



Grandstream Networks, Inc.

GSurf User Manual

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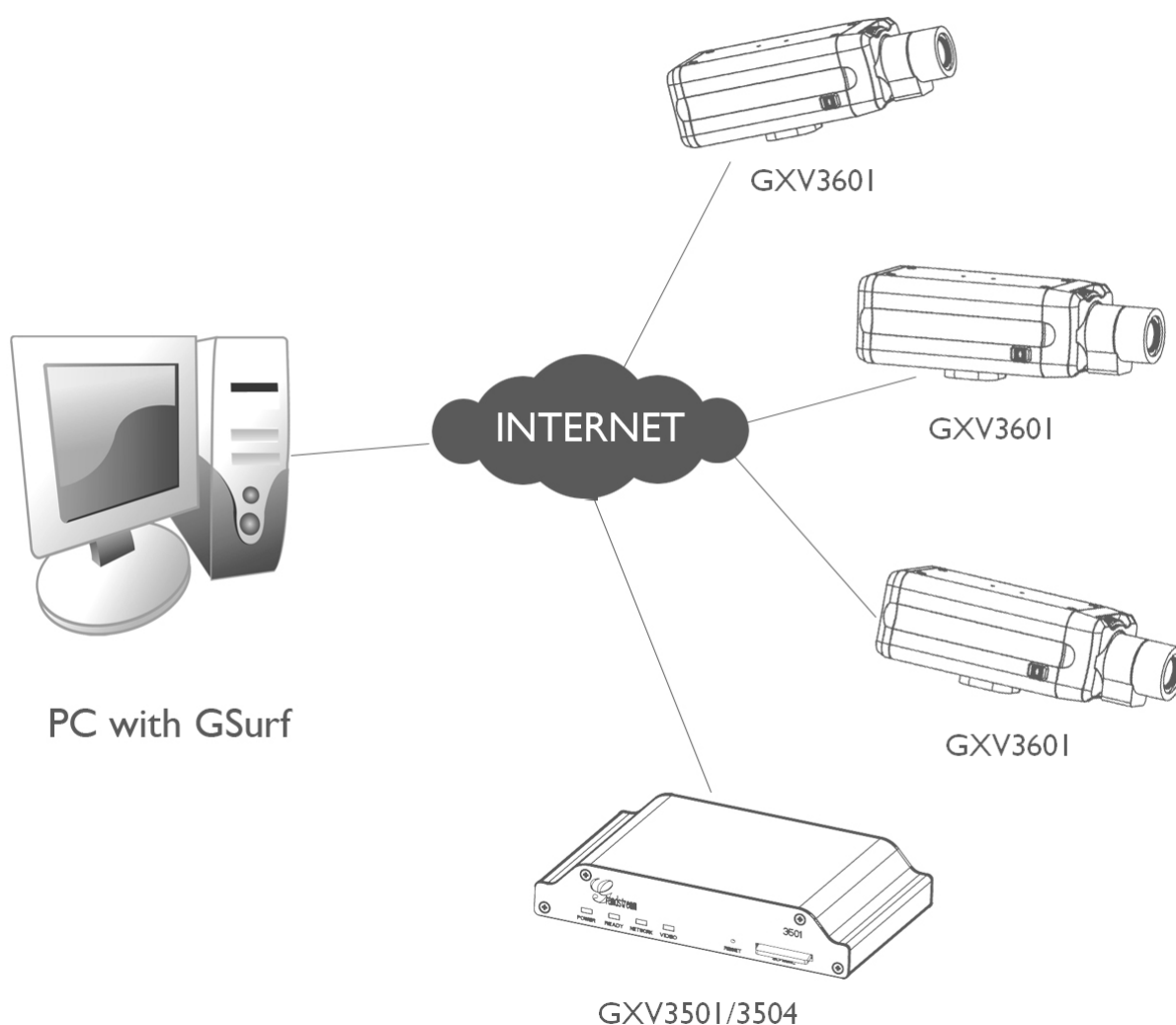
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Introduction

Grandstream GSurf is a monitoring and recording system for up to 36 cameras. GSurf supports remote viewing, control and recording from anywhere on the Internet or corporate network.

This user manual provides a description of GSurf features and instruction on how to integrate your cameras and digital video servers with this software.



Installation Guide

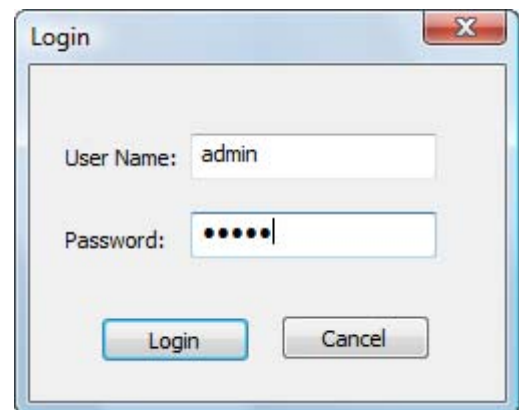
Minimum Recommended System Requirements

- Windows 2000 Server Professional, Windows XP, Windows Vista 32 bits
- CPU: Intel Pentium 4 or higher, 2 GHz
- RAM: 1 GB (3 GB recommended for larger systems)
- Support for DirectX 8.0 and above

