Integrated Intelligent Video Surveillance Management System

User's Manual

V2.0

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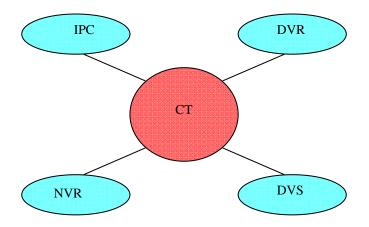
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1. Product Description

- 1.1. General Information
- 1) Centralized management of common equipment in video monitor (including DVR, DVS and IPCamera, etc.).
- 2) Through the platform of the client, provide a unified browsing interface to view real-time images, search and playback history data.
- 3) Through to the key video data for intelligent video analysis, to detect, identify, track, monitor targets in the scene movement, and intelligent behavior analysis of moving targets, judge and predict the movement trajectory, in violation of rules of behavior of target motion alarm, realize the active safety monitoring area.
- 4) The front-end equipment alarm messages forwarded to the server, alarm server control alarm devices, and do the corresponding alarm linkage, linkage (110), such as sending mobile phone text messages, and sending e-mails, etc.

1.2. System Topology



1.3. Operating Environment

1) STS:

OS: Ubuntu9.1.0

CPU: Intel Pentium IV 2.0 GHz or higher

RAM: 1G or higher

Capacity: 64 or more ways of front-end videos supported depending on its configuration

2) CT:

OS: Microsoft Windows 2000 or higher

CPU: Intel Pentium IV 2.0 GHz or higher

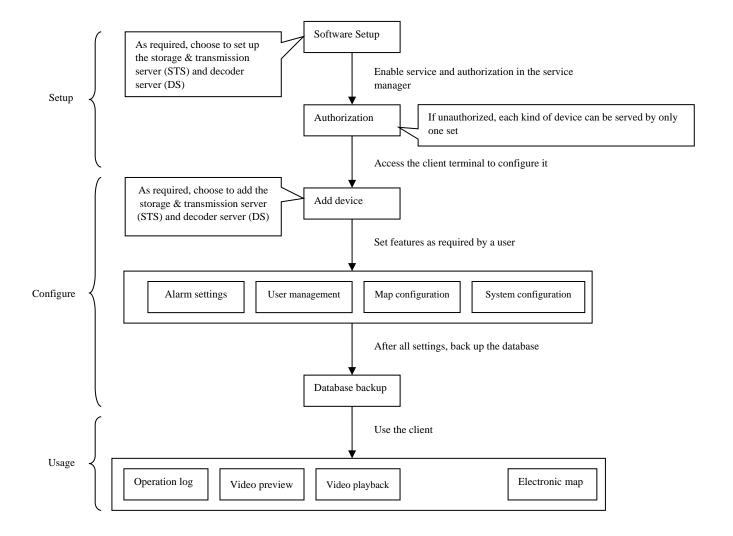
RAM: 1G or higher

Capacity: supported number of front-end devices is not limited, and 16 D1 or more ways of real-time video browsing supported

1.4. Operation Flow

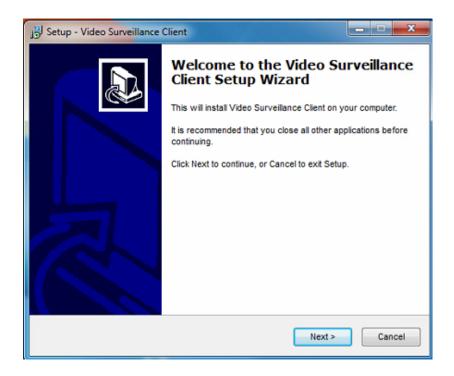
The following figure shows the system operation flow:

Setup 5



1.4.1 Setup

The system has professional and basic versions. The former supports storage and transmission as well as decoding & post, which these are not supported for the latter. The following takes the professional version as a setup example:



Click the "Next" button by following up instructions till setup is successful (Auto start is checked by default).

Note:

- 1. During setup, if anti-virus software gives a tip, choose to allow the program. After successful setup, close firewall or add the service program to Exception List of the firewall.
- 2. If the program is to be updated or upgraded, uninstall the old version, and restart your computer before installing the new one.
- 3. After successful installation of servers, the firewall should be closed to allow access from the client.

1.4.2 Configuration

As indicated in the flowchart, after entering the platform client, add a device firstly by referring to

Chapter 3, New Device in Device Management of Software Introduction, and then set features of each module as required, such as alarm settings, user management, map configuration and system configuration. After all features are set, back up the database in the service manager. This feature is detailed in each section of Software Introduction.

1.4..3 Usage

Video preview, video playback, electronic map, matrix and operation log are browsing modules. In the video playback module, record plan of central office is configured in the device management. For details, see "STS Parameter".

Note: please refer to corresponding feature configuration description for their detailed operations. (TV wall module function is unavailable)

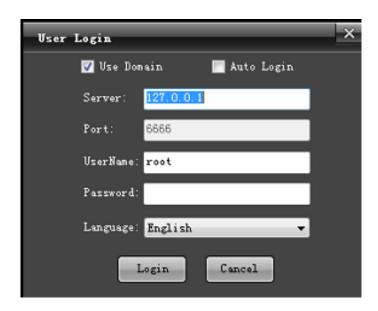
2. Platform Manager

(platform manager module function is unavailable)

3. Software Introduction

Main Screen

Login Screen



Server: IP address of the central server (127.0.0.1 is the machine IP).

User name and password: root, the password is empty by default and can be edited in the device management.

Language: select a language for the client.

