

DMX-16

16-channel Color, Digital Video Multiplexer Recorder

GUI Manual

Eng



IMPORTANT INFORMATION

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1 ABOUT THIS MANUAL

This manual provides preliminary instructions for installing and using the Remote Viewer software program, or Graphical User Interface (GUI), from PHILIPS. Using a PC, this software allows the user to view video clips that have been archived onto a CD-R or CD-RW media by a PHILIPS DMX-16 (see the NOTES below). The Remote Viewer software program also allows viewing video clips directly from the DMX-16's hard drive via Ethernet. Screen shots can be printed out directly from the software to the printer.

NOTES: Any reference to "pressing a button" in this manual, means a single press or click of the **left mouse** button or key.

For brevity, this manual will refer to PHILIPS DMX-16 for both the PHILIPS DMX-161 (NTSC version) and PHILIPS DMX-162 (PAL version).

1.1 Hardware System Requirements

The following hardware system requirements are needed before software installation:

CPU	Pentium 166 MHz or faster
RAM (Memory)	16MB (minimum)
HARD DISK DRIVE (HDD)	6MB free hard disk space (minimum)
MONITOR (SVGA)	1024 x 768, 24 Bit color
OPERATING SYSTEM	Windows® 95/98/NT

1.2 Files Provided

The following file sizes are given below:

Setup.exe	138KB
Setup.lst	5KB
Remote Viewer.cab	1.963MB

NOTE: The above three files may be provided as a 2MB ZIP file attached and transmitted via e-mail. Alternatively, if the files are supplied on a CD-ROM disk, the files will be unZIPped.

Windows® 95/98/NT are registered trademarks of Microsoft Corporation.

2 GETTING STARTED

2.1 Software Installation

Installing from the ZIP files:

NOTES: If the Remote Viewer software is provided in a ZIP file format, it will be necessary to unzip this file.

If the WinZip® software is not available on the PC, it is easily obtained as Shareware or Freeware from many locations on the Internet.

Download and install the WinZip® program before attempting to unZIP, and to install the Remote Viewer software.

WinZip® is a registered trademark of Nico Mak Computing.

Copy the ZIP file to a temporary directory on the hard disk. Open the ZIP file and extract the contents to the temporary directory. Run the installation program that was extracted from the ZIP file. This program is named **SETUP.EXE** and installs the software automatically. Follow the easy on-screen instructions to complete the installation. When the installation is successfully completed, delete the temporary directory and its contents to make additional room on the hard disk.

Installing From CD-ROM

If the Remote Viewer software was supplied on a CD-ROM, the Remote Viewer files are unzipped. The files will need to be installed on the PC's hard disk drive. Run the installation program **SETUP.EXE**, which installs the software automatically. Then follow the easy on-screen instructions to complete the installation.

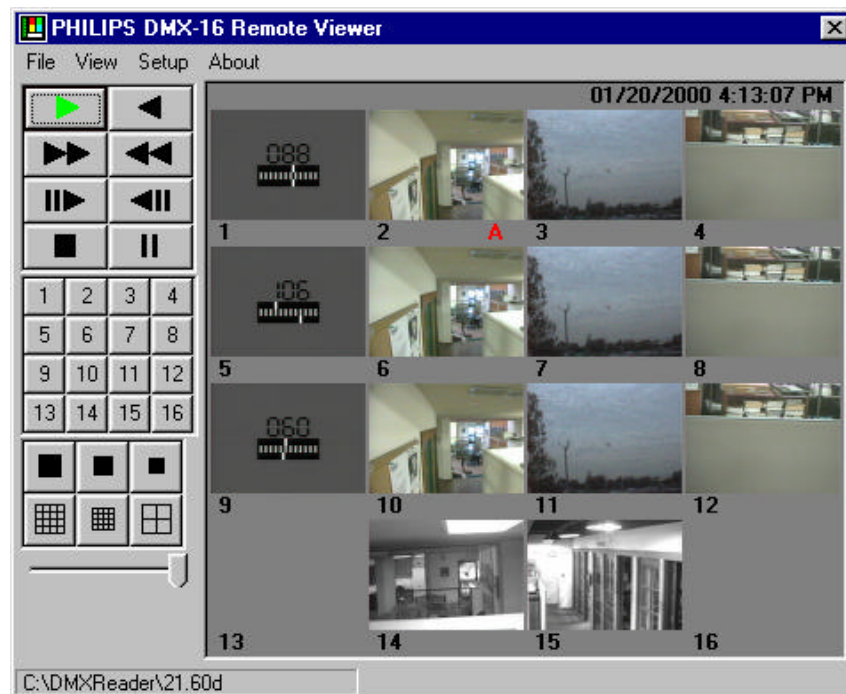
2.2 Running The Remote Viewer Program

Once the installation is completed, it will be possible to select the Remote Viewer program from the Windows® '95/98/NT menu bar and start the program:

EXAMPLE: Start → Programs → PHILIPS DMX-16 Remote Viewer → PHILIPS DMX-16 Remote Viewer

1. Single click the **left mouse** button on the **Start** button located on the task bar at the bottom left corner of the computer monitor. A pop up menu will appear above the Start button.
2. Using the mouse, move the cursor to the **Programs** section and hold the cursor there.
3. A rectangular menu will appear to the right of the cursor.
4. Move the cursor to the right onto the **PHILIPS DMX-16 Remote Viewer** section of the new menu.
5. Another smaller menu will appear to the right.
6. Click the **left mouse** button on the **PHILIPS DMX-16 Remote Viewer** selection. The Remote Viewer program should appear on the computer monitor (see next page).

