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## **Loading a Video Sequence**

To load a video sequence from an existing MPEG file, make sure you have started XingIt! as described in "Starting XingIt!" and complete the following steps:

- 1** Choose "Open..." from the Player window's "File" menu. A dialog appears and asks you to select an MPEG file.
- 2** Use standard Windows techniques to select an MPEG file and click the "OK" button. The selected MPEG file is loaded, its name appears in the Player window's title bar, and the first frame of the video sequence appears in XingIt!'s Video Preview window.

## Playing a Video Sequence

The Player window contains a number of elements with which you control the playback of a video sequence.

These controls are similar to those found on a household VCR:

- o **Play/Pause Button** - begins sequence playback; when playback is in process, clicking this button pauses playback; clicking it again continues playback from the current frame;
- o **Stop Button** - stops playback of the sequence and cancels cycling (if active);
- o **First Frame Button** - sets current frame to the sequence's first frame;
- o **Previous Frame Button** - sets current frame to the previous frame;
- o **Next Frame Button** - sets current frame to the next frame;
- o **Last Frame Button** - sets current frame to the sequence's last frame;
- o **Video Preview Size Button** - toggles between large and small sizes of the Video Preview window (read "Setting the Size of the Video Preview Window" for details);
- o **Sound Button** - toggles playback of the sequence's audio accompaniment;
- o **Current Frame Indicator** - displays an integer representing the current frame's ordinal position within the sequence; to set the current frame, enter a number in this field and press the "RETURN" key;
- o **Frame Scroll Bar** - enables forward and backward scrolling of the sequence as described in "Scrolling a Video Sequence".

## Scrolling a Video Sequence

When viewing a video sequence, you can use the scroll bar at the bottom of the Player window to move forward or backward through the sequence.

As you scroll, the Current Frame Indicator is updated to display the current frame number.

**NOTE** When you drag the scroll box, the rate at which frames are displayed is dependent on the speed with which the scroll box is dragged; drag the scroll bar slowly for slow-motion; drag it quickly for high-speed playback.

## Cycling Video Sequences

When you want to view more than one video sequence, rather than manually loading and playing each sequence, you can cause XingIt! to automatically load and play all MPEG files in a directory whose names match a filename pattern:

- 1 Load an MPEG file as described in "Loading a Video Sequence".
- 2 Choose "Cycle" from the Player windows "File" menu.

All files in the current directory (i.e., the directory in which the currently loaded MPEG file resides) whose names match the current "cycle template" are loaded and played in order. The order in which the files are loaded is the same order in which they appear in the load dialog.

## Setting the Cycle Template

The Cycle Template is a filename pattern that determines what files are loaded during cycling. This setting's default value is "\*.MPG." To set the cycle template:

- 1 Choose "Cycle Template..." from the Player window's "Preferences" menu. The Cycle Template dialog appears.
- 2 Enter in the "File Template" field a filename pattern; e.g., enter "\*.MPG" to cycle files with the .MPG extension; enter "NS\*.MPG" to cycle files whose names begin with "NS" and end with the .MPG extension.

Your change to the cycle template takes effect the next time you cycle video sequences. If you exit and restart XingIt!, the cycle template returns to its default setting (\*.MPG) unless you save your preferences as described in "Saving Preferences".

## PlayBack Speed

The playback speed of a video sequence is expressed as a **frame rate** measured in frames/second. When a video sequence is played with audio accompaniment, the frame rate is dependent on the play time of the audio portion of the sequence. When a sequence is played without audio accompaniment, the frame rate is dependent on the "Frame Rate" setting in the "Preferences" menu. This setting's default value is "uncontrolled," i.e., the playback speed is dependent on the CPU speed of your PC. The uncontrolled playback speed is also affected by the "Disk Read Size" setting in the Player window's "Preferences" menu.

**NOTE** When a sequence is played without audio accompaniment and the frame rate is "uncontrolled," the playback speed differs depending on the size of the Video Preview window (read "Setting the Size of the Video Preview Window" for details); the small (160x120) size has a faster playback speed because it has 1/4 the pixel count of the large (320x240) size.

## Setting the Default Frame Rate

To set the default frame rate for video sequence playback:

- 1 Choose "Frame Rate..." from the Player windows "Preferences" menu. The Default Frame Rate dialog appears.
- 2 Enter in the "Frame Rate" field an integer from 0 to 60 and click the "OK" button. The integer you enter is the number of frames per second. Entering "0" sets the frame rate to "uncontrolled."

Your change to the frame rate takes effect the next time you play a video sequence without audio. If you exit and restart XingIt!, the frame rate returns to its default setting unless you save your preferences as described in "Saving Preferences".

## Setting Disk Read Size

The uncontrolled playback speed is, in part, dependent on the rate at which XingIt! reads MPEG data from your PC's hard disk. To optimize the performance of XingIt! on your PC, you can control the size of the data blocks that XingIt! reads from your hard disk:

- 1 Determine the cluster size of your PC's hard disk (consult your hard disk's documentation or use a disk utility program, if necessary).
- 2 Choose an appropriate entry from the "Disk Read Size" item in the Player window's "Preferences" menu.

Your change to the disk read size takes effect the next time you play a video sequence. If you exit

and restart XingIt!, the disk read size returns to its default setting unless you save your preferences as described in "Saving Preferences".

## Controlling the Video Preview Window

The Video Preview window consists of a title bar and a background/border in which the video sequence's frames are displayed. You can control several characteristics of this window:

- o **Video Size** - sets the size of the Video Preview window;
- o **Background Color** - sets the color of the window background/border;
- o **Frame Border** - sets the size/nature of the frame border.

You can also drag this window by pointing anywhere within its border and holding the mouse button. To refresh this window, double click anywhere within its border.

**NOTE** Read "Starting XingIt! from a Command Line" for instructions for hiding the Video Preview window's title bar.

## Setting the Size of the Video Preview Window

When viewing a video sequence, you can toggle the size of the Video Preview window between two available sizes:

- o **320x240 pixels** - 1/4 screen on a standard 640x480 VGA monitor;
- o **160x120 pixels** - 1/16 screen on a standard 640x480 VGA monitor.

To set the size of the Video Preview window, choose an entry from the "Video Size" item in the Player window's "View" menu or click the Video Preview Size button. The Video Preview window is immediately redrawn at the specified size.

**NOTE** The size of the Video Preview window affects the playback speed of a video sequence if the sequence is played without audio accompaniment and the frame rate is "uncontrolled." Under these conditions, the small (160x120) size has a faster playback speed because it has 1/4 the pixel count of the large (320x240) size. Read "PlayBack Speed" for more information.

If you exit and restart XingIt!, the Preview window size returns to its default setting unless you save your preferences as described in "Saving Preferences".