Login

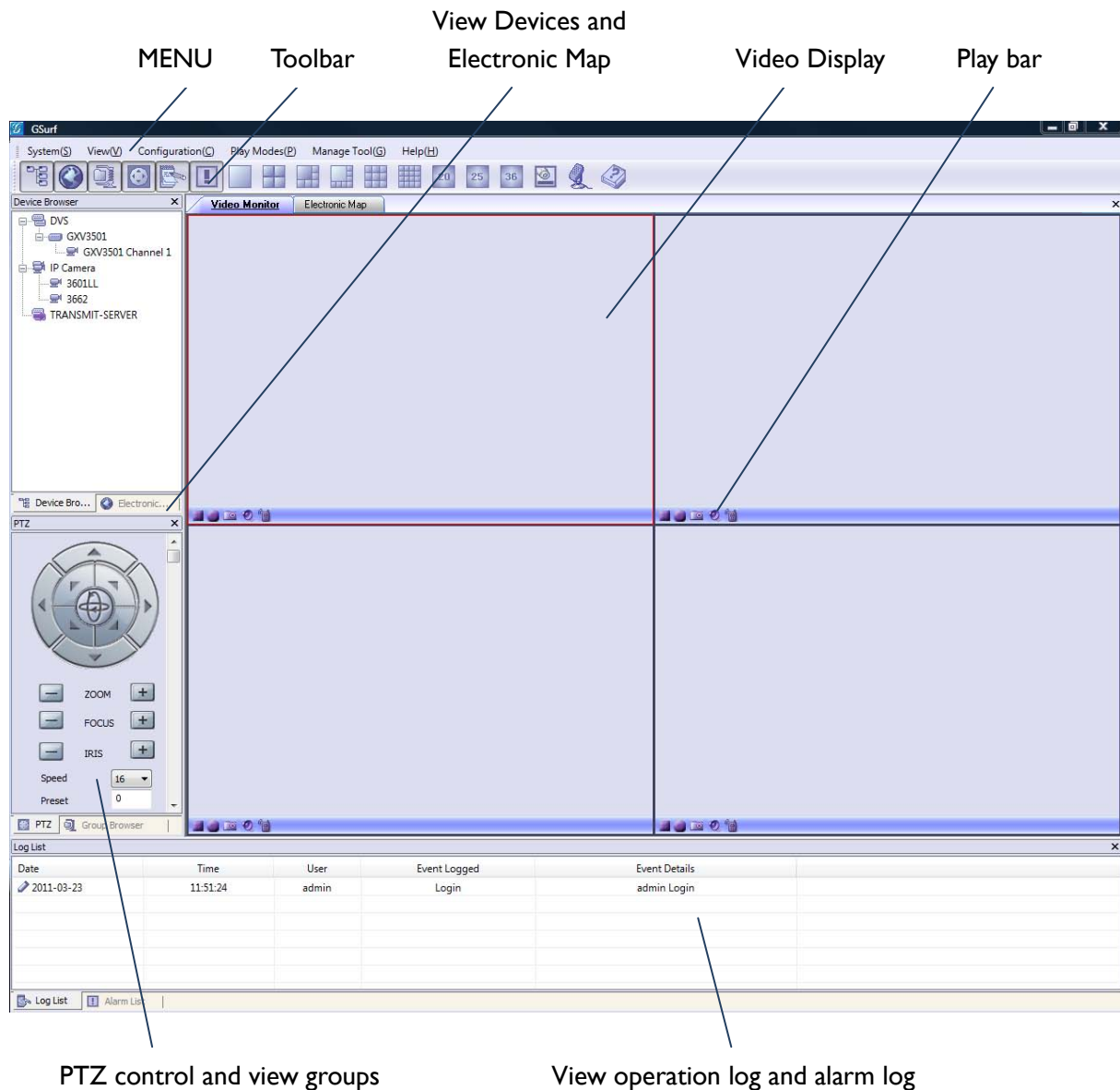
Open GSurf. The login page will prompt you for your user name and password. The administrator user name and password are both set to **admin** at the factory default settings.

For security purpose, please change the password after the first time you log in to GSurf.



GSurf Main Window

The user interface was designed for ease-of-use to offer quick, easy access to cameras and recording in the system.



Menu items

System - Switch users.

View - Different panels can be displayed in the main window by selecting your preference from the dropdown menu. GSurf can display the Toolbar, Device Browser, Map Browser, Alarm List, Log List, PTZ console and Group Browser on the main window.

Configuration

Time Schedule - Add, edit and remove auto recording time schedules.

Event Configuration – Add, edit and remove alarm triggered event rules.

Device Configuration – Add, edit and remove digital video servers or network cameras.

Local Configuration – Establish recording settings for one or more cameras.

Play Mode

Free Play – In free play mode, the user can define where to watch the video streams.

Patrol Play – In patrol play mode, GSurf plays video streams from different groups in a loop.

Manage Tool

User Management – Add, edit and remove users.

Log Management – View and search operation logs and alarm logs.

