SMS
NVR Software

User Manual

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Thank You

Before operating the system, please read this User Manual thoroughly and retain it for future reference.

Contents

1. Introduction

SMS is a "Windows-Based NVR Software" and can be provided to customer as free (SMS-Lite only). User just installs this software at normal P/C workstation and can record video & audio data from multiple IP products such as video server & IP camera over network.

Besides, SMS is perfectly compatible to CMS software and hence user can not only get live monitoring but also search & playback the recorded data at SMS by approaching from CMS server through network. To say again, SMS server acts as "Master Storage Center" while CMS server does as "Control Center" for live monitoring & VOD playback & alarm control & checking system status, etc...

1.1 Key Features

● **Simultaneous Recording up to 16 IP Devices**
   SMS can simultaneously record up to 16 IP devices over network. Moreover, it provides pre & post event recording by sensor-activation.

● **Perfect Compatibility with CMS**
   SMS is perfectly compatible to CMS since both are operated under unique network platform. SMS provides its data when requested by CMS, and thus user can remotely search and playback the data on the SMS master storage server just on CMS platform.

● **Live Monitoring of Recording Status**
   If user wants to make it sure to view recording status to avoid any data loss, pop-up screen (image player) can be shown by just one mouse click.

● **Quick Search Function**
   SMS supports quick search function to enable user to instantly search and playback the desired data.

● **Storage Media Management**
   Multi-HDDs management is one of the strong features of SMS. By using this capability, SMS can effectively handle massive volume of video & audio data and achieve long-term data storage.

Note	There are two kinds of version in SMS, SMS-Lite & SMS-Pro. This manual describes the operational details for SMS-Lite only.

1.2 System requirement

[Recommended Specs]

| Category	Content
OS	Windows XP / Windows Vista / Windows 7
CPU	Pentium Dual core 1.8GHz or Higher
RAM	1GB
VGA	1024 × 768, 24bit color, DirectX support Min. 256MB (No shared memory)
HDD	20MB free space for installation Min. 10GB free space for Remote Backup

[Minimum Specs]

Category	Content
OS	Windows XP / Windows Vista
CPU	Pentium Ⅳ 2GHzor Higher
RAM	512MB
VGA	1024 × 768, 24bit color Min. 64MB video memory
HDD	20MB free space

2. Initial Setting

2.1 Software Installation

User can find "SMSSetpup.exe" file in CD and click it to start the installation of SMS software.
User can easily set up this program by InstallShield Wizard as below, which is for user to simply
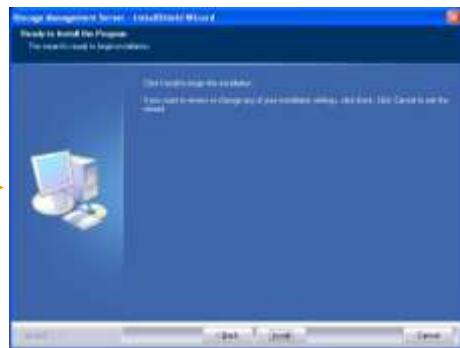click "next" buttons.
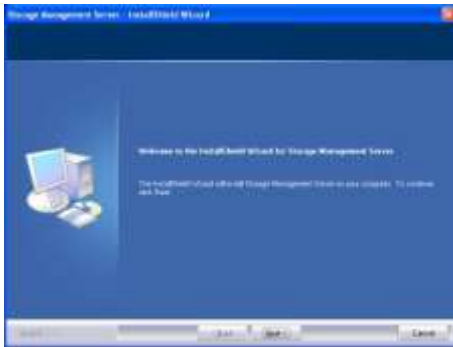
* Press the [Next] button to move to   * Press [Change] button if you want to
  the next screen.   Install the program in another folder.


* Select program folder.   * Click [Install] to begin installation.

Upon clicking "Finish" button, user can find the icon of "SMS" created on desktop window.
After initial installation, user can click this icon to execute SMS software.

Note SMS program is located in "C:\Program Files\SMS" as default unless user changes its
folder during program installation.