## Setting the Background Color of the Video Preview Window

To enhance the appearance of a video sequence, you can set the background color of the Video Preview window by choosing an entry from the "Background Color" item in the Player windows "Preferences" menu:

- o **Black** - sets the background color to black;
- o **White** - sets the background color to white;
- o **Lt Gray (Light Gray)** - sets the background color to light gray;
- o **Gray** - sets the background color to gray;
- o **Dk Gray (Dark Gray)** - sets the background color to dark gray;

The Video Preview window is immediately redrawn with the specified background color.

If you exit and restart XingIt!, the background color returns to its default setting unless you save your preferences as described in "Saving Preferences".

**NOTE** If, after setting the background color, you do not notice a difference in the Video Preview window, try setting the "Frame Border Width" as described in "Setting the Frame Border".

### Setting the Frame Border

To visually isolate a video sequence from underlying elements of your PC's display, you can define the nature and size of the border that surrounds frames in the Video Preview window by choosing an entry from the "Frame Border" item in the Player window's "Preferences" menu:

- o **None** - the Video Preview window has no border;
- o **Narrow** - the Video Preview window has a narrow (4 pixel) border;
- o **Medium** - the Video Preview window has a medium (8 pixel) border;
- o **Wide** - the Video Preview window has a wide (12 pixel) border;
- o **Bitmap** - the Video Preview window uses a Wallpaper (BMP) file as its background (read "Setting a Bitmap Border" for details).

The Video Preview window is immediately updated to display the selected border.

When you select the "Narrow," "Medium," or "Wide" setting, the border's appearance is determined by the background color as described in "Setting the Background Color of the Video Preview Window".

If you exit and restart XingIt!, the border returns to its default setting unless you save your preferences as described in "Saving Preferences".

**NOTE** The border width does not affect the size of frames in a video sequence; selecting a wide frame border causes the Video Preview window to enlarge to accommodate the larger border without changing the size of displayed frames.

### Setting a Bitmap Border

To set the Video Preview windows border to a bitmap:

- 1 Choose "Bitmap" from the "Background" item in the Player window's "Preferences" menu, a dialog appears and asks you to select a Wallpaper file.
- 2 Use standard Windows techniques to select a Wallpaper (BMP) file and click the "OK" button. The selected file appears as the background for the Video Preview window.

**NOTE** If the selected BMP file's pixel depth is greater than the resolution of your PC's display, XingIt! must perform processor-intensive calculations to draw the BMP file in the Video Preview window, and these calculations can have a noticeable impact upon the speed of screen refreshes. To avoid performance degradation, you should make sure that a selected BMP files pixel depth is not greater than your PC's display.

## Controlling Audio Playback

When viewing a video sequence, you can choose to view the sequence with or without audio accompaniment. In order to play a sequence with audio accompaniment, you must create an audio file in the same directory as the MPEG video sequence, and the audio file must have the same base name as the MPEG file; e.g., to view with audio accompaniment a sequence whose file name is "NS19.MPG," an audio file named "NS19.WAV" or "NS19.MP2" must exist in the same directory as the video file.

**NOTE** The playback speed of a video sequence is partially dependent on whether or not it is played with audio accompaniment (read "PlayBack Speed" for details).

## Choosing an Audio File Type

XingIt! can play two types of audio files as accompaniment to video sequences:

- o **WAV files** - Windows' audio files;
- o **MPEG Audio files** - MPEG files containing compressed audio data.

To specify the type of audio file played by XingIt!, choose an appropriate entry from the "Sound Type" item in the Player windows "Preferences" menu:

- o **Wave** - choose this entry to play audio files of type WAV (make sure the files are named with the .WAV extension);
- o **MPEG** - choose this entry to play audio files of type MPEG Audio (make sure the files are named with the .MP2 extension);
- o **No Sound** - choose this entry if you want XingIt! to ignore all audio files.

## Toggling Audio Accompaniment

You can toggle the playback of audio accompaniment by clicking the Player window's Sound button at any time.

## Selecting an Audio Decoder

XingIt! currently uses a software decoder to send data to your PC's audio board. In the future, XingIt!'s **direct** drivers will be available. These high-speed drivers will communicate directly with many popular audio boards thereby achieving higher-quality sound reproduction with less processor overhead.

## Configuring XingIt!'s Audio Decoder

To configure XingIt!'s audio decoder, choose "Configure..." from the "MPEG Audio Player" item in the Player window's "View" menu. A configuration dialog appears.

Make appropriate selections in this dialog and click the "OK" button to save your changes:

- o **Quality** - determines the number of audio sub-bands decoded: low quality decodes the seven highest-amplitude sub-bands; medium quality decodes the eight highest-amplitude sub-bands; high quality decodes the 16 highest-amplitude sub-bands.
- o **8 Bit/16 Bit** - determines the amount of data per audio sample sent to your PC's audio driver.

If you exit and restart XingIt!, the audio decoder's configuration returns to its default setting

unless you save your preferences as described in "Saving Preferences".

### **Sound Coupling**

XingIt!'s Sound Coupling feature is provided because some audio boards accept data at non-standard sampling rates; e.g., a board that promises a sampling rate of 44.1 kHz might accept only 44 kHz in practice. Such a discrepancy can cause problems when very long video sequences are played with audio accompaniment. If you find that when viewing very long sequences the video and audio data become unsynchronized, try activating the "Sound Coupling" feature. When sound coupling is activated, XingIt! detects the rate at which your audio board accepts new data and uses this value as a base for calculating the sampling rate.

**NOTE** Activating the Sound Coupling feature may adversely affect the synchronization of audio and video data if your PC's audio board has a large, on-board buffer; e.g., if your PC's audio board buffers an initial data transfer of 64K, XingIt! will calculate an inappropriate sampling rate based on this value.

If you exit and restart XingIt!, the Sound Coupling feature's state returns to its default setting unless you save your preferences as described in "Saving Preferences".

## **Saving Individual Frames as BMP Files**

Two items in the Players "File" menu let you save individual video frames as Windows Bitmap (BMP) files:

- o **Save Frame** - choosing this item saves the current frame as "BASENAME.BMP" where BASENAME is the basename of the loaded MPG file; e.g., if you are viewing an MPEG file named "NS19.MPG," the BMP file is named "NS19.BMP".
- o **Save Frame As** - choosing this item opens a dialog that lets you specify the name and destination of a new BMP file.