Replay Tool – Browse and view recorded video streams.

Search Tool – Search the Grandstream digital video servers and network cameras in the same LAN.

Help – Information about Grandstream GSurf

Toolbar items



Lets you browse and manage the connected DVS or cameras.



Lets you manage all electronic maps. Right Click to add a new map.



GSurf supports the grouping of connected DVS units or cameras. This panel allows users to manage their groups.



PTZ controller.



Click this icon to open/close the login logs.



Click this icon to open/close the alarm logs.



Click this icon to choose the number of channels that will be displayed on the main window.



Click this icon to open the play bar in each video display window.











Click this icon to broadcast audio through the speakers



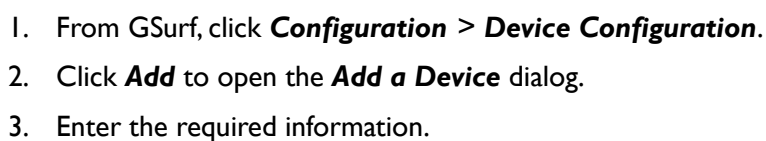
Click this icon to display the GSurf software version number.

Play Bar Items

-  Stops the displayed video in the channel.
-  Records the video in the channel. The icon will display service changes, if GSurf is recording the videos, the icon will turn . The recorded video file will be saved in **C:\GS_Record**.
-  Takes a snapshot from the video in the channel. By default, the captured image will be saved in **C:\GS_Capture**.
-  Toggles the sound channel On / Off. At factory default settings, the sound is off. The icon will display service changes, if the sound is on, the icon will turn .
-  Establish or close two-way audio in the channel. At factory default settings, there is no audio connection. The icon will display service changes, if the two-way audio is established, the icon will turn .

Add network cameras/digital video servers

1. From GSurf, click **Manage Tool > Search Tool**.
2. In GS_Search window, click **Search**.
3. Network cameras or digital video servers found on your local subnet will be listed.
4. Select the device you want to add to GSurf and click **Add**.



Model – Select the device type, DVS or IP Camera.

Number of Channels – Select the number of channels that your device supports. For

example, the GXV3504 has 4 channels and GXV3601 has 1 channel.

Transport Protocol – Select the preferred transport protocol, UDP or TCP.

User Name/Password – Enter the user name and password for the device's web GUI.

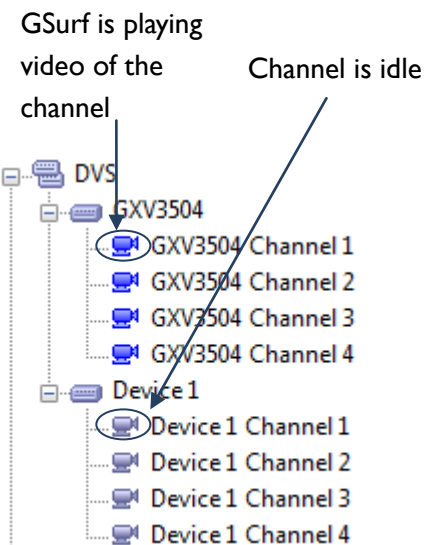
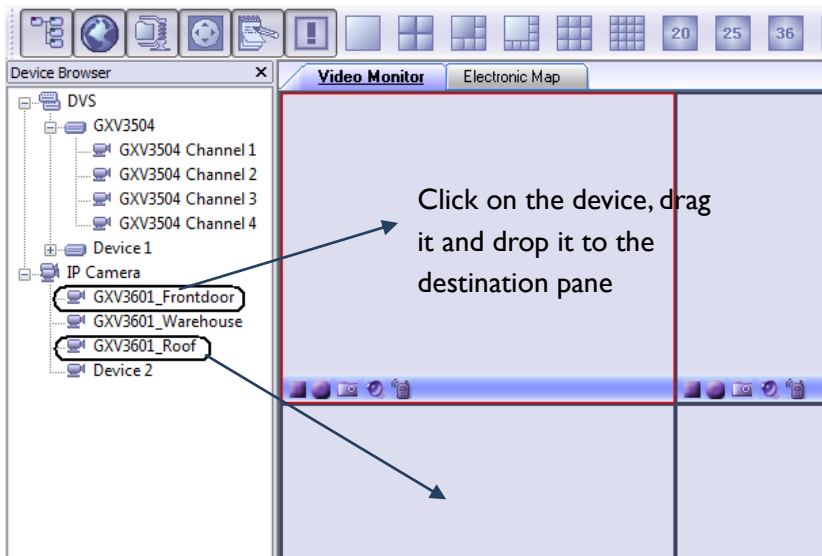
IP Address/ Domain Name – Enter the IP address or domain name of the device.

RTSP Port – If the device's web access port is 80, enter 554 as RTSP Trans-Port, otherwise, add 2000 to the device's web access port and enter here.

4. Click **OK** to save.



How to watch video streams

1. Double click on the device listed in the **Device Browser** panel; the live video stream will be display in the first pane of the video monitor area.
2. Click on the device listed in the **Device Browser** panel; drag it and drop to the destination pane. The users can determine where to display the video channels and how many channels will be displayed.



