ACTi Station Management Server

User's Manual
Version 1.0.01

www.acti.com

2016/05/26

Legal Notice

Disclaimer

- The information contained in this document is intended for general information purposes. ACTi Corporation shall not be liable for errors contained herein or for incidental or consequential damages arising from the furnishing, performance, or use of this manual.

- The information contained herein is subject to change without notice.

- The English version of this document is the official one for all purpose. All the translated versions are provided as a convenience. Any discrepancies or differences created in the translations of any other languages are not legally binding.

Copyright

Copyright ©2016 ACTi Corporation All Rights Reserved.

Trademarks

- ACTi Connecting Vision and its logo are registered trademarks of ACTi Corporation.

- Microsoft® and Windows® are registered trademarks of Microsoft Corporation.
  All other product or company names mentioned in this document may be trademarks or registered trademarks of their respective owners.

Table of Contents

Legal Notice 2

Disclaimer 2
Copyright 2
Trademarks 2

Introduction 5

Product Overview 5
System Architecture 5
PC Hardware Requirements 6

Getting Started 7

Pre-requisites 7
Installing the Server Program 7
Install Workstation 11
License and Activation 14

Log In to SMS System 18

Via Internet Explorer 18
Via SMS Workstation 20

Set up the System 23

Storage Management 23
Manage User Groups/Users 25
Manage Stations 32
Event Management 35

Monitor the Synchronization Process 41

Overview 41

Watch Playback 44

Overview 44
Search by Time 46
Search by Event Type 47
Search by Video Analytics 48
View Search Results 51
Take a Snapshot of the Playback View 53
Export the Recordings 54

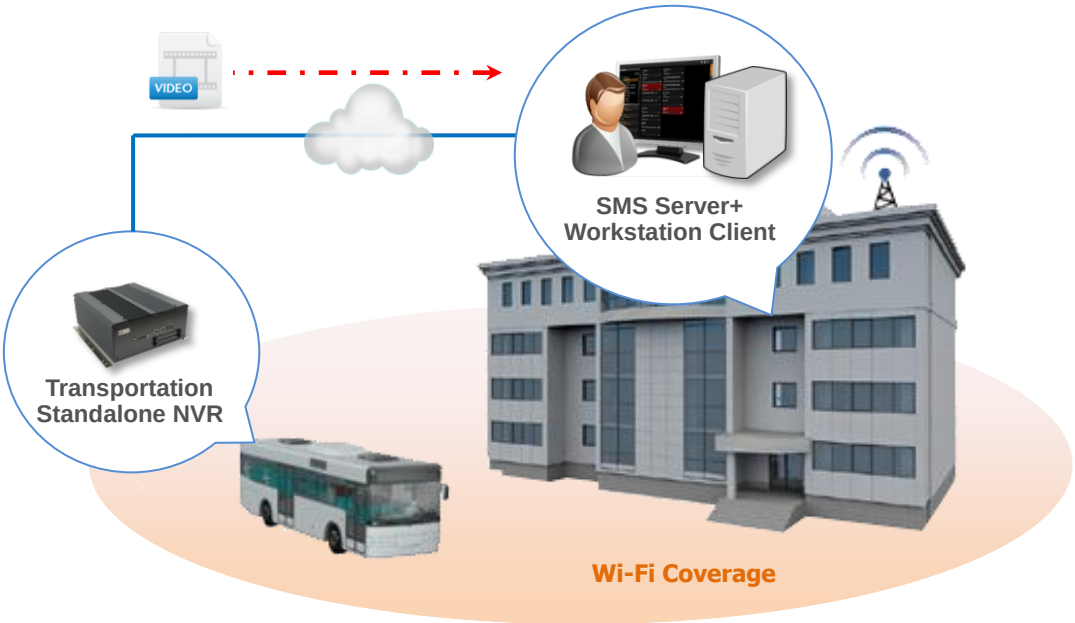
Introduction

Product Overview

ACTi's **Station Management System** (hereafter referred to as **SMS**) is specially designed for mobile vehicle surveillance. It helps centralize the storage of recorded videos from all the vehicles. When the vehicle approaches the depot, the recorded videos stored in the transportation standalone NVR will be automatically offloaded to the SMS server in the control center as soon as the transportation standalone NVR connects to Wi-Fi, saving human efforts on transferring the recordings to the data center.

System Architecture

The service architecture is described in the following figure:



PC Hardware Requirements

The table below provides basic guidelines for selecting proper hardware for the computer that installs **SMS Server**. As **SMS** mainly serves as a recording server, it is suggested that there be sufficient hard disk space on this computer. You can refer to http://www.acti.com/storagecalculator to figure out how much storage space is needed for your system.

PC Spec	Minimum	Recommended
CPU	Intel Core 2 Quad 2.4 GHz	Intel Core i5 2.4 GHz
RAM	4GB [1]	
Operation System	Windows 7, Windows 8 [2]	
Network	Ethernet 1000 Base-T	

[1] Please use 64-bit system if your computer has more than 4GB RAM. Windows operating system has limits on memory and address space regardless of the real or virtual memory available on a particular computer. Take Windows 7 Professional for example, the maximum physical memory for a 32-bit(X86) system can address is 3.5 GB even though 16 GB of RAM has been installed on this computer. Therefore, if you consider increasing the computer's multi-tasking capability by adding more RAM, you will need a 64-bit version of Windows to take advantage of it all.

Please visit the link below for more memory limitations on various Windows platforms.
http://msdn.microsoft.com/en-us/library/aa366778%28VS.85%29.aspx#physical_memory_limits_windows_7

Besides the limitation mentioned above, you may find the usable memory of your computer displayed here: → **Computer** → **Properties** is still less than actual installed memory. As this is a common symptoms of all Windows platforms, you can find explanations and solutions in this Windows official support document http://support.microsoft.com/kb/978610/en-us and http://windows.microsoft.com/en-us/windows7/taking-the-mystery-out-of-64-bit-windows

[2] Please make sure your operation system is fully patched with the latest service packs.

Getting Started

Pre-requisites

Before installing **SMS Server**, please make sure the pre-requisites below are fulfilled:

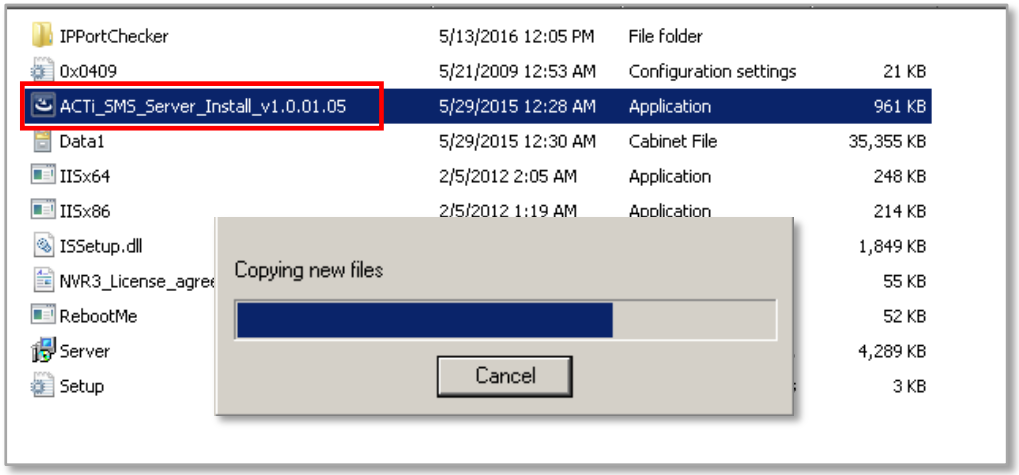
1. Ensure that your computer meets the minimum system requirements.
2. Ensure that your computer has a **C Drive**.
3. Ensure that you have enough storage space on your computer to save video recordings of captured events.

Installing the Server Program

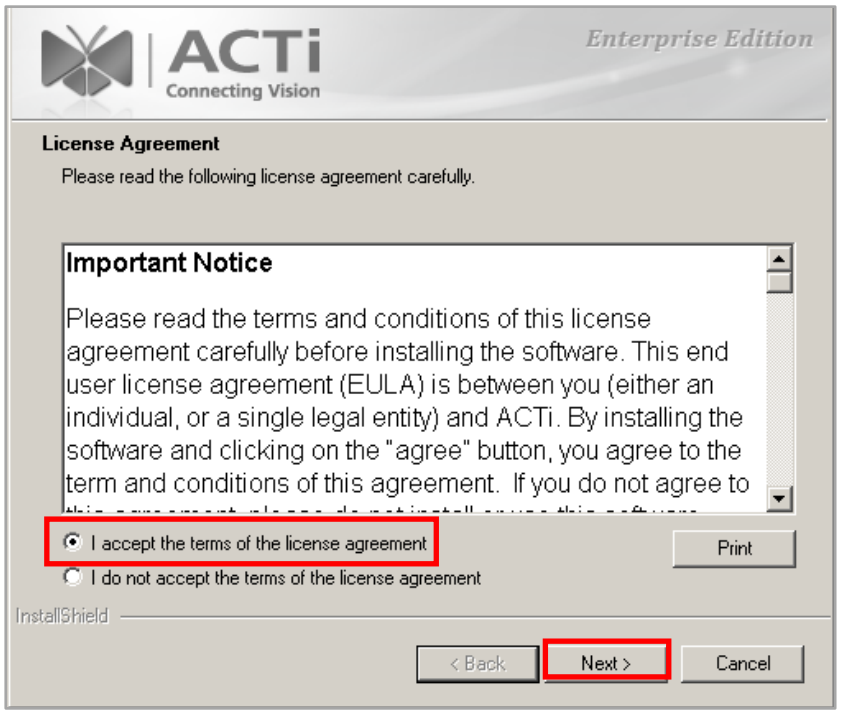
The program installation can be simple and intuitive by following the installation wizard's instructions. The program can be used right after installation is completed, without the need to restart the computer.

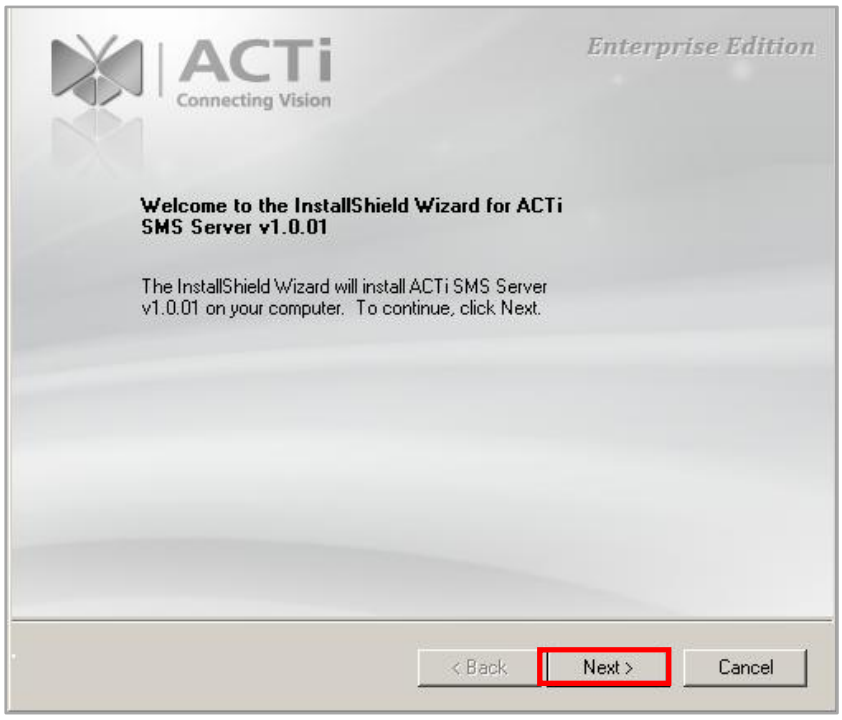
To install the software, follow the steps below:

1. Find the SMS Server compressed file that you downloaded and extract it.
2. Execute the install shield application .

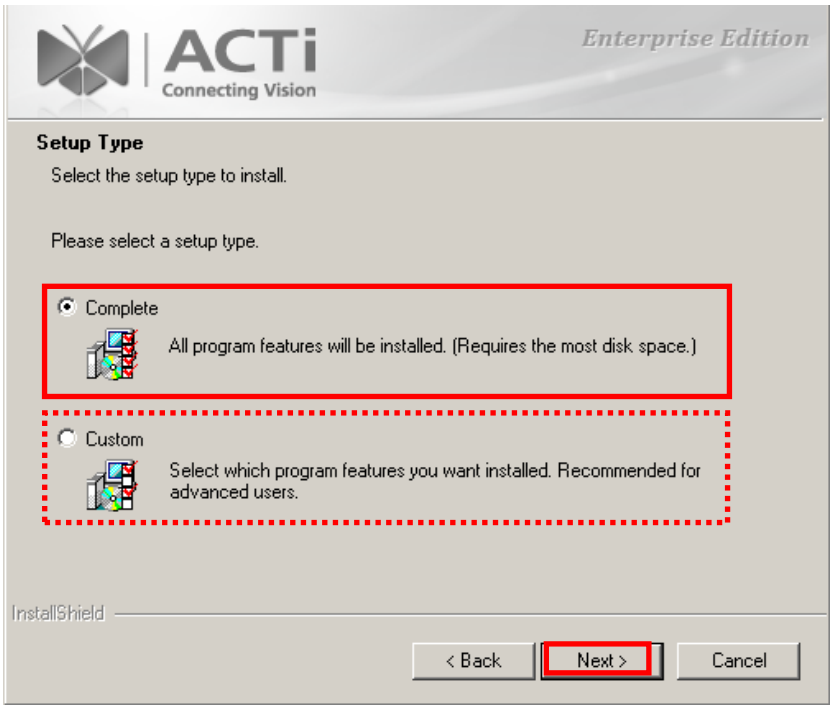


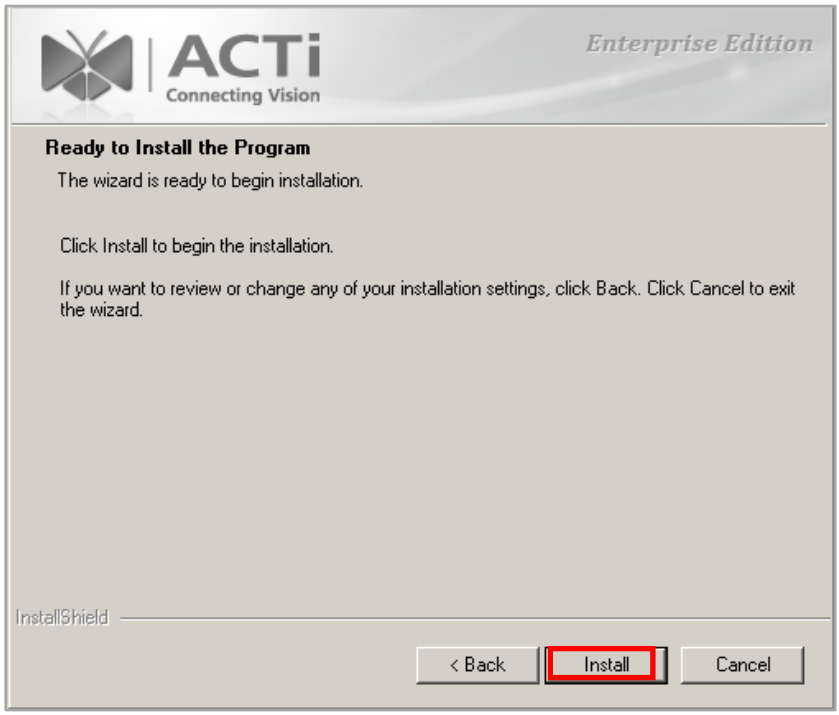
3. Proceed by following the on-screen instructions of the **InstallShield Wizard**.



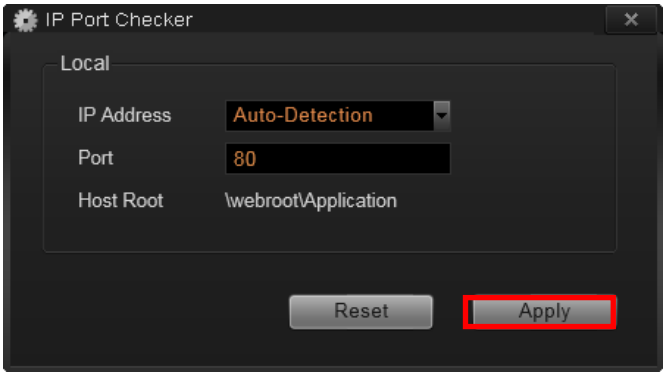


When selecting **Setup Type**, the default **"Complete"** option will have the program installed in the default **C drive** (C:\Program Files). You can select **"Custom"** to choose another program location.

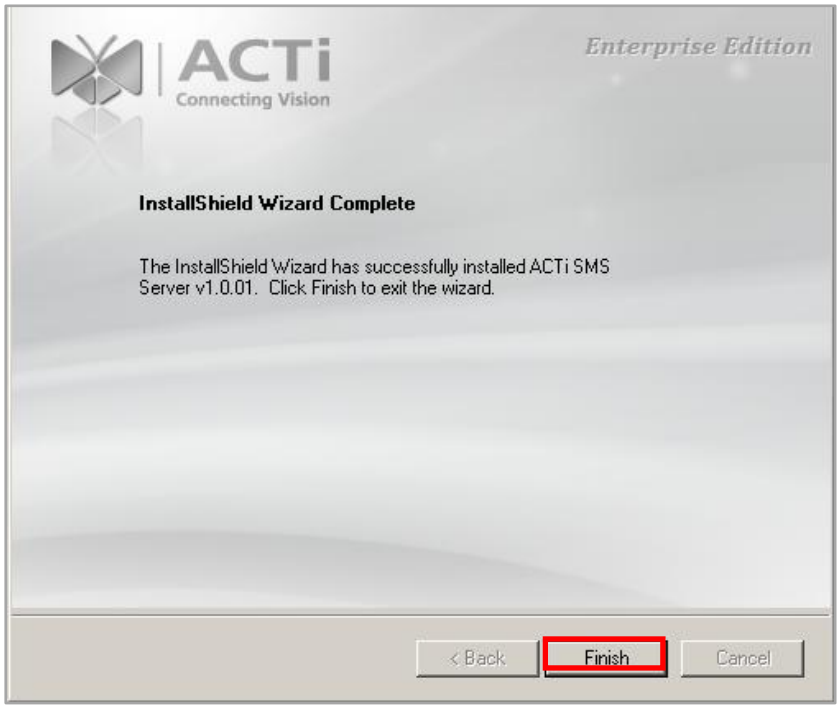




4. The **IP Port Checker** will pop up to confirm the SMS server port number with you. The installation program will use **80** as default. You may enter another available port number in "**Listen Port**" field and click "**Apply**".