2.3 The Main Program Window



NOTE: The above window shows the Multi-Camera display. Other user selectable display formats are available (see Main Viewing Area on page 2-4).

To move the Remote Viewer window, make the Remote Viewer window active, and move the mouse pointer to the dark blue bar at the top of the window. Click and hold the **left mouse** on the bar while dragging the window to any desired area.

An active window will have a dark blue bar at the top, while an inactive window will have a gray bar at the top.

The screen consists of four areas:

1. The Menu Bar (at the top of the window).
2. The Main Viewing Area (the large blue area with numbers).
3. The Status Bar (at the bottom of the window).
4. The Button Panel (the left side of the window).

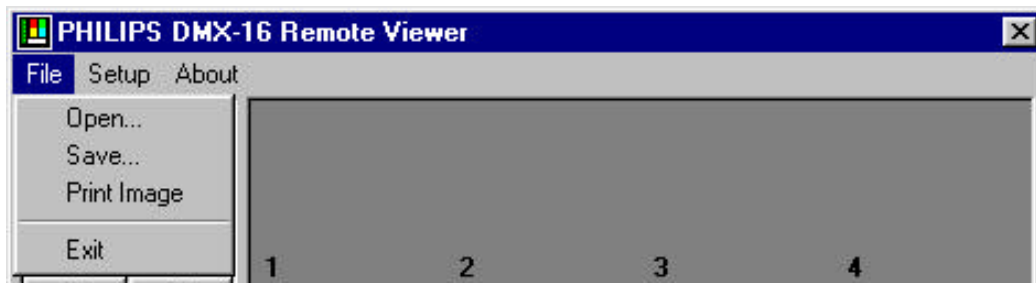
The Menu Bar



The Menu Bar allows access to file and other operations, and also provides the means to shut down the software.

NOTE: Only after connecting to a unit on the network, or after opening a Wavelet file, will the **View** option appear between the **File** and **Setup**.

The FILE Menu



Operations which can be initiated from the **FILE** menu include:

- Opening a file for playback or viewing (see page 3-1).
- Saving a screen capture image to a PC file for later use (see page 6-1).
- Printing an image of the current main viewing area to a printer.
- Exiting the software.

The VIEW Menu



The **VIEW** menu is not seen when the program is first started. It appears only after connecting to a unit on the network, or after opening a Wavelet file with an associated header file located in the same directory.

The **View** option appears between **File** and **Setup** options.

The only option available in this menu allows the user to decide if the Disk Analysis Window is to be displayed when the program is communicating with a DMX-16 attached to the LAN, or if the user is playing back images recorded from a DMX-16 onto a CD-ROM.

The SETUP Menu

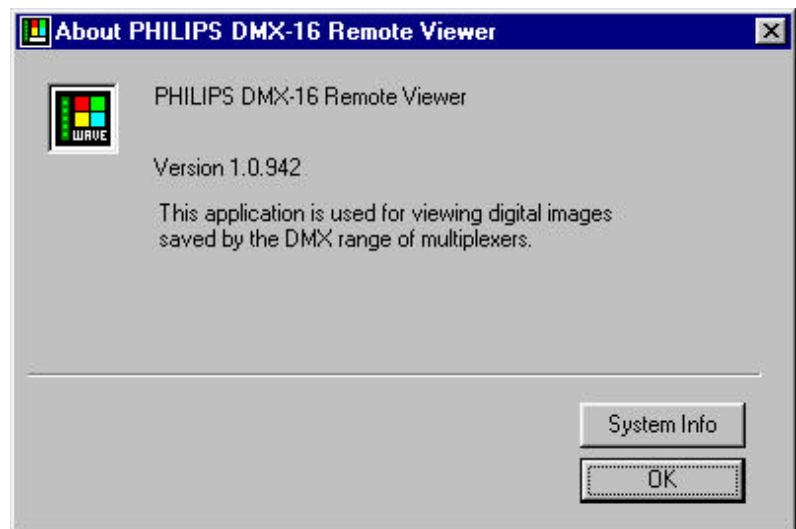


There are two options which can be selected from the **SETUP** menu:

1. The DMX-16 IP Address Setup (See Section 5).
2. The Snapshot Setup (See Section 6) which contains the following options:
 - Display COPY button.
 - Delete All Snapshots operations.

The ABOUT Menu

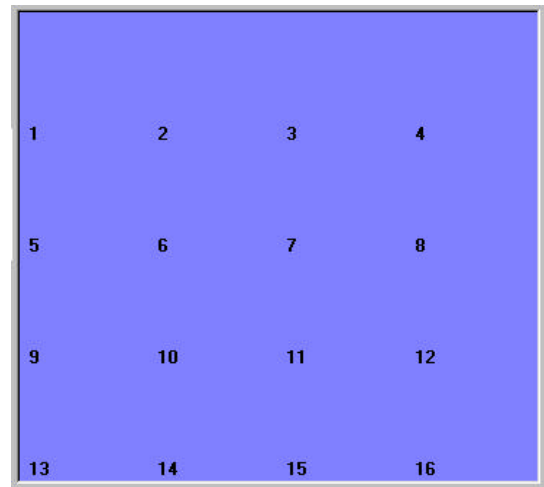
The **ABOUT** menu option displays the following window, which displays information about the program's version, and allows further access to viewing the computer's system information.



