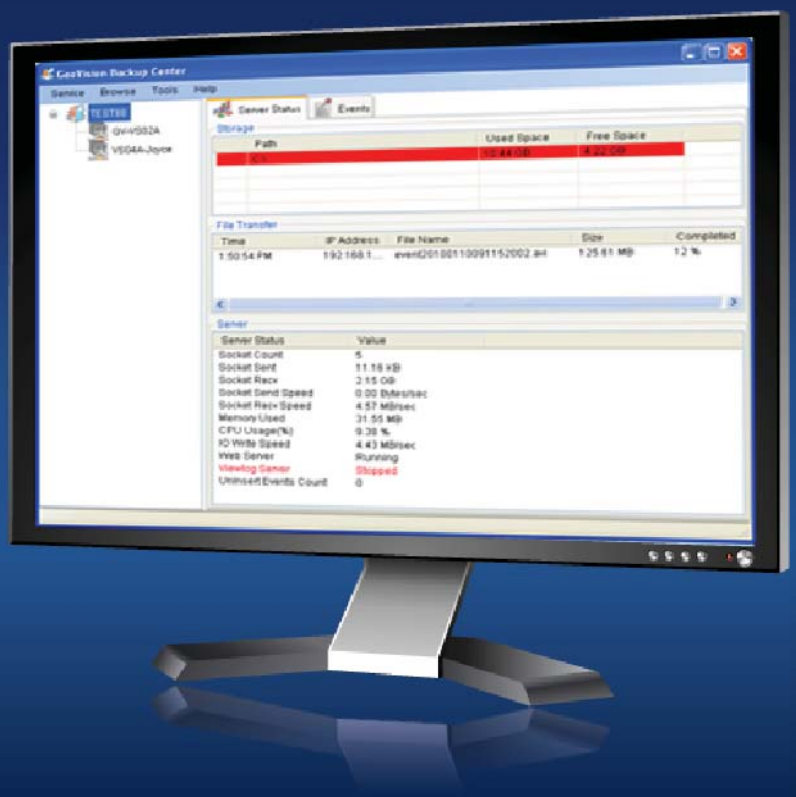
GeoVision inc
The Vision of Security

GV-Backup Center

User's Manual V1.1.1.0



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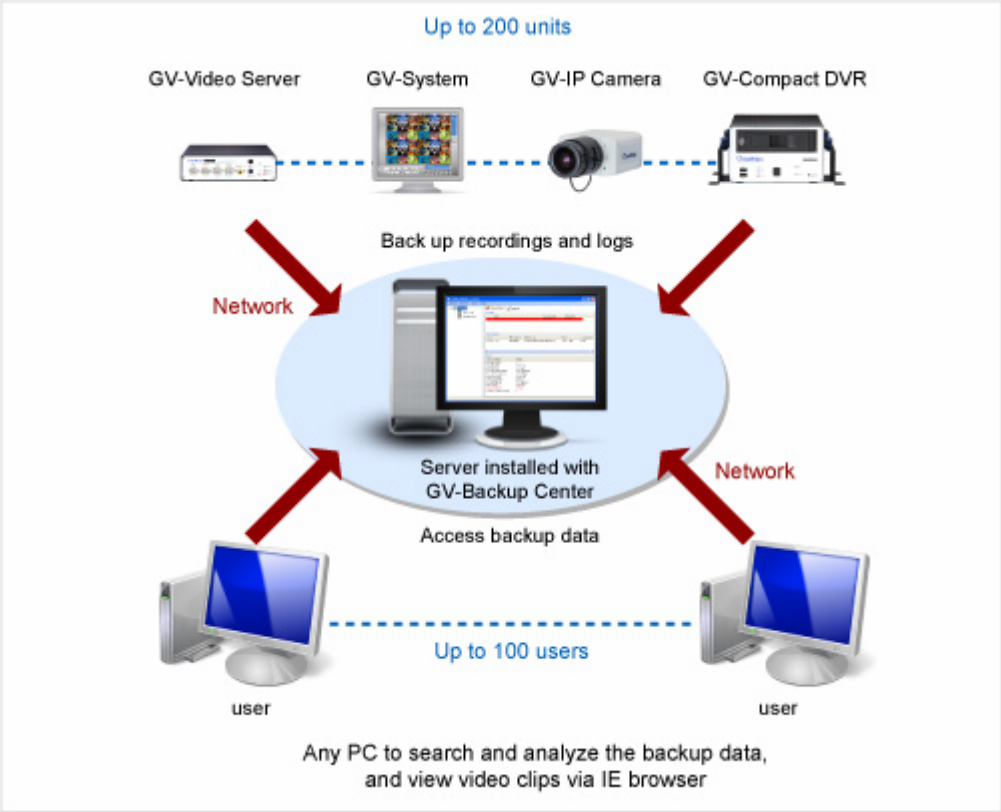
Contents

Naming and Definition

GV-System	GeoVision Analog and Digital Video Recording Software. The GV-System also refers to **GV-Multicam System**, **GV-NVR System** and **GV-Hybrid DVR System** at the same time.

Chapter 1 Introduction

The GV-Backup Center provides you with a secure and affordable remote backup solution for the GV-System and GV-IP Devices. The GV-Backup Center can automatically store a copy of recordings to the offsite location. If a disaster strikes where the GV-System or GV-IP Devices are located, the recording data remain safe in a different location.



1.1 Features

- Remote backup
- Up to 200 units of GV-System and GV-IP Devices supported
- Up to 10 backup rules for working and non-working days independently
- E-Mail alerts for low disk space, disconnection and file transfer failure
- Online data analysis by Event Counts, File Size and Time
- Failover support

1.2 Compatible Version

- **GV-Video Server:**

  GV-VS02A firmware version 1.03 or later

  GV-VS04A firmware version 1.02 or later

  GV-VS04H firmware version 1.04 or later

  GV-VS12 firmware version 1.03 or later

  GV-VS14 firmware version 1.00 or later

- **GV-Compact DVR V2:** firmware version1.04 or later
- **GV-Compact DVR V3:** firmware version 1.00 or later
- **GV-System:** version 8.5.5 or later
- **GV-IP Devices:**

  GV-BX120D-E / 220D-E / 320D-E / 520D-E firmware version 1.03 or later

  GV-BX120D / 140DW / 130D / 220D / 320D / 520D / 2400 Series / 3400 Series firmware version 1.03 or later

  GV-BL120D / 130D / 220D / 320D firmware version 1.03 or later

  GV-FD120D / 220D / 320D firmware version 1.03 or later

  GV-MFD120 / 130 / 220 / 320 / 520 firmware version 1.03 or later

  GV-MDR120 / 220 / 320 / 520 firmware version 1.03 or later

  GV-VD120D / 220D / 320D firmware version 1.03 or later

  GV-CA120 / 220, GV-CAW120 / 220 firmware version 1.03 or later

  GV-CB120 / 220, CBW120 / 220 firmware version 1.03 or later

  GV-FE420 / 421 / 520 / 521, GV-FER521 firmware version 1.03 or later

  GV-SD220 / GV-SD220-S firmware version 1.00 or later

Note: GV-System backup only works with GV-Backup Center V1.10 or later.

1.3 System Requirements

The following is minimum system requirements for the server to run the GV-Backup Center.

Minimum System Requirements

OS	**32-bit**	Windows XP / Vista / 7 / 8 / Server 2008
	64-bit	Windows 7 / 8 / Server 2008 R2 / Server 2012
CPU		Core 2 Duo, E6600, 2.4 GHz
Memory		2 x 1 GB Dual Channels
Hard Disk		1 GB
DirectX		9.0c
Software		.Net Framework 3.5
Browser		Internet Explorer 7.x
Hardware		External or Internal GV-USB Dongle
Note: .Net Framework can be found in the accompanying software DVD.		

Note: Considering of connection speed, we do not recommend using the mobile broadband connection, such as HSDPA, UMTS, EDGE, GPRS, GSM and etc., between GV IP devices and GV-Backup Center.

Recommended Network and Hard Disk Requirements

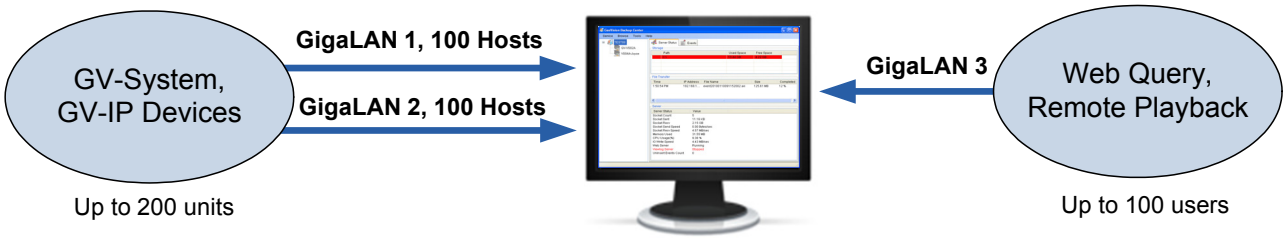
The server's backup speed and transmitting capacity vary depending on the number of Gigabit connections. The numbers of Gigabit network cards required to receive 200 hosts and to support remote access of backed up data are listed below according to the resolution of the source video.

Also note the maximum number of hosts supported by a single hard disk to calculate the number of hard disks required.

Resolution	FPS	Codec	Gigabit Network Cards Required		Max. hosts per HDD
			Receiving 200 hosts	For Playback / Web Query access	
1.3 M	30 fps	H.264	Gigabit network card x 2 (up to 100 hosts per card)	Gigabit Network Card x 1	32 hosts
2.0 M	30 fps	H.264	Gigabit Network Card x 3 (up to 67 hosts per card)	Gigabit Network Card x 1	21 hosts
3.0 M	20 fps	H.264	Gigabit network card x 2 (up to 100 hosts per card)	Gigabit Network Card x 1	32 hosts
4.0 M	15 fps	H.264	Gigabit Network Card x 3 (up to 67 hosts per card)	Gigabit Network Card x 1	24 hosts
5.0 M	10 fps	H.264	Gigabit Network Card x 3 (up to 67 hosts per card)	Gigabit Network Card x 1	24 hosts

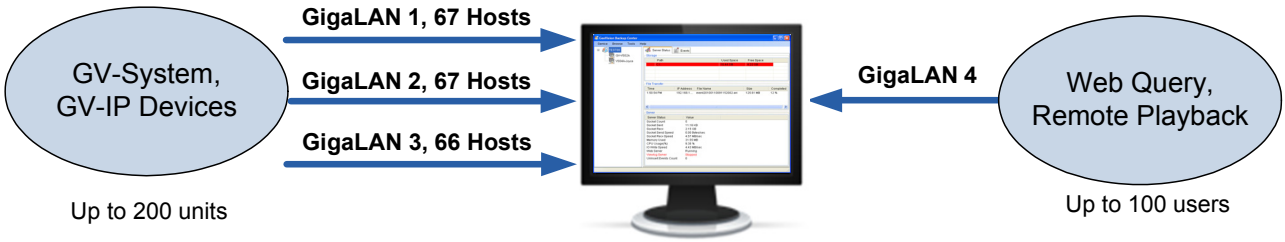
The deployment of Gigabit connections for backing up and accessing database is suggested as illustrated below. Ensure to run every Gigabit connection on a different network in order to reduce the lag on any network connection.

1 MP / 3 MP Source Video



Server installed with GV-Backup Center +
3 Network Cards assigned on different networks

2 MP / 4 MP / 5 MP Source Video



Server installed with GV-Backup Center +
4 Network Cards assigned on different networks

1.4 Data Transfer Time between Different Network Types

When the data is transmitted from the GV-IP Devices to the GV-Backup Center, the data transfer time will vary between different network types.

The following test is conducted on the GV-Compact DVR V2 to transmit one-day data through WiFi wireless (802.11n) and 10/100 Ethernet LAN.

The test is based on these conditions:
GV IP Device: GV-Compact DVR V2
Video Size: 720 x 480
Data Size: 81.92 mb
Data Amount for One Channel: 288 video clips/ day

For the data transfer of one channel, the transfer time for Full Videos is *2 hr 24 min* through WiFi wireless, and *1 hr 16 min* through Ethernet LAN. If you select to transmit Compact Videos (key frames only), the transfer time is significantly reduced to *28 min 48 sec* through WiFi wireless and *19 min 12 sec* through Ethernet LAN.

For the data transfer of four channels, the transfer time for Full Videos is *8 hr 14 min* through WiFi wireless, and *5 hr 04 min* through Ethernet LAN. If you select to transmit Compact Videos (key frames only), the transfer time is significantly reduced to *1 hr 55 min* through WiFi wireless and *1 hr 16 min* through Ethernet LAN.

Network Type	Video Type	1 Ch / 1 Day	4 Ch / 1 Day
		Data Transfer Time	Data Transfer Time
WiFi (802.11n)	Full Videos	2 hr 24 min	8 hr 14 min
	Compact Videos	28 min 48 sec	1 hr 55 min
10/100 Ethernet	Full Videos	1 hr 16 min	5 hr 04 min
	Compact Videos	19 min 12 sec	1 hr 16 min

Note: To only transmit key frames to the GV-Backup Center, you should configure the **Compact Video** setting on the Web interface of GV-IP Devices (Figure 3-2).