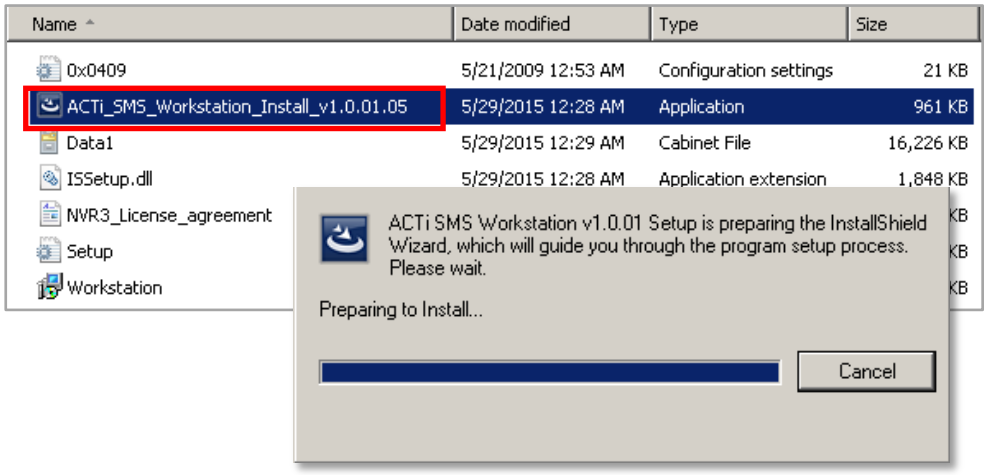
5. The installation process is done. Click **"Finish"**.

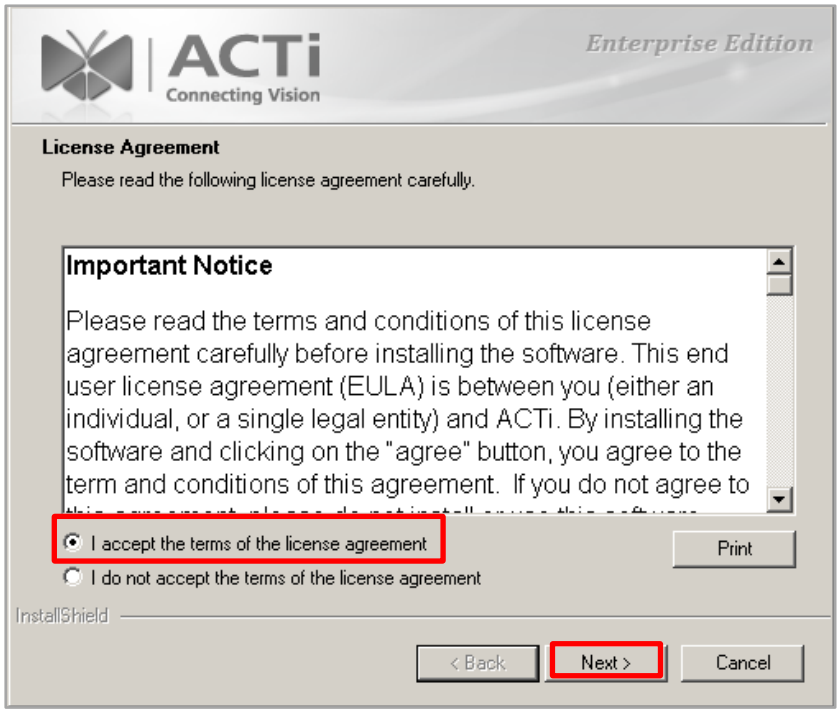


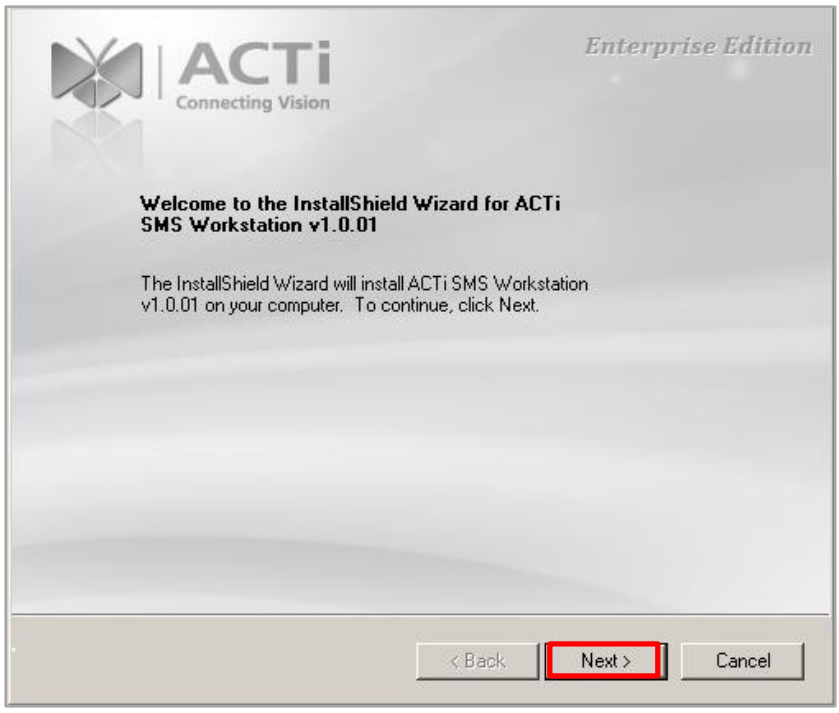
Install Workstation

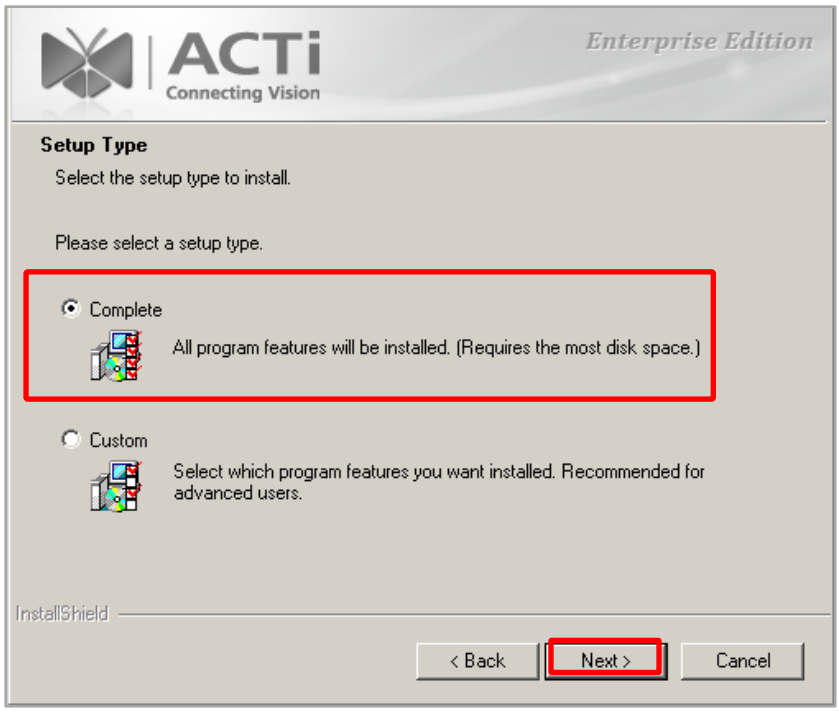
SMS Workstation provides an interface between users and SMS server. The **Server** and **Workstation** can be installed on the same PC separately.

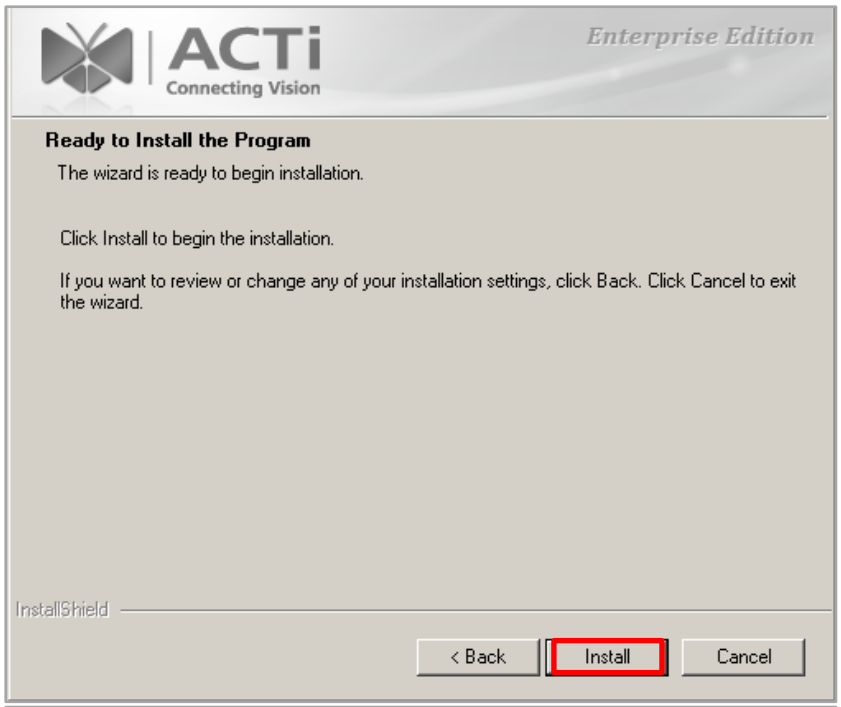
1. Execute the install shield application .
2. Follow the onscreen instructions of **Install Shield Wizard**, accept the license agreement and proceed.

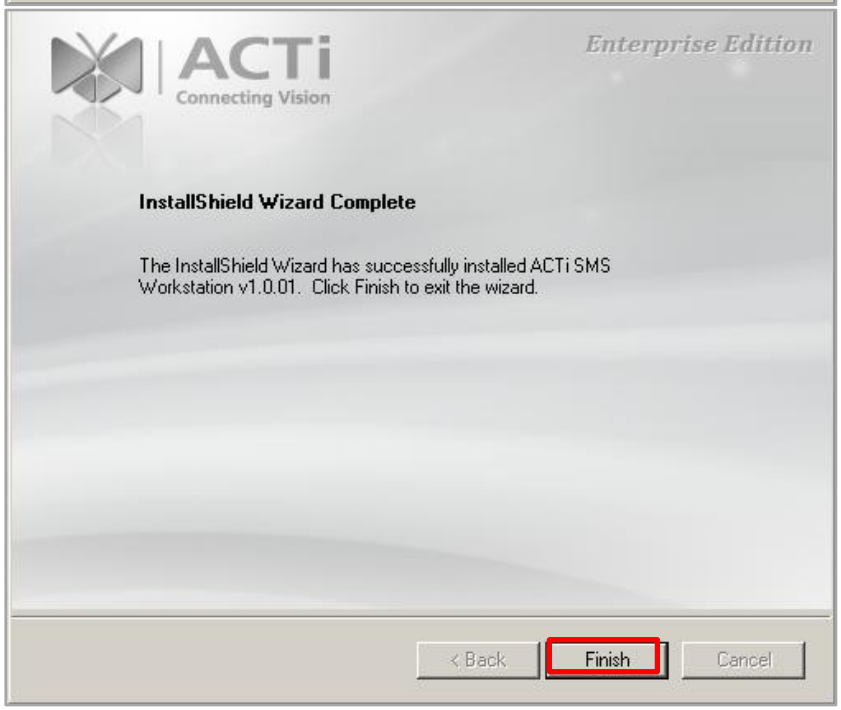




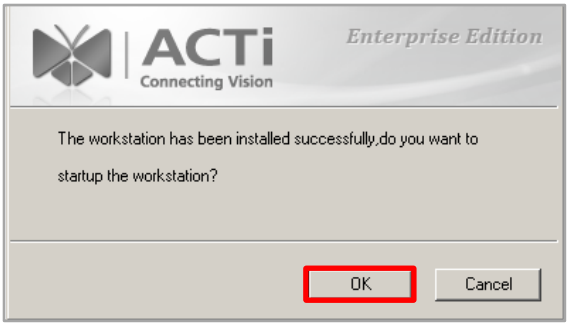

ACTi
Connecting Vision
Enterprise Edition
Welcome to the InstallShield Wizard for ACTi SMS Workstation v1.0.01
The InstallShield Wizard will install ACTi SMS Workstation v1.0.01 on your computer. To continue, click Next.
< Back
Next >
Cancel


ACTi
Connecting Vision
Enterprise Edition
Setup Type
Select the setup type to install.
Please select a setup type.
Complete
All program features will be installed. (Requires the most disk space.)
Custom
Select which program features you want installed. Recommended for advanced users.
InstallShield
< Back
Next >
Cancel





As the installation is complete, you can directly initiate Workstation application by clicking on "**OK**". A shortcut will also appear on the Desktop.



License and Activation

In **SMS Server** system, your required number of managed NVR servers (transportation standalone NVRs) should be licensed and activated before connecting. License activation is the process of unlocking the channels on SMS Server with the received **License Key**. **License Key** is a serial number delivered as a printed card or an E-mail after the purchase is carried out. After the license activation, the channels on SMS Server will automatically become available.

During license activation, your **License Key** is matched against the MAC address of the Network Interface Card (NIC) on SMS server computer. Once this license key is used by the computer with given MAC, it cannot be activated with another MAC. This matching record will be stored on the ACTi license data server. If your computer has more than one network cards, NVR server will detect them and provide you a dropdown list to select from.

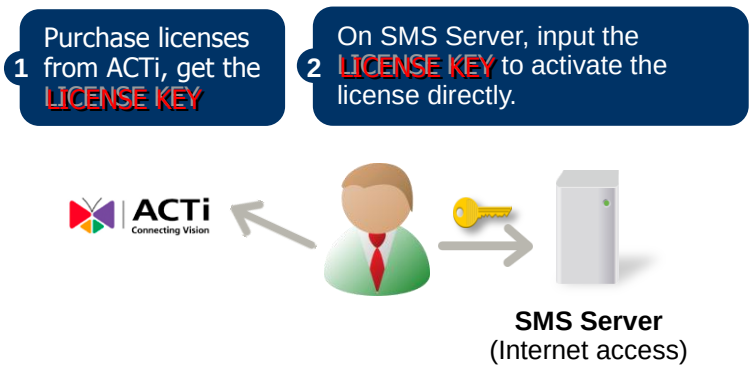
Please note:

- The license is cumulative and perpetual.
- The license is not version-specific, upgrading software version will not influence the existing license(s) you have.
- The maximum number of NVRs that can be managed by SMS Server is **100**.

There are two ways to activate the licenses depending on your SMS server network condition: **Online Activation** and **Offline Activation**.

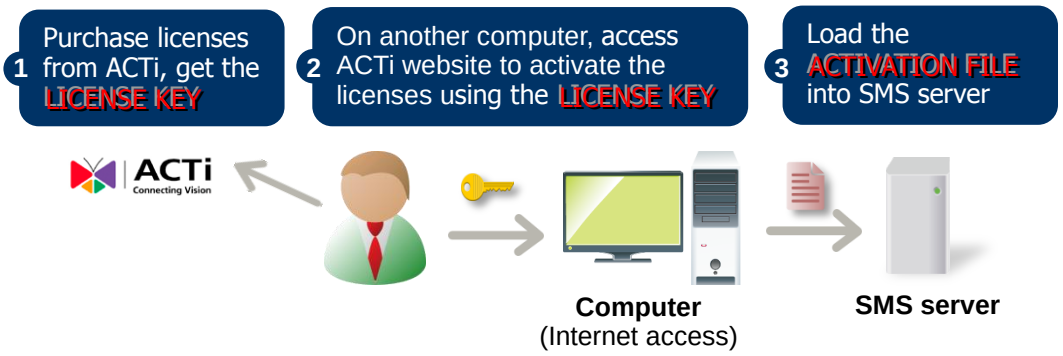
Online Activation

If your SMS Server computer has available Internet access, choose online activation.



Offline Activation

Offline activation does not require Internet access for SMS Server. It is used when SMS is located in a network not connected to public Internet (e.g. in a military base). You will need to get an activation file from another computer and transfer it to the SMS Server computer.

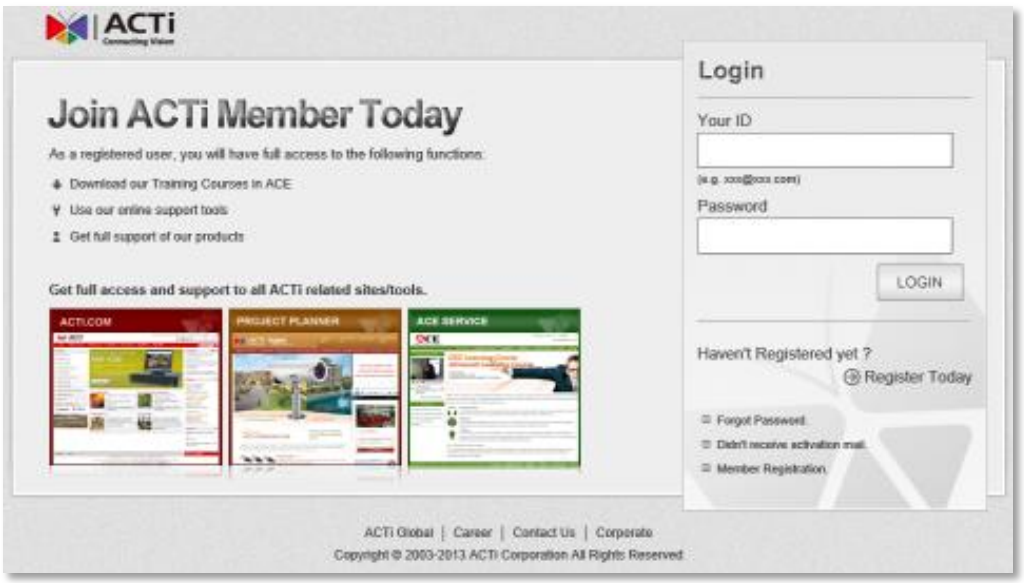


Step-by-step Activation Process

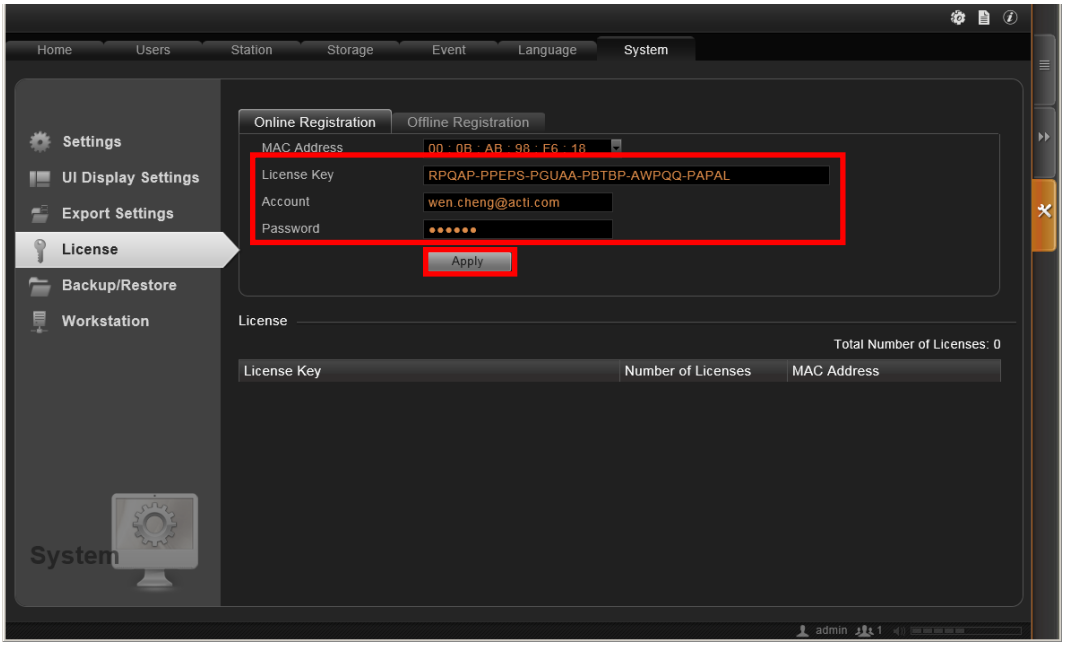
Based on the network conditions of your site, follow Online Activation SOP or Offline Activation SOP to activate your license.

