Linux MPEG4 Quick User's Guide

SECURVIEW™
Digital Video Surveillance

Software Version
2.4-7

For the DVR SILVER, DVRGOLD and DVRPLATINUM series DVR's.

HICAP25, HICAP50, HICAP100, HICAP200, MIS8, MIS16, PLATCARD200, PLATCARD100, PLATCARD2008CH, PLATCARD1008CH and PLATCARD1004CH

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WARNING

All the safety and operating instructions should be read before operation. Any improper operation may cause permanent damage.

The Linux DVR software will install the Linux operating system and digital video recorder software onto your hard drive. The installation will erase all information stored on your hard drives and is unable to be recovered.

- **This software is for use with the HICAP, MIS and PLATCARD series of capture cards only.**
- **This software will expire within 14 days after installation at which time the user must request a PRODUCT KEY from the distributor or RhinoCo Technology.**
- **RhinoCo Technology does not take responsibility for misuse of this software.**
- **Installation should be made by a qualified computer technician or a qualified RhinoCo Technology distributor or technician.**
- **Refer to the System Requirements Specification prior to installing this Linux DVR software.**
- **DVR System and capture card warranty may become void if not properly maintained or cleaned. See Maintenance Section of this manual.**

FEATURES

- **Fast and Easy installation.**
- **Multiple Levels of Password Protection.**
- **MPEG-4 Video Compression.**
- **User friendly graphical user interface.**
- **Full Triplex Operation. Simultaneously Record, Search, Backup and Remotely view.**
- **Stable and Secure Linux Operating System.**
- **Continuous, Motion, Event and Scheduled record functions.**
- **Pan / Tilt / Zoom camera integration and Control.**
- **Diverse remote viewing support by web interface and client software**
- **Will support up to 16 cameras per machine and up to 256 cameras using remote multihosting.**
- **Completely adjustable recording rates and settings.**
- **Software based motion detection.**
- **Digital alarm input – output software control.**
- **Easy backup procedure via Floppy Disk, CD/DVDRW and USB devices.**
- **Audio Recording.**
- **Supports 352x288 and 704x576 resolutions (High Resolution for selected Cards Only).**
- **Realtime Display (For Delected Cards Only).**
- **RAID-1 Storage Support.**
- **Virus Resistant - Cannot be affected like other Windows based Systems.**

SYSTEMS REQUIREMENTS

Before installing the Linux DVR software, please refer to the system requirements below:

- **A motherboard with an Intel 865/915/945 chipset**
- **Intel integrated Graphics, GeForce or Nvidia VGA (either onboard or AGP/PCI-E)**
- **512Mb RAM**
- **Intel Pentium 4 2.8Ghz / PentiumD 2.6 Ghz / Core2 Duo 1.6 Ghz or better.**
- **Minimum 160Gb IDE hard disk drive.**
  Please Note: The Primary Hard disk must be IDE.
- **CD-ROM drive.**
- **A HICAP, MIS or PLATCARD Series Capture Cards.**
- **Realtek network card.**
- **Compatible PS2 mouse and keyboard.**

The following system specification is highly recommended:

- **A motherboard with an Intel 865/915/945 chipset, we recommend:**

  Gigabyte GA-8I865GME-775 motherboard with onboard VGA and LAN or

  Asus P5PE-VM motherboard with onboard VGA and LAN or

  Gigabyte GA-945GCMX-S2 motherboard with onboard VGA and LAN or

  Asus P5GZ-MX motherboard with onboard VGA and LAN.
- **Intel integrated Graphics, GeForce or Nvidia VGA (either onboard or AGP/PCI-E).**
- **512Mb DDR2 RAM.**
- **Intel Pentium4 2.8Ghz / PentiumD 2.6 Ghz / Core2 Duo 1.6 Ghz or better.**
- **Asus DVD-RW drive.**
- **Up to 3 IDE 160Gb - 1Tb IDE hard disk drives.**
  Please Note: The Primary Hard disk must be IDE.
- **Up to 4 SATA2 160Gb - 1Tb IDE hard disk drives.**
  Please Note: The Primary Hard disk must be IDE.
- **A HICAP, MIS or PLATCARD Series Capture Card.**
- **Realtek network card.**
- **Compatible PS2 mouse and keyboard.**
- **512 / 512 Broadband cable or ADSL connection with static IP for remote viewing.**

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INSTALLING THE LINUX DVR SOFTWARE

1

Before installing the software, please make sure that the system requirements of the DVR software are met. The list on the right is the recommended system for the Linux DVR MPEG4 Software.

