Please Note: This DVR software is for use with the 4 Channel USB DVR and also specific 1, 4, 8 and 16 channel DVR Cards. Not all software functions discussed below are available, applicable or supported by all hardware.

The following are standard functions of the products:

### (1) Schedule record mode

Users can choose any term in a day to record and set up record modes, i.e. sensor alarm record, motion detection record, manual record, Schedule Record.

### (2) Motion detection mode

Motion detection areas are adjustable and maximum 16 areas for each channel. Users can also set motion detection sensitivity for each channel. The system begins to record only when motion of the detected object happens, and it will stop recording after a certain period, this function is adjustable by users.

### (3) Sensor alarm record mode

With extra alarm board, the system enables alarm input and output.

### (4) Recycling record mode

Users can set recording storage sequence for HDD partitions. The recording storage will automatically swap to the next partition when it is full. If all the partitions are full and recycling record mode is enabled, the former recorded data will be covered by new data. Users can also set HDD minimum storage alarm. Then once the present storage space is less then the minimum storage and recycling record mode is not enabled, the record will automatically stop.

### (5) P.T.Z control function

Support a number of decoders. Users can control multiple speed domes and integrative cameras, including pan, tilt, zoom, focus and iris adjustment for P.T.Z devices. Support preset point and auto scout.

## (6) Users management

Different users have different rights, user names and passwords, so as to ensure system security.

(7) Multi-channel display

Support different multi-channel display modes, full screen display and auto dwell display.

(8) Watch dog function

The 16 Channels card has watchdog function. In case MAXDVR driver or windows system is frozen, the watchdog will restart the computer and login MAXDVR system again automatically.

- (9) One PC support 1 to 4 cards of the same model, the maximum frame rate can be 200 fps and 16 channels at most.
  - (10) Support 320×240, 640×480 standard resolutions.
- (11) Image color adjustable for each channel, including contrast, lightness, hue and saturation.
  - (12) MPEG4 compression format, greatly reduce HDD usage
- (13) Powerful video playback functions, including playback, pause, stop, fast-forward, single-frame play and image capture.
- (14) Support advanced search mode. Users can search by date/time, camera, record mode, and random combination of the three methods.
  - (15) Support recorded files backup, delete by date/time, camera.
  - (16) Convenient to extend system functions by software upgrade.
- (17) Supply multiple languages, including Chinese (Traditional), English, German, Spanish, Portuguese and other customized languages.
  - (18) CPU and storage resources saving by advanced technology
- (19) Remote Surveillance and P.T.Z control through LAN, Intranet, and Internet.
  - (20) Support alarm pre-record.
  - (21) Support buzzer, email alarm out.
  - (22) Can greatly decrease fragmented files while using NTFS partition.
  - (23) User-friendly graphical user interface.

# 1.1 System Specifications

Format: PAL/NTSC

Resolution: DR3004F、3008F、3016F、3116、3216 support 320 $\times$ 

240 / 640  $\times$  480 and DR5016F supports 352  $\times$  288 / 352  $\times$  240

Maximum Frame rate per channel: 25 fps (PAL), 30 ftp (NTSC) Screen set: resolution  $1024 \times 768$ , color quality 16 bits or 32 bits

Compression code rate: 50kbps - 1.2Mbps

Data format: MPEG4

# 1.2 Install Video Capture Card Driver

Run Setup.exe, and the installation interface appears as below:



Fig2.16 DR series video capture card installation interface





Fig2.9 Welcome page

## Select 'Next',

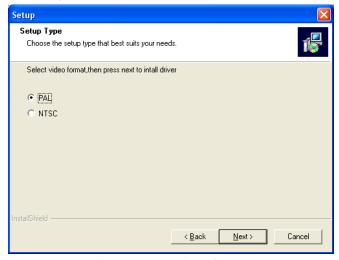


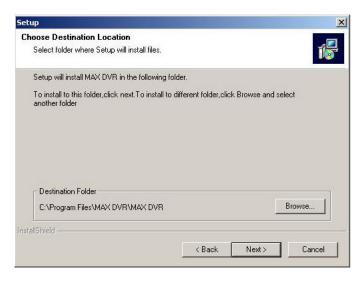
Fig2.10 Select video format

## Select 'Next',



Fig2.11 Rate of progress of driver installation

After this process it begins to install the application package MAX DVR, as below:



 $Fig 2.13 \ Select \ installation \ pass$  Select the suitable option, and click 'Next'.



Fig2.14 Register application

Click 'Next',

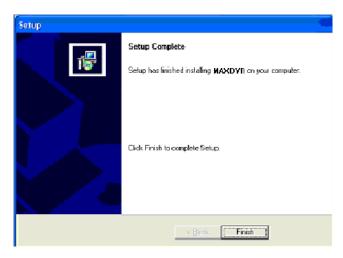


Fig2.15 Driver and application installation finished

Click 'Finish'

Now, after all the processes are finished, restart the computer and launch the surveillance program. It will create a shortcut on the desktop.



Fig2.16 Shortcut of MAX DVR

### Notice:

In case users cannot run the  ${\sf MAX}$  DVR program, users have to restart the computer.

# 2 Main display Interface

Run MAXDVR program and the main display interface appear as below:



Fig3.1 MAXDVR Main Display Interface

# 2.1 Display Control Panel

# **Display Control Panel**



Fig3.2 Display control panel

'Display control panel' includes 'Display Mode' buttons and disk free space indicator, 'Auto Dwell' button, 1, 4, 6, 8, 9, 13, 16channels display buttons. Every button has its built-in indicator light. When switch on and off the buttons, the relative indicator lights turn on and off to indicate the working

status.

Notice: Users can judge which buttons are working by the color of the buttons.

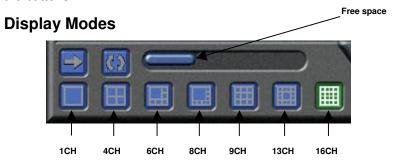


Fig3.3 Display Modes Panel

## Flip Pages

When the display mode is 1CH, 4CH, 6CH, 8CH, 9CH or 13CH, system will display the next page according to the display mode.

## **Auto Dwell display Mode**

In case users want to see all the channels in sequence, then click and enter Auto Dwell display mode.

## **Quick Switch**

In case the present display mode is 4CH, 9CH or 16CH, by clicking any image or the present display mode is 6CH, 8CH or 13CH, by clicking the bigger image, the display will quickly switch to corresponding single channel display mode. When the present display mode is 6CH, 8CH or 13CH, by clicking any image other than the bigger one, users can change the position of the image with the bigger one. By clicking the single image again, it will return to the former display mode.

# 2.2 Login

Click , and login window appears. Input the user name and password, the default user name is 'SYSTEM' with no password, users can access to the main interface. Users can change password for SYSTEM and create new user names and passwords once has entered the system.

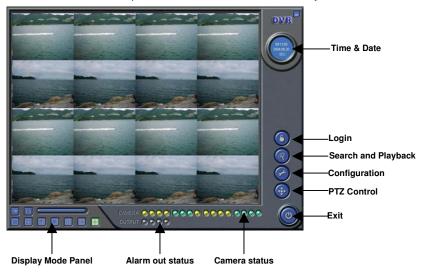


Fig3.4 Main Interface

# 2.3 Record

## **Record Modes**

According to different record triggering methods, DR series video capture cards offer users with 4 kinds of record modes:

(1) Schedule record mode (timer)

- (2) Manual record mode
- (3) Motion Detection record mode
- (4) Sensor Alarm record mode

Motion Detection record mode and Sensor Alarm record mode are together called as Alarm Record.