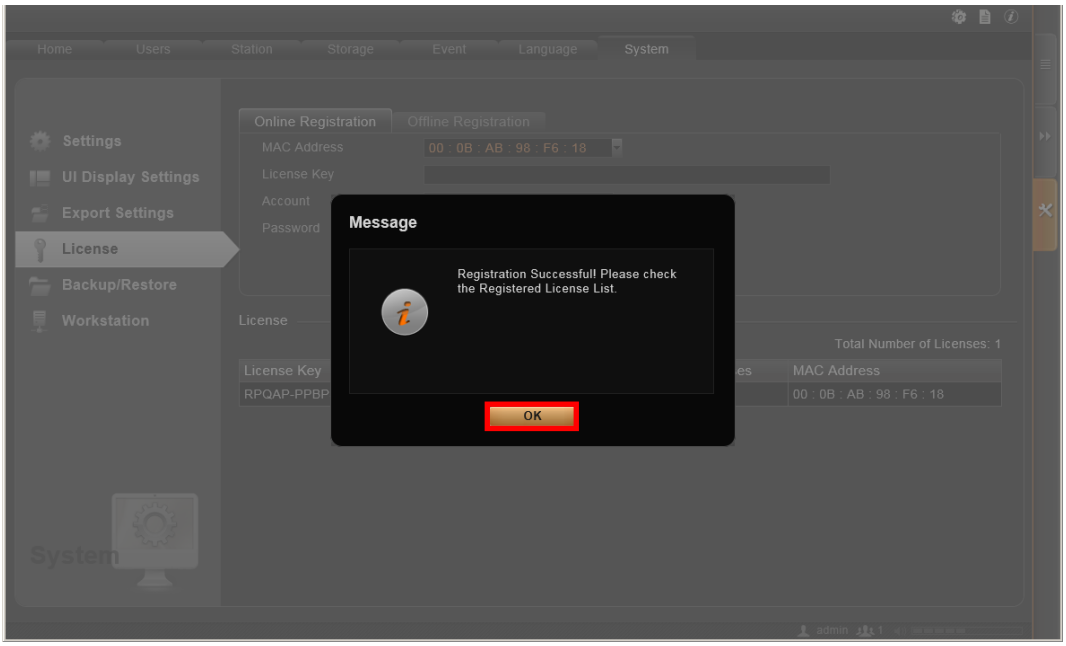
Online Activation SOP

Step 1: Membership ID in **ACTi Member Center** is required for activation. Register one for free at http://member.acti.com/



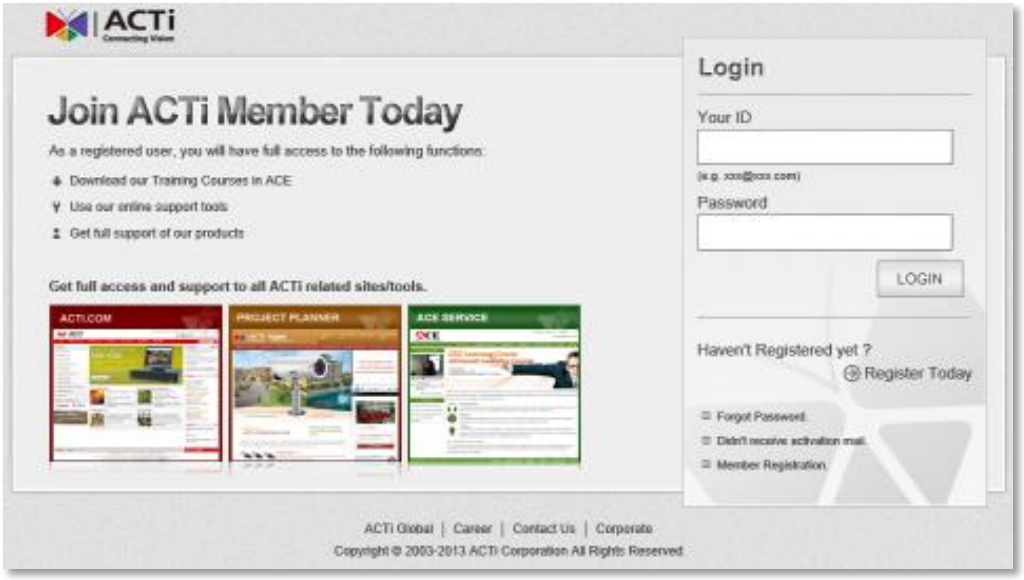
Step 2: Log in to SMS Server, go to **System** tab→ **License** →**Online Registration** tab. Select the **MAC Address**, enter your **License Key**, ACTi member **Account** and the **Password**, and then click "**Apply**". SMS Server will connect to the license data server via Internet to register the license key, and unlock the channels.





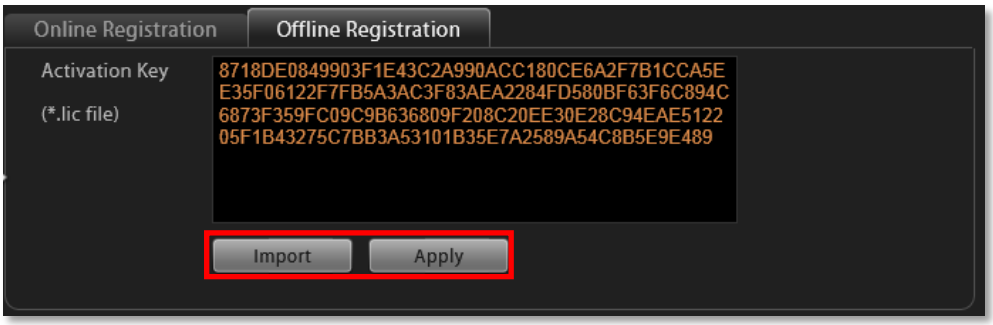
Offline Activation SOP

Step 1: Membership ID in **ACTi Member Center** is required for activation. Register one for free at http://member.acti.com/



Step 2: Access http://www2.acti.com/support/LicenseMgt/IVS.asp, enter the **License Key** and the **MAC address** of the **SMS Server** computer, and click "**Submit**". An E-mail with activation code file (AUL.lic) will be sent to your registered E-mail account.

Step 3: Log in SMS Server from local or via web client. Go to **System** tab→ **License** → **Offline Registration** tab → click "**Import**" and upload the license file (AUL.lic). Click "**Apply**" to activate this license.



Log In to SMS System

Via Internet Explorer

You can access SMS interface via Internet Explorer on your computer.

From Server Computer (as Local Client)

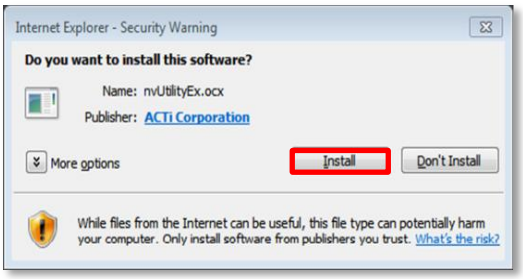
Open Internet Expolrer. If your computer is where SMS server is installed, type **http://localhost/** in URL box.

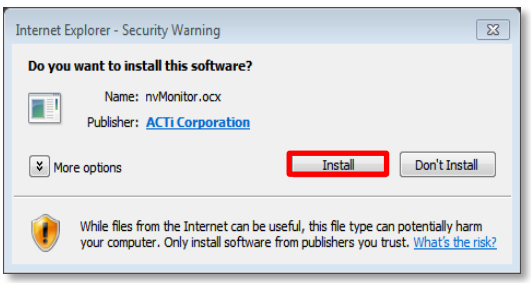
From Remote Computer (as Remote Client)

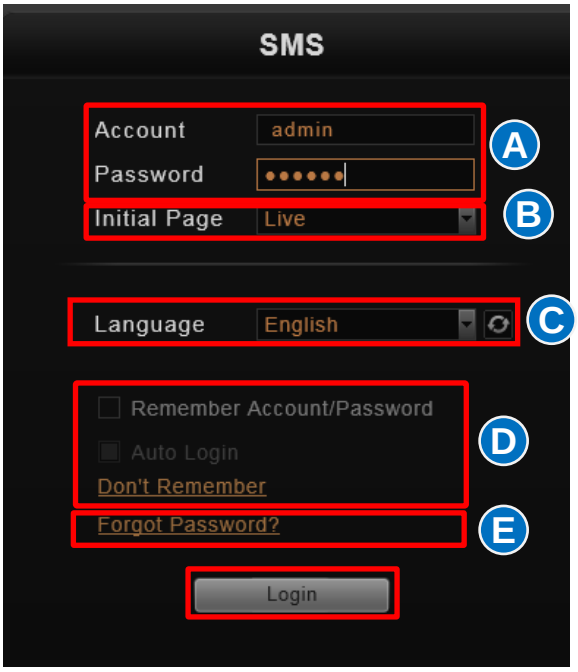
A remote client refers to any client using a computer over WAN or LAN other than the server computer to access SMS. If you are connecting to a SMS server as a remote client, please type server computer's ip (e.g. local network ip: **http://172.16.26.217** within LAN; public IP **http://220.228.146.21** or domain name **http://sms.acti.com** over WAN) in URL box. Remember to append a colon and the port number after the hostname or IP address.

Accept ActiveX Controls Installation Requests

SMS interface requires the add-on ActiveX Control components, please make sure the browser's security settings allow ActiveX controls to be downloaded and installed. When your browser asks if you allow ACTi Corporation's add-on components to run, please accept it .







A. Enter Account & Password

Account (non case-sensitive)

Admin (default)

Password (case-sensitive)

123456 (default)

B. Choose the Initial Page

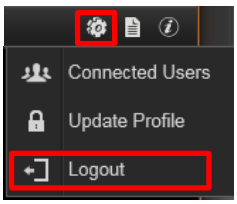
The user interface consists of three main module screens, **Monitor View**, **Playback** and **Setup**. You may choose one where you would like to enter after login. Default is **Monitor** screen.

C. Language

Choose a UI language from the dropdown list.

D. Remember Login Information and Auto Login

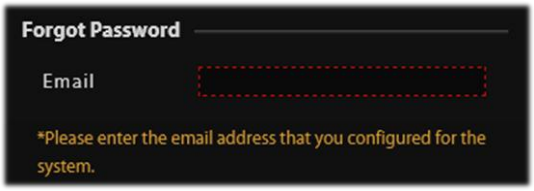
To have **SMS Workstation** remember the **Account**, **Password, Initial Page** and UI **Language** settings, simply check "**Remember login info**". Enabling "**Don't Remember**" will clear your input text and reset to default.



To automatically log in to SMS system, please check both "**Remember login info**" and "**Auto Login**" to skip the Login page. **If someone without the system authority also has access to this computer, you might consider not enabling this function**. To cancel auto-login, on title bar, click → "**Logout**" to return to login page, and this function will be cancelled.

E. Retrieve the Forgotten Password

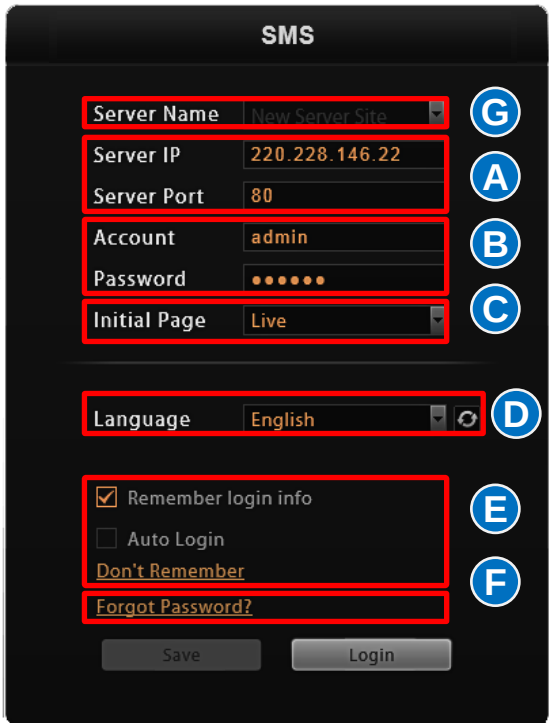
SMS can send the password of the User's account to the User's e-mail address. To ensure that Users are able to make use of this function, please make sure (1) the SMTP settings have been configured, and (2) a valid e-mail address has previously been saved in **Setup** page → **Users** tab → User list under this account.



You will have to enter the e-mail address input in **Forgot Password** window should match the one under your User account saved in NVR server.

Via SMS Workstation

SMS Workstation includes a set of programs that provide the interface between users and SMS server. You can install this software on the remote client computer in order to access SMS server via network. You can download this software on ACTi website at http://www.acti.com/DownloadCenter, and it is wrapped together with the SMS system software. For the instructions on the installation of this software on the client computer, please refer to *Install Workstation* on page 11.



A. Server IP & Server Port

In **Server IP** field, please input the LAN or WAN IP address of NVR server. In **Server Port** field, key in the port number. The default value is **80.**

B. Enter Account & Password

Account (non case-sensitive)

Admin (default)

Password (case-sensitive)

123456 (default)

C. Choose the Initial Page

The user interface consists of three major screens, **Monitor**, **Playback** and **Setup**. You may choose one that you would like to enter after logging in.

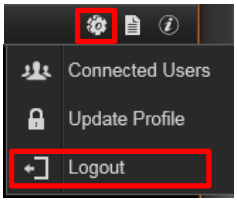
D. Language

Choose a UI language from the dropdown list.

E. Remember Login Information and Auto Login

To have **SMS Workstation** remember the **Account**, **Password, Initial Page** and UI **Language** settings, simply check "**Remember login info**". Enabling "**Don't Remember**" will clear your input text and reset to default.

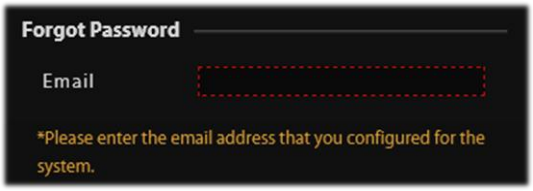
To automatically log in to SMS system, please check both "**Remember login info**" and "**Auto Login**" to skip the Login page. **If someone without the system authority also has access to this computer, you might consider not enabling this function**. To



cancel auto-login, on title bar, click → "**Logout**" to return to login page, and this function will be cancelled.

F. Retrieve the Forgotten Password

SMS can send the password of the User's account to the User's e-mail address. To ensure that Users are able to make use of this function, please make sure (1) the SMTP settings have been configured, and (2) a valid e-mail address has previously been saved in **Setup** page → **Users** tab → User list under this account.

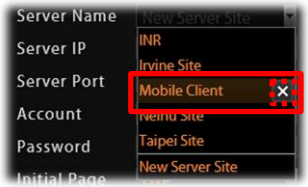


You will have to enter the e-mail address input in **Forgot Password** window should match the one under your User account saved in NVR server.

G. Server Name/Server Sites List

SMS Workstation can remember multiple server sites and their login credentials and show the site lists on **Login** window. To add a new site:

1. Click in the **Server Name** box and input the server site name.
2. Fill in the other fields. If you disable the "**Remember login info**", then only the **Server Name**, **Server IP** and **Server Port** of this server site will be remembered.
3. Click "**Save**".
4. After a server site is saved, it will be shown on **Server Name** dropdown list. You may click on its name to enter its Login window or ✕ to delete it from the list.



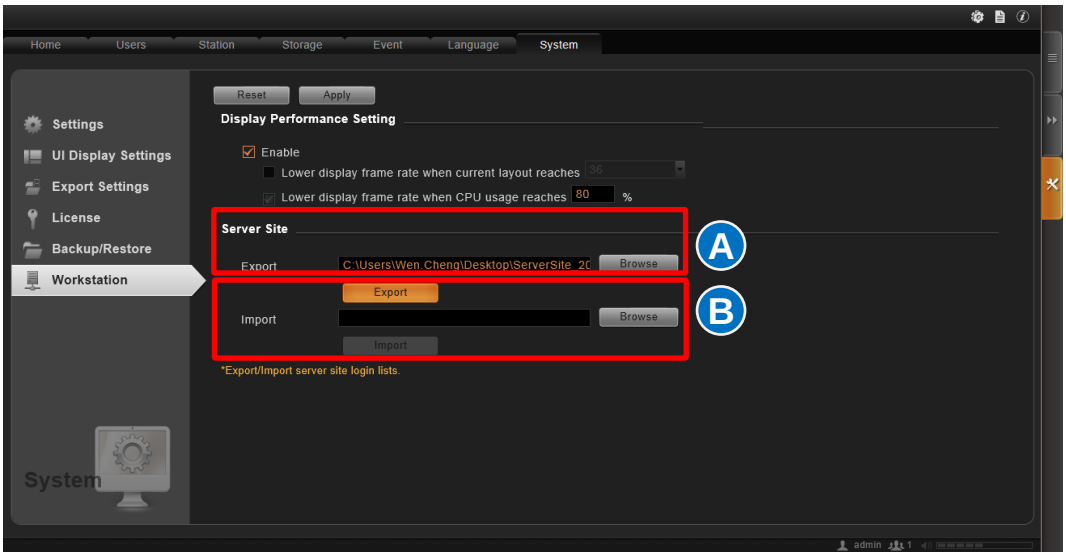
5. You can export the saved server sites, or import it to another Workstation client computer. Access SMS server via **SMS Workstation**, go to **Setup** page → **System** tab → **Workstation**.

A. Export current server sites list

Click "**Browse**" to select a folder to save the list, and then click "**Export**". This file will be saved as an *.xml file.

B. Import a server site list

Click "**Browse**" to select the *.xml file, and then click "**Import**". The server sites will appear in **Server Name** dropdown list on **Login** window of your next login.



