

Version 1.11.0

ADVANCED PEOPLE SENSOR

APS Video Player

Instructions for use



Instructions for use (original)

HAGL-120-00085

HELLA Aglaia People Sensing Technologies
people-sensing.com



HELLA Aglaia Mobile Vision GmbH
Ullsteinstraße 140
12109 Berlin
Germany

phone: +49 30 2000429-0
fax: +49 30 2000429-109
mail: people.counter.support@hella.com
www.people-sensing.com

© 2019 HELLA Aglaia Mobile Vision GmbH, Berlin

Version 1.11.0
23.08.2019

The reproduction, distribution and utilization of this document as well as the communication of its contents to others without express authorization is prohibited. Offenders will be held liable for the payment of damages.
All rights reserved in the event of the grant of patent, utility model or design.

2 / 22

Supplemental directives

Copyright information

© 2019 HELLA Aglaia Mobile Vision GmbH. All rights reserved. This manual is protected by copyright. It may not be reproduced in whole or in part or transmitted in any form, electronic or mechanical, including photocopying and recording, without the prior written permission of HELLA Aglaia Mobile Vision GmbH. Violations are subject to the criminal provisions of copyright law.

HELLA Aglaia Mobile Vision GmbH reserves the right to revise or replace this manual at any time and without prior notice. Make sure that you have the appropriate version of this manual for the installed firmware version of the device. If you have any questions, please contact HELLA Aglaia Mobile Vision GmbH.

HELLA Aglaia Mobile Vision GmbH does not guarantee the completeness, accuracy, or timeliness of the laws, guidelines, or regulations referred to or quoted, whether directly or indirectly, in this manual. It is the responsibility of the user to become familiar with the current laws, guidelines, and regulations that apply to their work.

HELLA Aglaia Mobile Vision GmbH reserves the right to modify the described devices (including the respective software) without prior notice, irrespective of the content of this manual. Unless expressly agreed upon in writing, HELLA Aglaia Mobile Vision GmbH is not obligated to notify the owner or user of the devices described in this manual (including the respective software) of any revisions, updates, or modifications without further request.

With regard to the people counter, HELLA Aglaia Mobile Vision GmbH's liability is limited to the terms and conditions of purchase. The information provided in this manual is not a warranty or guarantee of any kind. Stipulations concerning the devices described in this manual are only deemed warranties if they are expressly referred to as such in writing and contain a description of the warranty's scope and the product covered by the warranty.

The product and company names mentioned in this manual may be protected trademarks of other manufacturers.

The information contained in this manual has been prepared by HELLA Aglaia Mobile Vision GmbH with great care using sources available to HELLA Aglaia Mobile Vision GmbH. However, HELLA Aglaia Mobile Vision GmbH shall not be responsible for any errors, incorrect or incorrectly compiled data, and any consequences resulting therefrom, irrespective of the legal basis, provided that HELLA Aglaia Mobile Vision GmbH's conduct amounts to no more than ordinary negligence.

The aforementioned exclusion of liability does not apply to damages resulting from injury to life, body, or health or to damages that are caused intentionally, by gross negligence on the part of HELLA Aglaia Mobile Vision GmbH, or by the violation of due diligence requirements in connection with the development, manufacture, and distribution of the products described in this manual.

This does not affect the liability regardless of negligence or fault pursuant to legal regulations such as the Product Liability Act.

Document history

Version	Modification
1.11.0	<p>Open videos from current versions.</p> <p>The track info window now shows the dwell time of tracks as “dwell” in seconds instead of “age” in frames.</p> <p>Playing APS-RS videos</p> <ul style="list-style-type: none">■ Possibility to play videos of multi sensor arrays. The player will show moving tracks on a stiched image.■ Adaption for new extended height range in APS-RS SW v1.16 <p>Playing APS-M videos</p> <ul style="list-style-type: none">■ Visualization of new Stop/Motion Detector in APS-M SW v1.9
1.10.0	Creation of document

Table of contents

1	Introduction	6
2	Installation	7
3	Working with the APS Video Player	8
3.1	Work Screen	8
3.2	Playing a video	11
3.3	Displaying additional information	11
3.3.1	Multi Sensor Fusion	15
3.3.2	Motion state	16
3.4	Converting videos	16
3.4.1	Setting a video format	17
3.4.2	Convert single files	17
3.4.3	Convert all files within a folder	18
4	Appendix	19
5	Glossary and abbreviations	20
6	Index	21

1 Introduction

The Advanced People Sensor (APS) can store videos internally. To keep the video data manageable, APS-M videos have a maximum recording time of 60 minutes, and APS-RS videos are split into intervals having a 30 minutes maximum length. These are stored on the APS in an archive (tar-file) format which contains standard video information and configuration and sensing data.

