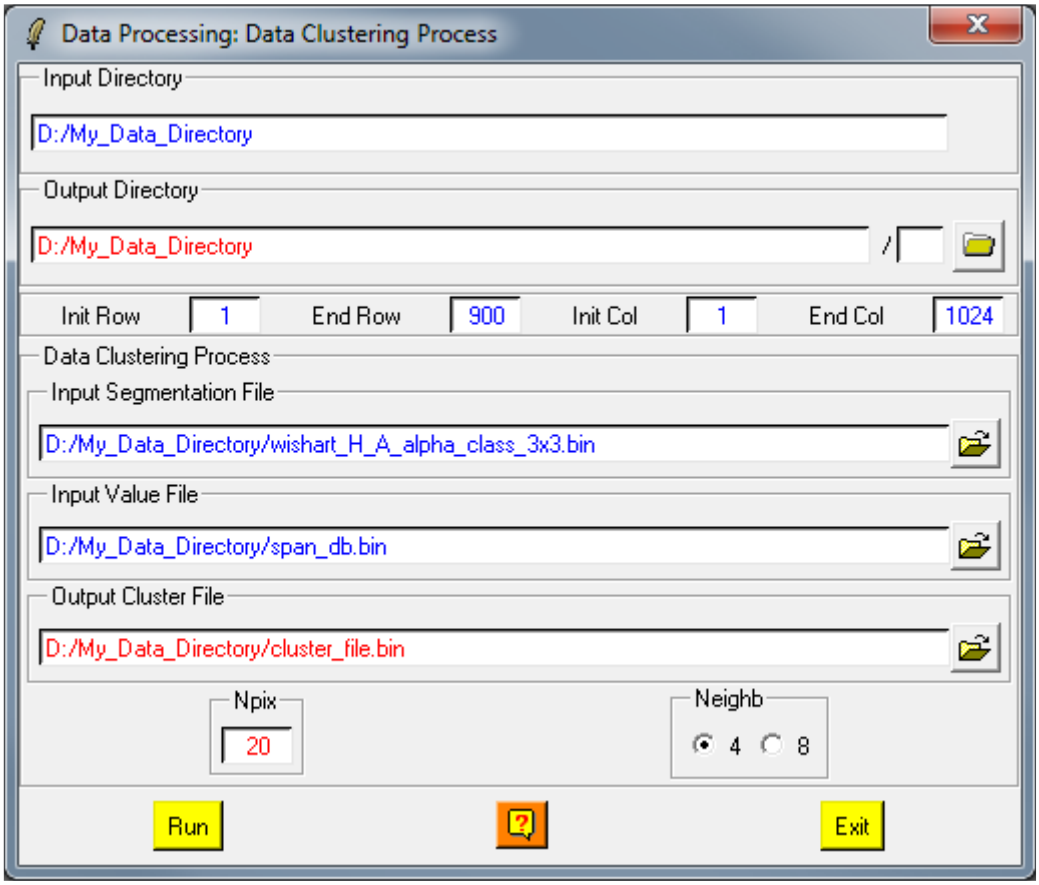
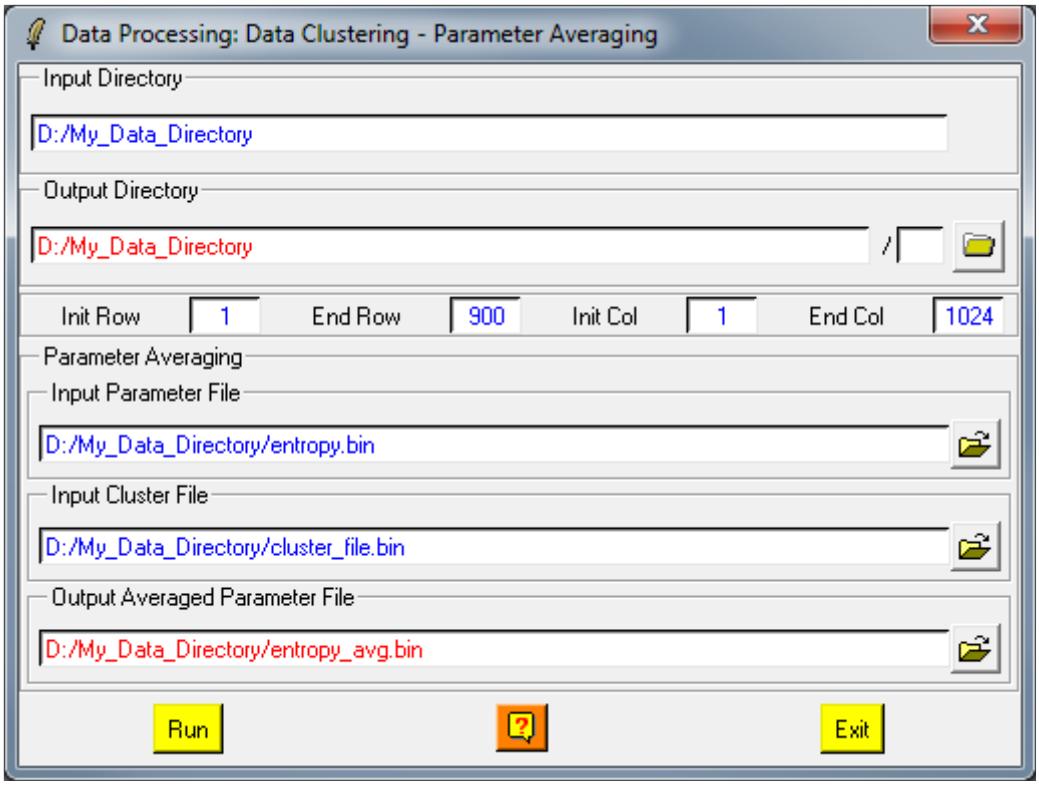
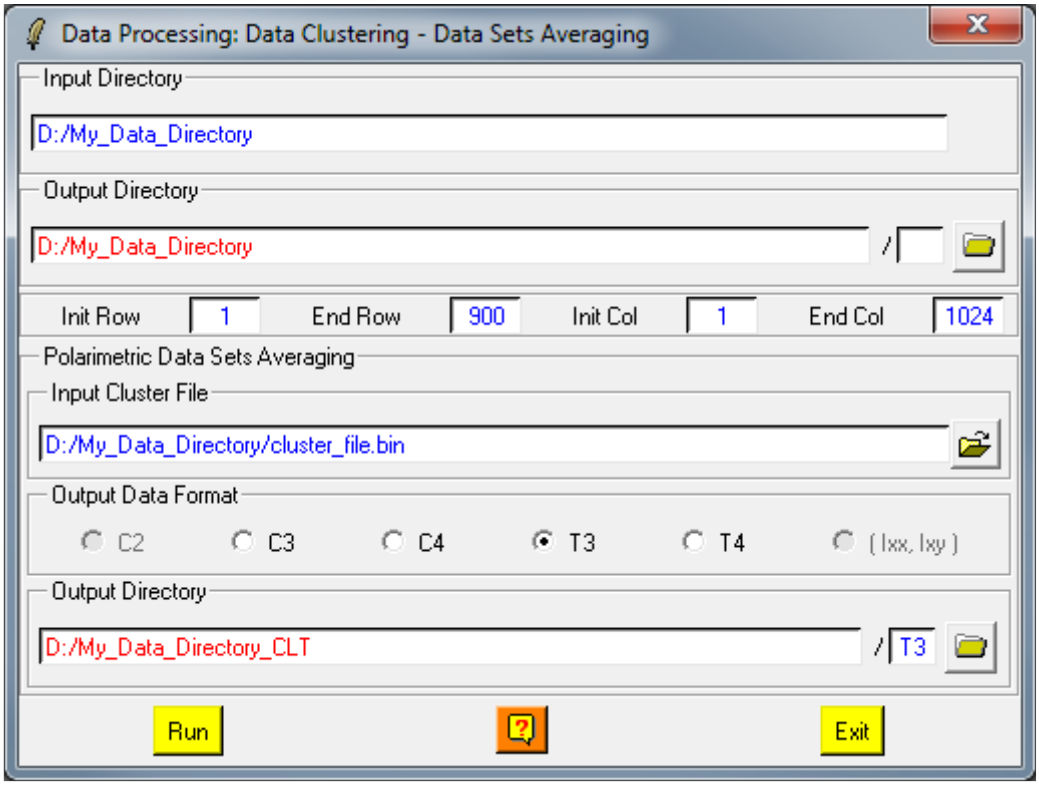
Data Clustering




