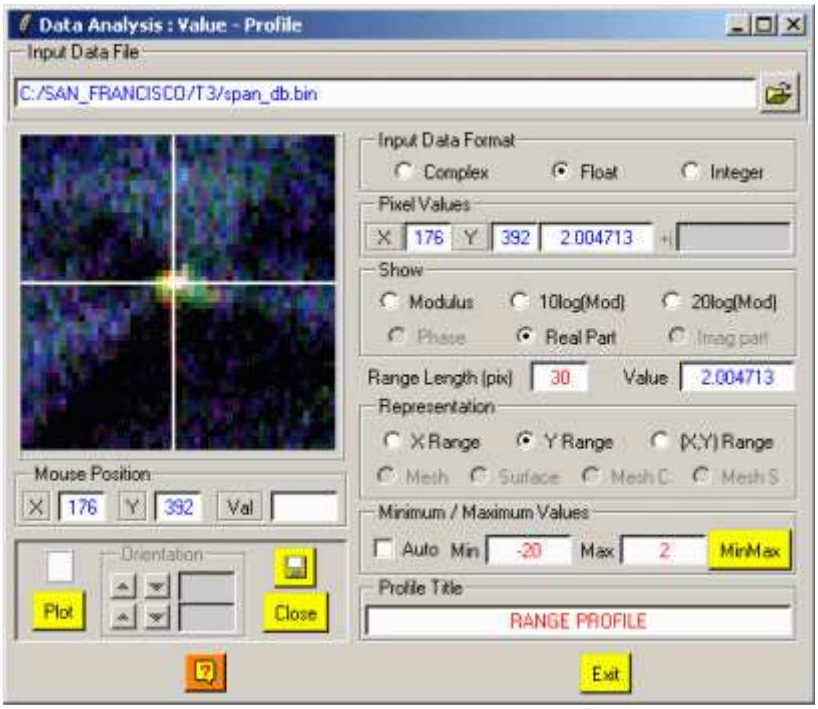
Data Analysis : Value - Profile



Description:

This Application is used to get a binary data value and / or plot a data range or azimuth 1D or 3D profile (transect).

Comments:

Parameters written in Red can be modified directly by the user from the keyboard.

Mouse Position:

X, Y	Give the Mouse pointer position in pixels. The Top-Left position corresponds to the (1,1) value and the Bottom-Right position corresponds to the (Nrows, Ncols) value.
Value	Display the pixel value (Note: this functionality is only valid if the active image is an 8-bits Windows Bitmap image).

Functionalities:

Plot Plot the Point Target response

 Toggle selected area contour color (black / white).

 Save the active Display Window

Close Close the Display Window

Orientation Command the viewing angle and control how the 3-D coordinates of the plot are mapped into the 2-D screen space. These values provide controls for both rotation and scaling of the plotted data. Two rotations (**rot_x** and **rot_z**) control the rotation angles (in degrees) in a virtual 3-D coordinate system aligned with the screen such that initially (that is, before the rotations are performed) the screen horizontal axis is x, screen vertical axis is y, and the axis perpendicular to the screen is z.
The rotation **rot_x** is bounded to the [0:180] range with a default of **60** degrees.
The rotation **rot_z** is bounded to the [0:360] range with a default of **30** degrees.

Note: On a 3-D representation, selecting the graph with the left Mouse button then moving the Mouse inside the Display Window can automatically change the view angles.

Input Data File:

Enter the full path name of the binary data file to be analysed.

Input Data Format:

Select the original data format (complex, float, integer).

Pixel Values:

Give the Point Target position in pixels and its original value according to the data format selected.

Show:

Define the data format representation.

Range Length:

Number of **pixels** used to define the size of the (NxN) window, centred around the Point Target and that is used to estimate its characteristics metrics..