With a standard video player, it is only possible to play back the video information.

The APS Video Player can also overlay specific configuration and sensing data over the video information, such as:

- Counting lines and results
- Zone monitoring info (only with APS retail variants)
- Object tracks
- Track info
- Range
- Floor area
- Obstructions

Having this configuration and sensing data available allows customer installations to be evaluated and counting errors to be analyzed.

In addition, it is possible to combine these configuration and sensing data overlays with the video information, and convert this into a standard video format (playable on a standard video player).

The APS Video Player version 1.11.0 is needed to play videos from the following APS variants:

- APS retail variants (APS-RS) with firmware 1.16
- APS public transport variants (APS-M) with firmware 1.9

The APS Video Player version 1.11.0 can also play videos from all lower firmware versions.

2 Installation


Requirements

- Windows 7 SP1 / Windows 8 / Windows 10 (64 bit versions only)
- At least 2 GB RAM
- Graphic resolution 1024 x 768, 16 bit
- At least 300 MB free disk space

To install the APS Video Player proceed as follows:

1. ➤ Download the installation file from ➔ www.people-sensing.com/downloads/
2. ➤ Start the installation by double-clicking the downloaded executable file.
3. ➤ You'll be ask: This will install APS Video Player 1.11.0. Do you wish to continue? Confirm with <Yes>.➤ The Setup Wizard starts.
4. ➤ Click <Next> for the next step.
5. ➤ The APS Video Player is installed by default in the folder: C:\Program Files\APSVideoPlayer1.11.0.
To change this folder click <Browse>. To go to the next step click <Next>.
6. ➤ The settings for the installation are shown. To start the installation click <Install>.➤ Installation starts.
7. ➤ The APS Video Player has been installed on your computer. To exit the Setup Wizard click <Finish>.

3 Working with the APS Video Player

The easiest way to start the APS Video Player is to double-click the APS Video Player icon  on the desktop which has been placed on the desktop during installation. Alternatively select "→ Start Menu → All apps → APS Video Player 1.11.0 → Run APSVideoPlayer 1.11.0".

3.1 Work Screen

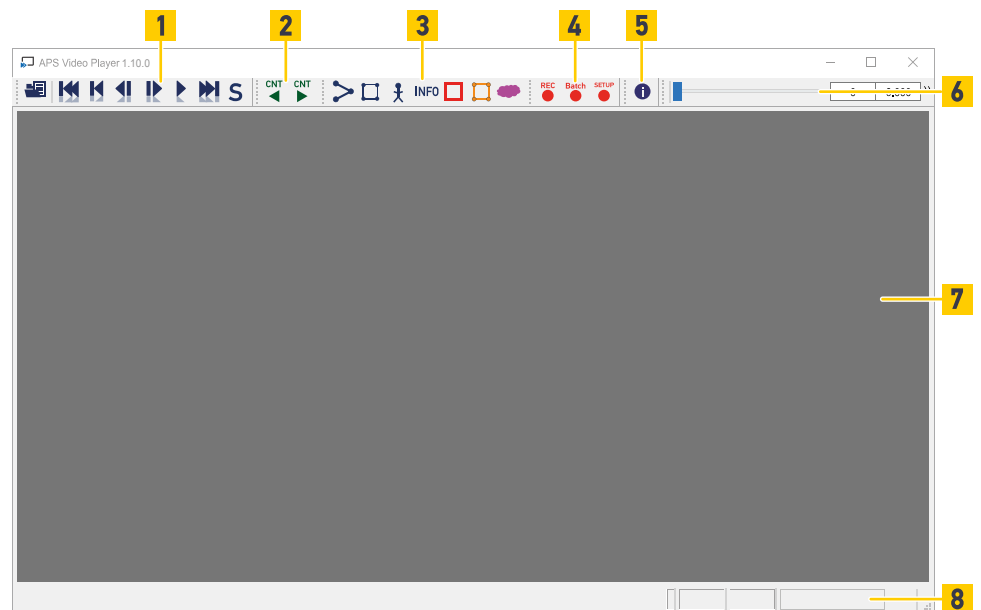


Fig. 1: Elements of the work screen

- | | | | |
|---|-----------------------|---|----------------------|
| 1 | Video control toolbar | 2 | Count event toolbar |
| 3 | Visualization toolbar | 4 | Video export toolbar |
| 5 | Info toolbar | 6 | Time slider toolbar |
| 7 | Video file area | 8 | Status bar |

Video control toolbar

Use the elements of the video control toolbar to open and play APS video files.