- Intel Pentium 2.8 GHz CPU.
- Socket 775 CPU and motherboard.
- Intel chipset motherboard (Gigabyte or Asus brands recommended).
- 512 Mb RAM
- 160 GB IDE Hard Disk Drive
- Intel onboard Graphics or GeForce/Nvidia Graphics card.
- Realtek network card.
- Disc drive

2

In the Bios, make sure that the CD-ROM is the bootable drive, and that the AC Power Loss function is set to "Full On". You may need to refer to your motherboard's user manual or refer to your computer reseller or a qualified computer technician.

Where possible, make sure that the hard drives are installed in a series with the CD-ROM drive as the last drive (that is, the CD-RW drive is installed as Secondary Slave)

3

The Bootable CD will install the Linux Operating system and all the necessary device drivers for your system.

To confirm the installation of the Linux MPEG4 software, select <Ok>.

Warning: Installing the Linux DVR MPEG4 Software will permanently erase all data (contents) on your computer.

4

When rebuilding the software on the DVR, you may be asked if you wish to keep your recorded data. Select Yes to keep it, or No to erase the Hard Drive.

5

If you are rebuilding the software on the DVR, you may also be asked if you wish to keep your configuration and settings. Select Yes to keep them, or No to default the machine.

6

When the installation is complete, the following screen will appear. The Linux DVR bootable CD will be ejected from the CD-ROM drive.

Remove the CD from the drive. Press the ENTER key on your keyboard to confirm.

The machine will now reboot.

7

The computer will restart and configure your system for use as a Linux MPEG4 Digital Video Recorder.

Additional hard drives will be formatted for use in the system, and will become additional storage.

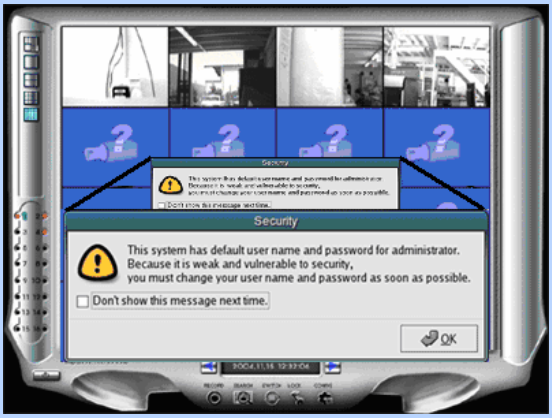
After the software has configured your computer for (default) usage, the main DVR screen will be displayed.

8

The Security warning dialog box may appear to remind you to change the default password for the Linux DVR system.

The default username is admin, the default password is also admin.

To disable this warning dialog box permanently, tick the box next to the option Don't show this message next time and click the OK button to confirm.

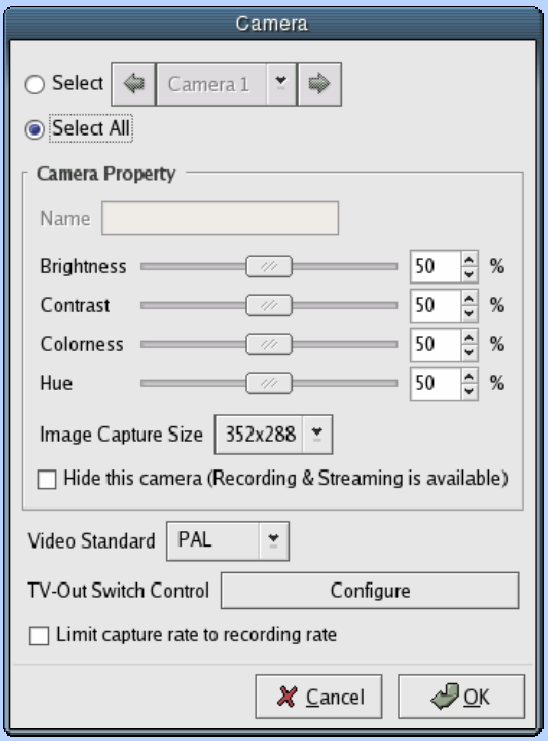
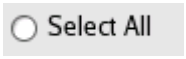
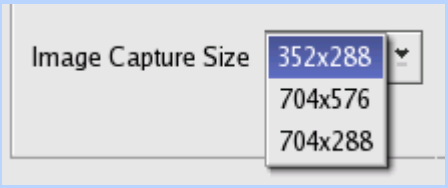
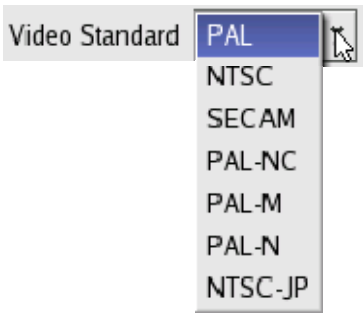


BASIC CONFIGURATION OF THE MPEG4 SOFTWARE

After the installation of the Linux MPEG4 software, the DVR configurations are set to default. In order to best utilise the software, it must be configured manually. The following instructions describe the steps to best configure your Linux MPEG4 DVR software.