2.2   System Startup

Click the SMS icon on desktop window or "Storage Management Server" of MS Windows' "Start" menu to get the SMS login window as below.
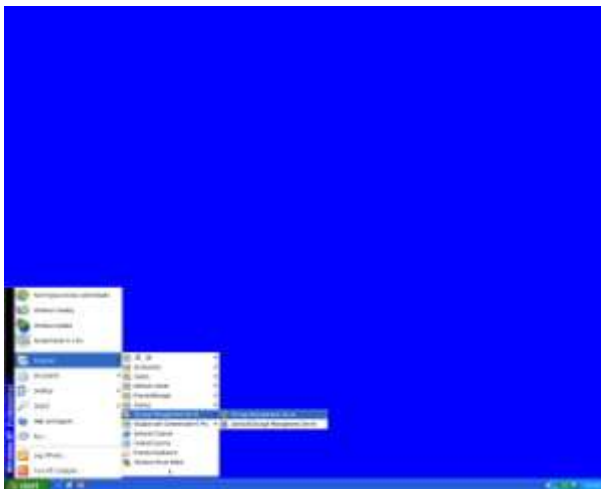

Input the correct "User ID" and "Password" in the login box, then, SMS software will be executed. The default password for "Administrator" is **none**, leaving it empty in password. If you want, create new password for "Administrator" when the first login.

2.3 Screen Layout

1) **Recording Schedule Management**
   Site registration & Recording schedule setting
2) **Disk Setup**
   HDD/RAID setting
3) **Option Setup**
   Network setting and Log save path setting
4) **Disconnection of File Service**
   Disconnection of all VOD services to CMS
   Disconnection of each VOD service can be done by clicking the right button of the mouse,
5) **Stop Recording**
   Stop recording of all recording channels
   Stop recording of each channel can be done by clicking the right button of the mouse.
6) **View Server Condition**
   Return to main screen from log viewer screen
7) **Log Search**
   Go to log viewer screen
8) **File Search**
   Open file search screen

- **9) Information**
  Show SMS version information
- **10) VOD Status Screen**
  Show VOD service status
- **11) Recording Status Screen**
  Show recording status of each site & channel
- **12) HDD/RAID Status Screen**
  Show HDD/RAID status
- **13) File Creating & Deleting Status Screen**
  Show current file creating & deleting status

2.4 Site Registration (Recording Schedule Setup)

1) Select Recording Schedule Management icon to open Recording Schedule screen.
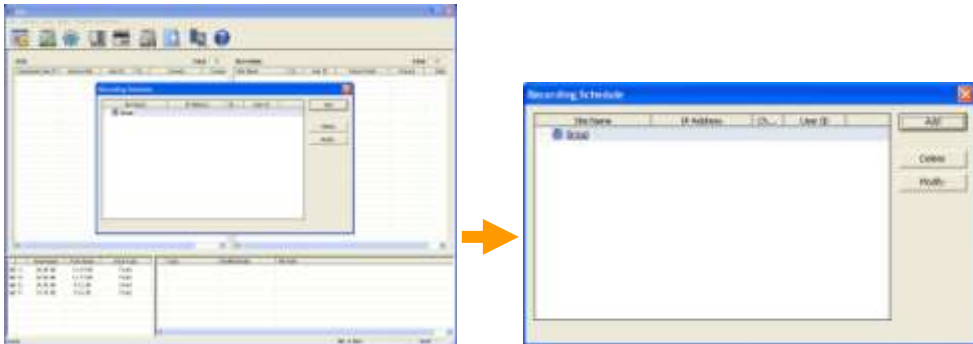
2) In Recording Schedule screen, click [Add] to open Site Registration/Schedule Setting screen as below picture. And input Site Name, IP Address, User ID, Password, Port, Channel and Description.

Note	In case of DDNS connection, input URL as per following format.
	[mac address].[ddns link] : ex.) 001c84010021.cctv-link.net
	In order to register multi-channels for a single device such as DVR,
	input **"X – Y" format** in Channel : ex.) 1 - 16

3) Click [Recording Setup] button. Then, Recording Setup screen will pop up as shown below.

