

GATEKEEPER

G4 VIEWER PLUS **User Manual & Install Guide**

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TABLE OF CONTENTS

INTRODUCTION	3
<i>Operating System Requirements</i>	<i>3</i>
INSTALLATION	3
LOGIN.....	4
INTERFACE	6
1. DEVICE DIRECTORY	7
<i>Adding a Video</i>	<i>7</i>
<i>Deleting a Video</i>	<i>7</i>
2. CALENDAR.....	8
3. VIDEO PLAYBACK.....	8
<i>Channel Playback Detail</i>	<i>10</i>
<i>Blur Tool.....</i>	<i>10</i>
<i>Invert Blur.....</i>	<i>13</i>
<i>Saving the Blur.....</i>	<i>14</i>
<i>Zoom In Tool.....</i>	<i>15</i>
4. PLAYBACK AND EDITING CONTROLS.....	16
<i>Clip Settings Dialog.....</i>	<i>18</i>
<i>Saving a Clip</i>	<i>19</i>
<i>GPS Filter Controls.....</i>	<i>20</i>
5. TIMELINE AND SENSOR DETAILS	20
<i>Zoom Controls.....</i>	<i>21</i>
<i>Channel</i>	<i>21</i>
<i>Speed</i>	<i>21</i>
<i>Alarm.....</i>	<i>22</i>
<i>Acceleration</i>	<i>22</i>
<i>Environment.....</i>	<i>22</i>
<i>Picture</i>	<i>23</i>
<i>OBD (On-Board Diagnostics).....</i>	<i>23</i>
6. MAP PANEL.....	23
7. DOWNLOAD	25
<i>Task Panel</i>	<i>25</i>
<i>Completed Panel.....</i>	<i>26</i>
8. LOGIN.....	26
9. CONFIGURATION	26
<i>System Settings.....</i>	<i>26</i>
<i>Mini-Player Format Options.....</i>	<i>27</i>
<i>Permissions Settings</i>	<i>28</i>
<i>About.....</i>	<i>29</i>

Introduction

G4™ Viewer Plus offers un-paralleled video management with its ability to quickly find, save and share video incidents. High-definition video, synchronized with date and time stamps, GPS Mapping, and audio and vehicle sensors, gives you a complete picture of fleet events.

The G4 Viewer's quick and intuitive interface sets the standard for viewing and sharing video clips for fleet and asset management. Video clips can be saved locally as a multi-media video files (*.AVI file format), or exported as a self-contained video player, to make sharing video clips easier than ever before.

Operating System Requirements

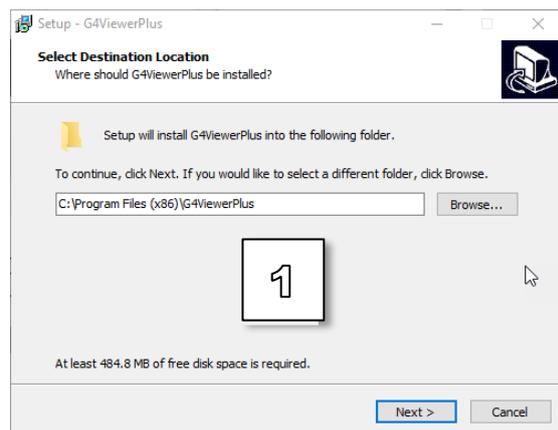
G4 Viewer Plus is compatible with Microsoft Vista; Microsoft Windows 7; Microsoft Windows 8 and Microsoft Windows 10 operating systems.

Installation

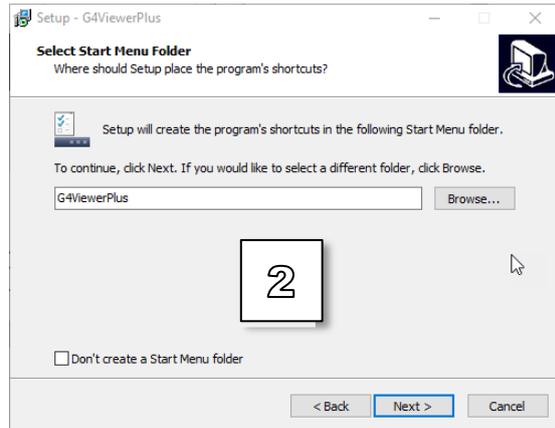
G4 Viewer Plus can be installed using the installer package found on the DVD, or as a free download from www.gatekeeper-systems.com

Installation:

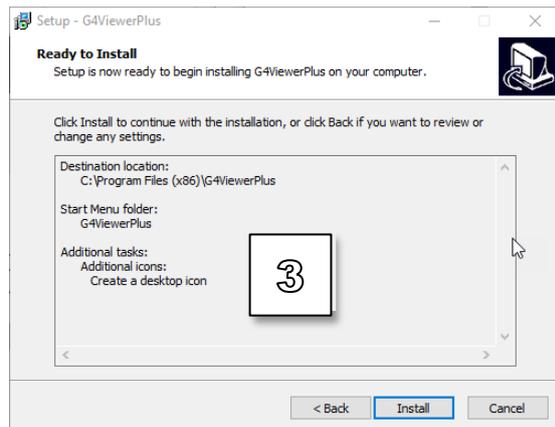
1. Double click the SETUP.EXE file to begin installation. When you're ready to proceed with the installation process, click **Next**.



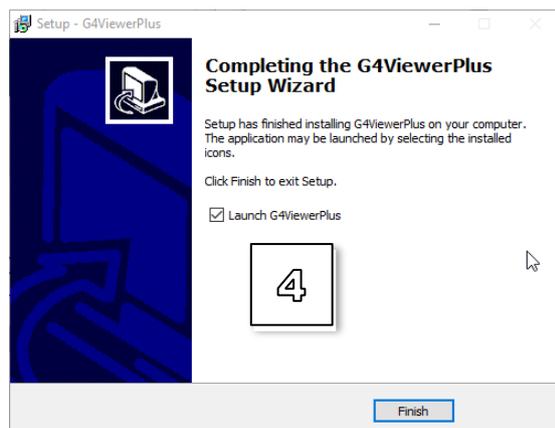
2. Choose **Next** to use the default install location; or click 'Browse...' to select an alternate installation directory.



3. A summary window will display details including the location / options / additional tasks selected. Review, and then proceed by clicking **Install**.



4. Click **Finish** to complete the installation process. You can choose to launch the G4 Viewer immediately by selecting the 'Launch G4 Viewer Plus' checkbox.



Login

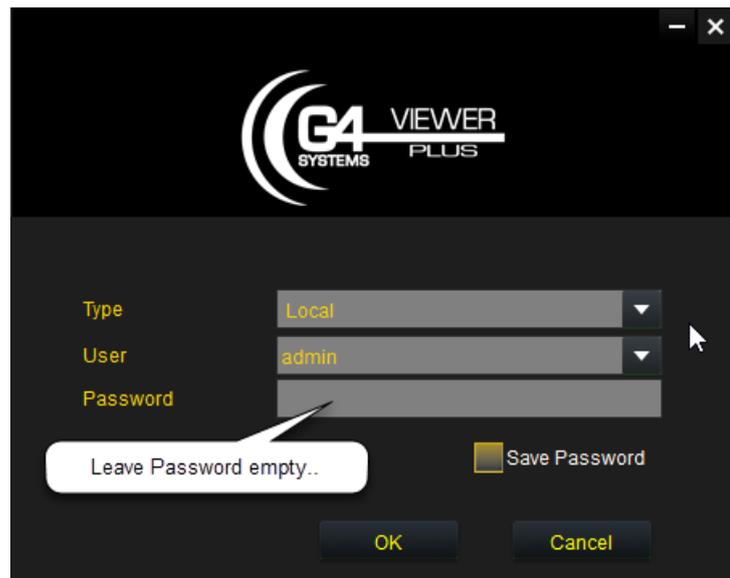
After launching G4 Viewer Plus you will be presented with a login screen.

Login using the following credentials:

- Type: Local.
- User: admin
- Password: <blank>

Click OK to login.

