BioImageOperation script operations

SetPath(Path)
- •Set path for relative file paths (by default path of current script file)

CreateImage(Width, Height, ColorMode, Red, Green, Blue)
- •Create a new image

OpenImage(Path, Start, Length, Interval)
- •Open image file(s) for processing, accepts file name pattern, start/length #

OpenVideo(Path, Start, Length, Interval)
- •Open video file(s) and process frames, accepts file name pattern, start/length frames or time (ffmpeg formats supported)

OpenCapture(Path, Source, Width, Height, Interval)
- •Open capturing from video (IP) path or camera source (#)

SaveImage(Path, Label, Start, Length)
- •Save image to file, start/length frames or time

SaveVideo(Path, Label, Start, Length, Fps, Codec)
- •Create video file and save image to video file, start/length frames or time, using fourcc codec string (supports installed encoders)

ShowImage(Label, Display)
- •Show image on screen (low priority screen updates) (display: 1 - 4)

StoreImage(Label)
- •Store current image in memory

GetImage(Label)
- •Get specified stored image from memory

Grayscale(Label)
- •Convert image to gray scale

Color(Label)
- •Convert image to color

ColorAlpha(Label)
- •Convert image to color with alpha channel

GetSaturation(Label)
- •Extract saturation from image

GetHsValue(Label)
- •Extract (HSV) Value from image

GetHsLightness(Label)
- •Extract (HSL) Lightness from image

Scale(Width, Height, Label)
- •Scale image

Crop(X, Y, Width, Height, Label)
- •Crop image

Mask(Label)
- •Perform mask on current image

Threshold(Label, Level)
- •Convert image to binary using threshold level, or in case not provided using automatic Otsu method

Difference(Label)
- •Perform difference of current image and specified image

DifferenceAbs(Label)
- •Perform absolute difference of current image and specified image

Add(Label)
- •Adds specified image to current image

Multiply(Factor)
- •Perform multiplication of all color channels by specified factor

Invert(Label)
  •Invert image

UpdateBackground(Label, Weight)
  •Add image to the adaptive background buffer

UpdateAverage(Label, Weight)
  •Add image to the average buffer

AddSeries(Label, Maximum)
  •Add image to image series buffer

GetSeriesMedian()
  •Retrieve median image of image series buffer

AddAccum(Label, AccumMode)
  •Add image to the accumulative buffer (AccumMode: Age, Usage)

GetAccum(Power, Palette)
  •Retrieve the accumulative buffer and convert to image (Palette: Grayscale, Heat, Rainbow)

CreateClusters(Tracker, MinArea, MaxArea)
  •Create clusters; auto calibrate using initial images if no parameters specified

CreateTracks(Tracker, MaxMove, MinActive, MaxInactive)
  •Create cluster tracking; auto calibrate using initial images if no parameters specified

CreatePaths(Tracker, Distance)
  •Create common path usage

DrawClusters(Label, Tracker, DrawMode)
  •Draw clusters (DrawMode: Point|Circle|Box|Angle|Label|Fill)

DrawTracks(Label, Tracker, DrawMode)
  •Draw tracked clusters (DrawMode: Point|Circle|Box|Angle|Label|Track|Tracks)

DrawPaths(Label, Tracker, PathDrawMode, Power, Palette)
  •Draw common paths (PathDrawMode: Age, Usage) (Palette: Grayscale, Heat, Rainbow)

SaveClusters(Path, Tracker)
  •Save clusters to file (CSV format)

SaveTracks(Path, Tracker)
  •Save cluster tracking to file (CSV format)

SavePaths(Path, Tracker)
  •Save paths to file (CSV format)

ShowTrackInfo(Tracker, Display)
  •Show tracking information on screen (Display: 1 - 4)

DrawTrackInfo(Label, Tracker)
  •Draw tracking stats on image

SaveTrackInfo(Path, Tracker)
  •Save tracking information to file (CSV format)

DrawLegend(Label, Display, Position)
  •Draw legend (Display: 1 - 4 or Position on image: TopLeft, BottomLeft, TopRight, BottomRight)

Wait(MS)
  •Pause execution for a period (1000 ms default)

Arguments:　　　Required　　　Optional