Main screen is divided into 10 modules, as shown in the figure:



3.1. Video Preview

Enter the "Preview" functional module, as shown in the figure:

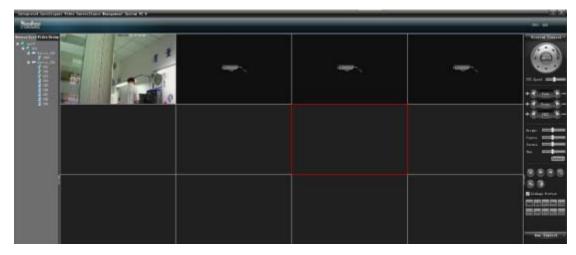


Note: the top right corner displays CPU usage

3.1.1 Enable Preview

In the left device list, double click or drag a channel to the window (right click to show "enable all preview" function) to enable preview of device channel (the icon with preview enabled will be accompanied with a triangle icon, indicating that this channel is being previewed), as shown in the

following figure:



Note: Icons of device channels shows in four colors, green, red, yellow and gray, displaying recording and video signal states respectively.

	Record	Video signal
Green icon	√	√
Red icon	×	√
Yellow icon	√	×
Gray icon	×	×

In the screen of channel preview, the icon in the bottom right corner displays state of channel record.

	Front-end record	Central office record
شقة	√	√
Ê	×	√
ĝŝ	Not supported for front-end devices	√
id.	×	×

States of channel enabling and recording are set in the system configuration.

3.1.2 Right Click Options

1) Voice intercom

"Voice intercom" is used to realize listening and intercom functions between the platform and device.

2) One-key arming/disarming

"One-key arming" and "one-key disarming" are for arming and disarming device alarms.

3) Alarm output control

"Alarm output control" is used to view state of device alarm output.

4) Eliminate

"Eliminate" is to cancel alarm linkage triggered and enabled for the device.

5) All main code stream/sub code stream (auto switching of main and sub code streams is not selected)

"Main code stream" and "sub code stream" are used to modify parameters of code stream of channels.

6) Restart

"Restart" is used to restart front-end devices.

7) Close all previews

"Close all preview" is used to close all channels in the window for this device.

- 3.1.3 Right Click of Channel Window
 - 1) Close preview

"Close preview" is used to close selected channels.

2) Close all previews

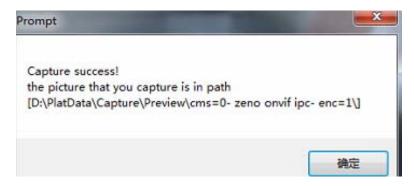
"Close all preview" is used to close all channels in the preview window.

3) Full screen display

"Full screen display" (shortcut key: Esc) is used to display the preview window in full screen.

4) Capture

"Capture" (capture button in the preview control) is used to capture the preview screen in real-time, which will then be stored to the designated directory, as shown in the following figure:



5) Audio preview

"Audio preview" is used to enable audio listening for the selected channel (in the video preview window, only audio for one channel is enabled).

6) Instant replay

"Instant replay" is used to replay video recording recorded a short time ago for this channel.

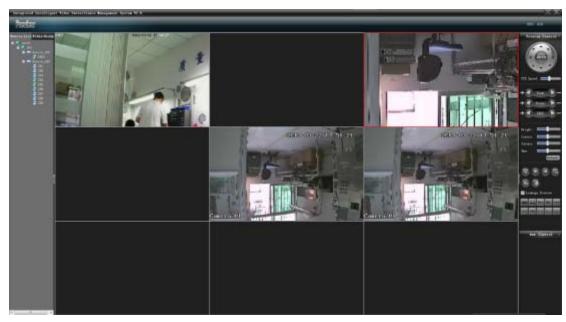
Note: the time for instant replay is set in "system configuration". For details, see "System Configuration" section.

7) Screen mode

"Screen mode" is used to display the preview screen in 4:6, 16:9 or tile mode.

3.1.4 Electronic Preview Zooming

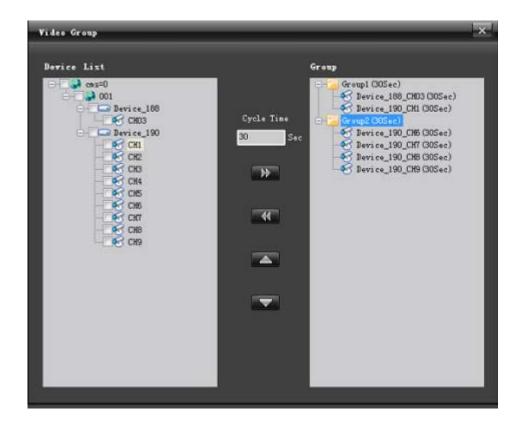
Select a channel window, and scroll the mouse wheel to electronically zoom in or out the channel, as shown in the following figure:



(Note: after a channel is zoomed in, the screen can be dragged)

3.1.5 Device Group Preview

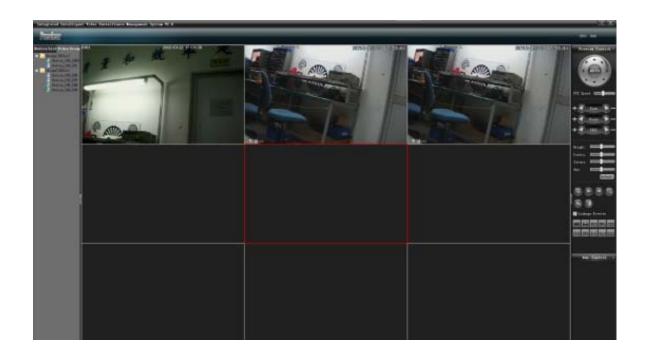
Firstly enter the "System Configuration" module, and then click "Device Group" button to divide devices into several groups, as shown in the following figure:



- 1) In the group list, right click "New Group" to add a group;
- 2) In the group list, right click "Delete Group" to delete a group;
- 3) For a channel already in a group list, right click "Modify Cycle Time" to change the cycle time for this channel;
- 4) In the channel list, select a channel to be added, set the cycle time, and then select a group and click to add the channel to the designated group;
- 5) In the group list, select a channel to be deleted, and click delete this channel;
- 6) Sort channels in the group by moving up or moving down.

After a group is added, set the cycle mode.