Note: User passwords are dependent on the system configuration, and may be changed by your system administrator using the 'Permissions Settings' panel.



Interface

The screenshot displays the G4 Viewer Plus interface with the following components and callouts:

- 1 DEVICE DIRECTORY:** A sidebar panel on the left showing a list of devices under the heading "Device Directory".
- 2 CALENDAR:** A calendar widget below the directory, showing the month of December 2017.
- 3 VIDEO PLAYBACK:** A central grid of video feeds from various cameras, including exterior views of a bus and interior views of the cabin.
- 4 PLAYBACK & EDITING CONTROLS:** A control bar at the bottom of the video grid with play, stop, and other playback functions.
- 5 TIMELINE & SENSOR DETAILS:** A timeline at the bottom of the interface showing sensor data for Channel 1 through Channel 4.
- 6 MAP PANEL:** A map on the right side of the interface showing the current location of the bus (006001FA73) on a road network.
- 7 DOWNLOAD:** A button in the top right corner for downloading data.
- 8 LOGIN:** A button in the top right corner for user authentication.
- 9 CONFIG:** A button in the top right corner for system configuration.

1. Device Directory

The Device Directory is a library of video clips that are organized by vehicle name.

Adding a Video

To add a new video clip simply click the 'Add' button. The Select Folder dialog will appear. Navigate to the folder containing the video files, and click 'Select Folder.'

- Once a video is Added, the vehicle name will appear.
- Double-clicking on a vehicle name will load the Calendar, which displays the dates of videos recorded for the vehicle.
- Double-clicking on one of the highlighted Calendar days will load all recorded video clip information into the Video Playback and Timeline and Sensor Details panels.



The Directory will automatically update once a new clip is created; displaying the name or the vehicle, and the date of the recording (in the Calendar panel).

Deleting a Video

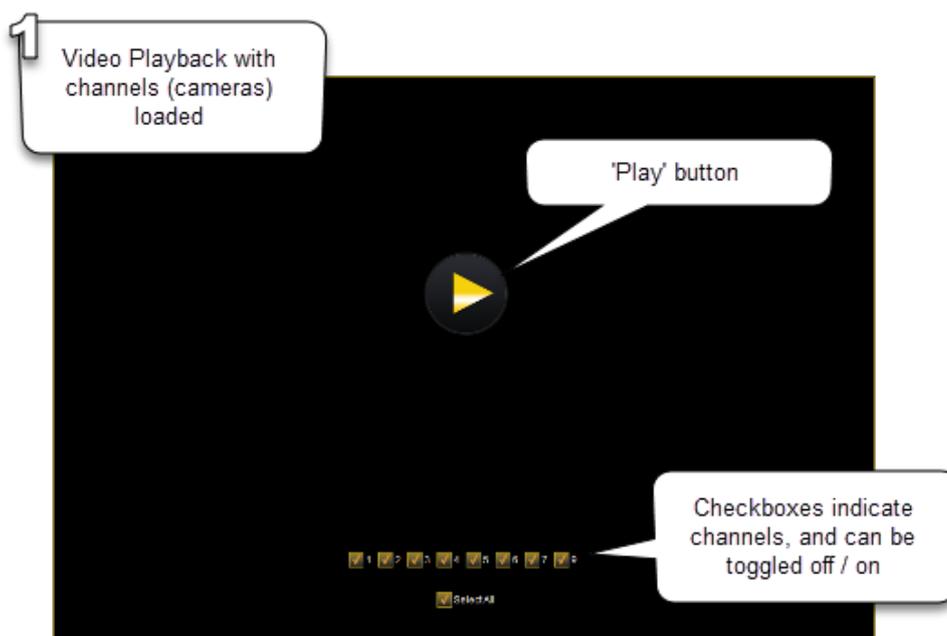
To remove a video, highlight the video from the Directory, and click the 'Delete' button.

2. Calendar

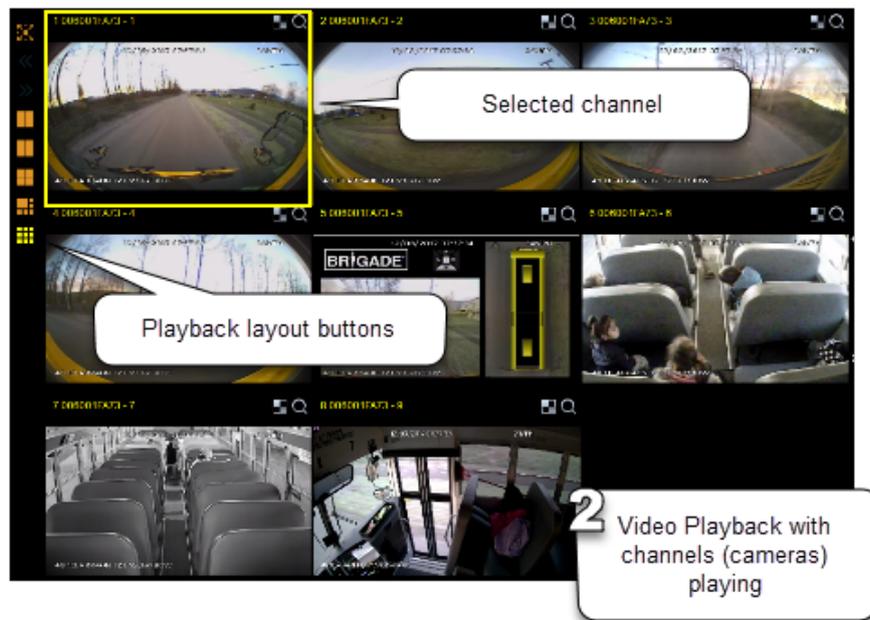
The Calendar panel provides an intuitive interface to display and browse the dates of video clip recordings. Video recording dates are highlighted on the calendar in orange, and indicated by a red dot. Double-clicking a highlighted calendar day will load a video clip into the playback panel.

3. Video Playback

The Video Playback panel is used for viewing recorded video clips. When video is initially loaded, the panel will display the 'Play' button and all available channels.



Once you press 'Play', the videos (one for each channel) will begin playing.

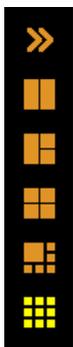


The size or layout of the video playback channels can be modified to suit your preference:

- Double-clicking a channel will increase the size so that it fills the panel.
- The layout and arrangement of channels can be modified by selecting a channel with your mouse (a selected channel is indicated by a yellow bounding box), and dragging and dropping the channel into a new position.

