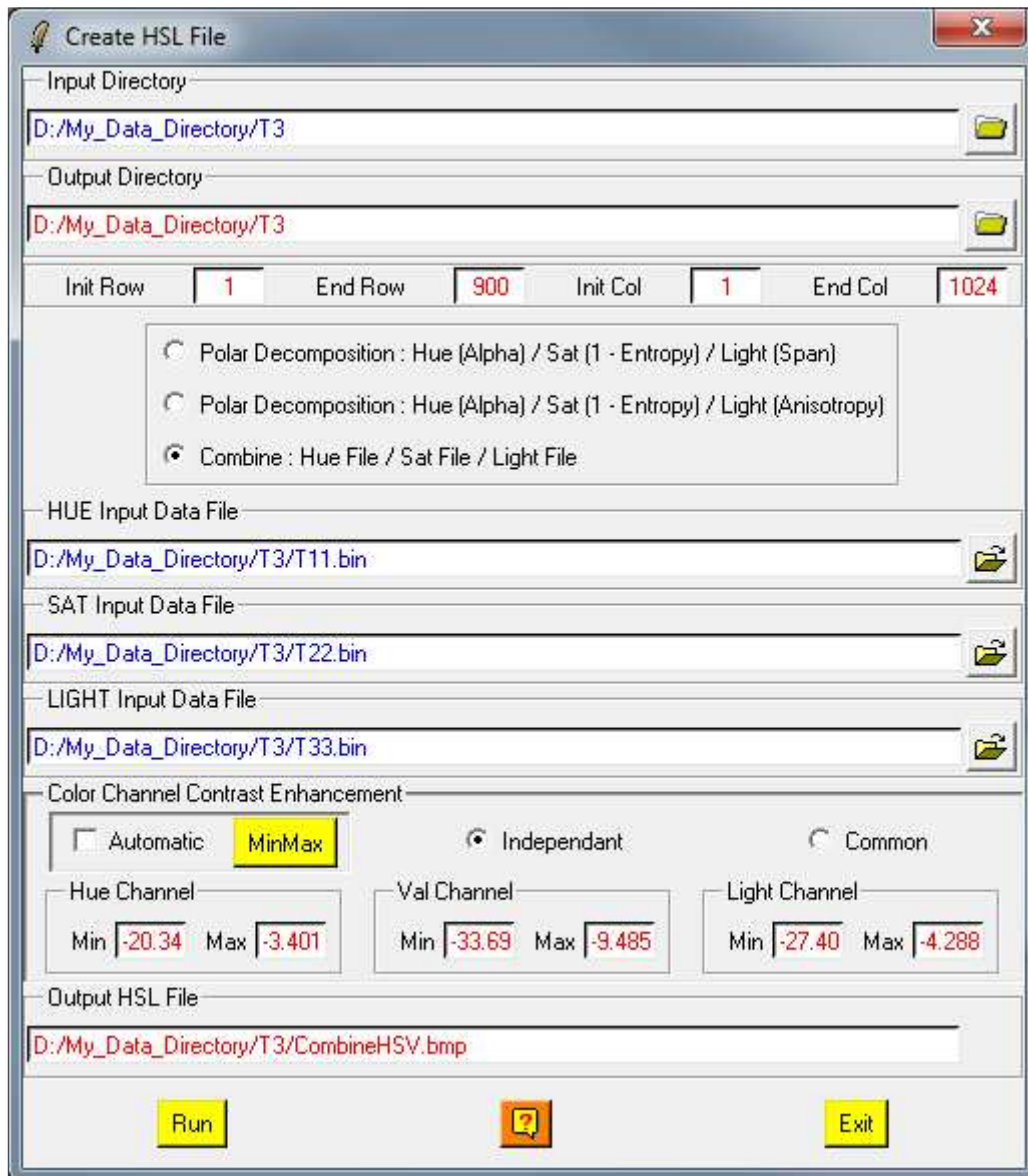


Create HSL File



The screenshot shows a Windows-style dialog box titled "Create HSL File". It contains several input fields and a radio button group. The "Input Directory" and "Output Directory" fields both contain "D:/My_Data_Directory/T3". Below these are four numeric input fields: "Init Row" (1), "End Row" (900), "Init Col" (1), and "End Col" (1024). A radio button group offers three options: "Polar Decomposition : Hue (Alpha) / Sat (1 - Entropy) / Light (Span)", "Polar Decomposition : Hue (Alpha) / Sat (1 - Entropy) / Light (Anisotropy)", and "Combine : Hue File / Sat File / Light File", with the third option selected. Below this are three input fields for "HUE Input Data File", "SAT Input Data File", and "LIGHT Input Data File", all containing paths like "D:/My_Data_Directory/T3/T11.bin". A section for "Color Channel Contrast Enhancement" includes checkboxes for "Automatic", "MinMax", "Independent", and "Common", with "MinMax" and "Independent" selected. Below this are three sub-sections for "Hue Channel", "Val Channel", and "Light Channel", each with "Min" and "Max" value inputs. The "Output HSL File" field contains "D:/My_Data_Directory/T3/CombineHSV.bmp". At the bottom are "Run", "Help" (with a question mark icon), and "Exit" buttons.

Description:

This program creates color coded bitmap image files from different polarimetric binary data files.

The color coding is realised by assigning input files to the Hue Saturation Lightness channels of a 24 bit colormap.

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** containing the raw binary data to be imaged.
- Output Directory** Indicates the location of the processed bitmap image output directory.
The default value is set automatically to the **MainDirectory**.

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.

Polarimetric Decomposition Color Composition:

Color coding according to the results of the H/A/Alpha decomposition may be selected by ticking optional fields. In this case, input files do not have to be specified.

The default Output file name is set automatically to :

MainDirectory / Polar1HSV.bmp or **MainDirectory / Polar2HSV.bmp**.

Input/Output Files:

- Input File** Designates, for each color channel, the real data binary file to be imaged.
Note: Input File must not be complex type.
- Output File** Indicates the name of the bitmap output file
The default output file name is set automatically to :
MainDirectory / CombineHSV.bmp
- Color Channel Contrast Enhancement** 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.
 - **Enhanced Contrast** : The program automatically adapts the color scale (colorbar) to data distribution. Min and max are set so that 5% of the total number of pixels are superior to max and 5% are inferior to min.
- Note** : The Min and Max values can be set independantly for each color channel or can be set in common for the three color channels. In such a case the Min value is equal to the minimum of the three Min values and the Max value is equal to the maximum of the three Max values.
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