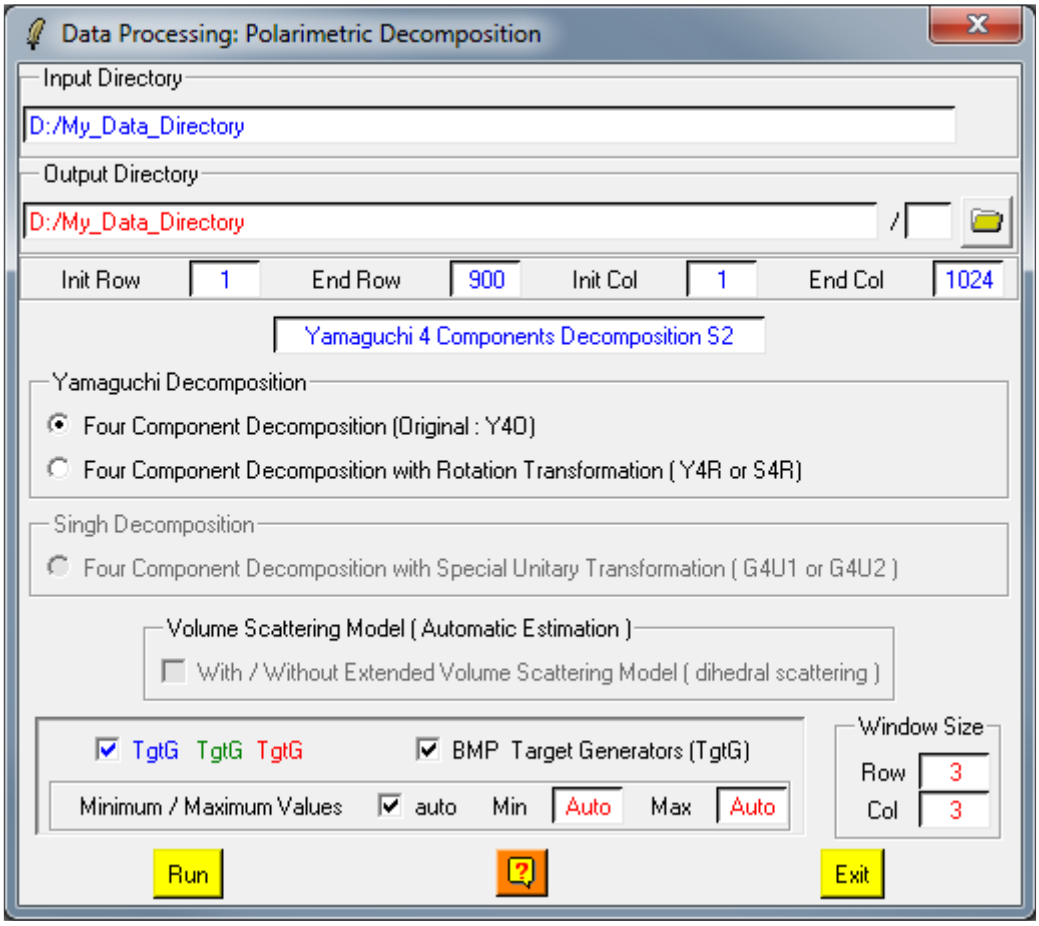
Polarimetric Decomposition



Description:

This function offers the possibility to apply the Yamaguchi and Singh Polarimetric Target Decompostion Theorems on polarimetric data set.

Comments:

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

Input/Output Arguments:

Input Directory	Indicates the location of the considered **Main Directory (MD)** containing the polarimetric data sets to be filtered.
Output Directory	Indicates the location of the data output directory.

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.

Processing Parameters:

Window Size Data to be decomposed may be processed through an additional filtering procedure consisting of a boxcar filter. Users have then to set the size of the (N*N) sliding window used to compute the local estimate of the average matrix.
The default value of N is set to **0**. Users wishing to avoid additional filtering may set N to **1**.

Decomposition Yamaguchi 4 Components Decomposition

- MD / Yamaguchi4_Odd.bin
- MD / Yamaguchi4_Dbl.bin
- MD / Yamaguchi4_Vol.bin
- MD / Yamaguchi4_Hlx.bin

Singh 4 Components Decomposition

- MD / Singh4_Odd.bin
- MD / Singh4_Dbl.bin
- MD / Singh4_Vol.bin
- MD / Singh4_Hlx.bin

TgtG TgtG TgtG If selected, a 24-bit colour BMP image (Windows Bitmap format) containing contrasted red, green and blue channels assigned to the 3 Huynen Target Generators (TgtG) after decomposition, is created.

BMP TgtG If selected, a 8-bit dynamic range (Windows Bitmap format) image file of the 3 Huynen Target Generators (TgG) after decomposition, is created.

Min / Max 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.