
ADDITIONAL MANUAL: ZADOK's WinAudio MAJOR Edition v2.0

In advance of the print version of the v2.0 manual you hereby receive a shortlist of the additions. They are referred to per chapter and paragraph. Print this information and use them in combination with the v1.0 manual, or read them directly using MS-WRITE (WIN3.11) or WORDPAD (WIN95).

[[NEW PREFACE:...]]

Hello dear WinAudio MAJOR owner,

Originally, we at Zadok were very happy and satisfied we had succeeded in developing a software tool for literally everybody owning a PC with sound card, desperately wishing to start using Multi Track Digital Audio but, sadly, unable to afford this financially. However, the enthusiastic reactions from both the international press and the owners of WinAudio 1.0 showed us (fortunately) we weren't the only persons holding such opinions...

Although WinAudio 1.0 is more than a match for most people, some users still requested an even more professional version, which linked improved features to an only slightly increased price. With our pre-formulated approach of "user friendliness, functionality and affordability" in mind, we started working on the user-requested "hit list" and came up with the product you are now holding: WinAudio MAJOR.

We hope this edition of WinAudio will fulfill its primary mission, even more so than previous versions; if WinAudio 1.0x can be considered a Audio to Midi program, WinAudio MAJOR is instead more intended to be considered a true Hard Disk Recording package...

Have fun with WinAudio MAJOR,

Bob Blok
Zadok Audio Media Products

[[Add to Chapter 3:...]]

*** Integration of your favorite MIDI Sequencer / Wave Editor software:**

WinAudio Major can be easily expanded by the user to incorporate a 'favorite' MIDI Sequencer and/or Wave Editor. Making changes to your Midifile or Waves is now only a mouseclick away! Select the corresponding menu item, and the corresponding MIDIFILE or WAVE will automatically be loaded into the 'annexed' program.

*** Non-Destructive Fade-in / Fade-out:**

It is now possible to give each of your WAVE files an individual fade-in and fade-out, without having to alter the original files. You can enter these fade lengths 'musically'; in measures and quarter notes, with a precision up to 1/96th measure.

*** Non-destructive cut:**

Longer WAVES can be 'chopped up' by the user without making changes to the original WAVE data. It is even possible to split up one WAVE into ten or even twenty smaller objects which are all treated individually within WinAudio MAJOR, even within the Multi-Edit options. In this way, any desired section of a wave can be multiplied, moved or deleted in order to create rhythmic patterns, volume changes, crossfades etc.

*** Two display modes:**

In the default mode of operation, you will be shown the VOLUME and FADE-IN / -OUT superimposed onto the WAVE display. By selecting the corresponding menu item or pressing [TAB] you will select the alternative desktop mode, which, instead of the graphical WAVE display, will display the WAVE names and PANNING levels. All program operations can still be performed from within this mode.

*** Attenuator for optimal Mixing:**

In order to achieve more professional results, we have included the AUDIO ATTENUATOR. This function allows a more precise definition of the mixing volume, which is necessary because some cards are more sensitive to distortion than others.

*** Automatic handling of Non-Duplex soundcards:**

We have included an automatic recording / playback switching mechanism in WinAudio Major, which prevents you from having to switch between recording and playback drivers constantly when working with a single DAC card.

*** Mute Switch per Track:**

It is possible to selectively MUTE each TRACK by means of individual on/off switches. In this way, the original setting of the Volume Fader will be retained, so un-muting tracks will instantly return the previous setting.

*** Panning per Track:**

Sometimes it can be necessary to change a complete track's PANNING (stereo location) in one single operation. In this way, it is no longer necessary to set all wave pannings one by one.

*** Nine Locators:**

The [Numpad] keys 1-9 each point to a user-definable locator position. This facility allows instant access to pre-selected sections of your project. Because the locator buttons are also functional during playback, this option allows several unique real-time operations.

Locator [9] always points to the last position in the project. Use it to correct any previous mistakes, or to compare two sections of your project.

