



GATEKEEPER



SYSTEMS INC.

Safety, Security, Peace of Mind™

G4 VIEWER USER GUIDE.



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Overview.

G4 Incident Management Software is compatible with Microsoft Vista; Microsoft Windows 7 and Microsoft Windows 8. Microsoft XP is not supported as Microsoft has deemed it to be End-Of-Life.

Gatekeeper Systems G4 Incident Management Software offers un-paralleled video management with the added functionality of image blurring. Targeted areas of the recorded video can be selected and marked as Blurred, ensuring anonymity of bystanders. Clips can be saved locally, as AVI, or, exported with a stand-alone mini-player. Video can be viewed by File List or by Event List making finding an incident easier than ever before.

INSTALLATION.

PLEASE NOTE: The installation of G4 Incident Management Software must be completed with Administrator rights. For more information on this, please speak with your School District's Information Technology contact.

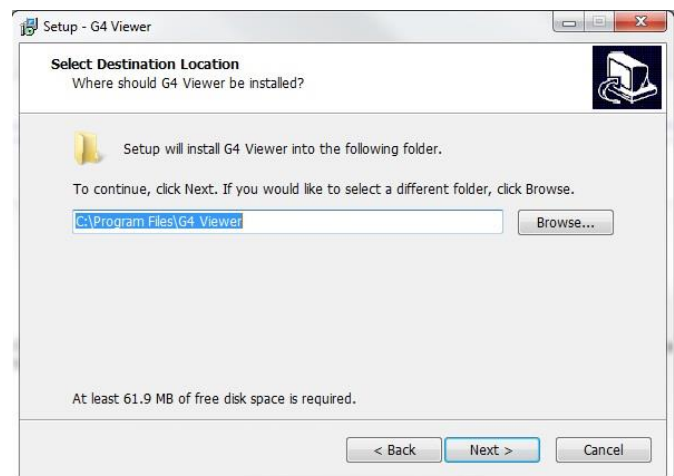
This section will describe how to install Gatekeeper Systems Inc. G4 Incident Management Software. Please read before beginning the install. G4 Incident Management Software can be installed from the G4 CD [available as part of a basic download kit], or, as a free download from The Gate area of www.gatekeeper-systems.com

To begin the installation of G4 Incident Management Software from gatekeeper Systems Inc. double click on the G4_Viewer_XXXX.exe file, where XXXX is the version number.

Set up will now begin.



Accept the default location for the program install. Click Next.





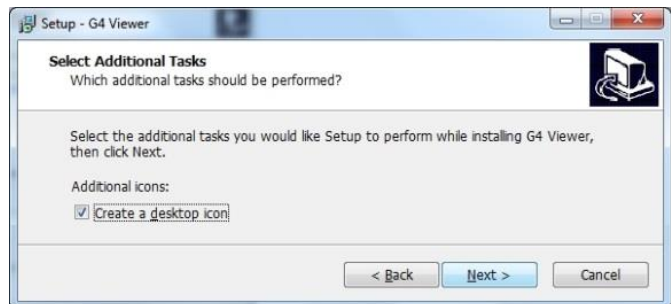
In the window which appears next make sure that “Don’t create a Start Menu Folder” is not checked.

Click Next.

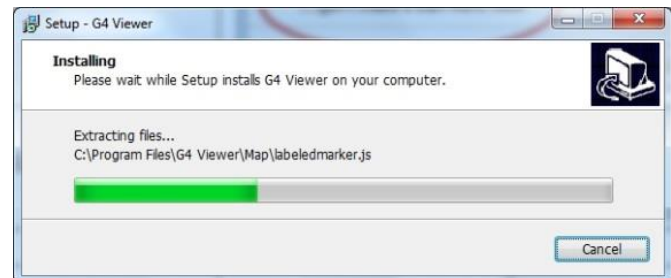


Select “Create a Desktop Icon” and click Next.

A window stating Ready To Install will appear, click on Install.



An Install Progress window will appear.



