TUTORIAL FOR INCORPORATING GOLDWAVE WITH WIREREADY32

GoldWave is a 32-bit audio player, recorder, editor and converter, suited for any Windows 95/98/NT/2000 operating system. GoldWave handles varied audio formats including MPG and MP3 files, allowing for importing or exporting to and from the newsroom system, and converting to the linear WAV files that WireReady uses.

Notes Before you Begin:

This document is an addendum to the *Tutorial for WireReady32*. That tutorial described the many functions of recording and editing sound with Cool Edit 96 / Cool Edit 2000 in conjunction with WireReady32. This document does the same with GoldWave. Many of the processes are identical, but for your convenience those steps have been repeated here so it is not necessary to read portions from both tutorials in order to learn to use GoldWave. Everything you need to know about using GoldWave with WireReady32 is included in this document.

GETTING STARTED

How to create a new audio file

USING WIREREADY TO RECORD AUDIO (METHOD 1)
Strike **Alt-5** *OR* Click on the MediaLog button in WireReady.
Strike **Ctrl-N** *OR* Click on the New button.
Enter the name of the file. Click the OK button.
GoldWave audio software will open.
If a previous wave file was open, GoldWave may be minimized.
If it is not launched then click on GoldWave on the Taskbar.
Click on the Record button (The button with the red circle).

Use the board or microphone to record the audio. If using your Virtuoso headset device to record, speak into the microphone on your headset. Ensure that your Virtuoso settings are correct for recording.

When finished recording, click the Stop button.

From the Menu bar click on *File*, then *Save* OR From the Tool bar click on the leftmost computer disk.

USING WIREREADY TO RECORD AUDIO (METHOD 2)

Strike **Alt-8** *OR* Click on the Record button.

Enter the name of the file.

Choose a folder to store the file. Click the OK button.

GoldWave will open.

Click on the Record button (The button with the red circle).

Use the board or microphone to record the audio. If using your Virtuoso to record, speak into the microphone on your headset. Ensure that your Virtuoso settings are correct for recording.

When finished recording, click the Stop button.

From the Menu bar click on *File*, then *Save* OR From the Tool bar click on the leftmost computer disk.

Note: If you have finished with the recording session then click on the close button (the **X** in the upper, right corner of the Goldwave window) to exit GoldWave and the Goldwave Control box. This will prevent confusion when the next user attempts to work with GoldWave.

How to modify sound bites in GoldWave

PLAY/STOP (TWO METHODS)

(First you must open an audio file either by double-clicking it from the MediaLog in WireReady, using the Open functions of Goldwave or simply navigating to the file on your computer, and double-clicking it).

1. Click on the Yellow Play button to play the entire file, starting at the beginning of the file. Click on the Stop button when done.

2. Click the Green Play button to play the Selection.
   a. Strike the **<u>Spacebar</u>** to Start playing audio in the Selection, or to Stop the audio.

PLAY ONLY A SELECTION
When a file is first opened, the entire file is highlighted as a selection.
Highlight a portion of the audio.
Strike the **<u>Spacebar</u>** to Start or Stop, or click the Green Play button.

ADJUST HIGHLIGHTED AREA/SELECTION
Left-click in the blue screen to set the start marker position in Goldwave.
Left-click and drag to change either end of the selection to adjust the highlighted area.

CUT/PASTE WITHIN AN AUDIO FILE
Open the file in GoldWave.
Highlight a portion of the audio.
Click *Edit* from the Menu bar.
Choose *Cut*.
Set the Start Marker where you wish to place the audio cut.
Click *Edit* and choose *Paste*.

DELETE A PORTION OF AN AUDIO FILE
Open the file in GoldWave.
Highlight a portion of the audio.
Click on the **<u>Delete</u>** key on the keyboard, or click the Delete icon on the Goldwave Toolbar.

ZOOM IN/OUT
Many View/Zoom buttons are available in GoldWave, located on the Toolbar. By placing the mouse over any of these buttons a description will pop up explaining the purpose of the button.
Open the file in GoldWave.

Click the "In" button to zoom in on the middle of the entire waveform.

Click the "Out" button to zoom out one level.

Click the "All" button to zoom out completely and display the entire audio file.

Click the "Preset" button to zoom in to a preset length of audio. This length is set in Options/Window, in the Zoom section.

Click the "Sel" button to zoom in on the highlighted area.

Click the "Prev" button to zoom in to the last-used zoom level. Use this to switch back and forth between two zoom levels.

ADJUST VOLUME ON A PORTION OF AUDIO FILE

Open the file in GoldWave.