## Setting Preferences for the Video Player

The following Video Player settings are stored when you save XingIt! preferences:

- o **Video Driver** - selects the driver used to communicate with your PC's video display board (read "Boosting Playback Performance" for details);
- o **Cycle Template** - sets the filename pattern that determines what files are loaded during video sequence cycling (read "Setting the Cycle Template" for details);
- o **Frame Rate** - sets the default frame rate for video sequence playback (read "Setting the Default Frame Rate" for details);
- o **Disk Read Size** - sets the size of the MPEG data blocks that XingIt! reads from your hard disk during sequence playback (read "Setting Disk Read Size" for details);
- o **Preview Window Size** - sets the size of the Video Preview window (read "Setting the Size of the Video Preview Window" for details);
- o **Background Color** - sets the background color of the Video Preview window (read "Setting the Background Color of the Video Preview Window" for details);
- o **Frame Border** - sets the width of the frame border of the Video Preview window (read "Setting the Frame Border" for details);
- o **Sound Type** - sets the type of audio file played as accompaniment to video sequences (read "Choosing an Audio File Type" for details);
- o **Audio Decoder Configuration** - controls the quality of audio playback (read "Configuring XingIt!'s Audio Decoder" for details);
- o **Sound Coupling** - toggles XingIt!'s Sound Coupling feature (read "Sound Coupling" for details);

## Saving Preferences

To save your currently-set preferences:

- 1 Choose "Save XingIt! Preferences" from the Player or Recorder window's "Preferences" menu. A dialog appears and asks if you want to save the current preferences to the MFW.INI file.
- 2 Click the "Yes" button to save your preferences.

# Capturing Video Sequences

With XingIt!'s capture software, you can record full-color video sequences (with or without audio accompaniment) from a video source attached to your PC's XingIt! board. The captured data is written directly to your PC's hard disk in compressed (MPEG) format. XingIt!'s capture tools consist of the Recorder window that contains VCR-style record controls and the Video Preview window in which the incoming sequences frames are displayed. This section gives instructions for:

- o switching to the capture mode;
- o previewing a video source;
- o capturing a video sequence;
- o capturing audio data;
- o setting preferences for the video recorder.

## Switching to the Capture Mode

To switch to XingIt!'s capture mode, start the XingIt! program as described in "Starting XingIt!", and click the Player window's "Capture" button; the Player window changes to the Recorder window.

**NOTE** To return to the playback mode, click the Recorder window's "Playback" button.

## Capture Controls

The Recorder window contains a number of elements with which you control the capture of a video sequence:

- o **Preview Button** - toggles the display of an incoming video sequence in the Video Preview window as described in "Previewing a Video Source";
- o **Record/Stop Button** - begins sequence capture and compression as described in "Capturing a Video Sequence"; when sequence capture is in progress, clicking this button stops the capture;
- o **Audio Button** - toggles capture of audio data (read "Capturing Audio Data" for details);
- o **Video Editor Button** - opens the Video Editor window (read "Opening the Video Editor" for details);
- o **Sound Editor Button** - opens the Sound Editor window (read "Opening the Sound Editor" for details);
- o **Destination File** - specifies the pathname to which the MPEG data is written (read "Setting the Destination File" for details);
- o **Quantization Level Scroll Bar and Indicator** - sets the MPEG compression quantization level as described in "Controlling the Quality of a Captured Sequence"; [CURRENTLY UNIMPLEMENTED.]
- o **Frames Per Second Scroll Bar and Indicator** - lets you control how much incoming data is written to the destination file as described in "Controlling the Quality of a Captured Sequence".

## Previewing a Video Source

To preview an incoming video sequence, make sure you have switched to the capture mode as described in "Switching to the Capture Mode" and complete the following steps:

- 1 Activate a video source attached to your PC's XingIt! board.
- 2 Click the Recorder windows "Preview" button. The incoming video sequence is displayed in the Video Preview window.
- 3 Click the "Preview" button again to stop the preview process; or begin the capture process as described in "Capturing a Video Sequence".

## Controlling the Video Preview Window

The Video Preview window consists of a background/border in which the incoming video sequences frames are displayed. You can control several characteristics of this window:

- o **Video Size** - sets the size of the Video Preview window (read "Setting the Size of the Video Preview Window" for details);
- o **Frame Border** - sets the size/nature of the frame border (read "Setting the Frame Border" for details).

**NOTE** These settings affect only the appearance of frames in the Video Preview window; they have no affect on what is actually captured to disk.

You can also drag this window by pointing anywhere within its border and holding the mouse button. To refresh this window, double click anywhere within its border.

## Capturing a Video Sequence

To capture an incoming video sequence, make sure you have switched to the capture mode as described in "Switching to the Capture Mode" and complete the following steps:

- 1 Activate a video source attached to your PC's XingIt! board.
- 2 If your PC has an audio board and you want to capture audio data, activate an attached audio source, and activate the Recorder window's "Audio" button (read "Capturing Audio Data" for details).
- 3 Click the Recorder window's "Record" button. The incoming video sequence is displayed in the Video Preview window and is written in MPEG format to the file specified in the Recorder window's "Destination File" field (if you are also capturing audio data, it is written to a .WAV file with the same base name as the destination file). During the capture process, the size (in bytes) of the destination file is displayed in the Recorder window's lower right-hand corner.
- 4 Click the Recorder window's "Stop" button to stop the capture process.

You can start and stop the capture process as often as you wish by repeating these steps. When you click the "Start" button, the destination file is overwritten, so any sequence previously written to this file is destroyed. If you want to start the capture process without destroying the contents of the destination file, specify a different destination file--You can later use XingIt!'s Video Editor to combine the separate video sequences as described in "Combining Video Sequences".

**NOTE** If, during the capture process, the size of the destination file exceeds the available space of your PC's hard disk, the capture process stops automatically.

## Controlling the Video Preview Window

You can control the size and appearance of the Video Preview window during the capture process as described in "Controlling the Video Preview Window".

## Setting the Destination File

To specify the pathname of the file to which MPEG data is written during the capture process, enter a pathname in the Recorder window's "Destination File" field.

If you exit and restart XingIt!, the destination file returns to its default setting (the directory in which the XingIt! program resides).

## Controlling the Quality of a Captured Sequence

The quality of a captured video sequence is determined by several factors:

- o **Quantization Level** - sets the MPEG compression quantization level, i.e., the scale of the frequency quantizer used during compression of the incoming video data; the lower the number, the larger the MPEG file and better the quality of the captured sequences frame. [CURRENTLY UNIMPLEMENTED.]
- o **Frames Per Second** - the amount of incoming data that is written to the destination file. During the capture process, your PC's XingIt! board transfers data to the XingIt! program at a

rate of 30 frames per second. By adjusting the "Frames Per Second" setting, you control how many frames of incoming data are dropped during compression of the sequence to the destination file; valid values are even factors of 30 (i.e., 1, 2, 3, 5, 10, 15, and 30); e.g., setting a value of "10" causes the XingIt! program to drop 2 out of every three frames of incoming data.

