# User's guide

## Open video

For opening a video, go to the main menu: **File -> Open video** and find its path. You can use a shortcut *Ctrl+O*.

## Save video

For saving an output video, go to the main menu: **File -> Save output video file**. The output video contains all tracked objects. However, it is not possible to change these objects later. For saving a video, you can use a shortcut *Ctrl+U*. If you want to save a project for later editing, use: Save project.

## Open project

Projects created by Video Anonymizer can be loaded in the main menu: **File -> Load project**. Projects can be loaded in formats JSON and XML. For opening a project, shortcut *Ctrl+L* can be used. If you want to open a new video, use: Open video.

## Save project

If you want to edit a project later, you can save it in JSON or XML. Such a project is later loaded with all its objects and settings. For saving a project, go to the main menu: **File -> Save project** or use a shortcut *Ctrl+S*. However, saved projects are not media files. If you want to create an output video file, use: Save video.

## Play / Pause video

For playing or pausing a video, go to the main menu: **Player -> Play / Pause**. Alternatively, you can use a shortcut *Ctrl+P* or a button **Play (Pause)** from the video player controls located beneath the video frame. If you want to stop a video (go to its first frame), use: Stop video.

## Stop video

For stopping a video, go to the main menu: **Player -> Stop**. Alternatively, you can use a shortcut *Ctrl+Z* or a button **Stop** located in the video player controls beneath the video frame. If you want to pause a video, use: Play / Pause.

## Video stepping

A video can be moved forward and back by one frame.

## Step forward

For stepping forward, go to the main menu: **Player -> Step forward**. Alternatively, you can use a shortcut *Ctrl+Right* or a button "**>**" located in the video player controls beneath the video

frame.

## Step back

For stepping back, go to the main menu: **Player -> Step back**. Alternatively, you can use a shortcut *Ctrl+Left* or a button "**<**" located in the video player controls beneath the video frame.

## Change playback speed

The video player enables changing a playback speed. The current playback speed is displayed on the video player controls' right.

### Faster

For increasing the playback speed, go to the main menu: **Player -> Speed -> Play faster**. Alternatively, you can use a shortcut *Ctrl+Up* or a button "**+**", located next to the current playback speed.

### Slower

For decreasing the playback speed, go to the main menu: **Player -> Speed -> Play slower**. Alternatively, you can use a shortcut *Ctrl+Down* or a button "**-**", located next to the current playback speed.

### Original speed

For restoring the original video speed, go to the main menu: **Player -> Speed -> Original speed**.

## Track a new object

To track a new object go to the main menu: **Object -> Track object**. Alternatively, you can use a shortcut *Ctrl+Alt+A* or a button **Track object**, located in the video player controls beneath the video frame. You are asked to enter the object's name and to select the object's initial position. When selecting the initial position, you can use the video player to find the desired frame. Select an area of the object to be tracked by Object selection.

## Object selection

Select an area by pressing a mouse button in a video frame at a position where the object begins, move the cursor to the end of the object and release the button. If you want to change the selection, select a new area the same way as the first selection. This way the new area replaces the previous one.

## Rename an object

To rename the object selected in the section "Edit object" go to the main menu: **Object -> Change name**. You can rename the object also in the section **Edit object** at the **General** tab by clicking on a button **Change name**. Alternatively, you can use a shortcut *Ctrl+Alt+N*.

## Delete an object

To delete the object selected in the section "Edit object" go to the main menu: **Object -> Remove**. You can delete the object also in the section **Edit object** at the **General** tab by clicking on a button **Remove**. Alternatively, you can use a shortcut *Ctrl+Alt+R*.

## Change object appearance

An appearance of the object selected in the section "Edit object" can be changed at the **Appearance** tab.

## Defocus or color

For defocusing (anonymizing) a tracked object, check the option **Defocus**. If you want to fill the object with a color or draw a border around the object, check the option **Color**.

## Defocus size

Defocusing can be adjusted by changing the **Defocus size**. It defines the size of squares used for defocusing. The lower the value is, the less visible (more defocused) the object is.

## Shape selection

The item **Shape** defines the drawn shape of a tracked object. This option works only when filling the object with a color or drawing a border (not for defocusing).

