



GATEKEEPER



SYSTEMS INC.

Safety, Security, Peace of Mind™

G4 VIEWER USER GUIDE.



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Overview.

Gatekeeper Systems G4 Viewer 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 Viewer must be completed under an account which has Administrator rights. For more information on this, please speak with your School District's Information Technology contact.

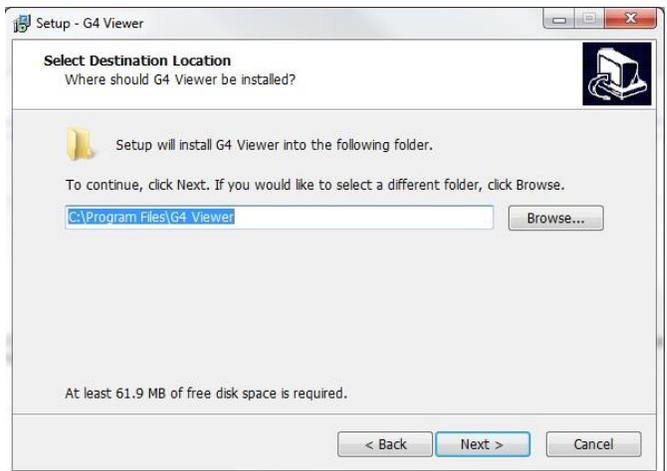
This section will describe how to install Gatekeeper Systems Inc. G4 Viewer. Please read before beginning the install.

To begin the installation of the G4 viewer 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.

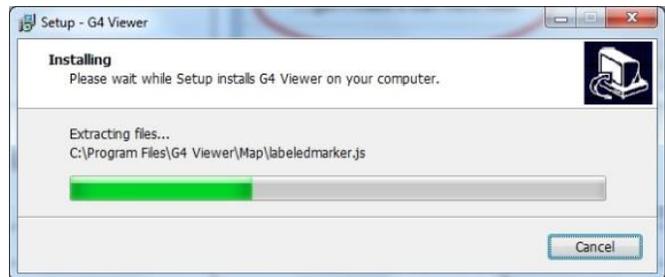


Select "Create a Desktop Icon" and click Next.

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. When running G4 Viewer ensure that it is run as an Administrator.





Using G4 Viewer.

Do not format the SD card using Microsoft Windows.

Opening Screen.

When G4 Viewer 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 2 for more information.



Figure 1: Opening Screen Icons.

When search is selected Click on the Search button just below the Search Icon (#4 in Figure 1). 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 2: 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.





G4 Calendar Interface.