Set up the System

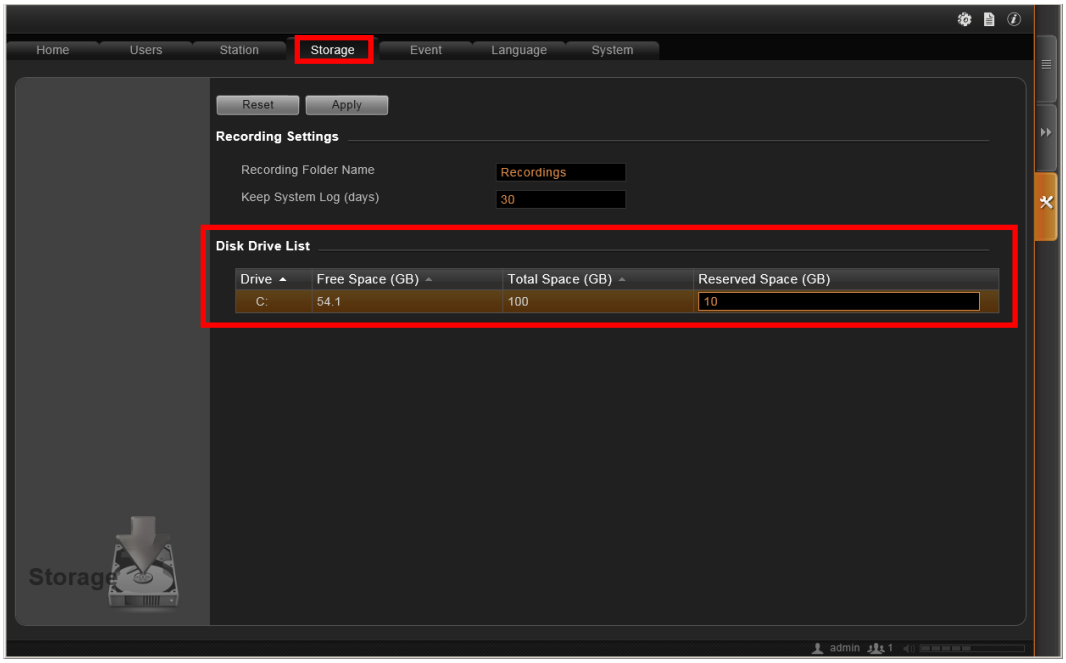
This chapter will guide you through everything you need to know in **System Setup** starting from the first time you access SMS server to general system configurations.

Storage Management

This section describes how to manage storage space in SMS server. Please note that this section only deals with the overall storage rules, and not storage of individual channels.

As SMS server continuously writes and deletes file from the disk drive, using a removable disk may risk losing recording when device is removed while being accessed.
Go to **Setup** page→**Storage** tab.

To set up the location and allocation of space for your recordings, follow the steps below:



Change Recordings Folder Name

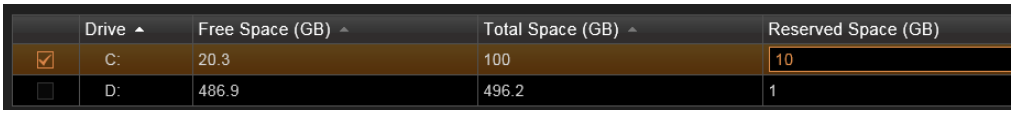
In "**Recording Settings**" section, you may change the name of video recordings folder. The video files are saved in a folder named "**Recordings**" under hard drive root directory. You may change the name here.

Set System Log Lifecycle

System Log is the record of User activities and events that took place on the server. In "**Recording Settings**" section, you may set how long this record is kept on the server. Default is **30** days.

Set Hard Drives for the Recorded Files Deletion Rule

1. On **Disk Drive List** displays the detected storage devices in your server computer. You may select the storage location of the recording files and set the deletion threshold. By default, SMS server will select **C** drive as storage location; however, it is recommended that you prepare one or more disks to store the recording files instead of using **C** drive as the sole storage place.



2. After selecting the disk drive, please set the deletion rule. There are two mechanisms of the automatic file deletion; if both are active, SMS server will start to delete old files when either criteria below is met:

   (1) For a specific channel, you can choose to keep its recordings for a number of days, and delete files older than this period by 1 GB at a time. Please go to **Setup** page →**Schedule** tab to set it.

   (2) Keep the overall recordings until the disk is almost full, and then delete the earliest recording files by 1 GB at a time. SMS server will delete old files when free space is lower than **Reserved Space** you set in **Disk Drive List**.

Item	Description
Free Space (GB)	Currently available space of the chosen disk drive.
Total Space (GB)	The total capacity of the chosen disk drive.
Reserved Space (GB)	This is the amount of space to be kept for other applications and files. If the free space is used up and hence the remaining space reaches the threshold of reserved space, SMS server system will start deleting the earliest recordings. It is strongly suggested that **10 % of the disk capacity** be set as Reserved Space.

3. When you finish the settings, click "**Apply**".

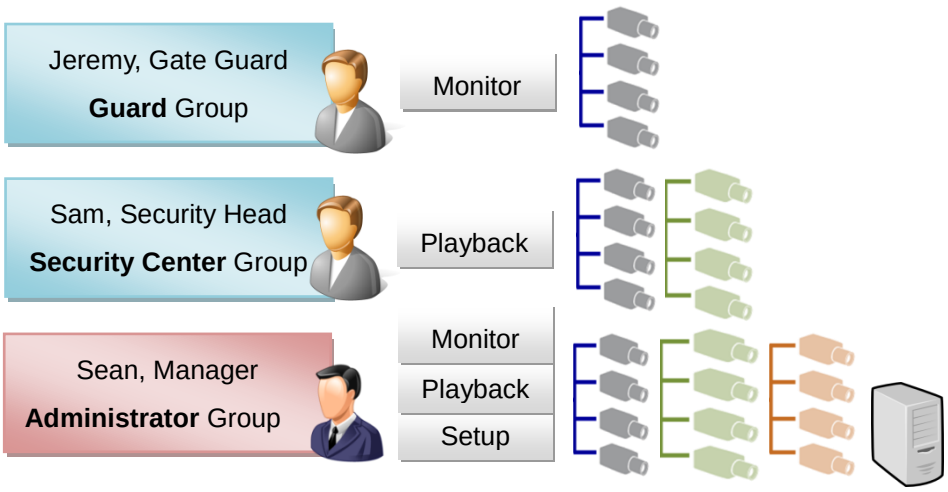
Manage User Groups/Users

The User Groups/Users page allows you to (1) manage the access permissions of different user groups, (2) add users to or delete them from user groups, (3) and assign users to specific user group. This chapter will take you through these settings.

Access Permissions

In SMS, the access permissions are managed by **User Groups**. **User Groups** defines what functions and devices are allowed for each user. Different **User Groups** will have different access rights in terms of permitted operations watch the recorded footage of certain devices in **Playback**, and server management operations like **Station Setup**, **Storage Setup**, **Event Setup** and **System Setup**. For example, an Administrator User is allowed for all the operations in SMS, while a standard User may only be permitted to access the **Monitor** screen.

The chart below displays different employees as SMS Users and their access rights in this system:



Overview

Go to **Setup** page →**Users** tab. There are two sections to manage User Groups and Users individually.

User Groups: To setup user groups and its permissions.

Users: To manage user accounts and configure user information.

SMS server has integrated **Microsoft Active Directory®** service to provide network administrators a more convenient choice for user management. Active Directory is a

directory service built in Microsoft Server products to manage user identities and privileges within the domain network. As SMS runs on a server computer logged on to the same domain with **Active Directory** server, you can import a user account or a group from those concurrently existing in Active Directory into SMS server. In this way, the user identification is processed by Active Directory centrally; there is no need for SMS administrator to maintain user accounts as long as they are under management of Active Directory service.

User Groups

You can specify access permissions to each device for a whole user group. This user grouping can save you significant amount of works if you have multiple users performing similar tasks and acting as similar roles.

There are already two default User groups

- **Administrator**: With full permissions in SMS server.
- **User**: With the permissions to watch all camera live view and playback.

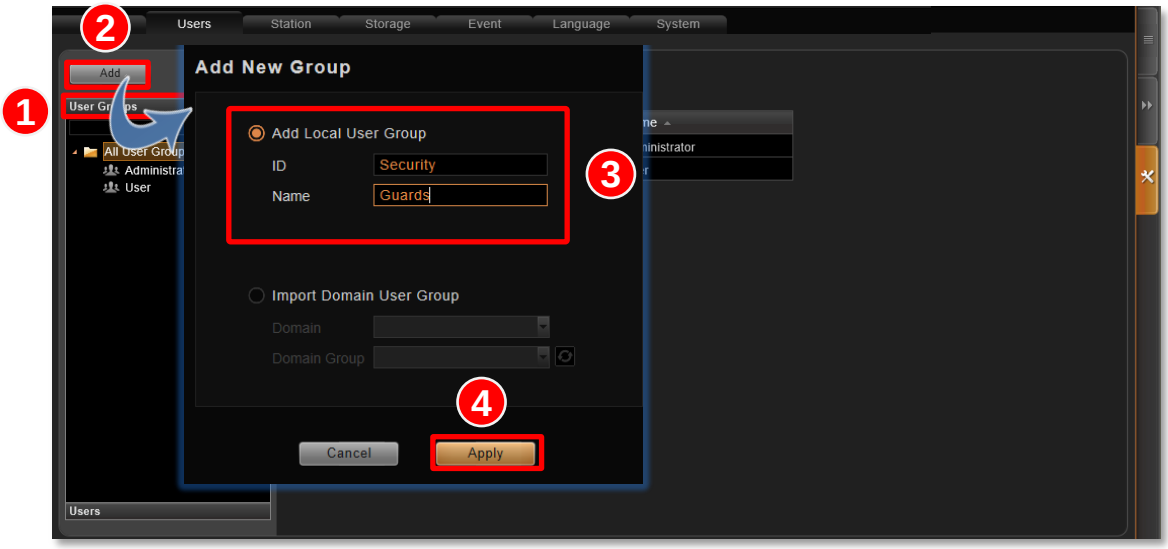
You can create a new user group on SMS server or import an existing group from the Active Directory database within your domain.

1. Click on

2. Click on "**Add**".
3. On **Add New Group** window, choose the group type:

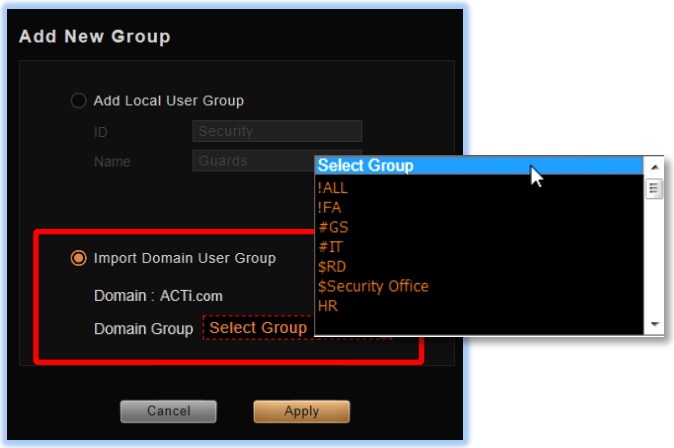
●Add a new local user group:

Insert **ID**, and group **Name**, your input in the **Name** field will be the name of this User group. Click "**Apply**" to finish.



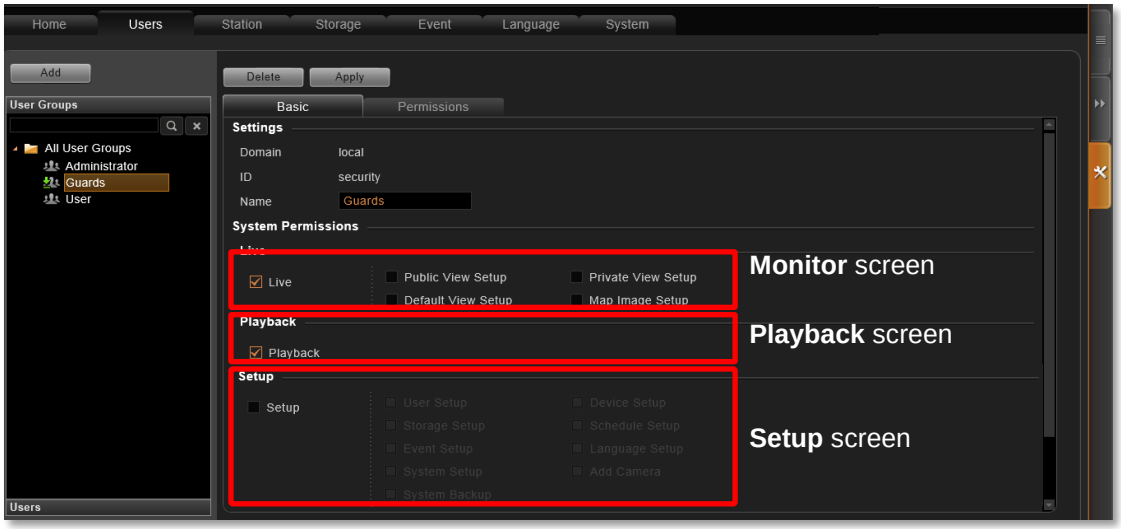
● Import a new domain user group:

Choose an existing user group from your domain, and click "**Apply**" to finish.



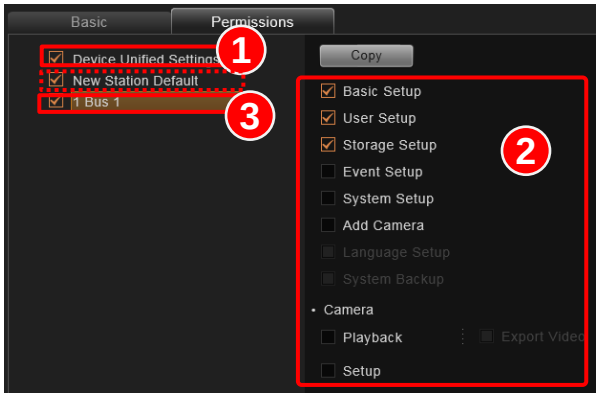
1. Click "**Apply**" to save this group.
2. The domain users within that group will all be added to SMS server. To view all the users within this group, please select **Users** on the left. The account information of these domain users, unlike those user accounts you add one by one to SMS server, are not editable on **Users** page.

3. Assign **Permissions** for created group. This will define what functions this User group is allowed to access. On **Basic** tab, by default, a new User group will initially be allowed to access only **Monitor** and **Playback** screen, but without any permission to change a certain camera's setting, so you will have to assign the camera permissions later.

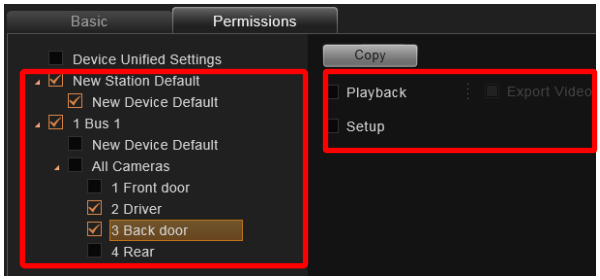


You can assign more administrative permissions to change system settings to a group in **Setup** section and **Global** section.

4. Configure **Station** permissions on **Permissions** tab for the created User group. This will define which stations this User group is allowed to access. You can define the common permissions for the existing stations with "**Device Unified Settings**" and then select the stations. If you want to apply another set of settings to the stations added in the future, check "**New Station Default**" (if this User group is allowed to access all newly-added stations, check "**New Station Default**" and edit the permissions.



If this User group is given more advanced permissions to certain stations, instead of enabling "**Device Unified Settings**", you should check "**New Station Default**" and the specific stations to define the permissions individually.



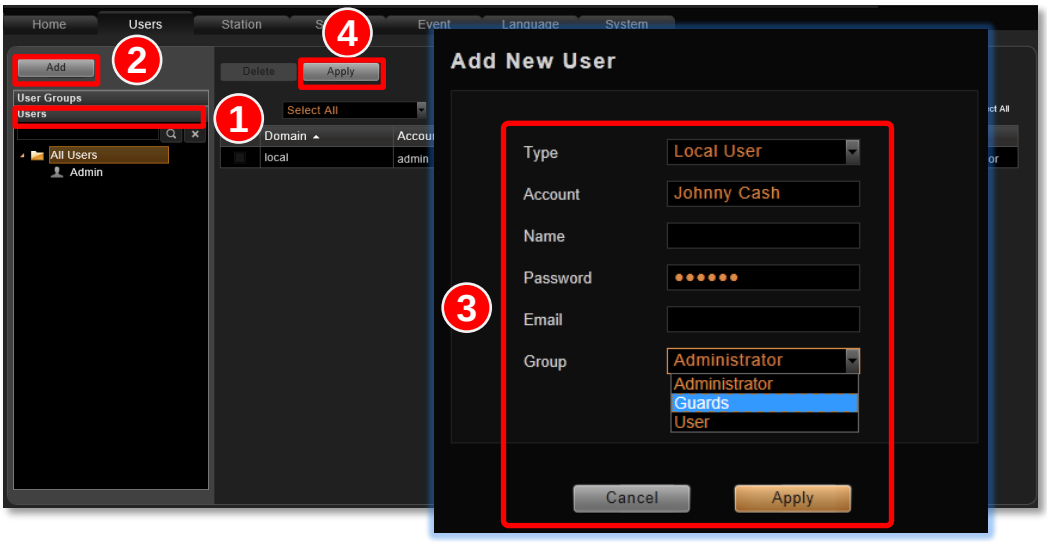
You may copy certain **camera's permissions settings** to other devices or stations. Select a camera/station and click "**Copy**" to bring up the target selection menu, check the target cameras/stations, and click "**Apply**".

Add Users

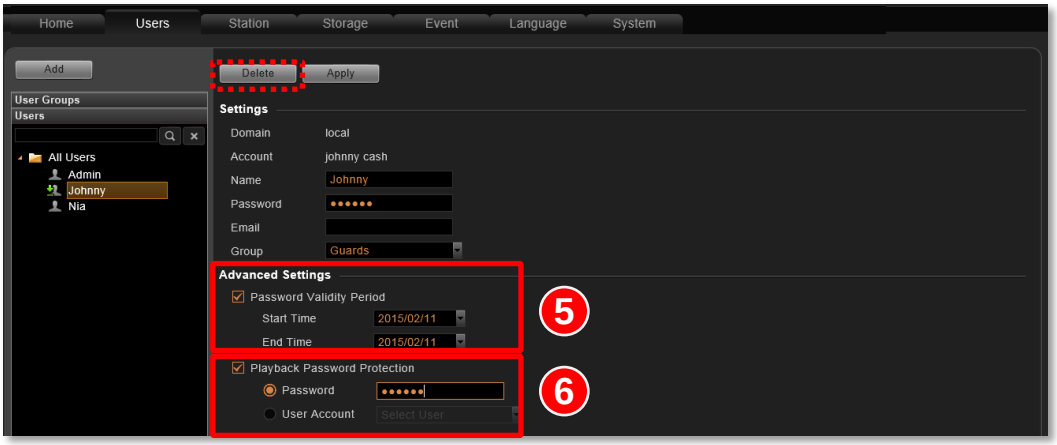
To create a user account with on SMS server.