*** Multi-Edit functions with Locators:**

WinAudio Major incorporates Multi-Copy, Multi-Move and Multi-Delete functions, which can be used to facilitate working using song structures. For example, the Multi-Copy function allows repeating an previously constructed refrain or chorus. Furthermore, the construction of drumtracks and the removal or deletion of a certain selection is greatly accelerated. (*Also refer to Non-destructive Cut*).

Locators [1] and [2] are reserved for the selection of the Source Range. Locator [3] indicates the destination to be used for the Source-Range. Locator [1], [2] and [3] are therefore constantly shown on-screen as Source-Start, Source-End and Destination.

*** Normalize option:**

In order to facilitate the recording with soundcards, we have incorporated a so-called Normalize-option within WinAudio MAJOR. This allows bringing a (pre-recorded) WAVE up to full saturation (maximum volume). This option's accurate implementation assures a marked quality improvement. (*refer to chapter 6, paragraph 6.3*).

*** DC-Offset Correction:**

This option is intended for removing any present direct current component (often resulting in hum or distortion) from your WAVES. Sadly enough, the (lacking) quality of many popular soundcards forced us to implement this option.

*** More User-friendly provisions:**

A number of features have been added to the program, with the intention of generally improving

the user interface. For example, we have included "Save Settings On Exit", "Auto Load on Launch", "Free Drive Space", saving while retaining the actual project, etc. Because most improvements are self-explaining, we have chosen not to describe them all in great detail.

[[Add to Chapter 5:...]]

5.3.2. available drive space

During startup, WinAudio MAJOR checks the number of harddrives and the level of available drive space in the system. The program will then report this to the user.

The 20 to 40 Megabytes of necessary drivespace per Project (mentioned in paragraph 5.3) is an indication which is valid only for a Project with a certain number of short Waves in addition to the Midifile. Remember, for every minute of Harddisk Recording at CD quality (44,1 kHz, 16 bits, stereo), you are using up more than 10 Mbytes of drivespace! Therefore, WinAudio MAJOR considers 40 Mbytes to be the absolute minimum for each track in a 44.1 kHz project (thus 20 Mbytes for each 22.05 kHz track). True "multitrackers" sometimes even rack up 150 to 200 Mbyte projects, not even including temporary files... Thus, in order to avoid errors due to a filled-up harddisk, calculate at least 100 to 200 Mbytes (depending on the sampling frequency - 22.05 or 44.1) for each full-sized multitrack project.

WinAudio will automatically report if there is insufficient memory available for any desired operation. The option 'Drive Space' from the pull-down menu 'Tools' should then be consulted to see which drive does have enough space available.

The most professional and secure method of operation still remains the use of a separate drive for audio purposes. A SCSI drive is not essential, however, at least an enhanced IDE (EIDE) drive is highly recommended.

5.4. WinAudio MAJOR and Windows 95 / NT

Although this version (Major 2.0) of WinAudio has not yet been ported to 32-bit operation, its functions have been optimized to support the advantages Windows '95 and NT have to offer. However, in order to make optimal use of these advantages, the user needs to be somewhat familiar with the peculiarities of these new operating systems. Because we realize this is often not the case, we have included a number of indications which are ESSENTIAL to the correct operation of WinAudio and Windows '95 or NT.

5.4.1. internal memory

Windows '95 requires more RAM in order to function correctly; for consistent operation, at least 8 Mbytes are required, and although it is possible to work with less memory present, a lot of harddisk resources are then required, and system speed suffers.

5.4.2. virtual memory and smartdrive

In the previous paragraph we advised to dispose of virtual memory in Windows 3.x. However, in Windows '95, virtual memory has been given a slightly different implementation, mainly because Windows '95 is better suited for MultiMedia purposes. A more differentiated memory use has resulted in a better usability, which in turn implies it isn't absolutely necessary to switch off virtual memory.