- o **Video Filters** - specifies the horizontal/vertical filters applied to the incoming video data prior to its MPEG encoding. As incoming video data is processed by the XingIt! board, mathematical filters smooth pixels in order to make the encoding process more efficient. Each filter has a "weight" that affects the quality of the encoded image--In general, higher filter weights produce blurrier images and smaller MPEG files. You can determine what filters are applied to the video data by making selections from the "Video Filters" item in the "Preferences" menu:
  - o **Filter 1 (Default)** - selects the XingIt! board's default, adaptive, horizontal filter;
  - o **Filters 2 through 5** - selects horizontal filters of various weights; the higher the filter number the greater the weight;
  - o **Filter 6 (Bypass)** - no horizontal filter is applied;
  - o **Filter 7 (Bypass & Delay)** - no horizontal filter is applied, but all pixels are shifted one position;
  - o **Filters 8 and 9** - selects horizontal filters of various weights; the higher the filter number the greater the weight;
  - o **Filter A (Default)** - selects the XingIt! board's default, adaptive, vertical filter;
  - o **Filter B (Bypass)** - no vertical filter is applied;
  - o **Filter C (Delay)** - all pixels are shifted one position;
  - o **Filters D & E** - selects vertical filters of various weights; the higher the filter number the greater the weight;

## Capturing Audio Data

When you capture a video sequence, you can choose to simultaneously capture audio data from an attached source (e.g., if you have attached a VCR's Video-Out cable to your XingIt! board and its Audio-Out cable to your PC's audio board) as described in "Capturing a Video Sequence". The captured audio data is written directly, in uncompressed form, to a WAV file whose base name is the same as the destination MPEG file; e.g., when capturing a video sequence to a destination file named "NS19.MPG," an audio file named "NS19.WAV" is created.

**NOTE** If a WAV file with the same base name as the destination MPEG file exists in the destination directory, it is over-written regardless of whether or not the "Audio" button is active--When the Audio button is disabled, the WAV file becomes zero-length.

## Toggling Audio Capture

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Prior to clicking the Recorder's "Record" button, you can toggle the capture of audio data by clicking the Recorder windows "Audio" button.

## Controlling the Quality of Captured Audio Data

You can control the quality of captured audio data by making selections from the "Sound Recording" item in the Recorder windows "Preferences" menu:

- o **Sample Rate** - specifies the interval (in kHz) at which data from the audio source is sampled; valid values are 11, 22, and 44. Entering a large value increases the encoded data's frequency range; entering a small value decreases the encoded data's frequency range.
- o **Bit Rate** - specifies the size (in bits) of each sample; valid values are 8 and 16. Entering 16 produces a larger WAV file while yielding high-quality sound; entering 8 minimizes the size of the resulting WAV file while yielding lower-quality sound.
- o **Mono/Stereo** - determines if data is written to the WAV file as single-channel (monaural) data or two-channel (stereo) data. A stereo WAV file is approximately twice the size of a mono WAV file.

## Setting Preferences for the Video Recorder

The following Video Recorder settings are stored when you save XingIt! preferences:

- o **Preview Window Size** - sets the size of the Video Preview window (read "Setting the Size of the Video Preview Window" for details);
- o **Background Color** - sets the background color of the Video Preview window (read "Setting the Background Color of the Video Preview Window" for details);
- o **Frame Border** - sets the width of the frame border of the Video Preview window (read "Setting the Frame Border" for details);
- o **Video Filters** - sets the horizontal and vertical filters applied during video capture (read "Controlling the Quality of a Captured Sequence" for details);
- o **Audio Quality** - controls the quality of captured audio data (read "Controlling the Quality of Captured Audio Data" for details).

## Saving Preferences

To save your currently-set preferences:

- 1 Choose "Save XingIt! Preferences" from the Player or Recorder window's "Preferences" menu. A dialog appears and asks if you want to save the current preferences to the MFW.INI file.
- 2 Click the "Yes" button to save your preferences.

## **Editing Video Sequences**

With XingIt!'s Video Editor, you can build new video sequences by copying frames from existing source sequences. This section gives instructions for:

- o opening the Video Editor;
- o loading source sequences;
- o building a new sequence;
- o saving a new sequence;
- o setting preferences for the Video Editor.

## Opening the Video Editor

To open the Video Editor, make sure you have started XingIt! as described in "Starting XingIt!" and perform one of the following procedures:

- o choose "Video Editor..." from the Player or Recorder window's "File" menu;
- o if XingIt! is in capture mode (read "Switching to the Capture Mode"), click the "Video Editor" button.

The Video Editor appears and displays the currently loaded MPEG file in its upper half.

## Setting the Size of Frames in the Video Editor

To set the size of frames in the Video Editor window, choose an entry from the "Editors-Video" item in the Player or Recorder window's "Preferences" menu:

- o **Small Frames** - sets the frame size to 80x60 pixels; at this size, six frames fit in the Video Editor window (read "Affects of High Resolution Display upon the Video Editor Window" for more information);
- o **Large Frames** - sets the frame size to 160x120 pixels; at this size, three frames fit in the Video Editor window (read "Affects of High Resolution Display upon the Video Editor Window" for more information);

Your change to the frame size takes effect immediately. If you exit and restart XingIt!, the frame size returns to its default setting unless you save your preferences as described in "Saving Preferences".

**NOTE** The frame size setting affects only the appearance of frames in the Video Editor and has no affect on the size or quality of a new sequence.

## Affects of High Resolution Display upon the Video Editor Window

If you have set-up Windows to display in high-resolution (i.e., 800x600 or 1024x768), the Video Editor window appears in a modified form:

- o it lacks an "Edit" menu (the items in this menu are replaced by buttons);
- o the "File" menu contains only the "Open" and "Output Frame Rate" items (all other items in this menu are replaced by buttons);
- o a larger number of frames are displayed (8 small frames or 4 large frames at 800x600, and 10 small frames or 5 large frames at 1024x768);
- o The "Deck" menu is replaced by radio buttons;

Throughout this section, instructions for using the Video Editor describe procedures for working in **low-resolution** mode. If you are operating in high-resolution mode, use the Video Editor's buttons instead of menus when appropriate.

## **Loading Source Sequences**

When building a new sequence with the Video Editor, you can load up to five source video sequences into the Video Editor's "decks." To load a video sequence from an existing MPEG file, complete the following steps:

- 1** Switch to the deck into which you want to load the MPEG file as described in "Switching Between Decks".
- 2** Choose "Open..." from the Video Editor windows "File" menu. A dialog appears and asks you to select an MPEG file.
- 3** Use standard Windows techniques to select an MPEG file and click the "OK" button. The selected MPEG file is loaded into the current deck, its name (and a description of its companion audio file) appears in the "Deck" entry in the menu bar, and the first several frames of the video sequence appears in the Video Editor's upper half.

