

Operator's Manual

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WARNINGS!

See the ACUSON Cypress System *Operator's Manual* for a list of WARNINGS.

IMPORTANT:

**Read this manual carefully before you
begin using the CypressViewer software.**

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CypressViewer™ Support Agreement

Customer Service support for the CypressViewer will be given to Cypress customers under the following conditions:

- The customer has purchased the "Networking" option.
- The computer running the CypressViewer program meets the minimum Hardware/Operating Software requirements.
- The Cypress ultrasound system and PC must be present at the location where the call is placed.
- An IT professional, or a person with networking knowledge, must be available.
- Technical support will be provided only to troubleshoot the connection between the Cypress ultrasound system and one computer.

Support may be discontinued or become billable if:

- It is determined that the computer does not meet the minimum Hardware/Operating Software requirements.
- The customer or their representative does not possess sufficient networking or computer knowledge to effectively troubleshoot the problem.
- The total amount of support time exceeds two hours over a period of one year.

NOTE *The terms of this agreement may vary according to the standards established by local service organizations.*

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Indications and Intended Use

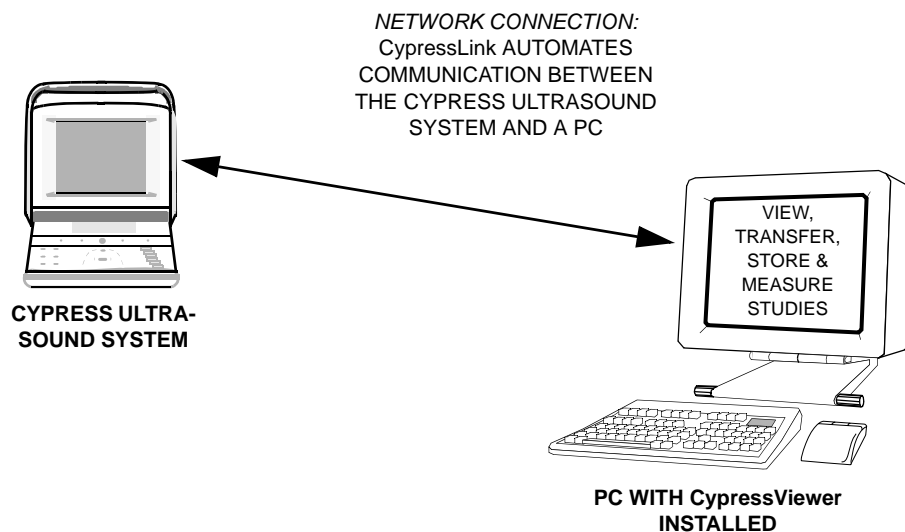
This manual describes the ACUSON Cypress™ ultrasound system's *CypressViewer™* software which includes *CypressLink™*.

IMPORTANT: This *Operator's Manual* provides an overview of the operation of the CypressViewer software. For a complete description of the user interface for the CypressViewer, consult the *Operator's Manual* for the Cypress ultrasound system (a copy of the *Operator's Manual* is included on the CypressViewer Installation Disk).

Overview of CypressViewer

The CypressViewer software lets you build a database of patient studies on a PC and replicates many of the functions of the Cypress ultrasound system. These functions include:

- Storing patient studies
- Transferring patient studies
- Viewing patient studies
- Applying measurements and calculations to patient studies



Differences between the Cypress Ultrasound System and the CypressViewer

NOTE: *CypressViewer operates only on a PC and is designed to replicate many of the functions of the Cypress ultrasound system. CypressLink operates on both a PC with CypressViewer installed and the Cypress ultrasound system (though there is no CypressLink monitor screen on the Cypress ultrasound system).*

The CypressViewer is designed to function like the Cypress ultrasound system except in the following areas:

- To change the position of the ROI (Region of Interest) box, use the mouse to click and drag the box.
- You can place the CALC menu anywhere on the PC screen by clicking and dragging the edge of the menu box.
- To advance to the next loop when viewing studies, click one of the PLAY LOOP arrows and then turn the scroll wheel on the mouse. To quickly advance through the loops, click and hold a PLAY LOOP arrow.