Intra-group cycle: enter the video group module, and directly drag a group to a channel, and enable cycle preview, as shown in the following figure:



Inter-group cycle (only for multiple groups): enter the video group module, click to enable inter-group cycle, as shown in the following figure:



"Enable All " and "Close All " displayed by right clicking a group are used for enabling and closing all channels respectively in this group (all preview and group cannot be simultaneously enabled).

Note: a group enabling cycle function will be accompanied with a label after its group icon, such as

3.1.6 PTZs (Pan/Tilt/Zoom) and Auxiliary

Preview Control

The control camera has 8 directions, including up, down, left, right, top left, bottom left, top right and bottom right; zooming of focal length; zooming of focus; zooming of aperture; setting of PTZ speed, as shown in the following figure:



Under the PTZ control panel, you can set color, brightness and contrast for the selected channel, as shown in the following figure:



Under the color palette is some functional preview icons from the first one: enabling video group cycle, back (the currently previewed channel is switched to the previous channel of the same device), next (the currently previewed channel is switched to the next channel), pausing video group cycle, eliminate and capture.

The following icon is an option whether the alarm linkage preview responds.



The following is "Split Screen" button, allowing switching of 1, 4, 6, 8, 9, 10, 13, 16, 36 and 64 screens, as shown in the following figure:



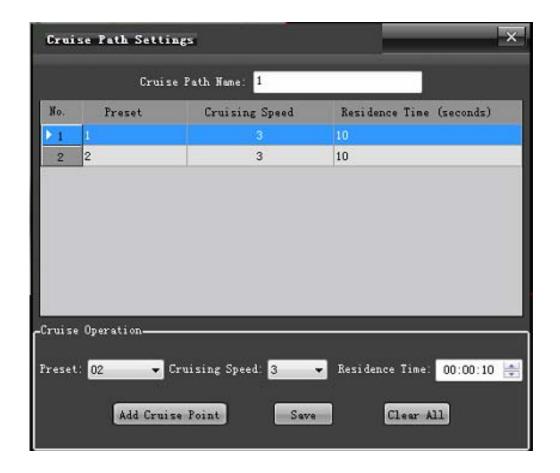
Auxiliary Control



On the Aux Control panel, you can set and call presets, cruise, auxiliaries and track, as well as setting of platform protocol:

- (1) Setting and calling of presets: rotate the camera to the desired location where the preset location will be set, click setting button, input preset name and click "Save". If it is to change the preset location, rotate the camera to the desired location and click button again and save data, and the preset name will be updated. Up to 128 preset names can be set. Click call button in the right side, allowing the camera directly to rotate to the related preset location.
- (2) Setting and calling of cruise: select a cruise number and click setting button, and the cruise point setting dialog box pops up, as shown in the

following figure, where you can input cruise name, select preset number, and set cruise speed and residence time. Clicking "New Cruise" can add several preset points to a cruise point. Up to 128 cruise paths can be set. Clicking "Clear All" can delete all added preset points. Click call button to enable cruise calling and click to close cruise.



- (3) Setting and calling of track: From the dropdown menu, select a track number, and click button to set the track memory. Rotate PTZ to set the moving track of the camera, and then click again to close track memory setting; click call button to start track and click to close track.
- (4) Setting and calling of auxiliary: From the dropdown menu of auxiliary setting, select the desired option and click to call it and click to close auxiliary.

(5) Setting of platform protocol: in the platform protocol, you can select related protocol and address.

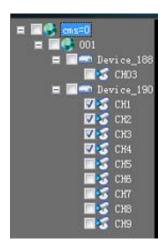
3.2. Video Playback

Enter the "Video Playback" functional module, as shown in the figure:



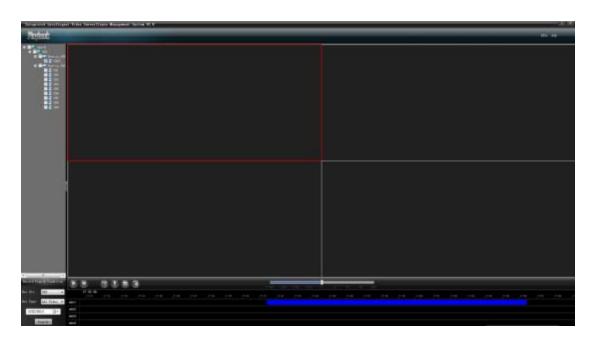
3.2.1 Record Search

In the left device tree, check the device channel to be played back (note: max. 4 channels can be selected at a time), as shown in the following figure:



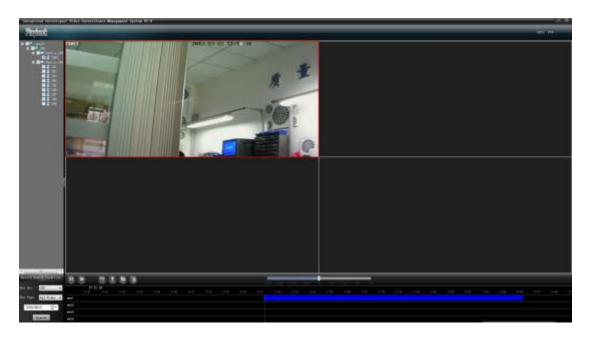
In "Condition Search" column, select the location and type to be played

back, and select date from the calendar, and then click "Search" button, the system will start to search records, and display results on the result panel, as shown in the following figure:



3.2.2 Record Playback

is play button, is pause button and is stop button. Selecting "Speed" adjusting scale can play all video recordings in a lower or higher speed; Double clicking progress bar can play on demand, as shown in the following figure:



On the playback interface, double clicking a playback channel can play the channel in full screen (press Esc to display the playback window in full screen).

3.2.3 Right Click of Playback Channel

- 1) Increase or reduce channel contrast.
- 2) Increase or reduce channel brightness.
- 3) Open audio of the playback channel (only one audio for 4 playback channels)
- 4) Optional 4:3, 16:9 or tile screen mode.

3.2.4 Clipping of Recording Files

Select a playback channel to be edited and click clipping button to enable the clipping function; click clipping button again to stop clipping.