Highlight a portion of the audio.

From the Menu bar click on *Effect*, then *Volume*, then *Maximize*.

The Maximum value should be set to 0 dB (full dynamic range).

Click OK.

UNDOING A MISTAKE

From the Menu bar, click on *Edit*, then *Undo*.

Click on *Undo* again to erase the mistake prior to that one.

Note: The Undo option is stacked so it is possible to undo a number of mistakes by repeatedly clicking on *Undo*.

NOISE REDUCTION

Open the file in GoldWave

Highlight a portion of the audio that contains only the hum/static to be removed.

From the Menu bar, click on *Edit, Copy*.

Highlight the portion of the file to remove the noise from, or highlight the entire file.

From the Menu bar, click on *Effect, Filter*, then *Noise Reduction*.

Click on *Use Clipboard* in the Reduction Envelope section.

Click on *OK*.

GoldWave will remove the previously selected hum/static from the entire audio file.

How to save only a portion of a sound bite in GoldWave

SAVE SELECTIONS FROM AN EXISTING SOUND FILE (TWO METHODS)

1. Open the file in GoldWave.
    Highlight a portion of the audio.
    From the Menu bar click on *File*, then *Save Selection As.*
    Provide a DIFFERENT name than the current audio name.
    Choose a folder where you wish the file to be saved.
    Note: Keep audio file names less than 40 characters. No commas.

2. Open the file in GoldWave.
    Highlight a portion of the audio.
    From the Menu bar click on *Edit*, then *Paste New.*
    From the Menu bar, click on File, then Save As.
    Provide a DIFFERENT name than the current audio name (the name of the file will be Untitled).
    Choose a folder where you wish the file to be saved.
    Note: Keep audio file names less than 40 characters. No commas.

TO MARK A SELECTION DURING PLAYBACK

Click on the Play button on the Transport toolbar or strike the space bar.
Strike the left bracket (**[**) key on the keyboard to anchor the cursor at the position you would like the selection to begin.
Strike the right bracket (**]**) key on the keyboard to mark the end of the selection.
The selection can then be edited and saved. See the paragraph entitled "Fine Tune Highlighted Area" in the TUTORIAL FOR WIREREADY32 to review how to adjust a highlighted area.

How to open files in GoldWave using WireReady

OPEN AUDIO FILE

Strike **Alt-5** *OR* Click on the MediaLog button in WireReady.
Strike **Ctrl-L** *OR* Click on Select button.
Choose the folder, and click OK.
Strike **Ctrl-R** *OR* Click on the Refresh button to show any recently added files.
Choose the file and strike **Enter** *OR* Double-click.
GoldWave opens.

OPEN A SECOND AUDIO FILE

If GoldWave is on the screen, click on WireReady32 located on the Taskbar.
Strike **Alt-5** *OR* Click on the MediaLog button.
Strike **Ctrl-L** *OR* Click on Select button.
Choose the folder, and click OK.
Strike **Ctrl-R** *OR* Click on the Refresh button to show any recently added files.
Choose the file and strike **Enter** *OR* Double-click.
Note: Any previously opened audio files are still open in GoldWave. Each waveform will open into its own window.

OR

From the Main Goldwave menu, click on File, then Open.
Navigate to the folder that has the desired audio.
Highlight the wave file and click Open.
Note: This method will open the waveform into the same GoldWave window. Either waveform can be minimized or maximized in this window.

Closing a Waveform

TO CLOSE A WAVEFORM WITHOUT EXITING GOLDWAVE

Click on *File* on the Menu bar, then choose *Close*.

-OR-
Strike **Ctrl-F4**.
You will be prompted to save changes.

Background Sound/Music with Voice Tracks

The most efficient way to include background sound with a voice track is to use the mix feature included with GoldWave. Once the voice track has been recorded, edited and saved, it can them be added to other audio files you wish to mix.

How to Mix Two Audio Files Together
Open both files that are to be mixed.
Select the portion of the music or background sound that will be used.
From the Main menu, choose Edit, then Copy. This will put the sound in the Clipboard.
On the voice track, move the start marker to the place where you want to start mixing the clipboard.
Choose Mix from the Edit menu.
Enter the mix volume for the clipboard.
Adjust the start time as required.
Choose OK.
Save the file as a separate file.

Using Audio In WireReady32

How to hear sound bits without opening GoldWave

> PREVIEW
>
> > Locate the audio file in the MediaLog.
> >
> > Move the highlight to the audio you wish to hear.
> >
> > Strike **F3** *OR* Click the Preview button to Play and Stop.