The Main Viewing Area

Pictures are displayed in this area in Multi-Camera, and Single Camera formats. Picture display order is according to the information encoded by the DMX-16 unit used to create the original video data file. Multi-Camera Displays can be Large Quad (2 x 2) in Small format, and 16-Way (4 x 4) in Large or Medium formats (see below). Single Camera Display can be displayed in Small, Medium, and Large formats (see next page).

Example of a Main Viewing Area in Multi-Camera Display, 16-Way (4 x 4):

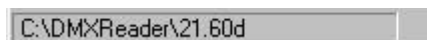


Example of a Main Viewing Area in Small format, Single Camera Display:



The Status Bar

Example of the status bar below showing the Path and Name of the file currently being displayed:



The Button Panel (Offers several options for displaying and controlling the video)

Button Keys	Key	Description	Function
		Play Forward	Starts a normal forward playback operation.
		Play Reverse	Starts a normal reverse playback operation.
		Fast Play Forward	Starts a fast forward playback operation.
		Fast Reverse Forward	Starts a fast reverse playback operation.
		Frame Forward	Advances the video forward by one frame after playback has been Paused.
		Frame Reverse	Advances the video backward by one frame after playback has been Paused.
		Stop	Halts all playback operations, and moves slider bar to start of data.
		Pause	Freezes playback operations until Pause key is pressed again or until the Play Forward or Play Reverse keys are pressed. Slider Bar stays at current position.
		Connect	Appears above the Camera Call Up keys. Connects the Remote Viewer software to the selected DMX-16, and alternates with the Disconnect key.
		Timeout	Occurs when the Remote Viewer software cannot connect to the DMX-16's IP Address.
		Camera Call Up	Call up individual cameras for display.
		Camera Size	Determines how large a display area will be occupied by images selected with the Camera keys. The selections are Single Camera in Large, Medium, or Small formats.
		Multi-Camera	Determines if the Displays will be in 16-Way (4 x 4) in Large or Medium formats, or Large Quad (2 x 2) in Small format. Subsequent presses of the Large Quad key will toggle the cameras displayed in groups of four (Example: 1-4, 5-8, 9-12, and 13-16).

The Button Panel (Offers several options for displaying and controlling the video)

Button Keys	Key	Description	Function
		Copy	Appears above the Progress Slider Bar. Copies a snapshot of the camera's image as a snap *.bmp file in the directory location of the Wavelet.exe file. To remove, click off the arrow in the Snapshot Setup.
		Progress Slider Bar	The Progress Slider Bar advances to the right as the video playback progresses. The user can click on, or drag the bar to move any given distance forward or backward.

- * The asterisk will be replaced with numeric characters generated by the Remote Viewer software after checking the default drive for previously saved snapshots. (Example: 001, 002, 003, etc.)

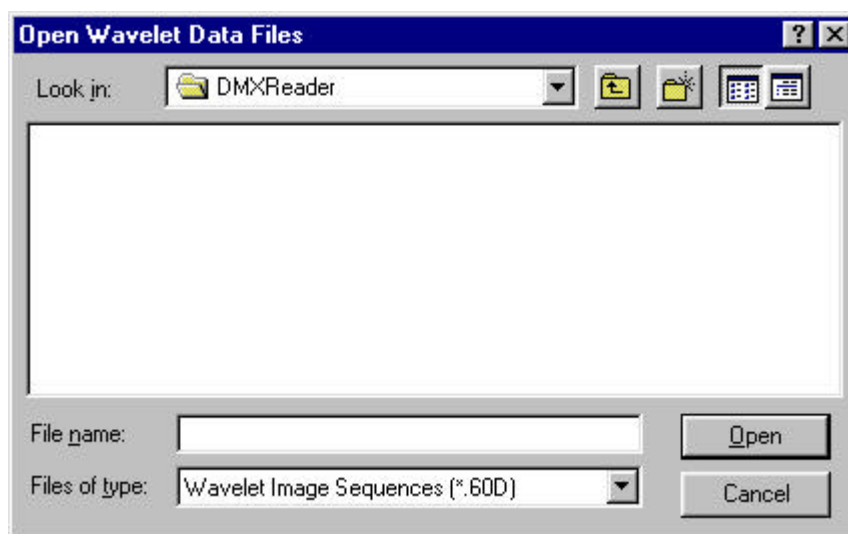
NOTE: When the Play Forward, Play Reverse, Fast Play Forward, and Fast Play Reverse buttons are clicked, the button color changes from black to **green**.

When the **Pause** button is clicked, the button color changes from black to **red**.

3 VIEWING A VIDEO FILE

3.1 Opening A Video File

Select **File → Open** from the Menu Bar. When opened from the Menu Bar (page 2-2), the following window will appear:



1. Select the **Drive** and the **Directory** (normally the CD-ROM drive) that contains the video files archived from the Digital Recorder. Files should appear as shown above.
2. The long file names identify the Time and the Date of the recording, and the order in which they were placed on the CD-ROM.
3. For additional information on creating Video CD-ROMs from PHILIPS' DMX-16, consult the manual provided.

EXAMPLE:

2000012016103301.60d

2000	01	20	16	10	33	01
YY	MM	DD	HH	MM	SS	No.

Notes: The default file extension (**.60d**) is defined as a Wavelet video clip in a proprietary data format.