1. Click on **Users**
2. Select User Type as Customized User or Domain User.
   - **Local User**: an account created and managed on SMS server only. You will input an account name, its password and e-mail address for this User.
   - **Domain User**: an account that already exists in Active Directory database within the

domain. Since this is an existing account in your domain, you will have to select this account from **Account** dropdown list.



3. Insert user account, name, password, and the account mail (For **Local User**). Assign this created user account to a specific user group.
4. After you click "**Apply**", this new user will be added to the list on the left. You can modify the account settings in **Settings** section, or click on "**Delete**" to remove this account.
5. As an administrator, you can set the validity period of thus user account by enabling "**Password Validity Period**" and set the duration time, thus enabling you to give a user temporary access and effectively control the account's validity.
6. If this user's group is permitted to access **Playback** screen, you can even add a password protection to protect your video data by enabling "**Playback Password Protection**". The password can be a specific one or the same as the account's.



Note

SMS server provides a procedure to help Users who have forgotten the password retrieving the original information, which relies solely on the "e-mail address" authentication. It is strongly recommended that you input an e-mail address that this User has access to when you establish the User account. To update the e-mail address of an account, go to **Setup** page→ **Users** tab → edit "**E-mail**" of an selected User account; the Users can also update the e-mail addresses themselves after logging in to SMS on **Monitor** page → → **Update Profile**

Note

Account /Password Rules

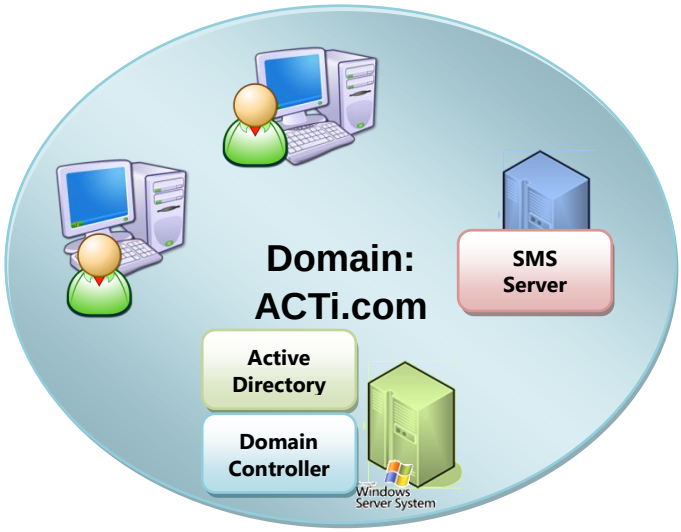
1. **Account** and **Password** fields allow alphabets, numbers, and symbols except the following: **/ \ [ ] : ; | = , + * ? < > "**
2. In **Account** field, for alphabets, the input will be recognized as lowercase letters. Space is only allowed between characters; the space in the beginning or at the end will be deleted as it is saved.
3. The **Password** field is case-sensitive, and the space is allowed.

Note

Admin is the default user account and belongs to "**Administrator**" user group. Hence, the user **Admin** and the group **Administrator** cannot be deleted; it possesses full permissions to all devices and SMS settings.

Domain Users Management

As SMS server computer is logged on to a domain Active Directory, it can import a user account from Active Directory.



This type of User account is "**Domain User**". Upon being added to SMS server, the User properties stored on Active Directory database including (1) account name (2) e-mail address will be imported to SMS server.

Clear All Select All

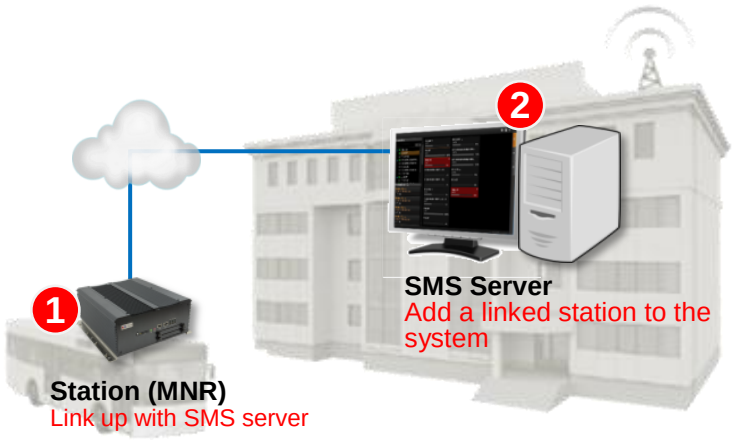
Domain	Account	Name	Password	Email	Group Name
Local	admin	Admin	••••••		Administrator
ACTi.com	Deckard.Cain	Deckard.Cain		Deckard.Cai@acti.com	$Security Office
ACTi.com	John.Bourne	John.Bourne		John.Bourne@acti.com	$Security Office
ACTi.com	Steve.Lin	Steve.Lin		Steve.Lin@acti.com	$Security Office
ACTi.com	Joyce.Holiday	Joyce.Holiday		Joyce.Holiday@acti.com	General Service

Whenever a domain User client tries to log in to SMS server, SMS server will first verify if this account exists in SMS server database, and then have Active Directory verify the user account and password.

As Active Directory owns the privilege to create, edit and delete domain users, **the Domain User's account and password are not editable through SMS user interface but via Active Directory Administrative Tool**.

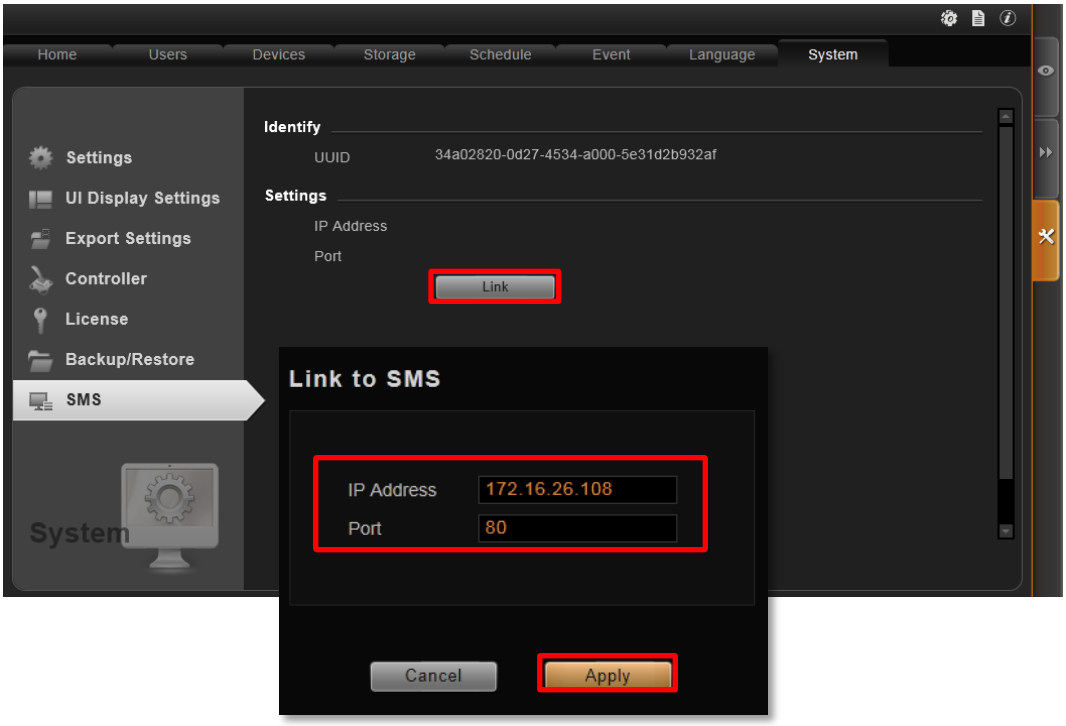
Manage Stations

To manage multiple transportation standalone NVRs and monitor the recording synchronization status, you have to add the stations to SMS server. Please make sure you have purchased sufficient license for your required number of stations.

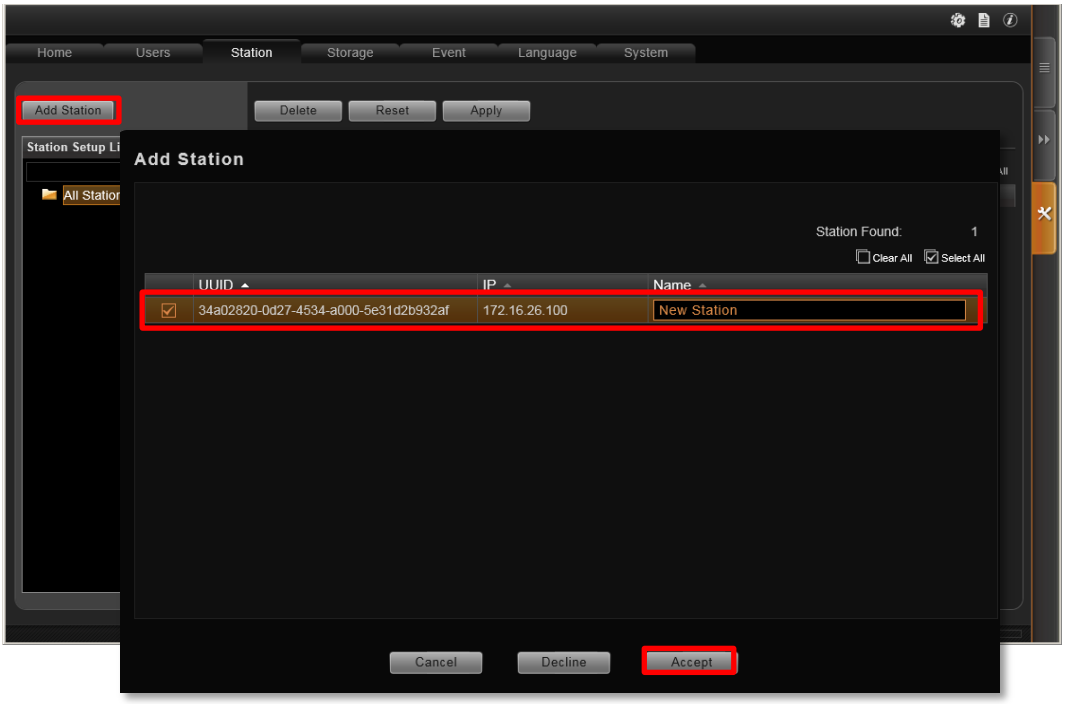


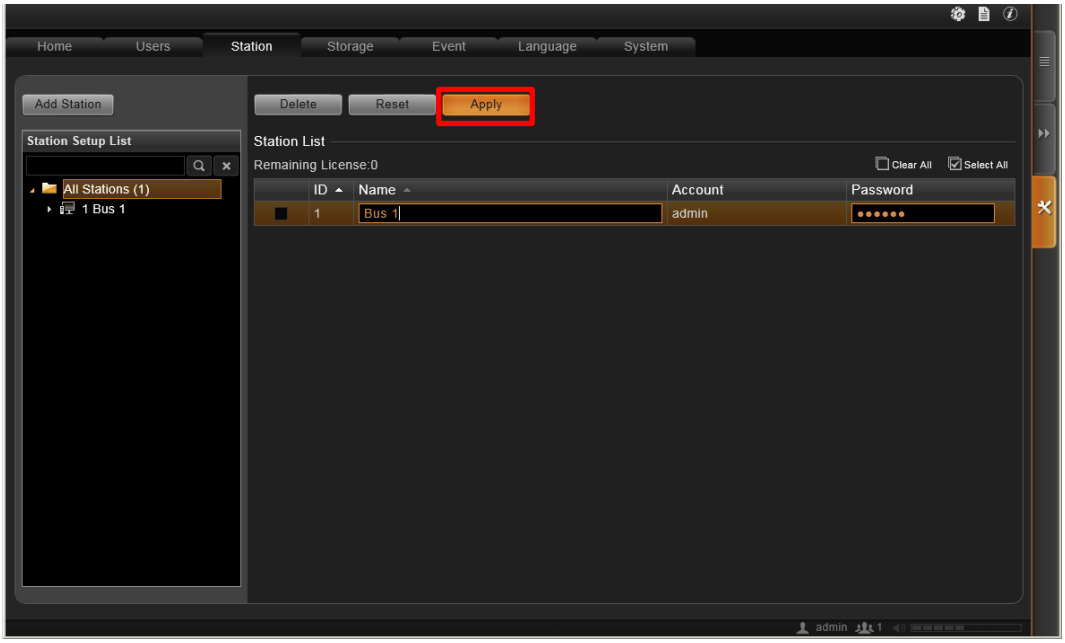
Add Station

1. Log in to standalone NVR interface, go to **Setup** → **System** tab→**SMS. Click on** "**Link**" and input the IP address of the SMS server, and then click on "**Apply**".



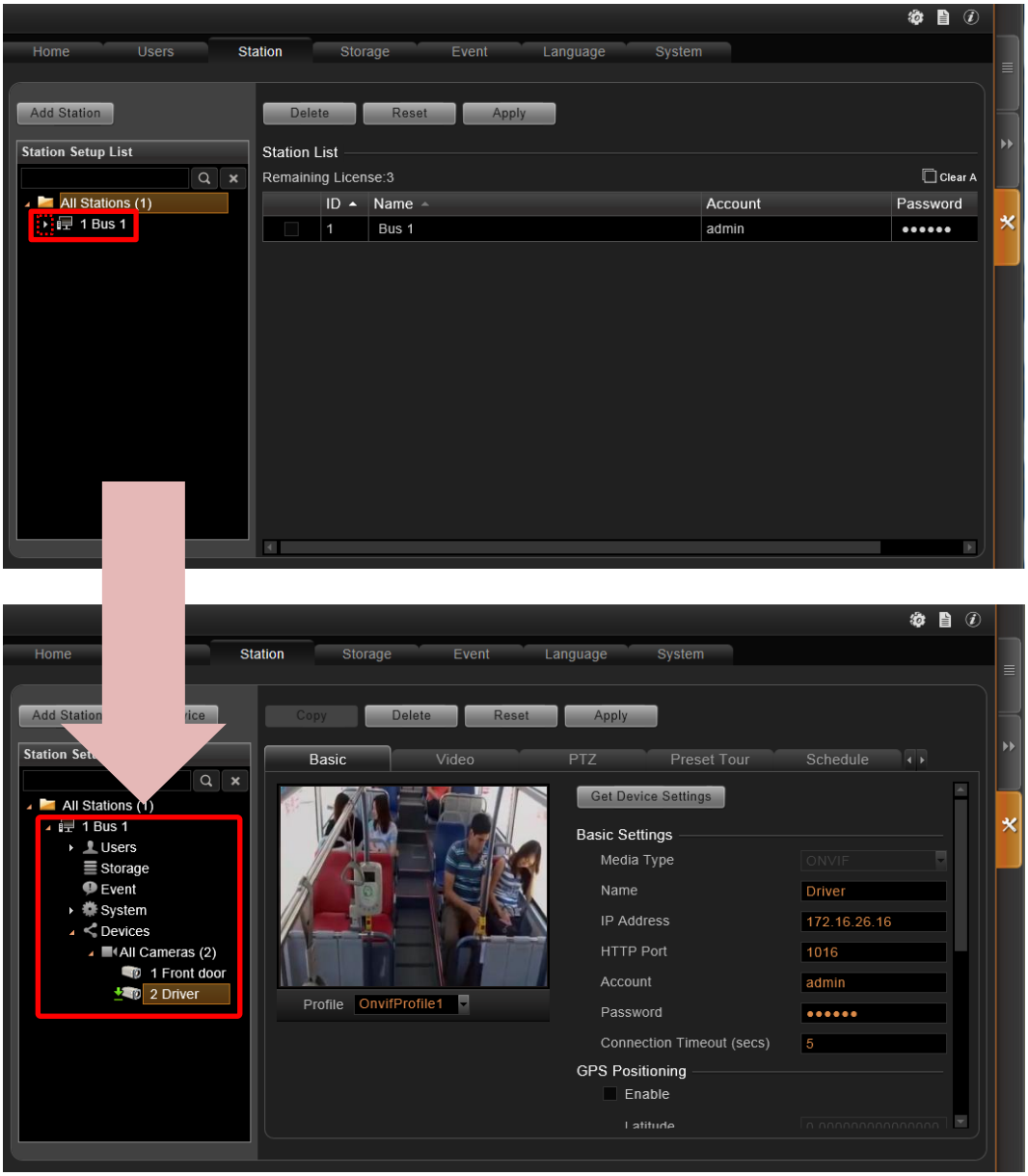
2. On SMS server, go to **Setup** → **Station** tab→ Click on "**Add Station**" **SMS** Click on "**Link**" and input the IP address of the SMS server, and then click on "**Apply**".





Configure Station Settings

You can configure foundemental NVR server settings via SMS interface.On **Station** tab, the added stations are listed below **All Stations**, click on ▷ sign next to the station to reveal the fundemental settings of this NVR server.



Click on the settings to modify the configutaitons. For examply, you can select a camera and configure the camera's video or PTZ properties. By clicking on "**Apply**" this new modification will be appplied this device.

Event Management

When certain unexpected incidents occur during the video synchronization process, for example, SMS server's storage space is full or the restoration process of a certain camera just fails, they are considered crucial **Events** that require not only you immediate awareness but timely action. SMS server can program these events using **Event Rules**. A specific type of event is set as a **Trigger** that causes SMS server to react in a designated **Response**. An example rule would be for SMS server to send an e-mail to alert the supervisor and to enable a beep sound when the storage disk is full.