Chapter 2 Installation

The GV-Backup Center program may be installed on a separate computer or the same computer with the GV-System, but it is recommended to install on a dedicated computer.

Before installing the GV-Backup Center, you need to plug the **GV-USB Dongle** to the computer, and then install the **dongle driver** and **Microsoft .Net Framework**. Follow the steps below to install the programs.

1. Insert Software DVD to the computer. It runs automatically and a window appears.
2. To install USB driver, select **Install or Remove GeoVision GV-Series Driver** and click **Install GeoVision USB Devices Driver** to start.
3. To install .Net Framework, select **Download Microsoft .NET Framework 3.5** to start.

Note: If you are a user of Windows 8 or Windows Server 2012, see *How to install .Net Framework 3.5 for Windows Server 2012* and *Windows 8* in *Appendix C*

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4. To install GV-Backup Center, select **GV-Backup Center System V1.1.1.0**.

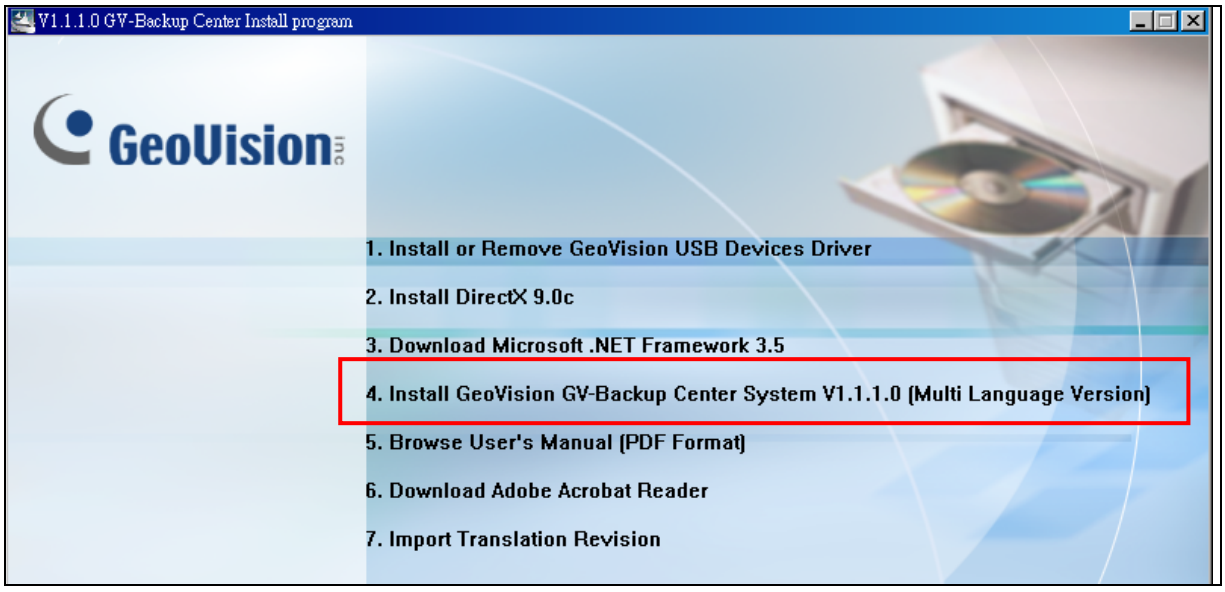


Figure 2-1

Chapter 3 Getting Started

The GV-Backup Center is a dedicated computer on a network that stores backup copies of recordings from up to 200 units of GV-System and GV-IP Devices. The GV-Backup Center allows you to access those backup data anywhere through a web browser.

3.1 Starting the GV-Backup Center

To start the GV-Backup Center, follow these steps:

1. Run **GV-Backup Center**. The first-time user will be prompted to enter a password. The default login account is **admin** and password is left blank.

Figure 3-1

2. On the GV-Backup Center window, click **Service** from the menu bar and select **Start all services** to store backup data from connected GV-System and GV-IP Devices.

3.2 Connecting GV-IP Devices

You need to configure the GV-IP devices in order to back up data to the GV-Backup Center remotely over a network. Different backup schedules are definable on each GV-IP devices.

You can also configure up to two GV-Backup Centers in case of the primary center failure. Whenever the primary GV-Backup Center fails, the second GV-Backup Center takes over the connection from GV-IP devices, providing uninterrupted backup services.

1. Access the Web interface of GV-IP devices, and select **Backup Center**.

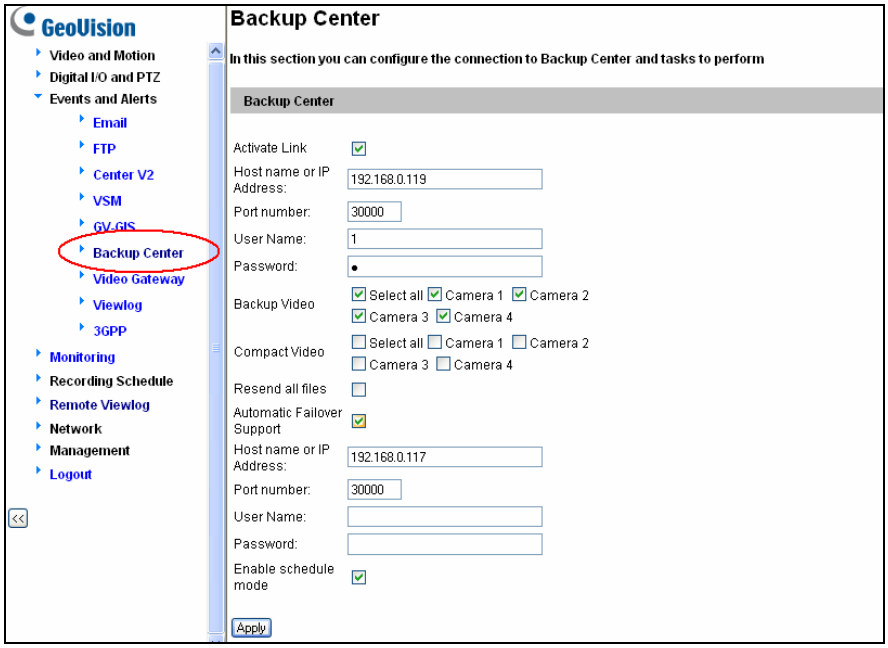


Figure 3-2

2. Select **Activate Link**.
3. Type IP address or domain name of GV-Backup Center.
4. Keep the default port number 30000. Otherwise, modify the port number to match **Listen Port** number on the GV-Backup Center (Figure 4-1).
5. Type **User Name** and **Password** to log onto the GV-Backup Center. These entries must match the account and password created on the GV-Backup Center (Figure 4-2). The default login account is **admin** and password is left blank.
6. In the **Backup Video** section, select the cameras that you want to back up their recordings to the GV-Backup Center.
7. In the **Compact Video** section, select the cameras that you only want to back up their **Key Frames** to the GV-Backup Center, instead of full recordings. This option is useful to save the backup time.

8. Select **Reset all files** in case of the network interruption. After the network is recovered, all the missing data will be resent to the GV-Backup Center again.
9. If there is the other GV-Backup Center for failover support, select **Automatic Failover Support** and type its connection information.
10. Optionally set up the schedule to back up data to the GV-Backup Center.
11. Click **Apply** to start connection.

Ensure **Data Service** on the GV-Backup Center has been enabled; otherwise the connection attempt will fail. When the connection is established, a message "*Status: Connected. Connected Time:xxx*" will be displayed at the bottom of the GV IP Device's Web interface.

On the GV-Backup Center, you can also see the online GV IP Device icon, as the example below.

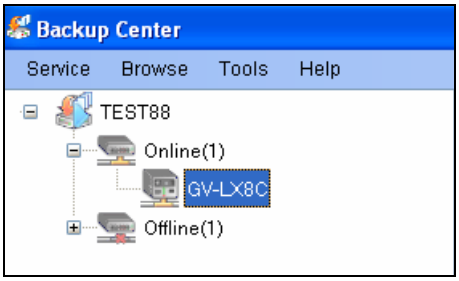


Figure 3-3

3.2.1 Setting Backup Frequency

The backup is created soon after the recordings are stored to the hard drive of GV-IP devices. Therefore, the backup frequency is based on the **Split Interval** setting for time length of each event file on the GV-IP Devices. You can specify the backup frequency between 1 and 5 minutes.

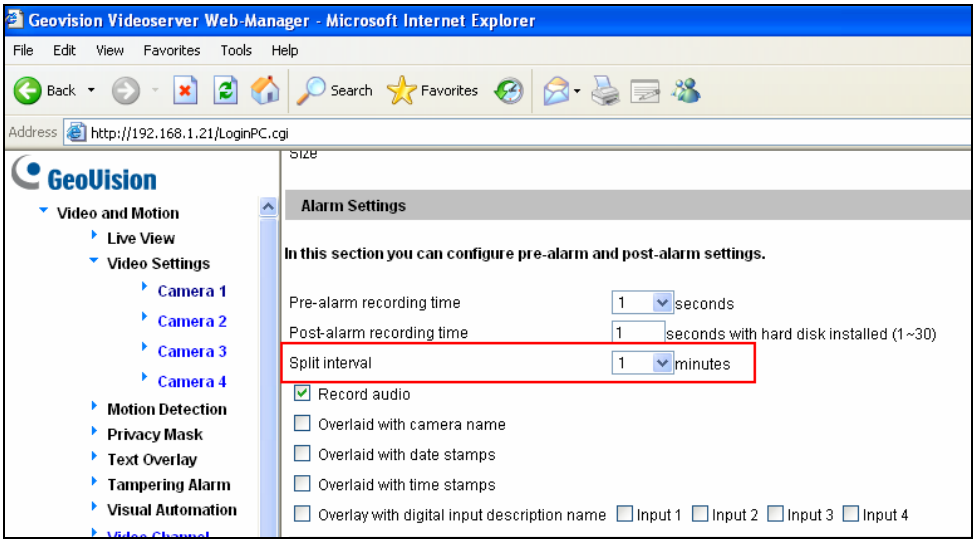


Figure 3-4

3.3 Connecting GV-System

You need to configure the GV-System in order to back up the recordings to the GV-Backup Center remotely over a network.

Note: The GV-System backup is only supported in GV-Backup Center V1.1.0.0 or later.

1. Click the **Network** button and select **Connect to Backup Center**. This dialog box appears.

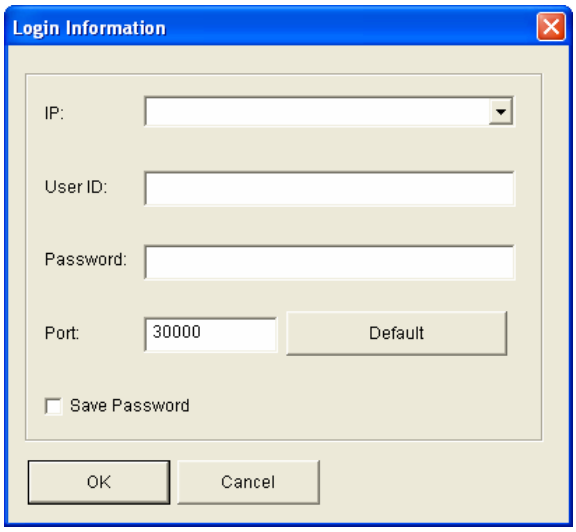


Figure 3-5

2. Type IP address or domain name of GV-Backup Center.
3. Type **User Name** and **Password** to log onto the GV-Backup Center. These entries must match the account and password created on the GV-Backup Center (Figure 4-2). The default ID and Password are **admin**.
4. Keep the default port number 30000. Otherwise, modify the port number to match **Listen Port** number on the GV-Backup Center (Figure 4-1).

5. Click **OK**. The login information is added.

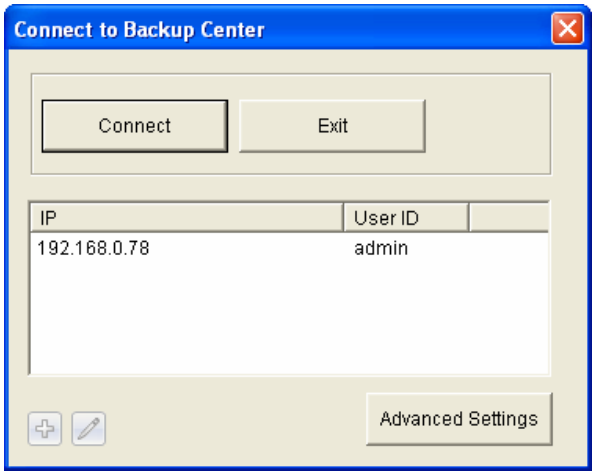


Figure 3-6

6. Click **Advanced Settings** to specify the interval between each connection retry when connection is interrupted.

Figure 3-7

7. Click **OK** and click the **Connect** button to connect to GV-Backup Center.

Ensure **Data Service** on the GV-Backup Center has been enabled; otherwise the connection attempt will fail. When the connection is established, you can see the online DVR icon on the GV-Backup Center, as the example below.