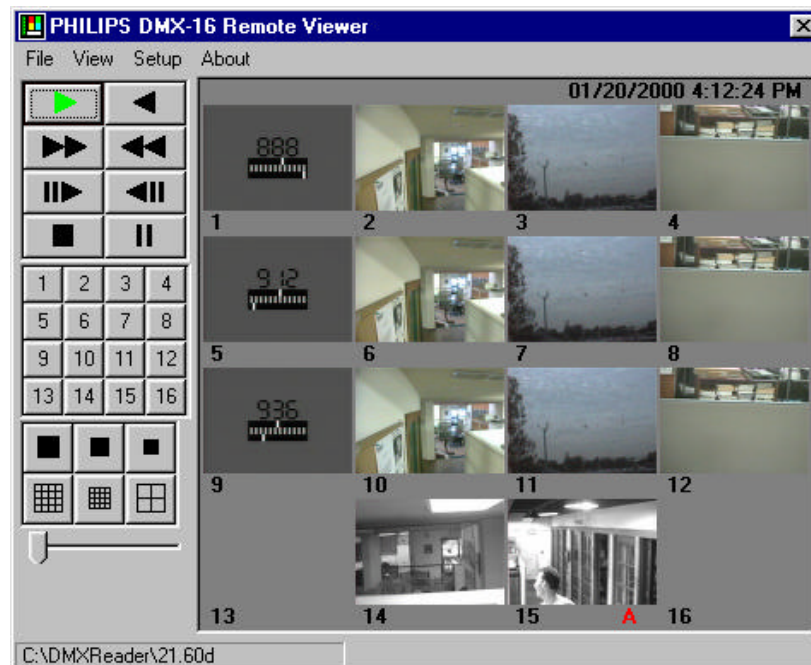
The default file extension (**.60h**) is a Wavelet header file that automatically turns ON the disc analysis screen during Play mode of a Wavelet video clip.

If a .60d file is only copied from the CD to the PC hard drive, there is no .60h file available for the header information.

Both **.60d** and **.60h** files are created from the DMX-16 to the CD-ROM writer.

3.2 Selecting a File for Display

1. Select the **file** for display, and click on the **Open** key in this window to load the file.
2. The file will load, but initially, the video will not display until the **Play Forward** key is pressed (The **Play Forward** button turns to **green** when play operations start. If the **Pause** button is clicked, the button turns to **red**.)
3. When video begins to play, the display should appear similar to the image below.
4. The screen is in Medium format, Multi-Camera, 16-Way, 4 x 4. (See Main Viewing Area, page 2-4.)
5. Clicking any camera image will display that camera image in full screen.
6. The letter A in red color opposite the camera number means an alarm for that camera.



NOTE: The button icon changes to **green** only on the Play Forward, Play Reverse, Fast Play Forward, and Fast Play Reverse buttons.

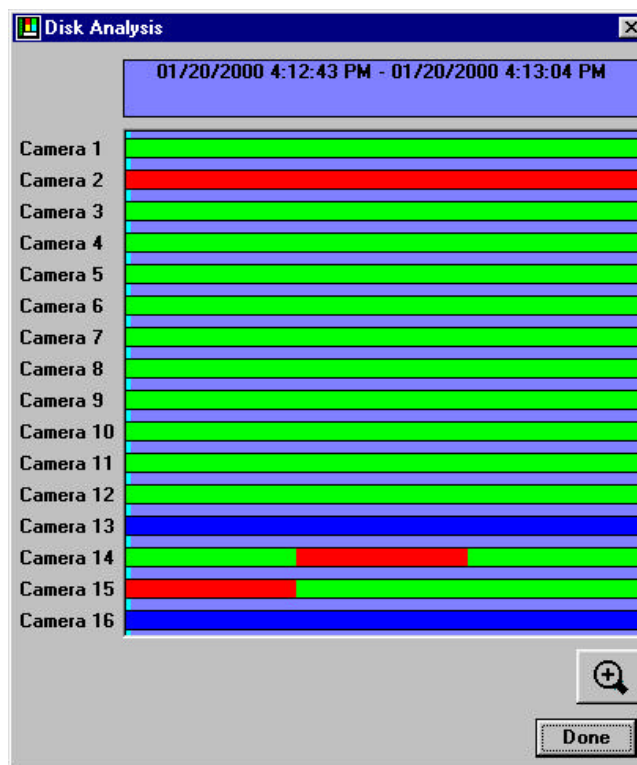
4 THE DISK ANALYSIS WINDOW

The **VIEW** menu is not seen when the program first starts. It appears only after connecting to a unit on the network, or after opening a Wavelet file with an associated header file located in the same directory. The **View** option appears between **File** and **Setup** options.

The only option available in this menu allows the user to decide if the Disk Analysis Window is to be displayed when the program is communicating with a DMX-16, which is attached to the LAN, or if the user is playing back images recorded from a DMX-16 onto a CD-ROM.

4.1 The Initial Disk Analysis Screen Display

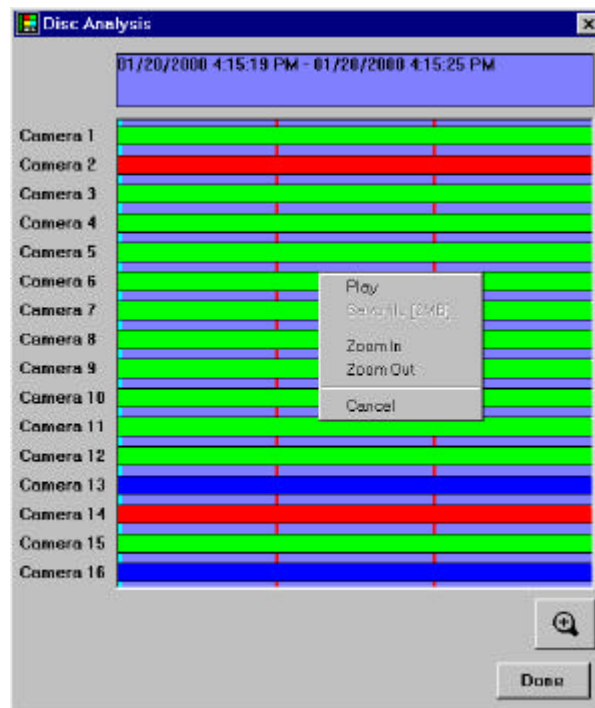
- The recording dates and times of the file appear above the horizontal bars (in .60h file extension with the same filename as .60d wavelet file).
- The light blue vertical marker indicates the current play position within the file.