Open a video file



Open the previous video file in the directory



Go to the start of the video (or *<home>*)



Step backwards (or *<shift> + <tab>*)



Step forwards (or *<tab>*)



Play/Pause the video (or *<space bar>*)



Open the next video file in the directory



Toggle player speed

Count event toolbar

Use the count event toolbar to go directly to the next or previous count event.



Jump to previous count event



Jump to next count event

Visualization toolbar

Use the visualization toolbar to show or hide counting lines, areas and tracking information. The available information is based on the configuration and licenses of the APS.



Show / hide counting lines and counting results



Show / hide zone monitoring areas and zone monitoring results



Show / hide tracks



Show / hide track information



Show / hide the monitoring range



Show / hide the configured floor area



Show / hide marked obstructions

Video export toolbar

Use the video export toolbar to convert the APS video file with all displayed information into standard video formats like avi or mp4.



Start/stop single video conversion (e.g. avi or mp4)




Convert all video files in a directory



Choose video file format for conversion

Info toolbar

Use the info button  to get information about the program, HELLA Aglaia and Open Source Licenses

Time slider toolbar

Use the time slider toolbar to move to any point in time of a video by either entering the specific frame, entering a specific time stamp or using the slider.


Video file area

See the video and counting information if selected.

Status bar

Get information about the toolbars and the number of files in the current directory.

3.2 Playing a video

1. To open an APS video file click the  button.
 - ➔ The file-open dialog opens to select a tar-file on the computer.
2. Select a tar-file and click open.
 - ➔ The video and counting information are displayed in the video file area (Fig. 1 /7).

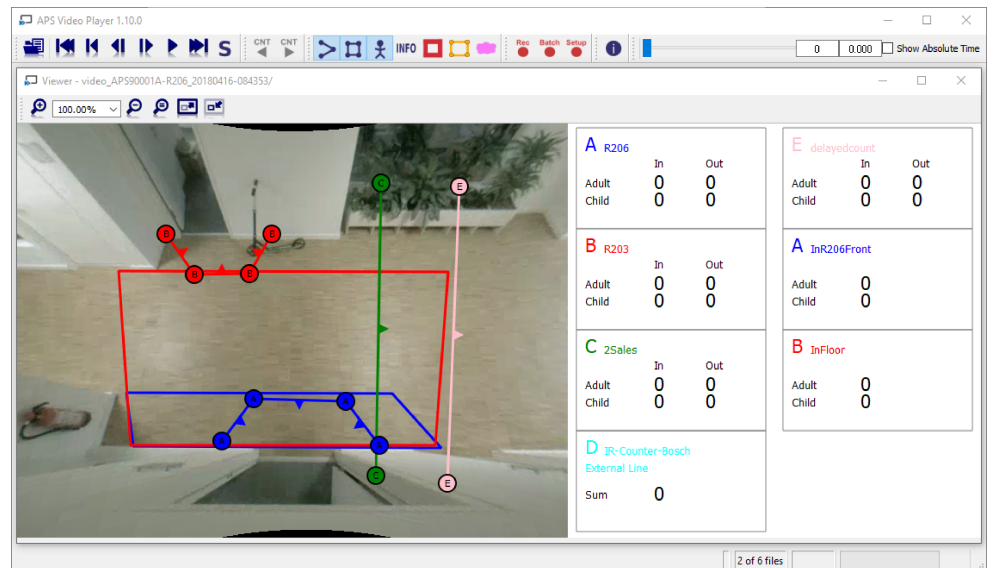








Fig. 2: Displaying APS video file

3. Click the  button to start the play back.
 - ➔ The button changes to .
4. Click the  button to jump to the next count event or the  button to jump to the previous count event. If the video is paused, use the  and  buttons to go step by step through the video.



Keyboard commands

Some of the buttons can also be operated using keyboard commands
(➔ List of keyboard commands on page 19).

3.3 Displaying additional information


When starting the video player and opening a video file, counting lines, monitored zones and tracks are displayed by default.



Licensed functions

Some of the information are licensed functions. They are only displayed if the function is available on the APS.

Working with the APS Video Player

Use  to show / hide counting lines and counting results.