### Multiple cameras record

In case users use multiple cameras to record, every camera works separately and the record file are also saved separately. The parameters, i.e. camera ID, record date/time and record mode are all saved together with the record file.

## **Record Setup**

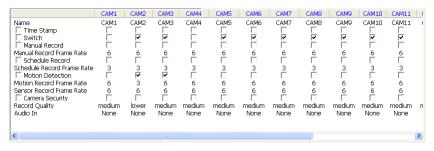


Fig3.5 Record Configuration Panel

In the 'Record Panel' of the Basic Configuration page, users can set all kinds of necessary parameters for recording.

[Time stamp]: By selecting the options, the record date / time message appears in the record file images.

[Switch]: By selecting the options, users can turn on corresponding cameras. In case there is no camera for some channel, don't select the option so as to save system resource.

[Manual record]: By selecting the options, the relative camera images will be recorded and saved all the time.

[Manual recording frame rate]: Select the record frame rate for manual

### record mode

[Schedule Record]: Schedule record option.

[Schedule Record Frame Rate]: Select Schedule Record frame rate

[Motion Detection]: By selecting the options, users can set relative channels' record mode as motion detection

[Motion Record Frame Rate]: Select record frame rate for Motion Detection record mode

[Sensor Record Frame Rate]: If sensors are utilized to trigger recording, users can select record frame rate here.

[Camera Security]: The users are divided into three standards: Normal user, Power user and Administrator. By selecting the options, only administrators can see the corresponding channels.

[Record Quality]: Select record image quality here.

[Audio In]: MAXDVR 4.3 system can support one channel of microphone audio input signal on the PC motherboard and audio inputs on the card if it has. Users can choose one video channel associate these audio signals.

### Note:

Users can select more than one record mode.

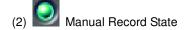
### **Record Status Panel**



Fig3.6 Record Status Panel and Alarm Output Status Panel

Meanings of indicator light colors in row one are as below:





- (3) Schedule Record State
- (4) Motion Detection Record State
- (5) Sensor Alarm Record State
- (6) Video Loss State

When the indicator light color turns into in row two, it means there is alarm output.

### **Manual Record Mode**

Manual Record mode is the most commonly used record mode. In case there is any special event happens, users can select this record mode and record timely.

Note: You can select high frame rate for short time manual record, while select low frame rate for long time Schedule Record.

### **Sensor Alarm Record Mode**

Users can use sensors to trigger sensor alarm record for relative

channels. At that time, the record status indicator light will turn rec



### **Motion Detection Record Mode**

It will enable the system to detect image changes and begin to record by activating motion detection and motion alarm record. For instance, somebody opens the door, and the system detects image changes and begins to record, then users can play back the recorded file and find out who opened door.

When there is no movement, the system won't record and that's helpful for saving system resource, and convenient for searching for event record file.

The indicator light color in the record status panel is yellow



Note: Users may need to setup in three places so as to enable motion detection record.

- (1) Select 'Motion Detection' for certain channels in 'Basic Configuration'
- (2) Configure the motion detection areas for certain channels in 'Motion Detection configuration'
- (3) Configure working schedule for certain channels in 'Schedule configuration'

### **Schedule Record**

Users can set working schedule for all kinds of record modes in 'Schedule configuration'. The green light in record status panel shows the corresponding channel is in Schedule Record mode. Users can change record mode to manual record at any time, and the green light change into blue light.

Please refer to chapter 4.4 for details.

## **Recycling Record**

If users enable Recycling Record function and all the selected HDD partitions are full, the former record data will be covered by the latest record data.

Users can set recording storage sequence for HDD partitions. The recording storage will automatically jump to the next partition when it's full. If

all the partitions are full and recycling record mode has been enabled, the new data will overwrite the former recorded data automatically. Users can also set HDD minimum storage alarm. Then once the present storage space is less then the minimum storage and recycling record mode hasn't been enabled, the record will automatically stop.

# 3 System Setup

Click and enter the main setup interface.

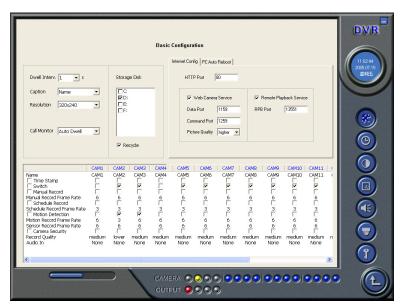


Fig4.1 Basic Configuration

The definitions of the buttons in Fig4.1 are as below:



**Basic Configuration** 



Schedule configuration



Video configuration



Motion Detection Configuration



Alarm Configuration



P.T.Z Configuration



User Configuration



Return

# 3.1 Basic Configuration





and enter the basic configuration page where users can

setup the system or just use the defaults.



Fig4.2 Caption and General Configuration

[Dwell Interval.]: If users enable Auto Dwell function in the main interface page, users can set the dwell time of a page here.

[Caption]: There are four options, None, ID, Name and ID/Name for users to select for all the channels.

'None' means no title;

'ID' means camera numbers, i.e. 1, 2, 3 and so on

'Name' means camera names, i.e. Cam1, Cam2 and so on

'ID/Name' means both camera number and camera name, i.e.

1/Cam1, 2/Cam2 and so on

[Resolution]: There are four options, $320 \times 240$ 、 $352 \times 288$ 、 $352 \times 240$ 、 $640 \times 480$  for users to select for all the channels. As the video may have interlace

lines if the users select 640x480, users may choose De-Interlace for solve this problem, but it will occupy much more CPU loading.

[Call Monitor] Only DR3016F, DR3216 and DR5016F have call monitor function at present. Users can connect another monitor to the card and select the display modes here.

The following is about record data storage. Please check Fig4.3

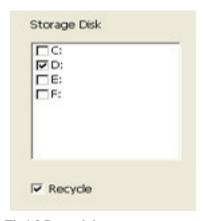


Fig4.3 Record data storage precept

Above, MAXDVR system shows all the available HDD partitions for users. Users can select one or more of the partitions that will be used in sequence from up to bottom. Please refer to chapter 3.3.8 to learn more about recycling record.

In the following area in the basic configuration page, users can input the computer user name and password in the relative boxes. Then when restarting the computer system, it will access to the system with the user name and password input in the boxes.



Fig4.4 Computer System Reboot setups

As the windows system may become unstable after a couple of days continue operating, which will cause MAXDVR system unstable? Then users

should reboot the computer. Select and set the interval by day, which will guide the system to reboot automatically according to the setups.

Click to return to the main display interface.

# 3.2 Video Configuration

Click and enter the video configuration page as below. Users can change the values of corresponding items, i.e. contrast, brightness, hue, saturation, auto gain, by drawing the levers on the bars. Click 'Default', and all the values will return to the default value.



Fig4.5 Video Configuration

Definitions of the setup items:

[Contrast]: set image color contrast [Brightness]: set image brightness

[Hue]: set image hue

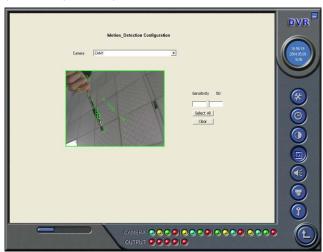
[Saturation]: set image Saturation

[Auto Gain]: users can set it as auto or manual. Only 4CH Card and 16CH card have this function(except DR5016F because of only having manual gain function).