NOTE: If GSurf cannot play the live video stream, please double check the host, credentials

and RTSP ports.

NOTE: In the **Device Browsers** panel, the device icon displays service changes. If the channel is idle, the icon will show as . And the icon will change to  if GSurf is playing video from that channel.

Remove network cameras/digital video servers

1. From GSurf, click **Configuration > Device Configuration**.
2. Select the device you would like to remove.
3. Click **Delete** to remove the device.

Edit the settings of network cameras/digital video servers

After a network camera or digital video server is added to GSurf, the user may need to perform greater software configurations to meet their needs.

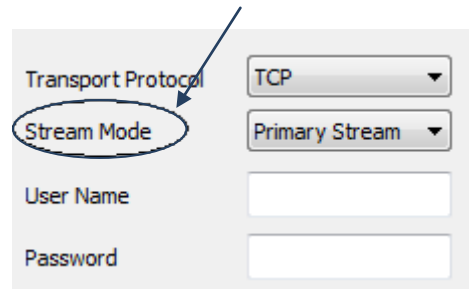
Edit basic settings

To change the host name, device name, RTSP, transport protocol, user account credential and device description:

4. From GSurf, click **Configuration > Device Configuration**
5. Click on the device/channel you want to configure. The configuration window will come out.
6. Change the setting properly; Click **Save** to save all the changes.

Choose a Stream - primary stream or secondary stream

1. From GSurf, click **Configuration > Device Configuration**
2. Click on the device/channel you want to configure. The configuration window will appear
3. In the **Stream Mode** dropdown list, select the stream you prefer



The screenshot shows a configuration window with the following fields:

- Transport Protocol: TCP (dropdown)
- Stream Mode: Primary Stream (dropdown, circled with a blue arrow pointing to it)
- User Name: (text input)
- Password: (text input)

In order to conserve bandwidth, users can configure primary and secondary streams. For instance, the user might like to watch the live video stream from the web GUI in low resolution mode while recording a copy in high resolution mode due to the limitation of internet bandwidth. In this case, for example, primary stream can be configured to have better resolution, and then the users can use primary stream to record while watching secondary video streams.

To configure the primary and secondary stream

1. From GSurf **Device Browser** panel, right click on the device.
2. In the pop out menu, click **Open the web configuration pages**.

3. Your web browser will open the web configuration pages of the device.
4. Click on **Basic Settings > Video & Audio**.
5. Configure the primary stream and secondary stream according to your preference.

Instructions for **Alarm Triggers and Rules** and **Automatic Recording** will be in the following sections.

Set up Alarm Triggers and Rules

Grandstream's network cameras and digital video servers support motion detection and alarm events. They can report motion detection or alarm events to GSurf.

GSurf can be configured to take actions – to notify such events to users. The instructions below will assist you with this set up.

Configure the network cameras/digital video servers

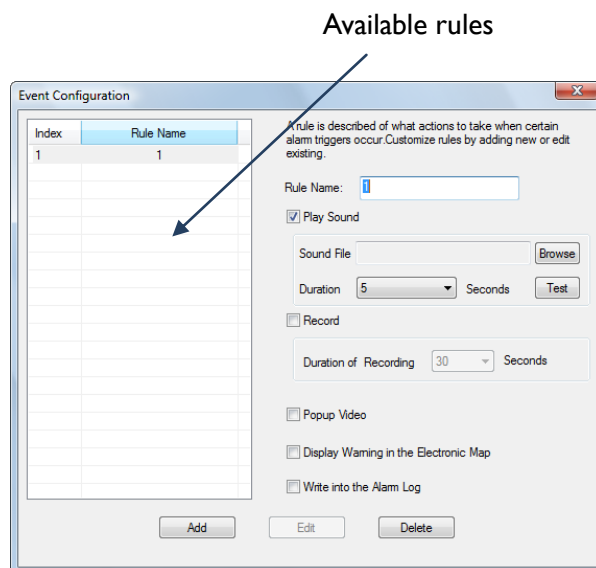
Grandstream's network cameras and digital video servers need to be configured to report the motion detection and alarm events to GSurf.

1. From GSurf **Device Browser** panel, right click on the device.
2. In the pop out menu, click **Open the web configuration pages**.
3. Your web browser will open the web configuration pages of the device.
4. Click on the **Advanced Settings > Motion Detection/Alarm Events** page.
5. In **Alarm Actions** Section, check **Upload to Alarm Center**.
6. Click **Save** to save the changes.

Add alarm action rules

A rule is described of what actions to take when certain alarm triggers occurs.

1. From GSurf, click **Configuration > Event Configuration**.
2. The **Event Configuration** window will pop up.
3. Enter required information
Rule Name – Enter a rule name.
Play Sound – If it is checked, GSurf will play a sound when receiving an alarm report. Make sure to select a sound file and the duration in which it will be played.
Record – If it is checked, GSurf will record the video upon receiving an alarm report. Users can also establish the duration of the recording.



Popup Video – If it is checked, a pop up video window will appear on receiving an alarm report.

Display Warning in the Electronic Map – If it is checked, the corresponding icon of that channel in the electronic map will flash red on receiving an alarm report.

