SCode DVR Software
Digital Video Network Surveillance System

SCode DVR Software offers the best total solution of the video surveillance market.

Kernel Technologies

Image Compression (H.264)

Provide the most advanced H.264 and MPEG4 image compression with the Dual-Video-Stream technology to reduce the storage HDD space and the bandwidth of the remote video transfer stream.

High Video Resolution

Offer CIF (352x288 / 352x240) and D1 (704x576 / 704x480) with good image quality。

Audio Compression

Use ADPCM voice compression technology.
Sampling rate =8KHz. Data rate = 32 Kbps.

High Video and Audio Inputs

SCode DVR Software can support 4 ~ 64 channels of the video and Audio inputs.

Multi Monitors

Can support 1 ~ 4 monitors at one DVR machine.

Multi-Process Capability

Allow to function the monitoring, recording, Playback and remote video transfer simultaneously.
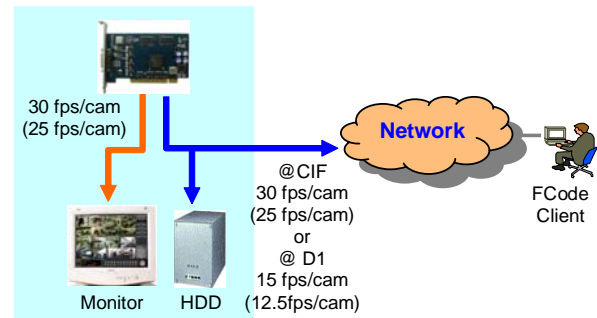
Networking Capability

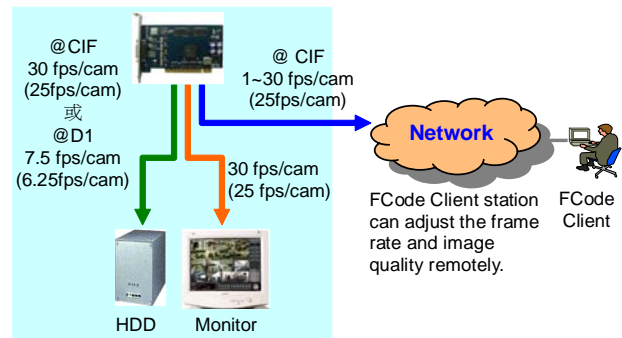Support PSTN、ISDN、LAN、Internet.

View by Mobile Phone

Allow to monitor the video by the mobile phone which support flash feature.

Offer Dual Video Stream

In order to send the image to the remote **CMS station**s by through the narrow communication bandwidth, a special dual video stream function is provided. It can support 2 independent H.264 video streams. This feature can allow the recording speed of the DVR machine to keep always in a fixed speed. But the transfer image speed of the monitored DVR machine's each camera can be adjustable by the remote observer, depended by the network speed.

30 fps/cam
(25 fps/cam)

Network

@CIF
30 fps/cam
(25 fps/cam)
or
@ D1
15 fps/cam
(12.5fps/cam)

Monitor   HDD

FCode
Client

Single-Video Stream Mode

@CIF
30 fps/cam
(25fps/cam)
或
@D1
7.5 fps/cam
(6.25fps/cam)

@ CIF
1~30 fps/cam
(25fps/cam)

30 fps/cam
(25 fps/cam)

Network

FCode Client station can adjust the frame rate and image quality remotely.

FCode
Client

HDD   Monitor

Dual-Video Stream Mode

Depended on the DVR product, some function may be different

DVR System Features

Video Monitoring

Depending on the number of installed channels, one DVR machine can display 1/4/6/9/16/25/36/64 split windows. The date and time, the HDD status, and the working information are displayed in the user interface.

- **Support 2 modes of Graphic User Interface (GUI)**

  Provides Simple GUI and Advanced GUI

- **Monitor resolution (Pixel^2)**

  PAL : 176x144, 352x288, 720x567

  NTSC : 176x120, 352x240, 720x480

- **Multi-monitor**

  Support 1 ~ 4 monitors to view the image.

  Console monitor : 1 set

  Sub- monitor : 3 sets

Split window

- **Split window**

  Console : Offer 1, 4, 6, 9, 16, 25, 36, 64 split modes

  Sub-monitor 1 : Offer 1, 4, 16 and 36 Split modes

  Sub-monitor 2, 3 : 1, 4, and 16 split modes

- **Offers Full screen window**
- **Page change (Auto scan)**

  When the system is in the 1, 4, 6, 9, and 16 split window mode, displaying of each camera window can be rotated automatically one after the other during set intervals.

- **Image window control**

  Allow to view or hide the camera's image without influence the recording function.

  Can assign different user to view the different cameras.

- **Window editor**

  Allow to the user to edit and change the camera position of the monitor window. Here offers on-screen and off-screen editing.

- **Assign a camera name**

  Sets the camera name and displays the name on the image window.

- **Show camera's name**

  Allow to show the camera number, name, and date & time on the image.