[Default]: load defaults, i.e. set the first four items value as 5000 and the last item value as 0.

# 3.3 Motion Detection configuration

Click and enter Motion Detection Configuration page, DR3004F, DR3008F, DR3016F, DR3116, DR3216 as below:



 $Fig 4.6\ Motion\ Detection\ Configuration$  Definition of the setup items:

[Sensitivity]: users can set motion detection sensitivity here.

[Select all]: select all the areas of the channel as detection area

[Clear]: clear all the detection areas and then users can select customized detection areas by cursor.

## DR5016F:

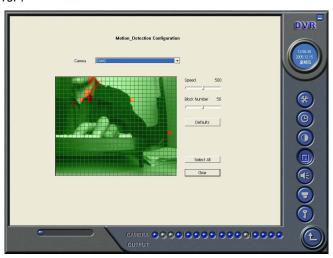


Fig4.7 DR5016F's configuration page

 $[Speed]: motion \ detection \ sensitivity.$ 

[Block Number]: set grid's number.

[Defaults]: set as default.

## **Set Motion Detection Area**

In case users want to customize the detection areas for a certain channel, first select the camera, then select 'Clear' and drag the cursor in the box on the left side. Now, users can see a green box appears which shows the motion detection area. Users can select maximum 16 customized areas for each channel.

By click 'Clear', users can clear all the selected areas.

# **Set Motion Detection Sensitivity**

Draw the bar and select a certain value for motion detection sensitivity.

# 3.4 Schedule configuration

Click

and enter Schedule Configuration page as below:



Fig4.8 Schedule Configuration

Our DR series system offers the users with powerful schedule

configuration options. Every channel has three kinds of record modes, i.e. schedule record, motion detection record and sensor alarm record. We provide users to set schedules from Sunday to Monday separately for all of the three record modes. Sensor alarm record mode has the highest priority among all record modes. Here users can set schedules for it.

When users need to edit schedule for a channel, first select the camera name in the three record modes group, and select the color bars on the right side, then select 'Edit' to edit schedules. Click 'Add' to add schedule for a certain channel.

Note: the added schedule should not be reduplicate to the former settings.

Click 'Delete' to delete schedule. Click 'Clear All' to delete all the schedules of a certain channel.

See the Fig4.8 and learn how to edit schedules for a channel:

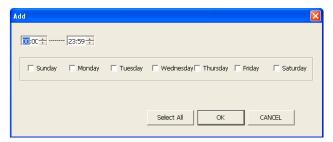


Fig 4.9 Edit Schedule

# 3.5 Motion Detection Alarm Configuration

# **Alarm Triggering Conditions Configuration**

The system can receive alarm both from local place and network

(1) Local place alarm record triggering conditions configuration



Fig 4.10 Local place alarm triggering conditions configuration

### Relative Explanations:

[Buzzer]: Users can select whether to open the computer buzzer if the alarms have been triggered and also select how long the buzzer rings

[PreRecord]: Users can select whether to enable alarm pre-record and also pre-record time.

[Motion Holding Time]: Motion sensor may detect some movement, only if the movement lasts for a period exceeding the default time, then the alarm record will begin and buzzer beeps.

[Disk Shortage Alarm]: If the HDD available space is less then the set value, the buzzer will beep if 'Buzzer' has been selected.

## (2) Alarm output terminal in LAN



Fig 4.11 Alarm output terminal in LAN

Select 'Remote Alarm', and enter the area as Fig4.10 shows.

Click 'Add' to add alarm output terminals in LAN. Look the figure below:



Fig 4.12 Add alarm output terminal in LAN

Find the terminal computer and click 'OK', and users can see the name of the selected terminal will appear in the box as below:

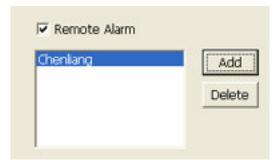


Fig4.13 List of alarm output LAN terminals

Note: this function is only valid in LAN, not in Internet.

## **Alarm Record**

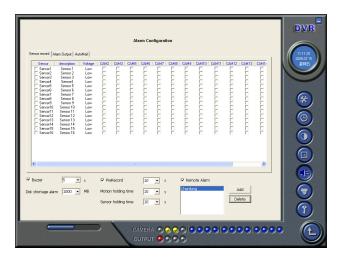


Fig4.14 Alarm trigger method configuration

Every sensor can trigger multiple channels to record. For example, if users select CAM1, CAM4 and CAM5 for Sensor2, then once the sensor is activated, CAM1, CAM4 and CAM5 will begin to record. Users can also select the voltage, high and low, for alarm signals.

## **Alarm Output**



Fig4.15 Alarm output Configuration

[Video Loss]: Users can select alarm output for this option. For example, users select alarm\_out1 and alarm\_out3 and remote alarm for video loss. Then video loss of any channel will trigger alarm\_out1, alarm\_out3 to show red light in the Alarm output status panel (refer to Fig3.6 for reference), and the system will give out related warning message to the terminals in List of alarm output LAN terminals (refer to Fig 4.12)

[Disk Alarm]: when HDD available space is less than the set value (refer to Fig4.9), it will trigger selected alarms.

[Sensor 1]: If users have mounted sensors, when the sensors have been activated, then it will trigger the selected output alarms.

[Sensor 2] – [sensor 16] DR3004F card has maximum 4 sensors, and DR3016F and DR3116 card have maximum 16 sensors.

[Motion 1]: Users can set motion detection alarm output by different alarms and remote alarm.

[Motion 2] - [Motion 16] 4CH card has maximum 4 motion alarms, 8CH

card has maximum 8 motion alarms, and 16CH card has maximum 16 motion alarms.

Notes: You should choose our additional alarm device board while using DR3008F, DR3216 cards for alarm I/O.

## **Auto Mail Function**

Press in the main interface and access to the following Alarm Configuration area where users can make motion detection alarm setup, sensor alarm setup and short of HDD space alarm setup. Now users can select the above-mentioned alarms to be output by Auto Mail.

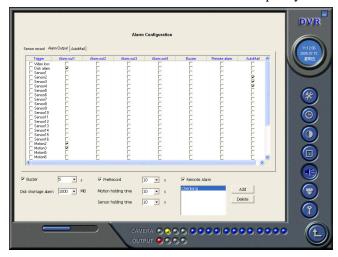


Fig 4.16 Alarm output configuration

Click 'Auto mail' icon on the top left side and enter the following area to make Auto Mail setup:



Fig 4.17 AutoMail setup interface

In this area, users can set receiver and sender's E-mail SMTP server and address. Note: the address of receiver and sender can be the same.

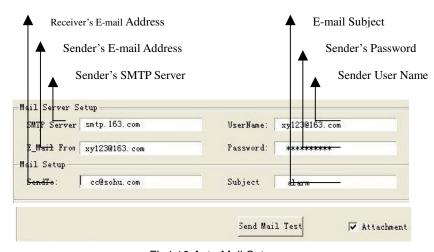


Fig4.18 Auto Mail Setup

To test the settings, click 'Send Mail Test'. If all settings are okay, message 'Message Sent Successfully' will pop up. If some settings are wrong, there will a pop-up window warning message.

Enable 'Attachment', then the present image when an alarm is triggered will be sent to appointed mailbox.