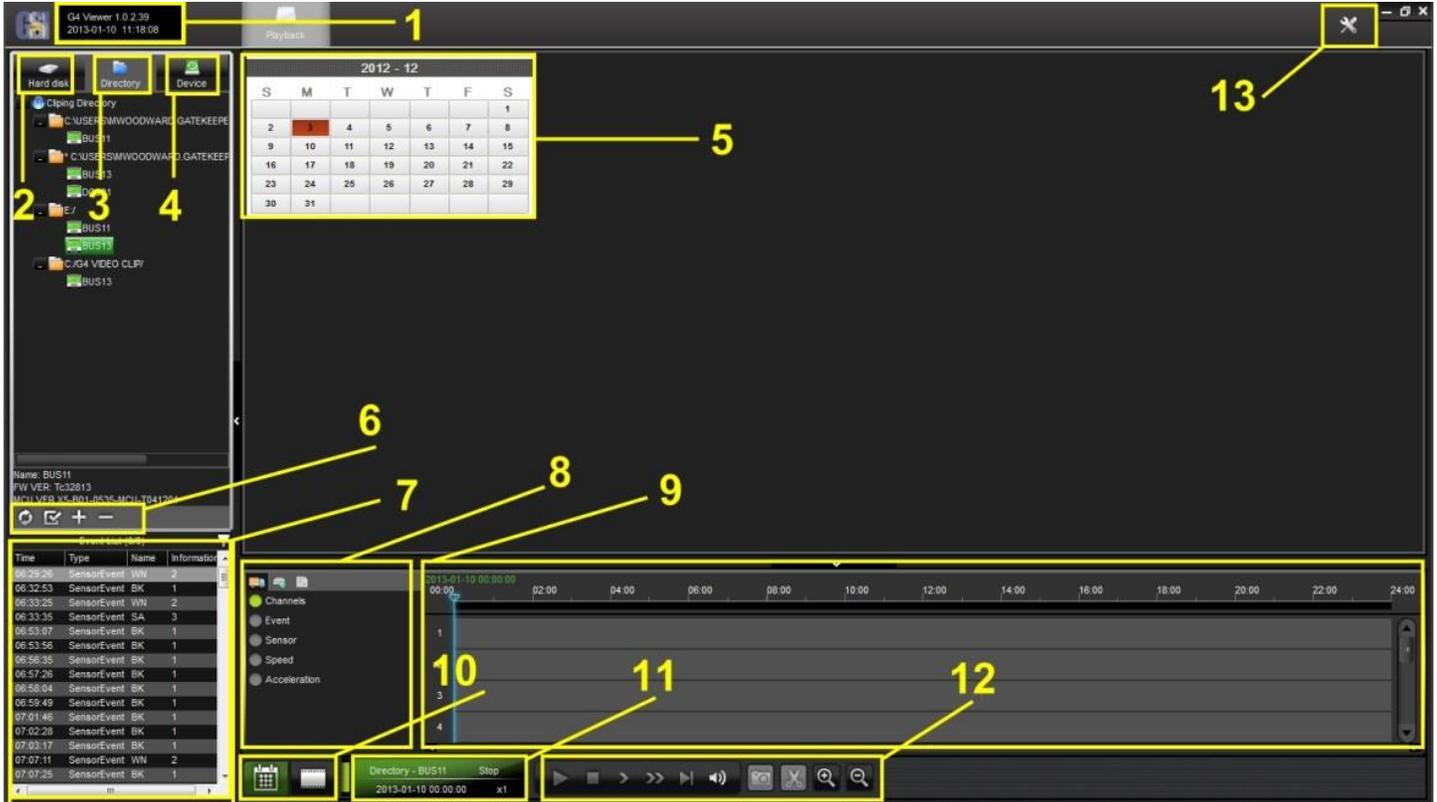


Figure 3: G4 Calendar Interface.

- 1 Displays the current version of G4 Viewer and the Current System Date and Time.
- 2 HDD: Becomes active when an SD card from a 304-SD is detected in the system. Once a SD card has been inserted, click on the "refresh icon" . [Item 6]
Please Note: When using a SD Card from a 304-SD in a Microsoft Windows based system, you will be prompted to format the SD Card, Click CANCEL. If you choose to format the SD Card ALL VIDEO will be deleted from the SD.
- 3 Directory: Storage area for video clips. Location will automatically populate once a clip has been made [see item 6].
- 4 Device: Used in conjunction with Gatekeeper Systems Wireless solution.
- 5 Calendar: Displays the date[s] for which recorded video is available. GREEN Fill is for all video. RED Fill is for video activated by alarm.
- 6 Displays options depending upon which view is currently Active, HDD; Directory or Device.
- 7 Event List: Video clip information panel.
- 8 Vehicle Status Panel: View information on Channels; Event; Sensor; Speed and Acceleration.
- 9 Time Bar.
- 10 Calendar/Playback Interface selector. If Playback is selected the main display window will display video channels, and if the 304-SD is GPS capable, a Map displaying the route of the vehicle.
- 11 File Playback Information.
- 12 Playback / Clip Controls.
- 13 System Settings.

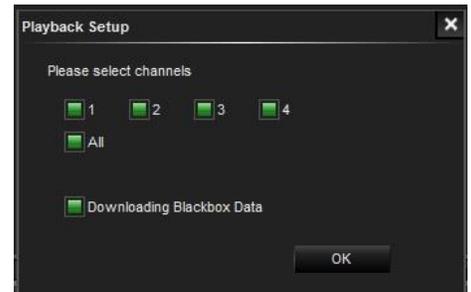


HDD

When viewing recorded video from a 304-SD using the SD card, HDD will display the vehicle name. Double click on the listed vehicle and all available video on the SD card will be displayed in the Calendar. Double click on one of the highlighted days and the Playback Setup dialog window will appear.



If the 304-SD is GPS enabled, select Download Blackbox data as this contains the GPS data. Select the required number of channels for playback and click OK. Video will begin playback at the earliest available video file.



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. This eliminates the need to navigate to a folder when doing multiple clips.



To set a default directory Highlight the required Directory and then click the "Set it as the Default Directory" Icon.

A confirmation dialog box will appear.

If this information is correct click the OK button.