## **Switching Between Decks**

To set the Video Editors upper half to a specific deck, perform one of two procedures:

- o choose an entry from the Video Editor's "Deck" menu;
- o hold the "ALT" key and press a number from 1 to 5; e.g., to switch to deck four, hold the "ALT" key and press the "4" key.

## Building a New Sequence

You build a new video sequence by copying frames from one or more source sequences to a new sequence in the lower half of the Video Editor window. When you first open the Video Editor, the new sequence is empty.

When you have copied frames from source sequences to the new sequence as described in "Copying Frames from a Source Sequence", the lower half of the Video Editor displays the new sequences frames. Below each frame in the new sequence appears its size (in bytes) and its source number--The source number appears in the form "DECK#:FRAME#" where "DECK#" is the number of the deck from which the frame was copied and "FRAME#" is the frame number of the source frame.

**NOTE** The frames in a new sequence are actually pointers to frames in one or more source sequences. If you load an MPEG file into a deck from which you have copied frames, the copied frames in the new sequence point to the newly-loaded MPEG files frames (not the original source sequences frames).

## Building an Audio File for a New Sequence

When you build a new sequence with the Video Editor, you may want to build a companion audio file. If you have an existing audio file to accompany the video sequence, you can manually synchronize this file with your video sequence by using XingIt!'s Audio Editor as described in "Editing Audio Files". If the source sequences from which you build your new sequence have companion WAV audio files, you can choose to include this data in a companion WAV file for your new sequence by activating the Video Editor's Track Audio Feature.

## Activating the Track Audio Feature

To activate the Track Audio feature, make sure "Track Audio" is checked in the "Editors-Video" item in the Player or Recorder window's "Preferences" menu. When the Track Audio feature is active, the Video Editor keeps track of the location of each source sequence's companion audio file. When you execute your new sequence, the Video Editor automatically builds a new WAV file in the same directory as the new MPEG video sequence by copying appropriate audio frames from the source files' WAV companions--This new WAV file has the same base name as the MPEG file; e.g., if you execute a new sequence named "NS19.MPG," its companion WAV file is named "NS19.WAV."

If the source sequences companion WAV files have different frame rates, you may want to control the frame rate of the new sequences audio file by setting an output frame rate as described in "Setting the Output Frame Rate". If the output frame rate setting is "uncontrolled" the Video Editor applies to the new audio file the frame rate of the source audio file with the highest rate.

## Selecting Frames

To select frames in the upper and lower halves of the Video Editor, use the following techniques:

- o to select a single frame, click on it with the **left** mouse button or use the cursor keys as described in "Using the Keyboard to Select Frames"; you can also select a single frame as described in "Moving to a Specific Frame".

- o to select a range of frames, tag frames as described in "Tagging Frames".

### **Using the Keyboard to Select Frames**

You can use your keyboard's cursor keys to move the current selection marker in the upper and lower halves of the Video Editor:

- o press the **left** or **up** cursor key to move the selection marker one frame to the left;
- o press the **right** or **down** cursor key to move the selection marker one frame to the right;
- o press the **Home** cursor key to move the selection marker to the first frame in the sequence;
- o press the **End** cursor key to move the selection marker to the last frame in the sequence.

### **Tagging Frames**

To select a range of frames in the upper and lower halves of the Video Editor, complete the following steps:

- 1 Tag the first frame in the range by clicking on it with the **right** mouse button;
- 2 Tag the last frame in the range by clicking on it with the **right** mouse button.

To remove a tag, point to a frame that is tagged and click the right mouse button.

### **Moving to a Specific Frame**

To move to a specific frame in the current deck, select any frame and type a number. A dialog appears and asks you to enter a frame number.

Enter in the "Frame Number" field the number of the frame you want to go to and click the "OK" button.

### **Copying Frames from a Source Sequence**

You can copy to your new sequence one frame, several frames, or all frames from a source sequence by completing the following steps:

- 1 Switch to the deck from which you want to copy frames as described in "Switching Between Decks".
- 2 Select one or more frames in the source sequence as described in "Selecting Frames".
- 3 Choose an insertion point in the new sequence by selecting a single frame in Video Editor's lower half as described in "Selecting Frames".
- 4 To copy the selected source frames, choose "Copy" from the Video Editor's "Edit" menu. To copy all frames from the source sequence, choose "Copy All" from the Video Editor's "Edit" menu. The source frames are inserted to the left of the insertion point in the new sequence.

### **Deleting Frames in a New Sequence**

To delete frames from the lower half of the Video Editor window, use one of two procedures:

- o to delete selected frames in the new sequence, select one or more frames in the Video Editor's lower half as described in "Selecting Frames" and choose "Delete" from the Video Editor's "Edit" menu.
- o to delete all frames in the new sequence, choose "Reset" from the Video Editor's "Edit" menu.

## **Combining Video Sequences**

To combine two or more video sequences into a single sequence, complete the following steps:

- 1** Copy one video sequence as described in "Copying Frames from a Source Sequence".
- 2** Select the last frame of the new sequence in the lower half of the Video Editor window as described in "Selecting Frames".
- 3** Copy another video sequence.
- 4** Repeat steps 2 and 3 as needed to combine sequences.
- 5** Save your new sequence as described in "Saving a New Sequence".

## Saving a New Sequence

To save a new sequence that you have built with the Video Editor, complete the following steps:

- 1 Choose "Execute..." from the Video Editors "File" menu. A dialog appears and asks you to save the new video sequence.
- 2 Select an entry from the "Save File as Type" field:
  - o **MPEG** - standard MPEG format; if you specify this format, the new sequence's video data is written to a ".MPG" file and the audio data is written to a ".WAV" file;
  - o **AVI MPEG** - "Audio-Video Interleaved" format; if you specify this format, both the video and audio data of the new sequence are written to a single ".AVI" file compatible with Microsoft Video for Windows; if you plan to use XingIt!'s AVI driver, save your sequences in this format.
- 3 Use standard Windows techniques to specify a destination and name for the new sequence and click the "OK" button.

**NOTE** If you choose to save your new sequence as an AVI file, a dialog appears and asks you to locate a WAV file to interleave with the video sequence--You must locate an **existing** WAV file. If you are using the Video Editor's Track Audio feature to build a WAV file, you must first save the sequence as a standard MPEG file (so that a WAV file is built); you can then save the sequence as an AVI file and locate the WAV file for interleaving.