It is important to monitor the so-called SmartDrive. Smartdrive is best compared to a RAM-disk, in

the sense that it essentially is a certain reserved part of system memory, used to store often-needed disk data to improve system responsiveness. Windows '95 contains a more intelligent version of SmartDrive, which actively monitors the system's memory requirements. During periods of low memory / system requirements but high data activity, SmartDrive assumes a larger size (this reasoning can also be applied in reverse).

However, Harddisk Recording programs require not only a large part of the processor capacity, but also place heavy demands on the harddisk. Under such circumstances, Smartdrive can grow to excessive size, which in turn results in the automatic use of virtual memory (present on the same hard-pushed harddisk). Audiodata will then be written to disk, only to be reloaded immediately, etc etc...

This problem may be countered by limiting the SmartDrive filecache to a reasonable maximum. Carefully follow this procedure to configure your system to an optimal -fixed- value:

- * Read the file SYSTEM.INI (located in the Windows '95 directory) by double-clicking its icon. Now, Windows will start the NOTEPAD application containing the SYSTEM.INI file. If nothing happened, boot NOTEPAD.EXE yourself.
- * In SYSTEM.INI, locate the phrase "v-cache".
- * Immediately beneath this header, add an extra line containing the text "MaxFileCache=512" (if you have 8 Mbytes of RAM). If your system is equipped with more than 8 Mbytes of memory, you can state "MaxFileCache=1024" or even "MaxFileCache=2048".
- * Save the modified SYSTEM.INI, then reboot your system.

This will assure a comfortable File-Caching, while preventing any unnecessary read / write-action.

5.4.3. loading speed

Windows '95 contains an option, intended on optimizing the loading speed of the harddisk. It can be found in:

'Settings' => 'Control Panel' => 'System' => 'Performance' => 'File System'

You will then be presented with a dialog window which allows you to choose from six buffer values. These values are: 0, 4, 8, 16, 32 and 64 kByte. This value sets the 'read ahead' buffer for the harddisk. Normally speaking, a higher value would result in better performance (faster data transfer). However, not all systems are equal, so only a 'trial and error' approach (enscinating a critical situation and then comparing all buffer settings) can clarify your individual situation. Remember, WinAudio's locator needle can give you a dependable indication of your system's performance; the longer the needle stands still during play, the worse the internal memory configuration is. Note that setting the optimal value for the read ahead buffer will also improve other programs' performance.

Only after these abovementioned factors have been configured and checked, your system can make use of the advantages Windows '95 has to offer.

[[Add to Chapter 6:...]]

6.1. The Desktop

By default, WinAudio Major will boot in the display mode illustrated below. Now, once a WAVE has been placed in a track, the program will display it graphically (as a Waveform). In this way, the user gains a good impression of the audio events to be expected. Sometimes, however, it can come in useful to have the Playlist Entry data (including WAVE name and Panning) on-screen instead. This can be achieved by pressing [TAB].

Instead of graphical WAVE representations, WinAudio will display graphics, supplying the user with the following information:

1. Wave Length
2. Wave Volume
3. Fade In / Out (if present)
4. Wave Panning
5. Wave Name

In the tracks, the waves are represented by thin red lines. These lines indicate Wave Length and the Volume envelope, including any Fade In / Fade Out areas. Panning is represented by larger green horizontal markings. Finally, in the lower left corner of the Wave area, the Wave Name can be seen.

6.1.2. midifile

By clicking 'Midi Sequencer' in the pull-down menu 'Tools' (or by pressing the shortcut keys [ALT] + [S], MIDIFILES can be quickly and easily modified. WinAudio will boot the Sequencer which has been specified in 'Customize tools' and then load the current MIDIFILE. After closing the 'host' program, WinAudio will pop up again. It is then possible to 'refresh' the modified Midifile by selecting the corresponding menu item or pressing [ALT] + [F].

6.1.3 volume control

To the left of the Volume Fader you will find the 'Mute Button'. By clicking this button, you can select whether the track should play or not. However, when switching off playback, WinAudio will still retain the original volume setting of the track. This means that after unmuting the track, the original volume will be restored. Note it is also possible to use the tracks as 'Solo'-buttons.