[Continuous Recording Mode]
No other items are required to select except "Only I-Frame Recording"
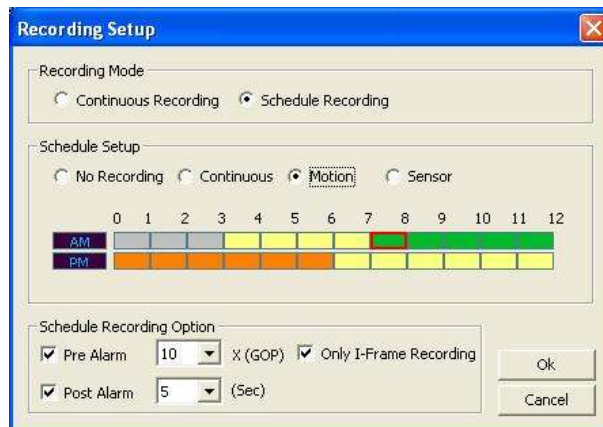
[Schedule Recording Mode]
User can select various recording options such as schedule setup for designated time period and pre & post alarm.

● Schedule Setup
  Select recording mode and time period by mouse.
  - No Recording   : Gray
  - Continuous Recording : Yellow
  - Motion Recording   : Green
  - Sensor Recording   : Orange

● Schedule Recording Option
  - Pre Alarm   : Setup pre-alarm recording for motion or sensor recording
                                      mode.
  - Post Alarm   : Setup post-alarm recording for motion or sensor
                                      recording mode.

Note	Motion and Sensor recording requires proper setup at the correspondent device.

| Note	Pre Alarm Recording is set based on the no. of GOP.
	GOP means the frame group from an I-Frame to the frame just before the next I-Frame and it contains an I-Frame and a few P-Frames.
	* I-Frame (Intra Frame)
	It is the Key Frame with a whole picture which is compressed directly from the source like JPEG type. It has a good quality but requires a large file size.
	* P-Frame (Previous or Predicted Frame)
	It is made based on the previous I-Frame and has a small file.

4) After finishing all required setup, click [OK] at Recording Setup and [Apply] at Site
Registration/Schedule setting. Then, the site will be registered and shown on the list as
follows.
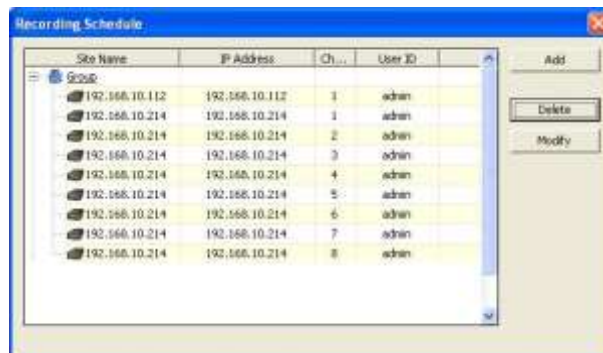
Note	SMS starts recording right after finishing site registration and schedule setting. And it keeps recording as per schedule as far as the program runs.

3. Recording

3.1 Recording Status

This screen shows current recording status of each site and channel.

| Site Name	Ch...	User ID	Record Start	Record	Status
192.168.10.214	8	admin	2009/04/08 11:02:35	0 %	
192.168.10.214	7	admin	2009/04/08 11:02:35	9 %	578.83
192.168.10.214	6	admin	2009/04/08 11:02:35	9 %	599.29
192.168.10.214	5	admin	2009/04/08 11:02:35	0 %	
192.168.10.214	4	admin	2009/04/08 11:02:35	9 %	409.92
192.168.10.214	3	admin	2009/04/08 11:02:35	9 %	213.90
192.168.10.214	2	admin	2009/04/08 11:02:35	9 %	275.67
192.168.10.214	1	admin	2009/04/08 11:02:35	9 %	741.02
192.168.10.112	1	admin	2009/04/08 10:36:25	78 %	58.61

Recording   Total   9

- Site Name
- Channel
- User ID
- Record Start : The first recording start time of the channel since the program starts running.
- Record : The progress of creating file.
- Status : Network bit rate.

Note   Record (Percentage)
Each recording file is created on 1 hour base. Therefore, the percentage will be renewed every 1 hour.