CONFIGURE THE CAMERA SETTINGS.

1	**After installing the DVR software, the main screen will be displayed:**	
2	**To configure the Camera settings of the Linux DVR software, click the Config button.**	
3	**The following menu will be displayed:** **Select the Camera option from the list.**	

4	**The Camera configuration dialog box will be displayed. All cameras should have configurations as shown on the right:**	
5	**To do this, click the option Select All to configure all the cameras in the DVR system.**	
6	**You can also select the Resolution from this list as shown on the right.** **Please note that only some models of DVR's can support higher resolutions.**	
7	**Select the PAL option in the Video Standard setting as shown on the right.**	
8	**Click the OK button to confirm and save.**	

CONFIGURE THE RECORDING SETTINGS

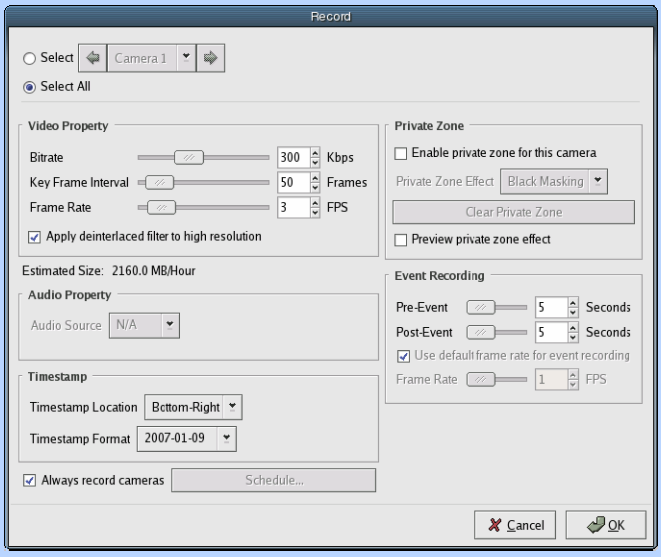
1 We recommend configuring the DVR software to record at optimum settings.

2 To configure the Recording settings of the Linux DVR software, click the Record button.

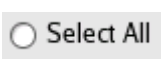
3 To following menu will be displayed:

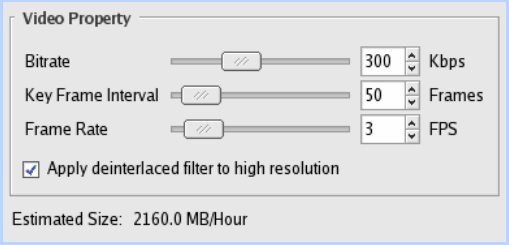
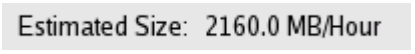
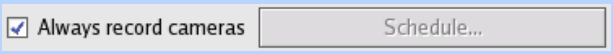
Select the Record option from the list.

4 The Record configuration dialog box will be displayed. We recommend all cameras have the configurations as shown on the right:



5 To do this, select the Select All option.



6	**Change the Frame Rate to 3 FPS.** **Then change the Bitrate to 300 Kbps.** **Please note that only some DVR's can support a 2000 Kbps Bitrate.**	
7	**You will be given an Estimated disk usage. This is directly related to your selected resolution, frame rate and bitrate.** **Please remember this is only an estimate.**	
8	**Enable Always record cameras.** **This is so the Linux DVR will record in a CONTINUOUS RECORDING mode.**	
9	**Click the OK button to confirm and save.**	