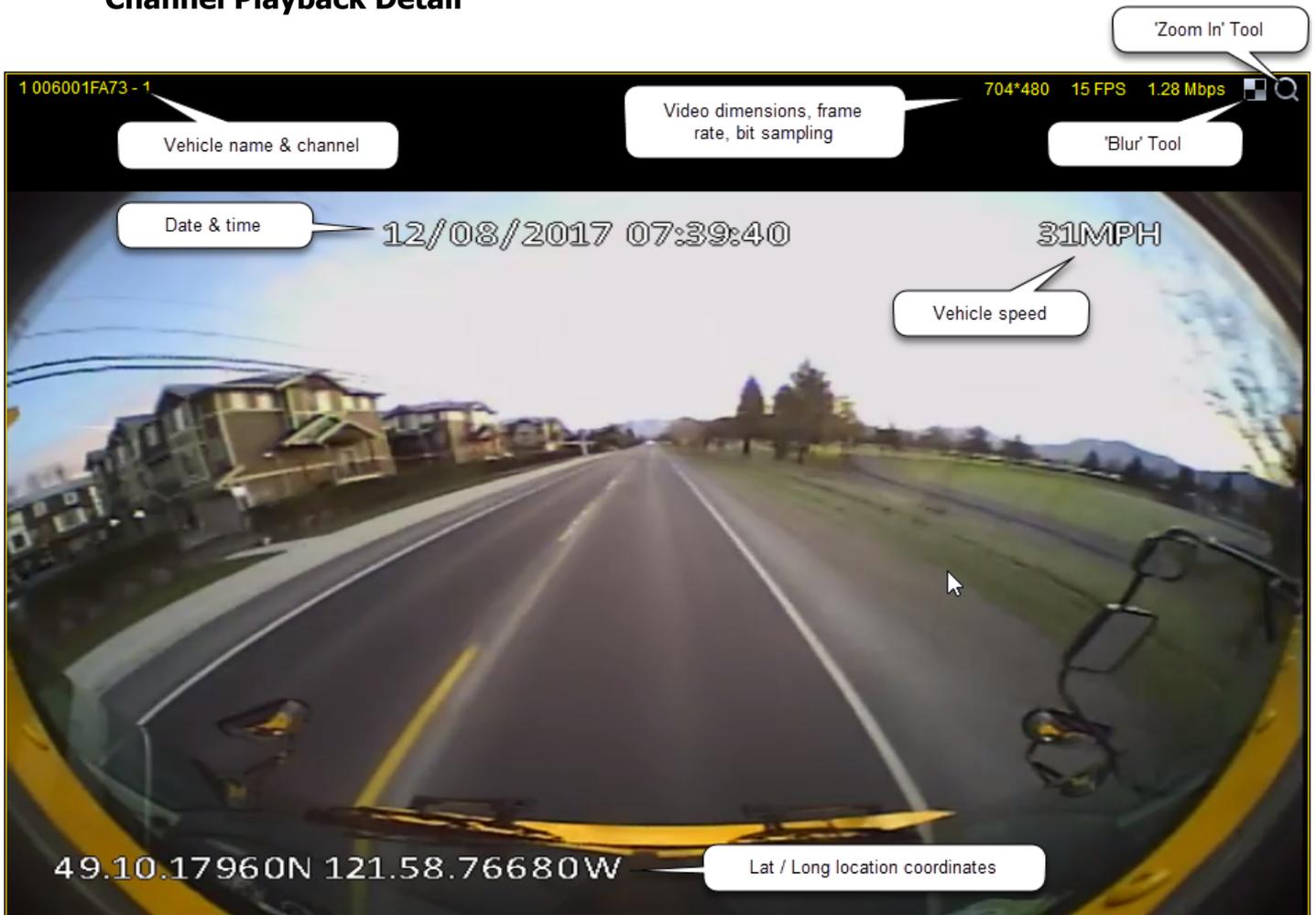


- Using the 'Full Screen' button maximizes the currently selected channel to fill the screen.



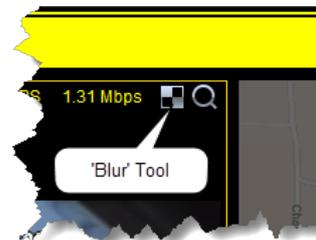
- Using the window toolbar, and selecting one of the '2-3-4-6-9 Windows', allows you to change the number of channels being displayed. If channels are hidden in the current playback window display, the 'next page' button will appear, allowing you to page through all the channels.

Channel Playback Detail

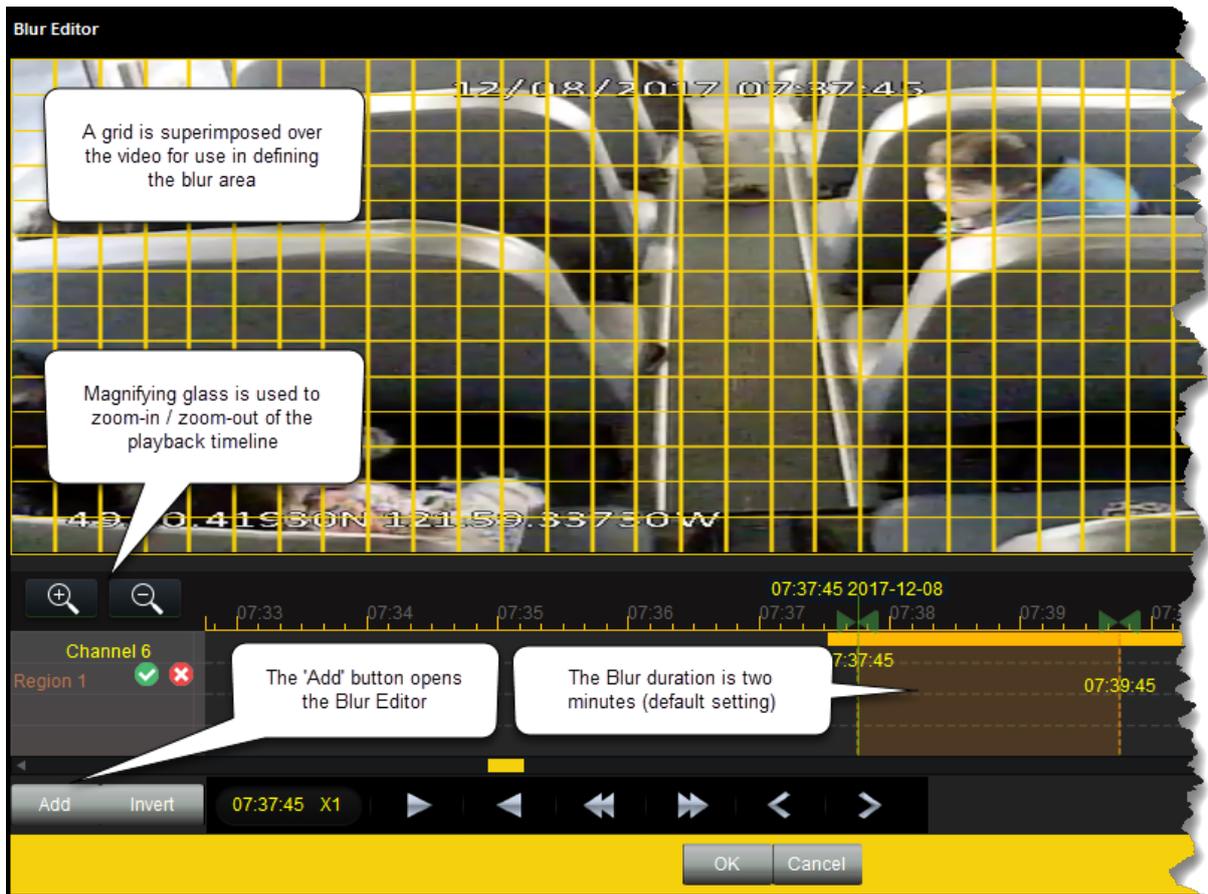


Blur Tool

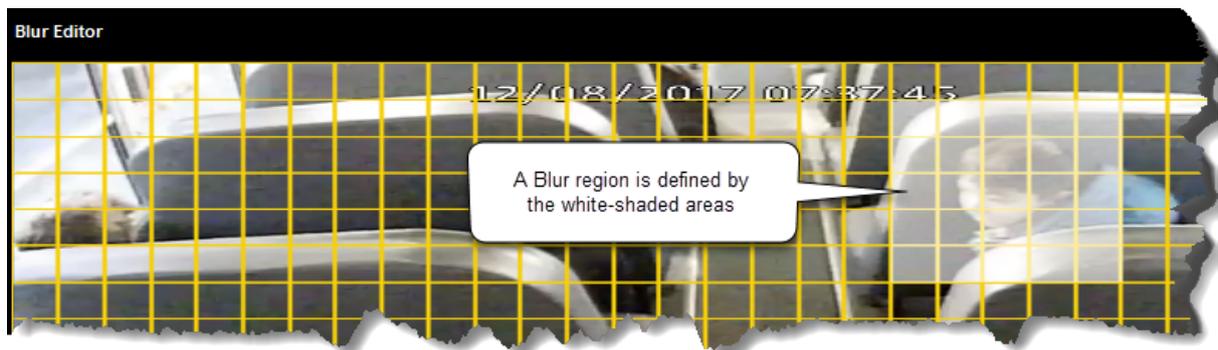
The blur tool enables regions of a video file to be masked-out using a pixelated 'blur' during playback to protect an identity, or ensure anonymity in your video recordings.



- Opening the 'Blur' Tool, and clicking 'add' will launch the 'Blur Editor' interface.