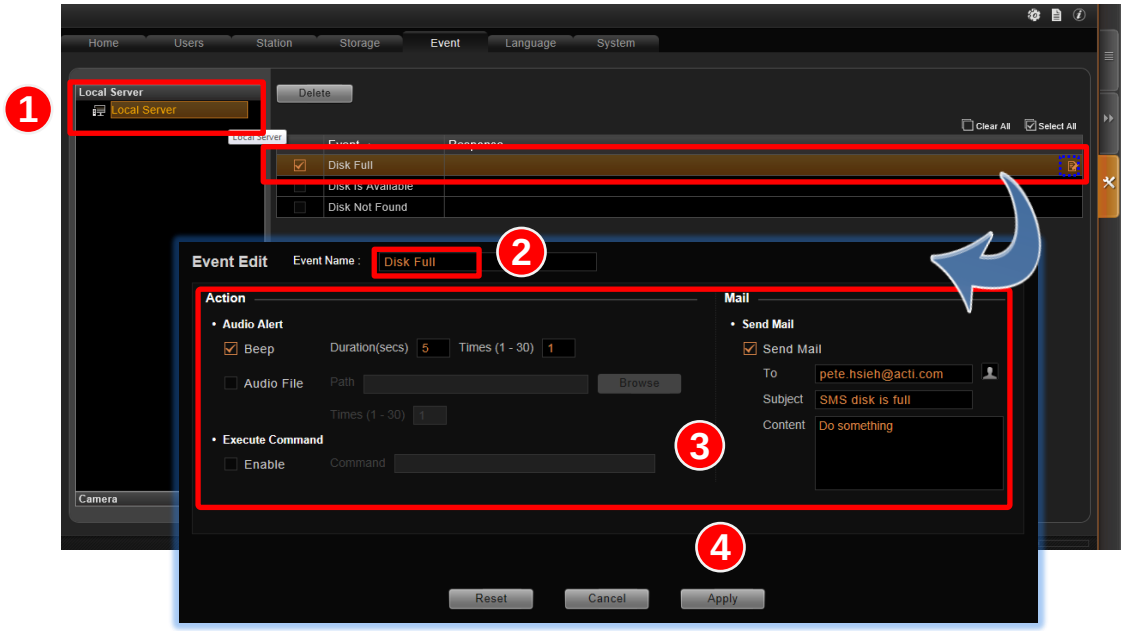
The chart below shows SMS server-supported **Trigger** types and **Response** types:

Event Source	Event Type	Response Type (on client computer)
SMS Local Server Status	•Storage disk is full •Storage disk is available for recording •SMS server can't detect the storage disk	•Produces audio alert (beep sound or pre-loaded audio file) •Executes a command •Sends email notification
Camera	•Restoration fails	•Produces audio alert (beep sound or pre-loaded audio file) •Executes a command •Sends email notification

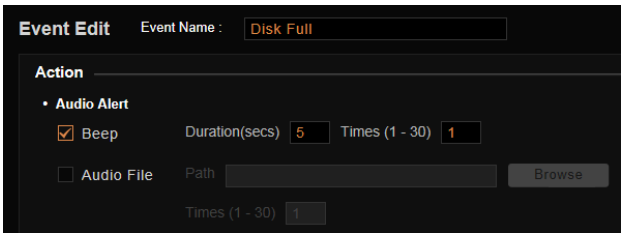
Create an Event Rule Based on SMS Server Events

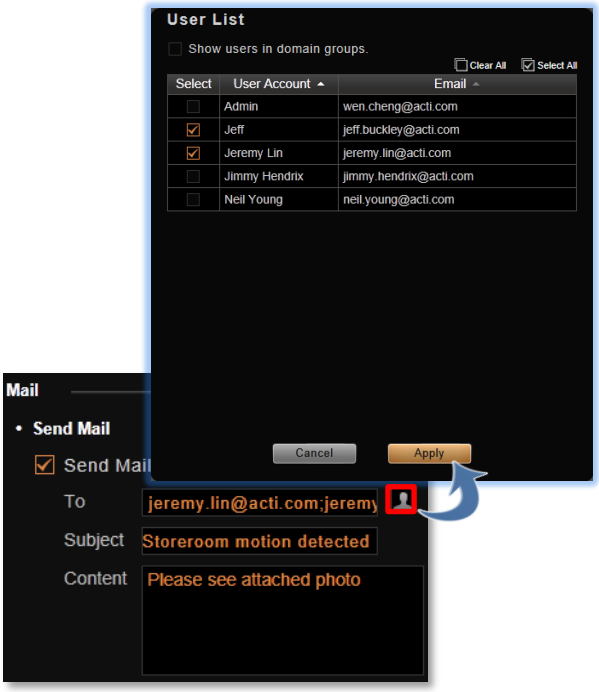
In SMS system, the abnormal status of SMS server is also considered a trigger that is worth your attention.

1. Go to **Setup** page → **Event** tab. In **Local Server** panel, there are already three types of server event: **Disk Full**, **Disk Is Available** and **Disk Not Found**. Highlight the rule you want to edit. Double-click on the "**Response**" column to edit the response action.
2. On **Edit Event** window, you can rename this event in **Event Name** field.



3. You can enable multiple responses by first checking the box (ers) to enable the items:

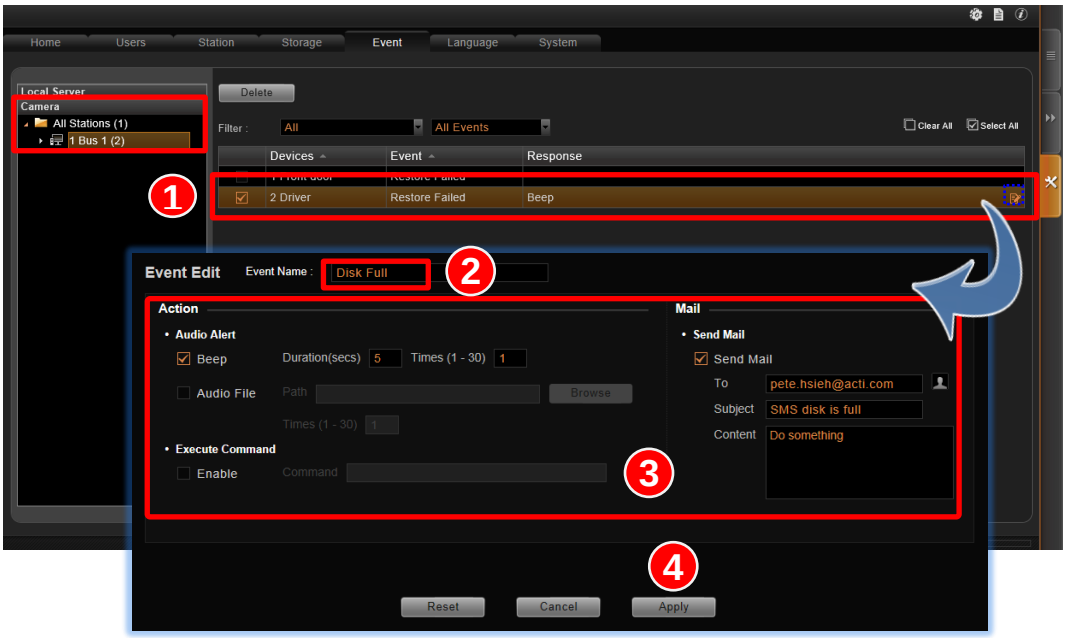
Response Types	Function Description
	Makes SMS play beep sound or an audio file for a number of repetitions. On SMS **Corporate Workstation** client computer, you can upload a WAV file or an MP3 file as the alert sound, and set how many times this audio file is repeated when the event occurs. (This SMS server has to be already on **Server Site list**, refer to *G. Server Name*/Server Sites List on page

	Enable SMS to execute a certain command upon this event. You can use it to integrate SMS' event handling with other programs. Enter the path of the command to be executed upon event.
	Enable SMS to send e-mail notification via SMTP server. The default SMTP and sender's e-mail settings can be set in advance in **Setup** page →**System** tab→**Settings** → **E-mail& SMTP Settings**. **1.** Type one or more recipients' e-mail addresses in "**To**" column (if more than one, please separate them by "**;**" symbol) or click the icon to select recipients from existing SMS User list. The E-mail address should be set in advance (in **Setup** page→**Users** tab→**Users**) for an SMS User so that it can be selected in this list. **2.** Edit the e-mail subject and content.

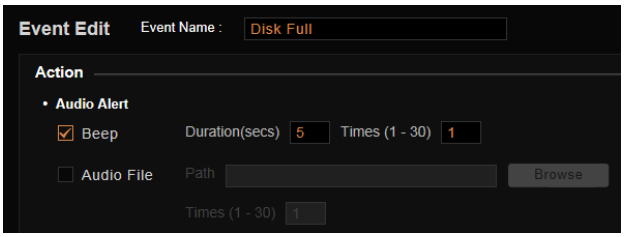
4. Click "**Apply**" to save this rule.

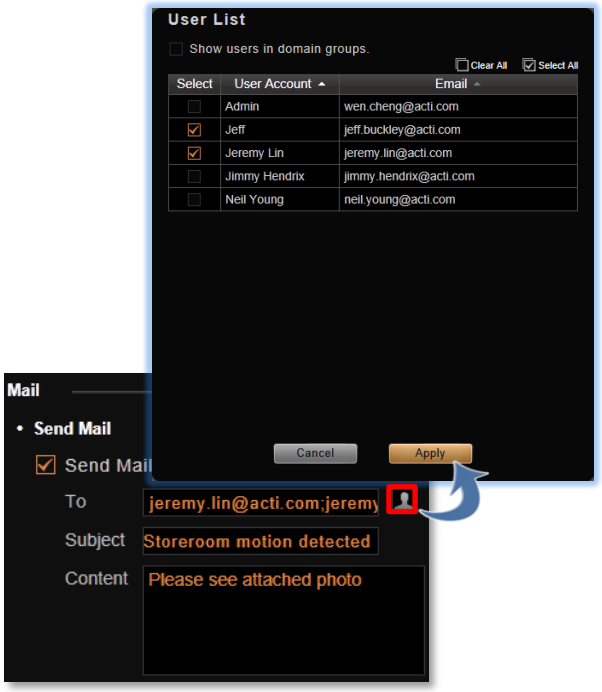
Create a Camera Event Rule

1. Go to **Setup** page → **Event** tab. Click on the title bar of **Camera** list, all the editable event rules are listed in the device ID order.
2. Select a camera from the **Camera** list on the left. Based on the trigger types this device supports, the corresponding events rules are listed accordingly on the right. In this example, this selected camera model supports three motion detection regions, and hence three MD trigger event rules are available.



3. You can enable multiple responses by first checking the box (es) to enable the items:

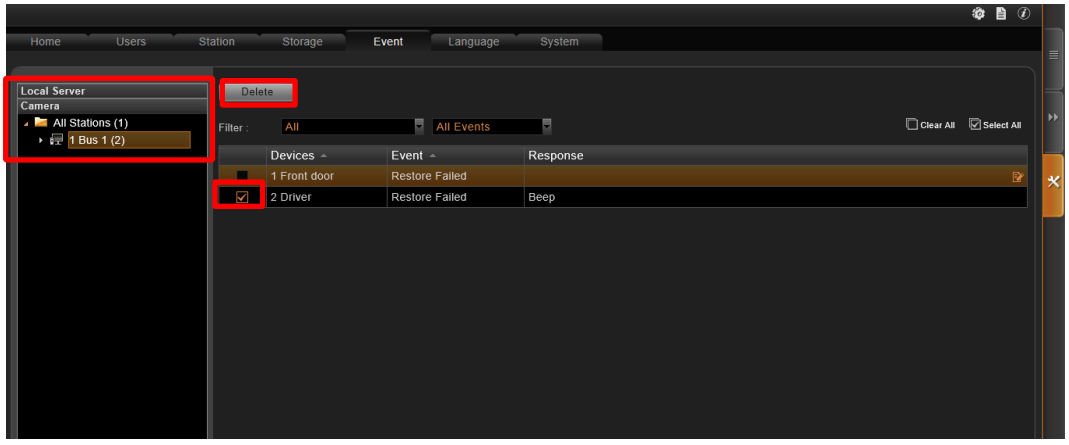
Action Items	Function Description
	Makes SMS play beep sound or an audio file for a number of repetitions. On SMS **Corporate Workstation** client computer, you can upload a WAV file or an MP3 file as the alert sound, and set how many times this audio file is repeated when the event occurs. (This SMS server has to be already on **Server Site list**, refer to *G. Server Name*/Server Sites List on page

	Enable SMS to execute a certain command upon this event. You can use it to integrate SMS' event handling with other programs. Enter the path of the command to be executed upon event.
	Enable SMS to send e-mail notification via SMTP server. The default SMTP and sender's e-mail settings can be set in advance in **Setup** page →**System** tab→**Settings** → **E-mail& SMTP Settings**. **3.** Type one or more recipients' e-mail addresses in "**To**" column (if more than one, please separate them by "**;**" symbol) or click the icon to select recipients from existing SMS User list. The E-mail address should be set in advance (in **Setup** page→**Users** tab→**Users**) for an SMS User so that it can be selected in this list. **4.** Edit the e-mail subject and content.

4. Click "**Apply**" to save this rule.

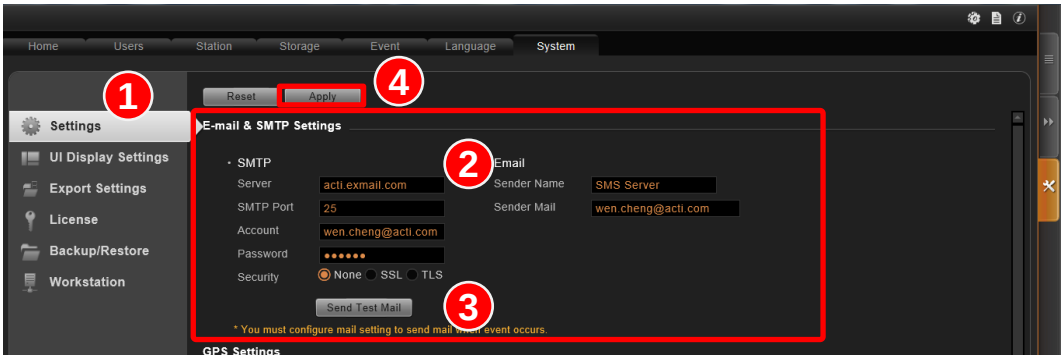
Manage the Event Rules

Event List panel gives an overview on event rules set on SMS server. Go to **Setup** page → **Event** tab → click on **Camera** or **Local Server** on the left. To delete a certain rule, you can select it and then click "**Delete**" to remove it.



How to Setup SMTP Settings for Event Rules

SMS supports e-mail notification for **Event Handling** sent through an SMTP server. You can specify the e-mail and server settings here.



1. Go to **Setup** page→**System** tab→**Settings** → **E-mail& SMTP Settings**.
2. Fill in **each** of the following fields.

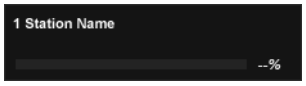
Field Name	Description
Server	Input the sender's SMTP server address. Only alphabets, numbers, and the symbols (.), (_), (-) are valid.
SMTP Port	Set the SMTP port, allowed value is from 1~65535, default is **25**.
Account	Input the name of the SMTP server account. Only alphabets, numbers, and the symbols (@), (.), (_), (-) are valid.
Password	Input the password of the SMTP server account. Only alphabets and numbers are valid.
Security	Certain webmail providers provide the SSL/TLS-encrypted SMTP connections to secure your data when sending/receiving e-mails. Please check if the SMTP connection settings you use (especially the **SMTP Port**) now require enabling either SSL or TLS.
Sender Name	Input the name or title of the sender. You may input a name different from the account name.
Sender Mail	Input the sender's e-mail address, which should the same account you set for SMTP server.

3. As all necessary information is filled, click "**Send Test Mail**" to try sending an e-mail according to your settings, and then log in to your SMTP server to check incoming e-mails. If the test mail is sent successfully, SMS server is ready to send out e-mails.
4. As the settings are confirmed, click "**Apply**" to save.

Monitor the Synchronization Process

Overview

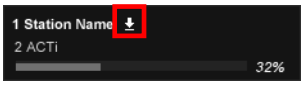
Once a station is added to SMS system, its detailed restoration progress will be individually displayed in the **Restoration Progress** view. From the **Station List**, you can have a glance at the status of the entire stations. By clicking on the title bar of **Station Restore Log** panel and **Event** panel, you can open these panels to get more details.

Vehicle Status	Status Icon
 Before setting off	*Station status* As the vehicle is parked in the depopt, the station on it hence is within the control center's local network; a green bulb will appear in the **Station List** to show that it is connected.  *Progress status* If the video recording of this station has been completely uploaded to SMS server, the restoration progress percentage will become "**--%**" to show that there is currently no running restoration process.
 In service	*Station status* As the vehicle is in service, the station on it hence is outside of the control center's local network; a gray bulb will appear in the **Station List** to show that it is disconnected. *Progress status* If the station is currently not connected, the progress card will appear red with the latest completed percentage of video restoration. This progress will resume after the station is connected again.

Having retured to the depot

Station status

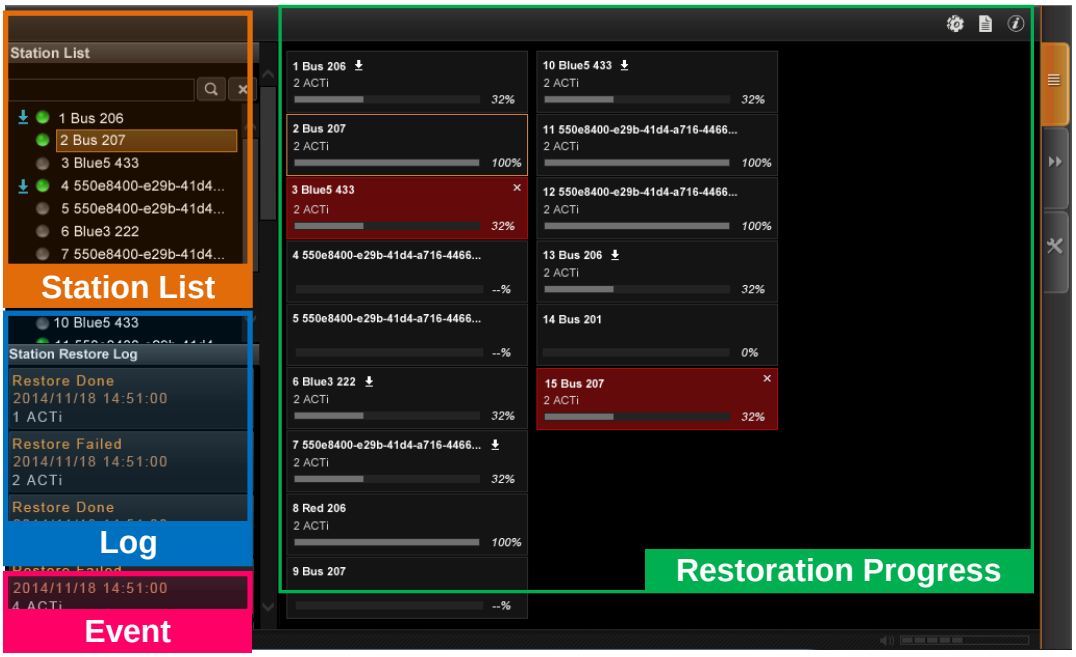
As the vehicle has returned to the deport, the station on it hence is within the control center's local network; the green bulb will appear in the **Station List** to show that it is connected, with a blue downloading sign representing its running restoration process.



Progress status

A white downloading sign will show along with the percentage of completion.