3.2 Live Monitoring

To display current recording image of a channel, select a channel and open menu with the right button click of the mouse. When [Live Monitoring] is clicked, monitoring screen will pop up as following picture.
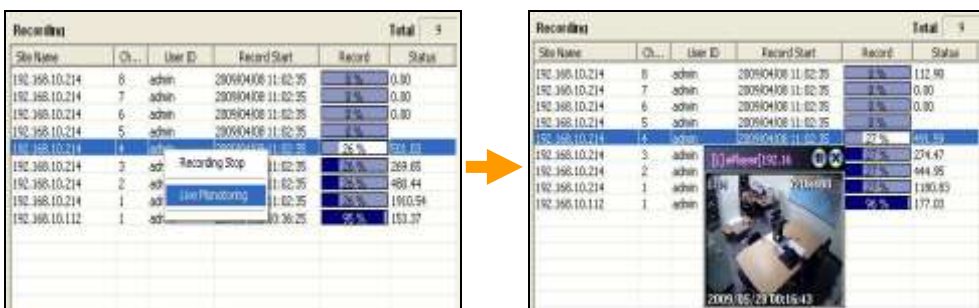
Note	1) With the same procedure, multiple channels can be played with multiple pop-up screens.
	2) Pop-up screen can be enlarged by double clicking of the mouse on the screen. 3 different sizes are available.

3.3 File Creating and Deleting Status

This screen shows file creating and deleting status with file path.

	Type	Modified Date	File Path
	Create File	2009/04/08 13:13:34	C:\SMS\192.168.10.214\20090528\01304707.ssf
	Create File	2009/04/08 13:09:14	C:\SMS\192.168.10.214\20090528\01262707.ssf
	Create File	2009/04/08 13:03:07	C:\SMS\192.168.10.214\20090528\01202007.ssf
	Create File	2009/04/08 13:01:36	C:\SMS\192.168.10.112\19991231\10002200.ssf
	Create File	2009/04/08 12:59:37	C:\SMS\192.168.10.214\20090528\01165007.ssf
	Create File	2009/04/08 12:54:33	C:\SMS\192.168.10.214\20090528\01114707.ssf
	Create File	2009/04/08 12:49:31	C:\SMS\192.168.10.214\20090528\01064407.ssf
	Create File	2009/04/08 12:44:27	C:\SMS\192.168.10.214\20090528\01014107.ssf

- File path   : Drive :\ SMS \ IP Address \ Date(Year+Month+Day) \
- File name   : hhmmssxx.ssf (xx+1 is channel number)
                ex.) Ch 3 at 11:45:32AM => 11453202.ssf

4. VOD Service

Recorded data in SMS can be requested to search and playback from CMS.
When the SMS is requested to send data with correct information, it provides its data to CMS.

4.1 VOD Status

This screen shows current VOD service status of each site and channel.

VOD					Total	7
Connected User IP	Service Site	User ID	Ch...	Connect	Connection Info.	
192.168.10.169	192.168.10.214	admin	8	2009/04/08 14:28:52	2009/05/28 01:01:41	
192.168.10.169	192.168.10.214	admin	7	2009/04/08 14:28:52	2009/05/28 01:48:46	
192.168.10.169	192.168.10.214	admin	6	2009/04/08 14:28:52	2009/05/28 01:48:46	
192.168.10.169	192.168.10.214	admin	4	2009/04/08 14:28:52	2009/05/28 01:00:15	
192.168.10.169	192.168.10.214	admin	3	2009/04/08 14:28:51	2009/05/28 01:00:15	
192.168.10.169	192.168.10.214	admin	2	2009/04/08 14:28:51	2009/05/28 01:00:16	
192.168.10.169	192.168.10.214	admin	1	2009/04/08 14:28:51	2009/05/28 01:00:16	

- Connected User IP   : IP address of CMS which is connecting to SMS for VOD
                        service
- Service Site   : Site name of the recorded data
- User ID   : Connected User ID
- Channel
- Connect   : Connected time.
- Connection Info.   : Time of recorded data which is being played at CMS.

