Using the plateExplorer application

Summary:

plateExplorer is a very simple command line application that processes worms (Canny edges) in dailymonitor movie files and then sums those edges over a defined number of movie frames to produce a graphical output representing the parts of the plate that worms explored during the movie. These output images can be used to show the paths the worms took or analyzed in software such as ImageJ to determine parameters such as distance, gait, or proximity to an attractant. The 3 channel output image is encoded as follows:
green=starting frame pixels
red= ending frame pixels
blue= sum of all pixels

Flags:

-d
-D
-p
-P Set path to look for movie files. Files are expected to be named dayX.avi, where X is int
-s
-S Starting day number
-e
-E Ending day number
-m
-M Number of frames to analyze
-l
-L Low threshold for Canny edge detection algorithm 0-255
-h
-H High threshold for Canny edge detection algorithm 0-255
-r
-R Learning rate, number of frames at the beginning of movie to sum for background subtraction, default is 75
Example syntax

`sudo ~/wormbot/bin/plateExplorer -p /wormbot/42/ -s 1 -e 27 -m 3600 -L 66 -H 190 -r 30`

Analyze experiment ID number 42 from day1.avi...day27.avi using 3600 frames with a low threshold of 66 and high of 190 and treating the first 30 frames (1 second) as background.

Output files are named lastimage_dayX.png in the current directory.