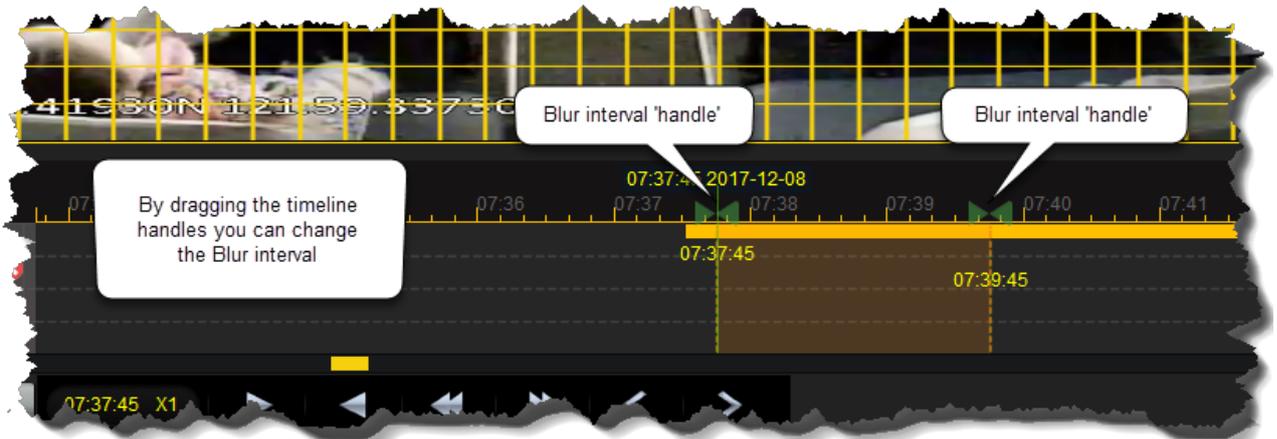


The Blur Editor is characterized by a yellow grid that is superimposed over the image displayed in the video playback window.

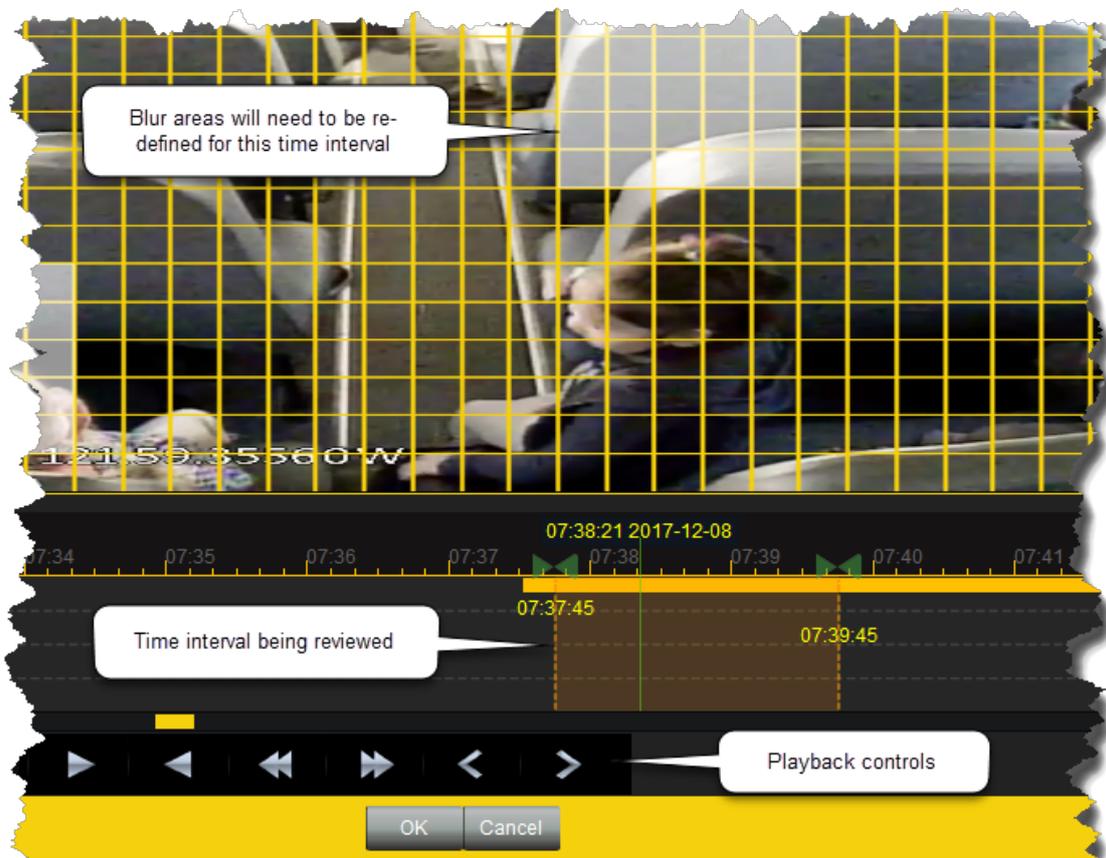


- A blur region is defined by clicking on cells in the grid, or drawing a fence by clicking and holding your mouse to define a rectangular area. You can create one or many blur areas, depending on your needs.

Note: When adding a new blur, a 2-minute interval is created by default. The duration can be modified from the Blur Edit window by dragging the timeline interval 'handles'.

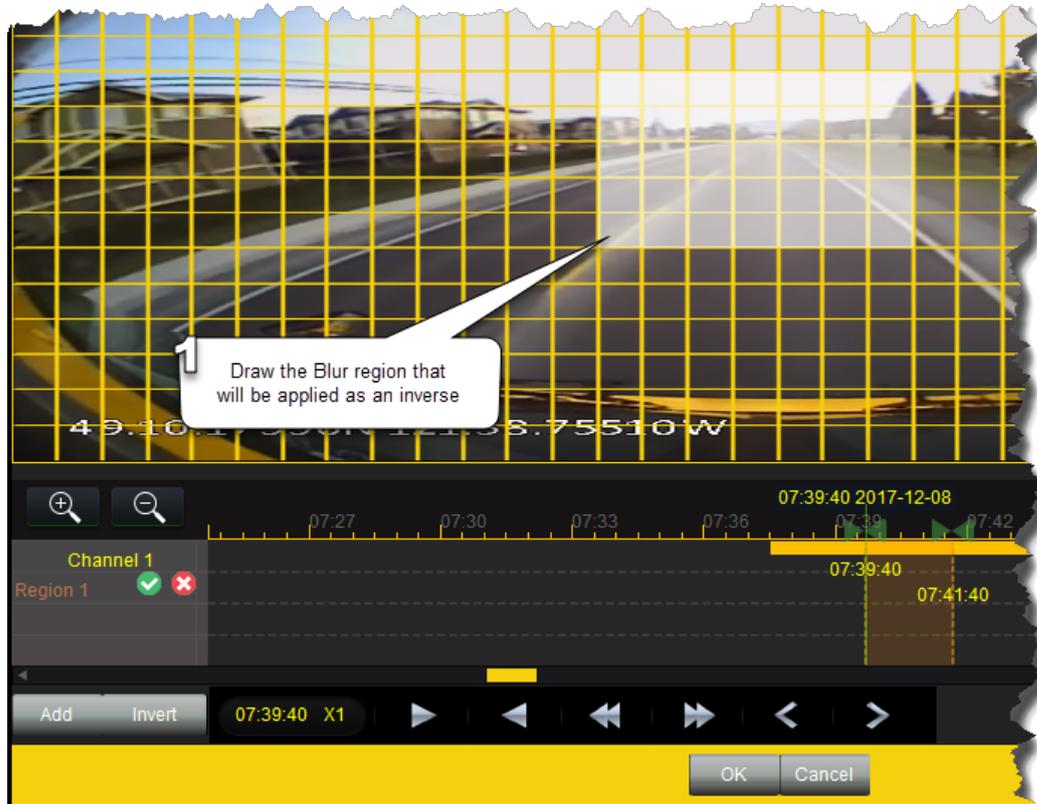


- Use the playback controls to advance the video and review the placement of the blur areas. If elements within the video move, the blur areas may need to be redefined.