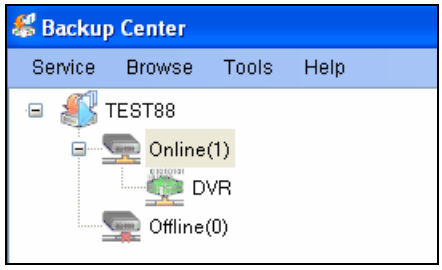


Figure 3-8

Note:

1. The round-the-clock events will be resent and backed up to the GV-Backup Center when the connection to GV-Backup Center is disabled and later enabled on the GV-System. However, to back up **motion and input trigger events**, ensure the connection to the GV-Backup Center is always enabled.

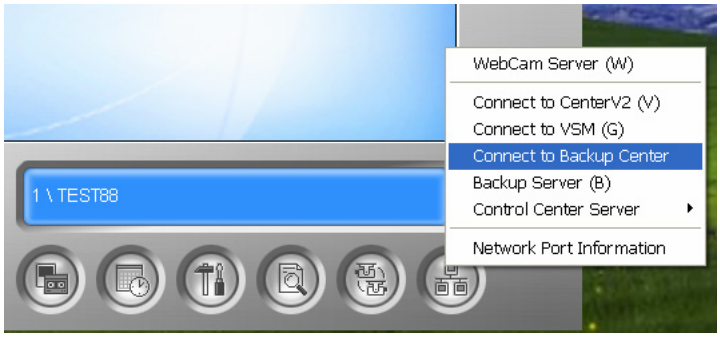


Figure 3-9

2. To back up **motion events** recorded on the GV-System, make sure to select **Register Motion Event** for each camera (Configure button >System Configure > Camera Configure).

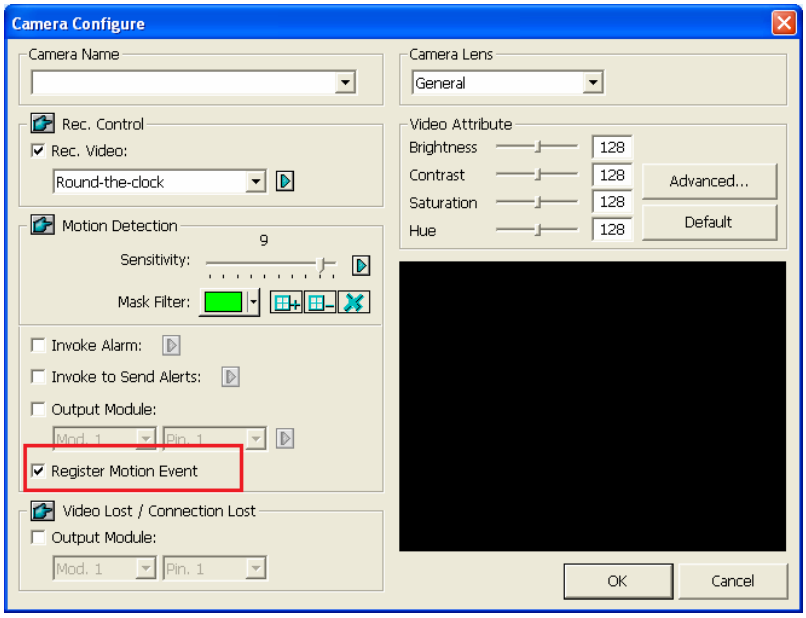


Figure 3-10

3. To back up **input trigger events** recorded on the GV-System, make sure to select **Register Input Event** for each input device (Configure button > Accessories > I/O Device > I/O Application).

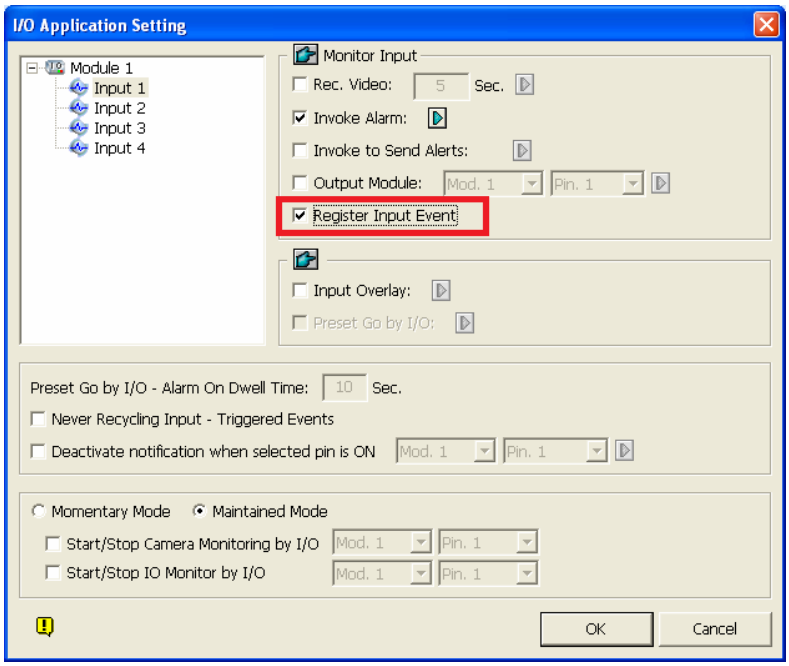


Figure 3-11

3.4 The Main Screen of GV-Backup Center

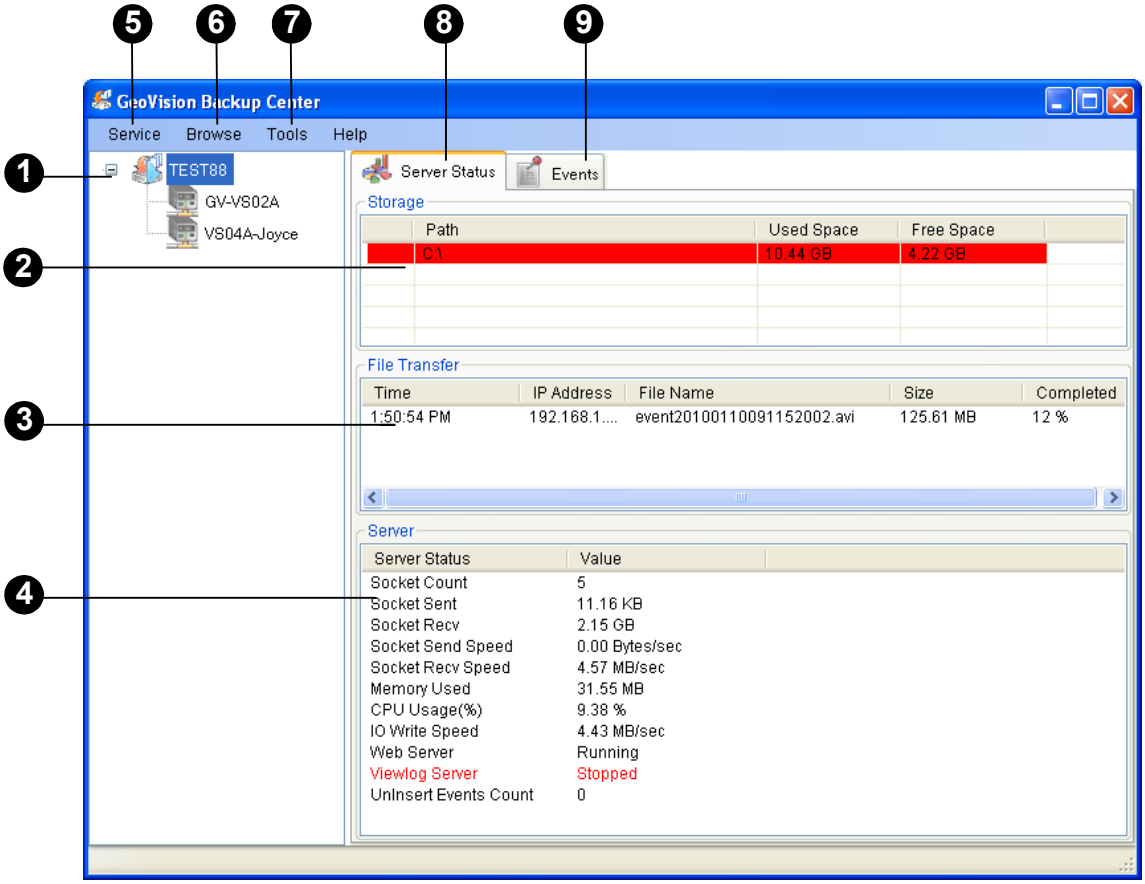


Figure 3-12

No	Name	Description
1	Host List	Displays connected GV-System and GV-IP devices.
2	Storage Window	Displays the storage drives and space information.
3	File Transfer Window	Displays the information and progress of file transferring.
4	Server Window	Displays the server information of GV-Backup Center.

5	Service	Enables and disables the following GV-Backup Center services: ■ **Data Service:** Enables connection to GV-System and GV-IP Devices. ■ **Web Service:** Enables access to the GV-Backup Center's Web interface. ■ **ViewLog Service:** Enables remote access to the backup recordings on the GV-Backup Center.
6	Browse	Links to the Web interface of GV-Backup Center.
7	Tools	Accesses the advanced settings. See *Chapter 4 Configuring the GV-Backup Center.*
8	Server Status Tab	Displays the storage, file transfer and server information of GV-Backup Center.
9	Events Tab	Displays the current connection and file transfer status. The list of status events will automatically cleared each time the GV-Backup Center is restarted. The status events can be retrieved and filtered through the Web interface of GV-Backup Center.

3.5 Assigning Backup Locations

The backup location is where the recordings from GV-System and GV-IP Devices will be stored on the GV-Backup Center. You can assign different backup locations for each GV IP device and GV-System to back up its own recordings. The default backup location is at **C:\BackupSvr**.

1. Click **Tools** from the menu bar, select **Setting** and click **Storage**. The Storage Settings dialog box appears.
2. In the Storage list, select the **Disk** that you want to use as the backup location on the GV-Backup Center.

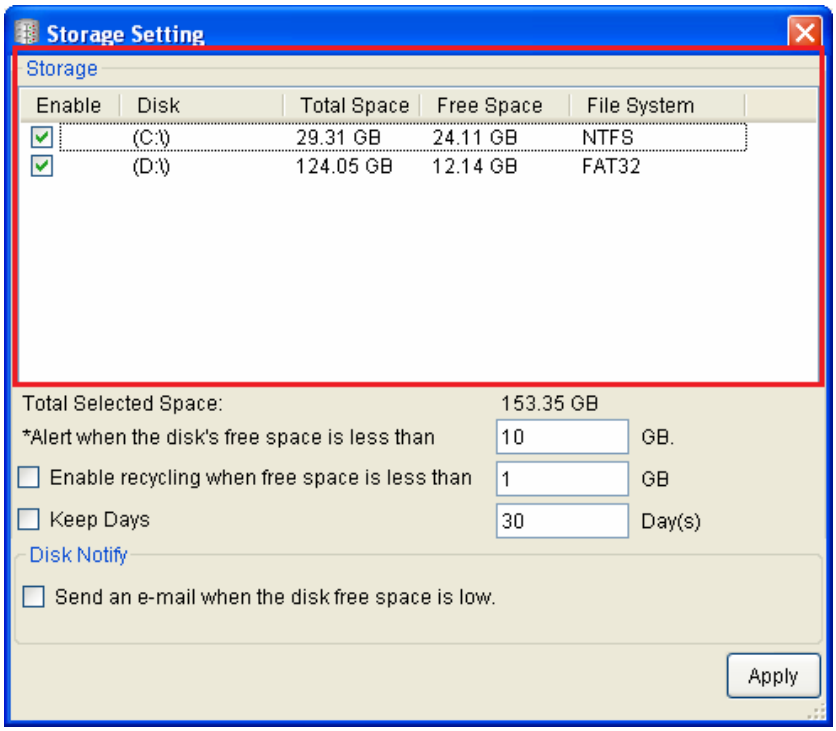


Figure 3-13

3. Click **Apply**.

4. To assign a disk for the GV IP device, right-click one GV IP device on the Host List, and select **Host Setting**. This dialog box appears.

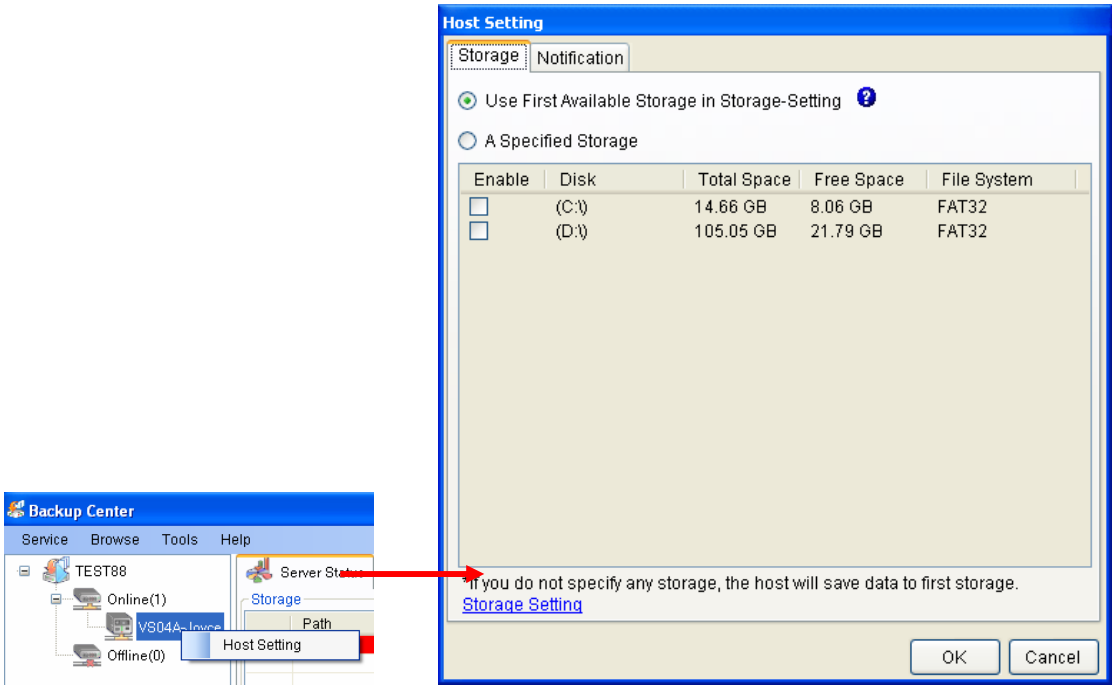


Figure 3-14

5. Select **Use First Available Storage in Storage Setting** to use the first available disk as the backup location for the GV IP device. Otherwise, select **A Specified Storage** and select one disk to be the backup location for the GV IP device.
6. Click **OK**.