Once Setup has completed the Completing The G4 Viewer Setup Wizard will appear.

Ensure Launch G4 Viewer is selected and click on Finish.



G4 Icon will now be placed upon the desktop.





G4 Playback Interface.

Do not format the SD Card or COMRAD™ using Microsoft Windows.

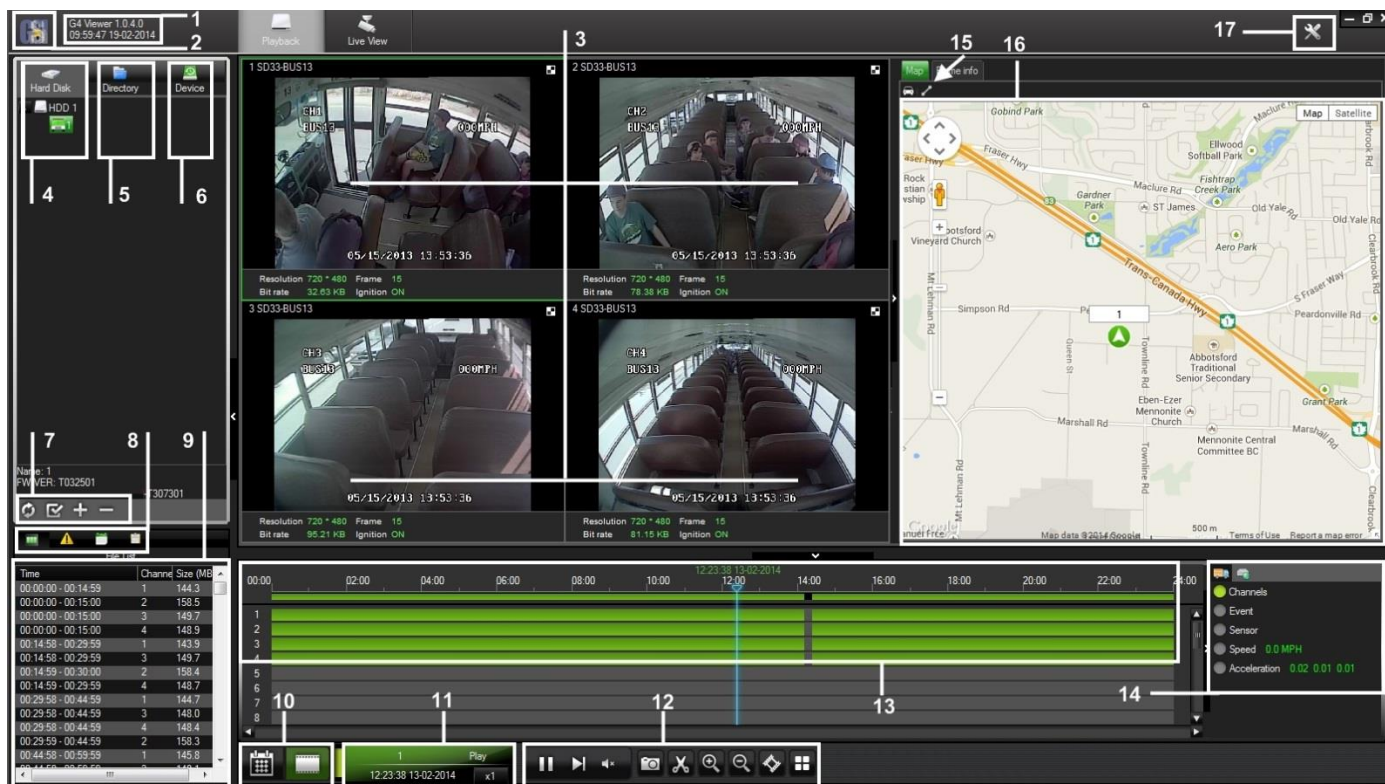


Figure 1: G4 Incident Management Software Interface.