The volume listed in the Playlist Entry box will also be visible in the second Display Mode (accessed by pressing [TAB]) as a thin horizontal (red) line across the WAVE. This line also represents the starting- and ending volume of the WAVE (the so-called FADE-IN and FADE-OUT).

6.1.5. move / copy or edit

If you (accidentally) moved a WAVE it is possible to undo this action by pressing [Esc]. This option can be used creatively, in the sense that it allows quick try-outs of a certain WAVE arrangement: move the WAVE to the desired location, and if you don't like the effect, pressing [Esc] will restore the original arrangement. Note that [Esc] will also undo any edits to the length of the WAVE.

6.1.5 non-destructive cutting

In our opinion, especially "multi-trackers" (e.g. people using their PC as a "tape recorder") will value this virtual chopping function. It allows cutting up long audio recordings, and individually moving the segments to allow for a better timing. Furthermore, this option may be used to implement radical structure changes to your recordings (in combination with Multi-Edit). This action may be performed by holding [Shift] and simultaneously clicking left mouse button at the desired position in the WAVE. Now your wave will be split up into two separate waves which both act as 'normal' waves, in the sense that all normal WinAudio functions can be used to edit

these waves. However, note that this cutting is totally NON-destructive and will not alter the original sample in any sense. Moreover, these edits do NOT require any more harddisk space. Isn't that wonderful?

6.1.8. panning per track

We'll clarify this option using an example: because every soundcard has two output lines (stereo left or stereo right), these outputs will often be used to separate (for instance) drums and vocals. Both outputs will then enter separate mixer lines in order to receive individual 'treatments' (effects, equalizing etc.). In order to accomplish this, all drum waves should be placed at the utmost stereo left, and all vocals at the utmost stereo right.

Normally, you would have to perform this edit by setting the stereo position (using the Playlist Entry box) for each individual wave in the project. Now, you can suffice by opening the Playlist Entry box for only one WAVE per track and setting the stereo panning while simultaneously holding [Ctrl]. Now, close the Playlist Entry box using the 'OK' button, and automatically all waves in the project will be set to the same panning position. Checking the results of this operation is best done using the ENVELOPE display view (accessed by pressing [TAB], which will graphically display the panning positions.

6.2 File Menu

NOTE: We recommend using a new directory for each Project (further explained in this chapter)

Apart from the mentioned combination [Shift] + [F12] it is also possible to save using the combination [Ctrl] + [S]. We have implemented this shortcut mainly because of compatibility reasons.

In order to correct mistakes made during the saving of projects, WinAudio MAJOR will automatically rename the existing project to "*.BAK" if it is overwritten. Restoring an apparently overwritten project is therefore as simple as removing the faulty "*.PRJ" file and renaming the "*.BAK" file to "*.PRJ" (in Windows File Manager or Explorer).

6.3. Functions Menu

6.3.6. normalize

One should not underestimate the importance of the normalizing function found in WinAudio; this function allows bringing a sample up to full saturation (maximum volume). This will result in an optimal signal to noise ratio of the sound board.

WinAudio will first analyze the total WAVE and then boost its amplitude (volume per sample point) to the point of maximum sample gain without distortion. This allows you to set the recording level of your samples to a rather more conservative setting. Normalizing will then assure your samples are saturated even better than the best recording control could have delivered!

6.3.7. dc-offsett

Many soundcards are plagued by DC (direct current) offset calibration problems. This means that a Wave is not recorded symmetrically (as it should), but 'shifted' towards the top or bottom of the amplitude scale. This has two negative side-effects. Firstly, your waves are not saturated optimally, which results in a less-than-desirable signal to noise ratio. Secondly, and even worse, direct current (DC) can be fatal to your speakers. All the more reason to fix this problem, which fortunately is as simple as it is efficient: put a check mark by the header 'DC Offset Correction' and press START.

*** Selection of Source and Destination Wave names:**

First, use the Source button to indicate which file should be processed. You can double-check this wave by pressing the 'Play' button. Now you can decide which name should be used as the destination name.