CONFIGURE THE SYSTEM TIME AND DATE

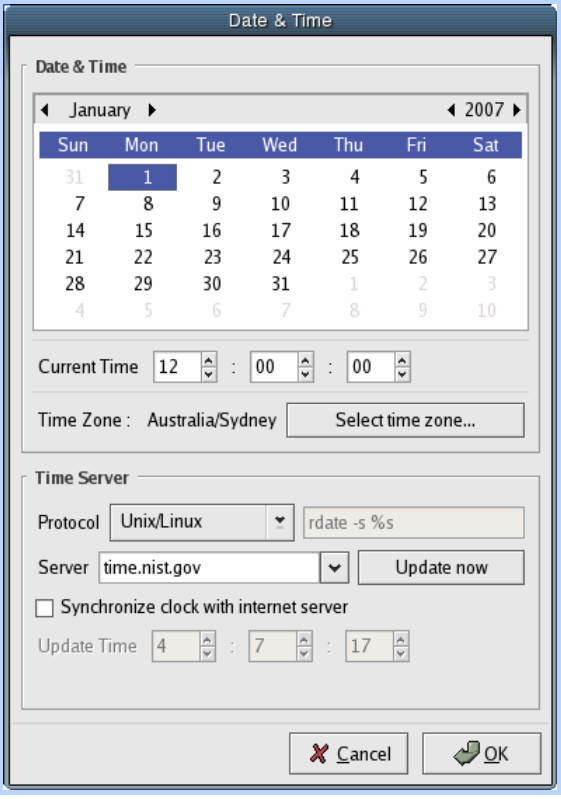
1 The DVR system will need to be configured to the current local time.

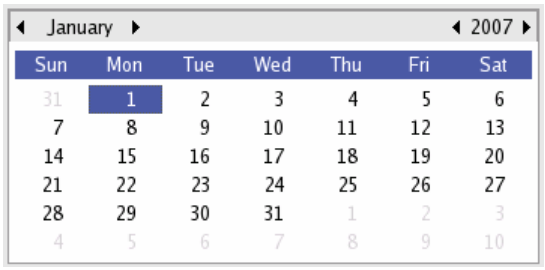
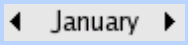
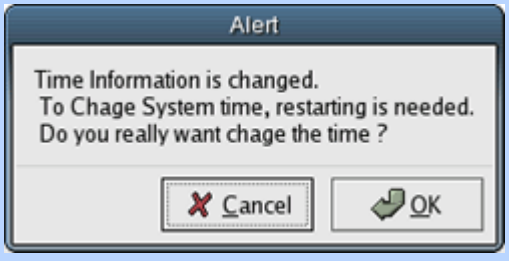
2 To adjust the Time and Date of the Linux DVR software, click the Config button.

3 To following menu will be displayed:

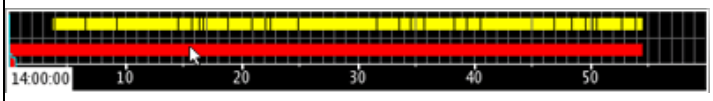
Select the System option from the list, and then Time & Date. As shown on the right:

4 The Date & Time configuration dialog box will be displayed similar to the image on the right:



5	**Select the current day in the Calendar box.**	
6	**You can change the month, by clicking on the left or right arrows next to the month.**	
7	**To change the year, click the left or right arrows next to the year.**	
8	**You can adjust the Current Time by clicking on the up or down buttons next to each box.**	
9	**If necessary, you can change the time zone by clicking the Select Time Zone button.**	
10	**The Time Zone configuration dialog box will be displayed.**	
11	**You can select your local time zone by clicking the country and corresponding city from the drop down box.**	
12	**Click the OK button to select that Time Zone.**	
13	**In the Date & Time dialog box, click the OK button to save the current date and time settings.**	
14	**The following Alert may be displayed for confirmation. Click the OK button to confirm.**	

PLAYING BACK RECORDED FOOTAGE

1	**To playback any recorded footage, click the Search button.**	
2	**The Search screen will be displayed.**	
3	**Select the date that you want to playback from the Calendar panel.** **You can change the Calendar Month, by clicking on the left or right arrows at the top.** **Then select the day.**	
4	**Select the Hour that you want to playback from the 24-Hour Timeline Bar.**	
5	**The One-Hour Timeline Panel displays all the event and continuous footage.** **The Yellow bar indicates Motion Detection.** **The Red bar indicates Recording.** **The numbered bar at the bottom of the panel is the Minute Indicator. Click above the minute bar to select the starting minute that you want to playback from.**	
6	**Then click the Play button.**	
7	**To increase the speed of the playback, click the Play button again.** **This playback speed will be displayed at the bottom of the Playback Control Panel.**	
8	**The speed can be increased up to 16 times, and then decreased.**	X1 ⇒ X2 ⇒ X4 ⇒ X8 ⇒ X16 ⇒ X1/4 ⇒ X1/2 ⇒ X3/4 ⇒ X1
9	**For more information about the buttons on the Playback Control Panel, refer to the table below.**	

THE PLAYBACK CONTROL PANEL

 **Move Back 10 Seconds.**

 **Previous Frame.**

 **Next Frame**

 **Move Forward 10 Seconds**

 **Move Backward 1 Minute**

 **Stop**

 **Play**

 **Move Forward 1 Minute**

 **Return to Main – closes the Search screen and returns to the Main screen.**

Playback Speed display.

