Statistics - Data Histogram

Description:

This Application is used to evaluate the empirical data distributions of polarimetric SAR data by displaying histograms.
The selection of areas of interest and the results displayed is achieved by the way of an interactive Graphical User Interface.

Comments:

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

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).

Show:

Define the data format representation.

Profile Title:

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

Profile Label:

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

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.

Graphic Editor:

Selected area may be defined by the way of a simple Graphic Interface which permits to delimitate areas by defining regions of interest on a visual representation of the data to be analysed.

Toggle selected area contour color (black / white).

Polygonal selection of Area of Interest (AoI).
Note: The contour is automatically closed by clicking on the Mouse Right Button.

Rectangular selection of Area of Interest (AoI).

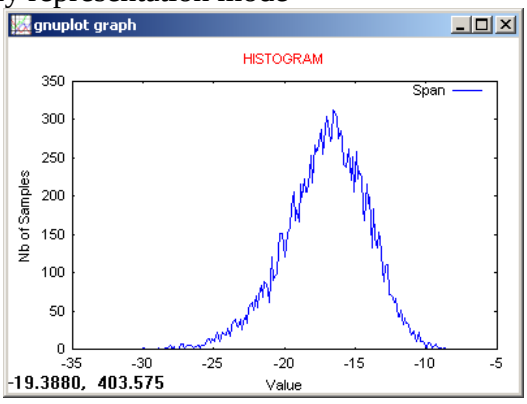
Clear Clear the different contours on the chosen image.

Save Save the selected area characteristics.

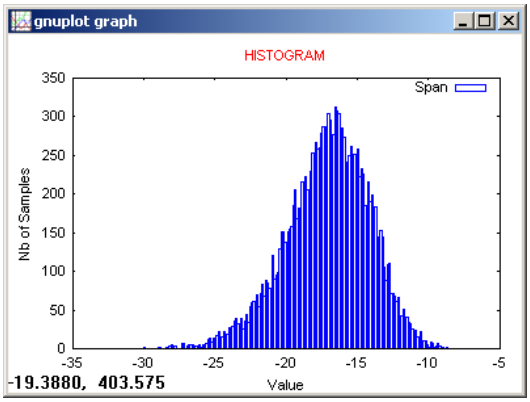
Plot Execute the statistical analysis of the selected data and then, open the Display Window and plot the data distribution histogram.

Line / Box Define the display representation mode

Line :



Box :



Save the active Display Window

Close Close the Display Window

Data Histogram Procedure Steps:

- **1** : Enter the Input Data File
- **2** : Select the Input Data Format
- **3** : Click on the Rectangular or Polygonal Selection of Area of Interest (AoI) button
- **4** : Select using the Mouse, the area to be analysed
- **5** : Click on Save button to save the selected area characteristics.
- **6** : Click on Plot button to execute the statistical analysis procedure and to open or update the Histogram Display Window
- **7** : Select the Representation Display Format and click on Plot button to Update the Histogram Display Window.
- **8** : To proceed with another area, click on the Clear button, then go to step **3**