The CypressViewer has incorporated many of the Cypress ultrasound system keyboard functions in its interface:

- The Soft Window knobs (for example, PROTOCOL, PLAY ALL, PLAY LOOP, DELETE) that are located on the Cypress ultrasound system keyboard are represented by buttons at the bottom of the CypressViewer screen. Clicking a Soft Window button in CypressViewer is the same as pressing the knob on the Cypress system. The CypressViewer uses arrows located beneath the buttons to adjust the settings. Clicking the arrow that points to the right on the CypressViewer is the same as turning the knob clockwise; clicking the arrow that points to the left on the CypressViewer is the same as turning the knob counterclockwise.
- The Main knob that is located on the Cypress ultrasound system keyboard is represented by buttons at the bottom, right of the CypressViewer screen. Click the button to select the parameter that you want and then use the arrows located beneath the buttons to adjust the settings. Clicking the arrows is the same as turning the Main knob clockwise (click the arrow pointing to the right) and counterclockwise (click the arrow pointing to the left).
- The Function Keys (**PATIENT, SETUP, VIEW, TOOLS, SAVE, CALC**) that are located on the Cypress ultrasound system keyboard are represented by circles at the very bottom of the CypressViewer screen. Instead of pressing the key, click the circle to select the function.

Terms Used in this Manual

As stated in the previous section, the CypressViewer software on a PC operates slightly differently than the Cypress ultrasound system does. Throughout this manual, instructions and descriptions are specific to either the Cypress ultrasound system or the PC running CypressViewer. However, when the general term “system” is used it refers to both a Cypress ultrasound system and a PC running the CypressViewer software.

Connecting to a Network

Note that CypressLink uses multicast broadcasts to communicate. Although this allows Cypress ultrasound systems and PCs running the CypressViewer program to find each other without extensive configuration, a compatible IP address must be assigned to each Cypress ultrasound system. By default, most network routers do not pass multicast messages between subnets, therefore Cypress units may not “see” (that is, recognize) other Cypress units that are on the other side of routers.

For details on setting IP addresses, see “Selecting a Local IP Address for CypressLink” on page 11 and “Assigning an IP Address for the Cypress Ultrasound System” on page 16.

Study Management

Each facility is responsible for establishing a method to manage their studies. It is possible for the same study to be located on more than one system at the same time. You must determine which version of the study will be archived as the “study of record.”

Backups

Each facility using the CypressViewer program is responsible for backing-up their patient studies and safeguarding the data from system failures, accidental loss, or destructive events.

Setting the Free Disk Space Limit

The CypressViewer default requirement is that a PC have a minimum of 300 MB of free disk space. If the PC's free disk space is less than 300 MB, transfers of studies are no longer accepted by the PC. To receive new studies, the user must either increase free disk space on the PC (by removing studies,

programs, files, etc.) or decrease the minimum free disk space setting as described below.

To change the default limit of 300 MB of free disk space, follow these steps:

1. Open the CypressViewer program.
2. Click the **SETUP** button.
3. Highlight **CypressViewer Database**.
4. Change the free disk space limit to the desired size.

Formatting MO Disks Using a PC

MO disks that will be used to archive studies in Cypress format and then view the studies on a Cypress ultrasound system must be formatted in a specific way. Table 1 defines these specific settings that appear in the Format dialogue box. If the disks are not formatted exactly as specified in Table 1, the studies will not be viewable on a Cypress ultrasound system. (Note that you will be able to view studies on the PC that formatted the MO Disk and that is running a compatible version of the CypressViewer software.)

TABLE 1. Format Dialogue Box Settings

<i>Field</i>	<i>Setting</i>
Capacity	Removable Media (Unknown Size)
File System	FAT (File Allocation Table)
Allocation Unit Size	Default allocation size
Volume Label	(Blank)
Format Options	Quick Format (checked)

NOTE: *Disks that will be used in the Cypress ultrasound system must be formatted with the "FAT" File System. It is strongly recommended that all pre-formatted disks are checked for the "FAT" File System prior to use with the CypressViewer or Cypress ultrasound system. If you cannot determine whether the File System is FAT, format the disk using the settings in Table 1.*

System Requirements

Minimum PC Requirements for CypressViewer

- 1.2 GHz processor speed
- 256 MB RAM
- 2 GB free hard disk space
- AGP video accelerator
- 800x600 display resolution
- 24-bit color
- CD ROM drive
- Network adaptor or MO disk drive
- Windows XP Professional (preferred), XP Home, 2000, or NT Version 4.0 with Service Pack 6 and Internet Explorer 4.72 (or newer)