Generally, you should always select a Source Name first. Why? In most situations you would automatically want to overwrite the original file with the corrected WAVE. Therefore, WinAudio MAJOR by default assumes the SOURCE name to be the same as the DESTINATION name. Only if you wish to retain the original WAVE file you will have to enter a new name for the DESTINATION.

NOTE: Make sure you have enough harddisk space available for these operations, especially when the WAVE you want to process is reasonably lengthy. After pressing START, your computer will start processing. In the case of larger WAVES, this process can take up to several minutes. However, the result is always worth waiting for...

[[Replace "Multi Copy Waves" by "Multi Edit"...]]

The previously placed Locators [1], [2] and [3] will present themselves here as 'Source Range' and 'Destination'.

In the case of 'Delete', all waves between Locators [1] and [2] will be deleted for the track you have selected. The parameter 'number' has no function here.

Under normal circumstances (and with WinAudio v1.0) only the (complete) WAVES which are located between the Left- and Right locator will be processed. From MAJOR 2.0 on, WinAudio offers the possibility of non-destructively cutting WAVES which are located on the 'border lines'. All Multi-Edit functions will then affect only selected area. Because this operation is totally non-destructive, all samples can be corrected with sample-point precision. However, WinAudio MAJOR automatically makes 'perfect' cuts without any clicks.

6.3.10. edit locators

The Edit Locators button brings a window on-screen, giving user feedback on the location of all nine Locators within WinAudio. Although using the shortcut [Ctrl] + [Numpad-entry] is clearly more practical, it is also possible to edit the locator positions using this window. Use the [TAB] key to step from locator entry to locator entry, and the [Cursor-left] and [Cursor-right] keys to change the entry value. The first three Locators are closely related to the Multi-Edit functions, and are always shown on the desktop as Source Begin, Source-End and Destination, where Locators [1] and [2] are reserved for marking the Source-Range, and locator [3] indicates the destination for the Source-Range data.

Locator [9] is a somewhat special locator, in the sense that it constantly changes to point towards the last position of the 'needle'. Use this locator to return to the previous pointer position.

As mentioned before, the Locators are best placed using the keys [Ctrl] + [Numpad-entry]. This can even be done during playback. This allows 'photographing' your desired locations, just by holding the desired Locator number on the Numpad and simultaneously pressing [Ctrl]. Just pressing the locator number on the numpad gives quick access to the corresponding location.

The positions of the Locators [1], [2] and [3] are constantly shown on-screen in the margin between MIDIFILE and WAVES. They are represented by the following tags:

- * Locator [1] (=> Left Locator = Begin Source-Range)
- * Locator [2] (=> Right Locator = End Source-Range)
- * Locator [3] (=> Destination Locator)

6.3.11. display mode

(For an explanation of Display Mode, refer to paragraph 6.1, "Desktop")

6.4. Tools Menu

In the drop-down menu TOOLS you will find the following items (from top to bottom):

6.4.1. customize tools

Use the 'Browse' button to locate your favourite Midi Sequencer (or sequencer-like program). In this example, we have (of course) selected Zadok's MidiFrame (not just a sequencer!), located on drive C:\.

If desired, repeat this procedure for your Wave Editor software (you will often get a free Wave editor along with your sound card package). From now on, WinAudio will know where to find your favourite programs and have them behave like they were integrated into WinAudio!

If the programs you 'integrated' into WinAudio are programmed to 'communicate' properly, they will automatically load the desired MIDIFILE / WAVE. Closing the program will return you to WinAudio. This method of operation allows flexible and interactive editing of MIDI and AUDIO files.

NOTE: We would like to stress that any edits made using this procedure are 'destructive', i.e. if you wish to retain the original Midi- or WAVE-data (without modifications) make sure you make a backup before making any modifications through the host programs.

6.4.2. refresh midifile

After the project MIDIFILE has been altered, it will have to be re-read in order to validate the modifications. Although this option is already automated in WinAudio, practice shows us not all Midi Sequencers support it. Moreover, no fixed protocol for such actions exists.