Viewing/Modifying the details regarding a sound bite

> DISPLAY AUDIO FILE DETAILS
>
> > Locate the audio file in the MediaLog.
> >
> > Move the highlight to the audio you wish to view.
> >
> > Strike **F4** *OR* Click the Info button.
> >
> > Add or adjust any information pertaining to this audio file.
> >
> > **Tip:** To hear the audio before typing the outcue, click on the Preview button.
> >
> > Click the Save button when done.

How to insert sound bites into your stories in Notepad

> EMBEDDING AUDIO (METHOD 1)
>
> > In the Notepad place the cursor where you wish the sound to go.
> >
> > Strike **Ctrl W** *OR* Click the Wave button.
> >
> > On the right side of the dialog box, click on the folder that contains the audio cut.
> >
> > Double-click on the audio file *OR* Click once, then click Open.
> >
> > A link to the audio file, along with its description, outcue, and length will be placed on the Notepad.
>
> EMBEDDING AUDIO (METHOD 2)
>
> > Locate and highlight the audio file in the MediaLog.
> >
> > Strike **F9** *OR* Click the Embed button.
> >
> > Strike **F7** to return to the Notepad.

A link to the audio file, along with its description, outcue, and length will be placed on the Notepad.

Tip: The link will be pasted at the location of the cursor. Be aware of this location before you choose to Embed.

How to check the length of the Newscast

VIEWING THE ESTIMATED TIME

Strike **Ctrl-T** *OR* Click the Time button.

The approximate total script time will be displayed.

How to play an audio cut from within the Notepad

OPEN A SAVED NEWSCAST

Strike **Alt-2** *OR* Click on the FileLog button.

Strike **Alt-L** *OR* Click the Select button.

Highlight the correct folder, then strike **Enter**.

Highlight the correct story, then strike **Enter**.

PLAY SOUND DURING A NEWSCAST

Place the cursor above the line where the link to the audio file is located.

Strike **F1**, **F2**, or **F3** to play the audio.

Hold **Shift**, and strike the same key (**F1**, **F2**, **F3**) to stop the audio.

Scroll the text, and use F1, F2, or F3 to play the next cut.

Note: F1, F2, and F3 have the same function of playing the sound cut. If the board is wired to play sound from three spots, then the three function keys can be used to overlap sound.

LOGGING THE AUDIO FILES AFTER A NEWSCAST

After airing the newscast, click on *Edit* from the Menu bar.

Choose *Log it*.

This will record the time the audio was last played, and the number of times it has been played.

Check the MediaLog to confirm the log.

How to Wrap an entire Newscast

CREATING A WRAP/PACKAGE

Open the newscast from the Notepad or FileLog.

Strike **Alt-8** *OR* Click on the Record button.

Enter a name for the new audio file.

Select the appropriate folder, and click OK.

In GoldWave, click the Record button.

Minimize GoldWave by clicking on the minus sign in the upper, right corner of the window. Do <u>Not</u> click on the X.

Using a microphone read your newscast.

Strike **F1**, **F2**, or **F3** to fire the audio files during the cast.

When finished, click on GoldWave on the taskbar at the bottom of the screen to open it.

Click the Stop button.

Edit the audio file using delete, normalize, etc.

Save the file, then strike **Ctrl-F4** to close it. Remember, you may exit GoldWave at this point, but it is not necessary.

The audio file containing the wrap is now located in the MediaLog.

How to Move/Copy an audio cut from one folder to another

DUPING AUDIO FILES

Strike **Alt-5** *OR* Click on the MediaLog button.

Highlight the audio file to be duped.

Click on the Dup button.

Choose whether to Copy or Move the file to another folder.

Open the folder where you wish to dup the file.

You may keep the same file name or change it.

Click on the Save button.

USING MP3 Files

MP3 files are compressed and therefore much smaller than WAV files. That is why they download so quickly from the Internet. They are nearly ten times smaller than WAVs. However, MP3s are typically a lower quality audio file than are WAVs. Only WAV files can be embedded and played with WireReady32.

GoldWave provides the ability to convert between these two popular audio formats (and many others). In doing so it is important to be aware of the Sample Rate. Half of the Sample Rate is the highest frequency that can be heard. Most people can hear sounds as high as 15Khz, or occasionally 17Khz. Which translates to a Sample Rate between 30000 Kbps and 34000 Kbps. WireReady32 supports Sample Rates between 22050 Kbps and 32000 Kbps.