1. Displays the installed version of G4; Current System Date/Time.
2. GSI Logo. When Clicked opens www.gatekeeper-systems.com
3. Video Playback Window,
4. HDD. Becomes active when a SD Card or COMRAD™ is detected on the system.
Please Note: When using a SD Card or COMRAD™ in a Microsoft Windows based system, you will be prompted to format the SD Card or COMRAD™, Click CANCEL. If you choose to Format the SD Card or COMRAD™ ALL VIDEO will be deleted from the SD Card or COMRAD™.
5. Directory. Displays all files clipped from a SD Card or COMRAD™ and saved to that directory.
6. Device. Used in conjunction with a Gatekeeper Systems Wireless System.
7. Displays options based on which view is currently active.
8. Playback File Options. Use to select from File List; Event List; Log; Search.
9. Video Clip Information Panel.
10. Calendar/Playback interface selector.
11. File Playback Information and Playback Speed adjustment.
12. Playback/Clip Controls.
13. Time Bar.
14. Vehicle Status Panel. View information on Channels; Events; Sensor; Speed and Acceleration.
15. GPS Vehicle lock; Route Tracer options.
16. GPS Map.
17. Settings. Use to set default directory for snapshots, Unit Setup Options and Record Options.

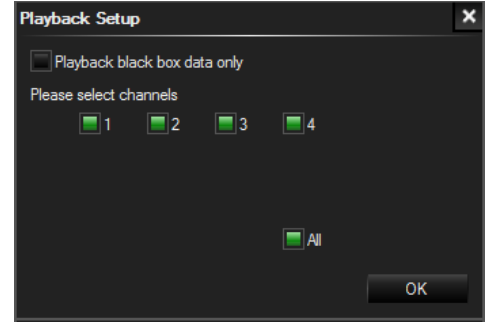


HDD

When viewing recorded video using a SD Card or COMRAD™, HDD will display the vehicle name. Double click on the listed vehicle and all available video on the SD Card or COMRAD™ will be displayed in the Calendar. Double click on one of the highlighted days and the Playback Setup dialog window will appear.



To select a different time of the video to playback, use the Zoom In tool on the Time Bar and then select the time frame you require. As the selection is made, the GPS map will also update to reflect the change in the vehicles position.



Directory.

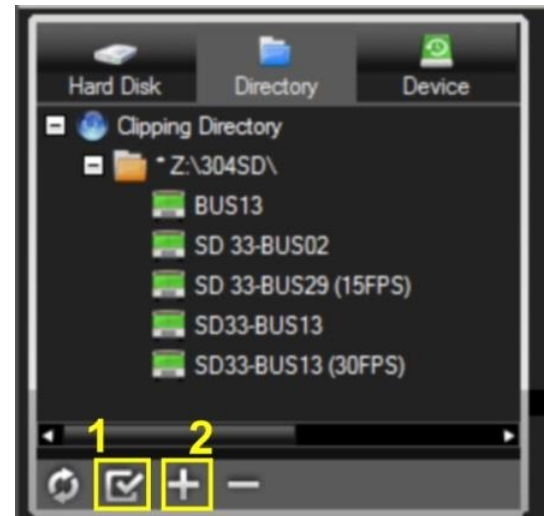
The Directory contains all of the previously Clipped video. Once a clip has been made the Directory automatically updates to reflect the new clip name and location if the clip is from a new vehicle.

If the clip is from a vehicle which has an existing entry in the directory, when the vehicle name is double clicked the Calendar view will display all available clips for that vehicle. If all video clips are going to be stored in the same folder location, a Default Directory location can be set.



To set a default directory Highlight the required Directory and then click the "Set it as the Default Directory" Icon [1 in the image to the right]. A confirmation dialog box will appear. If this information is correct click the OK button.

To add a directory click on the + Icon [2 in the image to the right] and navigate to a directory. This directory MUST have the correct structure in terms of containing the rmdvrrootdir.dat file which points to a previously clipped file.





Device.

Device lists all the DVR's which have been configured to utilize Gatekeeper Systems Inc. MeteorMax Wireless System. This setup and configuration is covered in more depth in a separate document.

