

This Help File briefly describes the functionality of each text box, button and feature in the GRIMe GUI. Each feature is listed under the name of its corresponding TAB.

MAIN WINDOW

Show Overlay:

Activates Line Find and/or Edge Point overlays

Find Line:

Activates live line finding

Found Points:

Activates Edge Point overlay (*Show Overlay* must also be selected.)

PROCESS TAB

Load Image:

Loads single image for processing.

Save Raw Image:

Saves grayscale version of currently loaded image.

Save Overlay Image:

Saves currently loaded image including active overlays such as calibration grid, search lines or line find.

Process Images:

Processes batch of images in current directory. A dialog appears. Choose directory in which to store results (.csv) file. Enter desired file name for results file. Click Open and images will be processed.

Source Image Disposition:

Leave – source images will be left in source folder

Copy – source images will be left in source folder and copied to archive folder

Move – source images will be removed from source folder and copied to archive folder

Folder to Show:

Choose Archive or Camera folder to show in process tab

Camera Folder:

Specify source folder for images to be processed. Typically, this is the folder where the camera is placing images.

Archive Folder:

Specify folder for archiving images. Typically, this folder is used to store previously processed images.

SETTINGS TAB

Edge Line Settings:

Threshold – defines grayscale differential required for pixel to qualify as edge point.

Min % - defines minimum percent of columns with edge points required in search region. If minimum percentage is met, edge points will be used to determine edge line.

Kernel Size – defines number of pixels in kernel

Which Edge:

First – first point in search column meeting Edge Line Settings and Edge Polarity Settings qualifies as edge point

Max – edge point is defined by point in search column which exceeds Edge Line Settings by greatest amount

Edges Polarity:

Rising – detects edges moving from light to dark

Falling – detects edges moving from dark to light

All – edge based on strongest edge, whether rising or falling

Edge Line Outlier Removal:

Max Pt Distance – maximum point distance from linear regression of edge points required to consider edge point an outlier. Outliers are removed from linear regression of edge points.

Passes – number of iterations of outlier removal performed

Enable – enable/disable Edge Line Outlier Removal

Angle Restriction:

Nominal – nominal angle on which angle restriction is based

+/- - range of allowable angle. Edge line values outside of this range are removed from data set.

Enable – enable/disable Angle Restriction

Load/Save Settings:

Loads/Saves settings file

CALIB TAB

Load/Save:

Loads/Saves calibration file

Units:

Choose appropriate units

ABOUT TAB

The About Tab contains information about GRIM, a Help Tab and License Tab