## Setting the Output Frame Rate

If you build a new sequence by combining frames from two or more source sequences, and the source sequences have different frame rates (as determined by their audio data) you can use the "Output Frame Rate" setting to insure a consistent frame rate (measured in frames/second) when the sequence is played back. This settings default value is "uncontrolled," i.e., the frame rate is dependent on the audio data associated with each frame (or, in cases where there is no audio data, the CPU speed of your PC). To set the output frame rate:

- 1 Choose "Output Frame Rate" from the Video Editor window's "File" menu. The Output Frame Rate dialog appears.
- 2 Enter in the "Frame Rate" field an integer from 0 to 60 and click the "OK" button. The integer you enter is the number of frames per second. Entering "0" sets the frame rate to "uncontrolled."

Your change to the frame rate takes effect the next time you save a video sequence. If you exit and restart XingIt!, the frame rate returns to its default setting unless you save your preferences as described in "Saving Preferences".

## Setting Preferences for the Video Editor

The following Video Editor settings are stored when you save XingIt! preferences:

- o **Frame Size** - sets the size of frames in the Video Editor window (read "Setting the Size of Frames in the Video Editor" for details);
- o **Track Audio** - controls the synchronization of video and audio data (read "Building an Audio File for a New Sequence" for details);
- o **Output Frame Rate** - sets the default frame rate for video sequence playback (read "Setting the Output Frame Rate" for details);

## Saving Preferences

To save your currently-set preferences:

- 1 Choose "Save XingIt! Preferences" from the Player or Recorder window's "Preferences" menu. A dialog appears and asks if you want to save the current preferences to the MFW.INI file.
- 2 Click the "Yes" button to save your preferences.

## **Editing Audio Files**

With XingIt!'s Sound Editor, you can edit and build WAV and MPEG Audio files. This section gives instructions for:

- o opening the Sound Editor;
- o loading audio data;
- o editing an audio deck;
- o playing an audio deck;
- o saving an audio deck;
- o setting preferences for the Sound Editor.

## **Opening the Sound Editor**

To open the Sound Editor, make sure you have started XingIt! as described in "Starting XingIt!" and perform one of the following procedures:

- o choose "Sound Editor..." from the Player or Recorder window's "File" menu;
- o if XingIt! is in capture mode (read "Switching to the Capture Mode"), click the "Sound Editor" button.

The Sound Editor appears.

## Loading Audio Data

You can load and edit up to five "decks" of audio data in the Sound Editor in two ways:

- o loading existing WAV or MPEG Audio files;
- o recording data from an audio source.

**NOTE** As audio data is loaded, it is stored as WAV-formatted data (though it lacks the header information of a complete WAV file) either in a memory buffer (i.e., in your PC's RAM) or in a disk buffer (i.e., a temporary disk file). Read "Controlling the Buffering of Incoming Audio Data" for instructions for choosing the buffering method.

## Loading an Audio File

To load an existing WAV or MPEG Audio file, complete the following steps:

- 1 Switch to the deck into which you want to load the audio file as described in "Selecting an Audio Deck".
- 2 Choose "Open..." from the Sound Editor's "File" menu. A dialog appears and asks you to select an audio file.
- 3 Use standard Windows techniques to select an audio file and click the "OK" button. The selected audio file is loaded into the current deck; its name appears in the Sound Editor's "Tape Deck" field, and a graphical representation of the loaded file appears in the Sound Editor's Wave Form display.

## Recording Data from an Audio Source

To insert data into a deck by recording directly from an audio source, complete the following steps:

- 1 Switch to the deck into which you want to load the audio file as described in "Selecting an Audio Deck".
- 2 Select an audio input device (if necessary) by selecting an entry from the "Input Devices" item in the "Devices" menu.
- 3 Choose an insertion point in the Wave Form display as described in "Setting the Insertion Point" (if you select a range of audio data before recording, the selected range is replaced with the recorded data).
- 4 Click the Sound Editor's "Record" button. The "Record" button is replaced by the "Stop" button, and incoming audio data is recorded.
- 5 Click the "Stop" button when you are finished recording audio data. The newly-recorded data appears in the Wave Form display.

## Controlling the Buffering of Incoming Audio Data

As audio data is loaded, it is stored as WAV-formatted data (though it lacks the header information of a complete WAV file) either in your PC's RAM or in a temporary disk file. To set the buffering method, choose an entry from the "Editors-Audio" item in the Player or Recorder window's "Preferences" menu. If you choose to have incoming audio data written to disk buffers,

you can specify the directory to which the data is written by choosing "Buffers Directory" from the "Editors-Audio" item in the Player or Recorder windows "Preferences" menu. A dialog appears and asks you to specify the pathname of a directory.

Enter in the "Directory" field the pathname of the directory to which the Sound Editor writes temporary audio files, and click the "OK" button.

Your selection of a buffering method takes effect the next time you start the Sound Editor. If you exit and restart the Sound Editor, the buffering method setting returns to its default setting unless you save your preferences as described in "Saving Preferences".

### **Selecting an Audio Deck**

To set the Sound Editors "Tape Deck" field to a specific deck, perform one of the following procedures:

- o click the appropriate radio button in the "Tape Deck" field;
- o press the "TAB" key until the "Tape Deck" field is active, and use the arrow keys to select a deck;
- o hold the "ALT" key and press a number from 1 to 5; e.g., to switch to deck four, hold the "ALT" key and press the "4" key.

### **Labelling Decks**

You can change the label for a deck by editing the Sound Editor's "Name" field:

- 1 Switch to the deck whose label you want to change as described in "Selecting an Audio Deck".
- 2 Type a new label (up to 13 characters long) in the "Name" field and press the "Return" key. The new label appears in the "Tape Deck" field.

## Editing an Audio Deck

The Sound Editor provides a number of tools with which you can edit the audio data in one or more decks. Some of these tools affect the appearance of the audio data's graphical representation in the Wave Form display while others have no immediate visual effect. To make you editing tasks easier, you can set the Zoom factor of the Wave Form display to any factor of two from 1 - 16384; e.g., if the audio data in a deck does not fit in the Wave Form display, you can modify the Zoom factor to horizontally compress Wave Form.

You can also use the horizontal scroll bar below the Wave Form display to scroll through the current deck's audio data.

**NOTE** The Zoom factor affects only the appearance of the Wave Form display and has no affect on the actual audio data.

## Setting the Insertion Point

To set the insertion point within an audio deck (e.g., if you are preparing to record data from an audio source), use one of the following techniques:

- o click the left mouse button at the appropriate point in the Wave Form display;
- o begin playback of the audio data as described in "Playing an Audio Deck", and click the "Pause" button at the appropriate point;
- o Use the Fast Reverse or Fast Forward button as described in "Playing an Audio Deck" to move to the appropriate point;
- o type a number (representing seconds) in the "Audio Pos" field and press the "RETURN" key.

