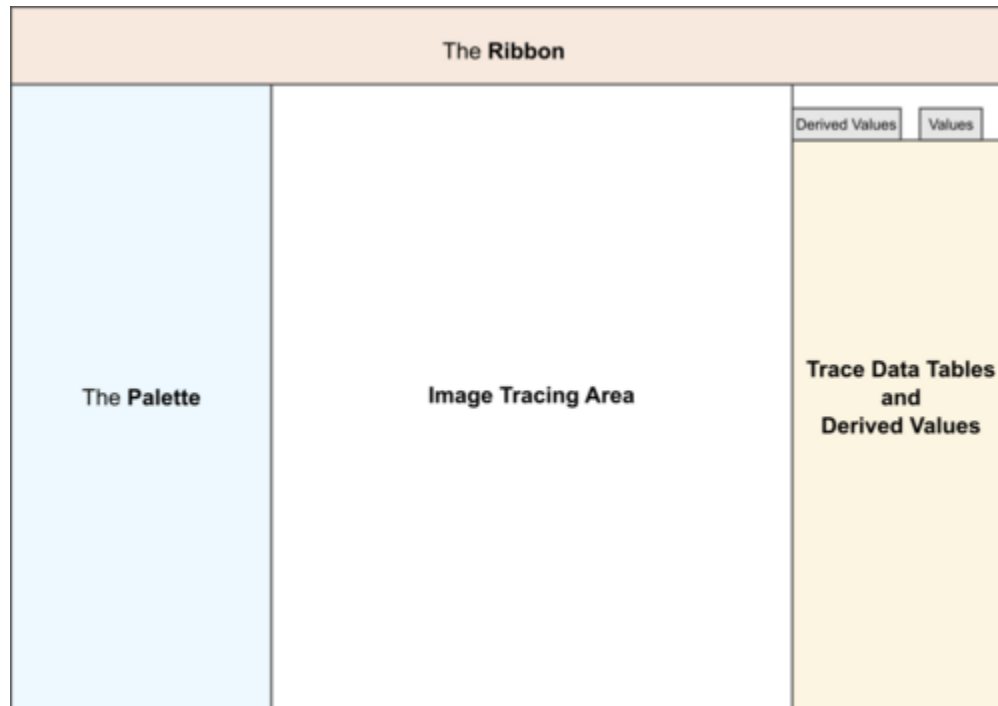
Self-Guided Learning



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The Chart Tracer tool forms part of the Data Conversion collection in the Antenna Magus Toolbox. It may be used to digitize data from images of Cartesian or Polar plots with linear or log-scale axes. Images in this document may differ from those on your computer if you are using a different version.

The basic layout of the Chart Tool window comprises a number of areas, as shown in the image below.



The basic workflow for using this tool is as follows:

- An image is loaded from file or the clipboard, and displayed in the Image Tracing Area
- With the cursor over the Image Tracing Area, the image may be zoomed in or out by using the scroll wheel of the mouse, shifted left and right using the scroll bars on the sides of the Image Tracing Area, and rotated from the Ribbon.
- The Chart type (Cartesian or Polar), the Axes types as well as the Axes scales (log or linear) may be selected in the Ribbon.
- The axes anchor points may be dragged to align with known points on the image that is to be traced. For Cartesian charts, two anchor points need to be placed at known X-Y locations. For Polar charts, one anchor point needs to be placed at the center of the chart, one at a known angle and radius on the image, and a third at a known radius and angle of 90 degrees relative to the other anchor.
- Anchor point values and respective units must be filled in on the Ribbon.
- The desired interpolation to be used may also be selected in the Ribbon.

- The image may be traced by clicking at intervals along the desired trace. Points may also be moved or deleted. As data points are added, their axes locations will be added to the trace data table.
- Once an acceptably accurate trace has been achieved, the traced data (with the selected interpolation applied) may be copied to the clipboard or saved to a file by clicking on the Export button in the Ribbon.
- Multiple traces may be added and traced data exported to file or to the clipboard.
- Typical Derived Values, chosen according to selected Axes Types and positions of reference anchor points, are calculated and displayed in the Derived Values tab. These values are automatically updated as the axes or trace point data is adjusted.
- Data exported from the chart tracing tool may easily be imported into Antenna Magus templates, various text editors and popular plotting and data management tools like Matlab, Excel etc.