What these horizontal color bars stand for:

Color (horizontal bar)	Description
Green	Standard Video
Black	Camera Disabled/Video Loss
Red	Alarm Mode
Blue	Video Loss
White	End of disc

4.2 Working With The Disk Analysis Screen



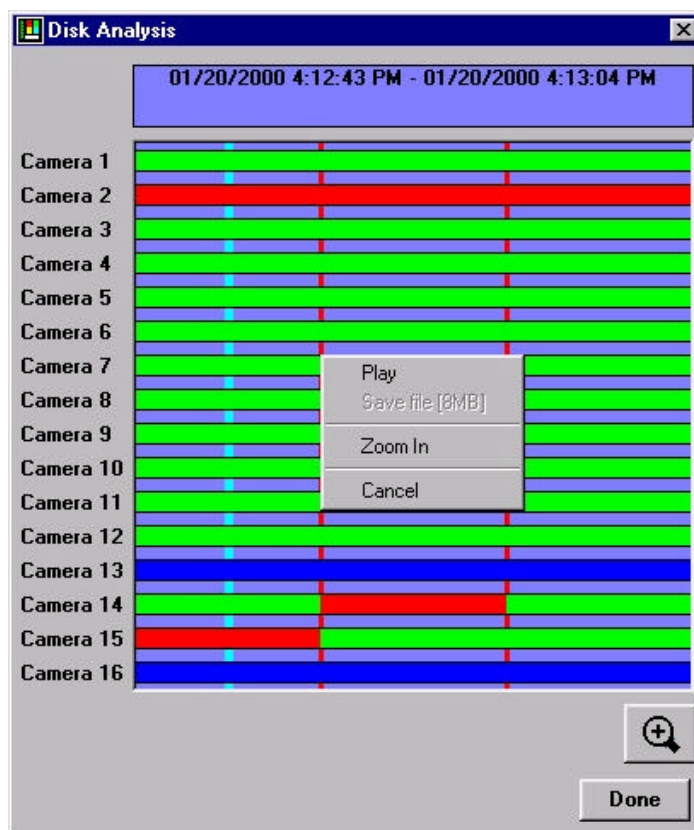
- The recording dates and times of the file appear above the horizontal bars.
- Place cursor on the Disk Analysis Screen. Clicking with the **left mouse** button causes a small screen to appear, and allows the user to **Play, Zoom In, Zoom Out, and Cancel**. This will cause vertical lines to appear.
- **Play** allows the user to play a selected location of data block (between the left and right red vertical color bar markers).
- There are only 2 **Zoom In** levels. On the second zoom level, **Zoom Out** is only available.
- **Zoom in** (+ magnifying glass) and **Zoom out** (- magnifying glass) allows the user to zoom in/out between the two red vertical markers during Play mode. Zooming in will narrow the time period, and also decrease the byte size.
- There are 3 increasing zoom levels. On the first zoom level, there is no status bar, and on the third zoom level, **Zoom out** is only available.
- The **Save file (* MB)** operation is only available for the DMX-16 model (Ethernet capable). (* An asterisk stands for a numerical amount.)
- A screen appears with **Save to file** and **Cancel** keys.
- Pressing the **Save to file** button brings up another screen to save the file.
- Type a filename, choose a file extension, and choose a directory location.
- Press the **OK** button, and a progress bar will open in the screen.
- **Cancel** (or **Done**) button shuts down the Save to file screen or Disk Analysis Screen.

What the Vertical color bars in the Disc Analysis Screen indicate:

Vertical color bar/s	Description
Green (one bar)	Play indicator, positioned by progress slider bar.
Red (two bars)	Left and right markers for data block, corresponding to date and time.

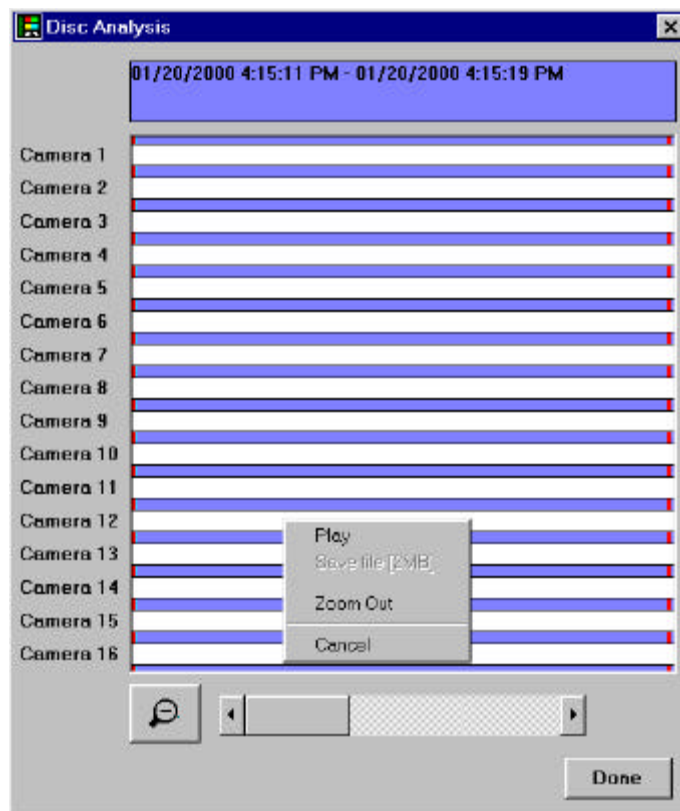
First Zoom Level

- This window displays the Disk Analysis screen after the first Zoom In operation.