4.2 VOD Service Information

To view Information of each VOD service, select a channel and open menu with the right button
click of the mouse. When [Show VOD Service Information] is clicked, information screen will pop
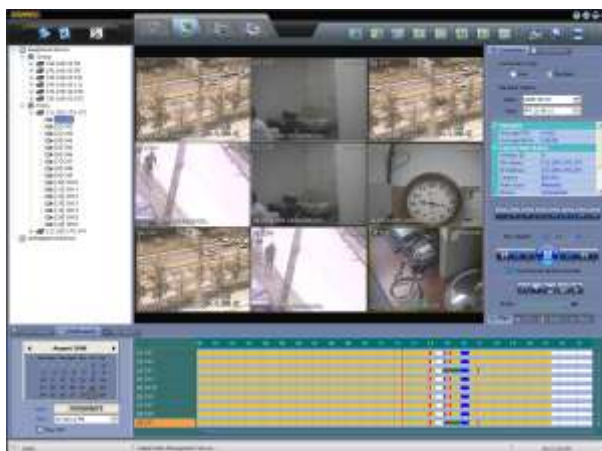up as following picture.
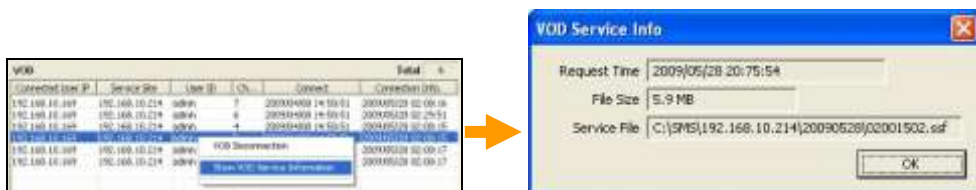
4.3 VOD Monitoring at CMS Platform

1) In Site Registration screen of CMS, input information to connect to SMS.
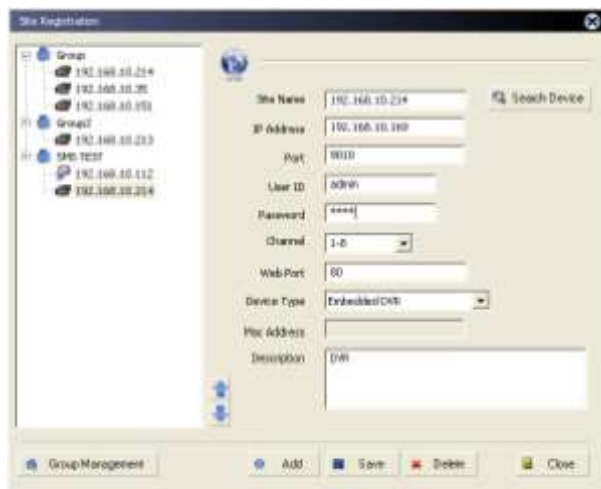
Note 1) Site Name & Channel are for the site (device) of the recorded data to search and playback.
2) IP Address, Port, User ID and Password are for those of SMS.

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2) In Monitoring screen of CMS, go to "Playback" mode and select date and time with calendar and/or Intelli-Search bar to find desired recorded data. And then, select site or channel and drag/drop it to monitoring screen.


Note For the detail information of using CMS, please refer to CMS User Manual.

5. Log Search

Select Log Search icon to get into Log Viewer screen

5.1 Recording Information

This shows log list about recording.
Select date to search log in the list of the right side panel.

5.2 VOD Search Information

This shows log list about VOD service.
Select date to search log in the list of the right side panel

6. File Search

Select File Search icon to open File Search screen.
Select desired date and IP address and channel number to search. And click [Search] button to see the file list.
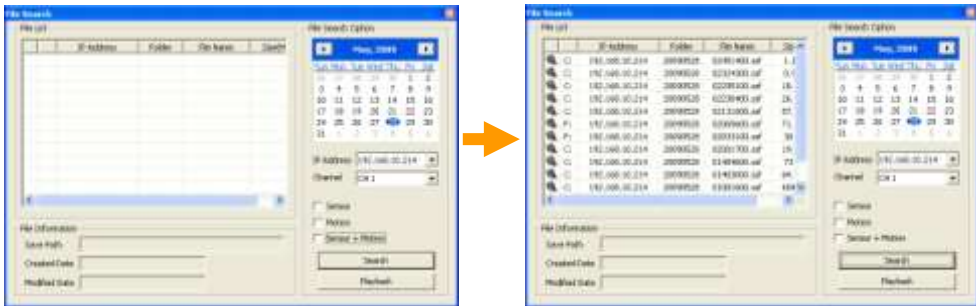