## Fill an object

When the option **Fill** is checked in the item **Draw**, the tracked object is filled with a color selected in **Color**. Beside predefined colors, you can [Select a custom color](#).

## Draw a border

When the option **Border** is checked in the item **Draw**, a border is drawn around the tracked object. The thickness of the border is set in **Border thickness** and the color is selected in **Border color**. Beside predefined colors, you can [Select a custom color](#).

## Select a custom color

For selecting a custom color (when selecting a color for a border or for filling an object), click on the first item in the list of colors with the text **+ Add new**.

## Key points

The tab **Key points** in the section **Edit object** contains points (frames) with trajectory changes defined by a user. There are three kinds of points: **Beginning**, **End** and **Trajectory change**. Click on a point to change it or to see a frame where it is defined. "Trajectory change" can be deleted this way.

- **Beginning:** The initial position of a tracked object.

- **End:** The last frame of a tracked object.
- **Trajectory change**: Change of a trajectory on a particular frame. It is used for a correction of a trajectory if the computed one is incorrect.

## Change a trajectory

To change the trajectory of the object selected in the section "Edit object" go to the main menu: **Object -> Trajectory -> Change trajectory**. Alternatively, you can use a shortcut *Ctrl+Alt+T* or a button **Add trajectory change**, located in the section **Edit object** at the **Key points** tab. Selecting a new position for an object is the same as adding a new object: Object selection.

## Change the initial position of tracking

To change the initial position of the tracked object selected in the section "Edit object" go to the main menu: **Object -> Trajectory -> Change beginning**. Alternatively, you can use a shortcut *Ctrl+Alt+B* or an option **Change position** at the item **Beginning** at the **Key points** tab in the section **Edit object**. Selecting a new initial position for an object is the same as adding a new object: Object selection.

## Set the end of tracking

To set (change) the end of tracking for the tracked object selected in the section "Edit object" go to the main menu: **Object -> Trajectory -> Set end of tracking**. Alternatively, you can use a shortcut *Ctrl+Alt+E* or an option **Change last frame of tracking** (or **Change last frame of tracking**) at the item **End** at the **Key points** tab in the section **Edit object**. Find the frame by the video player controls and confirm it.

## Set tracking till the end of the video

To set tracking till the end of the video for the tracked object selected in the section "Edit object" go to the main menu: **Object -> Trajectory -> Set tracking till the end of the video**. Alternatively, you can use an option **Set tracking till the end** at the item **End** at the **Key points** tab in the section **Edit object**

## Partial trajectory computing

Trajectory is computed automatically when needed. This means when a frame should be displayed, the trajectory is computed only up to the point so as the position of a tracked object is known at the frame. If you want to compute all the trajectory for a tracked object, use: Compute trajectory.

## Show a trajectory

For displaying the trajectory of an object selected in the section "Edit object", go to the **Trajectory** tab in the section **Edit object**. "**x**" and "**y**" are coordinates of the object for a particular frame. "**w**" represents its width and "**h**" represents its height. To show a particular frame click on an item.

## Compute a trajectory

For computing all the trajectory of an object selected in the section "Edit object" go to: **Object -> Trajectory -> Compute trajectory**. Alternatively, you can use a shortcut *Ctrl+Alt+O* or a button **Compute trajectory**, located in the section **Edit object** at the **Trajectory** tab. This way all the object's trajectory is computed and [Partial trajectory computing](#) will not be used for the object. That makes a video playback faster and a complete list of an object's positions (trajectory) is available at the **Trajectory** tab.

## Show original video

To display the original video next to the altered video (video with tracked objects) go to the main menu: **Settings -> Show original video**. Alternatively, you can use a shortcut *Ctrl+Shift+H*.

## Show time values

For displaying time values instead of frame numbers, go to the main menu: **Settings -> Show time values**. This option changes displayed values in all the application. Alternatively, you can use a shortcut *Ctrl+Shift+T*.

## Show frame numbers

For displaying frame numbers instead of their time values, go to the main menu: **Settings -> Show frame numbers**. This option changes displayed values in all the application. Alternatively, you can use a shortcut *Ctrl+Shift+N*.

## Change language

Application language can be changed in the main menu: **Language / Jazyk**. Language change will take effect after restarting the application.