The majority of voice cuts are no higher than 3Khz to 5Khz (6000 to 10000 Sample Rate). However, music rates are much higher. That is why music may sound slightly flat when played through WireReady32. The bottom line - When converting a WAV to an MP3 some audio fidelity may be lost because the file will be compressed; when converting from MP3 to WAV choose a Sample Rate between 22050 and 30000.

OPEN AN MP3 FILE

From GoldWave click on *File*, then *Open, OR* strike **CTRL-O**.
Select *MPEG Audio (*.mp3)* in the Files of type box at the bottom of the window.
Select a different folder if necessary by clicking on the drop-down triangle next to the Look in box at the top of the window.
Double-click the audio file, *OR* click once on the file and click *Open*.

CONVERT AN MP3 TO WAV FORMAT

From GoldWave click on *File*, then *Batch Processing*.

Click on the *Add Files* button.

Select a different folder if necessary by clicking on the drop-down triangle next to the Look in box at the top of the window.

Double-click the audio file, *OR* click once on the file and click *Open*.

On the Convert tab at the bottom of the window, click on *Convert files to this format* to check the box.

Select *Wave (*.wav)* in the Save as type box.

Select *PCM signed 16 bit, mono* in the Attributes box.

Click on *Rate (Hz)*. Select 22050 from the list.

Click the *Begin* button.

CONVERT A WAV TO MP3 FORMAT

From GoldWave click on *File*, then *Batch Processing*.

Click on the *Add Files* button.

Select a different folder if necessary by clicking on the drop-down triangle next to the Look in box at the top of the window.

Double-click the audio file, *OR* click once on the file and click *Open*.

On the Convert tab at the bottom of the window, click on *Convert files to this format* to check the box.

Select *MPEG Audio (*.mp3)* in the Save as type box.

Select a format in the Attributes box.

Click the *Begin* button.

Using Goldwave for Extracting Audio from CDs

The GoldWave CD Reader tool digitally copies audio directly from an audio CD to your hard drive, without using your sound card.

This features has several advantages over sound card recording:

Audio can be compressed while extracting, saving hard drive space. Information such as artist, title, and album can be downloaded and saved automatically.

The CD-ROM drive must be MMC compliant (Multimedia Command Standard). For Windows 95, 98, and ME an ASPI driver must be installed. For Windows 2000/XP either an ASPI driver or administrator privileges are required. Due to the wide variety of interfaces, inconsistent device standards, and problems with the Windows ASPI driver, incompatibilities may arise that will require a system reset. It is recommended that you close all other programs before proceeding.

From the main menu, choose *Tools*, then *CD Reader*. If your system is configured correctly, you will see a window that allows you to select a CD device and specify the tracks or range of audio to copy. If you have only one CD-ROM drive, only one device will be listed in the drop down list. If you already have an audio CD in the drive, the track times will be shown in list. Otherwise you will need to insert an audio CD and select the CD device from the list.

Choose the *Get Titles* button to download information (album, titles, etc.) about the CD from the freedb.org website. An active connection to the Internet is required.

Select a single track from the list and use the *Rename* button or **Alt+R** to manually rename it.

Choose the *Select All* button to select all tracks or check each track you want to save. You can select any part of the CD or preview tracks by

selecting the *Read Time Range* tab. A fast CD-ROM or DVD drive is required for previewing. You may have to increase the Read speed or the Number of sectors per read setting under the Options tab to get smooth playback. For defect free reading, the Number of sectors to overlap setting should be 2 or greater.

Choose the *Save* button to save all tracks to separate files or a time range to a single file. You can select the file format and other options on the Save CD Tracks window that appears.

Use the Options tab to changes settings for reading audio from the CD and the download database. The Swap bytes option changes the order of bytes extracted from the CD-ROM. If the files sound badly distorted or like a loud hiss, check this box and save the tracks again.

Troubleshooting
·   If you get synchronization errors at the beginning, try continuing several times before giving up. Some drives are very inaccurate when spinning up and may require a dozen continues before synchronization can be reliably established. If that does not help, set the Number of sectors to overlap value to zero on the Options tab and try again.
·   If you see an error message indicating a read problem, make sure that the CD is free of dust and finger prints.

·   If preview playback is intermittent, increase the Read speed or the Number of sectors per read setting or reduce the Number of sectors to overlap setting under the Options tab.

Other features available with GoldWave

GoldWave has many advanced features, too numerous to provide step-by-step instructions for each one. A few are mentioned below:
- Stretch or Reduce the length of an audio cut while maintaining the pitch.
- Adjust the Pitch while maintaining the time of an audio cut.
- Append one audio file to the end of another.
- Generate silence within a cut.
- Make an audio cut play in reverse.