Second Zoom Level

- This window displays the Disk Analysis window after the first and second Zoom In operation. The Zoom In option is not available, while the Zoom out is available.

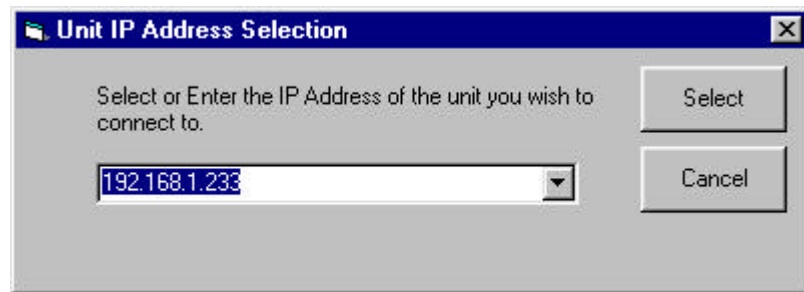


5

SETTING UP THE UNIT IP ADDRESS

5.1 Unit IP Address Selection Setup

The rectangular box above establishes the **IP Address** for connecting to the selected DMX-16. IP stands for Internet Protocol.



1. Enter the **IP Address**, or click the **down arrow** (located on the left side of the CANCEL key) for a selection of available DMX-16 IP Addresses.
2. Click the **left mouse** button on the **Select** key. The enter key on the keyboard will function the same way.
3. A **Connect** button will appear above the camera keys in the button panel section.
4. Click the **left mouse** button on the **Connect** key.
5. The Remote Viewer software will try to connect with the DMX-16's IP Address (wait a few seconds).
6. Upon connection, the Remote Viewer's status bar will indicate the IP address of the selected DMVR.
7. The **Connect** key will be replaced with a **Disconnect** key.
8. **Remote Viewer** will be replaced with **Wavelet Video Client** at the top.
9. Pressing the **Play** key will read data on the DMX-16's hard drive.
10. If unable to connect, a **Timeout** key appears over the **Connect** key.
11. A Message screen appears with "**Unable to Connect to the unit at this time...**"
12. Press the **OK** key.
13. The **Timeout** key will disappear.
14. Repeat steps 2 - 6 to reconnect again.
15. The **Cancel** key shuts down the DMX-16 IP Address Selection screen.

NOTE: The Remote Viewer software can view either wavelet files stored on the DMX-16's HDD by pressing the Play button (Live Lookin Mode disabled), or it can view live camera images through the Live Lookin Mode.

5.2 Live Lookin Mode

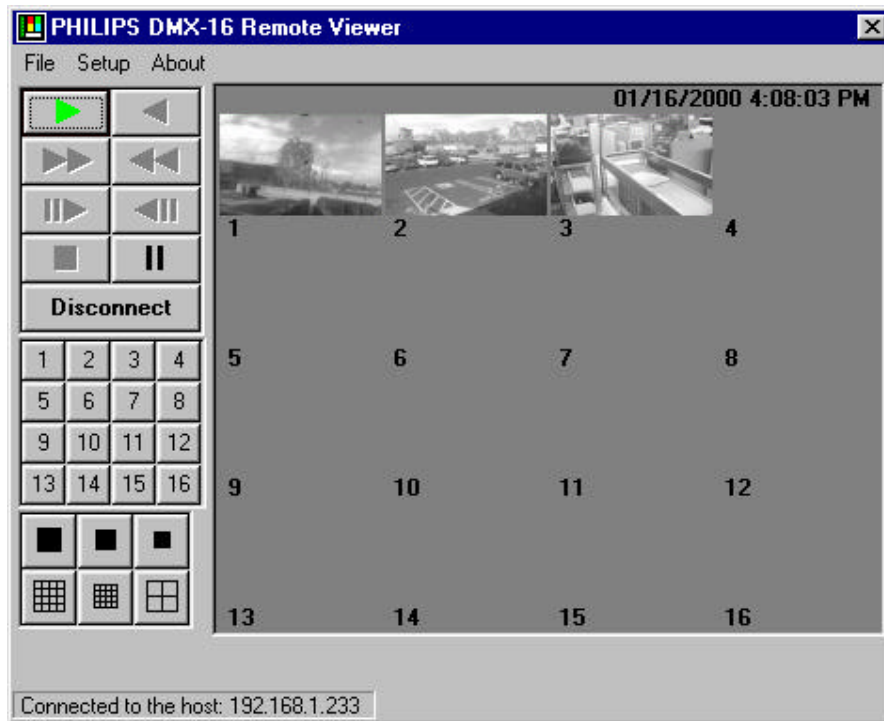
Once connected to a DMX-16 through its IP Address, the Setup pull-down menu changes. (See below.) The **Enter Live Lookin Mode** appears, and this feature displays live images on each camera screen along with current date and time.

