

User Manual for SimpleBicycleAnnotation

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1 Introduction

The *SimpleBicycleAnnotation* tool is a graphical user interface (GUI) application designed for annotating videos with bicycle and tram track information. This manual provides a comprehensive guide on how to use the tool effectively.

2 Getting Started

2.1 Loading the Tool

To start the *SimpleBicycleAnnotation* tool, execute the compiled one-file binary.

3 Main Interface

Upon launching, the tool presents a canvas where videos will be displayed, accompanied by control buttons and a menu bar.

3.1 Menu Bar

The menu bar consists of several menus:

- **File Menu:**
 - *Load Video*: Opens a dialog to select and load a video file.
 - *Load TACAL File*: Opens a dialog to load a TACAL calibration file.
 - *Save Annotations*: Saves the current annotations.
 - *Exit*: Closes the application.
- **Edit Menu:**

- *Clear Bicycle Annotations*: Removes all bicycle annotations.
- *Clear Specific Bicycle ID*: Removes annotations for a specific bicycle ID.
- *Clear Tram Tracks*: Removes all tram track annotations.
- *Clear Specific Tram ID*: Removes annotations for a specific tram track ID.

- **Mode Menu:**

- *Bicycle Mode*: Sets the annotation mode to bicycles.
- *Tram Track Mode*: Sets the annotation mode to tram tracks.

- **Help Menu:**

- *Controls*: Displays a list of keyboard shortcuts and controls.
- *About*: Provides information about the tool.

3.2 Canvas

The canvas displays the loaded video. Users can click on the video to annotate positions based on the selected mode (bicycle or tram track).

3.3 Control Buttons

- *Previous Frame*: Navigates to the previous frame in the video.
- *Next Frame*: Navigates to the next frame in the video.

4 Annotating Videos

4.1 Bicycle Annotations

In Bicycle Mode, users can click on the video to annotate the position of bicycle wheels. The tool will prompt for the Bicycle ID and the type of wheel (front, rear, or center). The annotated positions will be highlighted with different colors based on the wheel type.

4.2 Tram Track Annotations

In Tram Track Mode, users can click on the video to annotate tram track positions. The tool will automatically assign a tram track ID.

5 Keyboard Shortcuts

The tool supports various keyboard shortcuts for ease of use:

- *Ctrl + L*: Load Video
- *Ctrl + S*: Save Annotations
- *Ctrl + C*: Clear Bicycle Annotations
- *Ctrl + D*: Clear Specific Bicycle ID
- *Ctrl + T*: Clear Tram Tracks
- *Ctrl + R*: Clear Specific Tram ID
- *Left Arrow*: Previous Frame
- *Right Arrow*: Next Frame