It is recommended that you check out the Help file provided with GoldWave. From the Menu bar click on *Help*, and then *Contents*.

Quick Keys and Mouse Maneuvers
for GoldWave

GoldWave offers a wide variety of keyboard shortcuts to make editing easy and fast. See the list below to find out how to use your computer keyboard and mouse to speed up your editing.

KEYBOARD

File controls:
Ctrl+N	Creates a new, initially blank file
Ctrl+O	Opens an existing waveform
Ctrl+S	Saves the current waveform to disk
Ctrl+F4	Closes the waveform
Alt+F4	Exits GoldWave

Selection controls:
Ctrl+A	Select Entire Waveform
Ctrl+Shift+B	Select both channels of a stereo file
Ctrl+ Shift+L	Select Left channel of a stereo file
Ctrl+ Shift+R	Select Right channel of a stereo file
Shift+Left Arrow	Adjust left side of highlight (start marker) to the left
Shift+Right Arrow	Adjust left side of highlight (start marker) to the right
Ctrl+Shift+Left Arrow	Adjust right side of highlight (finish marker) to the left
Ctrl+Shift+Right Arrow	Adjust right side of highlight (finish marker) to the right

[	Anchors the start marker at the cursor position during playback
]	Anchors the finish marker at the cursor position during playback

Editing controls:

Ctrl+Z	Undo
Ctrl+C	Copy selection to internal clipboard
Ctrl+X	Cut waveform to internal clipboard
Ctrl+V	Paste from internal clipboard (or Windows clipboard if internal clipboard is empty) at the start marker's position
Crtl+B	Paste from internal clipboard into the sound at the beginning
Ctrl+F	Paste from internal clipboard into the sound at the finish marker's position
Ctrl+E	Paste from internal clipboard into the sound at the end
Ctrl+P	Creates a new file and pastes waveform data from clipboard
Ctrl+R	Replaces the selection with the sound in the internal clipboard
Ctrl+W	Sets the selection to the current view
Ctrl+Q	Drops a new cue point at the current playback position or recording position
Ctrl+J	Jumps the start marker to the next cue point
Ctrl+Shift+J	Jumps the start marker to the previous cue point
Shift+Ctrl+Ins or	
Ctrl+M	Mixes the clipboard with the waveform at the start marker's position
Delete	Delete selection
Ctrl+T	Trim to selection (removes audio outside the selection)

Play and Record controls:

Space	Play / Stop a sound using Green Play button (when Main window is active)
Shift+Space	Starts or stops playback using Yellow Play button (when Device Controls window is active)
F4	Play (green mode)
Shift+F4	Play (yellow mode)

F5	Rewind
F6	Fast Forward
F7	Pause
F8	Stop
Ctrl+F9	Starts recording
Ctrl+F7	Pause/Unpause recording
Ctrl+F8	Stops recording

View and Zoom controls:

Home	Moves the sound window view to the start marker's position
End	Moves the sound window view to the finish marker's position
Ctrl+End	Moves the sound window view to the beginning of the file
Ctrl+Home	Moves the sound window view to the end of the file
Ctrl+Up Arrow	Vertical Zoom In
Ctrl+Down Arrow	Vertical Zoom Out
Shift+Up Arrow	Horizontal Zoom In
Shift+Down Arrow	Horizontal Zoom Out
Page Down	Scroll the sound window graph right one screen
Page Up	Scroll the sound window graph left one screen
Left Arrow	Scroll the sound window graph left
Right Arrow	Scroll the sound window graph right
Shift+M	Stores the location of the start and finish markers (memorize)
Shift+R	Moves the start and finish markers to the stored locations (recall)
Shift+E	Displays the Set Marker window (enter)
Shift+A	Horizontal zoom all the way out
Shift+V	Vertical zoom all the way out
Shift+P	Zooms to previous horizontal zoom
Shift+S	Horizontal zoom in on the selection
Shift+U	Horizontal zoom to the user defined level

Scroll Lock   When turned on, the Sound window graph automatically scrolls to follow the playback/recording position

Miscellaneous:
F1   Bring up Help
F11   Display Control Properties window
Alt+F6   Switches between Main window and Device Controls window
Ctrl+F6   Switches between sound windows

MOUSE
Left click and drag on waveform(s) **to highlight and select a section of the audio**
Left click and drag on start or finish marker **to adjust the selection**
Click to the left or right of the Display Range Bar **to page one screen left or right**
Rest mouse over toolbar button **to get explanation of button's function**