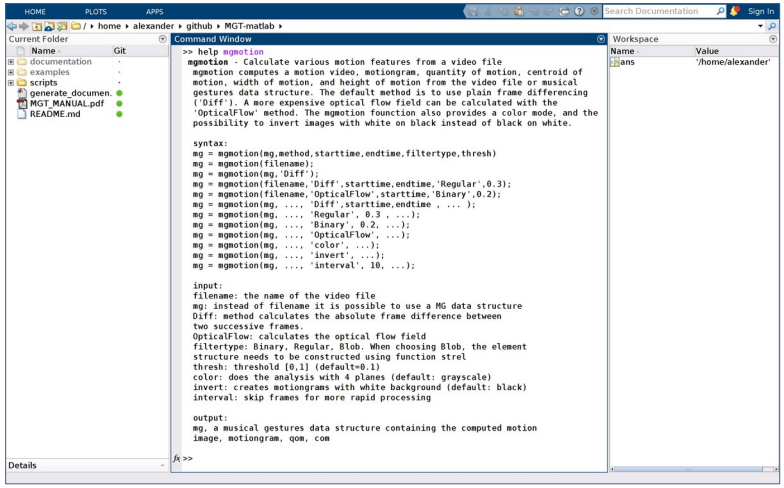
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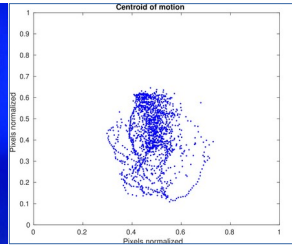
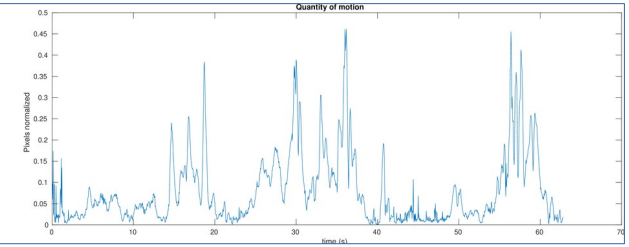
Command Window
>> help mgmotion
mgmotion - Calculate various motion features from a video file
mgmotion computes a motion video, motiongram, quantity of motion, centroid of
motion, width of motion, and height of motion from the video file or musical
gestures data structure. The default method is to use plain frame differencing
('Diff'). A more expensive optical flow field can be calculated with the
'OpticalFlow' method. The mgmotion founction also provides a color mode, and the
possibility to invert images with white on black instead of black on white.
syntax:
mg = mgmotion(mg,method,starttime,endtime,filtertype,thresh)
mg = mgmotion(filename);
mg = mgmotion(mg,'Diff');
mg = mgmotion(filename,'Diff',starttime,endtime,'Regular',0.3);
mg = mgmotion(filename,'OpticalFlow',starttime,'Binary',0.2);
mg = mgmotion(mg, ..., 'Diff',starttime,endtime , ... );
mg = mgmotion(mg, ..., 'Regular', 0.3 , ...);
mg = mgmotion(mg, ..., 'Binary', 0.2, ...);
mg = mgmotion(mg, ..., 'OpticalFlow', ...);
mg = mgmotion(mg, ..., 'color', ...);
mg = mgmotion(mg, ..., 'invert', ...);
mg = mgmotion(mg, ..., 'interval', 10, ...);
input:
filename: the name of the video file
mg: instead of filename it is possible to use a MG data structure
Diff: method calculates the absolute frame difference between
two successive frames.
OpticalFlow: calculates the optical flow field
filtertype: Binary, Regular, Blob. When choosing Blob, the element
structure needs to be constructed using function strel
thresh: threshold [0,1] (default=0.1)
color: does the analysis with 4 planes (default: grayscale)
invert: creates motiongrams with white background (default: black)
interval: skip frames for more rapid processing
output:
mg, a musical gestures data structure containing the computed motion
image, motiongram, qom, com
fx >>
Workspace
Name
Value
ans
'/home/alexander'
Details


Centroid of motion
Pixels normalized
Pixels normalized


Quantity of motion
Pixels normalized
time (s)