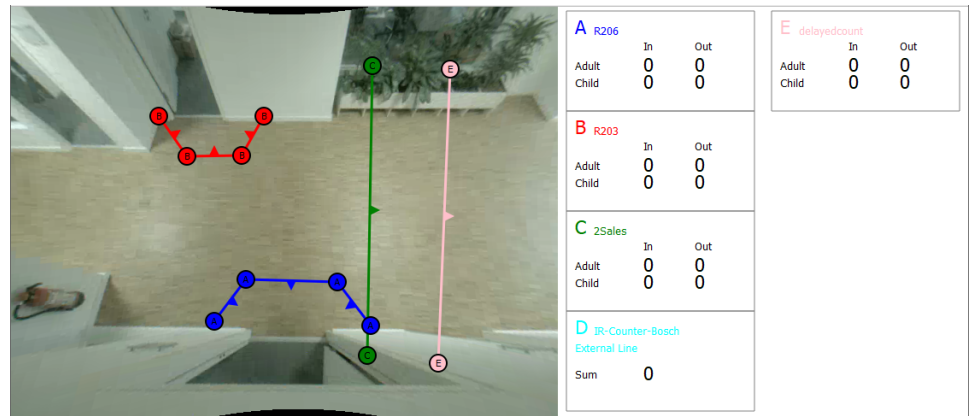



Fig. 3: Displaying counting lines and counting information

Use  to show / hide zone monitoring areas and zone monitoring results.



Only APS-RS variants

This additional information is only available with APS-RS variants.

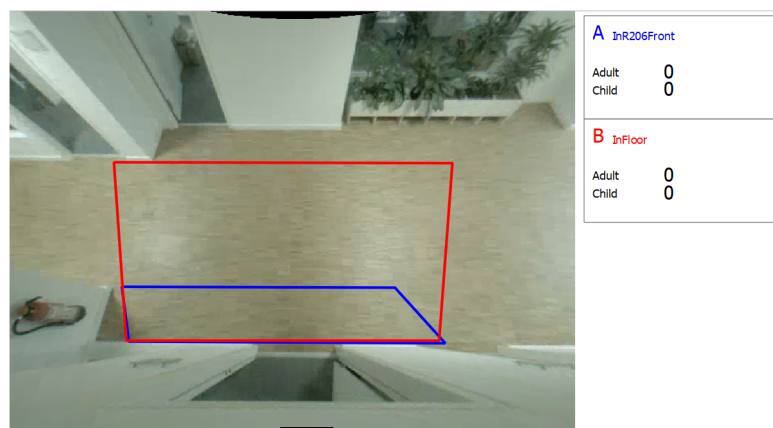




Fig. 4: Displaying zone monitoring areas and zone monitoring results

Use  to show / hide tracks.

Use  to show / hide track information.



Fig. 5: Displaying tracks and track information

Use  to show / hide the monitoring range.

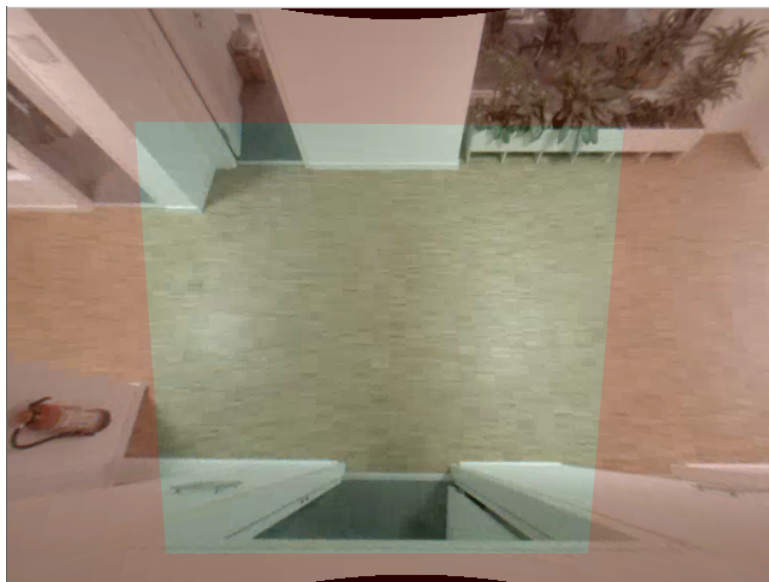



Fig. 6: Displaying the monitoring range

Use  to show / hide the configured floor area.