Invert Blur

When the blur region to be defined is particularly large, it is often easier to use the 'Invert' blur tool. Define a blur area as you typically would; but rather than mask the areas to be hidden, the invert tool will keep the defined region visible, and blur everything else. As a result, elements not included in the blur area will be masked.

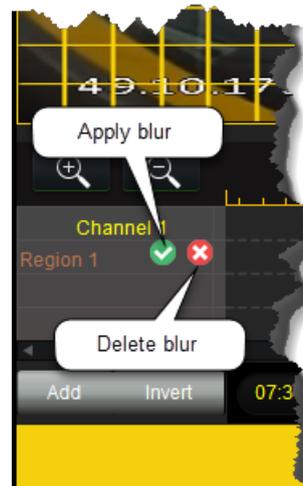




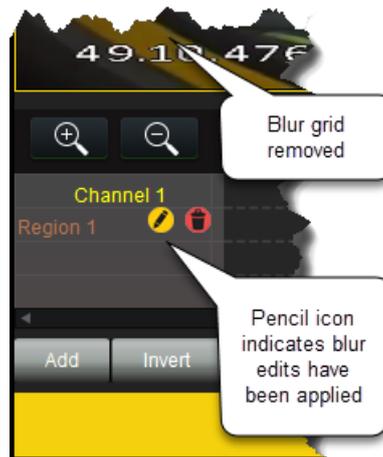
Saving the Blur

1. Once you have defined a blur region, the blur can be applied to the video clip by clicking the checkmark icon (located in the bottom-left corner of the Blur Editor window).

If you're not satisfied with the defined blur region, it can be removed by clicking the 'X' (delete) icon.



2. After applying the blur, the checkmark icon will change to a pencil, indicating that the edits have been saved. You'll also notice that the yellow grid disappears from the Blur Editor window.

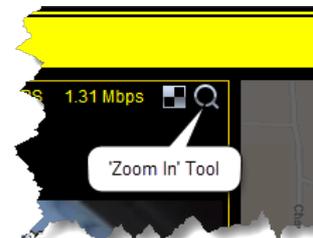


3. Clicking 'OK' will commit the changes and close the Blur Editor window.

Zoom In Tool

The zoom in tool enables an area of the video file to be enlarged on the screen.

Note: This tool increases the size of video pixels, but does not increase pixel resolution. Image clarity will be dependent on the original video dimensions and bit sampling.



- Click the magnifying glass icon to launch the zoom in tool.
- The mouse-pointer cursor will change to a crosshair cursor. Define the area to enlarge by drawing a fence, which is represented on screen as a red rectangle. Once you release the fence, the screen will zoom to the defined area.



- To reset the zoom to full extents; click the magnifying glass once again. The mouse-pointer cursor will change to a pointing finger cursor. Double-clicking anywhere in the video clip to reset the extents.

4. Playback and Editing Controls

Buttons on the playback toolbar are used to control the speed of video clip (channel) playback. Additional editing controls can be used to take snapshots, create video clips, and export the vehicle's GPS location information.

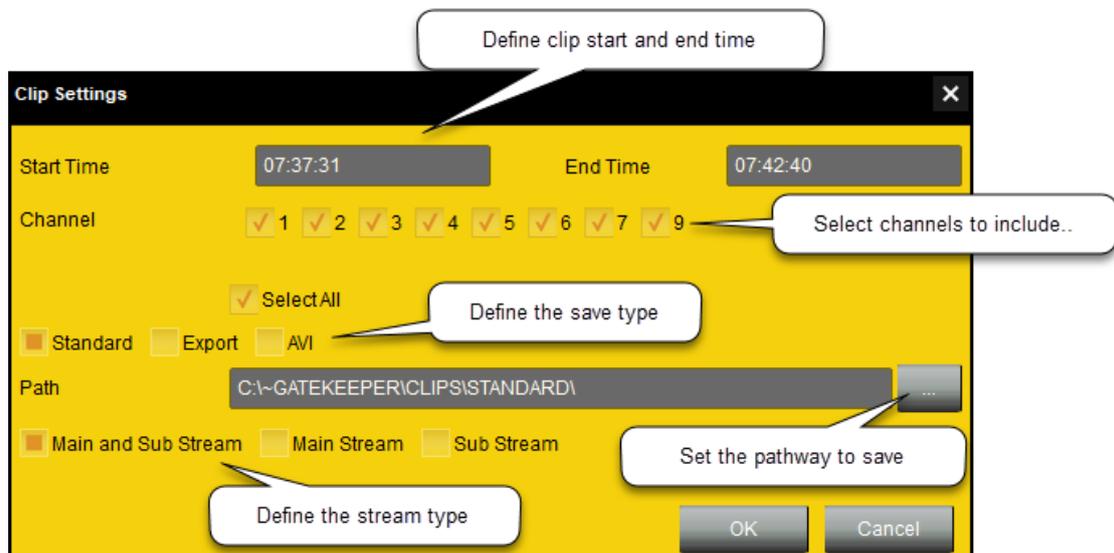
Note: Some buttons may be disabled until playback has started.

	<p>Playback details The time of playback currently being displayed, and the playback speed (e.g.) X1 indicates normal playback speed.</p>
	<p>Play</p>
	<p>Rewind</p>

	Stop
	Slow Forward Reduces the playback speed. Each time the button is pressed the playback speed is reduced by half.
	Fast Forward Increases the playback speed. Each time the button is pressed the playback speed is doubled.
	Previous Frame Moves the playback backwards a single frame. Frame duration is defined by the video FPS setting.
	Next Frame Advances the playback forward a single frame. Frame duration is defined by the video FPS setting.
	Sound Opens the volume control toolbar to adjust and mute volume.
	Snapshot Takes an image snapshot of the current playback in a *.BMP file format. The location where the file is saved is specified in the Config, System Settings.
	Clip Creates a shorter duration video clip for sharing. <ul style="list-style-type: none">○ When the Clip button is pressed, playback is paused, and a 10-minute video clip is created; five minutes to either side of the current playback time (default setting).○ Clicking 'OK' opens the 'Clip Settings' dialog.

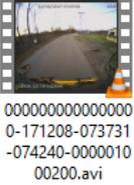
Clip Settings Dialog

The Clip Settings dialog provides tools to control all aspects of video clip creation:



- Start Time and End Time input boxes allow you to control the time interval and duration,
- Channel checkboxes allow you to define which channels (cameras) should be included in the clip,
- Save type allows you to choose which file format to use for exporting and sharing video clip data. Choose from:

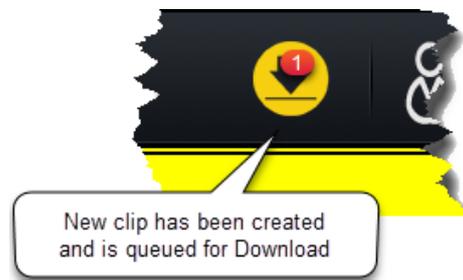
 <p>006001FA73</p>	<p>Standard: 'Standard' format exports video clips in the format used by the G4 Viewer Plus software. Choose 'Standard' when you will be sharing video clips with users who have a licensed version of G4 Viewer Plus installed.</p>
 <p>006001FA73_2017 1208_073731_074 240.exe</p>	<p>Export: 'Export' format exports video clips in a stand-alone application (*.EXE) that combines video clip data with a self-contained video player. Choose 'Export' when you will be sharing video clips with users who do not have access to G4 Viewer Plus, but still need access to sensor data, and the viewer's functionality.</p> <p>The Export option allows you to apply a password that must be supplied before the user can playback a clip.</p>

	<p>Note: The data storage format used by the Mini Player is specified by using the 'Systems Setting' panel through the configuration tool. The Mini-Player export options include: a) Single Executable File, or, b) Separate Executable and Data File.</p>
	<p>AVI: 'AVI' format exports video clips as an '*.AVI' multimedia file. Choose AVI when sharing video clips with users who have no need for sensor data, and have a media player installed (e.g. VLC, Windows Media Player, etc.).</p>