Write into Alarm Log – If it is checked, the alarm event will be written to the alarm log

4. Click **Add** to save the settings.

NOTE: Available rules will be listed on the left side of the **Event Configuration** window.

GSurf allows you to have various alarm actions.

Edit alarm action rules

1. From GSurf, click **Configuration > Event Configuration**.
2. The **Event Configuration** window will pop up.
3. Select the rules you would like to edit.
4. Enter the required information.
5. Click **Edit** to save the changes.

Remove alarm action rules

1. From GSurf, click **Configuration > Event Configuration**
2. The **Event Configuration** window will pop up.
3. Select the rules you would like to remove.
4. Click **Delete** to remove the rule.

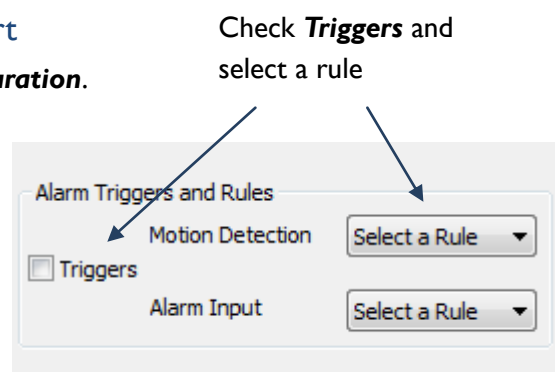
Configure the GSurf to take actions on alarm report

1. From GSurf, click **Configuration > Device Configuration**.
2. Select the device you would like to monitor the alarm reports.
3. The configuration page will come out.
4. In **Alarm Triggers and Rules** section, check **Triggers**.
5. If you would like to monitor the **Motion**

Detection events, select a rule from the dropdown list. If you would like to monitor the **Alarm Input** events, select a rule for it in the dropdown list. If you would like to monitor both, select a rule for each of them.

NOTE: The available rules you created in **Event Configuration** will be listed in the **Select a Rule** dropdown list.

6. Click **Save** to save all the changes.



Set up Automatic Recording

GSurf can be configured to record the video streams from some channels automatically according to some time schedules. The recorded file will be saved in **C:\GS_Record**. Follow these steps to set up a schedule. Once a schedule has been entered, it can be reused as often as necessary.

The screenshot shows the 'Time Schedule' window. At the top, there is a table with two columns: 'Index' and 'Time Schedule Name'. The first row contains the value '1' in the Index column and 'test' in the Time Schedule Name column. Below this table is a section titled 'Schedule Details' which includes a 'Schedule Name' text box. Underneath is a grid for selecting recording times for each day of the week (Sunday through Saturday). Each day's row has a timeline from 24:00 to 24:00 with vertical tick marks every 15 minutes. Some tick marks are highlighted with vertical bars, indicating selected recording periods. At the bottom of the window are three buttons: 'Add', 'Edit', and 'Delete'.

Add Time Schedules

1. From GSurf, click **Configuration > Time Schedule**
2. The **Time Schedule** window will pop up.
3. Enter the **schedule name, date, start time and end time**, you can scroll through the 15 minute time slots to select period blocks.
4. Click **Add** to save the settings

NOTE: Available rules will be listed on the top of the **Time Schedule** window.

Edit Time Schedules

1. From GSurf, click **Configuration > Time Schedule**
2. The **Time Schedule** window will pop up.
3. Select the schedule you would like to edit
4. Enter the required information
5. Click **Edit** to save the changes

Remove Time Schedules

1. From GSurf, click **Configuration > Time Schedule**
2. The **Time Schedule** window will pop up.
3. Select the schedule you would like to remove
4. Click **Delete** to remove the schedule

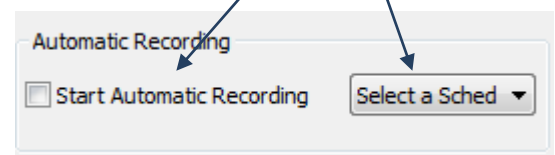
Configure the GSurf to record automatically

1. From GSurf, click **Configuration > Device Configuration**
2. Select the device from which you would like to record the videos
3. The configuration page will appear.
4. In **Automatic Recording** section, check **Start Automatic Recording**, and select a schedule for it.

NOTE: The available schedule you created in **Time Schedule** will be listed in the **Select a Schedule** dropdown list.