BACKING UP RECORDED FOOTAGE

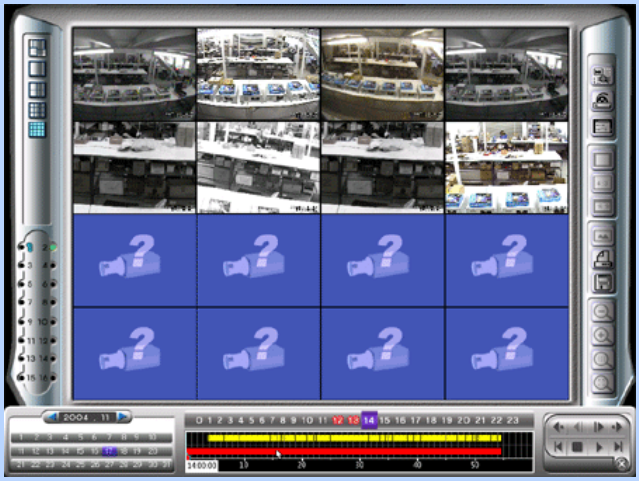
1

On the Main screen, click the Search button.

Note: If you wish to use a USB device for the backup, you will have to plug it in before continuing.

2

The Search screen will be displayed.



3

Select the date that you want to backup from the Calendar panel.

You can change the Calendar Month, by clicking on the left or right arrows at the top.

Then select the day.

4

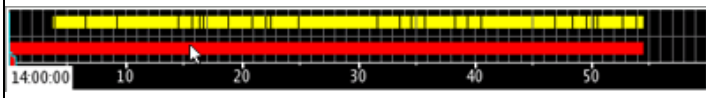
From the 24-Hour Timeline Bar, select the starting hour that you wish to backup from.

5

The One-Hour Timeline Panel displays all the event and continuous footage.

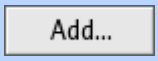
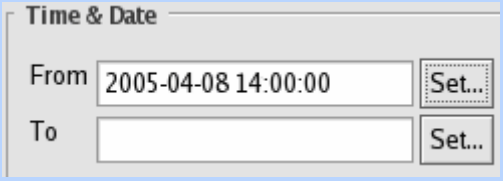
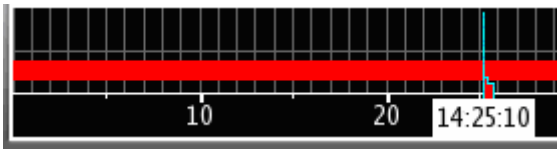
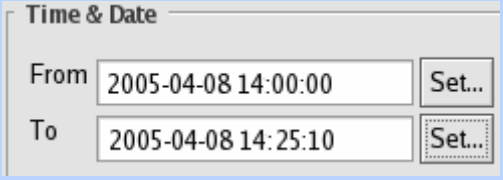
The Yellow bar indicates Motion Detection.
The Red bar indicates Recording.

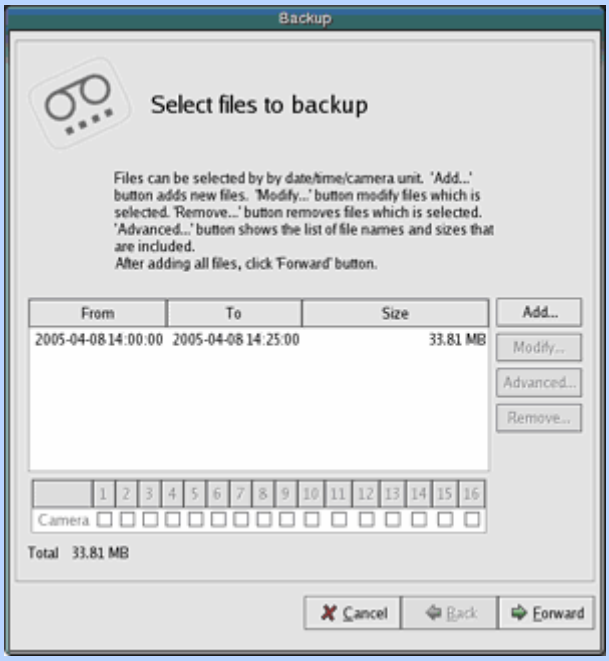
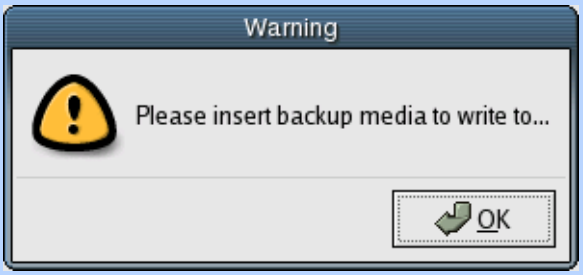
The numbered bar at the bottom of the panel is the Minute Indicator. Click above the minute bar to select the starting minute that you want to begin backup up from.