Note: (clipped video files are stored in D:\PlatData\VideoClip folder by default)

3.2.5 Downloading of Recording Files

Click download button to display video download setting screen, as shown in the following figure:



Select channels to be downloaded and their time intervals, and click "start". Downloaded files are stored in the designated path.

Note: (Downloading is possible only when playback channels are closed, and downloaded video files are stored in D:\PlatData\VideoDownLoad folder by default)

3.2.6 File Management

Click file management button to display the video file player window, as shown in the following figure:



In the window, click "File" --> "Open" and locate downloaded MP4 files in the video downloading path and add them to the right list. Double click to play them.

3.2.7 Capture

In the playback window, selected a playback channel, and click

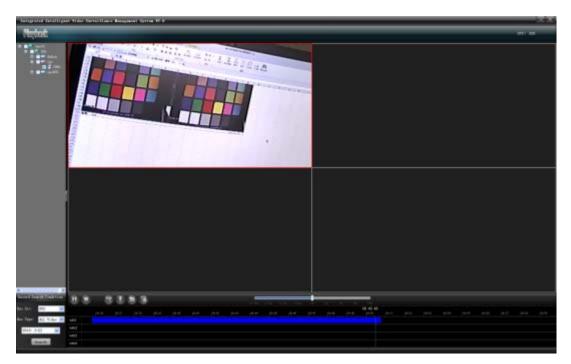


capture button, all captured images are stored in the designated folder.

Note: (all captured images are stored in D:\PlatData\Capture folder by default)

3.2.8 Partial Zoom-in of Playback Channel

In the playback screen, select a channel to be zoomed in, and scroll the mouse wheel to electronically zoom in or out the channel, as shown in the following figure:



Note: after a channel is zoomed in, the screen can be dragged.

Select a playback channel and press "Esc" to play the channel in full screen.

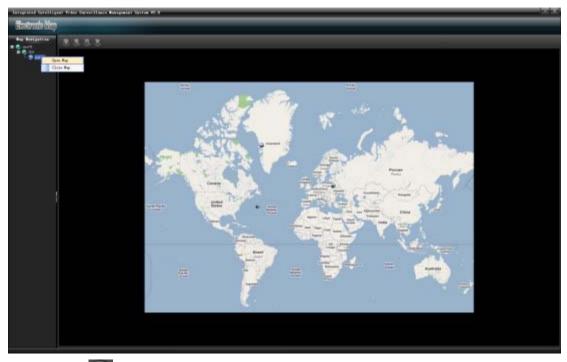
4. Electronic Map

Enter the "Electronic Map" functional module, as shown in the figure:



4.1 Open & Close

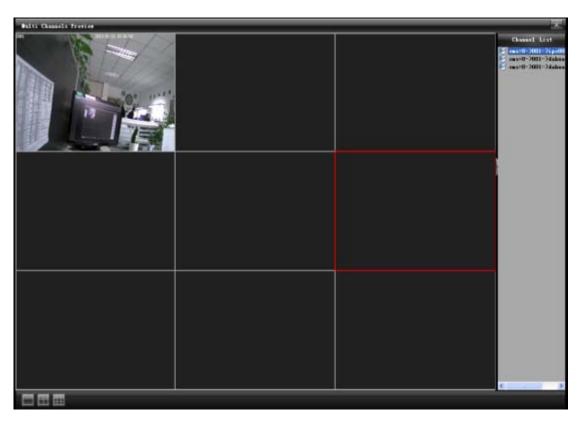
Double click the map icon in your region, or select its icon, and right click to select "open map", as shown in the following figure:



Click close button, or select the icon, and right click to select "close map".

4.2 Group Preview

Click map channel group preview button to implement group video preview of all armed channels in the map, as shown in the following figure:

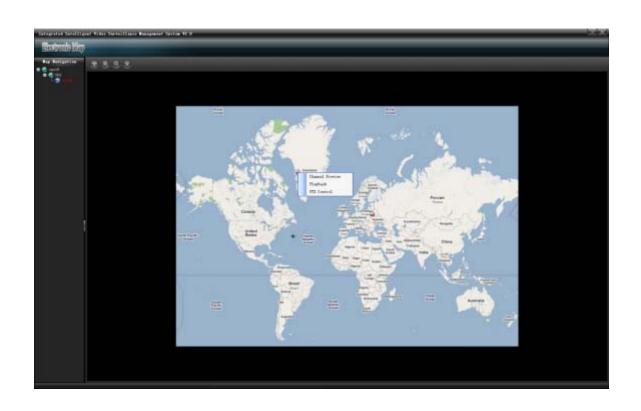


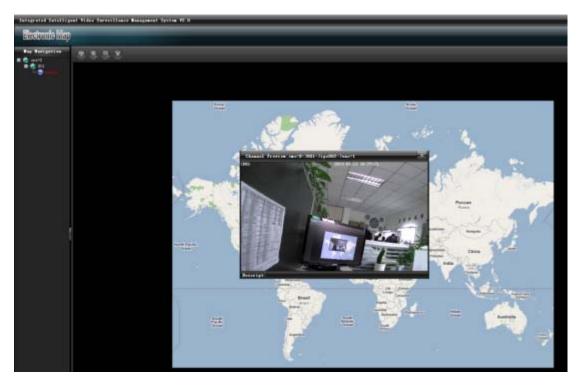
4.3 Zooming

Click zoom-in button to zoom in the electronic map; click zoom-out button to zoom out the electronic map (map can also be zoomed in or out by scrolling the mouse wheel).