NOTE: *If you operate the CypressViewer software with a PC that does not meet these minimum requirements, you will not be able to view images. Other factors, such as available RAM, the operation of other applications, and network activity on your PC may cause the displayed frame rate of images with CypressViewer to be lower than the acquired ultrasound frame rate. The frame rate number displayed with the images represents the original acquisition frame rate from the Cypress ultrasound system.*

NOTE: *The ACUSON CypressViewer software is not compatible with the Macintosh operating system.*

Cypress Ultrasound System Requirements for Networking

- Cypress software version 12.2 or higher
- Networking option
- 10/100 Ethernet cable

If you are not using a network to transfer studies to the CypressViewer, an MO disk drive can be connected to the PC.

Installing and Enabling the Software

Installing CypressViewer Software on a PC

IMPORTANT: If you have a previous version of the CypressViewer software installed on your PC, un-install the software before you install the new version. Close all programs including anti-virus software.

To install the CypressViewer software on a PC, follow these steps:

1. Insert the CypressViewer software disk into the PC disk drive.
2. Follow the instructions on your screen.

NOTE: *If the installation program does not start automatically, you can start the program manually. Click the Windows **Start** button, click **Run**, click [Browse] to find your CD device and then the setup.exe folder, and then click [OK] to start the install program.*

NOTE: *It may be necessary to have your System Administrator perform the installation of the software on some PCs.*

The CypressViewer Icons

Once the CypressViewer software has been installed, CypressViewer is opened by double-clicking the CypressViewer icon on the desktop.

The icon looks like this:



CypressViewer

Once CypressLink has been started it runs in the background as a service even when the CypressViewer is not running. The CypressLink monitor screen is opened by double-clicking the Cypress icon in the system tray.

The icon looks like this:



Enabling CypressLink

When you install the CypressViewer software on your PC, *CypressLink* software is automatically installed. CypressLink is included with the latest version of the Cypress ultrasound system software. CypressLink must be enabled on both Cypress ultrasound systems and PCs.

IMPORTANT: To transfer studies via a network, the CypressLink feature must be enabled on both the Cypress ultrasound system **and** the PC running the CypressViewer software.

To enable CypressLink on the Cypress ultrasound system, follow these steps:

1. Press the **SETUP** function key.
2. Expand the **Network Identification** heading and highlight **CypressLink**.
3. Place a checkmark in the **Enabled** box located on the right side of the screen.

Once enabled on the Cypress ultrasound system, CypressLink operates whenever the machine is turned on.

To enable CypressLink on the PC, follow these steps:

1. Open the CypressViewer program by double-clicking the icon.
2. Click the **SETUP** button.
3. Highlight the **CypressLink** heading.
4. Place a checkmark in the **Enabled** box located on the right side of the screen.

Once enabled and started, CypressLink will run in the background on the PC. When a study is sent to the PC, it automatically stores the study in a subdirectory below the directory you specified during installation, even if the CypressViewer application is not open.

For instructions on starting and stopping the CypressLink application on a PC see, "Starting CypressLink" on page 8 and "Stopping CypressLink" on page 8.

Opening and Closing CypressViewer

Opening the Viewer Application

To open the CypressViewer application, double-click the CypressViewer icon on the PC's desktop.

Closing the Viewer Application

To close the CypressViewer application, follow these steps:

1. Click **PATIENT** and then click the **Shutdown** tab.
2. Click [EXIT PROGRAM].

NOTE: *If there was an error in sending a study, a message is displayed on the Shutdown screen. Be sure to check for any errors before closing the application.*

Starting and Stopping CypressLink on a PC

Starting CypressLink

To start CypressLink, click the Windows **Start** button, navigate to the **Acuson** program group, and click on **Start CypressLink**.

NOTE: *If you have CypressLink set to start automatically then it is activated as soon as your computer is turned on. See "Specifying When CypressLink Should Start" on page 10.*

Stopping CypressLink

There are two ways to stop CypressLink:

- Click the Windows **Start** button, navigate to the **Acuson** program group, and click on **Stop CypressLink**.
- Open the CypressLink monitor screen and click the [STOP SERVICE] button.

When the CypressLink service is stopped, the PC will no longer be recognized by other systems on the network.