Note: It is recommended to install one hard disk for every 50 connected GV IP devices due to the data transfer limit of the hard disk. For the maximum of 200 connected GV IP devices, you need to install at least 4 hard disks.

3.6 Setting E-Mail Notifications

The supervisor can be warned by e-mail messages when any disk space falls below certain threshold, any GV-System or IP device is disconnected with the GV-Backup Center or file transfer fails. For the e-mail alert function, follow the steps below to set up the mail server first.

3.6.1 Setting Mail Server

1. Click **Tools** from the menu bar, select **Setting** and click **E-Mail**. This dialog box appears.

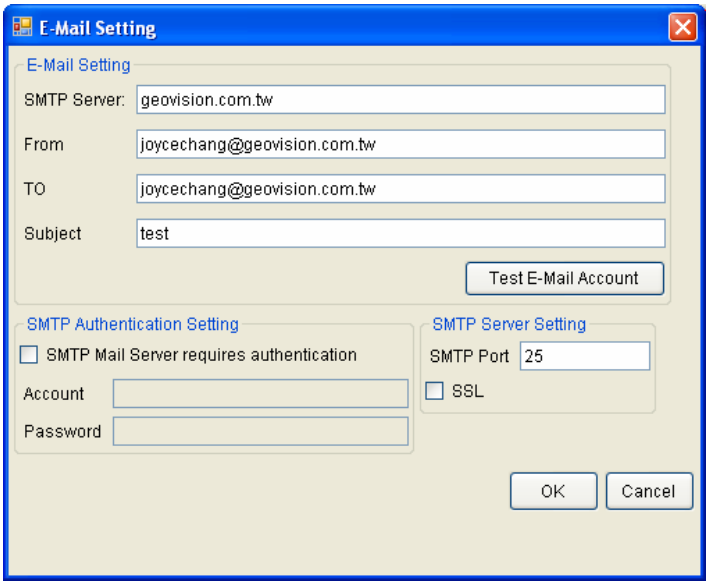


Figure 3-15

2. Type URL or IP address of the SMTP server.
3. Type the e-mail address where e-mails are sent from. The entered e-mail will appear as sender when the e-mail is received.
4. Type e-mail addresses of recipients. For multiple recipients, add a semicolon between each e-mail address.
5. Type a subject coming with the alert message.
6. Click **Test E-Mail Account** to send out a test e-mail to see whether the setup is correct. If the connection attempt fails, you may also need to check the settings of **SMTP Authentication Setting** and **SMTP Server Settings** described below.

Other options on the dialog box:

[SMTP Authentication Setting] If the SMTP server needs authentication, select this option and type your account name and password.

[SMTP Server Setting] Keep the default port 25 which is common for most SMTP servers. However webmail providers such as Yahoo and Hotmail generally use different SMTP port. In this case, check with e-mail providers for SMTP port number. Select **SSL** if the SMTP server requires the SSL authentication for connection.

3.6.2 Setting E-Mail Alerts

Setting Low Disk Space Alerts

When any disk space on the GV-Backup Center is lower than the specified limit, e-mails will be sent out to warn the supervisor.

1. Click **Tools** from the menu bar, select **Setting** and click **Storage**. The Storage Setting dialog box appears (Figure 3-13).
2. Specify the limit of free space of each disk in the **Alert when the disk free space is less than** field.
3. Select **Send an e-mail when the disk free space low**.
4. Click **Apply**.

Setting Alerts for Disconnection and File Transfer Failure

The supervisor can be warned by e-mail messages when any GV-IP Device or GV-System is disconnected from the GV-Backup Center, or file transfer is interrupted.

1. On the Host List, right-click one GV IP device and select **Host Setting**. The Host Setting dialog box appears (Figure 3-14).

2. Click the **Notification** tab. This dialog box appears.

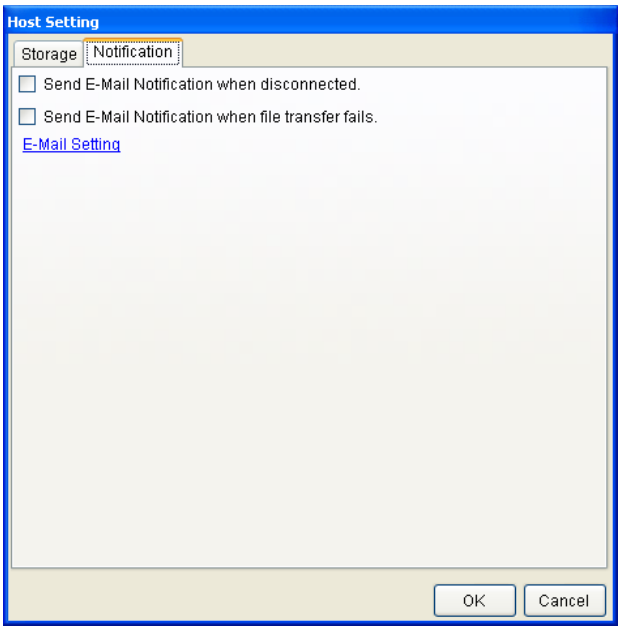


Figure 3-16

3. To send e-mail alerts when the GV IP device or GV-System is disconnected from the GV-Backup Center, select **Send E-Mail Notification when disconnected**.
4. To send e-mail alerts when the file transfer from the GV IP device fails, select **Send E-Mail Notification when file transfer fails**.
5. Click **OK**.

Chapter 4 Configuring the GV-Backup Center

To access more settings of GV-Backup Center, click **Tools** from the menu bar and select **Setting** or **UPnP Port Mapping Setting**. This chapter describes these advanced settings: General Setup, Account, Storage, Database, E-Mail, File Transfer and UPnP Port Mapping.

4.1 General Settings

The General Settings allow you to configure the communication ports of GV-Backup Center and automatic startup services.

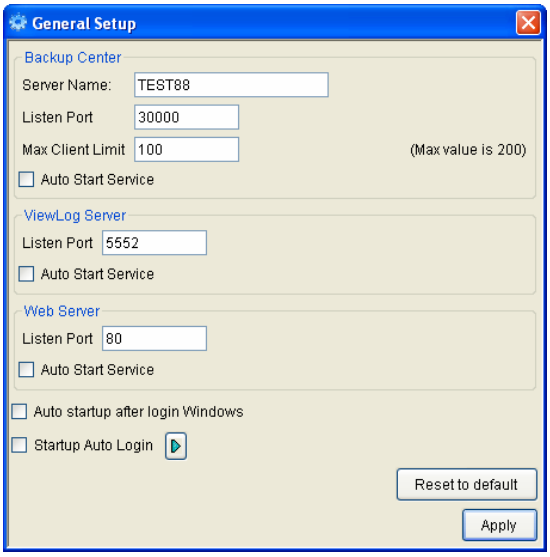


Figure 4-1

[Backup Center]

- **Server Name:** Names the GV-Backup Center. The default value is the computer name.
- **Listen Port:** The default communication port of GV-Backup Center is 30000.
- **Max Client Limit:** Specifies the maximum number of connections from GV-IP Devices and GV-System allowed to access the GV-Backup Center. The maximum value is 200.
- **Auto Start Service:** Automatically starts connection to configured GV-IP Devices and GV-Systems once the GV-Backup Center is started.

[ViewLog Server]

- **Listen Port:** The port allows remote access to the backup recordings on the GV-Backup Center.

- **Auto Start Service:** Automatically enables the remote playback service once the GV-Backup Center is started.

[Web Server]

- **Listen Port:** The HTTP port allows connecting the GV-Backup Center to the Web.
- **Auto Start Service:** Automatically enables remote access to the Web interface of GV-Backup Center once the GV-Backup Center is started.
- **Auto startup after login Windows:** Automatically starts the GV-Backup Center after Windows startup.
- **Start Auto login:** Automatically logs onto the GV-Backup Center after Windows startup. Click the Arrow button to enter the account and password for the automatic login.

4.2 Account Settings

Using the Account Settings, you can create new accounts with different access rights. Up to 100 accounts, including Users and Supervisors, can be created.

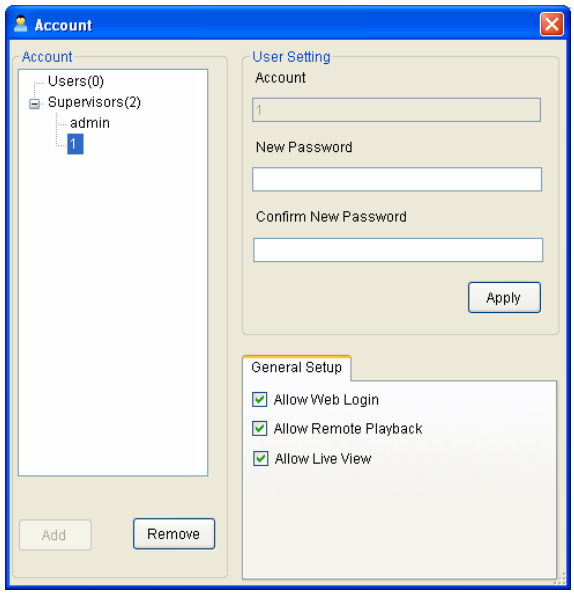


Figure 4-2

Under the **General Setup** tab, there are two options:

- **Allow Web Login:** Allows the user to access the Web interface of GV-Backup Center.
- **Allow Remote Playback:** Allows the user to remotely access the backup recordings on the GV-Backup Center.

Note: The **Allow Live View** Option on the Account Settings dialog box is **NOT** functional.

4.3 Storage Settings

The Storage Settings allow you to specify the backup locations, free space limit and low free space alerts.

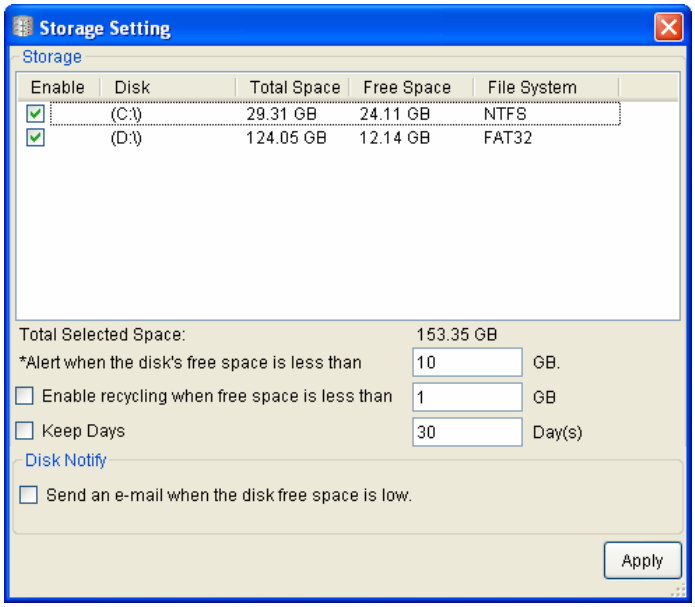


Figure 4-3

[Storage] In the **Storage** list, select the disks to be storage locations.

- **Alert when the disk's free space is less than xx GB:** When any disk space is less than the specified limit, e-mail alerts will be sent to warn you. See *3.5.2 Setting E-Mail Alerts*.
- **Enable recycling when free space is less than xx GB:** When the free space of each disk is less than the specified limit, old recordings on that disk will be overwritten. Every time the data of 2 GB will be deleted.
- **Keep Days:** Specify the number of days to keep the recordings from 0 (unlimited) to 999 days. When **Enable recycling when free space is less than xx GB** and **Keep Days** are both selected, the system applied whichever condition comes first. For example, if the specified smallest amount of storage space comes earlier than the specified Keep Days, then recycling is applied first.

[Disk Notify]

- **Send an e-mail when the disk free space is low:** Enables the e-mail alert when any disk space is less than the specified limit. See *3.5.2 Setting E-Mail Alerts*.

4.4 Database Settings

You can modify the storage path of GV-Backup Center's database (system log) and specify the number of days to keep the database.

