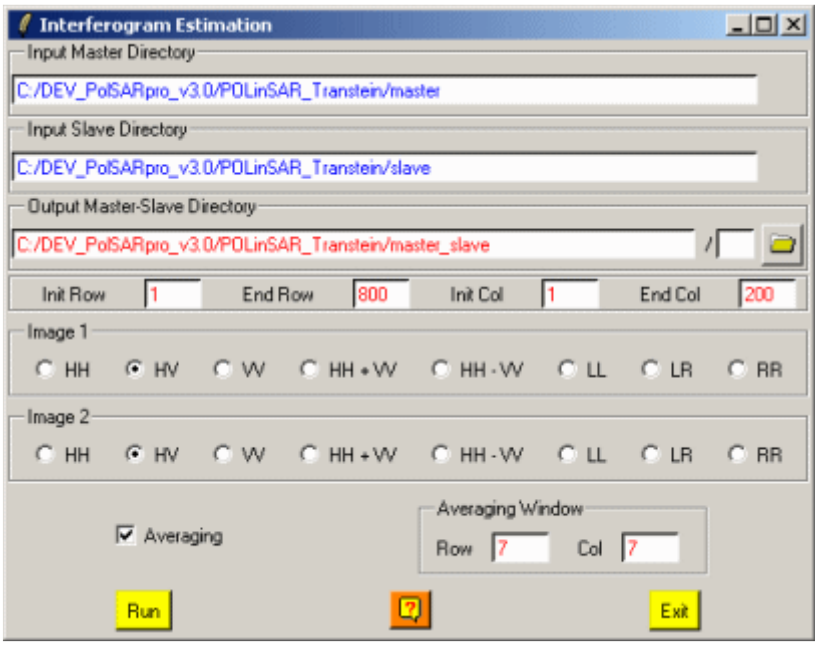
Interferogram Estimation



Description:

Creates interferograms 8-bits Bitmap (BMP) files from Pol-InSAR raw binary data Users have the opportunity to generate interferograms 8-bits Bitmap (BMP) files at any possible polarization states, including the Lexicographic (Linear), Circular and Pauli basis.

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-Slave Directory	Indicates the location of the processed data output directory. The default value is set automatically to : **Master-MD_Slave-MD (M-MD_S-MD)**.

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.

Interferograms:

The interferogram is generated between **Image 1** and **Image 2**, and the user has the possibility to create any combinations between the different polarimetric channels: HH, HV, VV, HH+VV, HH-VV, LL, LR and RR.
The default output file name is set to: interferogram_XX_YY.bin where **XX** and **YY** correspond to the two polarimetric channels as defined before.

Processing parameters:

Averaging	System and estimation procedure effects affect the estimation of the complex coherences. Appropriate calibration / estimation procedures have to be applied in order used to reduce this bias to negligible level. A basic bias reduction procedure is proposed and users have thus the possibility to compare original and processed coherence. This basic bias reduction procedure consists on processing estimated complex coherences through an additional averaging procedure consisting of a smoothing filter. Users have then to set the size of the (N*M) sliding window used to compute the local estimate of the average complex coherence. The default output file name is set to: interferogram_XX_YY.bin where **XX** and **YY** correspond to the polarimetric channel as defined before.
Averaging Window Row	Users have to set the size of the sliding window along the **Row direction** used to compute the local estimate of the average matrix. The default value is set to **7**.
Averaging Window Col	Users have to set the size of the sliding window along the **Col direction** used to compute the local estimate of the average matrix. The default value is set to **7**.