6.4.3. midi sequencer

In order to be able to make changes to the actual MIDIFILE, selecting this menu item will start a Midi Sequencer. The corresponding key combination is [ALT] + [S]. *(Also refer to paragraph 6.4.1)*

6.4.4. wave editor

We have implemented this option in order to be able to implement rapid, 'destructive' (permanent) changes to one or more WAVES in the project. However, we recommend performing these edits before placing the WAVES in WinAudio MAJOR, because any changes to the WAVE length made in the corresponding editor cause WinAudio to become 'confused' concerning the proper location of the WAVE. Accessing the Wave Editor can be performed from the Playlist Entry Box or by double-clicking the desired WAVE. This insures WinAudio will correctly transfer the sample to the editor.

6.4.5. save settings on exit

As in real life, a cleaned-up and personalized environment assures optimal user comfort. Therefore, we have included a customizable screen configuration, including a user-definable location for the WinAudio and CD-ROM transports. Placing a checkmark at the corresponding menu item will cause WinAudio MAJOR to 'remember' the customized screen configuration and automatically reload it after booting the program. You can remove the checkmark after you've found your 'ideal' setup, so it will be preserved for future use.

6.4.6. auto load on launch

Placing a checkmark at this option will cause WinAudio MAJOR to automatically reload the current project at startup. This option can come in handy when constantly working on only one project. Just remove the checkmark after finishing and mixing your last project... We would like to stress that it is not necessary to start each project with a predefined 'default' project, because WinAudio will automatically retain all relevant settings after closing down.

6.5. Playlist Entry

6.5.3. fade in

As the name suggests, you can program a gradual volume change in your WAVES. Setting the volume fade can be accomplished in a similar musical way as the starting position (in Measures, Quarter Notes, etc.). Now, the red line indicating the volume will also show the fading envelope.

6.5.4. fade out

Fade Out can be considered the opposite of Fade In. The creative combination of Fade In and Fade Out will result in a so-called Crossfade.

6.5.5. edit

This option allows you to bring up your favourite Wave-editor. Making changes to a WAVE is then only as simple as clicking this button. The relevant WAVE will automatically be read into the 'annexed' program. Changes to the WAVE can also be performed by selecting the option 'Wave Editor' from the 'Tools' menu, or pressing [Alt] + [E]. WinAudio MAJOR will now boot the editor specified with 'customize tools' and transfer the sample "Do you want to update the project?". Selecting 'Yes' will then reload the project, including the modifications.

NOTE: It is also possible to edit your WAVES in this way by double-clicking them from the desktop.

6.6.1. scroll (<) of (>)

With every mouse click on this button, the locator needle will jump 1/8 measure to the left or right. However, by holding the [CTRL]-button while performing the action, the locator needle will move with the smallest margin of movement, being one screen pixel per click. This can come in handy for precisely adjusting the Locator positions, or for exactly placing a WAVE alongside the MIDIFILE. This facility also works for the cursor keys [<] and [>].

6.6.5 record (O)

Pressing the RECORD-button without activating the Transport will record a WAVE directly to disk. However, the recorded WAVE will not be visible on-screen afterwards. However, pressing RECORD [*] during playback will not only record a WAVE, but also place it in track 4 at the desired location after the recording has finished. This recording procedure is called 'punching in', a technique often used in professional multi-track recordings. Remember that pressing the asterisk [*] will immediately start the recording; therefore, keep check of your count-in before 'punching in'.

Making a recording without activated playback will (as previously stated) not automatically locate the result in track 4. However, pressing PLAY during recording will turn the recording into a 'punch in' recording and automatically place it in track 4. This assures optimal user flexibility.

NOTE: On some very slow or very fast systems WinAudio will incidentally misplace the recordings by a small margin. In that case, manually correct the locations of the WAVES. However, these miscalculations occur only incidentally.

