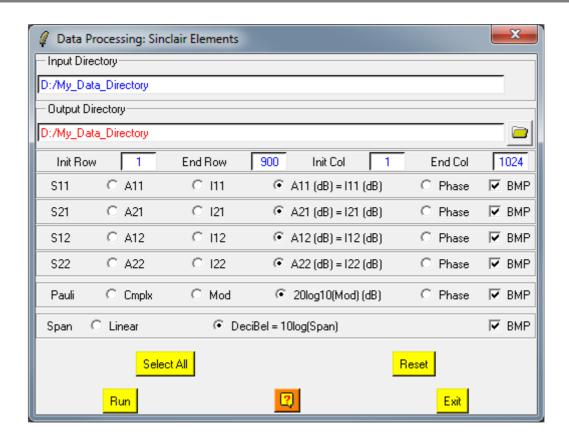# Sinclair Elements Processing

Description:

Creates binary files corresponding to the modulus and argument of the (2x2) complex Sinclair **[S2]** raw binary data.

An option may be set to simultaneously create the corresponding bitmap image files.

Comments:

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

Input/Output Arguments:

Input Directory	Indicates the complete location of the considered **MainDirectory (MD)** containing the (2x2) complex Sinclaire **[S2]** raw binary data to be processed.
Output Directory	Indicates the location of the processed data output directory. The default value is set automatically to the **MainDirectory (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.

Selection of the Channels to be Processed:

Several channels may be processed at a time. The selection of the BMP options enables the creation of output bmp files.

Users may choose between four types of output binary data :

- Aij : Linear representation of the considered complex element amplitude. Ouput file name : Aij.bin (.bmp)
- Iij : Linear representation of the considered complex element intensity. Ouput file name : Iij.bin (.bmp)
- Aij (dB) = Iij (dB) : Element amplitude in dB = $10\log10(Iij)$ = $20\log10(Aij)$. Ouput file name : Iij_dB.bin (.bmp)
- Phase : Argument of the considered complex element. Ouput file name : Sij_pha.bin (.bmp)

- Span : correspond to the sum of the four intensities, may also be processed (linear and dB) using this program.