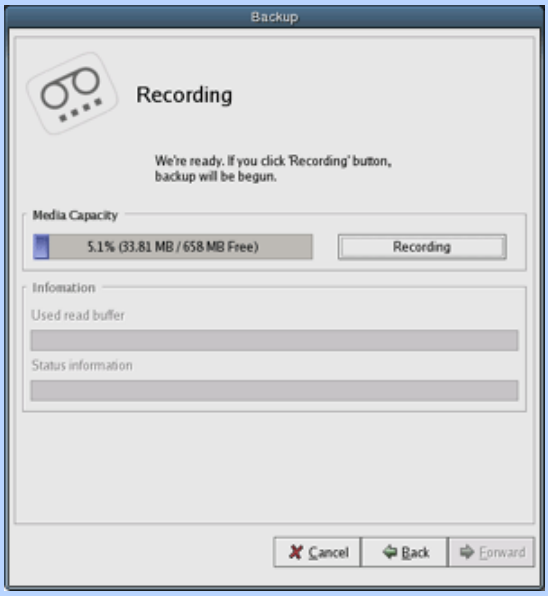
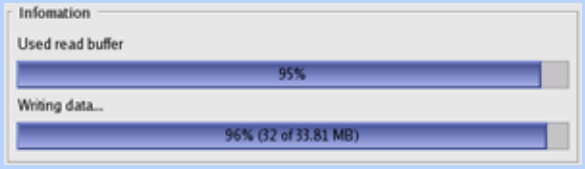
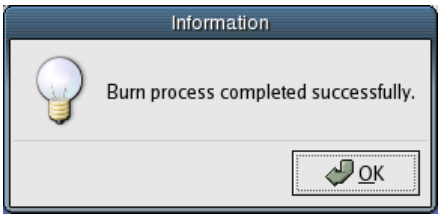
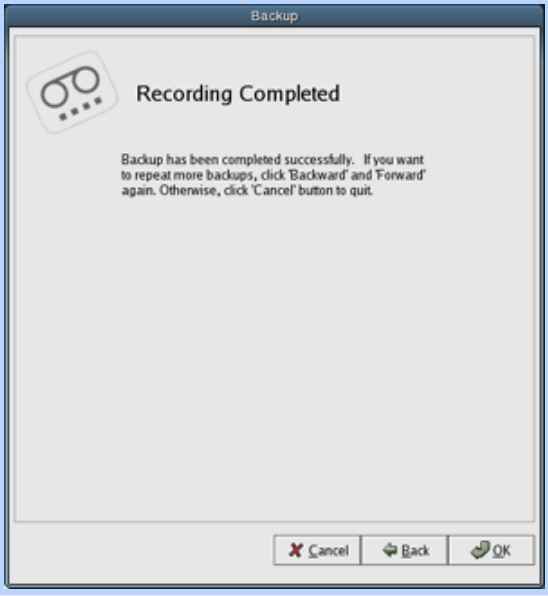


6

In the System Tools Panel located in the top-right hand corner of the Search screen, click the Backup button.