4.4 Channel Preview

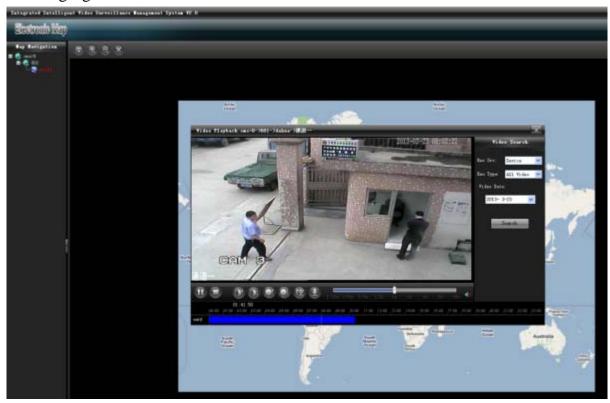
Open a map with "Video Channel" armed, select a "Video Channel" and right click "Channel Preview" to preview the video channel in real-time, as shown in the following figure:





4.5 Recording Playback

Select "Recording Playback" to playback a channel, as shown in the following figure:



4.6 PTZ Control

Select "PTZ Control" to control the PTZ, as shown in the following figure:



5. Operation Log

Enter the "Operation Log" functional module, as shown in the figure:



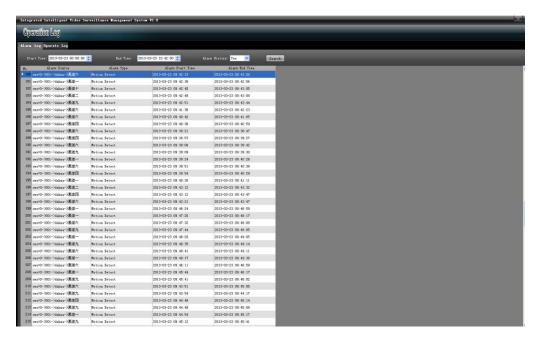
5.1 Alarm Log

Input alarm conditions to be searched in the "Search Condition" column, as shown in the following figure:





Click "Search" (only operation logs in last 7 days can be searched), as shown in the following figure:

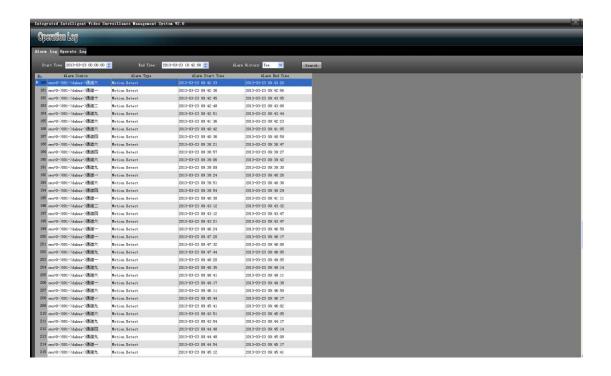


5.2. Operation Log

Input alarm conditions to be searched in the "Search Condition" column, as shown in the following figure:

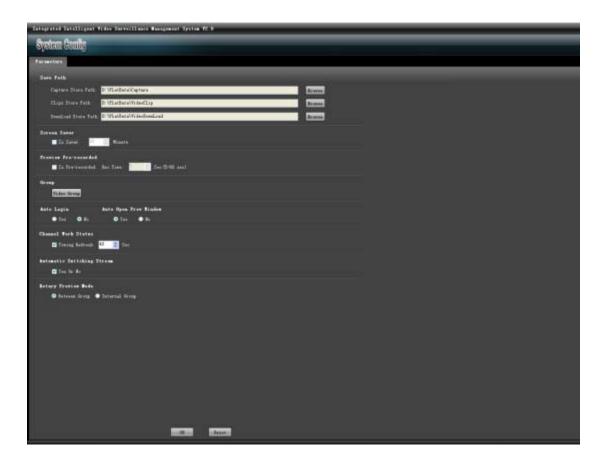


Click "Search", as shown in the following figure:



6. System Configuration

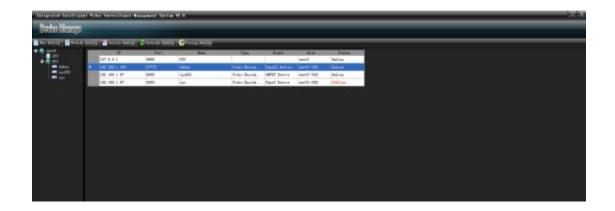
Enter the "System Configuration" functional module, as shown in the figure:



- 1) In the "System Configuration" screen, you can set paths for "captured image", "video clipping" and "video downloading".
 - 2) Set the time to enable screen saver.
 - 3) Preview time of preview and prerecord (real-time playback).
 - 4) Device group setting.
 - 5) Auto login setting (skip the login interface to enter the system).
- 6) Auto enabling of the preview window (video preview module is automatically enabled after entering the system).
 - 7) Setting of channel operating state.
- 8) Auto switching of main and sub code streams (single-screen full screen is automatically switched to main code stream and multi-screen split screen is automatically switched to sub code stream).
 - 9) Setting of cycle preview mode (intra-group cycle and inter-group cycle).

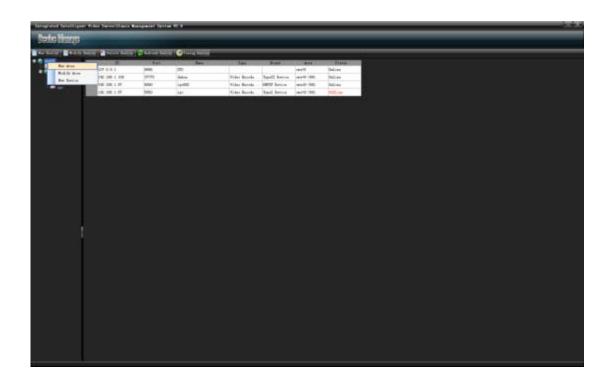
7. Device Management

Enter the "Device Management" functional module, as shown in the figure:



7.1 New Area

In the left list, select an area (area is cms=0 by default), and right click to select "New Area", as shown in the following figure:



In the "Area Management" page, input area name and click "Save". The area is added successfully, as shown in the following figure:



7.2 Modify Area

In the left list, select an area to be modified, and right click to select "Modify Area" to modify it.

7.3 Delete Area

In the left list, select an area to be deleted, and right click to select "Delete Area". The area is deleted successfully (when this area has sub-areas or devices, this area cannot be deleted).