- **Adjustable input video signal**

  The input video signal can be adjusted for hue, saturation, contrast, and brightness.

- **Right-click command window**

  Provide the right-click command. Some often-used operation commands are collected in this command window. It can help the user to operate the system.

- **Provide device information check**

  Allows the user to edit one device information to each camera and I/O device. It helps the local user and the remote user during checks of the device data.

Video Recording

Support up to 64 camera's recording in one DVR machine. Each camera can be set up independently.

- **Image compression technology**

  Provide H.264 dual-stream compression technology. It will created 2 independent compressed video streams. One can be used as the recording stream. The other can be used as the remote video transferring stream. These 2 streams can be set to have different image quality, frame rate, and GOP size.

- **2 kinds of video streaming modes**

  Single-video stream and Dual-video stream.

- **Recorded resolution (pixel^2)**

  PAL = 352x288(CIF) and 704x576(D1)

  NTSC = 352x240(CIF) and 704x480(D1)

Depended on the DVR product, some function may be different

Each camera can adjust the recording resolution, and recording speed independently.

■ **Video recording control**

Allow to start or stop the recording function of all cameras, at one time. The user can also control the recording function, one camera by one camera.
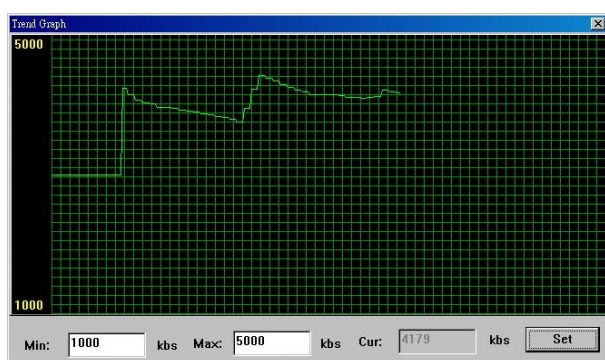
■ **Adjustable recorded image quality**

21 levels of recorded image quality are offered. The user can adjust the image quality, accommodating limitations of the network or manner of file transfer.

■ **Recording mode**

Provide 5 modes :

Manual recording mode, Auto recording mode, Schedule recording mode, Recording triggered by image motion detection, Recording triggered by input port.

Offer the Video Stream Chart

Audio recording and monitoring

Each camera can have one audio inputs. Support 1 ~ 64 audio inputs with 1 audio input which is used for the local audio broadcasting by through PC's sound card.

ADPCM is used as the audio compression technology.

■ **Local audio function**

Support 1 ~ 64 channel audio monitoring and recording capability.

■ **Remote audio function**

Support remote audio monitoring and recording capability by through digital network communication.

■ **Remote audio broadcast**

The remote CMS Station user can send his voice to any one or all DVRs.

■ **2-way talk**

The remoter CMS station user can talk with the DVR machine by through the network.

Instant Playback

While in recording, the user can play the recording video film in an independent movable image window, without waiting the video film created.

Scheduled Recording

The user can program a recording schedule for each one camera. This feature can avoid redundant daily operation.

It support 4 kinds of the repeat modes :
Only once, every day, every week, every month

File Storage

Each camera will create its own video files.

■ **Adjustable video film length**

The default recording length of the video film is set to 60 minutes. It can be adjusted by units of 1 min.

■ **Adjustable HDD reserved space**

The user can arrange HDD space by adjusting the reserved space.

■ **Multiple HDD storage**

DVR machine can support unlimited number of HDD to store video files. The system will switch to the next HDD automatically, when the working HDD is full.

■ **Recyclable recording**

It enables the system to continue recording new video files when all hard disks are full. The old files will be deleted automatically in order to store new video files.

■ **HDD full alarm**

While the HDD is full, the system can play a sound to inform the user.

■ **AVI format converter**

Convert the stored video which is used the private video format to public AVI format.

Image Motion Detection

This real-time image motion detection mechanism checks each incoming video frame. It triggers the recording function and executes alarm functions like, sounding alarm, take pictures, enlarge the video window on screen, or enable its external output port. 16 sensitivity levels are offered by the system.

■ **Sensitivity adjustment**

16 sensitivity levels are offered by the system.

■ **Alarm mask**

In each camera, the user can set 1 ~ 8 alarm masks.

Image Mask

Allow to hide part of the image by using the image mask function.

■ **Multiple image masks**

Every one camera can be set 1 ~ 8 image masks。

■ **Recording mask**

The use can choose whether the recorded video can be hidden with the image masks or not。

Video Loss Detection

Provide video loss detection and send out alarm function.

Snapshot

The user can take pictures while the system is in the monitor mode, recording mode, and playback mode. The picture will include date, time, and camera name. And, every camera can have its own storage folder.

Depended on the DVR product, some function may be different

eMAP

Supports an eMAP to locate camera positions. They are shown on floor maps and show their working status.

PTZ Control

By RS232/485 converter, 1~16 camera plates or speed domes can be controlled.