5. Click **Save** to save all the changes.

Check **Start Automatic Recording** and select a schedule

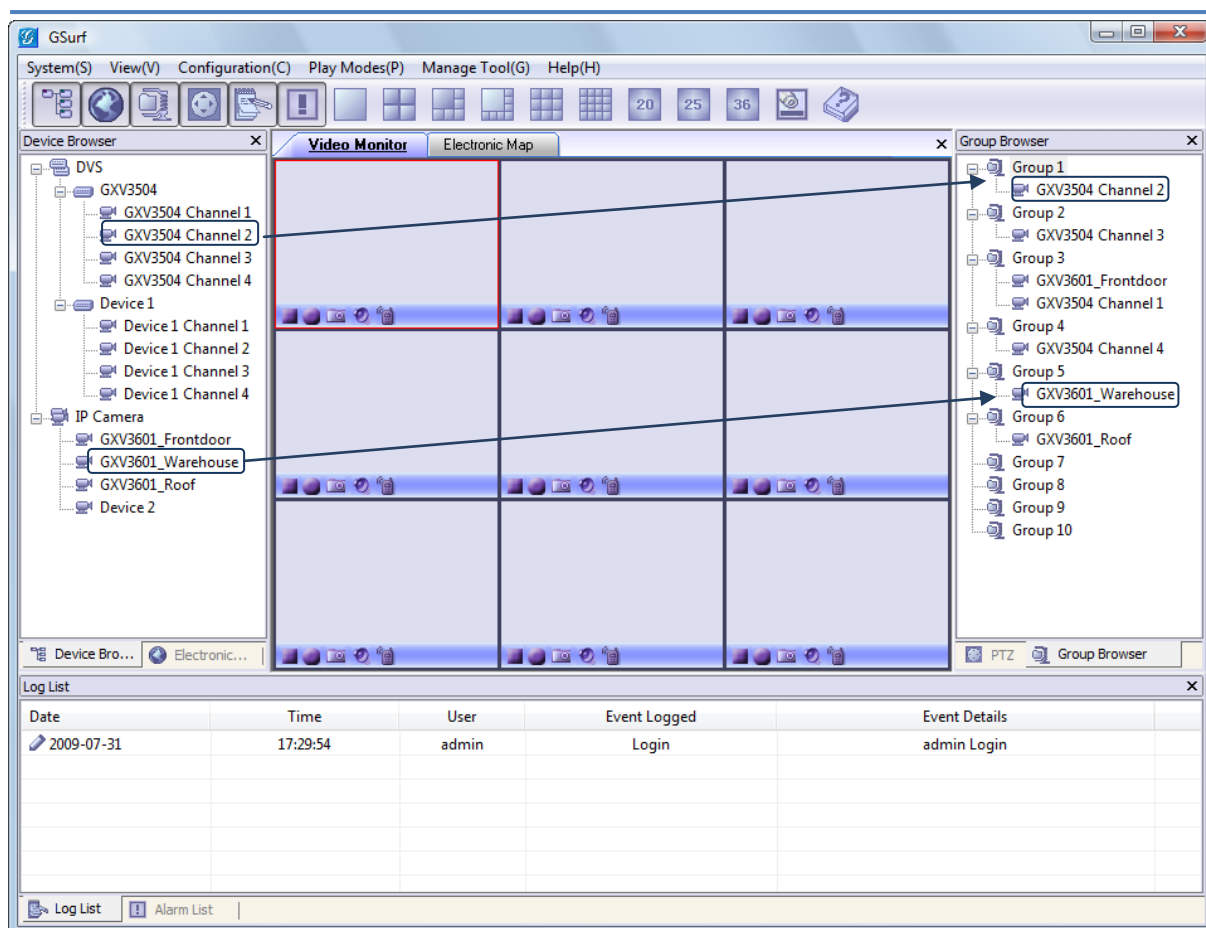


Create Groups

GSurf allows classifying network cameras/ digital video servers to up to 10 groups, which helps to manage the devices. For example, you can place network cameras in the same monitored area in to the same group.

Add Devices to Groups

From **Device Browser** panel, click on the device, drag it and drop it to the destination Group in **Group browser** panel.



Remove Devices from Groups

On **Group Browser** panel, right click on the device you would like to remove; on the popup menu, click **Delete**. Or on **Group Browser** panel, right click on the group; click **Delete All** on the popup menu to delete all devices in the group.

Patrol Play

In patrol play mode, GSurf plays video streams from different groups in a loop. Follow these instructions to set up the patrol play.

1. Create Groups.
2. Configure the groups attributes properly.
3. Start patrol play.

Configure the Group attributes

1. On **Group Browser** panel, right click on the group; on the popup menu, click **Group Settings** to open **Group Settings** dialog.
2. Enter the preferred settings.

Group name – Enter a group name.

Duration – Duration defines how long the video from this group will be played.

Display windows – The number of channels that will be displayed on the main window. It is better that the number of display windows is larger than the number of devices added to the group to make sure you can watch all the video streams from the group.



Allow Patrol Play – Check this option to add the group to patrol play groups.

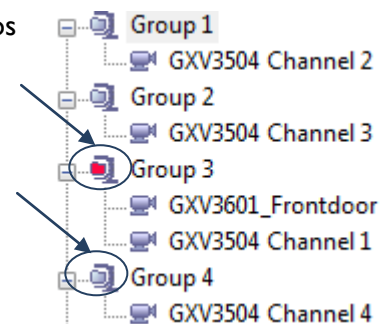
3. Click **OK** to save the changes.



Start Patrol Play

From GSurf, click **Play Modes > Patrol Play**. GSurf starts to play videos from different groups in a loop.

In **Group Browser** panel, the group icon will display status changes. The group changes to become  if GSurf is playing video streams from it. Otherwise, the group icon is .



Replay Tool

This tool provides the ability to replay recorded videos. It also provides a search function which allows you to perform a search based on the start time, end time, IP address, and channel.