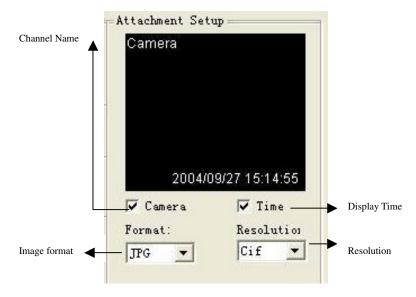


Fig 4.19 Attachment Setup

Note: for every alarm event, only one picture will be sent.

Users can input a short message about the Auto Mail in advanced, so the receiver will know what happened.

# 3.6 P.T.Z Control Configuration

Click

and enter the following area:

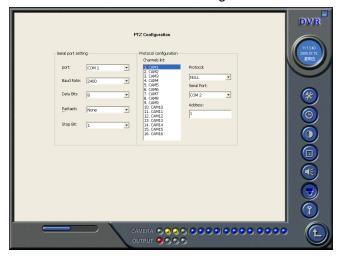


Fig4.20 PTZ configuration panel

# **Protocol Setup**

Users can select different protocols, serial port number for P.T.Z devices.

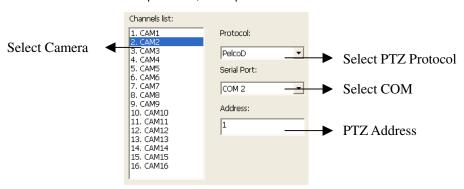


Fig4.21 P.T.Z protocol setup

### Relative Definitions:

[Port]: users can set serial port number

[Protocol]: P.T.Z device communication protocol [Address]: P.T.Z device communication address

## Serial ports setup

Users should firstly enable the P.T.Z control function of a certain camera and select a port number in P.T.Z Protocol Setup (refer to Fig4.22), and then set corresponding parameters in the area below:

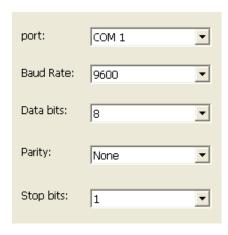


Fig4.22 P.T.Z serial port setup

### Relative explain:

[Port]: users can set port number

[Baud Rate]: set P.T.Z device Baud Rate, default value is 9600

[Data bits]: default value is 8

[Parity]: odd and even parity bit, default Null

[Stop Bits]: default value is 1

### Notice:

Users should look into the P.T.Z device and get the Baud Rate,

Protocol, and Address first, then set their values accordingly.

# 3.7 Users Configuration



and access the following area:

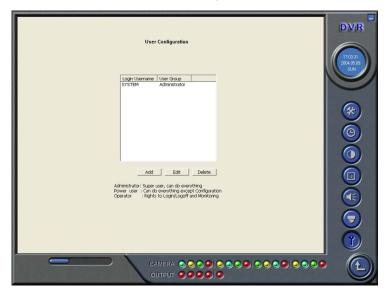


Fig4.23 User configuration

After installing the MAXDVR system, it will automatically create an administrator user of which user name is SYSTEM with no password. Users can use this user name to log in the system and 'Add', 'Edit' and/or 'Delete' users' parameters.

## **Change User rights**

Select a user in User Configuration area (refer to Fig4.23), and click 'Edit' and enter Edit User area, as below:



Fig4.24 User password and rights edit

Users can edit user's password and rights here, but not the user name.

Note: The system offers three kinds of rights:

Administrator: this kind of user of the highest rights to change all the settings and playback.

Power user: this kind of user cannot access Basic Configuration and change settings, but has all the other rights of Administrator.

Normal: this kind of user can only access MAXDVR main display interface (refer to Fig3.1)

### Notice:

Administrators can change Power users and Normal users' rights, but can't change other administrators' rights.

### Add User

Click 'Add' in User Configuration (refer to Fig4.25), and access the following area:



# Fig4.25 Add user

Input user name, password, confirm password and select user rights, and then click 'OK'.

## **Delete User**

Select the user name in User Configuration (refer to Fig4.26), and click 'Delete', and confirm delete. See below:

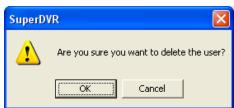


Fig4.26 Confirm delete user

# 4 P.T.Z control

Click in the MAXDVR main display interface (refer to Fig3.1) and access to the following area:



Fig5.1 P.T.Z control interface

Users can control P.T.Z devices by the function buttons on the right side, see as below:

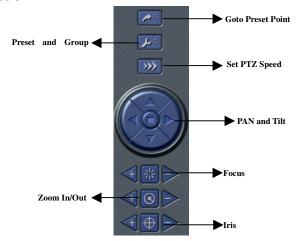


Fig5.2 P.T.Z Control function buttons panel

In the upper circle, there are five function buttons, i.e. upward button, downward button, leftward button, rightward button and stop button. The other buttons are Focus buttons (+ and -), Zoom buttons (+ and -), Iris buttons (+

and -). Click and to increase and decrease the corresponding values.

When users need to utilize P.T.Z control, first enter P.T.Z Control Interface (refer to Fig5.1), and click the corresponding channel (users can see a red fringe around the channel), then users can begin to control the enabled P.T.Z control camera.

#### Notice:

After pressing left mouse button on any function button in P.T.Z Control Function Buttons Panel (refer to Fig5.2), PTZ device starts moving, when user releases it, PTZ device stops moving.



Fig 5.3 Speed adjustment

Users can select different Pan speed, Tilt speed, Focus speed and Zoom speed for P.T.Z devices.

[Pan Speed]: set horizontal rotating speed [Tilt Speed]: set vertical rotating speed [Focus Speed]: set camera focus speed [Zoom Speed]: set zoom in/ zoom out speed Click and a pop-up window will appear, users can choose different preset or group set.



Fig 5.4 Preset and group select

Click to set Preset point and change Preset point name. Every Group includes multiple Preset points. In case users select preset1, preset2 and preset3 for group1, preset1, preset2 and preset3 will be automatically accessed in sequence after users select group1 for auto scout.



Fig 5.5 Preset

Click Group Setting>>, a pop-pup window as following will appear:

[Dwell]: users can set the dwell time of a page here.

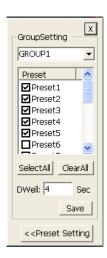


Fig 5.6 Group configuration

# 5 Record Search and Playback

Click in the MAXDVR Main Display Interface (refer to Fig3.1) and access to the following area:



Fig6.1 Search and playback Interface

This interface is divided into 4 parts, i.e. record search area, record playback area, record play area and other functions areas.

Press and return to the live surveillance status.

## 5.1 Record Search

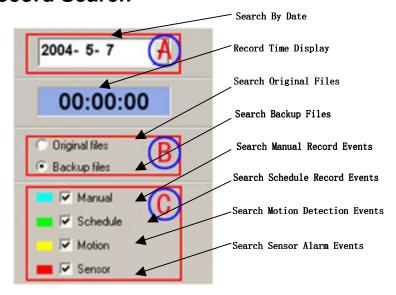


Fig6.2 Record search area

- A, B and C marks the areas of three search methods.
- A: Search by date (range from Jan 1<sup>st</sup>, 1971 till now)
- B: Search in backup file and original file
- **C**: Search by record mode. This is useful when user wants to look through some **important events**.

Users can select one or above of the three searching methods to search for needed record file.

