

# Manual of Nematode Segmentation Tools

## 1. Start of the program

double click “main.exe”, it may last a few seconds for file decompression

## 2. Tools

At the top of the main interface, several tools are available. Click the buttons or use shortcuts to get corresponding tool activated.

### 2.1. “Open” and “Save” buttons

“Open” button will start a dialog, through which you can find and open the image to be annotated.

By clicking “Save”, added annotations will be saved into a “.hdf5” file with the same name under the same directory as the currently opened image.

Similarly, when opening an image, the image directory will be searched. If a .hdf5 file with the same name is founded, the annotations will be loaded.

### 2.2 “Zoom in” and “Zoom out” button

Shortcuts: **Ctrl + A for zoom in; Ctrl + S for zoom out**

### 2.3. “Browse” button

Enter “Browser” mode. In this mode, you can draw nothing but browse all existing annotations

### 2.4. “Poly” button

In this mode, polygons of any shape can be draw:

- Single left click to start the polygon drawing from the current mouse position
- Move the mouse along the boundary of the polygon you want to draw
- Single/double left click to finish

### 2.5. “Ellipse” button

In this mode, ellipses annotations can be created:

- Single click to give an end point of the main axis of the ellipse
- Move the mouse to the other end point of the main axis
- Press **A/S key** to enlarge/shrink the side axis
- Single click to finish

### 2.6. “Dot” button

In this mode, you can make dot annotations by just clicking.

### 2.7. “BBX” button

In this mode, bounding boxes can be created:

- Single click to give a corner of the box
- Move the mouse to the diagonal corner of the box
- Single click to finish

(the drawing can be cancelled by pressing **ESC\_Key** before the drawing is finished)

### **3. Other operations**

#### **3.1 slide the window**

Use scrollbar or **mouse wheel**

#### **3.2. select**

At any mode and any moment except during the drawing, double click will select an annotation

#### **3.3. delete**

Click “Delete” button in the tool bar or press **Delete\_Key** will delete the annotation

#### **3.4. give labels**

With an annotation selected, double click a label in the label list (at the right side of the GUI)