Enter Live Lookin Mode

- **Enter Live Lookin Mode** appears between the grayed unit IP Address Setup and Snapshot Setup.
- Click the **left mouse** button on the **Enter Live Lookin Mode** key.
- Click the **left mouse** button on the **Play** button. The Play button now turns from black to green.
- The Pause (functions as a Stop button), Disconnect, camera, Multi-Camera, Camera Size, and camera buttons are black and remain active.
- The remaining buttons turn gray and are inactive.
- The **Enter Live Lookin Mode** key is replaced with the **Leave Lookin Mode** key.
- The current date and time appears.
- Multi-Camera live images can be viewed in 16-Way in Large or Medium formats, or Large Quad in Small format (small delay).
- Single Camera live images can be viewed in Large, Medium, or Small formats (small delay).
- Clicking any camera image will display that camera image in full screen.
- The letter A in red color opposite the camera number means an alarm for that camera.



Live Lookin Mode Camera Images



Leave Live Lookin Mode

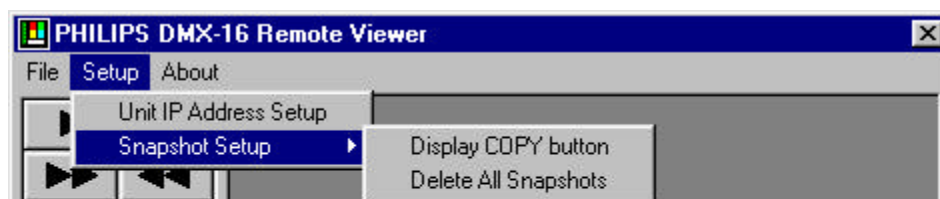
- Click the **left mouse** button on the **Leave Live Lookin Mode** key.
- The green Play button now becomes black, as well as the remaining buttons (now active).
- The **Leave Live Lookin Mode** key is replaced with the **Enter Live Lookin Mode** key.
- The live images on each camera screen stops.
- The current date and time stops.



6 WORKING WITH SNAPSHOTS

6.1 Snapshot Setup Operations

The SnapShot Setup menu seen below can be accessed through the Setup pull-down menu.



The Snapshot Setup menu contains the **Display COPY key** and **Delete All Snapshots** operations.

Operation	Function
Display COPY	Displays the COPY between the Progress Slider Bar, and the Multi-Camera keys.
Delete All Snapshots	Deletes all snap*.bmp (see below) files in the directory where the Remote Viewer executable file is located.

- * The asterisk will be replaced with numeric characters generated by the Remote Viewer software after checking the default drive for previously saved snapshots. (Example: 001, 002, 003, etc.).

6.2 The Automatic Screen Capture Option

When the Copy key is visible (displayed), it appears above the Progress Slider Bar in the Button Panel. A **check mark** (✓) will appear to the left of the **Display COPY button** in the Setup → Snapshot Setup → Display COPY button pull-down menu process.

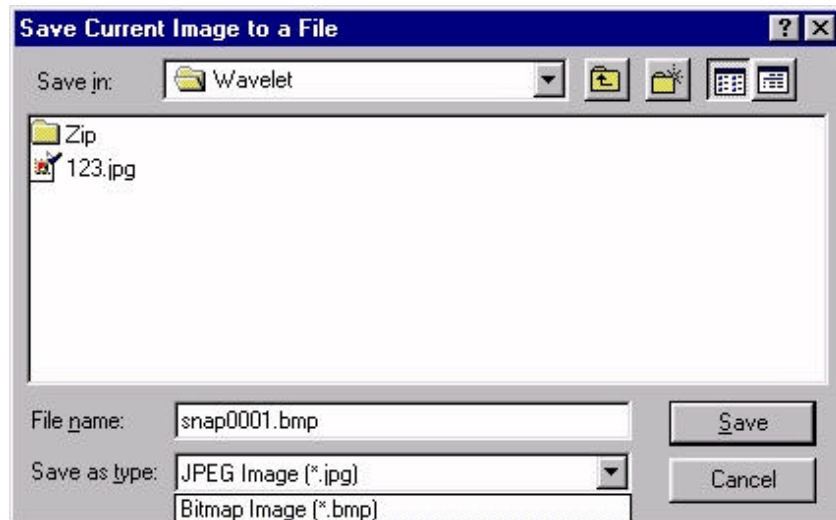
Clicking this button automatically copies a snapshot of the currently displayed video image as a snap*.bmp (see above) file in the directory location of the Wavelet.exe file. The screen may be a multiscreen display or a full display of a single camera image. Whatever is being displayed is saved.

No interaction is required by the user, and playback operations continue without distracting the user.

To remove, click off the **check mark** (✓) to the left of the Display COPY button.

6.3 The Manual Screen Capture Option

From the Menu Bar (see File Operations, page 2-2), select **FILE** → **SAVE**, and the following window will appear:



This window displays the above dialog box, indicating snapshots previously saved in Bitmap (*.BMP) file format on the PC's hard drive. The currently displayed video image may be saved with the user specifying the file name to be used, and the file type (*.bmp or *.jpg) to be chosen. (* An asterisk stands for a number.)

The benefit to this method is that snapshots can be saved with a more appropriate file name that better describes the picture's content rather than letting the software automatically assign a numeric sequence file name.

The disadvantage to using this method is that playback operations continue while the user is interacting with the dialog box and specifying the file name.

If the user misses seeing portions of the video, it will be necessary to replay those sections again so that they may be viewed without further distractions.