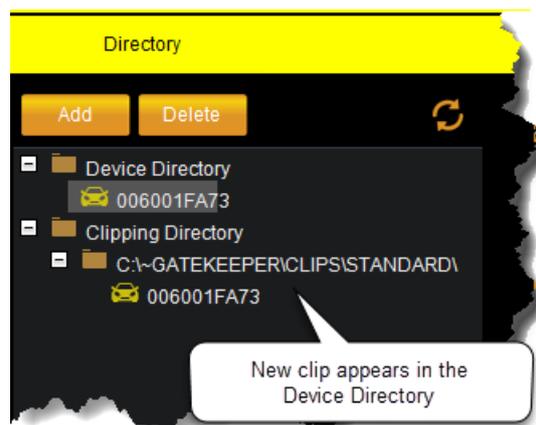
Saving a Clip

Once you have completed all the Clip Settings parameters and click 'OK':

1. An animation indicating a new clip is being created will appear in the 'Download' tool (top-right corner).



2. A new entry will appear in the 'Device Directory' that provides pathway information, and allows you to edit or play back the new clip.



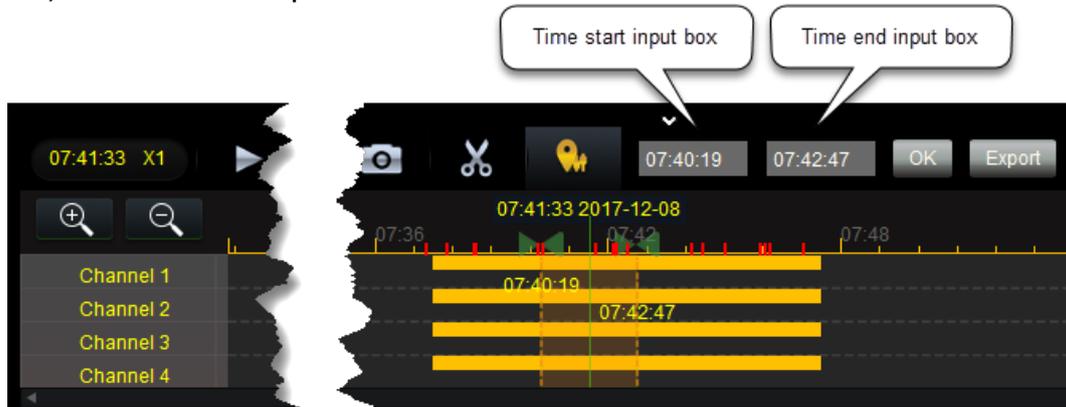
- Path allows you to define the directory location in which to save the video clip.
- Stream type defines what data streams to include when creating the clip.

	<p>GPS Filter</p>
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	Exports the GPS location data for the vehicle. GPS data is exported as Lat / Long coordinate pairs in an *.XLS format.
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GPS Filter Controls

- When the GPS filter button is pressed, playback is paused, and a GPS filter is created. The duration of the GPS filter can be modified by adjusting the time start, and time end input boxes.



- Pressing 'OK' applies changes in duration, and 'Export' will save the *.XLS file to a local directory.
- Pressing the GPS Filter button again (when highlighted yellow) will dismiss the tool.

5. Timeline and Sensor Details

The timeline can be used to monitor video playback, and is also the primary panel for displaying sensor information.



Note: The sensor information available will depend on the DVR model installed, and the DVR configuration at the time of recording. In cases where a sensor is unavailable, or has not been configured, no information will be displayed. Consult your DVR manual for more information on the sensor types that are supported.

Zoom Controls

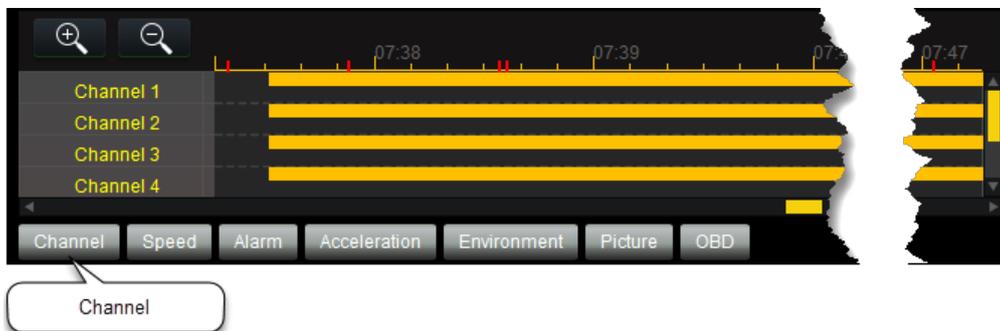
Zoom controls allow you to increase or decrease the size of the information displayed in the sensor panels.

Note: Using zoom controls will dynamically adjust the sensor information scales; limiting the scale to reflect only the data displayed.



Channel

Panel displaying the channels (cameras), and recording duration.



Speed

Sensor panel displaying vehicle speed, and wheel rotation speed. The graph displays the speed for each recorded frame, and includes the minimum and maximum speeds travelled (MPH / KPH).



Alarm

Sensor panel displaying configured alarms. Alarm logs can be reviewed by individual channel, or by combining channels together. Examples of alarms that can be configured include: 'Braking', 'Turning Direction', 'Stop Arm' deployed, etc.



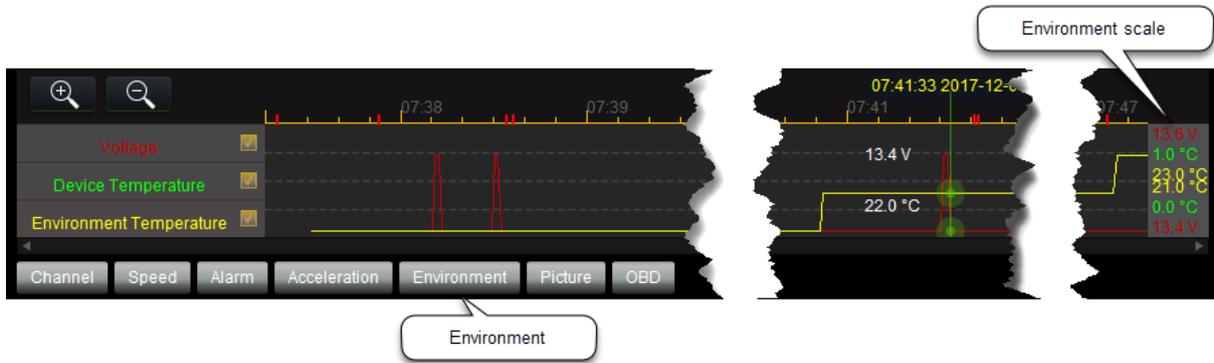
Acceleration

Sensor panel displaying vehicle acceleration. Acceleration is recorded along the X, Y, and Z axis, and represents change in velocity over time.



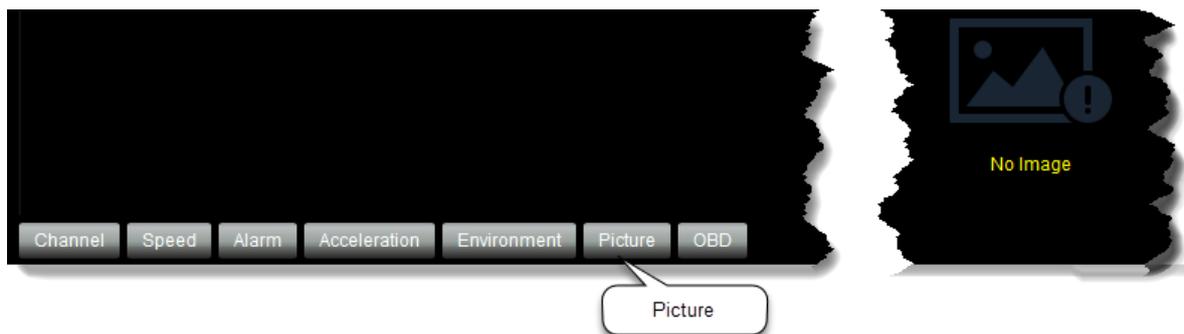
Environment

Sensor panel displaying environmental variables for the DVR and the vehicle. Examples of variables that can be configured include: DVR 'Voltage' (V), DVR 'Device Temperature' (°C), vehicle 'Environment Temperature' (°C), etc.



