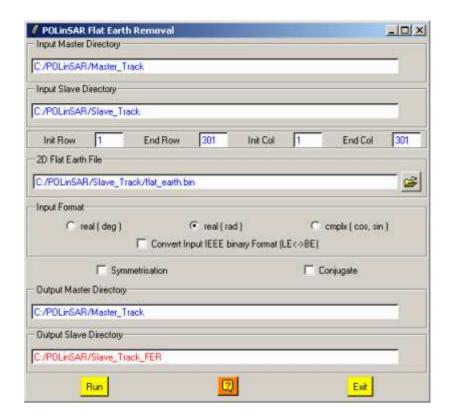# Flat Earth Removal

Description:

Both interferometric observables – phase and coherence – and the interferometric geometry evaluation are biased in the presence of the Flat Earth variations.
This function applies a basic Flat Earth Removal procedure to the **2 x** (2x2) complex Sinclair **[S2]** raw binary data elements.

Comments:

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

Input/Output Arguments:

Input Master Directory Indicates the location of the considered **Master Main Directory (M-MD)** containing the polarimetric data sets to be processed.

Input Slave Directory Indicates the location of the considered **Slave Main Directory (S-MD)** containing the polarimetric data sets to be processed.

Output Master Directory Indicates the location of the processed data output directory. The default value is set automatically to :
Master-MD (M-MD) or to **Master-MD_FER (M-MD_FER)** according the value of the Symmetrisation flag.

Output Slave Directory Indicates the location of the processed data output directory. The default value is set automatically to : **Slave-MD_FER (S-MD_FER)**.

Output Image Number of Rows/Columns:

The output image numbers of rows and columns are initialised to the input data set dimensions.

Users wishing to process a sub-part of the initial image can modify the **Init** and **End** values of the converted images rows and columns.

Note: init and end values have to remain within the range defined by the input image dimensions.

2D Flat Earth File:

External file providing the 2D Flat Earth information obtained from the acquisition track information file.

Input Format:

Data Format Indicates the type of input data.
- Real (deg) : 4 bytes real data in degrees.
- Real (rad) : 4 bytes real data in radians.
- Cmplx (cos,sin) : 4 bytes interlaced real and imaginary parts.

Convert IEEE Binary data may be encoded according to the **IEEE Little Endian** or **Big Endian** convention according to the type of architecture or operating system of the computer used to process SAR data.

By ticking the appropriate box, users may indicate PolSARpro to toggle between these two binary formats before converting the polarimetric data files.

Flat Earth Removal Parameters:

Symmetrisation Apply the Flat Earth Removal procedure on both the Master and the Slave data sets.

Conjugate Use the conjugate of the Flat Earth value.