Opening Screen.

When G4 Incident Management Software is first launched, the opening screen will display these four initial icons.

1. File List. Allows the video files to be selected in chronological order.
2. Event List. Display available events for playback. Events displayed are Time / Type / Name, e.g. BK; WN / Information, e.g. Sensor 1; Sensor 2.
3. Log. Displays Logged information. (Reserved for future development).
4. Search. See Figure 3 for more information.

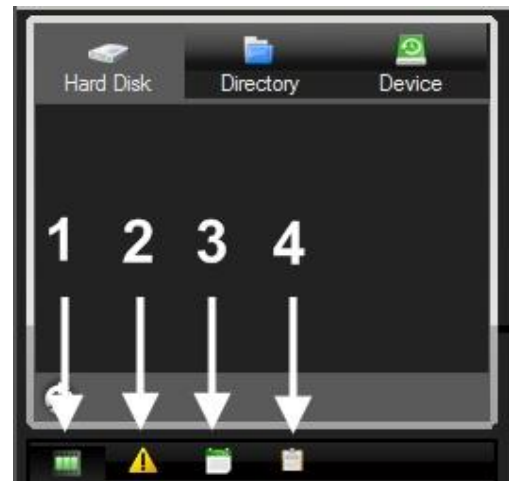


Figure 2: Opening Screen Icons.

When search is selected Click on the Search button just below the Search Icon (#4 in Figure 2). This will launch the Filter Settings dialog window.

1. Enter the required Start and End time of the Search.
2. Select the required items to be included in the Search.
3. Once criteria has been set click on the Search button.



Figure 3: Search Filter.



The Search will now begin and results will be displayed in the results window.

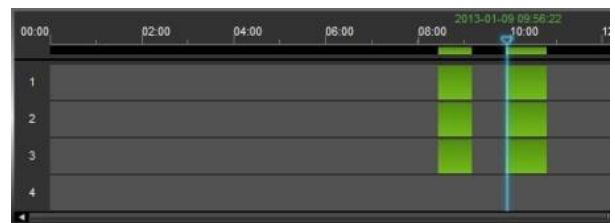
In this example Sensor2 had 3 Events during the specified time period, denoted by {3}. Click on the Plus sign to the left of the Result and the window will expand showing information regarding what happened at that time.

If you now double click on an entry, e.g. 08:20:37 22-11-2012 the video in the playback window will jump to that specified portion of the video file.



Time Bar.

The Time Bar [item 9 in Figure 1] displays the current day's video files in chronological order. If there is a break in the time line this denotes that there is no video available for playback during that time frame. In the example on the right, there are only two video files for the vehicle's morning run, these are shown as GREEN in the Time Bar. If the DVR has been set up for recording Alarms, the video files available will be displayed as RED.



Calendar or Playback Interface.

Calendar/Playback Interface selector [item 10 in Figure 1] is used to select either 1 Search Interface, or, 2 Switch to Playback Interface.

If Search Interface is selected the Video Playback window will close and be replaced with a Calendar with dates with video files available highlighted.



Playback Details.

Playback Details displays information about the currently playing Video file. The Bus Name from where the video file has been loaded is located top left of Playback Details. Top right shows current state of the Video file and will display Play if the video is actively being played. PAUSE if the video has been paused. The DATE of the video file will be displayed as well as the current location of the Playback Indicator. Bottom right shows the current playback speed of the video file. See Figure 4 for playback controls.



Playback Controls.

The Playback Controls consist of three items;

- Play (or Pause dependent upon the state of the currently playing video file).
- Next Frame. When the video file has been paused this allows the video to be advanced in One frame increments. This feature gives the ability for exact incident capture, e.g. License Plate Capturing.
- The Speaker Icon allows for volume adjustment, or, mute.

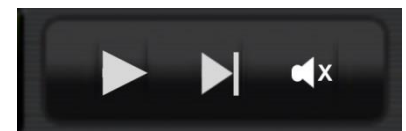


Figure 4: Playback Controls.