# 5.2 Record Playback and Control

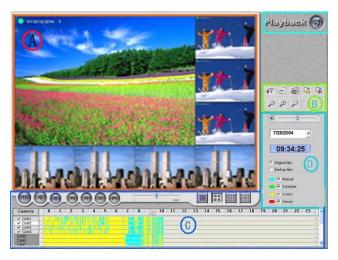


Fig6.3 Record playback and control

Explain of the button function:

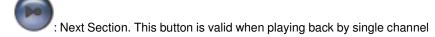




: Play backwards. This button is valid when playing back by single channel

: Previous Section. This button is valid when playing back by single

#### channel



: Previous Frame. This button is valid when playing back by single channel playback pause mode

: Next Frame. This button is valid when playing back by single channel playback pause mode

Users can select suitable play speed in the area as below:



Fig6.4 Play Speed Controller

The following area shows the record files of different channels:



Fig6.5 Record Files Browser

The upper bar shows the hours in a whole day. Click the bar, and it will be magnified 10 times, therefore users can see the detailed time marks. When searching for a certain section of the file, users can draw the scrolling-bar to the area that most likely contains the needed section. If necessary, click the bar once and see the magnified time marks for precise search.

The left side shows the available channels. When a certain channel has been selected for playback, the background color will be highlighted, or it's dark gray, and a tick sign will appear beside the channel title.

The main area at the center gives details of the record files. Different colors of the bar show different kinds of record modes of the files. The following are the definitions of the color bars:



Click to play selected record files. The system offers 1Ch, 4CH, 9CH and 16CH playback modes. The following is multiple channels playback control area:



Fig6.6 Multiple Channels Playback Control

The system default playback mode is one channel. That's Camera1. In

case users need to change to other channels, then click and the following channel configuration window will appear, as below:

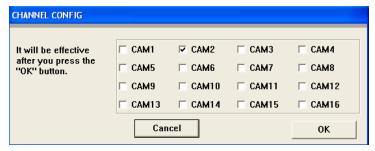


Fig6.7 Channel Configuration Window for 1 Channel Playback Mode

### Note:

Take 16CH card for example. But in fact, 4 pieces of 4CH cards can make the same effect.

Users can select one channel from all the available channels for playback.

In case user needs to play back 4 channels at the same time, then click, and the following channel configuration window will appear, as below:

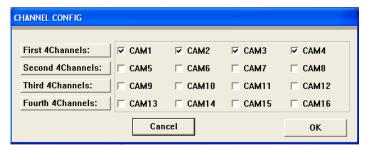


Fig6.8 Channel configuration dialog for 4-channel playback mode

Users can select any four channels from all the available channels for playback.

The system offers quick select methods for users. For example: by selecting 'Third 4 Channels' Camera9, Camera10, Camera11, and Camera12 will be selected simultaneously.

In case user needs to play back 9 channels at the same time, then

click, and the following channel configuration window will appear, as below:

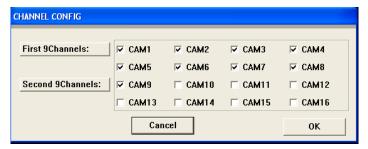


Fig6.9 Channel configuration window for 9-channel playback mode
Users can select any 9 channels from all the available channels for

playback. Users can also use the quick select methods by the system.

In case user needs to play back 16 channels at the same time, then lick, and the following channel configuration window will appear, as

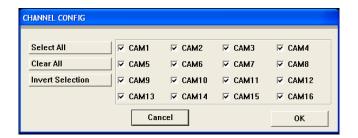


Fig6.10 channel configuration window for 16-channel playback mode Then click 'OK' to play back.

### Tips:

below:

Click any channel and magnify it to see the single channel. Click again to return to the former playback mode.

## 5.3 Other Functions

## **Record File Backup**

Click and enter the following menu:

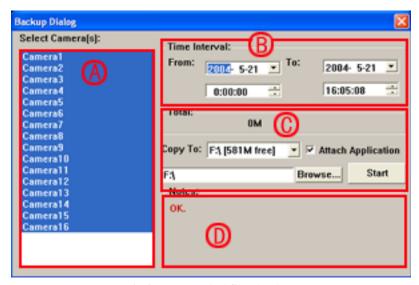


Fig6.11 Recorded files backup

Users can select corresponding cameras and copy the record files to another path in this area. This is the file backup function of the system.

The interface is divided into four areas:

- A: Camera Selection Area
- B: Time and Date Selection Area
- C: Operation Area
- D: Information Area

In A area, users can select one or more cameras;

In B area, users can set start time/date and end time/date, and then backup the files recorded by channels selected in A area by the time interval;

In C area, users can set backup path

Click 'Start' to backup files.

### **Delete Record Files**



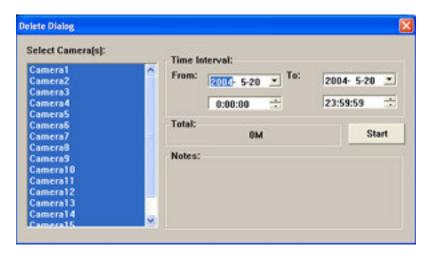


Fig6.12 Delete recorded files

Users first select the channel on the left side, and then select start time/date and end time/date of the record files, click 'Start' to delete files.

## **Capture Pictures**

The definitions of the function buttons are as below:



### Notice:

Only in one channel playback pause mode (refer to Fig6.1) this



### function is valid.

When in single channel playback pause mode, automatically the following color control panel (Fig6.12) will appear, by which user can make

color rectification for the present channel, including brightness, contrast, saturation and hue, and press 'Default' to recover to the original settings.

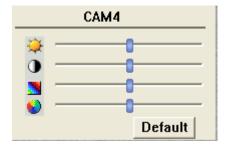


Fig6.13 Color control panel

When in the single channel playback pause mode, click and the following window will appear as below:



Fig6.14 Capture multiple images in sequence Select path and click 'Save' to save the picture. User can also print the images that have been captured.

Click and make corresponding print setup as below:

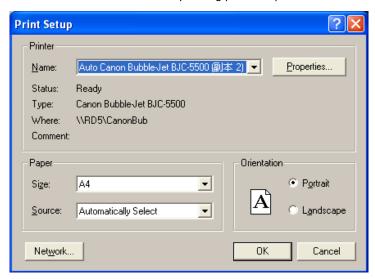


Fig6.15 Print setup

users can have print preview as below:



Fig6.16 Print preview

Select Position and then click or to move the picture upward, downward, leftward and rightward. Select Size and then click to zoom in and out the image. Press Default return to the original settings. Press 'Print' in the print preview window, users can print the image directly.

### Image Zoom In / Out

When in single channel playback state, the zoom control icons will appear. Select and click on the channel will zoom out the image. By clicking continuously, the image will be zoomed out continuously. Select and do the some operations to get the opposite effect. Click and recover the original size. Take the following three pictures for example,



Fig6.17 Example: original size





Fig6.18 Example: zoomed out

Fig6.19 Example: zoomed in

## 6 Remote Surveillance and Playback

### 6.1 Remote Live Surveillance

Our DR series surveillance system supports Remote Surveillance through LAN, Internet and Intranet. Simply enable web cam function of the system on a computer which is connected to Internet, and the computer system will become an Internet web cam server. On any other computer that connects to Internet or the same LAN network, input the MAXDVR server address in IE browser, the end users can get high quality real time image from

the server and also control the P.T.Z devices.

## **Remote Surveillance Server Configuration**

Users should firstly enable the Web Camera Services in Basic Configuration (refer to Fig4.1) and set other settings as below:

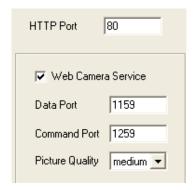


Fig7.1 Web cam server configuration

[HTTP Port]: Web service & download service port, default value is 80

[Data Port]: data transmission port, default value is 1159

[Command Port]: control command port, default value is 1259

[Picture Quality]: default value is higher

## Remote Surveillance Client-side Setup

On the client-side, users should firstly install the WebCam program. And the following is the detailed information.