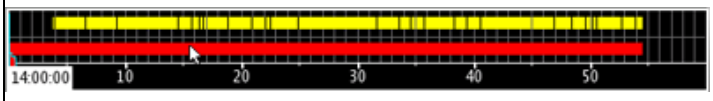
7	**The Backup dialog box will appear.**	
8	**Click the Add button.**	
9	**The Add Files to Backup dialog will appear.**	
10	**Next to the From field, click the Set… button to insert the start time.**	
11	**Now while the Backup Dialog is open, in the background you can select the ending Hour and minute that you want to backup.**	
12	**Back in the Add Files to Backup dialog. You can now click the Set… button to insert the end time next to the To field.**	
13	**Now that you have entered the Start and End Times of the footage you wish to backup, you can continue the backup procedure by clicking the Ok button.**	

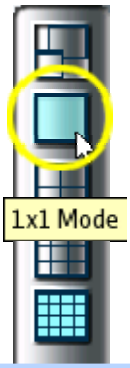
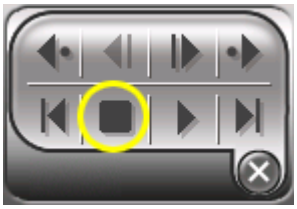
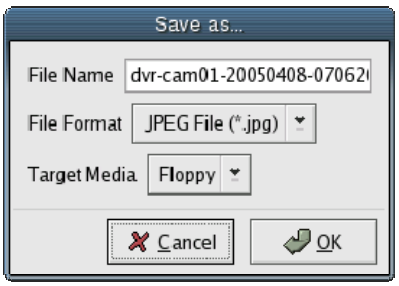
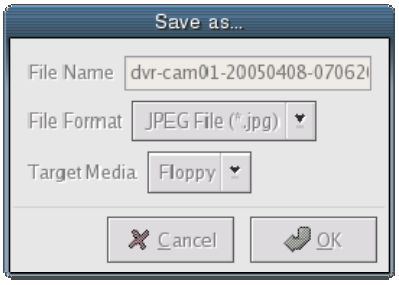
14	**This will return you to the Backup dialog box with the selected event period listed in the file list.** **If you need to add more footage to backup, repeat Steps 8 to 13.** **The total size MUST be less than the size of the disc you are copying it to.**	
15	**Click the Forward button to continue**	
16	**The Select Backup dialog box will appear.** **Here you can choose which device you wish to backup to.**	
17	**Click the Forward button to continue.**	
18	**The Backup software will read the CD-RW drive if there is a blank CD inserted. If there is no CD inserted or the CD already contains data, the CD-RW drive will automatically open / eject and the Warning dialog box similar to the image on right will appear.** **Insert a blank CD onto the CD-RW drive and click the Ok button.**	
19	**When the Select Backup dialog box appears again, click the Forward button.**	

20	**The Recording dialog box will now appear.**	
21	**Make sure the Media Capacity bar is below the maximum (indicated as 656MB free).** **To start the backup onto the blank CD, click the Recording button to continue.**	
22	**The backup procedure will begin and these bars in the Information panel will indicate the progress of the procedure.**	
23	**When the backup procedure is completed, the CD will be automatically ejected from the machine and the Backup Completion Information dialog box will appear.** **Click the OK button to close this dialog box.**	
24	**The Recording Completed dialog box will appear.** **Click the OK button to close the dialog box.**	
25	**To close the Search screen and return to Main screen click the Exit to Main button.**	

TAKING STILL IMAGES OF THE RECORDED FOOTAGE

During playback, you can take snap shots (single frame) of the recorded footage and save onto a floppy disk or USB device. The following procedure details the steps how to save still images.

1	**In Main screen, click the Search button.**	
2	**The Search screen will be displayed.** **You can also save an image while you have already been searching!**	
3	**Select the date that you want to take an image from, on the Calendar panel.** **You can change the Calendar Month, by clicking on the left or right arrows at the top.** **Then select the day.**	
4	**From the 24-Hour Timeline Bar, select the starting hour that you wish to take an image from.**	
5	**The One-Hour Timeline Panel displays all the event and continuous footage. e.g:** **The Yellow bar indicates Motion Detection.** **The Red bar indicates Recording.** **The numbered bar at the bottom of the panel is the Minute Indicator. Click above the minute bar to select the starting minute that you want to take an image from.**	
6	**Select the Camera that you want to capture from.**	

7	**If you wish, you can to one-camera mode, by clicking the 1x1 Mode.**	
8	**Click the Play button.**	
9	**During playback, once you have found something you wish to take an image of (one frame), click the Stop button.** **You can also move back and forth a single frame at a time, see page 10.**	
8	**Click the Save Still Image button to take the snap shot located on the right column toolbars.**	
9	**The Save As… dialog box will appear.** **You can choose between using a floppy disk, or a USB device.**	
10	**Insert a floppy disk onto your floppy disk drive and click the OK button.**	
11	**The backup software will take the snap shot and save it onto the target media.**	
12	**The Save As… dialog will automatically close when the process is completed and successful.** **Remove the floppy disk from the floppy disk drive and exit the Search screen by clicking the Exit To Main button.**	

DVR QUICK NETWORK GUIDE

Thank you for purchasing a *Securview* digital video recorder (DVR) machine. Included among the DVR's many features, is the ability for users to connect to the machine remotely. This remote connection is done over an IP-based network. Using the remote connection feature you can connect to your DVR from the other side of a building, or from the other side of the world. On most DVR models you can search, playback and even make copies of footage.