## Selecting Audio Data

To select a range of audio data, use one of the following techniques:

- o drag the mouse cursor across the Wave Form display;
- o click the left mouse button at one end of the range, and click the right mouse button at the other end of the range;
- o to select all data in the current deck, choose "Select All" from the "Edit" menu.

## Copying Audio Data

You can copy audio data by completing the following steps:

- 1 Switch to the deck from which you want to copy audio data as described in "Selecting an Audio Deck".
- 2 Select a range of audio data in the Wave Form display as described in "Selecting Audio Data".
- 3 Choose "Copy" from the Sound Editor's "Edit" menu.
- 4 Switch to the deck into which you want to paste the copied audio data as described in "Selecting an Audio Deck", and choose an insertion point as described in "Setting the Insertion Point" (if you select a range of audio data before pasting, the selected range is replaced with the pasted data).

- 5 Choose "Paste" from the Sound Editor's "Edit" menu.

### **Deleting Audio Data**

To delete audio data from the current audio deck, use one of the following techniques:

- o select a range of audio data in the Wave Form display as described in "Selecting Audio Data", and choose "Cut" from the Sound Editor's "File" menu (you can later paste the cut data into any deck);
- o to delete all data in the current deck, choose "Clear" from the Sound Editor's "Edit" menu.

### **Reversing Audio Data**

You can reverse audio data by completing the following steps:

- 1 Select a range of audio data in the Wave Form display as described in "Selecting Audio Data".
- 2 Choose "Reverse" from the Sound Editor's "Change" menu.

### **Controlling Audio Volume**

You can set the volume of the current deck with the "Volume" scroll bar to the left of the Wave Form display. If the current deck is set to "monaural," only one volume scroll bar appears; if it is set to "stereo," both a left" and "right" scroll bar appear.

### **Maximizing Audio Volume**

You can maximize audio data by completing the following steps:

- 1 Select a range of audio data in the Wave Form display as described in "Selecting Audio Data".
- 2 Choose "Maximize Volume" from the Sound Editor's "Change" menu.

When you maximize the volume of selected audio data, the highest amplitude sample in the selection is increased to the Sound Editor's upper limit, and the amplitude of all other samples are increased relative to this sample.

### **Controlling Audio Quality**

You can control the quality of audio data by making selections from the "Sound" menu:

- o **Sample Rate** - specifies the interval (in kHz) at which data in the current deck is sampled; valid values are: 11, 22, and 44. Entering a large value increases the audio data's frequency range; entering a small value decreases the audio data's frequency range. When you change an audio deck's sample rate, the current state of the "Auto Resample" feature affects the result:
  - o if the "Auto Resample" feature is inactive, the number of samples in the audio deck is unchanged, and the change in sample rate affects the playback speed of the audio data;
  - o if the "Auto Resample" feature is active, the audio data is resampled at the new rate, so the playback speed of the audio data is preserved.

- o **Bit Rate** - specifies the size (in bits) of each sample; valid values are 8 and 16. Entering 16 produces more audio while yielding higher-quality sound; entering 8 minimizes the size of the audio data while yielding lower-quality sound;
- o **Mono/Stereo** - determines if the audio data is single-channel (monaural) data or two-channel (stereo) data. Stereo data is approximately twice the size of mono data.

### **Synchronizing Audio Data with a Video Sequence**

As you capture and edit video and audio data with XingIt!, several XingIt! features help insure the synchronization of a video sequence with its companion audio file. If you are editing video/audio files that are already synchronous (e.g., video and audio files that were simultaneously captured with XingIt!'s Recorder), maintaining synchronization is easy when performing editing tasks:

- o **removing frames from a sequence** - use XingIt!'s Video Editor to build a new sequence and remove the unwanted frames; the Video Editor automatically removes video frames corresponding audio frames when the "Track Audio" feature is active (read "Deleting Frames in a New Sequence" and "Activating the Track Audio Feature" for details);
- o **combining two or more sequences** - use XingIt!'s Video Editor to build a new sequence; the Video Editor automatically combines individual sequences' audio data into a new audio file when the "Track Audio" feature is active (read "Combining Video Sequences" and "Activating the Track Audio Feature" for details).

If, however, you are editing video/audio files that are not synchronous, establishing synchronization requires careful editing of the independent video and audio files. In such cases, you will find the Sound Editors "Sync Bar" useful.

### **Using the "Sync" Scroll Bar**

If you have loaded a video sequence into XingIt! prior to opening the Sound Editor, you can synchronize audio data with the loaded video sequence by completing the following steps:

- 1 Switch to the deck whose audio data you want to synchronize with the loaded video sequence as described in "Selecting an Audio Deck".
- 2 Drag the "Sync" scroll box. As you drag the "Sync" scroll box, a range of audio data equal in playback length to the loaded video sequence is automatically selected and moved across the Wave Form display.
- 3 When the appropriate range of audio data is selected, release the mouse button and click the "Test" button. The selected range of audio data is written to a WAV file whose base name is the same as the loaded video sequence, and the Player window appears and plays the video sequence with audio accompaniment. When playback is complete, the Sound Editor reappears.

If you are dissatisfied with the synchronization, repeat steps 2 and 3 as necessary to achieve synchronization.

### **Modifying the Video Length**

When synchronizing audio data with a video sequence, you can change the playback speed of the video sequence by editing the "Video FPS" and "Video Length" fields:

- o modify the "Video FPS" field to set the playback speed measured in frames per second;
- o modify the "Video Length" field to set the playback length measured in seconds.

**NOTE** When you change either of these fields, the other field's value is automatically updated; e.g., if you increase the "Video FPS" setting, the "Video Length" automatically decreases.

## Playing an Audio Deck

The Sound Editor contains a number of controls similar to those found on a household VCR with which you can control playback of the audio data in the current deck:

- o **Play/Pause Button** - begins playback; when playback is in process, clicking this button pauses playback; clicking it again continues playback from the current point;
- o **Rewind Button** - rewinds to the beginning of the deck;
- o **Fast Reverse Button** - click on this button to quickly play backwards; as long as you hold the mouse button, reverse playback continues;
- o **Fast Forward Button** - click on this button to quickly play forwards; as long as you hold the mouse button, fast playback continues;
- o **Advance Button** - advances to the end of the deck.

## Selecting an Output Device

If your PC has more than one audio driver installed, you can select one as an output device by making a selection from the "Output Devices" item in the "Devices" menu.