Opening and Closing CypressLink Monitor

Opening CypressLink Monitor

To open the CypressLink monitor screen, double-click the Cypress icon located in the PC's system tray.

For more information about the CypressLink monitor screen, see "Overview of CypressLink" on page 10.

Closing CypressLink Monitor

To close the CypressLink monitor screen, click the [CLOSE] button at the bottom of the monitor screen. This closes CypressLink monitor, but the CypressLink service will continue to operate.

About CypressLink

Overview of CypressLink

CypressLink is a software service that automates the communication between the Cypress ultrasound system and a PC operating the CypressViewer software.

The CypressViewer installation program places an icon for the CypressLink monitor in the system tray (usually located at the bottom of the PC screen). To display the monitor screen, double-click the icon:



The CypressLink monitor screen keeps track of all the Cypress ultrasound systems and PCs that are connected to a local area network (LAN). It monitors any combination of Cypress ultrasound systems and PCs, up to a total of 256.

NOTE: *The CypressLink monitor screen only appears on PCs running the CypressViewer software and not on Cypress ultrasound systems.*

The CypressLink monitor screen stores the following information:

- Cypress ultrasound systems that are properly connected to the network
- PCs running the CypressViewer program that are properly connected to the network and have CypressLink started
- IP addresses
- Local machine name
- Local IP address
- Multicast IP address
- Port number

Note that if you are operating on a network, CypressLink must be started (that is, turned on) so that other systems can “see” it. Read the following section and “Starting CypressLink” on page 8 for details.

Specifying When CypressLink Should Start

Use the *Service Start Mode* option on the CypressLink monitor screen to specify when CypressLink should be started:

- automatically each time your PC is turned on or
- manually by you whenever you choose.

To have CypressLink start automatically when your computer is turned on, follow these steps:

1. Open the CypressLink monitor screen by double-clicking the Cypress icon located in the system tray.
2. Click the [AUTOMATIC] radio button.

Each time your PC is turned on, CypressLink will be automatically activated and will be ready to both send and receive studies.

To start CypressLink manually, follow these steps:

1. Open the CypressLink monitor screen by double-clicking the Cypress icon located in the system tray.
2. Click the [MANUAL] radio button.

To start CypressLink when this option is set, you must click the Windows **Start** button, navigate to the **Acuson** program group, and click on **Start CypressLink**. You must do this each time you turn your computer on.

Selecting a Local IP Address for CypressLink

If there is more than one IP address for your PC, you can select the address that CypressLink will use as your **Local IP Address**.

To specify the local IP address, follow these steps:

1. Open the CypressLink monitor screen by double-clicking the Cypress icon located in the system tray.
2. Click the [SELECT INTERFACE] button on the monitor screen.
3. When the list of IP addresses opens, select the IP address you want to use and click [OK].
4. CypressLink will shut down to record the change. To start it again, click the Windows **Start** button, navigate to the **Acuson** program group, and click on **Start CypressLink**.

Where Studies Can be Sent

The CypressLink monitor screen identifies a list of the systems where studies can be sent. To access this list, open the CypressLink monitor screen by double-clicking the Cypress icon located in the system tray.

CypressLink Alerts You When New Studies Are Received

When there is a new study in the ***Inbox*** (that is, one that has not been viewed), the black background of the CypressLink monitor icon, located in the service tray, changes to yellow. See “The Inbox” on page 20.

Naming Your Computers

Assigning Names

The CypressLink program identifies each Cypress ultrasound system and PC by its assigned computer name. Each Cypress ultrasound system and PC running CypressLink must have a **unique** computer name that is no more than 15 characters long. To easily identify which Cypress ultrasound system or PC running the CypressViewer program is receiving the transferred study, you can change the computer name to a logical name that is easy to remember. For example:

- Reading Room 1
- Dr. Smith
- Reception Desk
- Transcription
- Echo Room 2
- Stress Lab

IMPORTANT: Consult your IT/Network Administrator before changing the computer name. These changes may interfere with other local or network functions.

Changing the Name of a Cypress Ultrasound System

To change the computer name of the Cypress ultrasound system, follow these steps:

1. Press the **SETUP** function key.
2. Highlight **Network Identification**.
3. Click the [EDIT] button and type a new **Computer Name**.
4. Click [OK].
5. Restart the Cypress system to save the changes.