When the **Recycle** option is selected, some part of the database will be overwritten when the storage space is lower than 500 MB. When **Recycle** and **Keep Days** are both selected, the system applies whichever condition comes first. For example, if the low storage space (500 MB) comes earlier than the specified Keep Days, then recycle is applied first.

If the operating system of GV-Backup Center is of NTFS file system, you can select **Enable Database Compression** to save disk space.

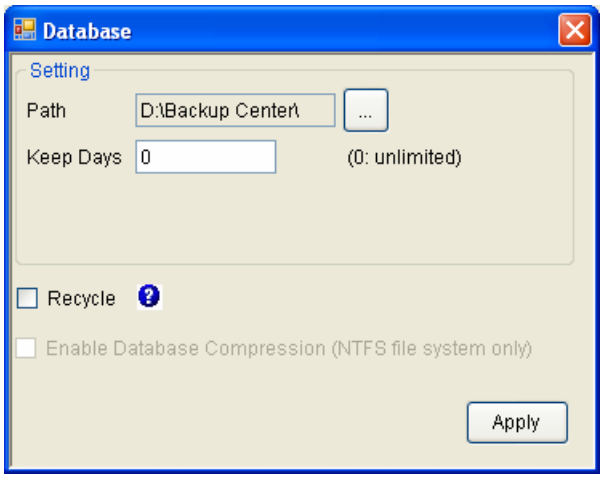


Figure 4-4

4.5 E-Mail Settings

To configure the mail server to send alerts, see *3.5.1 Setting Mail Server*.

4.6 File Transfer Settings

In this setting dialog box, you can define the following backup rules:

- The day to back up the recordings.
- The time period of recordings to be transferred.
- The type of recording to be transferred, including motion detection, I/O trigger or all types of events.
- The time to back up the files.

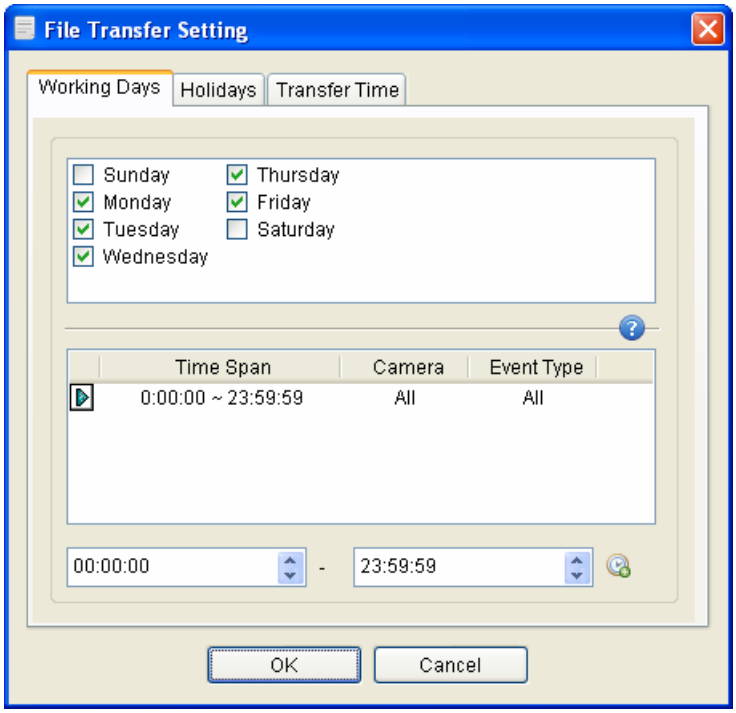


Figure 4-5

[Working Days] In this tab, you can define up to 10 backup rules for working days, which include which working day, which camera and which type of recording to be transferred to the GV-Backup Center.

1. Select the day, including Monday to Sunday.
2. Click the arrow button before Time Span and select **Modify**.

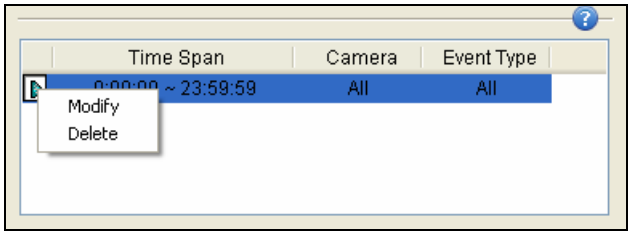


Figure 4-6

3. In this dialog box, select the **Camera** that you want to back up its recordings, specify **Time Span** in which time period of recordings to be transferred, and select **Events** that you want to back up all event files, or Motion and/or I/O trigger events only.

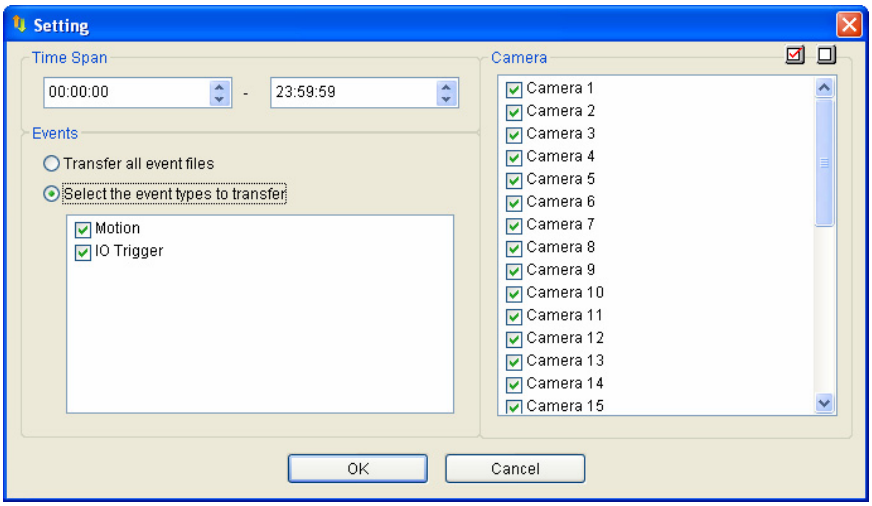


Figure 4-7

4. Click **OK**. The backup settings are created.

5. To define another backup rule, click the button. A new Time Span is created.

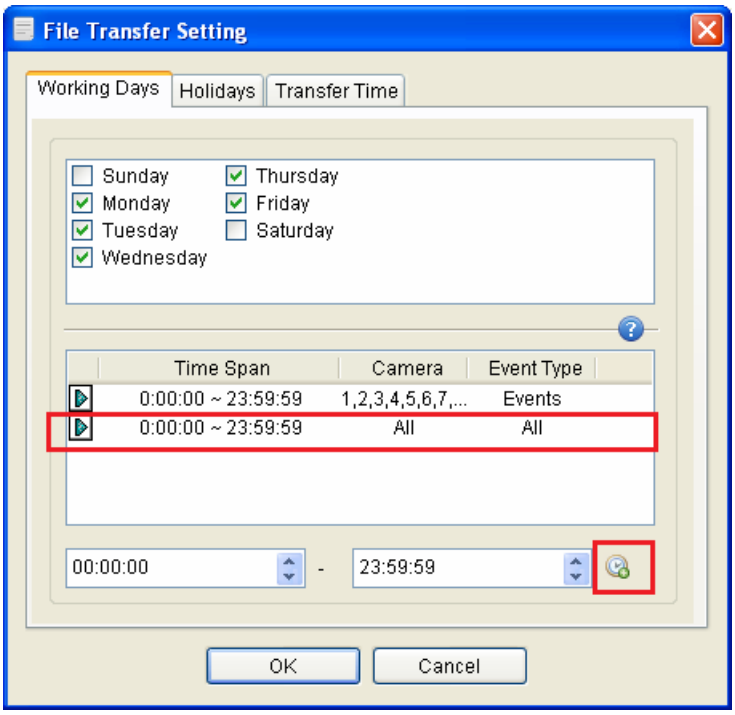


Figure 4-8

6. Click the arrow button, select **Modify** and follow the step 3 to define the backup rule.

[Holidays] In this tab, you can define up to 10 backup rules for non-working days, which include which non-working day, which camera and which type of recording to be transferred to the GV-Backup Center. For how to set up a rule, see the instructions in the above **[Working Days]**.

[Transfer Time] In this tab, you can define the time to back up the files from the GV IP devices to the GV-Backup Center, based on the rules you set up for working days and non-working days.

4.7 UPnP Port Mapping Settings

The GV-Backup Center supports UPnP technology (Universal Plug and Play) to allow automatic port configuration to your router.

In order for UPnP to be enabled, the following requirements must be met:

- Windows XP Service Pack 2 or later
- Windows operating system has been configured to use UPnP. See *Enabling UPnP in* Windows *XP* in *Appendix*.
- UPnP has been enabled on your router. For this setting, consult your router's documentation.

To enable UPnP on the GV-Backup Center:

1. Click **Tools** from the menu bar and select **UPnP Port Mapping Setting**. This dialog box appears.

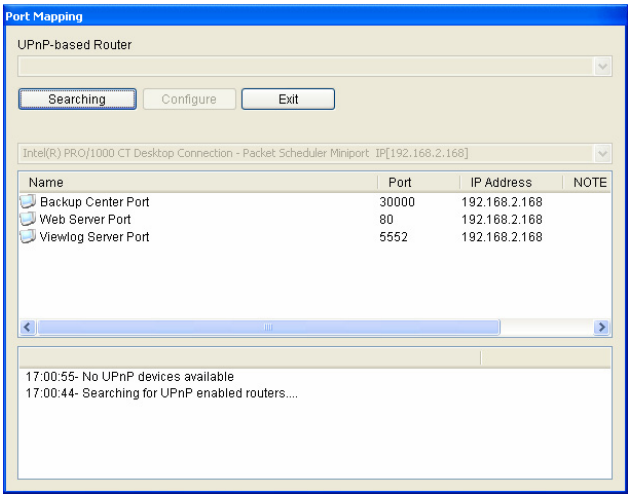


Figure 4-9

2. Click **Searching** to search the UPnP-enabled routers.
3. If your server is installed with multiple routers, select a desired one from the UPnP-based Router drop-down list.
4. If your server is installed with multiple network adapters, select a desired one from the drop-down list.
5. Click **Configure** to automatically configure the communication ports on the router.

Tip: If you don't use the default ports 3000, 5552 and 80, modify the related ports in the General Setup dialog box (Figure 4-1), re-open the UPnP port mapping dialog box and follow above steps to configure your router.

Chapter 5 Accessing the Backup Data Using a Web Browser

After the GV-Backup Center service is started, the backup data are accessible through network.

Note: For remote viewing through network, Internet Explorer 7.0 or later is required.

5.1 Accessing the Web Interface

To access the GV-Backup Center through the network, ensure the **Web Service** (No. 5, Figure 3-11) on the GV-Backup Center has been enabled; otherwise the access to the web browser will fail.

1. Two methods to access the Web interface of GV-Backup Center:
   A. If you are at the local GV-Backup Center, select **Browse** from the menu bar and select **Event Data**. The login page appears.
   B. If you are at a remote computer, start the Internet Explorer browser. Enter the IP address or the domain name of GV-Backup Center in the Location/Address field of your browser. The login page appears.

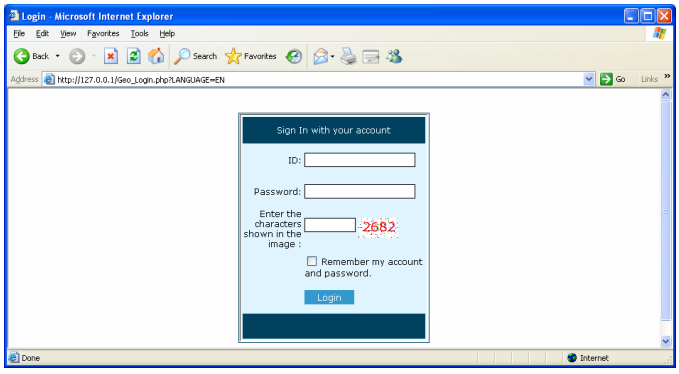


Figure 5-1

2. Enter the login ID and Password of GV-Backup Center.
3. Enter the characters shown in the image.

4. Click **Login**. The web page similar to the following example is now displayed in your browser.

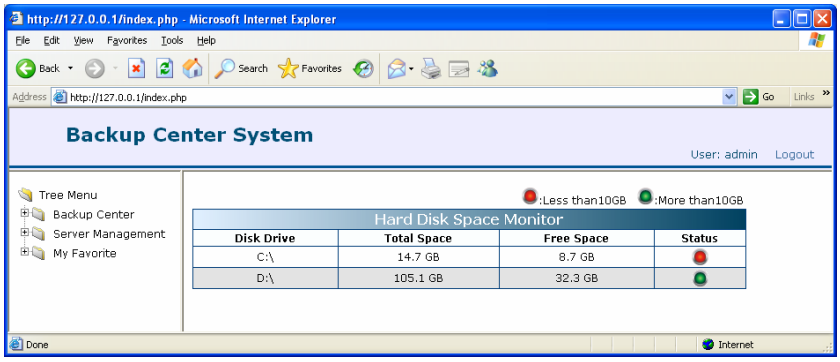


Figure 5-2

5.2 Tree Menu

On the left side of the Web interface, you can see the tree menu.