Snapshot / Clip / Open File / Layout Controls.

With the video paused at a specific image, if the Snapshot (Camera) Icon is clicked a snapshot will be sent to the folder previously setup in System Setting (Item 17 in Figure 1). To the right is a pop up menu with an option to Open Folder, this will open the folder to which the snapshot has been saved.

If the Clip (scissors) icon is clicked the Time Line window will display an option window, see Saving a Clip, Page 12.

The Zoom-In Icon will zoom in on the time line status window, e.g. if a clip shows 1 hour when zoomed in the time line can show individual seconds of the current video playback.

The Zoom-Out icon is the reverse of Zoom-In.

Open File. This allows navigation to a known folder containing H.264 video files and selecting them for playback. Note only one of the files in the folder in question needs to be highlighted and selected for all of the files in that folder to be played back,

Layout. When clicked a secondary pop-up window (See Figure 5) will appear giving various options as to how the currently playing video file will be played back.



Figure 5: Playback Window Layout Options.

System Settings.

Under System Settings the default directory for Snapshots can be set.

1. Allows a password to be set. Please note if this password is forgotten, future changes cannot be made without uninstalling G4 Incident Management Software and cleaning the registry.
2. The location of the default directory. Use the Ellipse button ... to navigate to the desired folder. It is recommended that this folder be created prior to setting the path.
3. Unit Setup. Choose between MPH; KPH and C; F.

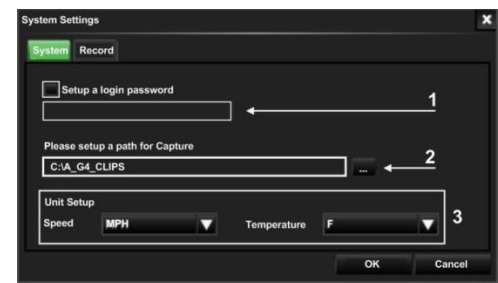


Figure 6: System Settings.

Once settings have been made/changed there will be a need to restart G4 Incident Management Software

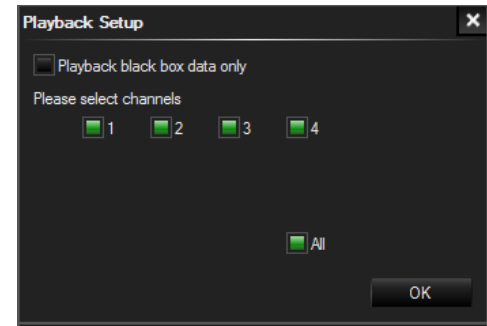
Playing Back a Video File.

To playback a video file, open G4 in Calendar View and from the HDD or Directory listing double-click on an available vehicle ID. This will bring up all dates for that vehicle for which there are available video's. Double-click on the Date and a dialog window will Appear (Playback Setup). Ensure that required channels are selected click OK. G4 Incident Management Software will immediately begin playback of the earliest available video file.





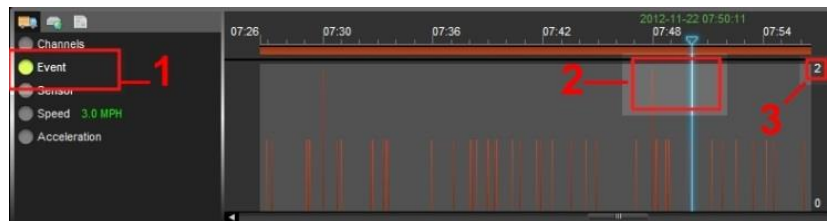
To select a different time of the video to playback, use the Zoom In tool on the Time Bar and then select the time frame you require. As the selection is made, the GPS map will also update to reflect the change in the vehicles position.



Event Playback.

With G4 Incident Management Software it is possible to view Events; Sensor or Speed Playback by viewing the Time Bar.

If Event playback [1] has been Selected, the Time Bar will display all Events captured during the vehicle route. If an individual Event is selected [2] the playback video will jump to that position and the Event list window will highlight the current Event selection. The Event number, as set up in the DVR configuration, will also be displayed, [3].