However, setting up the DVR for a remote connection can be difficult for someone without training or experience in computer networking. The procedure involved varies greatly depending on the location that the DVR is going to be installed in, and the location that it is going to be viewed from.

It is recommended that you seek the help of a suitably qualified person to setup a remote connection for you. For example a network administrator or the helpdesk of your internet service provider (ISP).

There are three steps involved in making your DVR accessible for a remote connection. You only need to perform the second step if you wish to connect to your DVR over an internet connection.

Note: To find out what model your DVR is, please check the back and bottom panels of your DVR unit. If you do not have a printed copy of your user manual, you can find it on the included CD.

1 SETTING AN IP ADDRESS

Whether you are connecting to the DVR via a web-browser or through a software application, you will need to enter an address into your computer. This is called an IP address, and it is used by the computer to connect to the DVR.

Therefore the first step is to tell the DVR what IP address to use. You should contact your network administrator or ask your ISP which IP address you should use. Once you have this information, you need to enter it into the DVR's configuration. Refer to the following table to find instructions on setting the IP address for your particular DVR.

DVR Diamond Series	**Page 27 of the user manual**
DVR Platinum Series	**Under CONFIGURATION: SYSTEM>NETWORK INTERFACE in the user manual**
DVR Gold Series	**Under CONFIGURATION: SYSTEM>NETWORK INTERFACE in the user manual**
DVR Silver Series	**Under CONFIGURATION: SYSTEM>NETWORK INTERFACE in the user manual**
DVR Mercury Series	**Page 54 of the user manual**
DVR4CHSOLCD-MPEG4	**Page 26 of the user manual**
DVR4CHSOV3	**Page 28 of the user manual**

2 CONFIGURING PORT FORWARDING

When you connect over the internet, you are actually connecting to your modem-router. Therefore, we need to setup some rules, so that the modem-router will direct these connections to the DVR. This is called port forwarding.

You will need to refer to the manual of your modem-router to find out how to enter port forwarding. You may need to speak to your network administrator or ISP for assistance. When setting up port forwarding rules you will be asked for two things, an IP address and a list of ports to forward to that IP address. The IP address should be the same as the one you used in step 1. The ports you need to forward will be different for each DVR. Refer to the table below.

DVR Diamond Series	**80, 6100**
DVR Platinum Series	**22, 80, 111, 631, 5900, 8081**
DVR Gold Series	**22, 80, 111, 631, 5900, 8081**
DVR Silver Series	**22, 80, 111, 631, 5900, 8081**
DVR Mercury Series	**5000, 5001**
DVR4CHSOLCD-MPEG4	**80**
DVR4CHSOV3	**80**

3 CONNECTING TO THE DVR

Every DVR comes with software (included on the CD) for remote connecting. You will need to insert the included CD into your computer and follow the prompts to install this software. Instructions for using the remote connection can be found on the following pages of the DVR manual.

DVR Diamond Series	**Page 43 of the user manual**
DVR Platinum Series	**Under the REMOTE ACCESS section of the user manual**
DVR Gold Series	**Under the REMOTE ACCESS section of the user manual**
DVR Silver Series	**Under the REMOTE ACCESS section of the user manual**
DVR Mercury Series	**Page 56 of the user manual**
DVR4CHSOLCD-MPEG4	**Page 32 of the user manual**
DVR4CHSOV3	**Page 34 of the user manual**

Each software application will require you to enter an IP address for it to connect to. If you are connecting locally you will need to use the IP address from step 1. If you are connecting across the internet you will need to use the IP address of your internet connection. You can find this by contacting your network administrator or ISP.

Additionally, every DVR model, except for the Mercury series, allows the user to connect via Internet Explorer. To do this, simply open a new browser window, and type http://<ip-address> into the address bar. Replace <ip-address> with the IP address you used above.

TECHNICAL SUPPORT

RhinoCo Technology – the Australian distributor of *Securview* products, offers onsite installation and setup, as well as phone-based technical support for remote connections. The rates for these services are:

On-site installation and configuration.	**$ 120.00 per hour, excluding GST.**
Off-site phone support.	**$ 15.00 per 15 minutes, excluding GST.**

For more information about these service you can contact them on 02 4577 4708.