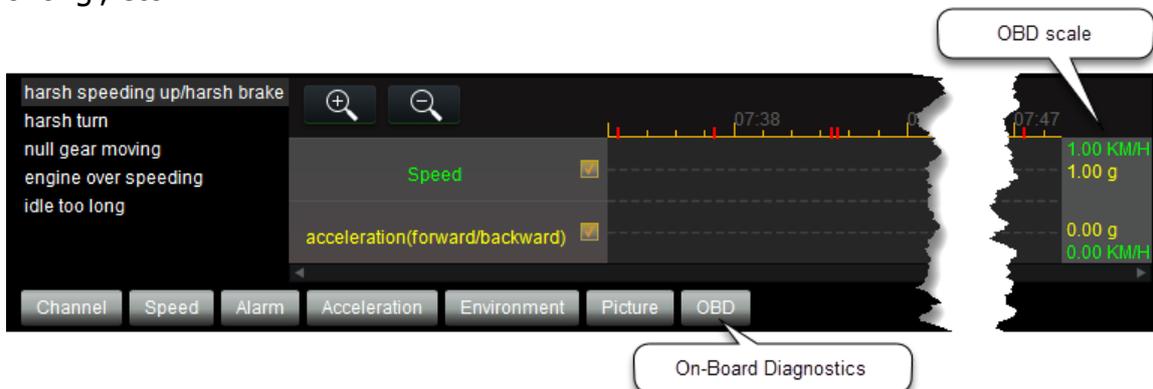
Picture

Panel displaying a library of pictures taken using the 'Snapshot' tool.



OBD (On-Board Diagnostics)

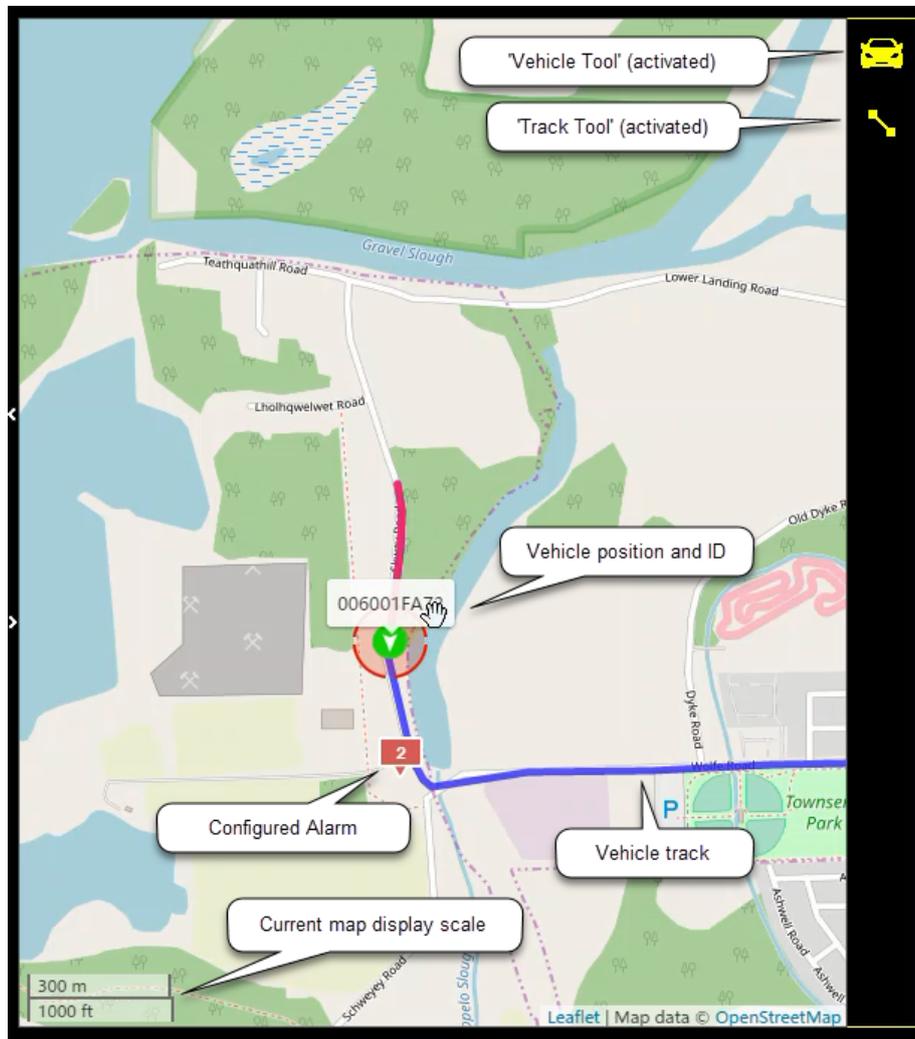
Sensor panel displaying any on-board diagnostic alarms that have been configured. OBD alarms typically make use of a DVR's accelerometer, and examples of configurations include: 'harsh speeding up/harsh braking', 'harsh turns', 'engine idle too long', etc.



6. Map Panel

The Map Panel displays the location information for the recorded video clip.

The graphical map will display the position for a vehicle using a green arrowhead, (while identifying the vehicle with its ID number), and the track that was followed by the vehicle. The vehicle's position in the map panel will move along the track in relation to the time currently displayed in the video playback; and the playback tools ('Play', 'Fast Forward', 'Stop', etc.) can be used to adjust the vehicle's position and movement.



Map Panel Tools



Vehicle Tool: Used to toggle the vehicle's zoom tool 'On' or 'Off'. Once activated, a dashed ring will appear around the vehicle's position. Double clicking the ring zooms to the vehicle's location



Track Tool: Used to toggle the visibility of the vehicle's track, or the path that was followed by the vehicle, 'On' or 'Off'.

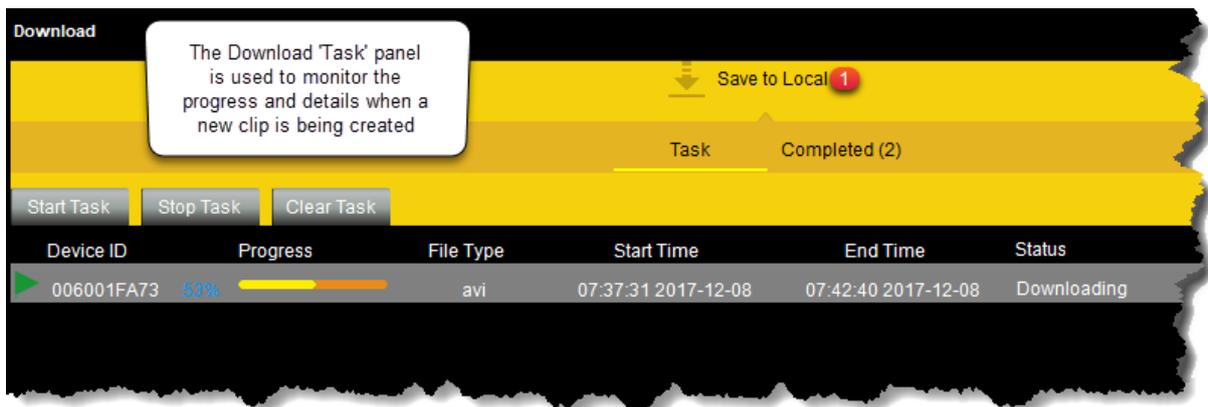
Note: Map panel tools are toggled 'On' in their default state.

Alarms

Configured alarms are also displayed in the map panel, and are indicated using a numbered red marker. Clicking on the marker will display the alarm details.