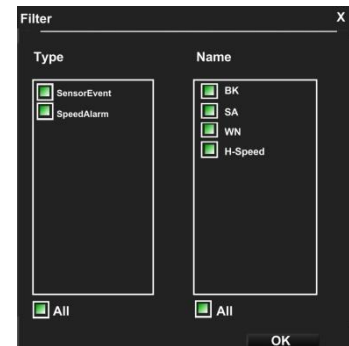
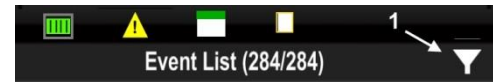
If only specific Events are required for playback G4 Incident Management Software has been designed to facilitate this.

If the Yellow triangle [item 2 in Figure 2] is selected a Filter Icon [1 in the image to the right] will appear.

Click on this Icon and a secondary window will appear with options as to which Events can be selected.

If only Stop Arm events are required ensure that Sensor Event is checked below Type all other items except for SA listed below Name are unchecked.


Click OK.



Sensor / Alarm Playback 1.

When a DVR has been set up to record Sensor / Alarm activations, these will show in G4 Incident Management Software.

In Figure 7 the SA, Stop Arm, event timed at 06:33:35 has been Double-Clicked [1] the Time Bar is immediately updated with the file for playback relating to this time [2].



Time	Type	Name	Information
06:29:26	SensorEvent	WN	2
06:32:53	SensorEvent	BK	1
06:33:35	SensorEvent	SA	3
06:33:57	SensorEvent	BK	1
06:53:56	SensorEvent	BK	1
06:56:35	SensorEvent	BK	1
06:57:26	SensorEvent	BK	1
06:58:04	SensorEvent	BK	1
06:59:49	SensorEvent	BK	1
07:01:46	SensorEvent	BK	1
07:02:28	SensorEvent	BK	1
07:03:17	SensorEvent	BK	1
07:07:11	SensorEvent	WN	2
07:07:25	SensorEvent	BK	1



Figure 7: Playback Sensor/Alarm Activations.



Sensor / Alarm Playback 2.

In playback Mode it is also possible to have the Time Bar just display Sensor markers rather than All Channels.

If Sensor is selected the Time Bar will display Sensor Markers when a Sensor was activated. Use the Zoom in tool to expand the Time Bar making it easier to select an individual Sensor Marker. When this marker is clicked the Time Bar is immediately updated with the file for playback relating to this Sensor Marker.



Vehicle Speed Playback.

If Speed is selected from the vehicle status panel the Time Bar will show the Lowest and Highest speed of the vehicle during the trip. In the example in Figure 8 the highest speed was 43.0MPH as shown on the right hand side. The current speed of the vehicle in the video playback window is shown as 36.0 MPH in a box just below the Highest speed recorded. The Current speed of the vehicle in the playback window will fluctuate with this box moving up and down the column matching the peaks and troughs of the Green indicators in the Time Bar.



Figure 8: Speed Playback.

Working With Clips.

Using G4 Incident Management Software a section of video can be saved as a clip; exported as a standalone .exe file which includes a mini-player, or, as AVI's playable by Windows media player. Please note that AVI's generated will be individual camera views and will not contain GPS, Speed Information, etc.

Saving a Clip

When saving a clips it is recommended that a folder be created, e.g. C:\MyClips, and an initial clip saved to this location. Once this is completed in G4 Incident Management make this folder the default by clicking on the Check Mark icon (in Item 7 Figure 1).

When a clip is created a file called rmdvrrootdir.dat is created outside of the Bus Name folder and this file contains information regarding the location of the clip entries.

1. Once the Play indicator is at the required time for the clip, click on the Scissors icon in the Playback Controls panel.