6.7. Timecorrector

Next to the Source- and Destination buttons you will find a PLAY button. While the Source play-button is meant for aural verification of your original file, the Destination play-button is meant for checking the result of the time correction operation without having to reload the file.

[[add to Chapter 7:]]

7.1. Midi Drivers

7.1.1. midifile to driver

7.1.2. sync out to driver

7.2. Audio Drivers

7.2.1. audio output to driver

7.2.2. audio input to driver

7.2.3. attenuation

Because four WAVES combined result in a louder volume than (for example) two WAVES combined, increasing the number of audio tracks will require a certain attenuation of the volume to prevent distortion. Because of this, we have included a special function, called the 'Attenuator'. This adaptation should bring more professional results, because it allows you to match your song dynamics to the capabilities of the sound board (because, as stated before, not all sound boards are created equal!).

Audio technicians use an index called the decibel (dB) to indicate the rate of sound volume. A linear attenuation of -6 dB results in only half the original volume, while a further attenuation (to -12 dB) will result in a quarter of the original volume. However, the noise level of the audio card will remain constant, which means a -12 dB attenuation results in a 75% loss of dynamics... From this you can conclude the importance of proper attenuator setup. This can be accomplished as follows:

- * Projects with up to 2 tracks simultaneously => -6 dB
- * Projects with up to 4 tracks simultaneously => -12 dB

Still, in practice this situation is less problematic than it may appear, partly because our ear is

'logarithmical', and not 'linear', in construction. Furthermore, audio distortion is often overheard, because other audio 'covers' these signals. Remember that these problems combined may still become irritating (a distortion-sensitive budget sound card in combination with badly saturated WAVES). In that case, try setting the attenuator to -12 dB, even when working with 2 tracks.

Depending on a number of factors, each project can require an individual setup. Therefore, the Attenuator setting will be saved along with the Project data.

7.2.4. mono / stereo

7.2.5. auto switching single A/D - D/A convertor

In order to facilitate the use of single-DAC soundcards, WinAudio MAJOR offers the possibility of automatically switching between recording and playback drivers, thus eliminating the need for user interference. Single-DAC Audio boards will now behave like equipped with double-DAC, with the exception of WAVE re-recording. However, the MIDIFILE will still be recorded.

As can be seen in the corresponding box, Single DAC boards can still have both a recording and a playback driver installed. Critical factor here is the placement of the "Single A/D - D/A Converter" checkmark.

7.3. Audition Level

At the bottom left of the window you will see a horizontal slider, which allows you to set the audition level for your soundcard. Move the slider to the left to decrease the volume, and to the right to increase the volume. We were forced to implement this slider because soundcards react unpredictably to their Wave input volume; some cards are linear, others are logarithmical. Furthermore, a lot of cards have an low-ohm input signal (low resistance), while others have a high-ohm input signal (higher resistance). This resistance is often called 'impedance'.

These factors contribute to the fact that loading a WAVE can result in a vastly different volume level from the normal WinAudio volume. These problems can be countered by setting the optimal auditioning volume for your soundcard. Remember, you are not dealing with WinAudio MAJOR's playback volume here. Instead, this slider affects the playback volume during 'prehearing' waves after recording, timecorrecting, normalizing, loading a WAVE and playing from the Playlist Entry box.

Set the slider to a certain volume (using trial and error) in such a way, that the audition volume matches the song playback volume. The program will now maintain this setting and automatically reset these levels the next time you load WinAudio MAJOR.

[[Add to Chapter 8:...]]

Switch Display Mode	[Tab]
Undo Wave Move	[Esc]
Start Sequencer	[Alt] + [S]
Start Wave Editor	[Alt] + [E]
Refresh Midi File	[Alt] + [F]
Non Destructive Cut	[Shift] + [Mouse]
Program Locators	[Ctrl] + [Numpad number]
Read Locators	[Numpad number]

PLAYLIST ENTRY BOX

Panning per Track

[Ctrl] + Panning Fader

Save Project

[Shift] + [F12] / [Ctrl] + [S]

Save Project As

[F12]