7

WORKING WITH VIDEO CLIPS

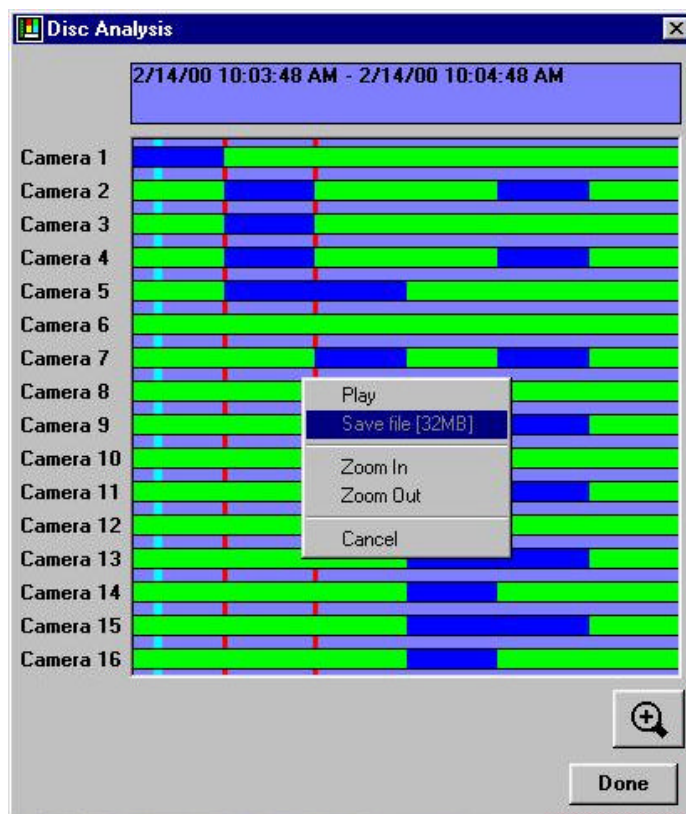
NOTE: Video clips can only be captured (saved) when the Remote Viewer software is communicating with a DMX-16 through a LAN (Local Area Network) connection.

7.1 Determining What Will Be Saved

Capturing video clips requires the user to define a section of video to be captured using the Disk Analysis window. The pop-up menu that appears when the **left mouse** button is clicked within the display area will display a **SAVE FILE [nMB]** option.

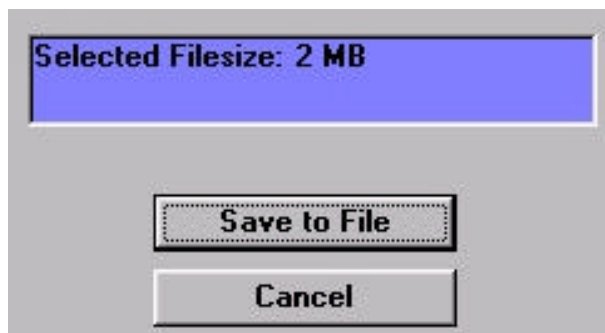
The n in [nMB] indicates the size of the video clip that will be saved, and varies depending on the zoom level selected. At the first and second zoom level, the file size (nMB) will vary according to the video clip size. The file size can be adjusted by adjusting the two red vertical bars in the Disk Analysis Screen. At the third zoom level, the file size will always be 2MB.

Unless the Remote Viewer software is communicating with a DMX-16 unit that is connected to the LAN, the **SAVE FILE [nMB]** option will be disabled (greyed out).

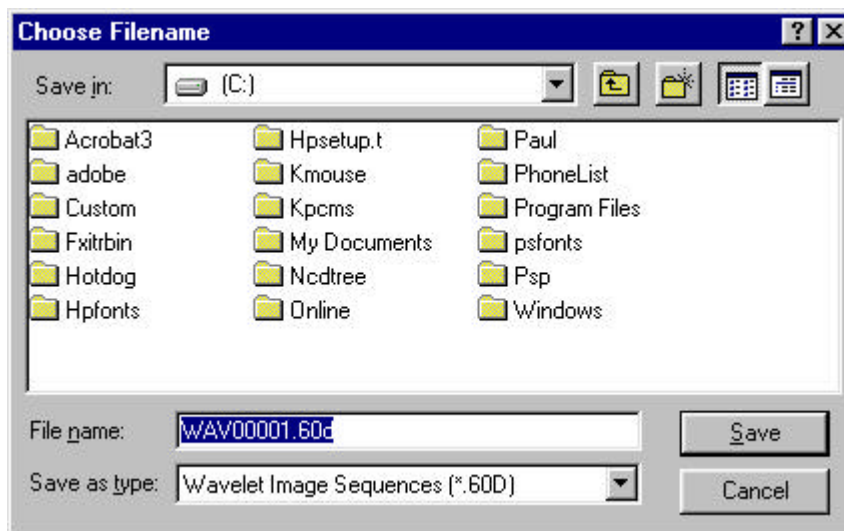


7.2 Saving The Video Clip

Once the SAVE FILE [nMB] option is selected, the following dialog box will appear, prompting the user to select **Save to File** or to **Cancel** save to file.



Selecting the **SAVE to FILE** [nMB] option will display the following screen, which stores the clip on the user's PC after making the following selections below.



- After the **file name** and **directory** have been entered, click the **Save** button to complete the process and return to the Remote Viewer software.
- Alternatively, click the **Cancel** button to stop the process and return to the Remote Viewer software.

For Questions:

Contact the local PHILIPS Representative for Services.

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