Changing the Name of a PC

To change the computer name of a PC, refer to the PC's *Operator's Manual* for the installed operating system or consult your IT Administrator.

Creating User Groups Using the Multicast IP Address

Multicasting allows a facility to create various user groups while all systems are connected to the same network.

If your facility has an Adult Echo Lab and a Pediatric Echo Lab, the two labs can operate as separate entities. To separate the two labs, assign a different multicast IP address to each. For example, assign a multicast IP address of 239.222.1.1 to all Cypress ultrasound systems and all Viewers operated by the Adult Echo Lab; then use 239.222.1.2 for all equipment operated by the Pediatric Echo Lab.

NOTE: *The multicast IP address is not a substitute for the network IP address that enables the Cypress ultrasound system and CypressViewer to properly connect to a network.*

Assigning a Multicast IP Address on a PC

To assign or change a multicast IP address on a PC, follow these steps:

1. Click the **SETUP** button.
2. Highlight the **CypressLink** heading to display the options.
3. Type the address numbers into the **Multicast IP Address** box.

Assigning a Multicast IP Address on a Cypress Ultrasound System

To assign or change a multicast IP address on a Cypress ultrasound system, follow these steps:

1. Press the **SETUP** button.
2. Highlight **Network Identification** to display the selection menu.
3. Highlight the **CypressLink** heading to display the options.
4. Type the address numbers into the **Multicast IP Address** box.

Transferring Studies using CypressViewer

Setting an Archive Path

Before transferring studies from a PC running the CypressViewer program to an undefined destination such as a folder, hard drive, or MO disk, you must first define the destination by setting an *Archive Path*. An Archive Path can be a folder on the PC's hard drive or removable storage media attached to the local PC. You must name each Archive Path to identify its destination.

For example, to send studies from the CypressViewer to a local MO disk drive named "H", set an Archive Path to "H:". To easily identify the Archive Path, you can assign the name "MO Disk Drive" or anything else you feel would be appropriate.

NOTE: *The current version of CypressViewer software does not support direct archiving to a CD (compact disk) or DVD (digital video disk) drive. As an alternative, transfer studies to a folder on the PC's hard drive and then copy the contents of the folder to the CD or DVD drive. See "Important Information About CD and DVD Storage" on page 20.*

If you want to send information to a folder on the PC's hard drive, create the folder before starting the Archive Path procedure. See your PC's operating instructions for details on how to create a new folder.

To set an Archive Path on the CypressViewer, follow these steps:

1. Open the CypressViewer application.
2. Click the **SETUP** button and highlight the **Archive Path** heading.
3. Click the [ADD] button, located on the right side of the screen.
4. Click the [BROWSE] button.
5. Select a destination and click [OK].
6. Type the name you want to use in the **Name** field.
7. If you want the studies in the Archive Path to be displayed in the Patient and Study lists, put a checkmark in the checkbox next to your user-defined name by clicking the box.
8. Click [OK] to store the Archive Path.

NOTE: *To hide the Archive Path when displaying the Patient and Study lists, remove the checkmarks.*

Assigning an IP Address for the Cypress Ultrasound System

When using a network to transfer studies, the Cypress ultrasound system must be configured with an IP address.

To assign an IP address to the Cypress ultrasound system, follow these steps.

1. Press the **SETUP** function key.
2. Highlight **Network Identification** to display the selection menu.
3. Click [ADD] and enter the requested data.
4. Click [OK].
5. Restart the Cypress system to accept and save the network IP address changes.

Transferring Studies

The CypressLink program identifies properly-connected Cypress ultrasound systems and PCs running the CypressViewer program and automatically lists them on the **Send** screen.

To transfer studies from one system to another make sure that CypressLink is running, and follow these steps:

1. Press (on the Cypress ultrasound system) or click (on the PC) **PATIENT**.
2. Select the study or studies to be transferred. (Multiple studies can be selected from the Study List using the <SHIFT> and <CTRL> keys.)
3. Click [SEND].
4. Select the destination(s) for the desired format by placing a checkmark in the corresponding box.
5. Specify any corresponding information that should be sent (images, reports, etc.).
6. Click [OK].

To remove the checkmarks on the **Send** page, use the [CLEAR] button. There are two options for the [CLEAR] button:

- The **All** option removes all checkmarks on the **Send** page.
- The **Destination** option removes only those checkmarks from the destination checkboxes located on the far left of the screen.