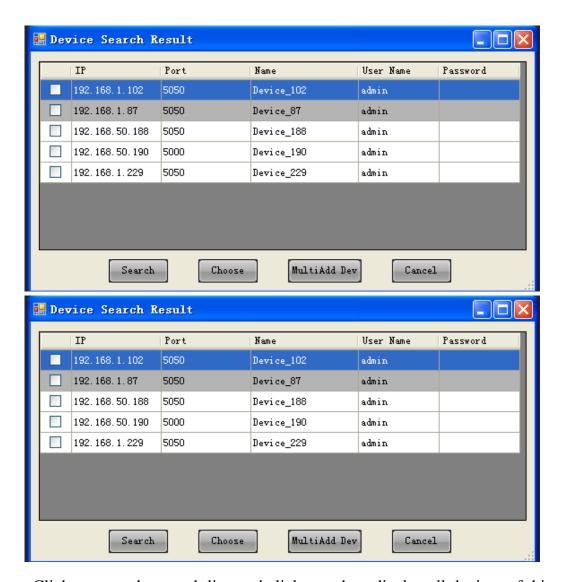
7.4 New Device

Select an area to be added with device, and click "New Device" (or in this area, right click to select "New Device"), and click device information, as shown in the following figure:

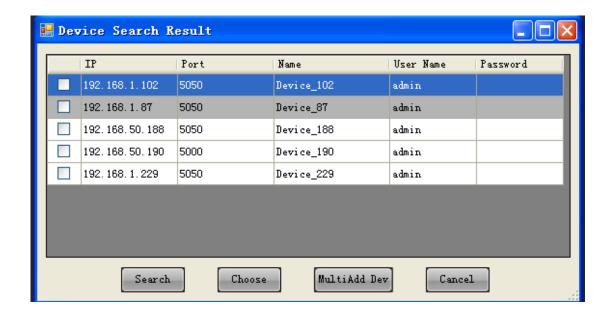


Click "Save". The device is added successfully.

In device type, some device types can be searched, as shown in the following figure:



Click to open the search list, and click search to display all devices of this type in the LAN. In the list, you can modify user name and password, as shown in the following figure:



You can choose to select a device or add in batch (MultiAdd Dev). The "Select" action selects one device at a time, and saves it and then adds other devices; the "MutiAdd Dev" action can check multiple devices and click "MutiAdd Dev" to add them to the client.

7.5 Modify Device

In the device list, select a device to be modified, and click "Modify Device". Then input information and save it, as shown in the following figure:

Modify Device Information		
Dev Name:	ipe002	
Dev IP:	192. 168. 1. 87	
Dev Port:	8000	
Vser:	admin	
Password:		
	Save	

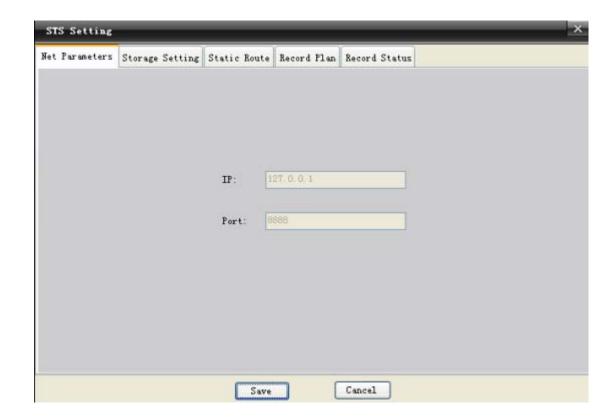
7.6 Delete Device

In the device list, select a device to be deleted, click "Delete Device" (or in the left device tree, select a device to be deleted, and right click to select "Delete Device") to delete it.

7.7 Obtain STS Device Parameters

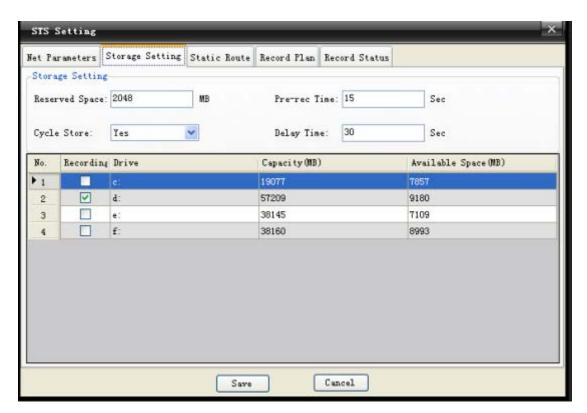
7.7.1 Device Parameter Setting

In the left device tree, select STS device, and right click "Device Parameter", as shown in the following figure:



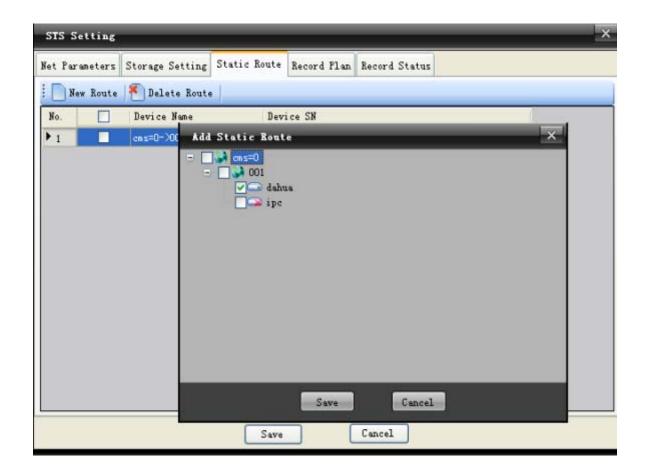
Note: device parameters can be obtained only when the STS device is online.