Input the WebCam server IP address in Internet Explorer and the following page appears:

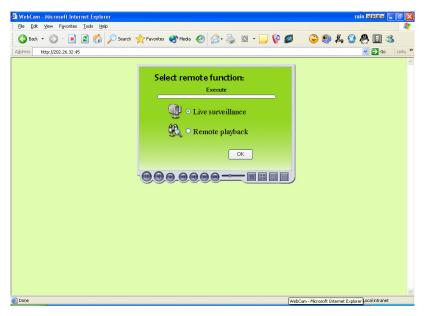


Fig7.2 Remote surveillance and playback services selection [Live Surveillance]: this option is for users to see remote live view. [Remote Playback]: this option is for users to play back recorded files. Notice:

In case the HTTP port setting is not 80 (80 is the default setting, commonly use) and when input the server IP address, users should add the port number after the IP address. For example, the server IP address is 211.148.96.234, and the port number is 81, then users should input <a href="http://211.148.96.234:81">http://211.148.96.234:81</a>.

Select Live Surveillance, and click 'OK' to install Remote Surveillance client-side program as below. In the next chapter, we will learn more about Remote Playback.

When connecting to the server for the first time, then the following window will pop up:



Fig7.3 Inquiry for installing WebCam downloading component **Notice:** 

If users have already installed client-side program before and MAXDVR version has not been changed on the server, after inputting server address in IE browser, Fig7.9 will come out without downloading or installing WebCam.

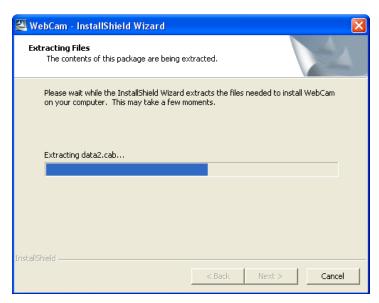


Fig7.4 WebCam client-side driver initializing

After initialization has been completed, WebCam will be installed automatically.



Fig7.5 WebCam installation

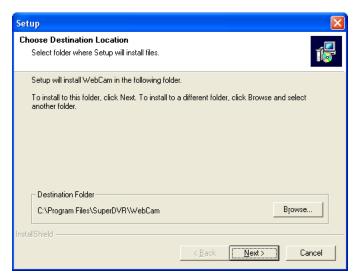
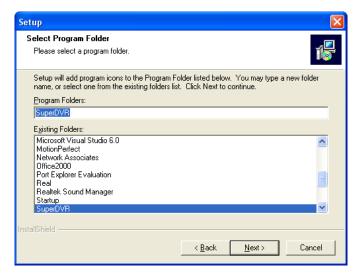


Fig7.6 Default install path

Users can choose path by clicking 'Browse'. Click 'Next' to continue:



### Fig7.7 Register program folder name

Click 'Next' after input the folder name or select the default name, and then 'Finish' installation as below:

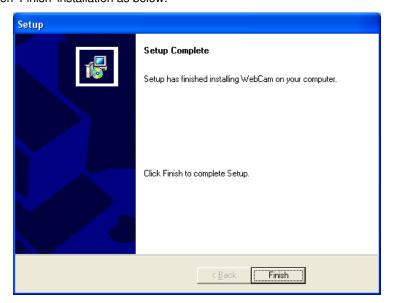
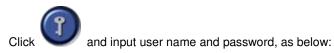


Fig7.8 Installation success

Then the WebCam main interface will appear as below:



Fig7.9 WebCam main interface



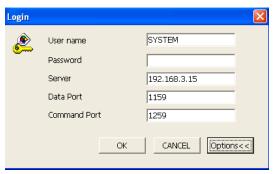


Fig7.10 Login webcam

Click 'Options' and enter the advanced setting area. Users can modify default Server IP, Data Port and Command Port .

### Note:

The default User name is SYSTEM without password. Users can set user name and password at the server end (refer to Fig4.23).

After logging into server, you will get the first channel video from server, and you can adjust screen mode just like MAXDVR, the bellow is the WebCam surveillance mode interface.



Fig7.11 WebCam surveillance state

Alarm state monitor and PTZ control are all same as MAXDVR, we would not need to give detail explanation here.

# 6.2 Remote Playback

## **Remote Playback server Configuration**

For using our powerful remote playback function, users should first enable Web Cam service and Remote Playback Service in Basic Configuration (refer to Fig4.1 and Fig7.12).



Fig7.12 Remote playback service configuration [RPB Port]: the default value is 13551

#### Note:

Uses can enable remote playback service without running the MAXDVR. Just enter the installation folder of MAXDVR, and activate MediaServer, users can also enable the RPB service.

Once the remote playback service has been enabled, there will be an icon on the taskbar to remind users the service has been activated.

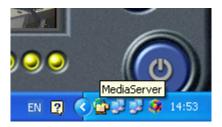


Fig7.13 Remote playback service activated

## Remote Playback Client-side Setup

Users should also first download and install playback program. This chapter will guide users how to make it.

Input server address in IE browser, and the following interface appears:

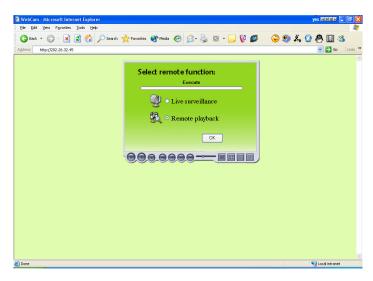


Fig7.14 Remote surveillance and playback services selection Select 'Remote playback' and click 'OK',

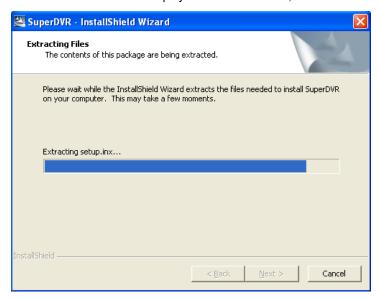


Fig7.15 installing remote playback program

### Notice:

In case users have already installed the remote playback program before and MAXDVR version has not been changed, there is no need to download and install it again, it will go to Fig7.20 directly.

After initialization has been completed, users need to install the program. First select installation path as below:

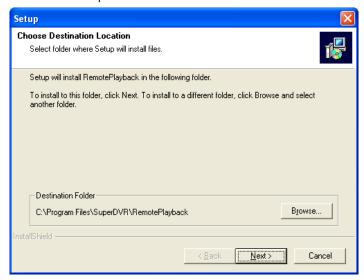


Fig7.16 Default install path

Users can set another path by clicking 'Browse'. Click 'Next' to continue:



Fig7.17 Register program folder name

Click 'Next' after inputting the folder name or selecting the default name, then the following figure appears:

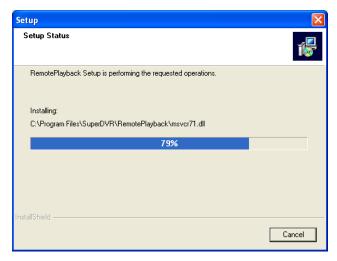


Fig7.18 Playback program installation process rate

And then click 'Finish' to finish installation as below:

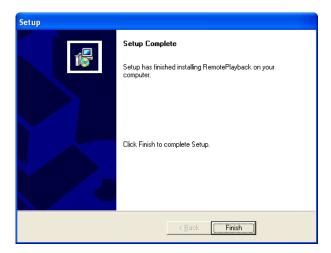


Fig7.19 Installation success

Then the playback client-side main interface will appear as below:



Fig7.20 Remote playback client-side main interface **Corresponding Explanations:** 



## **Remote Playback Configuration and Control**

## 6.2.1.1 Setup

Before logging in the server, first click and make corresponding settings,

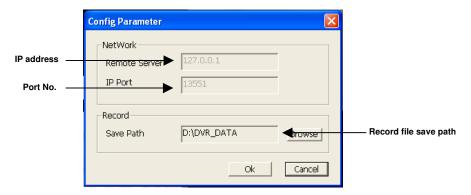


Fig7.21 Client-side configuration

## 6.2.1.2 Log in Remote Playback System

Click after making up certain configurations, and the following window appears.