First select an option and then click [CLEAR].

Removing Patient Name and ID from Multimedia and DICOM Images

When transferring studies in either a DICOM or Multimedia format, you can specify that the patient name and ID are removed from each image. To specify this option, follow these steps:

1. Click the **PATIENT** button and highlight a patient study.
2. Click the [SEND] button.
3. Place a checkmark in the **Remove name, ID from Images box**.
4. When the other send page requirements are completed, click [OK].

NOTE: *When studies are displayed on some DICOM readers (for example, KinetDx), the name and ID will be displayed in the study list. The Patient Name and Patient ID DICOM elements, (0010, 0010) and (0010, 0020) respectively, will still contain the valid patient identifying information for the image.*

NOTE: *The patient name and ID cannot be removed from images that are archived in the Cypress Format.*

Study Compatibility

To properly communicate and view transferred studies the CypressViewer and Cypress ultrasound system should both be operating at the same software level. If only one system is updated with a new release there may be problems with communication between systems and with viewing studies.

Checking the Software Level

To check the software version of either the Cypress ultrasound system or the CypressViewer, follow these steps:

1. Click or press **SETUP**.
2. Highlight **System** to display the software version.

If a study has been transferred from one Cypress ultrasound system to another, and the hardware and software versions of the systems are different, you may not be able to view the study.

Incompatible Studies Error Message

If you try to send a study (via a network) to a system (Cypress or PC) that has software and/or hardware compatibility issues, the sending system will display the following message indicating that the study is incompatible with the destination system:

`This study is incompatible with the destination system's
hardware or software. Transfer cancelled.`

Reasons for Incompatible Studies

These are some of the reasons that studies become incompatible when transferred between Cypress ultrasound systems:

- The hardware version of the "sending" Cypress system is at a higher level than the hardware version of the "receiving" Cypress system.
- If a study is transferred from a Cypress CV (cardiovascular) system to a Cypress Cardiac system, the study will not open.
- If a study was created on a Cypress system using a transducer that is not supported by the "receiving" Cypress system, the study cannot be viewed on the "receiving" Cypress system. To view the list of transducers supported by a

specific Cypress system, press **SETUP** and expand the **System** heading. Expand the **Transducer** heading to view the list.

These are some of the reasons that studies become incompatible when transferred between any type of system:

- The software version of the "sending" system is at a higher level than the software version of the "receiving" system. Check the software versions of both systems (see "Checking the Software Level" on page 18).
- If a study is sent to a system with a higher level of software and/or hardware and the study is altered (adding a calculation, adding a loop, adding an annotation, etc.), the study may become incompatible with the original "sending" system.
- An unexpected system fault can prevent proper playback of the study.

What to do with Incompatible Studies

If an incompatible study is detected by the system, it is placed in the **Incompatible Study** box on the Patient/Study lists.

NOTE: *The **Incompatible Study** box appears on the Patient/Study lists only when studies are tagged as incompatible; otherwise, the box remains hidden.*

There are two ways to remove studies from the **Incompatible Study** box:

- Return the incompatible study to the "sending" system using the standard transfer procedure.
- Permanently remove the study from the database by highlighting the study and clicking the [REMOVE] button.

WARNING: Before removing an incompatible study, make sure that it still exists on the sending system. Studies that are removed from either the Cypress ultrasound system or a PC running CypressViewer software cannot be retrieved. The studies are not placed in a recycle bin—once they are "removed" they are permanently deleted from the system's database.

Receiving Transferred Studies

Important Information About CD and DVD Storage

When studies are transferred to a folder on the PC's hard drive in preparation to copy the folder contents to a CD or DVD, CypressViewer will create an "Archive" folder and an "ARCHIVEDIR" file. The "Archive" folder contains the patient studies and the "ARCHIVEDIR" file contains the directory of patient studies in the "Archive" folder. These two files **must** remain together when transferred to a CD or DVD. If these files are altered in any way, the studies will not be viewable on the CypressViewer.

NOTE: *CDs and DVDs containing studies in Cypress format can only be viewed on computers with a compatible version of CypressViewer installed.*

Be aware of the storage capacity of the CD or DVD. Although a CD specifies that its capacity is 640 MB or 700 MB, the maximum amount of data it can store may be lower. If you are using a 640 MB CD, you should limit the contents of the folder containing the "Archive" folder and "ARCHIVEDIR" file to 600 MB or less.