Electronic Map


A map gives a visual overview of the cameras in your installation. A map is an image, for example a drawing or a photograph, on which you place cameras and views. GSurf supports an electronic map that lets you identify the locations of your cameras and the status of their alarms.

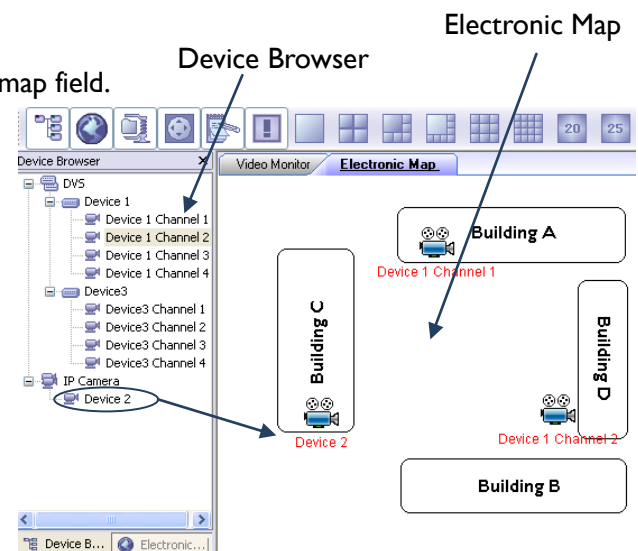
Add an Electronic Map

1. Right click on the **Electronic Map Browser**; click on the **Add a map** on the popup menu.
2. Choose an image. The map will be displayed in the electronic map field.


NOTE: The supported image files are: bmp, jpg or gif. GSurf will display the electronic map in full resolution, and the user can use the scroll bars to view the whole image.

Add a device to the electronic map

1. Open **Device Browser** panel and electronic map field.
2. On **Device Browser** panel, click on the channel, drag it and drop it to the preferred destination on the map.
3. An icon  with the device name and the channel number will now be shown on the map. Right click on the icon to change the icon settings.



NOTE: When GSurf receives an alarm report and the alarm action is set to **Display Warning in Electronic Map**, the corresponding icon on the map

will flash red .

Lock the map

To avoid changing the positions of cameras on the map accidentally, the users can lock the map after adding all devices. Right on the map, in the popup menu, enable **Lock the map**.

Remove a device from the electronic map

On the map, right click on the  icon; click **Delete** to remove the device from the map.

PTZ

Click PTZ on the toolbar to open the PTZ panel. If the connected devices are PTZ cameras or have a PTZ device connected, users can use the console to adjust the focus, brightness, contrast, speed, IRIS, and also pan / tilt the devices.



Log Management

Users can search a log by the log type, start time and end time.

User Management

The GSurf administrator can add, modify and delete users here. The administrator can give users different privilege levels.

Add a User

1. From GSurf, click **Management Tool > User Management**.
2. The User Management window will popup.
3. Enter the **user name**, **password** and **privileges**.
4. Click **Add** to add a new user.

Edit a User

1. From GSurf, click **Management Tool > User Management**.
2. The User Management window will popup.
3. Select the user you would like the change the settings and enter the changes.
4. Click **Edit** to save the changes.

Remove a User

1. From GSurf, click **Management Tool > User Management**.
2. The User Management window will popup.
3. Select the user you would like to delete.
4. Click **Delete** to remove the user.

NOTE: Available rules will be listed on the left side of the **User Management** window.

Local Configuration

Recording Settings Items

The screenshot shows the 'Local Configuration' window with the 'Recording Settings' tab selected. The 'Recording Drives' section contains a table with columns: Drives, Capacity (GB), Free Space (GB), and Reserved Space (MB). The table lists four drives: C: (220.29 GB, 65.75 GB free, 1024 MB reserved), D: (10.00 GB, 5.48 GB free, 1024 MB reserved), Y: (71.23 GB, 14.97 GB free, 1024 MB reserved), and Z: (878.91 GB, 828.05 GB free, 1024 MB reserved). The D: drive is selected. Below the table, there are settings for 'Split files every' (30 minutes), 'Keep recorded files for' (0 days), and 'Keep event triggered recorded files for' (0 days). The 'On Disk Full' section has two radio buttons: 'Stop All Recording' and 'Delete the Earliest File' (selected). The 'SnapShot Folder' is set to 'D:\Snapshot\' with a 'Browse' button next to it. 'OK' and 'Cancel' buttons are at the bottom right.

Drives	Capacity (GB)	Free Space (GB)	Reserved Space (MB)
<input type="checkbox"/> C:	220.29	65.75	1024
<input checked="" type="checkbox"/> D:	10.00	5.48	1024
<input type="checkbox"/> Y:	71.23	14.97	1024
<input type="checkbox"/> Z:	878.91	828.05	1024

Split files every minute(s)

Keep recorded files for day(s) (Always keep files if set to 0 (default) unless disk is full)

Keep event triggered recorded files for day(s) (Always keep files if set to 0 (default) unless disk is full)

On Disk Full

☐ Stop All Recording

☒ Delete the Earliest File

SnapShot Folder

Recording Drives – This section displays the names, total space and free space of the local disks. This section also lets you select which local disks you can use to store recorded video files. You can also configure the reserve space for each disk. If multiple disks are chosen, GSurf will start from the first disk until the free space equals the reserved space, and then go to the next one. If a network drive has been mapped to the PC running GSURF it will appear there as well.