Value:

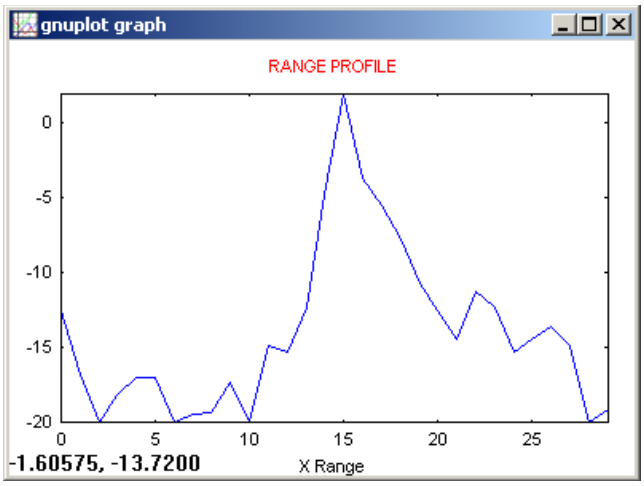
Give the pixel value according to the data format representation selcted.

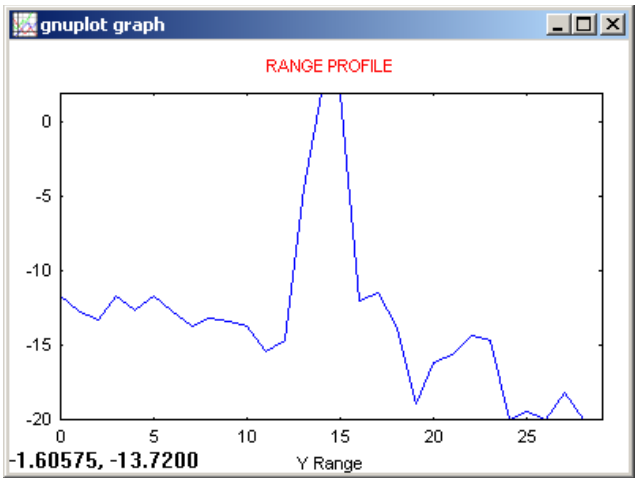
Representation:

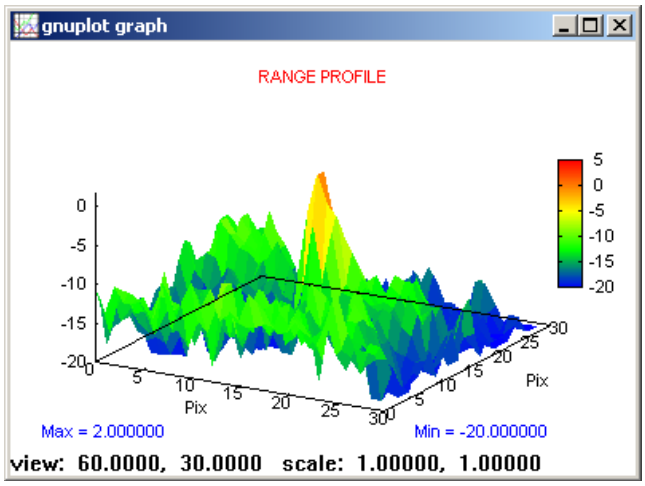
X Range Display the 1-D Point Target Response along the X direction

Y Range Display the 1-D Point Target Response along the Y direction

(X, Y) Range Display the 3-D Point Target Response







Maximum / Minimum Values:

Scales the output data range of variation

Automatic : The first colormap index is assigned to values inferior or equal to min, while the last colormap index is assigned to values superior or equal to max. If selected, the program automatically search the min and max values of the data, otherwise min and max values are fixed by the user.

Profile Title:

Title of the graph, may be modified by the user.

Data Value - Profile Procedure Steps:

- **1** : Enter the Input Data File
- **2** : Select the Input Data Format
- **3** : Point on the Target using the Mouse and the Cross Lines.
- **4** : Select the Point Target by clicking on the left Mouse button.
- **5** : Select the Representation Display Format.
- **6** : Select the Representation Display Mode (1-D or 3-D)
- **7** : Goto step **3** to proceed with another Point Target.