NOTE: *When you use this storage method we strongly recommend that you verify that the transfer process was completed successfully.*

The Inbox

When a study is transferred from either a Cypress ultrasound system or a PC, the study is placed in the **Inbox** of the receiving system. The **Inbox** is displayed on both the Patient List and Study List screens.

The **Inbox** contains only *incoming* studies so it helps you distinguish between new studies and those that are already part of the patient database. The background of the CypressLink monitor icon, located in the system tray, turns yellow to alert you that there is a new study in the **Inbox**.

Once a study in the **Inbox** is activated, the system automatically moves it from the **Inbox** to the list of studies stored in the Cypress or CypressViewer database.

The Alert Envelope Icon

To alert you that something new has been received by your system (either new data or a new study) a yellow envelope (✉) appears at the top, right of the screen, next to the time and date. Once the new studies are activated, the envelope no longer appears.

Reading Studies from a CD

NOTE: *Only studies that are in the Cypress ultrasound system format can be viewed using CypressViewer.*

To read studies from a CD, follow these steps:

1. Put the disk that holds the studies into your CD drive.
2. Set an archive path to the CD drive. Note that the CD must have both the Archive folder with the studies and the "ARCHIVEDIR" file stored on it.
3. Go to the Patient screen and expand the directory for the CD drive.
4. Expand the folder with the study you want to view.
5. Highlight the study you want to view and click [ACTIVATE] or double-click the study. CypressViewer restores the study to your system's hard drive.
6. Click the **VIEW** button to see the images.

Viewing Studies using CypressViewer

To view studies using the CypressViewer software, follow these steps:

1. Open the CypressViewer application.
2. Highlight the study you want to view and click [ACTIVATE] or double-click the study.
3. Click the **VIEW** button.
4. Use the View functions to play the loops in the study. For more information about viewing studies, see the *Cypress System Operator's Manual*.
5. To return to the list of studies, click the **PATIENT** button.

NOTE: *Only one study can be active at a time. The icon for the study that is currently active turns blue.*

NOTE: *Studies can be activated for review from the Microsoft Windows Explorer by double-clicking the study preceded by the CypressViewer icon.*

Keyboard Shortcuts to use when Viewing Studies

The <LEFT>, <RIGHT>, <UP>, and <DOWN> arrow keys on the computer keyboard can be used to navigate through some functions.

When viewing a study in the PLAY LOOP or PLAY SERIES mode, press the <RIGHT> arrow to advance to the next loop or series and press the <LEFT> arrow to display the previous loop or series.

To activate the SEARCH function, press the <UP> arrow and then press the <LEFT> and <RIGHT> arrow keys for a frame-by-frame search. To return to normal playback, press the <DOWN> arrow.

Factors that Affect the Playback of Studies

When viewing a collection of loops in the PLAY SERIES mode, the length of the series can cause the playback to pause while segments of the series are being prepared for viewing.

During a pause in playback the following icon will be displayed:



Series playback can also be affected by the PC's processor speed (higher processor speeds can provide a much smoother playback), available memory, graphics speed, and the number of type of other applications that are running.

Adjusting the Grayscale Using Gamma Correction

Use Gamma Correction to adjust the grayscale. Follow these steps:

1. Click **TOOLS**.
2. Click [IMAGE].
3. Select **Gamma Correction**.
4. Use the cursor to adjust the Gamma curve.
5. Click [OK] to save changes or to exit Gamma Correction and return the image to its previous state, click [CANCEL].

NOTE: Place a checkmark in the **Link** box to combine control of the color options.

Printing Reports

Reports can be printed from the Patient List or the Study List screens.

When you print a report using CypressViewer the report will print on the PC's default printer.

Performing Measurements and Calculations using CypressViewer

To complete measurements and calculations using the CypressViewer software, follow these steps:

1. Open the CypressViewer application.
2. Highlight the study you want to use and click [ACTIVATE] or double-click the study.
3. Click the **VIEW** button.
4. Click the **CALC** button to display the Calculations menu.
5. Use the Calculation functions to complete your measurements and calculations. For more information about performing measurements and calculations, see the *Cypress System Operator's Manual*.
6. To return to the list of studies, click the **PATIENT** button.