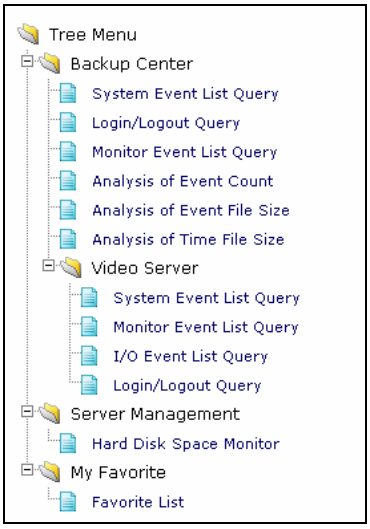


Figure 5-3

Backup Center	This category is for searching the whole backup data on the GV-Backup Center by certain criteria. ■ **System Event List Query:** Searches the system-related events of GV-Backup Center. ■ **Login/Logout Query:** Searches the login and logout events during a specified period of time. ■ **Monitor Event List Query:** Searches the desired events during a specified period of time. ■ **Analysis by Event Count:** Displays the relative number of all events during a specified period of time. ■ **Analysis by Event File Size:** Displays the relative file size of all events during a specified period of time. ■ **Analysis by Time:** Displays the relative number of all events by year, month or date. ■ **Analysis of File Size by Time:** Displays the relative file size of all events by year, month or date.
Video Server	This category is for searching the backup data of GV-Video Server(s) and GV-Compact DVR(s) by certain criteria.

Server Management	**Hard Disk Space Monitor** displays the space information of storage drives on the GV-Backup Center.
My Favorite	Lists the saved search criteria.

5.3 System Event List Query

The **System Event List Query** page shows a list of system-related events for a selected period of time.

The System Event List Query in the **Backup Center** category (see *5.2 Tree Menu*) allows you to access the File Transfer events of GV-Backup Center. The System Event List Query in the **Video Server** category (see *5.2 Tree Menu*) provides the system events of GV-System and GV-IP Devices, such as Reboot, Video Lost and etc.

To define search criteria:

1. In the **Backup Device** section, select one GV-Backup Center or **Select All**.
2. In the **Login Device** section, select desired GV IP devices or **Select All**.
3. In the **Event Type** section, select one type of event or **Select All**.
4. In the **Time** section, select a period of time.
5. Click **Query** to display the search results.

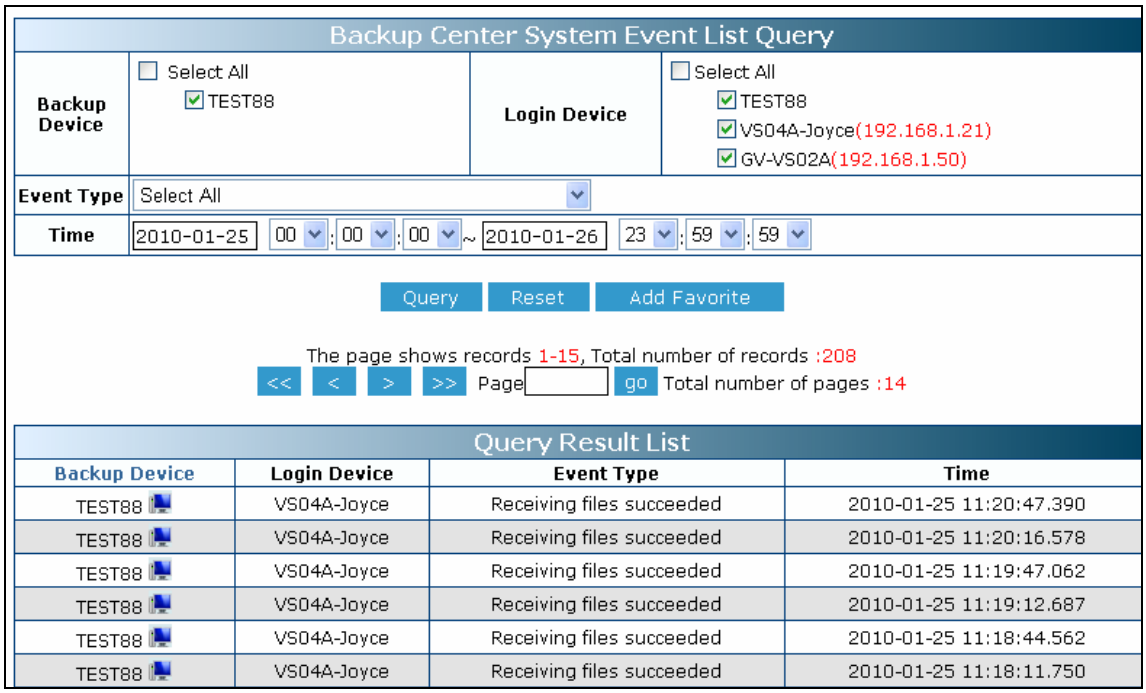


Figure 5-4

You can click the **Add Favorite** button to save the search criteria to the Favorite List for future use. You can also click the **Export CSV** and **Export Word** buttons to export the search results in EXCEL and WORD formats respectively.

5.4 Login and Logout Query

If you want to know which user accounts have logged into the GV-Backup Center, GV-System or GV-IP Devices during a specified period of time, the **Login/Logout Query** page can give you answer.

To define search criteria:

1. In the **Backup Device** section, select one GV-Backup Center or **Select All**.
2. In the **Login Device** section, select desired GV IP devices or **Select All**.
3. In the **User Name** section, type an account name. You can also leave the field blank to search all accounts.
4. In the **Login/Logout** section, select **Login**, **Logout** or **Select All**.
5. In the **Time** section, select a period of time.
6. In the **Status** section, select **Fail** or **Success**.
7. Click **Query** to display search results.

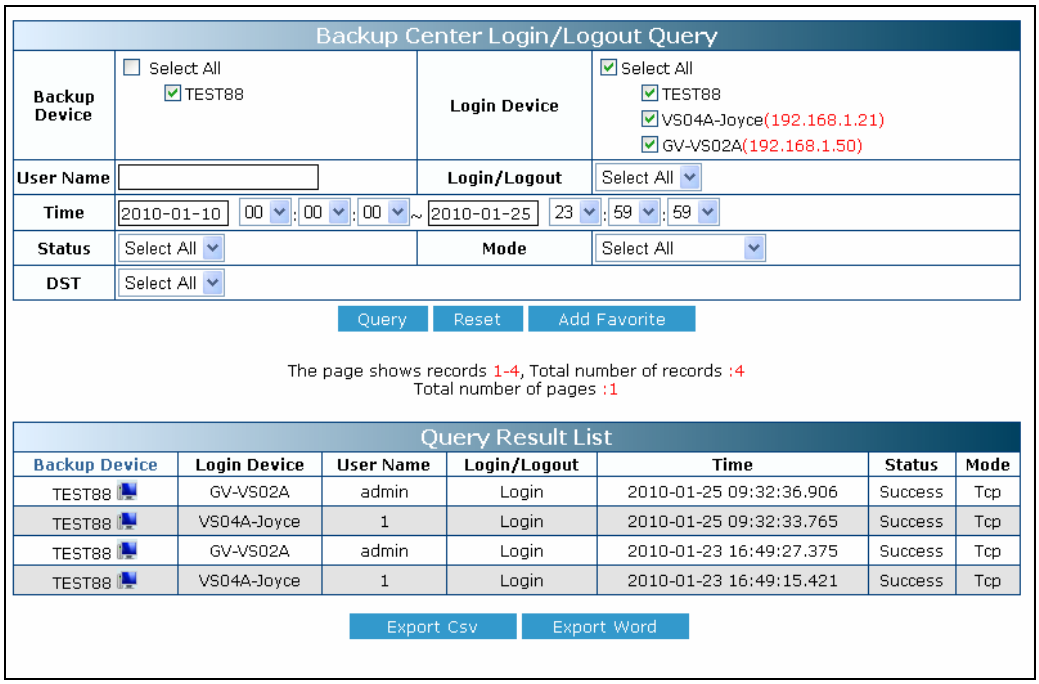


Figure 5-5

You can click the **Add Favorite** button to save the search criteria to the Favorite List for future use. You can also click the **Export CSV** and **Export Word** buttons to export the search results in EXCEL and WORD formats respectively.

Note: The **Mode** and **DST** options on the Login/Logout Query are **NOT** functional.

5.5 Monitor Event List Query

The **Monitor Event List Query** page helps you locate the desired events during a specified period of time. The query results contain video preview and clip for further identification. To see video preview or clip, ensure **ViewLog Service** on the GV-Backup Center is enabled.

To define search criteria:

1. In the **Camera** section, click desired GV IP devices to display the contained cameras. Then select desired cameras.
2. In the **Event Type** section, select one type of event or **Select All**.
3. In the **Time** section, select a period of time.
4. Click **Query** to display search results.

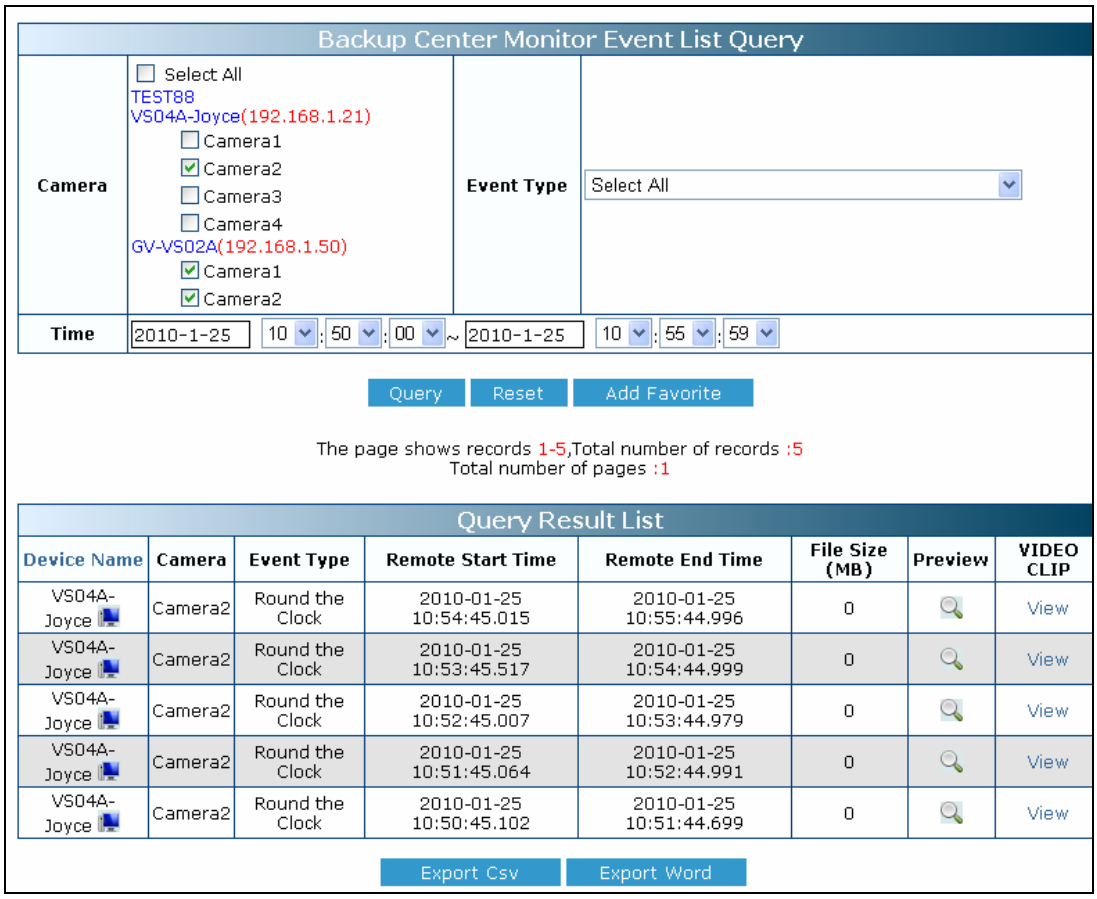


Figure 5-6

You can click the **Add Favorite** button to save the search criteria to the Favorite List for future use. You can also click the **Export CSV** and **Export Word** buttons to export the search results in EXCEL and WORD formats respectively.

5.6 Analysis by Event Count

The **Analysis by Event Count** page shows the relative number of event types for a selected period of time. The search results can be displayed in three graph types: Bar, Pie and Line.

To define search criteria:

1. In the **Camera** section, click desired GV IP devices to display the contained cameras. Then select desired cameras.
2. In the **Event Type** section, select one type of event or **Select All**.
3. In the **Time** section, select a period of time.
4. Select one type of graph.
5. Click **Query** to display search results.

For the example below, we select **Select All** as Event Type and select **Bar Graph** to display search results. The Bar Graph shows the relative number of all events. The horizontal axis displays the type of event. In this case there are only two event types Motion Detection and Round-the-Clock. The vertical axis displays the number of events occurred in the selected cameras. When we move the mouse pointer over the bar graphic, the exact number of events will be displayed.