Plate control : Auto, Pan, Tilt

Lens control : Zoom, Focus, Light

Speed control : Zoom, Pan Tilt

External control : Wiper, Heater, Fan, Lighter

■ **Available PTZ controllers**

Paten PT846M, Lilin, Chiper

■ **Available speed dome**

Lilin, Dynacolor, Philips, TOA, Pelco D, Pelco P, Ganz, Kalatel, VSD128, JY2000, AD

I/O Control

Using the I/O controller by through RS232/485 converter, the system can interact with external devices like IR sensors, vibration sensors, relays, etc. to enhance the detection capability of the system and to extend the control capability.

■ **Available I/O controllers**

Paten PT811M, P16R16 / P8R8, Jabsco, DCTRLS, Mainvan, S88RM

Alarm

If the camera detect the image changed or the external sensor detect one event, it will trigger the alarm functions

■ **Alarm detector**

Provide the motion image detection of camera and external sensor to detect the alarm event.

■ **Alarm log**

If the machine detects an alarm event, the system will write this alarm event with the related information into an alarm log book.

It can execute alarm actions like: Play an alarm sound (Every device can have its own alarm sound), Trigger the system to record, Take a picture Enlarge the

monitoring image, Activate the external equipments.

■ **Remote alarm function**

It can execute alarm actions like: Require the remote CMS Station to sound a pre-pointed alarm, Send live video images to the remote CMS Stations.

Once the camera or external sensor detects an event, it can inform the multiple remote CMS Stations. One camera or one detector can send multi- camera's live image to the remote CMS Station.

It also can request the remote CMS Station to sound the different pre-point alarm.

■ **Send alarm to remote telephone**

At an alarm event, the DVR machine can inform remote telephones or mobile phones by a recorded voice message through the modem.

■ **Send alarm by emails**

At an alarm event, the DVR machine can send a mail to multiple email addresses.

■ **Alarm schedule**

Users can setup a schedule to activate the alarm functions. It supports 4 kinds of repeat modes: Only once, every day, every week, every month

■ **Play an alarm sound on requested by remote user**

The DVR machine can accept commands sent by the remote CMS stations to sound an alarm, stored in its sound bank.

Playback

Allow to play 1 ~ 16 video films, simultaneously.

■ **File search**

Allow to search the films by time, camera name, camera number, and file name.

■ **File statistics**

Allow to count the total file number and total file size of the selected files or one day's recording, automatically.

■ **Multi- film playback capability**

Allow to play 1 ~ 16 video which are located in different time, simultaneously.

■ **Operation**

Skip foreword, Skip backward, Pause, and Step

Depended on the DVR product, some function may be different

(Frame by frame) operations are offered.

It is allowed to control the playing videos together, or one by one.

■ **Scroll bar control**

Quickly access a special time in one video file, by moving the scroll bar, directly.

It is allowed to control the playing videos together, or one by one.

■ **Change the camera information's color**

Allow to change the text color of the camera information shown on the image window.

■ **Playback speed control**

Playback speed : 1/8, 1/4, 1/2, 1, 2, 4, 8 times.

It is allowed to control the playing videos together, or one by one.

■ **Zoom in**

The playing video can be zoomed.

■ **Export video files to CD-R/RW**

The user can select and export the interested files to the CD-R/RW, directly. While in export the video files, the user can make a copy of the playback program into the CD disk.

■ **Smart search**

The user can set an image checking area on the playing video film. The playback program will run in a fast speed if there is nothing changed in the image changing area. When the changing area has something moved, the playback program will be back the normal playback speed.

System Information Check

Allow the user to check the below system information :

■ HDD status

■ System operation history

■ System login history

■ Alarm log history

Password Protection

■ **User authorization**

The system administrator can authorize different users with different operation functions and view the different cameras. The setup includes authorization settings for local and remote operations.

■ **Local password protection**

The password protect mode can avoid unauthorized access at the local site.

■ **On-line to change login in name**

It is allowed to change the login name without closing the program.

■ **Remote password protection**

If users want to access one DVR machine from remote site, the system will check for authorized user passwords.

Automatic Function

■ **Auto power-on execution**

The system can be launched automatically, after powered on.

■ **Auto execute recording**

The system can execute the recording function automatically after it is launched.

■ **Auto shut down**

The system can be shut down at a preset time automatically.

■ **Auto reboot**

The system can be rebooted at a preset time automatically.

■ **Auto close machine**

The DVR machine can be closed automatically after the DVR program is quitted.

■ **Auto link to server**

After the system launched, the DVR machine can link to Server Station automatically.

Keyboard Control

■ **Keyboard lock**

Provide keyboard lock function to avoid unexpected persons who try to access the Windows OS.

Remote Machine's Working Status Check

The remote CMS user can check the DVR machine's working status :

CPU using rate, Memory using rate, HDD using rate, Install states of the external I/O controller, working status of the cameras, login status.

Operating System

■ Support Win XP, Win 7-32bit.

■ Support intel P4 or other x86 CPU.

■ Support DirectDraw and non-DirectDraw VGA card

Depended on the DVR product, some function may be different