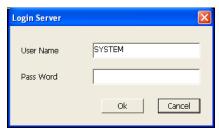


Fig7.22 Login remote playback system

Input the right user name and password and enter the remote playback main interface as below:

### Note:

The default User name is SYSTEM with no password. Users can set user name and password at the server end (refer to Fig4.23).



Fig7.23 Remote playback main interface

## 6.2.1.3 Control playback

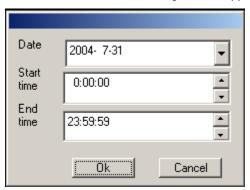
## Select the time period for playback

Once login the system, the setup button and login button are disabled.



Click

and the following window appear.



### Fig7.24 Select date/time period for playback

Select the date / time, then click 'OK' to save the setting and return to the main interface. Click 'Cancel' to give up setting. The selected time / date will appear at the left bottom of the screen.

### **Play Control**

Click and begin to play the recorded files. Press to pause. Users can draw the lever as below to select time to play.



Fig7.25 Time control Lever

The following area is for users to control the play speed.



Fig7.26 Play speed control module

### **Remote Record**

Click and begin to record remotely. And the icon changes

to Click it again and stop recording. Users can select save path and compression format before logging in the system.

## 6.3 Mobile Surveillance

### Introduction to Mobile Surveillance

In SuperDVR system, the mobile surveillance can be realized by connecting the mobile phone to the system. For time being, the function is supported by Windows Mobile system and Symbian Series 60 Developer Platform 2.0 intelligent mobile phone system. So far, the types of phones on which the function has been tested include mini 02, Xda II, Xda Atom, pocket PC phone edition, dopod 696, dopod 900, dopod 838, which are based on Windows Mobile system, and Nokia 6260, Nokia N70, Nokia 3230, Nokia6680 based on Smybian Series 60 system.

### **Client Configuration of Windows Mobile**

Server configuration on MAXDVR needs to be set before the function on phone is activated. Please refer to Section 7.1 "Remote Live Surveillance".

Firstly activate the network access on mobile phone and then run "Internet Explorer" after the server configuration has been done. Input the server's address and the connection is built up shown as below:



Figure 7.27 connected to the server

Click "PCam v1.0.6.5291". A dialog box pops up:



Figure 7.28 downloading dialog box

Please click "Yea" to start installing:



Figure 7.29 downloading status information

PCam will be opened after the download is finished:

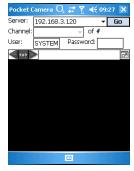


Figure 7.30 Main layout of PCam

Input the server's address, user name and password respectively in the columns

of "Server", "User" and "Password" and click "Go" to log on the server. Successful log on information appears if the server address, user name and password are all correct.



Figure 7.31 Log on system successfully

Channel one is the default displaying channel after log on successfully. Changing channel can be approached by selecting the channel in rolling-down menu of "Channel":



Figure 7.32 selecting channel

Click "Stop" to disconnect the communication with the server.

### **Client Configuration of Symbian 60**

Server configuration on MAXDVR needs to be set before the function on phone

is activated. Please refer to Section 7.1 "Remote Live Surveillance".

Firstly enable the network access on mobile phone and then run Web browser after the server configuration has been done. Input the server's address and then the connection is built up shown as below:



Figure 7.33 Open Web Browser

Input the server address in a new-built bookmark. Click this bookmark to connect to the server.



Figure 7.34 Build a bookmark



Figure 7.35 Connect to the server

Click "install package" to start downloading and a confirmation information window pops up after downloading is finished.



Figure 7.36 Confirmation Information window

System reminds of whether to install the "SCam" if clicking "Yes":



Figure 7.37 Installing information

Click "Yes" to start installing. A Scam shortcut icon appears on the desktop after the installation has been done.



Figure 7.38 Scam shortcut icon in system menu

Run "Scam" by clicking the icon:



Figure 7.39 Main layout of Scam

Enter the main menu by clicking "Options",



Figure 7.40 Main menu of Scam

Click "Setting" to set the log-in information,



Figure 7.41Configure log-in information

Click "Login" to build up the communication with server,



Figure 7.42 Connecting to the server

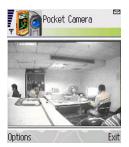


Figure 7.43 Log on successfully

#### Appendix

### **Appendix 2: Frequently Asked Questions**

### Appendix 2.2 How to Use MAXDVR

#### Appendix 2.2.1 Meanings of the indicator lights

Grey - Normal state

Red—Sensor alarm

Yellow- Motion detection alarm

Blue-Video loss

Bottle Green - Manual record state

Reseda - Schedule record state

#### Note:

Users can refer to Fig3.6 to learn more.

#### Appendix 2.2.2 How does the different record format work?

Users can set more than one record modes in Record setup (refer to Fig3.5), but actually, there is only one valid record mode for recording.

The priority order of the record modes is: Sensor Alarm Record > Motion Detection Record > Manual Record > Schedule Record

# Appendix 2.2.3 How to set recycling record mode on the system?

Select 'Recycle' in basic configuration, refer to Fig4.1.

Users can select multiple HDD partitions to save record files. It won't cover former files until all the partitions' available storage spaces are less than

100MB.

In case users haven't enabled recycling record mode and the partitions' storage spaces are less than 100MB, the alarm will ring and the HDD usage indicator will turn red.

#### Tips:

It is recommended that install MAXDVR into the partition installed with windows system (normally C:), and save record files in HDD partition D:

#### Appendix 2.2.4 How to set auto reboot function?

In case Microsoft Windows system continuously runs for a couple of days, the system may become unstable, therefore it's suggested to restart the computer every few of days.

In the basic configuration (refer to Fig4.1), input Windows user name and password (Note: not MAXDVR user name and password), and select time interval, then the Windows system will automatically restart according to the set time.

In case the Windows system closed abnormally, i.e. power supply is cut off, and when computer reboot next time, MAXDVR system will automatically restart, and keep the settings as before.

#### Tips:

Users do not need enable auto reboot function, but it's suggested to input the Windows user name and password in the relative area, therefore when meeting abnormal system exit, users don't need to input Windows and MAXDVR user names and passwords.

# Appendix 2.2.5 How to quickly use the schedule record function?

Press 'Shift' or 'Ctrl' key, and draw the cursor in corresponding areas to make schedules for multiple channels.

# Appendix 2.2.6 What are the byte rates for different image qualities from highest to normal?

When on PAL system and the frame rate is 25 fps, bit rate for the highest image quality is about 120K Byte/s, and for the lowest image quality is about 30K Byte/s.

