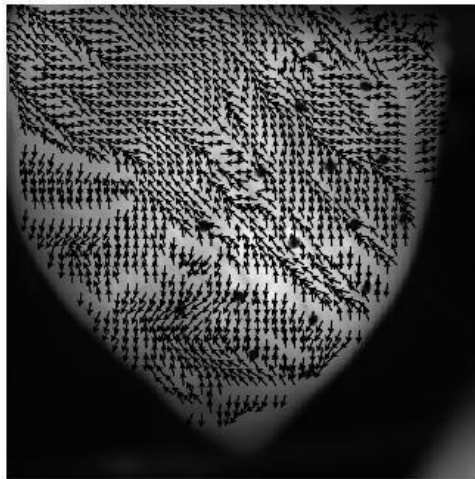## 8-3-6. Conduction velocity analysis (add velocity analysis layer)
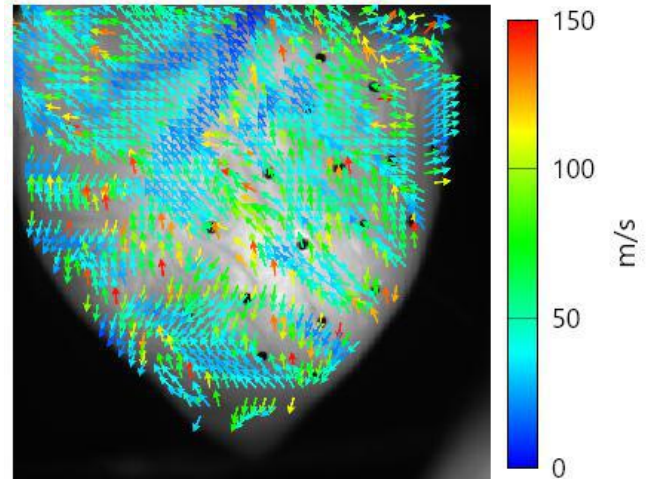
Select [Analyze]-[Add velocity analysis layer] to create and display a conduction velocity map.
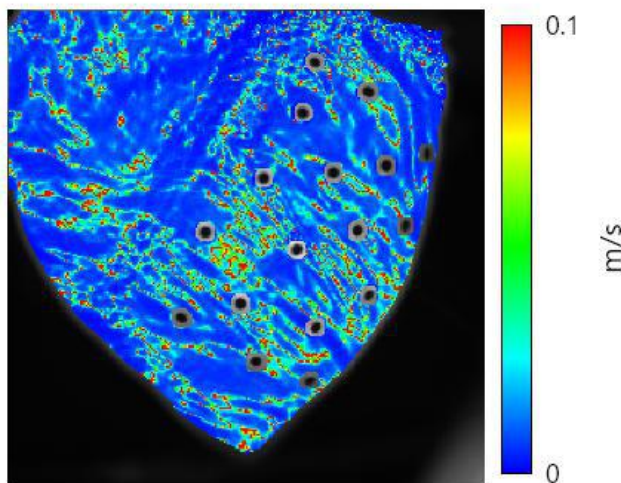Conduction velocity is calculated by taking activation time difference between adjacent pixels.
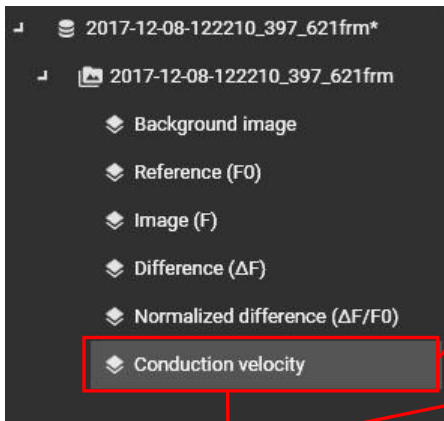

Display with black arrow

Display with colored arrows

Color display of velocity

Operation	Description
Mouse over	Coordinates, speed and angle of that point are displayed in upper left of map
Scroll mouse wheel	Zoom in/out the map
right click	Export data: Save numerical data (conduction velocity) in CSV file format Export figure: Save conduction velocity map in image format (PNG/JPG/BMP) Export video: Save conduction velocity map in video format (avi).

BrainVision

2017-12-08-122210_397_621frm*

2017-12-08-122210_397_621frm

Background image

Reference (F0)

Image (F)

Difference (ΔF)

Normalized difference (ΔF/F0)

Conduction velocity

Right click

Export data: Save numerical data in CSV file format

Rename: Change title

Click on "Conduction velocity" to display setting screen at the bottom left of the screen.

1.0
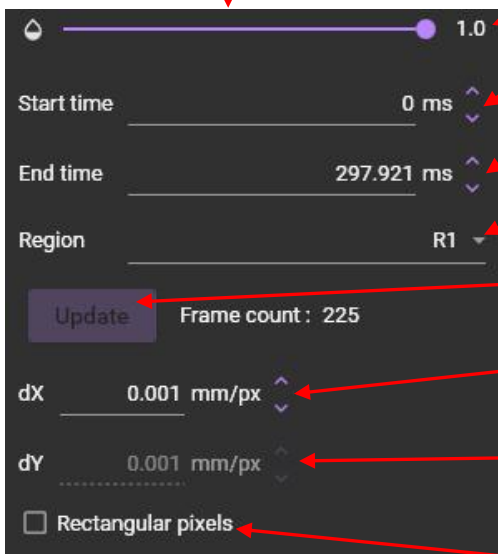
Specify the transparency of the layer.
The lower it is, the more transparent the layer becomes.

Start time   0 ms

Specifies start of time range of map display

End time   297.921 ms

Specifies end of time range of map display

Region   R1

Select target area for map display (all pixels, ROI, mask layer)

Update   Frame count : 225

It becomes active when "Star time", "End time", and "Region" are changed. Click to change map display.

dX   0.001 mm/px

Specify size (horizontal direction) per pixel in mm

dY   0.001 mm/px

Specify size (vertical direction) per pixel in mm
(When [Rectangular pixels] are OFF, same value as dX is automatically input. When [Rectangular pixels] is ON, it can be specified.)

Rectangular pixels
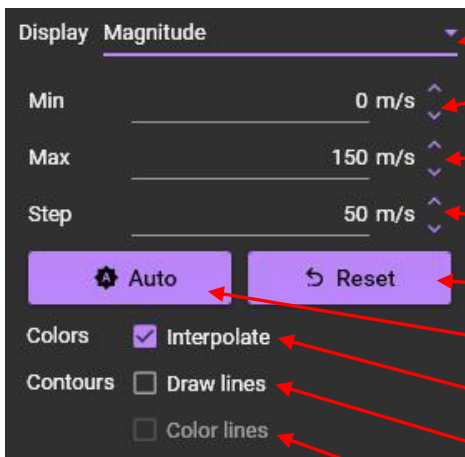
If one pixel is not square, turn it ON and set dY

Display Vectors
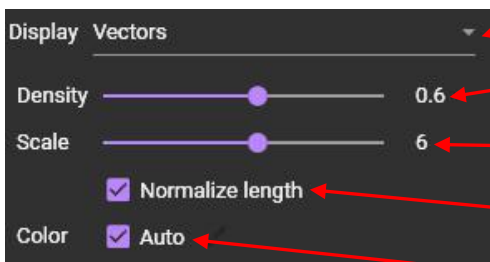
Display vector

Density   0.6

Set display density of vector

Scale   6

Set vector scale

Normalize length

Unify vector lengths

Color Auto

When set to ON, vector is displayed in color according to color bar

Display Magnitude

Color display speed according to color bar settings

Min   0 m/s

Specify minimum speed to display

Max   150 m/s

Specify maximum speed to display

Step   50 m/s

Specify time interval of dividing line

Auto   Reset

Reset settings to initial state

Colors Interpolate

Automatic setting of optimum value

Contours Draw lines

When turned on, the color display becomes gradation

Color lines

Draw contour lines on map

Draw colored contour lines on a black and white background image to display map

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