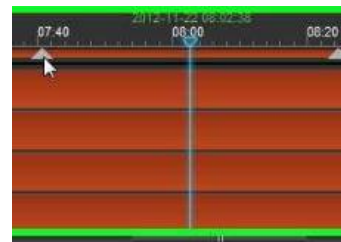


2. Click on the Zoom in Time Bar icon until a suitable time frame appears.

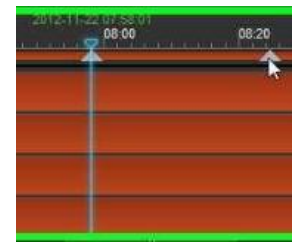


3. Select the Start Point and Click and Drag it to the required Start point before the required clip.

Next select the End Point and Click and Drag this to the end of the required clip.



Start Point



End Point

4. Once the desired length of clip has been set, Click on the $\sqrt{\quad}$ to the right of the Time Bar. This will confirm the clip length.



5. Once the $\sqrt{\quad}$ has been selected a confirmation window will appear showing: The clip Length (1); Required Video Channels (2); Video Clip Directory (3). Ensure that this information is correct.

It is possible to change the Start Time and End Time by manually editing these values.

If this clip is to go to a directory other than the Default Clip directory click on the browse button and navigate to the required folder.

Make sure that CLIP (4) is highlighted and click OK. This will begin the Save process.



6. Once the clip has been saved a dialog window will appear. Click OK.





7. If you navigate to the folder setup in G4 System Settings, you will see a folder with the date of the clip as its title, in this example 2014-01-28: January 28th 2014.



Exporting a Clip.

When a clip is exported a standalone .exe file is created. This allows the clip to be distributed without the need to install G4 Incident Management Software.

To Export a clip follow Steps 1, 2, 3, 4 in "Saving a Clip". In place of Clip in Step 5 of "Saving a Clip" select Export, the dialog window will change displaying additional information about the final exported file.

Click OK to begin the Export process. A Progress dialog window will appear.

Once completed a "Compressing, Please Wait" window will appear. This may show for several minutes depending upon the length of the exported file.

Once this has completed the dialog window will change stating "Clip Finished", when OK is clicked the default Folder will be automatically opened and the Exported .exe file, BUS13_20121122_135941_140912 in this example, will be available for play. The Exported file has the Vehicle Name; Date; Start Time and End Time of the exported clip.



Vehicle #	DATE	START TIME	END TIME	Name	Da
BUS13	20121122	13:59:41	14:09:12	BUS13	1/1
				BUS13_20121122_135941_140912.exe	1/1
				rmdvrrootdir.dat	1/1

Figure 9: Export File Definitions.

Export to an AVI File.

To Export a clip follow Steps 1, 2, 3, 4 in "Saving a Clip". In place of Clip in Step 5 of "Saving a Clip" select AVI.

Click OK to begin the AVI conversion process. A Progress dialog window will appear.

Once completed an "AVI Conversion" window will appear. Click OK.

The AVI file(s) will be saved in the default location as stated in System Settings.



Figure 10: AVI Conversion.



Blurring an Image.

G4 Incident Management Software has a Blur feature allowing individual elements in a video file to be effectively “screened-out” of the playback.

To Blur an area of the playback video first pause the video playback and then give a single camera the focus in the playback window.

Next click on the Blur button located at the top right-hand corner of the playback window, arrowed in the image to the right.

This will bring up the Mosaic Setting Window.



Figure 11: Defining a Blur.

If the playback button is now clicked the playback video will display a blurred image where the blur definition was defined.

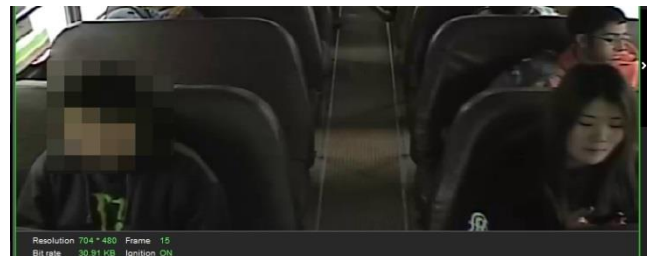


Figure 12: Playback Blur.