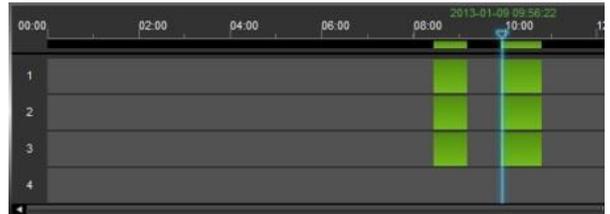


Device.

Device lists all the 304-SD'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.

Time Bar.

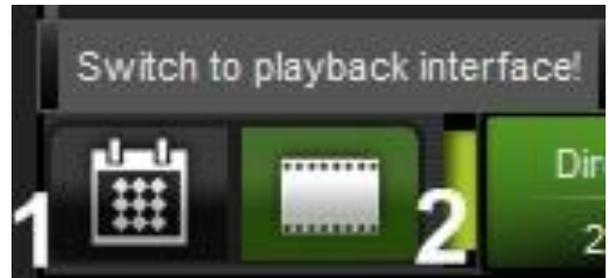
The Time Bar [item 9 in Figure 3] displays the current day's video files in chronological order. If there is a break in the time line this denotes that there is no video available for playback during that time frame. In the example on the right, there are only two video files for the vehicle's morning run, these are shown as GREEN in the Time Bar. If the 304-SD 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 3] 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 Directory 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 and STOP if the video file has been stopped. If the video has been stopped the Playback indicator will automatically revert back to the start of the earliest video file. 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 are very similar to those found on many DVD, Blu-Ray, and other video playback devices.



Figure 4: Playback Controls.

1. Play Button, Changes to Pause during Playback.
2. Stop Button.
3. Slow Forward. 1/2, 1/4, 1/8th and 1/16th speed available. Also used to Slow down playback after Fast Forward has been selected.
4. Fast Forward. X2, X4, X8 and X16 speeds available. Also used to speed playback back to normal speed after Slow Forward has been selected.
5. Next Frame. Advances the currently playing video by a single frame.
6. Sound. Controls volume level. Mute is also available.
7. Snapshot. Saves a single BMP image file to the designated folder option 13, Figure 3. Once a snap shot have been selected a confirmation window will appear. Select an option from that window for the snapshot.
8. Clip. Creates a Clip or a File for Exporting. See the section Creating a Clip later in this guide.
9. Zoom In. Zooms in on the playback marker in the Time Bar.
10. Zoom Out. Zooms Out on the playback marker in the Time Bar.



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 viewer and cleaning the registry.
2. The location of the default directory. Use the Ellipse button ... to navigate to the desired folder.
3. Unit Setup. Choose between MPH; KPH and C; F.

Once settings have been made/changed there will be a need to restart G4 Viewer.

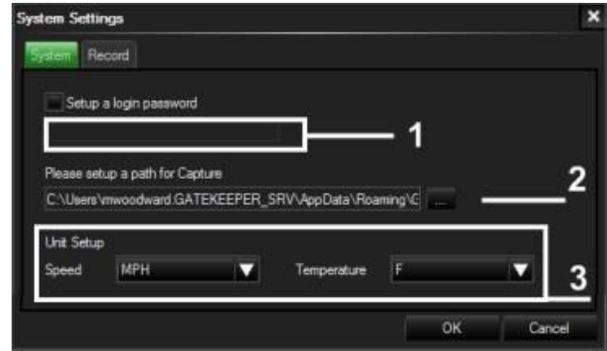


Figure 5: System Settings.

Saving a Clip.

Using G4 viewer a selection of video can be saved as a clip or exported as a standalone .exe file which includes a mini-player.

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 \checkmark to the right of the Time Bar. This will confirm the clip length.



5. Once the \checkmark 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.

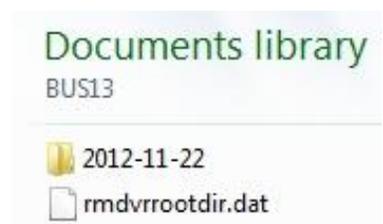
Make sure that CLIP (4) is highlighted and click OK. This will begin the Save process.



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 2012-11-22: November 22nd 2012.





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 Viewer.

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	
BUS13	20121122	13:59:41	14:09:12	

Name	Da
BUS13	1/1
BUS13_20121122_135941_140912.exe	1/1
mmdvrootdir.dat	1/1

Figure 6: 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 7: AVI Conversion.



G4 Playback Interface.

Do not format the SD card using Microsoft Windows.



Figure 8: G4 Playback Interface.