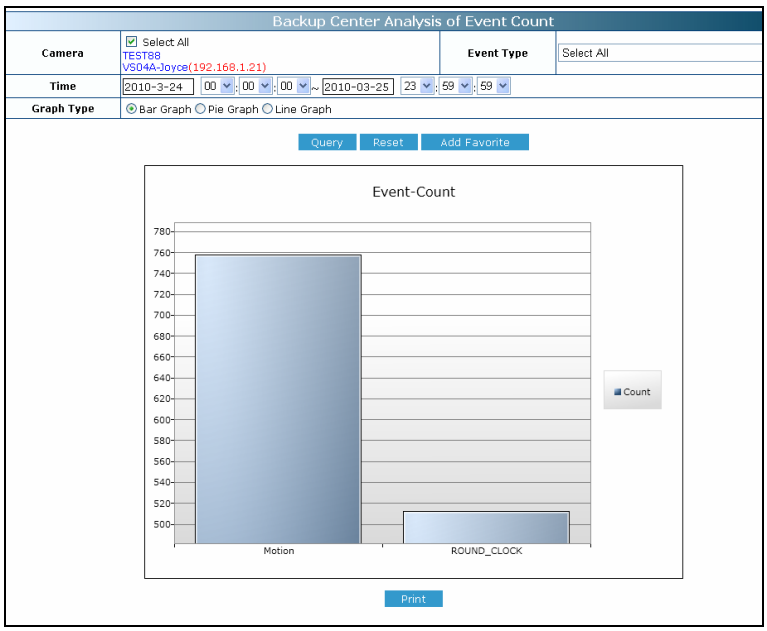


Figure 5-7

You can click the **Add Favorite** button to save the search criteria to the Favorite List for future use. You can also click the **Print** button to print out the graph.

5.7 Analysis by Event File Size

The **Analysis by Event File Size** page shows the relative file size of all events for a selected period of time. The search results can be displayed in three graph types: Bar, Pie and Line.

To define search criteria, see 5.7 *Analysis by Event Count*.

For the example below, we select **Select All** as Event Type and select **Bar Graph** to display search results. The Bar Graph shows the relative file size of all events. The horizontal axis displays the type of event. In this case there are only two event types Motion Detection and Round-the-Clock. The vertical axis displays the file size of events occurred in the selected cameras, in the unit of **MB**. When we move the mouse pointer over the bar graphic, the exact file size of events will be displayed.

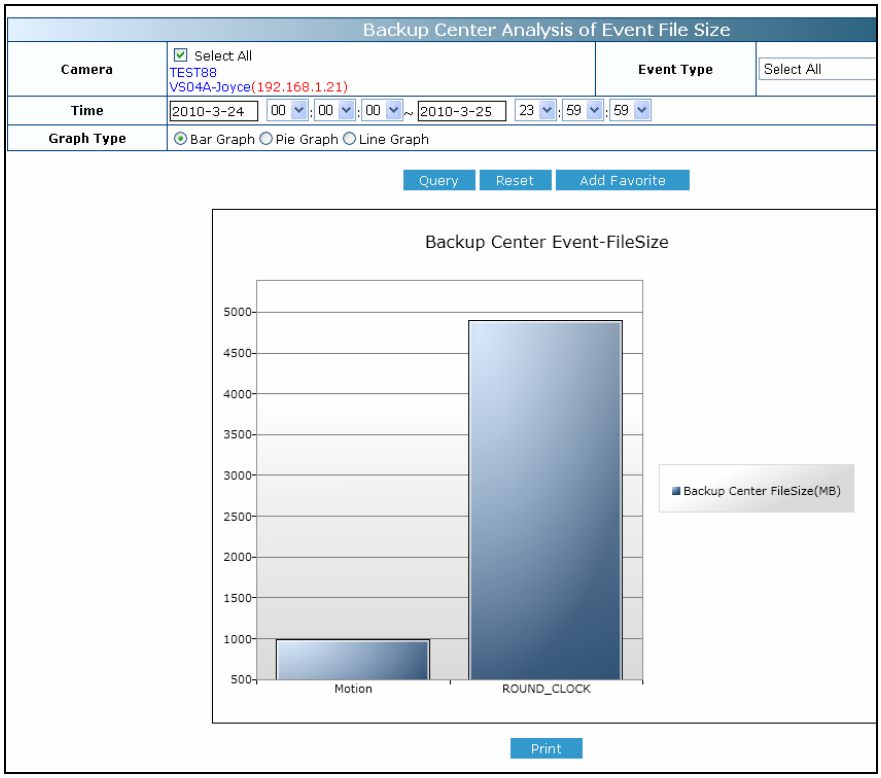


Figure 5-8

You can click the **Add Favorite** button to save the search criteria to the Favorite List for future use. You can also click the **Print** button to print out the graph.

5.8 Analysis by Time

The **Analysis by Time** page shows the relative number of all events by year, month or date. This analysis is useful to determine the peak time of events.

To define search criteria, see 5.7 *Analysis by Event Count*.

For the example below, we select **All Cameras**, select **By Day** as Period Type, specify the date as March 31, 2010, and select **Pie Graph** to display search results. The Pie Graph shows the relative proportion of events by hour for the specified date. When we move the mouse pointer over each sector, the exact number of events will be displayed.

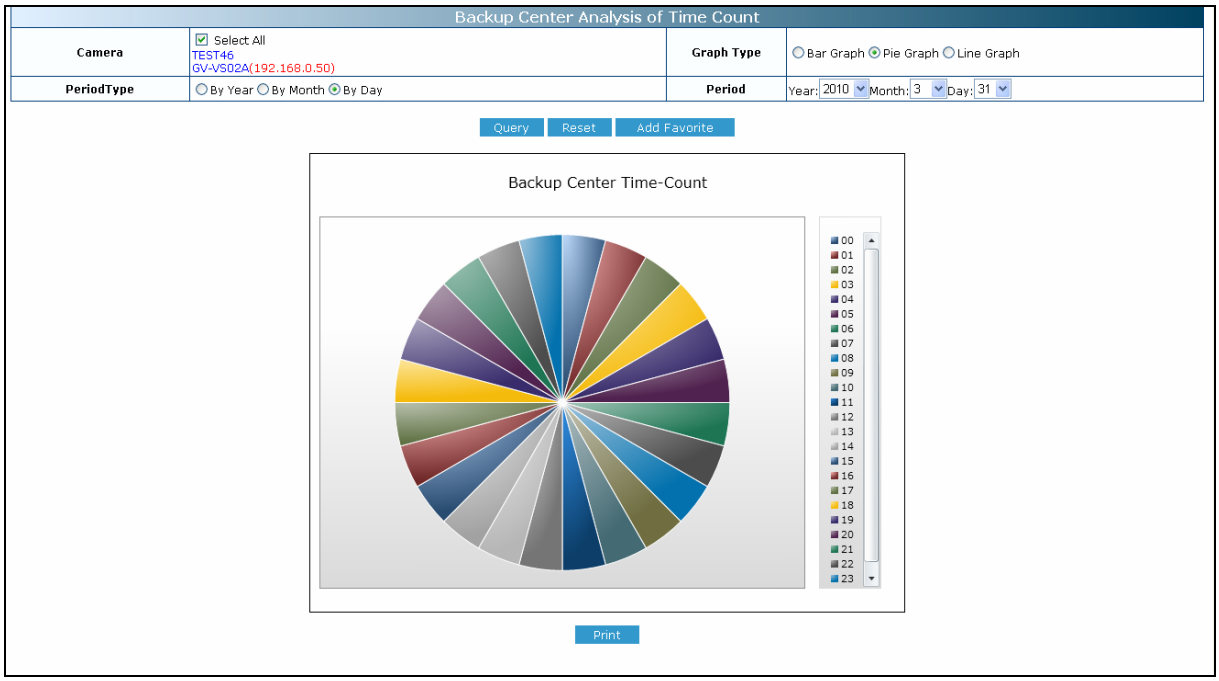


Figure 5-9

5.9 Analysis of File Size by Time

The **Analysis of File Size by Time** page shows the relative file size of all events by year, month or date. The search results can be displayed in three graph types: Bar, Pie and Line.

To define search criteria, see 5.7 *Analysis by Event Count*.

For the example below, we select **All Cameras**, select **By Day** as Period Type, specify the date as March 31, 2010, and select **Line Graph** to display search results. The Line Graph shows the relative file size of all events hourly on the specified date. When we move the mouse pointer over each sector, the exact file size of events will be displayed.

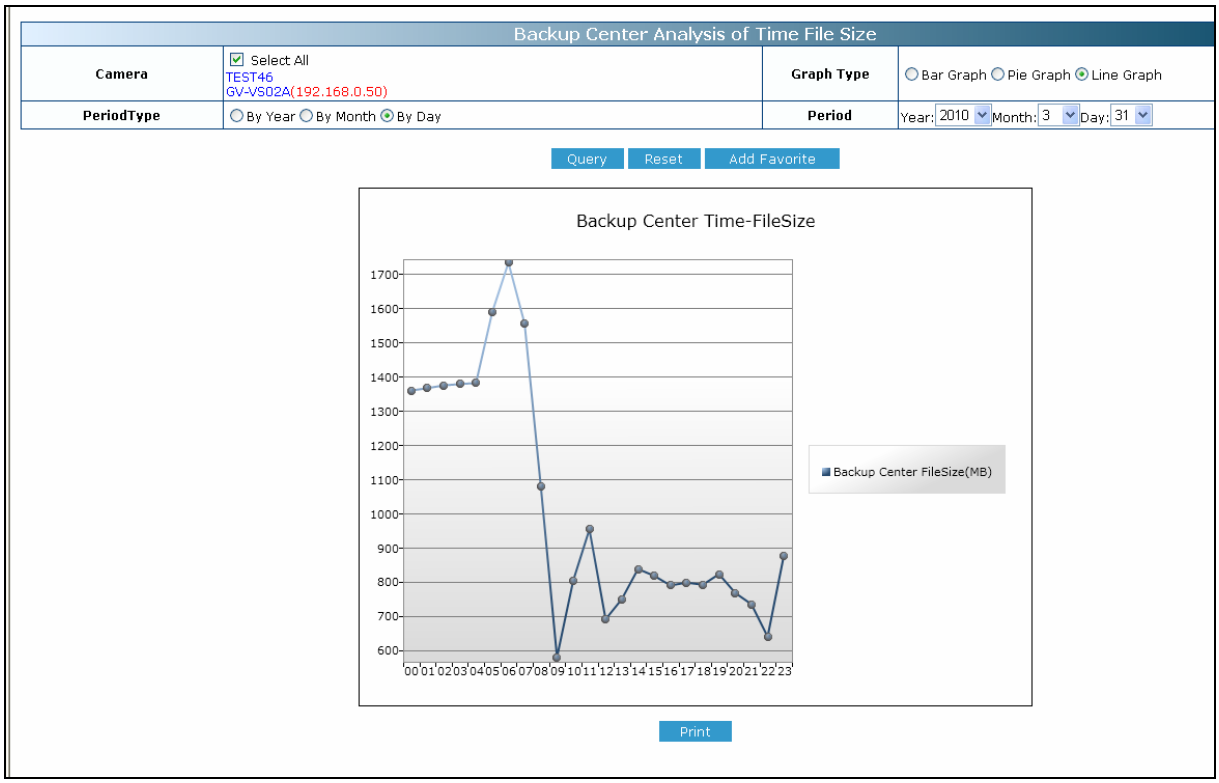


Figure 5-10

Chapter 6 Remote Playback

With the Remote ViewLog program installed in any computer, you can play back the backup recordings. For the remote playback to work, ensure **ViewLog Service** on the GV-Backup Center has been enabled.

Note: To remotely play back recordings, you can also use the **Monitor Event List Query** page on the Web interface of GV-Backup Center. See *5.5 Monitor Event List Query*.

1. Install and run the Remote ViewLog from Software DVD. You can find the Remote ViewLog program by selecting **Install GeoVision Free Utility** from the Software DVD menu.

Note: When the Remote ViewLog is started, it will pop up the selections of Remote ViewLog Server and Remote Storage System. Just click any place on the window to ignore and close the pop-up window.

2. On the functional bar, click the **Tools** button and select **Address Book**. The Address Book appears.

3. On the toolbar, click the **Add GV-Backup Center** button  . This dialog box appears.

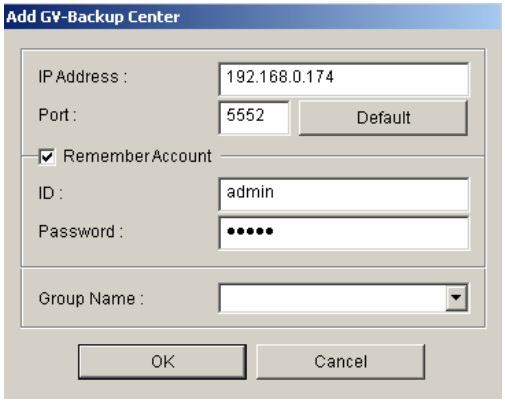


Figure 6-1

4. Type the IP address, login ID and password of GV-Backup Center. Click **OK** to connect to the GV-Backup Center. Ensure **ViewLog Service** on the GV-Backup Center has been enabled; otherwise the connection attempt will fail.

5. Expand **Host List**. The GV-Backup Center is now added to the address book. Expand the GV-Backup Center folder and select the desired GV IP device.