## Appendix 2.2.7 The frame rate seems to be lower than what I set?

There is frame loss in image switch therefore the real record frame rate is about relatively lower than the theoretic value.

#### Appendix 2.2.8 Why I can't select more channels to backup?

Please draw the mouse in the channel selection area, or utilize Shift and Ctrl key for assistance.

#### Appendix 2.2.9 When should I select manual Gain Control?

In case the video signal is seriously decreasing, and the color images turn to black and white, use manual gain control may be helpful.

### **Appendix 2.3 How to Use Network Function**

#### Appendix 2.3.1 How to monitor on the client-side?

First enable 'Web cameras service' in basic configuration (refer to Fig4.1).

Input the server Internet address in IE browser on the client-side, and the necessary web cam driver will be downloaded automatically, then users need to install the driver. After access the web cam main interface, click 'login' and input user name and password to log in the system. (Refer to Chapter 7 to

learn more)

#### Appendix 2.3.2 Why I can't download the client-side software?

The possible causes:

The client-side computer hasn't properly connected to Internet or LAN.

The server-end hasn't enabled 'web cameras service'

The default Http port is 80. It may conflict with other Web servers, for example IIS. If true, please change another port.

Windows XP SP2 will block the OCX download. You should enable 'Internet Option → Security Settings → Download unsigned ActiveX controls'.

# Appendix 2.3.3 Why can't the server be configured at the client-side?

The possible causes:

It cannot be configured at the client-side, when the server is being configured at the server-end.

Only the last configuration is valid if server different configuration are deployed simultaneously.

#### Appendix 2.3.4 Why I can't see the images?

The possible causes:

The VGA card is too out dated.

Have not installed newer DirecDRraw.

MAXDVR cannot run in Window 98 system.

Data port or command port conflicts with other network services.

The user is connected to Internet through LAN, and the network administrator hasn't enabled corresponding data port or command port.

The client-side has installed firewall software that may stop video transmission.

MPEG4 codec has not been installed properly, please download new

version WebCam.

Bad network speed.

## Appendix 2.3.5 What should I do if the Internet speed is quite slow?

The more channels opened, and the slower the video transmission speed, therefore try to use one channel display mode when the network speed is slow.

Tips:

There may be some surplus channels that have no video input. Switching off the channels is of help to improve transmission speed. (Refer to Basic Configuration about switching on/off channels.)

# Appendix 2.3.6 Why I can't start WebCam server or RPB server?

Possible causes:

Other softwares are using these ports. If so, please change WebCam ports configuration or stop other softwares.

### **Appendix 3 Quick Start For Using**

Before installing the PCI card, check PC requirements:

- 1. P III 800 MHZ
- 2. 256 MB RAM
- 3. Windows 2000 (SP4 min) or Win XP (SP1 min)
- 4. NVIDIA Video Card with 32 MB min or similar
- 5. DirectX 9.0 minimum
- 6. 80 GB HDD

### Q: How to setup the web client to monitor from Internet?

A:

- On Main Computer where the DVR card installed:
- Make sure the computer connected to Internet. DSL or Cable Modem preferably.
- Find out your IP address. You can go to this link to find the IP address <a href="http://lawrencegoetz.com/programs/ipinfo/">http://lawrencegoetz.com/programs/ipinfo/</a>
- Open up the MAXDVR program and go to basic configuration.
   Check and ENABLE Web Camera Service and Remote Play Back Service.
- Make Note on Data Port, Command Port and RPB port.

NOTE: IF YOU ARE CONNECTING TO INTERNET by ROUTER, YOU NEED TO configure THE SETUP OF THE ROUTER AND DO THE PORT FORWARDING. PORTS THAT NEED TO BE FORWARDED: 80, 1159, 1259 AND 13551. CHECK YOUR ROUTER MANUAL ON HOW TO SETUP THAT.

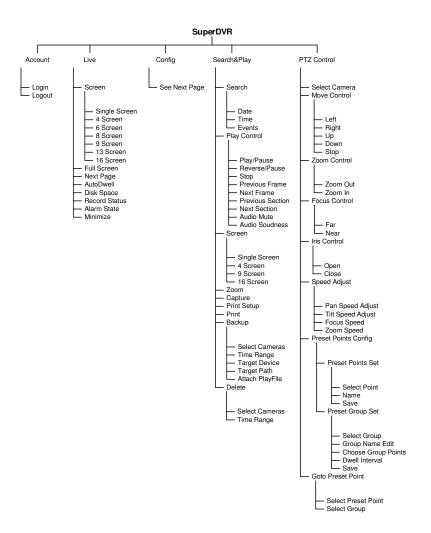
### - On Remote Client Computer:

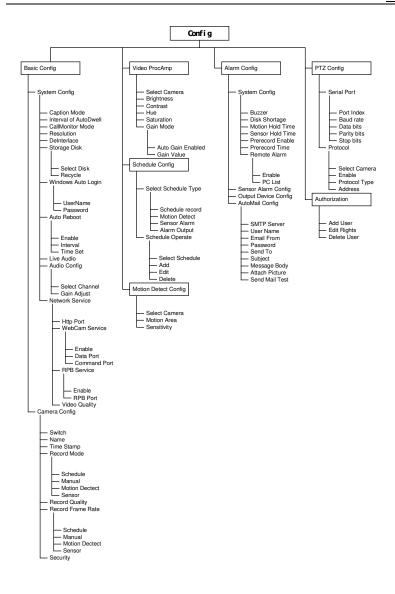
- Minimum Requirement for the client computer:
  - 1. P III 800 MHZ
  - 2. 256 MB RAM
  - 3. Windows 2000 (SP4 min) or Win XP (SP1 min)
  - 4. NVIDIA Video Card with 32 MB min or similar
  - 5. DirectX 9.0 minimum
  - 6.80 GB HDD
- Open up Internet Explorer.

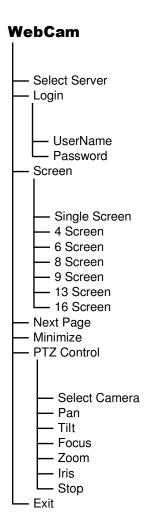
- If you are running XP with SP2 do the following: on Internet explorer, click on TOOLS and Internet Option, Security Tab, Custom Level, and "ENABLE DOWNLOAD UNSIGNED ACTIVEX CONTROLS"
  - In the address column of the Internet explorer, type in the IP address of Main Computer
  - Click OK on Live Surveillance. This will download the webcam program. And then you can download Remote Playback as well.
  - On Desktop now you should see WEBCAM and REMOTE PLAYBACK icon.
  - Open up webcam, click on KEY symbol icon, user name: system. Password blank unless you setup a password within the main computer. Server: this the IP address of the main computer. Data port: 1159 and Command port: 1259. Click OK. Now you should be able to view the live video from main computer.
  - To Play Back the VIDEO that has been recorded in Main Computer, Open up REMOTE PLAYBACK.
  - Click on CONFIG. Remote server: the IP address of main computer. IP port: 13551. OK
  - Click LOGIN. OK. Now you should be able to play back the recorded video from main computer.

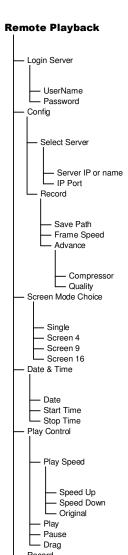
FOR MORE DETAILS INFO: READ THE MANUAL.

## **Appendix 4 Function Tree**









RecordEvent BrowseBandWidth Monitor

Minimize
Exit