- 1 Displays the current version of G4 Viewer and the Current System Date and Time.
- 2 HDD: Becomes active when an SD card from a 304-SD is detected in the system.
Please Note: When using a SD from a 304-SD in a Microsoft Windows based system, you will be prompted to format the SD Card, Click CANCEL. If you choose to format the SD Card ALL VIDEO will be deleted from the SD Card.
- 3 Directory: Storage area for video clips. Location will automatically populate once a clip has been made.
- 4 Device: Used in conjunction with Gatekeeper Systems Wireless solution.
- 5 Video playback window. Double click on channel to make it full screen, double click a second time to go back to quad-view.
- 6 Displays options depending upon which view is currently Active, HDD; Directory or Device.
- 7 Event List: Video clip information panel.
- 8 Vehicle Status Panel: View information on Channels; Event; Sensor; Speed and Acceleration.
- 9 Time Bar.
- 10 Calendar/Playback Interface selector. If Playback is selected the main display window will display video channels, and if the 304-SD is GPS capable, a Map displaying the route of the vehicle (see Figure 8).
- 11 File Playback Information.
- 12 Playback / Clip Controls.
- 13 System Settings.
- 14 GPS Mapping System. (Download Black Box Data must be selected when opening a video file for GPS information to be displayed).

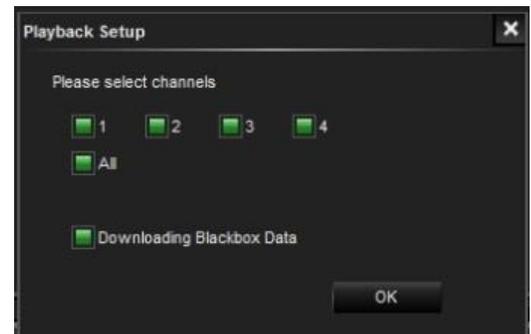


Playing Back a Video File.

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 videos. Double-click on the Date and a dialog window will appear. Ensure that All channels are selected and that Downloading Blackbox Data is also selected, click OK. G4 Viewer will immediately begin playback of the earliest available video file.



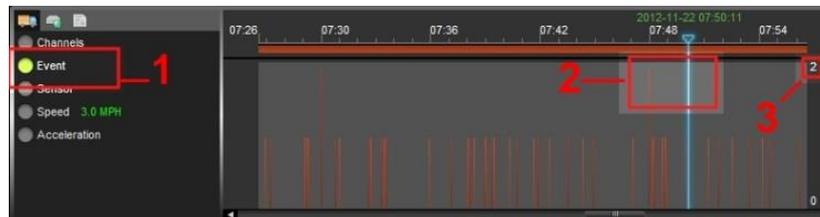
To select a different time of the video to playback, use the Zoom In tool on the Time Bar and then select the time frame you require. As the selection is made, the GPS map will also update to reflect the change in the vehicles position.



Event Playback.

With the G4 Viewer 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 304-SD configuration, will also be displayed, (3).



Sensor / Alarm Playback 1.

When a 304-SD has been set up to record Sensor / Alarm activations, these will show in G4 viewer.

Please Note: Downloading Black Box Data must be checked when video selection for playback is first made for Sensor / Alarm activations to show within G4 viewer. In Figure 9 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).

1

Time	Type	Name	Information
06:29:26	SensorEvent	VN	2
06:32:53	SensorEvent	BK	1
06:33:35	SensorEvent	SA	3
06:33:35	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	VN	2
07:07:25	SensorEvent	BK	1



Figure 9: 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 Marker for 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 10 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 10: Speed Playback.

Blurring an Image.

G4 Viewer 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.





The Mosaic Setting window is divided into a 20 X 20 grid.

Using the cursor click and drag to "Screen-Off" any areas you do not want to be visible in the final playback video.

Once you have defined the areas click OK to save the options.



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.

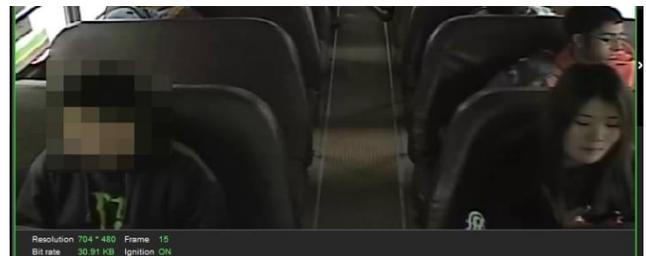


Figure 12: Playback Blur.



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