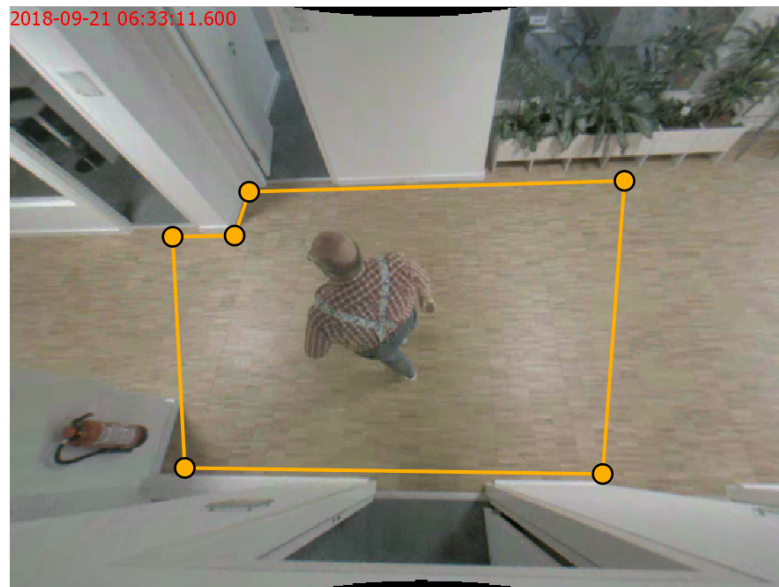


Fig. 7: Displaying the configured floor area


Use  to show / hide marked obstructions.



Fig. 8: Displaying marked obstructions

3.3.1 Multi Sensor Fusion



Only APS-RS variants

This functionality is only available with APS-RS variants.

When a video is played from a Multi Sensor Fusion, the stitched image is displayed. This image is larger than the standard videos. It shows the fusion and can also be in T- or L-shape, like the fusion is.

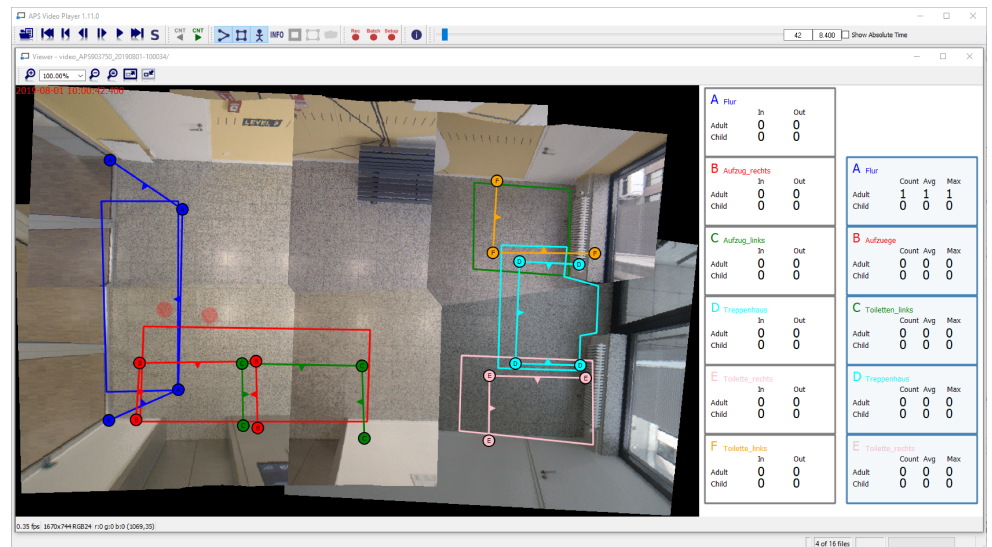


Fig. 9: Multi Sensor Fusion

The video doesn't show any people. Movements can only be recognized by the tracks. Tracks should therefore be displayed.

Information about the floor area, range or obstructions cannot be displayed. The corresponding buttons cannot be selected.

3.3.2 Motion state



Only APS-M variants

This functionality is only available with APS-M variants.

If a video of a current APS-M variant is played, the motion state of the vehicle is displayed. The state can change between Moving and Standing.

A Polyline0		
	In	Out
Adult	0	0
Child	0	0
Bike	0	0

B Polyline1		
	In	Out
Adult	0	0
Child	0	0
Bike	0	0

Motion State: Moving		
-----------------------------	--	--

Fig. 10: Displaying Motion State

3.4 Converting videos

Converting a video means to combine the video data and the selected counting information as overlay into one video file, that can be played by a standard video player software.

There are 2 possibilities to convert:

- Converting a single file.
- Converting all video files in a folder.

For both possibilities first open a file (➔ Further information on page 11).