Data Processing: Data Clustering - Parameter Averaging
Input Directory
D:/My_Data_Directory
Output Directory
D:/My_Data_Directory
/
Init Row
1
End Row
900
Init Col
1
End Col
1024
Parameter Averaging
Input Parameter File
D:/My_Data_Directory/entropy.bin
Input Cluster File
D:/My_Data_Directory/cluster_file.bin
Output Averaged Parameter File
D:/My_Data_Directory/entropy_avg.bin
Run
Exit


Data Processing: Data Clustering - Data Sets Averaging
Input Directory
D:/My_Data_Directory
Output Directory
D:/My_Data_Directory
/
Init Row
1
End Row
900
Init Col
1
End Col
1024
Polarimetric Data Sets Averaging
Input Cluster File
D:/My_Data_Directory/cluster_file.bin
Output Data Format
C2
C3
C4
T3
T4
(Ixx, Ixy)
Output Directory
D:/My_Data_Directory_CLT
/
T3
Run
Exit

Description:

This function performs a Data Clustering procedure and proposes different associated functionalities.

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 processed.
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.

Data Clustering Process:

This function is used to apply a Data Clustering Procedure.

Input Segmentation File	The Data Clustering Procedure needs as input the result of a segmentation procedure. Note : Users are encouraged to first run an Unsupervised Wishart H-A-Alpha segmentation procedure and then enter the resulting output file named: *Wishart_H_A_Alpha_class_3x3.bin*
Input Value File	The Data Clustering Procedure needs as input value or power information. Note : Users are encouraged to enter the Power file named: *span_db.bin*
Output Cluster File	Indicates the Output Cluster File name. Note : The default value of the **Output Cluster File** name is set automatically to : **Main Directory / cluster_file.bin**.
Npix	Minimun number of pixels in one cluster.
Neighb	Number of pixels in the neighbourhood of the cluster centre used during the iterative clustering process.

Parameter Averaging:

This function is used to apply a cluster-based data averaging of a raw binary data file.

Input Parameter File	Indicate the Input Parameter File name that will be cluster-based averaged.
Input Cluster File	Indicate the Input Cluster File name
Output Parameter File	Indicates the Output Parameter File name that has been cluster-based averaged. Note : The default value of the **Output Parameter File** name is set automatically to : **Main Directory / ParameterFile_avg.bin**.

Polarimetric Data Sets Averaging:

This function is used to apply a cluster-based data averaging of Polarimetric raw binary data files.

Input Cluster File	Indicate the Input Cluster File name
Output Data Format	According to the input polarimetric data format, different compatible output polarimetric data formats are proposed or fixed.
Output Directory	Indicates the location of the cluster-based averaged data output directory. The default value is set automatically to : **Main Directory_CLT**.