To display recorded image of a channel, select a channel and click [Playback] button. Then, monitoring screen will pop up as following picture.
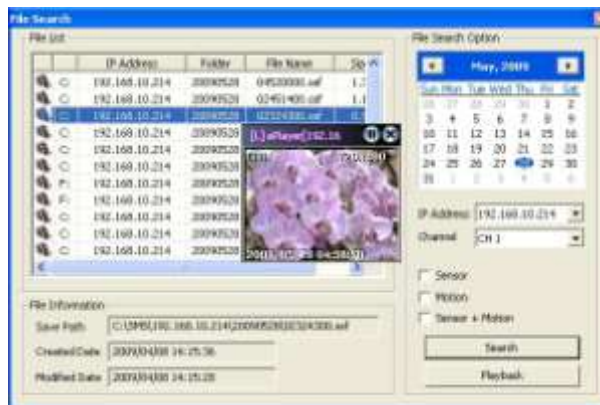
Note	1) With the same procedure, multiple channels can be played with multiple pop-up screens.
	2) Pop-up screen can be enlarged by double clicking of the mouse on the screen. 3 different sizes are available.

7. HDD/RAID Setting

Select Disk Setup icon [icon] to open HDD/RAID setting screen
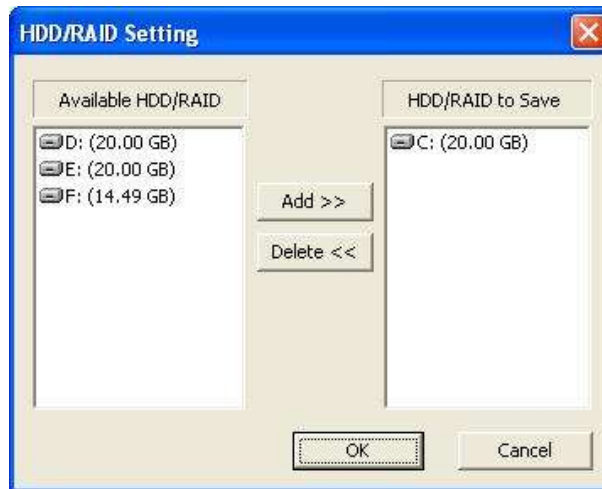
Add HDD/RAID to save file from the available disk which is shown on the right side.

Note   Data will be saved in alphabetical order of drives.

       When a drive is full,

       1) In case that there is another drive to save, data will be saved to the next drives.

       2) In case that there is no other drive to save or all the drives are full,

          new data overwrites on the oldest data.

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8. Option

Select Option Setup icon ⚙ to setup Network Option and Log Save Option.

[Network Option]
The domain name of DDNS server is fixed as "cctv-link.net". Port number is fixed as 10000, too.
VOD Port is for helping classification of system when there are multiple systems in a same network circumstances and it is connected from the outer network circumstances.
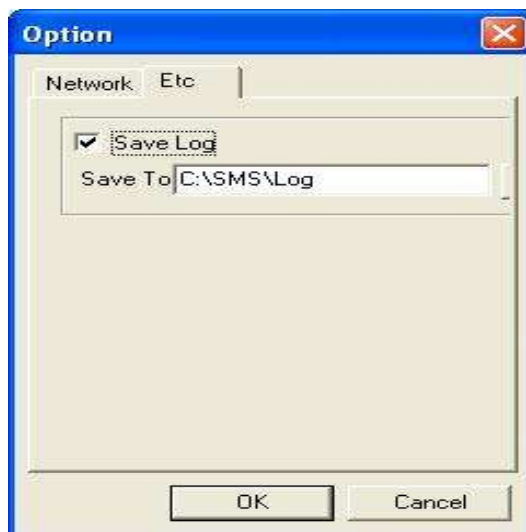

[**Log Save Option]**
Select folder to save log file.