Monitor Screen



Station List

Lists the added stations and their current restoration status:

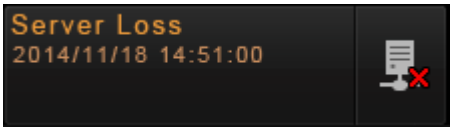
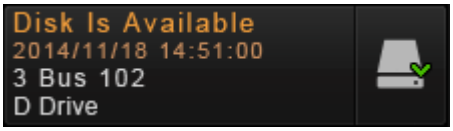
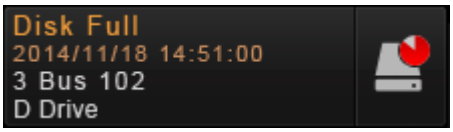
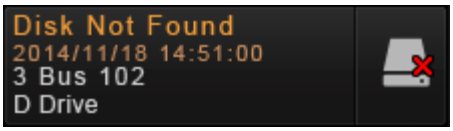
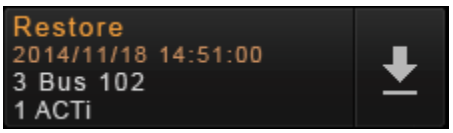
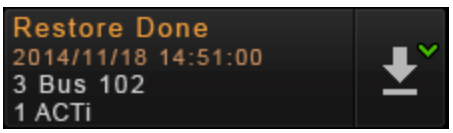
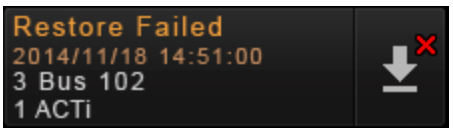
Icons	Status	Description
	Restoring	Restoring video recording from the station's storage
	Connected	This station is currently connected with SMS server.
	Disconnected	This station is currently disconnected.

Log

Informs you of the newest results of each station's restoration progress such as "**Restore Done**" or "**Restore Failure**". You can click on in the top right corner of this screen to export the entire system log.

Event Panel

Displays the important server or station/camera status

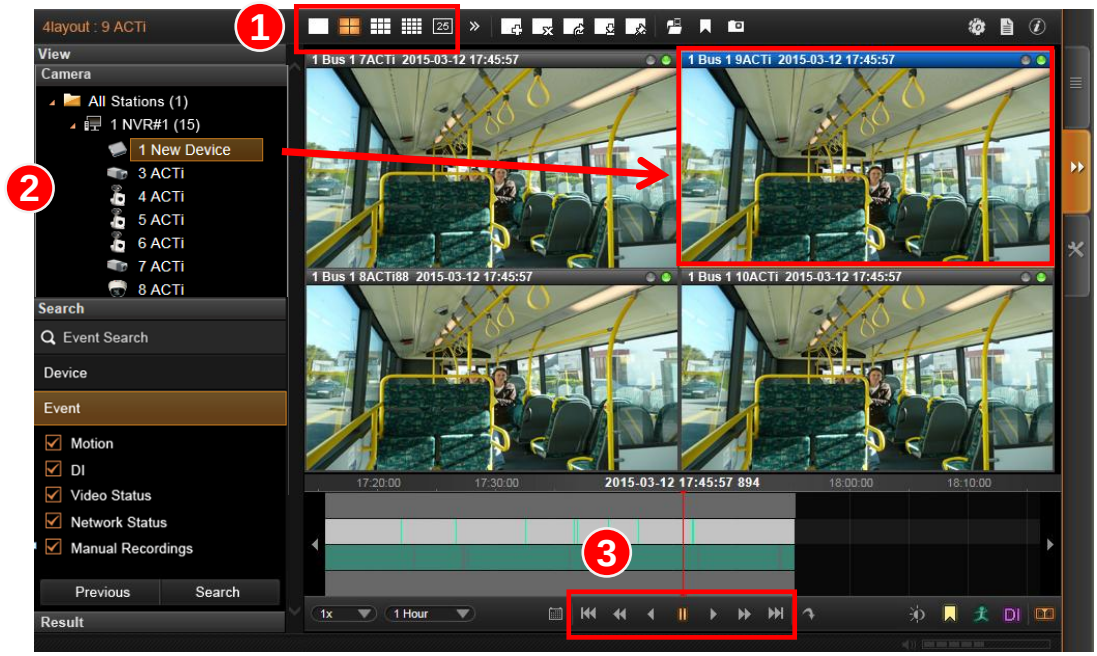
Status	Description
	The SMS Server is connected now.
	The SMS Server is disconnected now.
	The SMS Server storage is available now.
	The SMS Server storage is full.
	The SMS Server storage is not available now.
	This camera's video recording is being restored.
	The video restoration of this camera is done.
	The video restoration of this camera fails.

Watch Playback

Overview

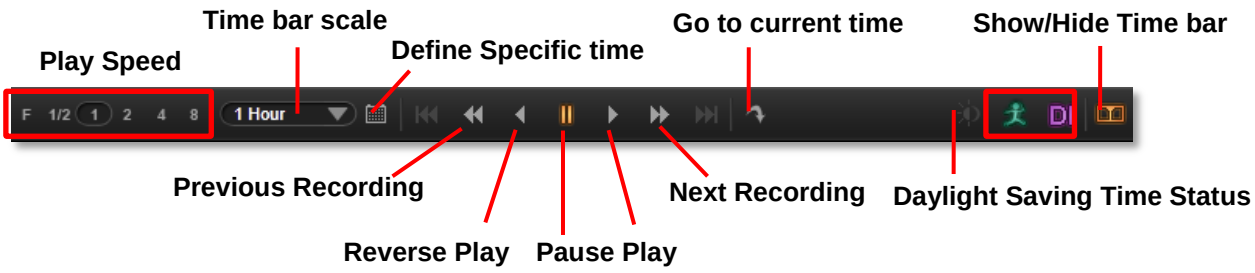
Once the video footage has been successfully uploaded to SMS server, on **Playback** screen, you can drag a camera into a channel window to watch the playback.

1. On top of the screen select a desired layout.
2. From **Camera** list, drag a device into a channel window.
3. On **Timetrack**, drag the bar to your desired time spot
4. Use the **Play Control** buttons to **fast-foward**, **rewind**, **play** or **pause**.



Playback Controls

The playback related controls reside in **Playback Control Bar**. You may adjust the video play speed, do a reverse / forward play, or pause the video to spot your desired detail. For non-continuous recording types such as **DI**, or **Event** recording, you may use the "**Previous Recording**" or "**Next Recording**" buttons to jump to the part directly.



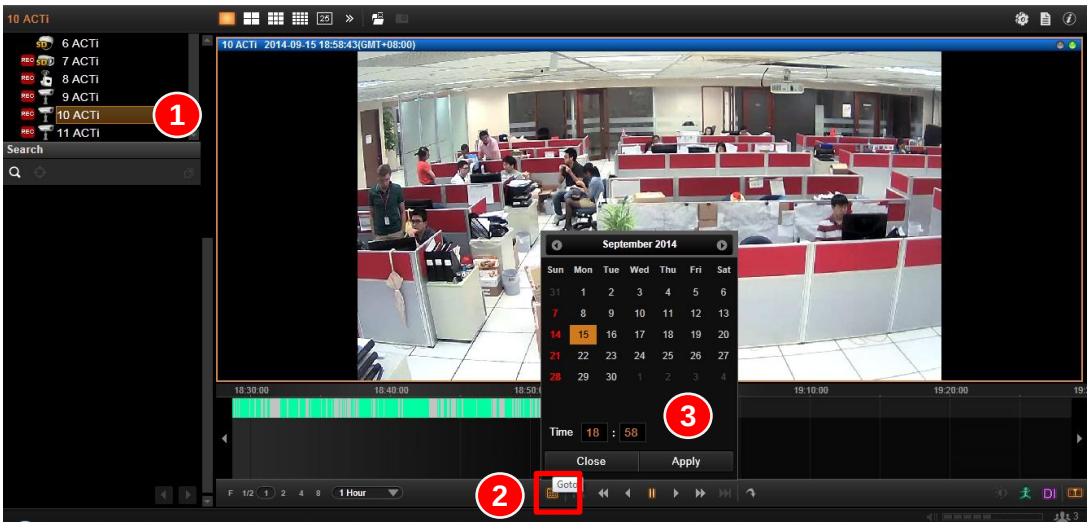
Daylight Saving Time Switch

SMS Server will detect and display your client computer local time on **Monitor** and **Playback** screen**.** Once you apply **Daylight Saving Time** rule on your computer, SMS server will automatically enable this function on **Control Bar**. By default, this function will be enabled automatically as daylight saving time begins. You may disable this function to view playback according to **Coordinated Universal Time**.

Search by Time

If you simply want to skim through the footage record around a certain time, you can start by locating the specific time on the time bar.

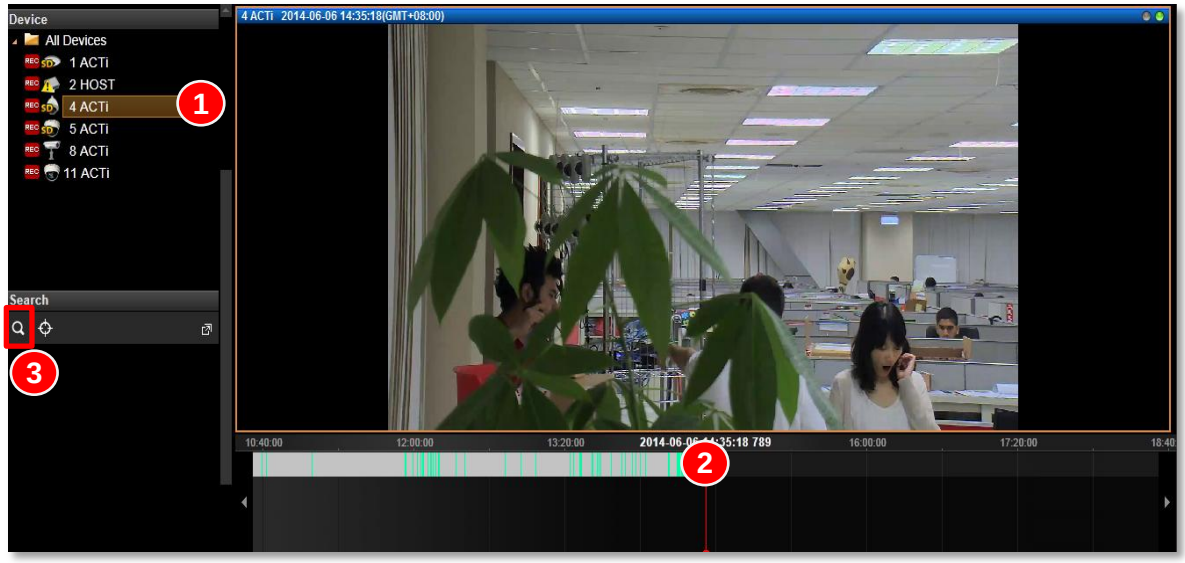
1. Double-click on your desired channel or drag it to the display window. The channel view will appear in the window.
2. On **Playback Control Bar**, click , and specify the target date and time on the calendar window, and then click "**Apply**".
3. The time bar will immediately locate the target time.



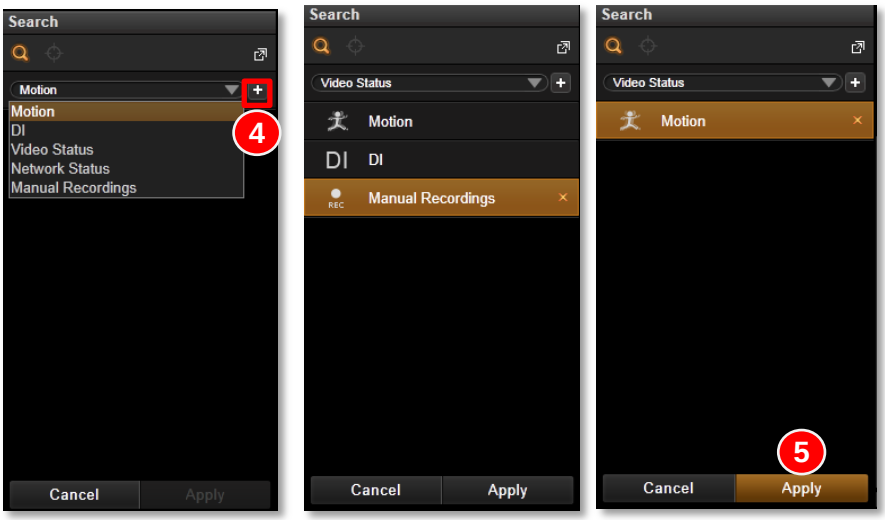
Search by Event Type

If you are clear about (1) When (2) as which event type (3) Where the incident happened, you will not need to drag on time bar all the way to the spot. The event search tool can sort out the video clips that match your criteria.

1. Double-click on your desired channel or drag it to the display window. The channel view will appear in the window.
2. Drag time bar to the target time.
3. On **Search Tool** panel, two search tools will appear, click



4. Select an event type from dropdown list, and click "**+**" to create this filter. You can select an unwanted filter and delete it by clicking on the "**x**" on the right.
5. Select the desired filter and click "**Apply**" to start searching.



Search by Video Analytics

SMS server is equipped with two useful video analytics that can perform advanced search – **Motion** and **Tamper**.

Motion

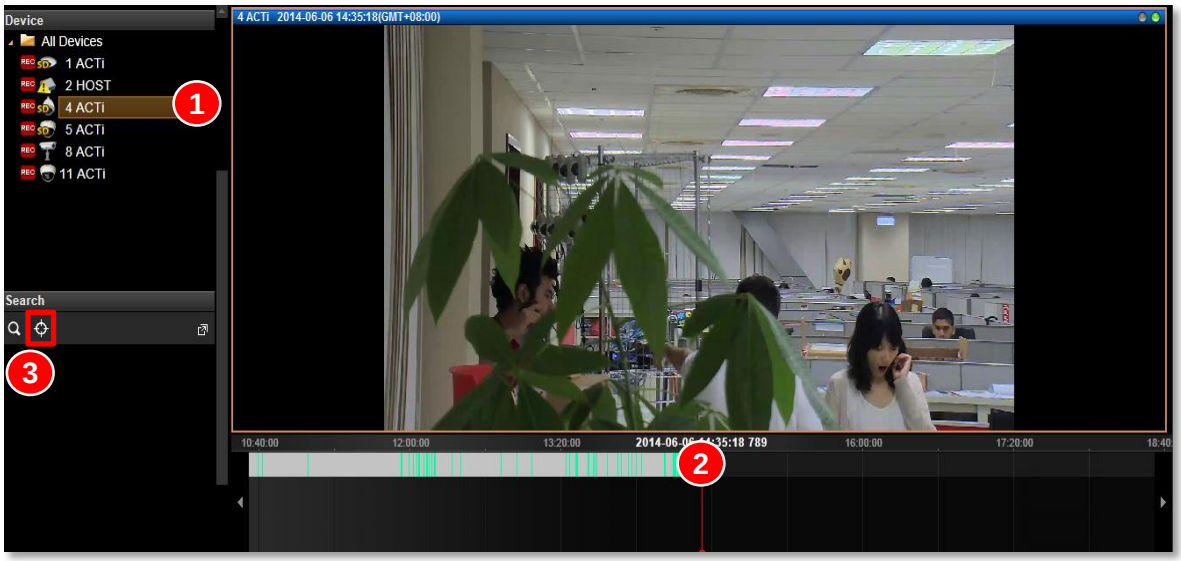
- Unlike the typical motion detection method, this motion video analytics algorithm can detect a maximum of six regions in a view, including rectangle regions and polygon regions.

Tamper

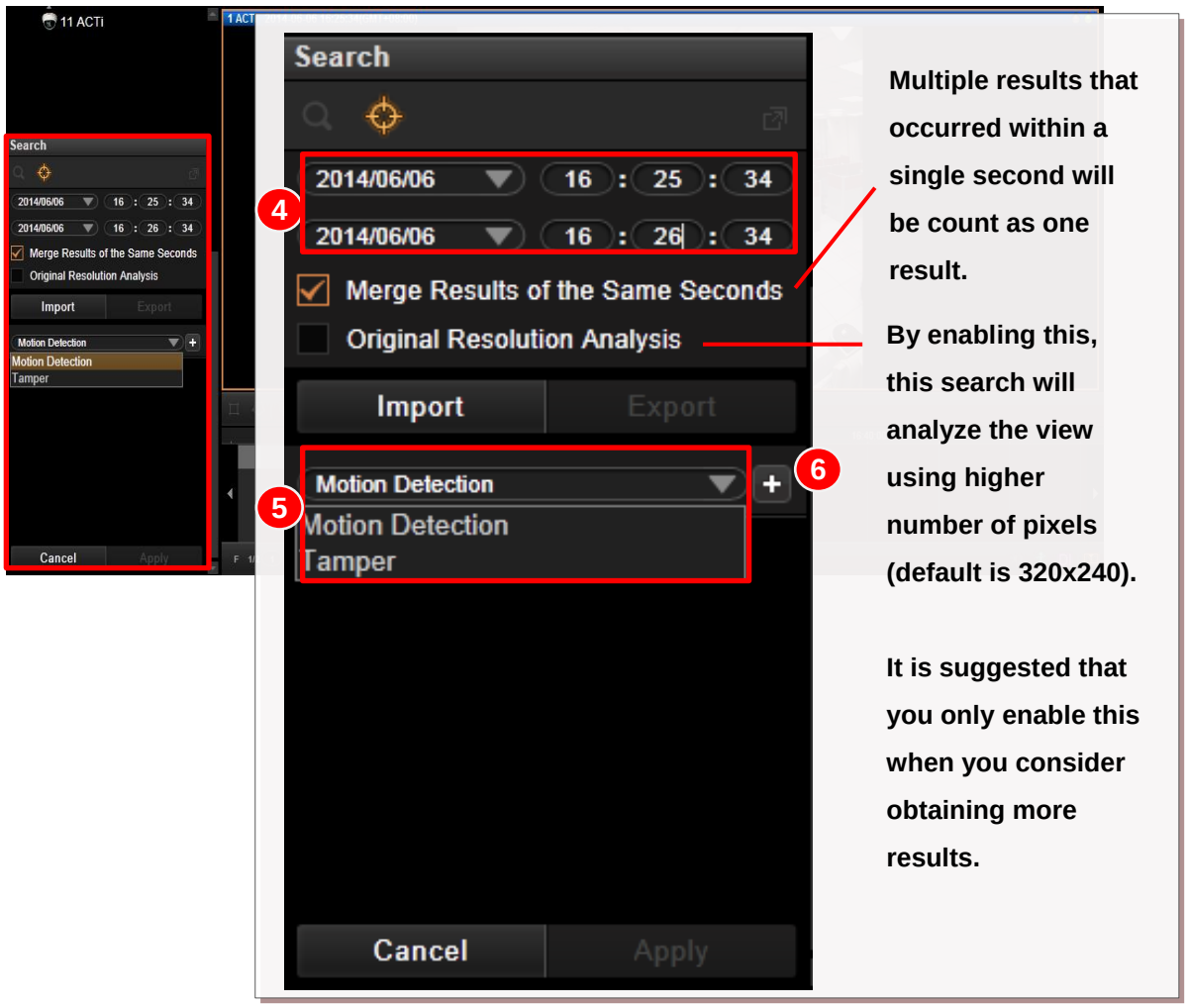
- A camera that has been tampered with is not able to serve its purpose. To avoid this, SMS offers an algorithm to detect whether any form of tampering has been done to a camera, whether it be in the form of redirecting the angle of the camera, de-focusing the camera, covering, or spray-painting the camera.