On Disk Full – When a disk is full, users can choose to stop all recordings or keep recording and store them by deleting the oldest files on the disk.

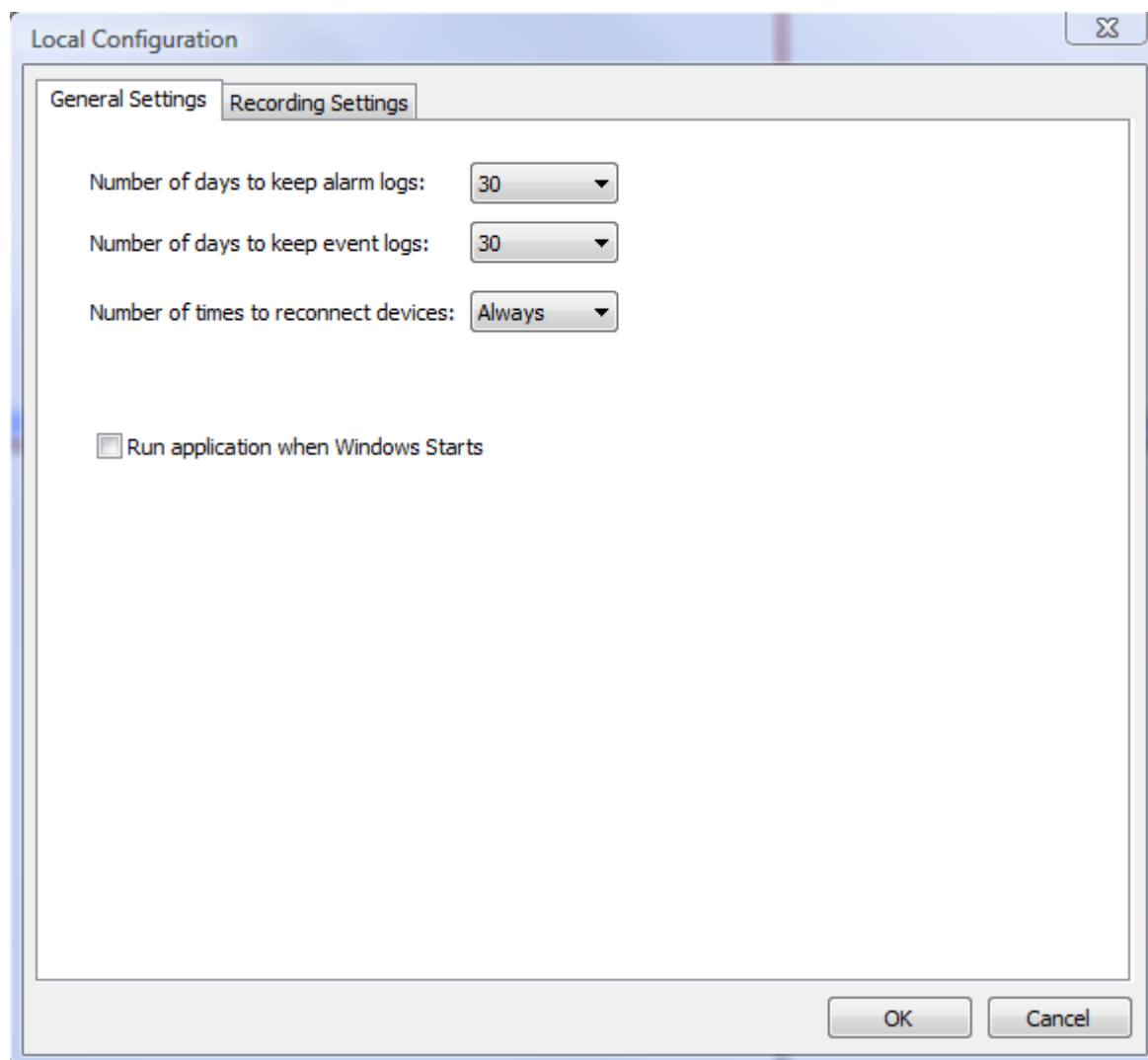
Split Files every X minutes – Configures the duration of each video recording.

Keep recorded files for X days – Allows the user to decide how many days to keep the recorded files. If you select 0, then the files will always be kept unless the disk is full.

Keep event triggered recorded files for X days – Allows the user to select how many days the event triggered recorded files will be kept; use 0 if you always want to keep them unless the disk is full.

Snapshot Directory – Lets you select the location where the snapshots will be saved.

General Settings



Number of days to keep alarm/event logs – Allows the user to select how many days the alarm and event logs will be kept.

Number of times to reconnect to devices – In case a camera/DVS gets disconnected from GSURF, the user can select how many times should GSURF try to reconnect with the device in order to retrieve the video signal.

Run application when windows start – Select this option if you want GSURF to run automatically when windows boots up.