Process Description:

Flow analysis interpolates the frame-to-frame displacements computed from speckle tracking using a flow correlation length. Interpolated displacements is then averaged over a time window to remove noise fluctuations. Scalar speed maps are generated as a function of time that reveal the spatial dynamics of polymer flow.

Parameter Descriptions:

Input Channels:

This allows you to select which channels you want to perform flow analysis on. This should be applied to all channels that are going to be used for calculating the noise parameters. Select the channels by clicking on them in the "Available Input Channels" box and then clicking "Select>" to move them to the "Selected Channels" box. You can unselect a channel by clicking the "Delete" button

Number of frames for time averaging:

This value corresponds to the number of frames used when averaging the flows. It must be an odd number of frames.

Correlation length (pixels):

This value corresponds to the correlation length of the flow, i.e. the distance over which flow fluctuations become independent from each other.

Grid size width (pixels):

This value determines the size of the grid used for constructing the speed maps.