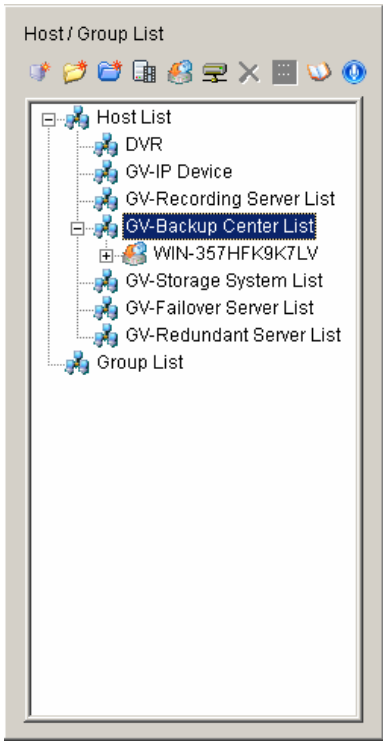


Figure 6-2

6. To access the backup data of the selected GV IP device, click the **Connect** button  . You will be prompted for the login ID and Password of GV-Backup Center again. After logging into the GV-Backup Center, the backup events of that GV IP device will be displayed on the Event List.
7. Select the desired event and click the **Play** button to start playback.

Specifications

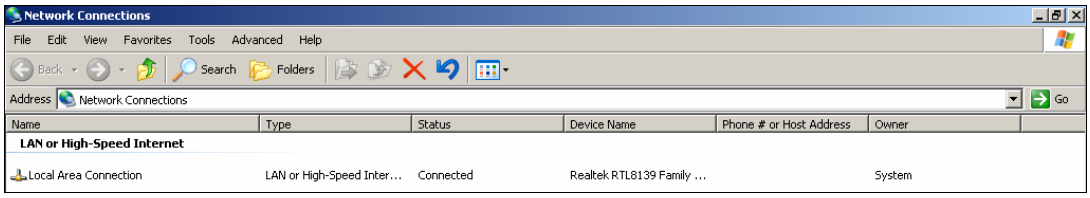
Number of hosts	200 units of GV-System and GV-IP Devices
Number of user accounts	100 in total including Supervisors and Users
Backup schedule	Yes (for GV-System and GV-IP Devices)
Backup rules	10 rules for working and non-working days independently
Resuming backup after losing connection to hosts	Yes
E-mail alert	Low disk space, disconnection, file transfer failure
Disk space recycle	Yes
Keep Day	Definable and unlimited in number
System Log query	Web-based query pages
Video playback	Available through web-based query pages, or Remote ViewLog Playback program additionally installed from Software DVD
Language	Danish, English, French, German, Hebrew, Hungarian, Italian, Japanese, Polish, Portuguese, Russian, Serbian, Simplified Chinese, Spanish, Traditional Chinese, Turkish

All specifications are subject to change without notice.

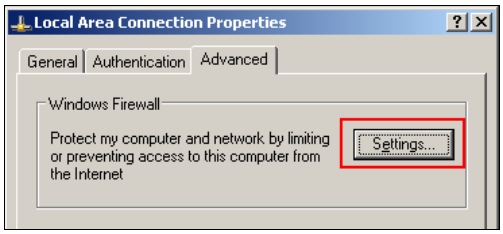
Appendix

A. Enabling UPnP in Windows XP

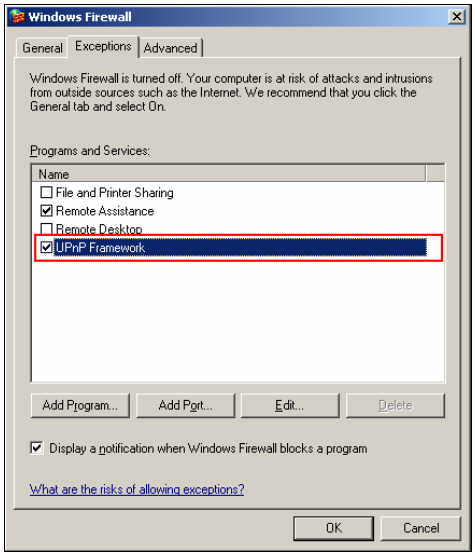
1. Go to Windows Start, click the **Start** button, select **Settings**, and select **Network Connections**. This window appears.



2. Right-click one **Local Area Connection**, select **Properties**, and click the **Advanced** tab. This dialog box appears.



3. Click the **Settings** tab, and click **Exceptions** tab. This dialog box appears.



4. Select **UPnP Framework**, and click **OK**

B. Modifying Port Number for running GV-Backup Center on the same computer with GV-System

Since the **GV-Backup Center** and the **WebCam Server** of GV-System use the same HTTP port number of 80 to connect to the Web, it is required to modify the port number of either GV-Backup Center or WebCam Server if both are run on the same computer. If not, the following message will appear and you cannot access the Web interface of GV-Backup Center:

Starting Web Server Failed

To modify the HTTP port number of GV-Backup Center:

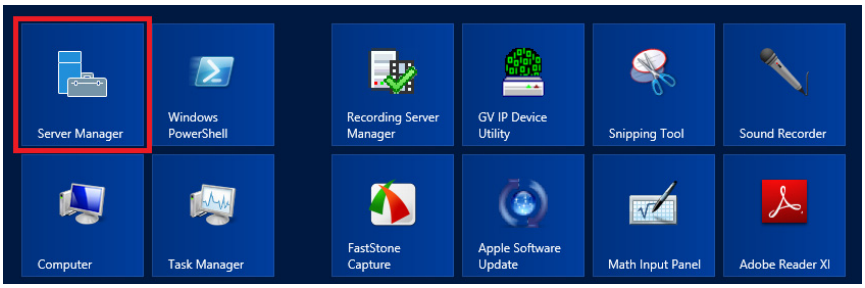
1. Click **Tools** from the menu bar and select **General Setup**.
2. Change the listen port of **Web Server** from 80 to a different port number, e.g 81.
3. Click **Apply**.

C. Installing .Net Framework 3.5 for Windows Server 2012 and Windows 8

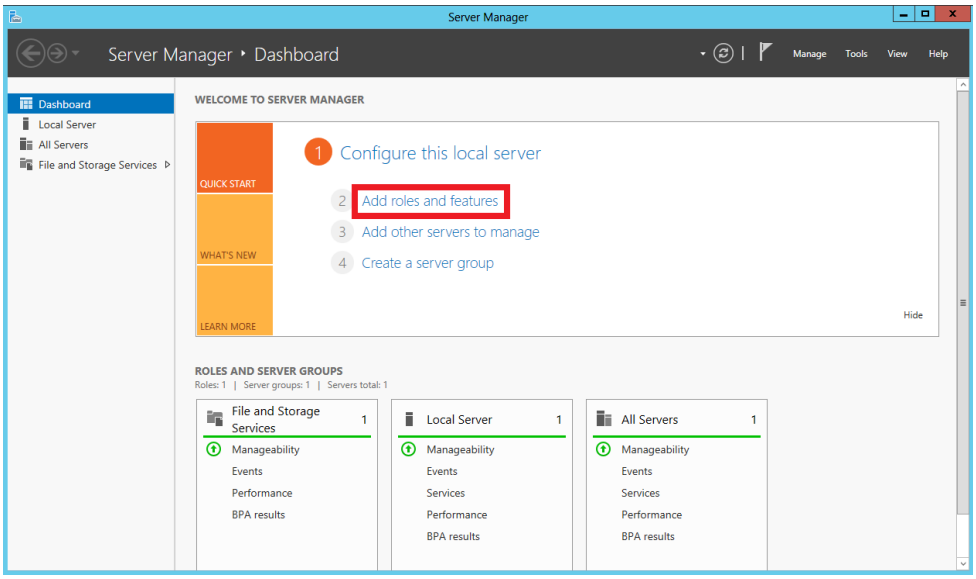
Follow the steps below to manually install **.Net Framework 3.5** for Windows Server 2012 and Windows 8.

Windows Server 2012:

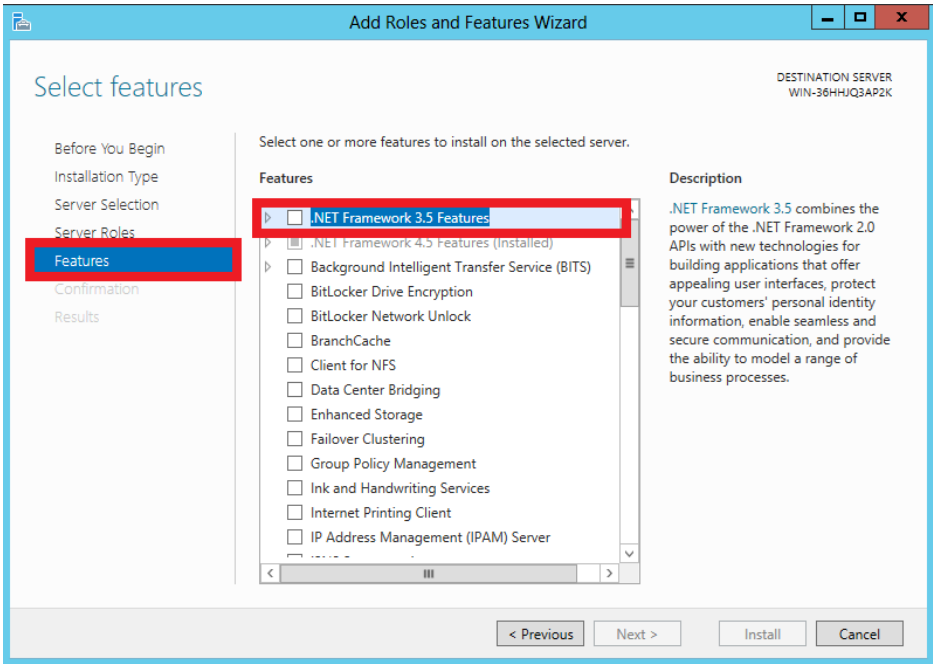
1. Open **Server Manager** from the Start menu.



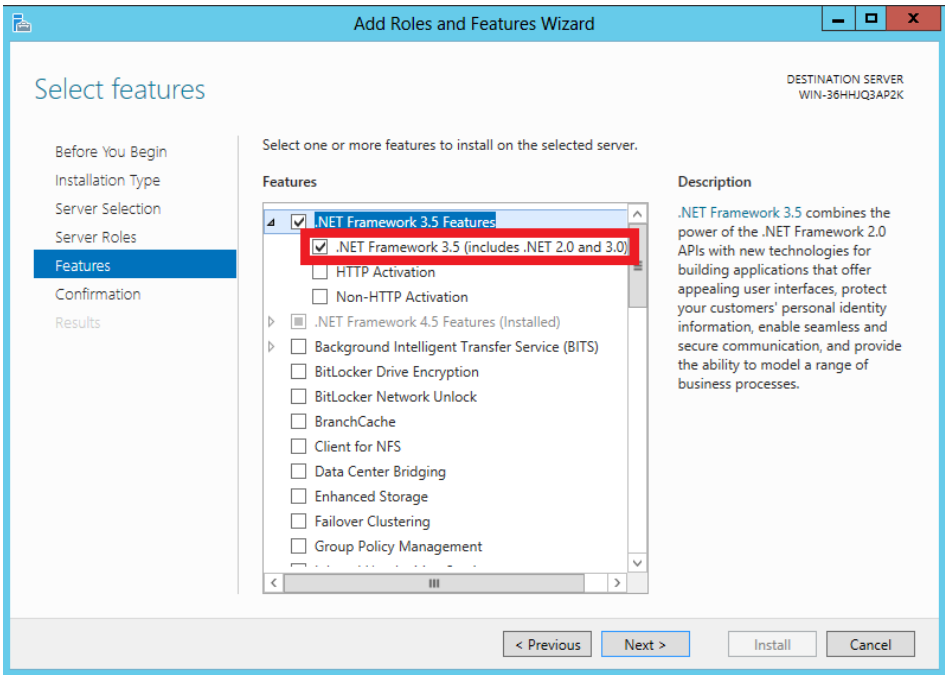
2. Click **Dashboard** from the tree list on the left and click **Add roles and features**.



3. Click **Features** from the tree list on the left and select **.Net Framework 3.5 Features**.

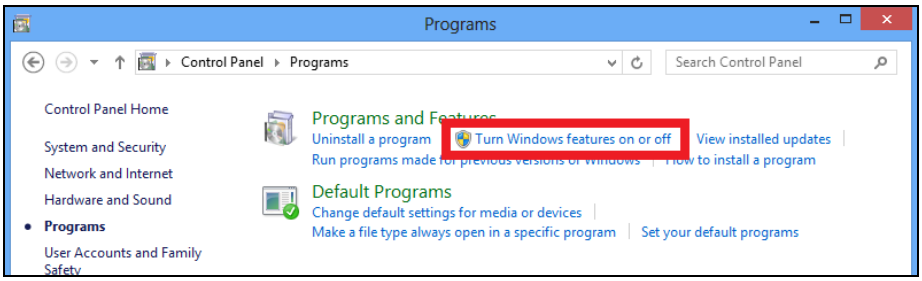


4. Select **.Net Framework 3.5 (include 2.0 and 3.0)** and click the **Install** button.



Window 8

1. Click **Control Panel** from the Start menu.
2. Click the **Programs** icon.
3. Select **Turn Windows features on or off** under the Programs and Features title.



4. Select **.Net Framework 3.5 (includes .Net 2.0 and 3.0)** and click the **OK** button.