## **Saving an Audio Deck**

The save an audio deck that you have edited with the Sound Editor, complete the following steps:

- 1** Switch to the deck you want to save as described in "Selecting an Audio Deck".
- 2** Choose "Save..." from the Sound Editors "File" menu. A dialog appears and asks you to save the new video sequence.
- 3** Select an entry from the "Save File as Type" field:
  - o **WAV** - the audio data is written to a ".WAV" file;
  - o **MPEG Audio** - the audio data is compressed through Xing's software audio encoder and written to a ".MP2" file. Only audio data set to 44 kHz, 16 bit can be saved as an MPEG Audio file.
- 4** Use standard Windows techniques to specify a destination and name for the new sequence and click the "OK" button.

**NOTE** You can also save a portion of a deck by selecting a range of audio data as described in "Selecting Audio Data" prior to saving the deck; only the selected data is saved to the destination audio file.

## Setting Preferences for the Sound Editor

The following Sound Editor settings are stored when you save XingIt! preferences:

- o **Buffers** - sets the destination to which audio data is written by XingIt!'s Sound Editor (read "Controlling the Buffering of Incoming Audio Data" for details).

## Saving Preferences

To save your currently-set preferences:

- 1 Choose "Save XingIt! Preferences" from the Player or Recorder window's "Preferences" menu. A dialog appears and asks if you want to save the current preferences to the MFW.INI file.
- 2 Click the "Yes" button to save your preferences.

## Starting XingIt! from a Command Line

You can start the XingIt! program from a command line in DOS or within Windows by executing the MFW.EXE file in the XING directory. If you supply the pathname of an MPEG file, XingIt! loads and plays the video sequence, and then automatically exits. If you do not supply a filename, the XingIt! starts, and you can then manually control it with the interactive techniques described throughout this guide.

## Starting XingIt! from a DOS Command Line

To start the XingIt! program from a DOS command line, issue a command in the form:

> **WIN MFW.EXE [FILENAME.MPG] [OPTIONS]**

Where "MFW.EXE" is the pathname of the MFW.EXE file in the Xing directory and "[FILENAME.MPG]" is an optional pathname of an MPEG file to be played. Read "Options" for a description of the valid options.

## Starting XingIt! from Within Windows

To start the XingIt! program from within Windows, complete the following steps:

- 1 Open the Windows Program Manager and choose the "Run" command from the "File" menu; The "Run" dialog appears.

- 2 Enter in the Run dialog's "Command Line" field a command in the form:

> **MFW.EXE [FILENAME.MPG] [OPTIONS]**

Where "MFW.EXE" is the pathname of the MFW.EXE file in the XingIt! directory and "[FILENAME.MPG]" is an optional pathname of an MPEG file to be played. Read "Options" for a description of the valid options.

## Options

When you start XingIt! from a command line, you can supply a number of options that override default values defined in the MFW.INI file. You can enter these options in any order; precede each option with a space; you can also precede each option with a forward slash (/), or a dash (-).

## **XingIt! DLLs**

When you install XingIt!, its MCI and AVI drivers are installed in the installation directory. If you want to use these drivers from within third-party applications, you must install them with the Windows "Drivers" control panel.

### **Installing XingIt! Drivers**

To install XingIt!'s MCI or AVI DLL, complete the following steps:

- 1** Open the Windows Program Manager and start the "Control Panel" program in the "Main" program group.
- 2** Open the "Drivers" control panel; The "Drivers" program window appears.
- 3** Click the "Add" button. The "Add" dialog appears.
- 4** Select the "Unlisted or Updated Driver" entry in the list of available drivers, and click the "OK" button. The "Install Driver" dialog appears.
- 5** Enter the pathname of the XingIt! directory that contains the MCI and AVI drivers, and click the "OK" button. The "Add Unlisted Driver" dialog appears.
- 6** Select the Xing MCI or AVI driver and click the "OK" button. The driver's setup window appears.
- 7** Make appropriate selections from the setup window's fields and click the "Select" button. The Drivers control panel reappears and displays the newly-installed driver.
- 8** Click the "Close" button to exit the Drivers control panel, or repeat steps 2 through 7 to install additional drivers.

## Troubleshooting

### **Switching to XingIt!'s capture mode causes your PC's monitor to go blank or display garbage.**

Make sure that you have properly configured your XingIt! hardware and software (read "Setting-up Your XingIt! Board" and "Setting-up Your XingIt! Software" for details).

### **Switching to XingIt!'s capture mode generates an error "Unable to Locate XingIt! Board."**

Make sure your XingIt! board's base I/O address is correct; both your hardware and software configuration must specify the same address, and this address must not conflict with other devices in your PC (read "Setting-up Your XingIt! Board" and "Setting-up Your XingIt! Software" for details).

### **In capture mode, the Video Preview displays a blank frame.**

Make sure your XingIt! board's Interrupt setting is correct; both your hardware and software configuration must specify the same interrupt, and this interrupt must not conflict with other devices in your PC (read "Setting-up Your XingIt! Board" and "Setting-up Your XingIt! Software" for details).

### **In capture mode, the Video Preview displays garbage.**

Make sure your XingIt! board's memory address setting is correct (read "Setting-up Your XingIt! Software" for details). If you suspect that this setting is incorrect, you should immediately exit all open programs, restart Windows, and reconfigure your XingIt! software.

### **In playback mode, the Player and Video Preview windows are crunched together.**

Make sure you have configured XingIt! to use the proper direct display driver, or use the DIB driver (read "Boosting Playback Performance" for details).

### **Playing a video sequence with XingIt!'s Player causes your PC's monitor to go blank or display garbage.**

Make sure you have configured XingIt! to use the proper direct display driver, or use the DIB driver (read "Boosting Playback Performance" for details).

### **Image quality in the Video Preview window is poor.**

Make sure you have set up Window's display for at least 256 colors. Using Window's default VGA set up yields poor image quality in the Video Preview window.

### **In playback mode, audio data fails to playback.**

Make sure you have activated audio playback as described in "Toggling Audio Accompaniment". If, when playing a sequence, you hear one or two beeps, XingIt! was either unable to locate an audio driver or was unable to find an audio driver compatible with the current audio data. (e.g.,

the sampling rate of the audio data may be unsupported by your driver). Make sure your audio driver is properly installed and configured through the Windows "Drivers" control panel. If you hear three or more beeps, XingIt! successfully sent data to your audio driver, but the driver was unable to interpret the data; make sure the audio file is the proper format (e.g., adding a ".WAV" extension to a word-processor document does not change its format to a WAV file), and confirm that the file is not corrupted (try opening it with XingIt!'s Sound Editor).

## **Xing Technical Support**

If you can't find the answers to your questions in this guide, contact Xing's Technical Support staff by calling **805-473-7431** Monday through Friday, 8:00a to 5:00p Pacific Standard Time.