3.4.1 Setting a video format

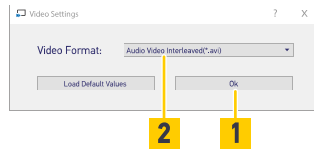



Fig. 11: Video settings




1. ➤ To set the video format of the exported video click .
 - ➔ The Video Settings window opens.
2. ➤ Select a video format from the list (Fig. 11 /2).
3. ➤ To confirm the selection click OK (Fig. 11 /1).
 - ➔ The Video Settings window closes.



Settings

The video export settings are not stored permanently.


3.4.2 Convert single files

1. ➤ To convert a single file switch on .
2. ➤ Switch on all additional information you want to display in the converted video (➔ Chapter 3.3 Displaying additional information on page 11).
3. ➤ To start the conversion click .
4. ➤ To stop the conversion, click  again.
 - ➔ The converted file is stored in a subfolder called “→ *Converted*”, which is created in the same directory as your chosen video file.

The file is named: **<original file name>_<sequential number>.<format extension>**.

3.4.3 Convert all files within a folder

1. ➔ Switch on all additional information you want to display in the converted videos (➔ Chapter 3.3 Displaying additional information on page 11).

2. ➔ To convert all files in a folder switch on .

➔ The Batch Video Conversion window opens.

3. ➔ See the number of files to convert (Fig. 12 /1).

4. ➔ To start the conversion click Start (Fig. 12 /2).

➔ Each file in the folder is converted.

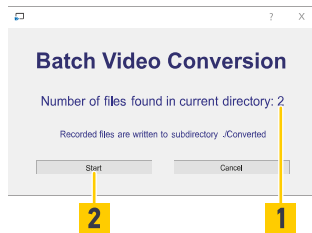


Fig. 12: Batch Video Conversion

5. ➔ The conversion stops when all files are converted. To close the window click Ok (Fig. 13 /1).

➔ The converted files are stored in a subfolder called “→ *Converted*”, which is created in the same directory as your chosen batch folder.

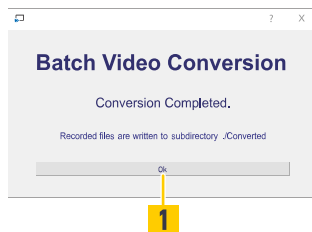


Fig. 13: Batch Video Conversion finished

The files are named: <original file name>.<format extension>.








Storing files

Files with the same name will be overwritten.

4 Appendix

List of keyboard commands

Key	Button	Description
<home>		Go to the start of the video.
<shift> + <tab>		Step backwards
<tab>		Step forwards
<space bar>	 and 	Play/Pause the video

5 Glossary and abbreviations

APS	Advanced People Sensor Second generation people sensor, successor of the APC.
APS-M	APS for Mobile applications such as busses and trains.
APS-RS	APS for Retail & Security and other stationary applications.
AVI	Audio Video Interleave Audio Video Interleave is a multimedia container format from Microsoft that allows synchronous audio-with-video playback.
HAGL	HELLA Aglaia
MP4	MotionPicture4 or MPEG-4 Part 14 is a digital multimedia container format most commonly used to store video and audio, but it can also be used to store other data such as subtitles and still images
tar-file	A tapearchive-file is an archive file to store many files into one single file.

6 Index

C

Converting	16
Converting videos	
All files	18
Single files	17
Copyright information	3
Count event toolbar	9

E

Export format	17
Export videos	16

I

Info toolbar	10
Installation	
Procedure	7
Requirements	7

K

Keyboard commands	9, 19
-------------------------	-------

M

Motion state	16
Multi Sensor Fusion	15

O

Operating system	7
------------------------	---

R

Requirements	7
--------------------	---

S

Status bar	10
Stiched image	15
Stop/Motion detection	16

T

Time slider toolbar	10
Toolbar	
Count Events	9
Info	10
Time slider	10
Video controls	9
Video export	10
Visualizations	9

V

Video control toolbar	9
Video export toolbar	10
Video file area	10
Video format	17
Visualization toolbar	9

W

Workscreen	8
------------------	---

CONTACT US

**DRIVING
SOFTWARE
INNOVATION**

246 **HELLA Aglaia Mobile Vision GmbH**
247 A member of the HELLA group
248 Ullsteinstraße 140
249 12109 Berlin / Germany
250
251 phone +49 (0) 30 2000 429-625
252 fax +49 (0) 30 2000 429-149
253 mail info@people-sensing.com
254 www.people-sensing.com