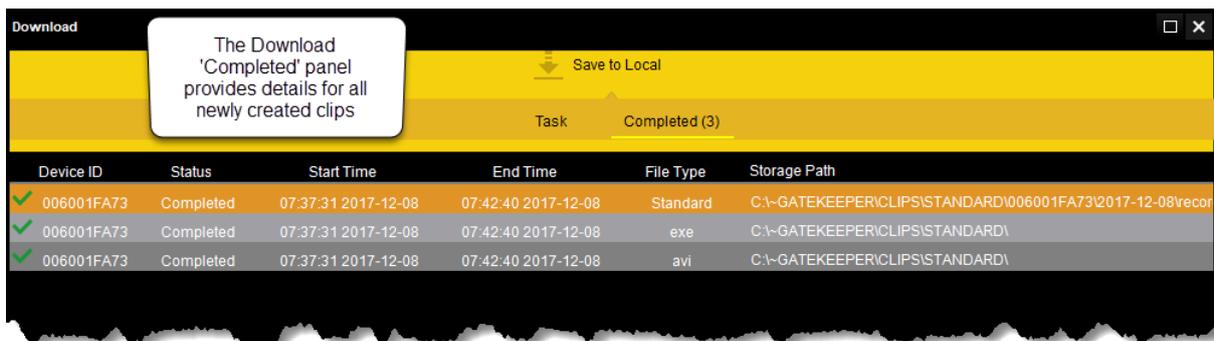
7. Download

Download provides information about video clips that have been created. Information is presented through the 'Task' and 'Completed' panel.



Task Panel

The 'Task' panel can be used to monitor the progress and details when a new clip is being created. This panel provides information about progress and completion status, File Type, Device ID, etc. While tasks are processing, you are supplied with additional controls (tabs) that can be used to either 'Start', 'Stop', or 'Clear' the currently selected task.



Completed Panel

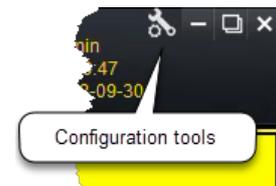
The 'Completed' panel provides details for all newly created clips including; File Type, network Storage Path, etc.

8. Login

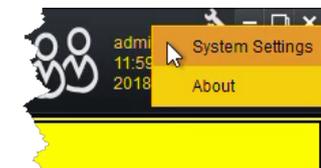
Displays the user that is currently logged into G4 Viewer Plus. Clicking the login will prompt you to logout of (exit and close) the system.

9. Configuration

Configuration tools for G4 Viewer Plus are accessed by clicking the wrench and gear icon located in the upper-right corner.



Clicking the configuration tools icon opens a drop-down menu with 2 options: 'System Settings', and 'About'.



System Settings

The System Settings panel is used to configure units, alarm settings, and the Mini-player format used when creating clips.



Mini-Player Format Options

The Mini-Player Format options are used to control the behavior of 'Export' clips created when using the 'Clip' tool. These options provide additional flexibility when creating clips that are particularly large in size (greater than 4 GB).

- **Single Executable File**

A 'Single Executable File' is the default setting for exporting clips into the Mini-Player ('Export') format. This setting will tightly-couple the video clips, sensor data, clip metadata, and video player into a single executable *.EXE file. This setting is best for file portability, since only a single file will be created. **Limitations:** This setting can only be used for video clips that are smaller than 4GB in file size. If your video clip is larger than 4GB, you must choose either the 'Separate Executable and Folder', or 'Separate Executable and Data File' format settings.

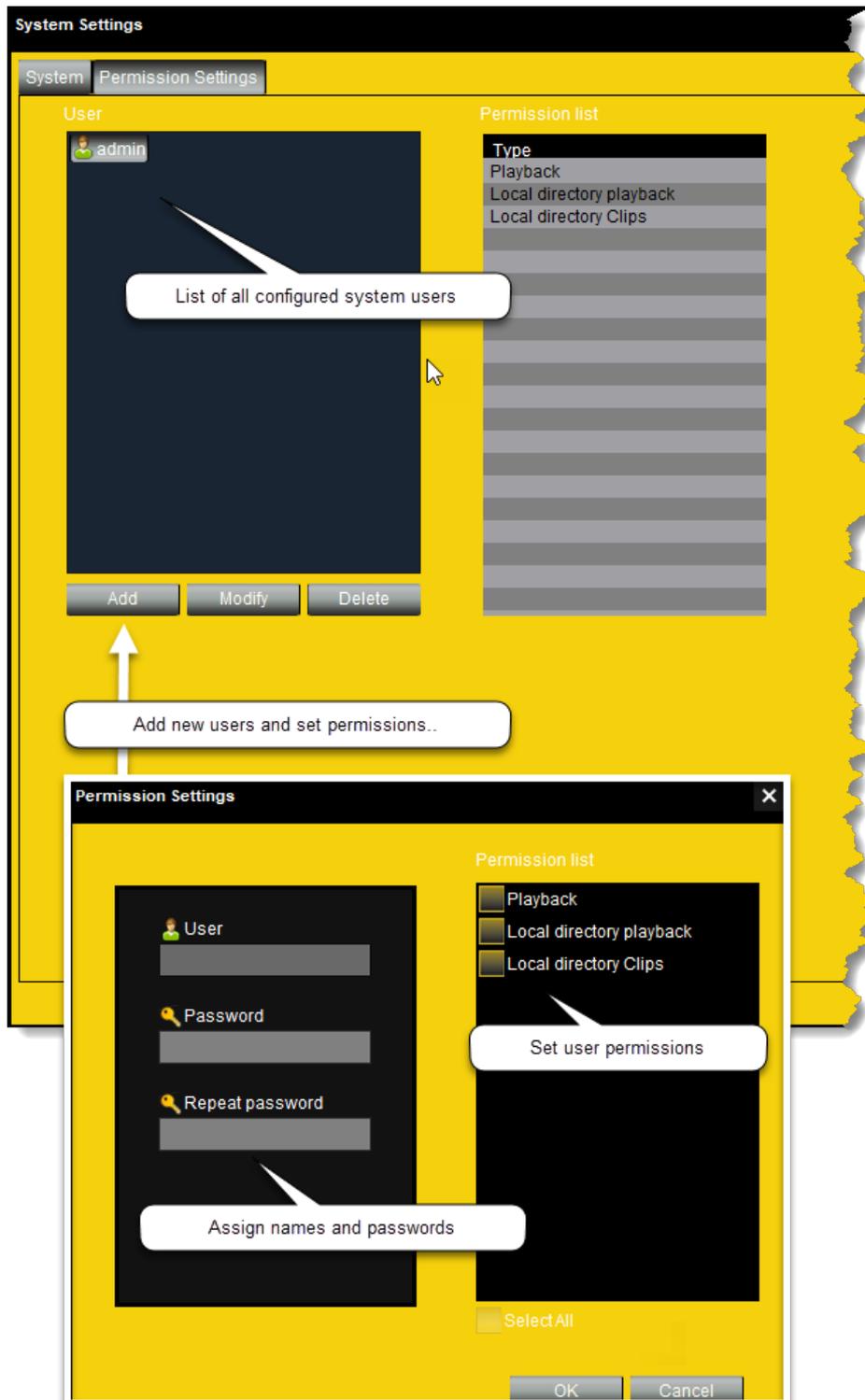
- **Separate Executable and Data File**

The 'Separate Executable and Data File' setting is used for video clips in the Mini-Player ('Export') format larger than 4GB in size. This setting will loosely-couple the exported clip into a) the video player executable (a system generated file with the *.EXE file extension), and b) the 'data' file (a system generated file with the *.G4V file extension). Installing the executable (*.EXE file) will automatically read the data from the accompanying data file, without any further configuration required by the user.

Note: Changing the Mini-Player format options will require a system restart in order to take effect. Clicking 'OK' when prompted will close down, and restart the G4 Viewer Plus application (no additional login details will be required).

Permissions Settings

A second 'Permissions Settings' tab is where user names, logins, and permissions can be configured.



About

Displays the version of G4 Viewer Plus currently installed.