To start,

1. Double-click on your desired channel or drag it to the display window. The channel view will appear in the window.
2. Drag time bar to the target time.
3. On **Search Tool** panel, two search tools will appear, click

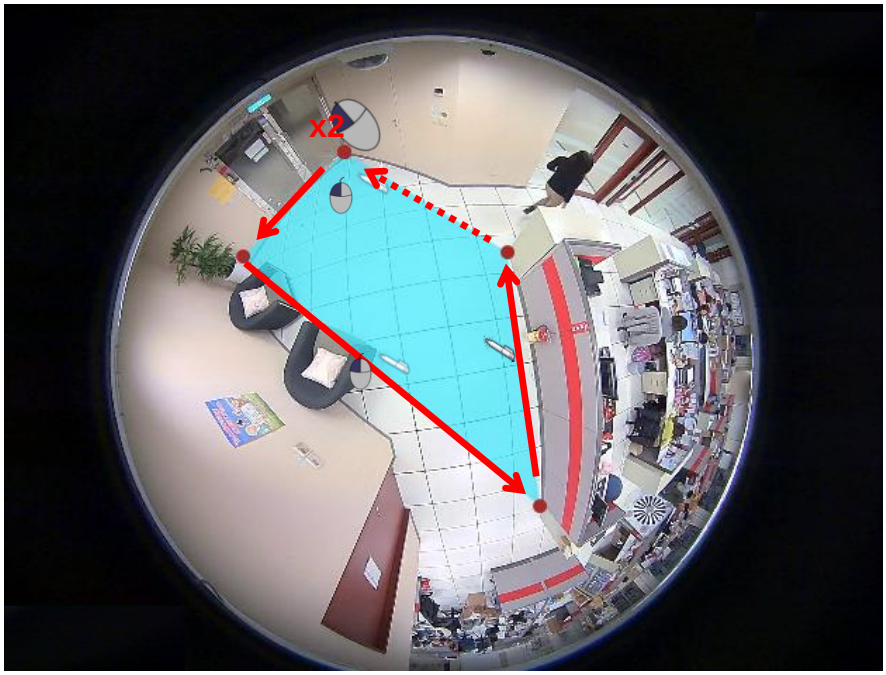


4. Define the time range.
5. Select the video analytics type
6. Click "**+**" to create this filter. You can select an unwanted filter and delete it by clicking on the "**x**" on the right.



7. After this filter is created, draw the regions on the channel view. (You can define a total of six regions for a motion filter, while tamper filter will us the whole camera view for analyzing)

If the area you want to mark does not fit to the form of a rectangle, you may also choose to draw a polygon by selecting the icon. To draw the lines for the sides of your polygon, click your cursor to mark the endpoints of each line. **Double-click** on the final endpoint of the final line to confirm and highlight the polygon in light blue, as shown in the illustration below. Make sure your lines connect (a minimum of three lines) to form a closed shape.



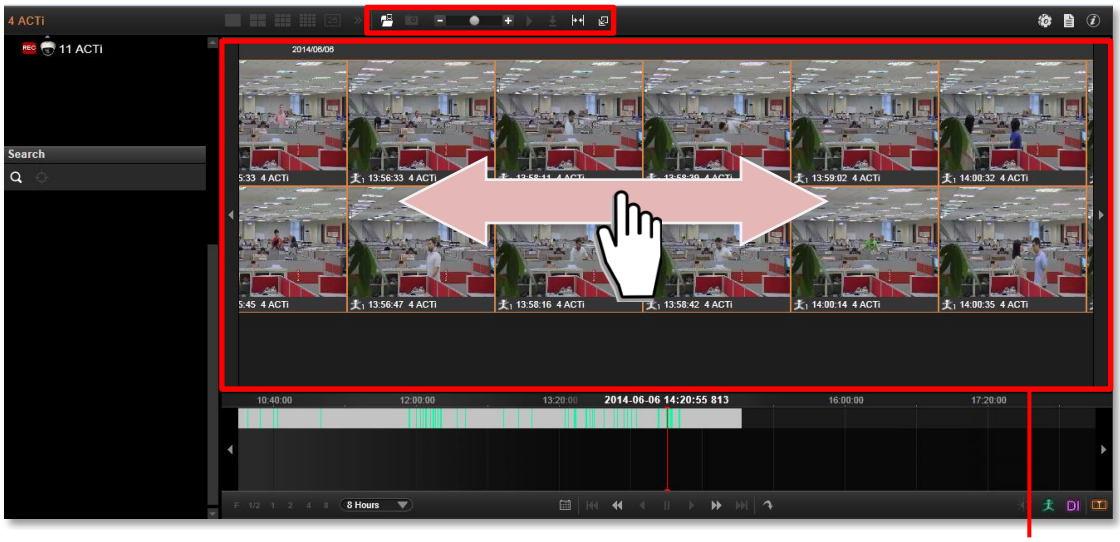
8. Click "**Apply**" to start searching.

To create a new search, simply double-click on a camera ion **Camera** list, and follow the steps narrated above again.

View Search Results

The search results will then start being generated in thumbnails in **Search Result Viewer** window. However, it might take a few seconds if a large number of results are found. The thumbnails are listed in sequential order, left-to-right and top-to-bottom. You can drag on the **Search Result Viewer** to your desired time to find the snapshots of the incidents.

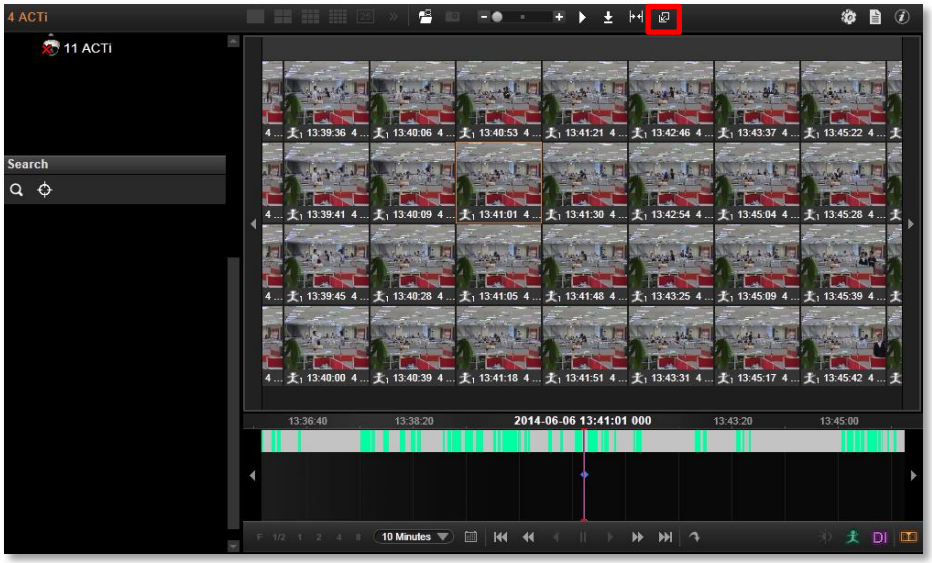
Search Result Tool Bar



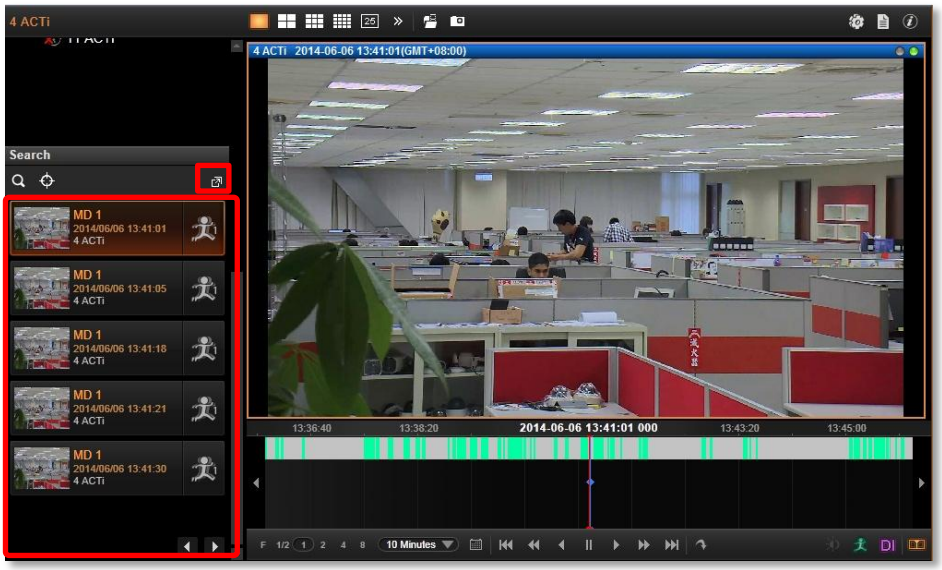
Search Result Viewer

For easy exploring the search results, on **Search Result Tool Bar**, you can

- Adjust the size of the snapshots, the smaller the thumbnail's size is, the more results you can see in the view.
- Select a thumbnail and click to download its snapshop.
- Select a thumbnail and click to directly start playing this event.
- Select a thumbnail and click to view the event card list instead of thumbnail view.



.

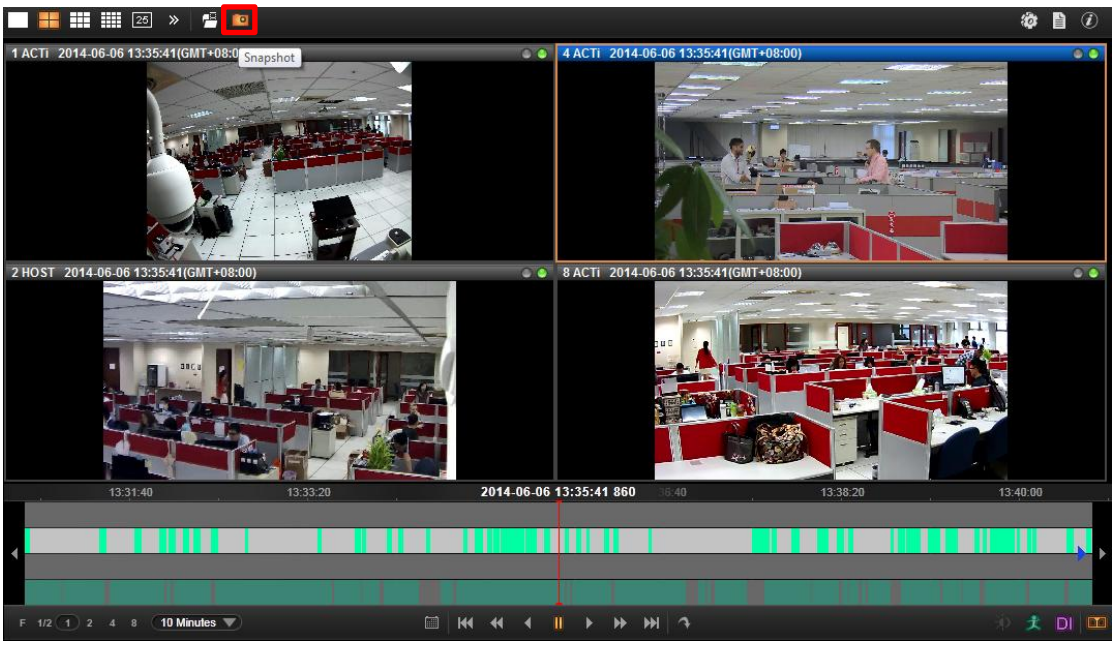


The event card list will be displayed in the **Search Tool** panel. You can click to browse throuth the event list, or duoblie-click on an event card to start playing this event.

To return to thumbnail view, click .

Take a Snapshot of the Playback View

You may take a snapshot of a channel live image on **Playback** screen.



The snapshot will be saved to default folder on your client computer as .jpg format (The system default location is **Windows Desktop**). You may find the location path on the bottom of SMS window after taking a snapshot.

Export the Recordings

SMS playback offers two choices of video format for the exported video. The ***.raw** file, as the original video file format captured from video source, is able to be played on **ACTi Archive Player**. You may download the this utility from http://www.acti.com/downloadcenter

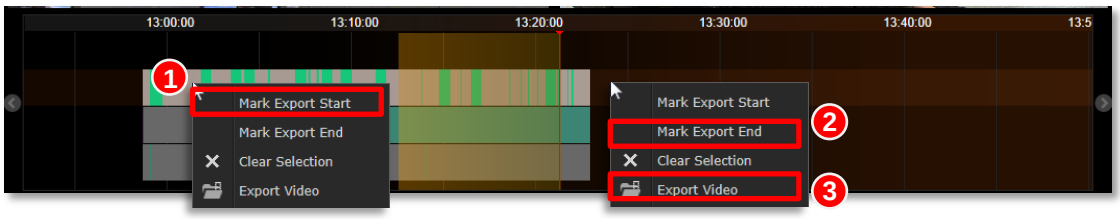
The***.AVI** file, as The most widely adopted video format on Windows system, can be instantly transferred by SMS server and played directly in **Windows Media Player**.

Before starting to export the video, please make sure there is enough memory space on the hard drive of your destination computer.

Define the Section of Exported Video on Time Bar

You may define the video duration on time bar during the playback. In this way, you don't spend extra time and effort on finding the specific date and time information.

1. On time bar, drag to the start point of the video, right-click to bring up quick menu, then select "**Mark Export Start**".
2. If you have successfully set the start point, the time duration will turn yellow as you drag to another point. Drag to the end, right-click to bring up quick menu, and then select "**Mark Export End**".



3. As both start point and end are set, you may right-click again the quick menu and find these two options are already gray out. Select "**Export Video**"

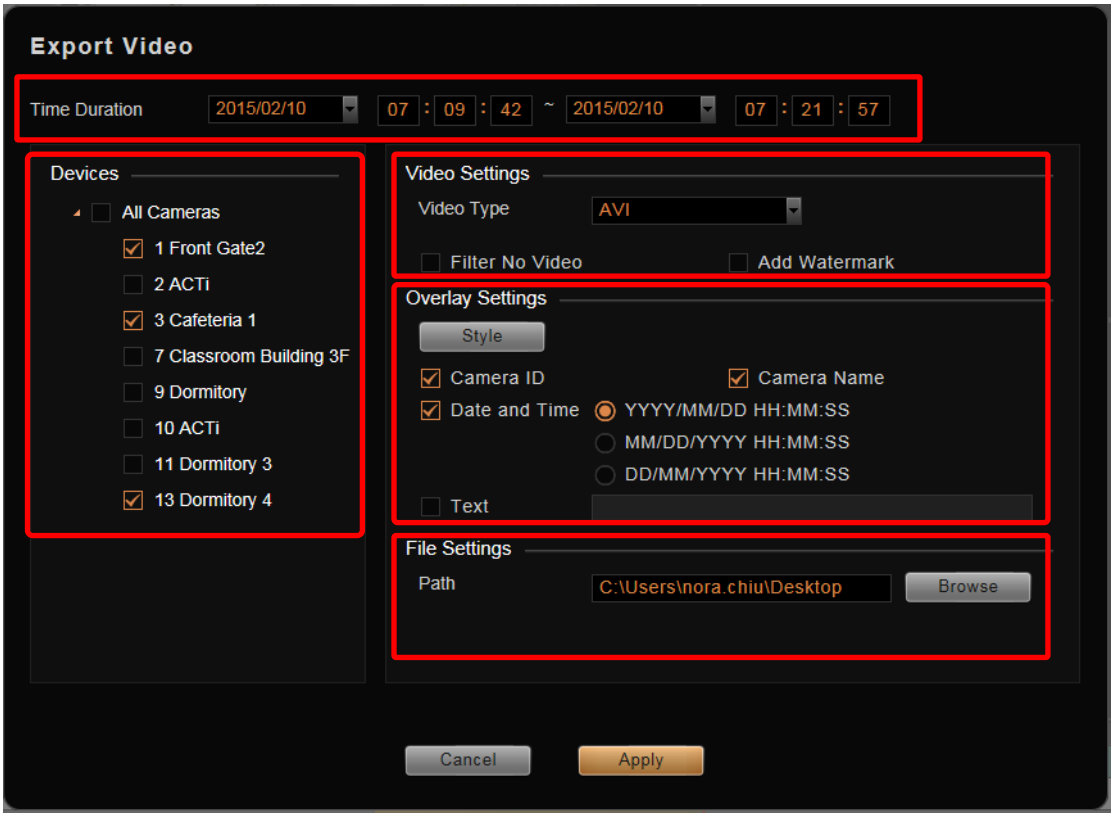
Depending on your scenario, you may first set the ending point, then the start point.

Note

Other than defining the time duration, on time bar, you can rest the time cursor on a desire time and then click to enter **Export Video** window. The default time duration will be one minute before this time spot plus one minute after it, at a total length of two minutes.

Set the Export Video Settings

You may export video with or without defining the time duration beforehand since you can configure all the settings on **Export Video** window. On **Search Result Tool** bar, click to enter the window.



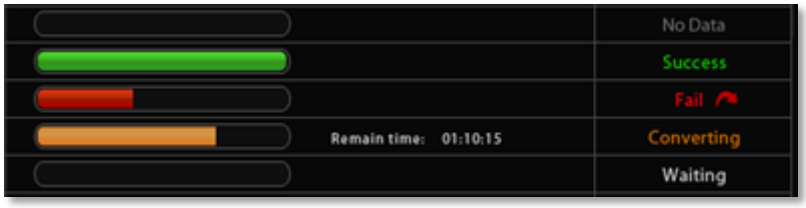
1. Select the cameras. If more than one camera are selected, you will get multiple recordings.
2. Set the time duration. The minimum duration is **10** seconds, maximum is **1 hour**. (For individual recording, if the total **size** is over **2 GB, or the video encoder type**, **frame rate, resolution** of this channel's stream once altered during the selected **Time Duration**, this file will be **divided**).
3. For **Video Settings**, you can (1) choose the video format,(2) enable the "**Filter no video**" function to skip the video gaps, (3) enable "**Add Watermark**" to embed a unique code in every frame of this exported video footage, (4) if this channel is a fisheye camera, make sure you select the desired fisheye view from right-click menu → "**Fisheye Mode**", and check "**Export current fisheye view**" here. The exported video will be displayed in the view mode you are seeing now; otherwise, the default fisheye view for exported video is **Original View**.
4. Set the overlay text if needed. The maximum number of characters for Text is **40**.
5. This exported video can be saved to your current client computer. Please choose the

location. By default, the files will be saved to Desktop.

6. Click "**Apply**" to start file converting and exporting. The export process window will appear. In the **Camera** column displays the processed/ total number of video clips of that camera. You may also observe the remaining processing time of each camera's video files.

There are five types of process status: **success**, **converting**, **waiting**, **no data** and **fail**

It might happen that there is certain section in a recording that exists no video data; if the status shows "**Fail**", it may be that your disk drive does not have enough space for video files, please make some space and click again to re-execute this export task.



Note

Once a channel is changed to any of the following fisheye modes: **Dewarping**, **Panorama**, **Double Panorama**, **Panorama/Focus** or **Quad**, the resolution of this live stream will become 1920x1080, so will the resolution of exported video clip.

Note

Certain fisheye camera view modes (e.g. **Quad** mode) display multiple regions in a single channel. When being exported, these regions will still be put together as a single video file.