7.7.2 Storage Setting



Note: able to select multiple disks at a time (reserved space is not less than 1024 MB). 7.7.3 Static Route Setting

Click "New Route" to check devices to be added (DVR, DVS) and click "Save", as shown in the following figure:

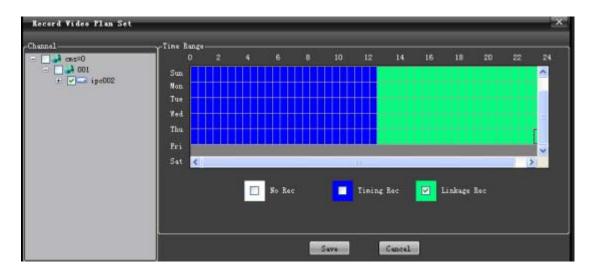


Note: the static route should be set before adding record plan.

"Delete Route": check devices to be deleted (DVR, DVS) and click "Delete Route".

7.7.4 Record Plan

Click "New Plan" to enter the record play editing page. In the left device tree, check device channel to be recorded, and in the bottom right, check the record type, then use your mouse to select Time Range, and then click "Save", as shown in the following figure:



"Delete Plan": check record plan channel to be deleted from the list and click "Delete Plan".

"Start Plan": check record plan channel to be started from the list and click "Start Plan".

"Stop Plan": check record plan channel to be stopped from the list and click "Stop Plan".

7.7.5 Record Status

"Record Status" can reflect whether record plan for the storage server is enabled in real-time.

7.7.6 Device Refresh

"Device Refresh" allows refreshing real-time status and information of devices in the list.

7.8 Right Click Options

In the right click menu, there are three options including "Device Parameter", "Edit Channel" and "Delete Channel":

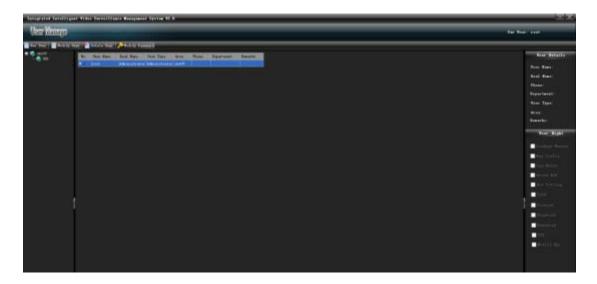
"Device Parameter" is used to call the device parameter setting page out.

"Edit Channel" is used to modify the name of device channel.

"Delete Device" is used to directly delete selected device.

8. User Management

Enter the "User Management" functional module, as shown in the figure:



8.1 New User

Click "New User" and input user information, as shown in the following figure:



Note: In the "User Type" and "Belong Area" columns, select the user type and area range you will assign.

Level-to-level administration for users is implemented in following rules:

- 1. Administrator, visible to all users in this user area.
- 2. An administrator can create, view, modify and delete general users at the same level

or the lower level, and can only create, modify and delete administrators at the lower level.

3. Root is a super administrator owning the right to add, view, modify and delete all users

(Any information except password for the root user cannot be modified).

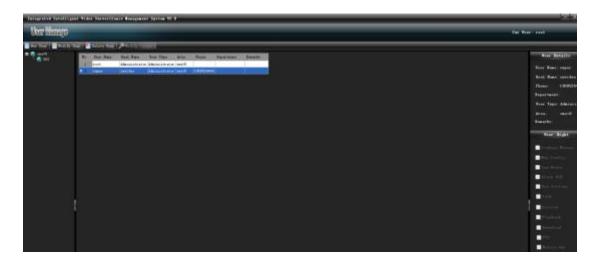
8.2 User Right

In "Right Control", a new user can be assigned with specified rights, as shown in the following figure:



Note: for a right option with drop down menu, right assignment can be designated to device channel.

Click "Save" to successfully add a user, who can be viewed in the user list, as shown in the following figure:



8.3 Modify User

In the user list, select a user to be modified, and click "Modify User". Then input information and save it, as shown in the following figure:



8.4 Delete User

In the user list, select a user to be deleted and click "Delete User" to delete it.

8.5 Modify Password (to modify the password of the currently

registered user)

In the user list, select a current registered user, and click "Modify Password". Then input information and save it, as shown in the following figure:



9. Alarm Setting

9.1 Alarm Linkage Interface

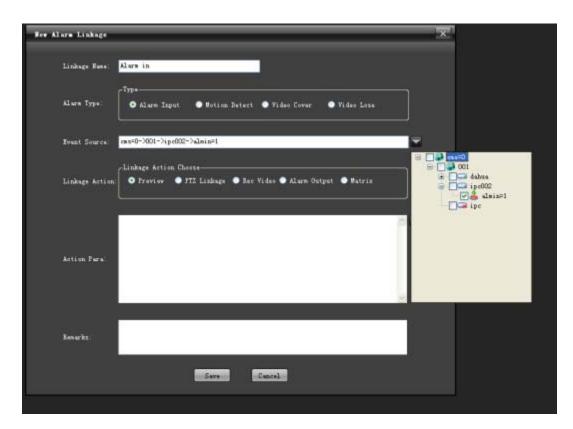
Enter the "Alarm Setting" functional module, as shown in the figure:



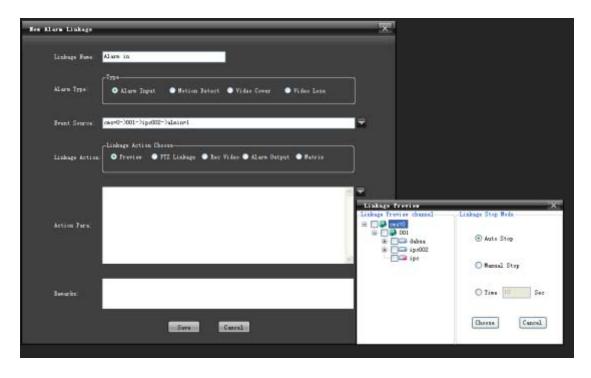
9.2 New Linkage

9.2.1 Alarm Input

Input the linkage name, and select "Alarm Input". From the dropdown menu, select an "Event Source", as shown in the following figure:

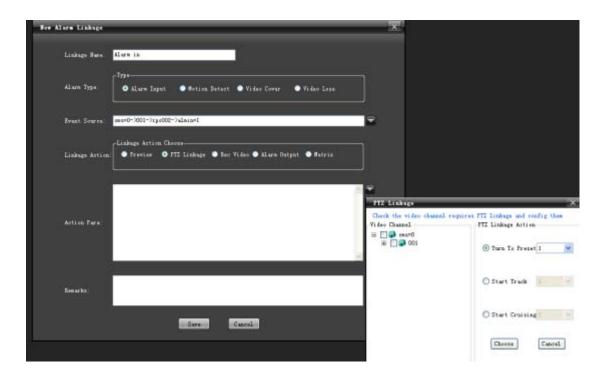


If "Preview" is selected for the Linkage Action, select one or more linkage channels from the dropdown menu, and the "Action Para." box will show all added linkage information, as shown in the following figure:

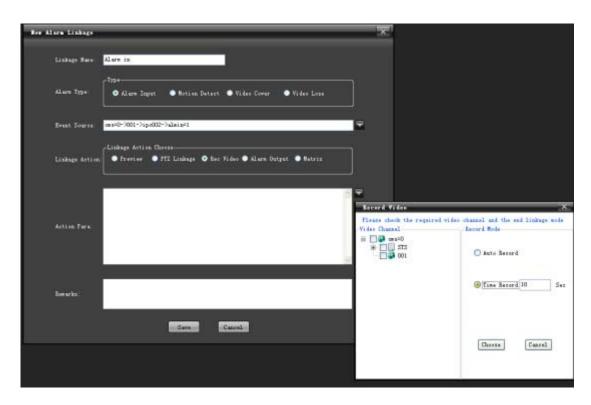


If "PTZ Linkage" is selected for the Linkage Action, select one or more

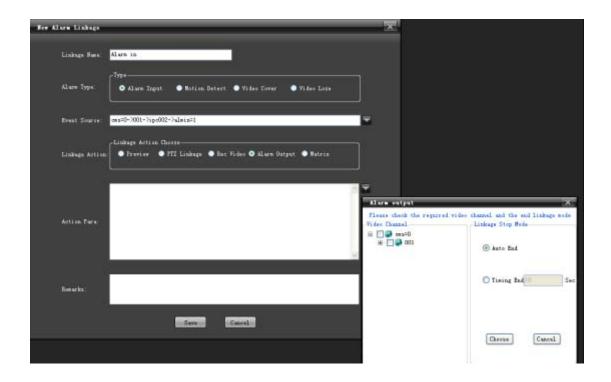
linkage channels from the left "Video Channel" of the dropdown menu. In the left "PTZ Linkage" option, select one linkage action (Turn to preset, start track and start cruising), as shown in the following figure:



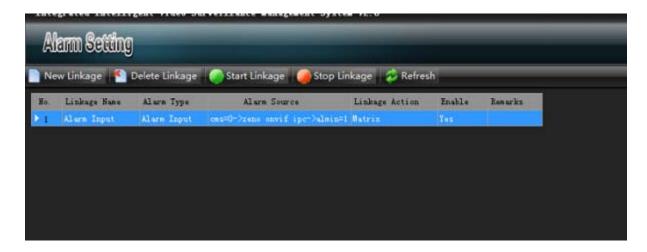
If "Rec Video" is selected for Linkage Action, check the record channel in STS device from the left "Video Channel" list of the dropdown menu, as shown in the following figure:



If "Alarm Output" is selected for Linkage Action, select one or more "Alarm Device" from the left "Linkage Alarm Output" of the dropdown list, as shown in the following figure:



After settings, click "Save" to successfully add alarms, as shown in the following figure:



Note: When selecting linkage action, "Auto" indicates that linkage starts when an alarm generates, and vice versa and record stops; "Time" indicates that alarm linkage stops within the set time; "Manual" indicates that linkage is manually stopped.

9.2.2 Motion Detection Alarm

For operation procedures of "Motion Detection Alarm", see instructions in the "Alarm Input" section.

9.2.3 Video Covering Alarm

For operation procedures of "Video Covering Alarm", see instructions in the "Alarm Input" section.

9.2.4 Video Loss Alarm

For operation procedures of "Video Loss Alarm", see instructions in the "Alarm Input" section.

9.3 Delete Linkage

In the alarm information list, select an alarm type to be deleted, and click "Delete Linkage", and this alarm information will be removed from the information list.

9.4 Start Linkage

In the alarm information list, select an alarm type to be started and click "Start Linkage" to start it.

9.5 Stop Linkage

In the alarm information list, select an alarm type to be stopped and click "Stop Linkage" to stop it.

9.6 Refresh

Click "Refresh" to refresh current alarm information list.

10. Map Configuration

Enter the "Map Configuration" functional module, as shown in the figure:



10.1 Create Map

In the left information box of "Map Config", select an area and right click the "Create Map" and input map information. Click "Save", as shown in the following figure:



10.2 Open Map

Double click the map icon or select its icon, and right click to select "Open Map", as shown in the following figure:



10.3 Close Map

Click close button, or select the icon, and right click to select "Close Map".

10.4 Modify Map

Select a map, and right click to select "Modify Map" and input information and save it, as shown in the following figure:



10.5 Delete Map

Select a map and right click to select "Delete Map" to delete it.

10.6 Zooming

Click zoom-in button to zoom the electronic map in and click zoom-out button to zoom it out.

10.7 Arming of Video Source and Alarm Source

Drag and drop the "Surveillance Channel" and "Alarm Channel" in the left "Device Information" list in the main screen to the right map for arming. The map allows arming multiple channels and alarm inputs, as shown in the following figure:



Select "Surveillance Channel" or "Alarm Channel" armed in the map and right click to select "Remove Channel" to delete armed video and alarm channels ("Remove all" can remove all channels), as shown in the following figure:



"Modify Icon": allow you to modify the icon as you like for easy application, as shown in the following figure:

