

SoniClear 7
INSTALLATION GUIDE
for
MEETING RECORDER 7
GOV RECORDER 7



About This Manual

This manual covers the installation procedures for the following SoniClear digital recording software products:

- Meeting Recorder 7
- Gov Recorder 7

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Installation Overview

Hardware Requirements

SoniClear is a hardware and software system for recording meetings and administrative hearings. See the SoniClear User Guide for detailed operating instructions.

SoniClear software runs on a Windows computer with additional audio interface hardware. For reliable operation, and to ensure effective support, SoniClear software should be used with the recommended hardware.

Computer Hardware

SoniClear requires the following computer hardware:

- Laptop or Desktop Computer
- Windows XP (XP Professional recommended)
- Single Core Processor, 1.5GHz or faster
Dual Core Processor, 1.5 GHz recommended for multichannel recording.
- Adequate disk space for recording (see “Disk Storage Space” below).

Computers with slower processors can be used, however, not all features will be supported (such as speed up during playback) and reliability will be reduced.

Disk Storage Space

SoniClear stores the recorded audio data on the disk drive of the laptop computer that is running the program. A network or remote drive cannot be used for storage during recording. Playback from a network drive is possible for files converted to MP3 format, but this will depend on the speed of the network and shared server involved. Storage requirements for the various recording modes are as follows:

| | |
|-------------------------------|------------------------|
| Conference Mode (mono, MP3) | 22 Megabytes per hour |
| Meeting Mode (mono, WAV) | 158 Megabytes per hour |
| Dictation Mode (mono, WAV) | 158 Megabytes per hour |
| Meeting Mode (stereo, WAV) | 316 Megabytes per hour |
| Meeting Mode (2 Channel, WAV) | 316 Megabytes per hour |

Gov Recorder Multichannel Recording:

| | |
|---------------|-------------------------|
| 2 Channel WAV | 316 Megabytes per hour |
| 4 Channel WAV | 948 Megabytes per hour |
| 6 Channel WAV | 1264 Megabytes per hour |
| 8 Channel WAV | 1580 Megabytes per hour |

| | |
|---------------|------------------------|
| 2 Channel MP3 | 44 Megabytes per hour |
| 4 Channel MP3 | 132 Megabytes per hour |
| 6 Channel MP3 | 352 Megabytes per hour |
| 8 Channel MP3 | 440 Megabytes per hour |

Audio Hardware

SoniClear uses the audio circuitry of the computer for recording and playback of audio data. Audio devices that are supported by SoniClear include:

- Internal computer microphone
- Computer-compatible microphone connected to internal sound card
- External line-level audio source connected to internal sound card (if a line-in connection is available)
- USB Audio Device

SoniClear supports selection from multiple sound card devices and can be configured to record from a specific sound card and optionally to detect the availability of removable USB audio devices. Playback can be configured to use the same device as that used for recording, or it can be a different device. For example, the laptop can be configured to record from an internal microphone, or automatically switch to a removable USB device, and always play using the internal speaker system.

SoniClear is recommended for use with the following audio hardware:

| | |
|----------------------------|---|
| Dual-Channel Recording: | Any Windows computer sound card M-Audio MobilePre Griffin Technology iMic USB Interface Andrea USB Interface VXI USB Interface Marshall MXL MicMate Centrance MicPort Pro |
| Gov Recorder Multichannel: | Motu 8Pre Antex Electronics DMX-4 RME Audio Fireface 800 M-Audio Delta 44 M-Audio Delta 1010 |
| Optional Backup Recorder: | Marantz PMD 660 or PMD 560 |

Floating License System

SoniClear is sold as a boxed product incorporating the Floating License System. This allows for the purchased license to be locked to a specific machine, moved to another machine, or “floated” from machine to machine, using the supplied USB Key device. The Floating License System offers the greatest flexibility.

The Floating License System uses the SoniClear USB Key to deliver and manage the software license. When the user receives the software initially, the SoniClear software license is stored on the USB Key. The software can be installed on any number of computers. SoniClear will only run when the USB Key device holding the “floating license” is plugged into the computer prior to running the software. This mode of usage is the same as the "Roving License" option offered with prior SoniClear releases.

The user has the option to leave the floating license stored in the USB Key, or lock the license to a specific computer. Once the license is locked, the USB Key device does not need to be plugged into the computer. This mode of usage is similar to the "Single Computer License" option in prior SoniClear releases.

Once a license has been locked to a computer it cannot be used as a floating license with the USB Key. The user has the option of unlocking the license from the computer at any time. Then the license reverts to floating status, stored in the USB Key device. The USB Key can then be used to authorize use of the software on other machines, either as a Floating License, or locked to another computer.

The status of the SoniClear license is managed using the License tab of the Preferences dialog. See the section *Editing Program Preferences* in this manual for more information.

SoniClear Product Versions

This manual covers the seven SoniClear product versions tailored for meeting applications. For the boxed products, a single executable program (SoniClear7.exe) is installed for all of these products. When the USB Key is inserted, the license stored in the key will authorize the version to be displayed. If a USB Key is available for more than one version of SoniClear, the user can switch between versions by using a different key.

Information about SoniClear Court Recorder software, consult the separate Court Recorder User Guide and Court Recorder Installation guide.

Technical Support

Contact your SoniClear dealer or view the SoniClear Support Page at www.soniclear.com for current release and technical support information.

Meeting Recorder Deployment

Meeting Recorder Overview

SoniClear Meeting Recorder is generally deployed for use by a single individual or a small group of users for capturing meeting information for archival purposes, producing meeting minutes, and researching meeting details at a later time.

System Setup and Licensing

Any Windows XP or Vista computer can be used for recording and playback with Meeting Recorder.

The Meeting Recorder license allows one person at a time to use the software for recording, transcribing, note editing and exporting. The license is validated by plugging in a USB Key with an available license, or by locking a license to the machine (so that the USB Key is not required at run time). See “Floating License System” section in the Installation Overview chapter.

A free SoniClear Player is provided for playing recordings produced by the Export CD Image feature. The SoniClear Player does not require a license, and it may be distributed without charge with recordings made using SoniClear.

Sound Card Options

Meeting Recorder records one or two channels of audio. It does not require any special hardware, any Windows compatible sound card will be sufficient.

Archiving Options

Meeting Recorder creates files using standard WAV or a modified MP3 format (“Conference” recording mode, CF3 files). These files can be stored on any digital medium such as the computer hard drive, flash drive, network drives, CD, or DVD.

Generally it will be desirable to convert the original recording files to MP3 format for distribution to interested parties. This can be done using the Export to MP3 feature. The Export to CD Image feature also creates MP3 format files along with a free SoniClear Player to display recording notes.

Gov Recorder Deployment

Gov Recorder Overview

SoniClear Gov Recorder can be deployed in a variety of configurations to meet organizational needs. Gov Recorder can be used by a single individual or a small group of users for capturing meeting information for archival purposes, producing meeting minutes, and researching meeting details at a later time. It can also be configured for central recording in a shared meeting room, with playback and transcription on computers at offices in various departments.

System Setup and Licensing

Any Windows XP or Vista computer can be used for recording and playback with Gov Recorder for one or two channel recording. Gov Recorder also support multichannel recording. A Dual CPU computer system is required for multichannel recording.

The Gov Recorder license allows one person at a time to use the software for recording, transcribing, note editing and exporting. The license is validated by plugging in a USB Key with an available license, or by locking a license to the machine (so that the USB Key is not required at run time). See “Floating License System” section in the Installation Overview chapter.

A free SoniClear Player is provided for playing recordings produced by the LAN Archive feature and the Export CD Image feature. This does not require a license and may be distributed without charge with recordings made using SoniClear. It includes all transcription features, but does not allow editing of notes.

A free Transcriber Live program is included for performing transcription work from recordings created by Gov Recorder. Transcriber Live includes ability to use all transcription features included in Gov Recorder, and editing of notes. When installed with the Gov Recorder package, Transcriber Live also includes all exporting features, such as Auto Archive, Export to MP3, Create Edited Copy, etc.

Sound Card Options

Gov Recorder can be used to record one or two channels of audio. For this application it does not require any special hardware, any Windows compatible sound card will be sufficient. For multichannel recording a SoniClear-compatible audio interface device must be used.

Archiving Options

Gov Recorder includes a wide variety of options for archiving and sharing recordings. The software creates files using standard WAV, a modified MP3 format (“Conference” recording mode, CF3 files), or standard stereo MP3 files. These files can be stored on any digital medium such as the computer hard drive, flash drive, network drives, CD, or DVD.

For systems that are configured for sharing in a central meeting room or using a shared laptop, the Auto Archive feature can be configured to transfer recordings to a shared LAN server after the recording is completed. This keeps the recording computer clear of files and allows users from multiple departments to access the recordings using the free SoniClear Player and Transcriber Live programs.

Generally it will be desirable to convert the original recording files to MP3 format for distribution to interested parties, if recorded in WAV or CF3 format. This can be done using the any of the following features:

- Auto Archive
- Manage LAN Archives
- Create Edited Copy
- Export to MP3
- Export to CD Image

Files created by any of these methods can be burned to CD for distribution to staff and the public. When using Auto Archive, Manage LAN Archive or Export to CD Image, the resulting files include the free SoniClear Player program. When a CD is created from those files, it will automatically play the meeting recording from the CD when it is inserted into a Windows computer. For playback on Macintosh or Linux computers, the MP3 recording file on the CD can be accessed using any audio media player.

The Manage Web Archives feature has addition sharing features. It will produce files suitable for posting recordings to any web server. This allows playback from any computer that supports the Adobe Flash format (virtually all computers). No special web server software is required for streaming the audio recordings.

Computer Setup

The computer must be configured specifically for audio recording. Following are recommended steps to ensure that the computer will run reliably when running SoniClear.

Power Management

Turn Off all Hibernation, Screen Saver, and Power Saving options:

To prevent the system from powering down to reduce power usage, from Control Panel –> Power Options, activate the “Always On” power scheme. For Plugged in and Running on Batteries alternatives, set “Turn off monitor”, “Turn off hard disks”, and “System standby” to Never.

To prevent hibernation, from Control Panel -> Power Options -> Hibernate tab, Uncheck “Enable Hibernation”.

Turn off Screen Saver, Right Click on Desktop -> Properties -> Screen Saver tab, select “(None)” for the type of screen saver.

Some manufacturers use the default power management included in Windows XP. However, some systems include extra control panels for this purpose. Consult the computer documentation for more details.

System Sounds

Turn off System Sounds to prevent these from becoming recorded, from Control Panel -> Sounds and Audio Devices.

In the Audio tab, set Default device to internal sound card.

In the Sounds tab, under Sound Scheme, choose “No Sounds” (select No to saving the previous Scheme). Then click Apply

Drive Indexing

Turn off drive indexing for all NTFS drives. Open My Computer, right click on the NTFS drive and select Properties. Uncheck “Allow Indexing Service...” and click Apply. In the confirmation dialog, select “Apply Changes to C:\subfolders and files”. If you get the Access Denied error message, click Ignore All.

Performance

Performance options are set in the dialog Control Panel -> System -> Advanced -> Performance -> Settings.

In the Visual Effects tab, select “Let Windows choose what’s best for my computer”. On slower computers, moving a window around on the screen can cause interruption of recording. If that occurs, uncheck “Show Window contents while dragging”. This will automatically switch the type to Custom and will change the display to optimize the performance of window movement. This may also change the appearance of windows on the screen.

In the Advanced tab, set Processor scheduling to “Program”.

In the Advanced tab, set Memory Usage to “Program”.

In the Advanced tab, Virtual memory, click Change, select Custom size and enter the same size in both Initial size and Maximum size. The required value will depend on how much memory is installed and how many programs are used simultaneously. As a minimum value, enter the following:

- For 256MB RAM - Enter 512 for Min and Max
- For 512MB RAM - Enter 768 for Min and Max
- For 1024MB RAM - Enter 1536 for Min and Max

Automatic Updates

Turn off Windows Automatic Update service. From Control Panel -> System -> Automatic Updates tab, select “Turn off Automatic Updates”. For systems that are always network connected, it may be safer to select “Notify me but don’t automatically download or install them.” This will ensure that the user is away of the need to perform an update, without interfering with recording processes.

Internet Time

Turn off the automatic updating of the system time with a central server. From Control Panel -> Date and Time -> Internet Time, Uncheck “Automatically synchronize with an Internet time server”. Click Apply.

Desktop Cleanup Wizard

Disable the automatic Desktop Cleanup Wizard. From Control Panel -> Display -> Desktop -> Customize Desktop -> Uncheck “Run Desktop Cleanup Wizard every 60 days”.

General Installation Instructions

Overview

You can use a computer audio interface to capture microphone audio and playback through headphones or speakers. The audio interface can be the one built into the computer or an external audio interface device. This section describes the typical setup for a system, excluding the steps regarding the audio device.

Follow the instructions in this section, then continue the setup according to the additional instructions in this manual for the particular type of internal or external audio device being used.

SoniClear Software Installation

Installation from CDROM

To install SoniClear from CDROM, insert the SoniClear Disk in the computer. The install program should automatically start. If the install program does not start, manually start installation: press the Task Bar START button and select "Run". At the prompt enter D:\InstallSoniClear7.exe (where "D" is the CDROM drive letter,) and press Enter. Follow the installation instructions presented on the screen.

Administrator and Non-Administrator Rights

The installation process requires that the user account have full Administrator Rights. This allows for installation of the USB Key device drivers and for writing information into the system registry to control standard uninstall procedures (Add/Remove Programs in the Control Panel).

Adding the SoniClear Icon to Your Desktop

SoniClear automatically adds a program icon to the desktop for the user who installs the program, and SoniClear can also be started from the Windows Start button.

If you want to add a program icon to the desktop of another user, follow these instructions:

1. Right click on the Windows Start button (in the Task Bar).
2. Select "Explore" from the pop-up menu.

3. Open the SoniClear program folder:
 \Documents and Settings\Username\Start Menu\Programs\SoniClear7.
4. Right click on the SoniClear icon.
5. Select "Copy" from the pop-up menu.
6. Right click on the desktop.
7. Select "Paste Shortcut" from the pop-up menu.

Editing Program Preferences

Various actions of SoniClear can be customized through the settings in the program Preferences. Select Edit/Preferences from the pulldown menu to display the Preferences dialog. Preferences are divided into three tabbed groups, "Files", "Recording Options", and "Hardware".

Files Preference Tab

The Files tab provides for control over the management of sound files by SoniClear while creating, opening, and recording.

Files - Default Directory

When creating new files, or opening existing files, the default directory is specified by this option. The current default directory is shown here. Clicking the Browse... button will allow you to select a directory from a dialog box display of the directories on disk. Checking the "Always use last directory" option will cause the program to remember the last directory used in the Open or New file dialogs, and this information is saved between sessions.

Files - File Suffix

A file name dialog is shown when clicking the New button (or selecting the File/New menu item). The File Suffix specified in the Preferences will be appended to the new file name entered there by the user. Entry of a file name is optional. If the file name is left blank, the File Suffix will be used by itself. If both the file name and the File Suffix are blank, the program will substitute a default name for the recording ("Meeting" for Meeting recording type, "Conference" for CF3 files, "Dictation" for dictation recording, etc.).

The File Suffix feature can be used to set a different default file name. Commonly, it will be used to specify the name of the user (or initials) for recordings that are stored in a shared directory.

NOTE: In addition to the File Suffix, the program will append a numeric value, such as "(2)", when the file name specified by the user is not unique. This makes it easy to quickly create a new file without having to be concerned with making the file name

unique. When selecting the Custom file type from the new file dialog, the name specified is used without the addition of a file suffix or numeric value.

Default Export Archive Directories

This feature applies only to SoniClear Gov Recorder.

These three directories control where files are exported. The location for both fields is defaulted to the My Documents directory of the current user when the program is run the first time. However, it is recommended that this be changed to a directory location on the local drive or LAN that is specifically for this purpose. That way it will be easier to transfer those files to a CDROM or web server.

The Archive Web Export directory is the location of the base directory where the SoniClear archive files will be saved when using the Manage Web Archive feature.

The Archive LAN Export directory is the location of the base directory where the SoniClear archive files will be saved when using the Manage LAN Archive feature.

Backup/CD Image Folder

The Backup/CD Image Folder directory is the location of the directory for making backup copies and for exporting a folder containing the recording files, when using the Export to CD Image feature. If the check box "Store CD Image Export Folders in Original File's Location" is checked, the directory location is forced to be the directory containing the file being exported, rather than a single, fixed directory for all files.

Enable/Disable Auto Archive

This feature applies only to SoniClear Gov Recorder.

The check box "Enable Audio Archive Button" controls whether the Auto Archive button is displayed in the main program window or not. If the box is checked, the "Archive" button is shown. If the check box is not checked, the "Archive" button is hidden. However, the user can always invoke Auto Archive feature from the File/Auto Archive option in the pulldown menu, irrespective of how this check box is set.

Display Options

The Font Size radio buttons allow the selection of "Regular" and "Large" fonts. When selecting Regular, fonts will be in the default font size selected for the computer system. When Large fonts is selected, the size of fonts displayed in the list selection boxes and data entry fields will be enlarged for easier reading.

Recording Health

This field indicates the Average and Peak number of buffers used when making recordings. Normally both numbers will be 1. However, when the CPU becomes overloaded with other processing tasks, the number may rise as high as 32. If the number of buffers used exceeds 32, a “buffer overrun” occurs (audio data is lost). In this event an error message is recorded as a note in the file indicating the loss of audio data. The Recording Health indicator can be used to troubleshoot systems that get buffer overrun errors to determine what may be causing the problem.

Recording Options Preference Tab

The Recording Options tab controls the various options that affect the recording process: Display options, VoiceBoost options, Recording Format, and File Format. When recording, the VoiceBoost and Recording Format settings will control how SoniClear processes input signals. The output file format is determined by the format of the currently open file. When pressing the New button to create a new file, the File Format settings in the Recording Options tab will be used to determine the format of the new file.

Sound Quality Options

Default selections for these options are provided, grouped by application type:

Dictation

The Dictation recording mode produces an AU file in 8K/8Bit/Mono format. This is suitable for producing voice dictation of a quality similar to dictation tape equipment. This format takes up less space than a standard WAV file (28 Megabytes per hour vs. 158 Megabytes per hour), but is larger than the lowest voice quality MP3 file (11 Megabytes per hour). The software automatically performs VoiceBoost enhancement to make the low bitrate recording sound clear and intelligible. The AU file format is also suitable for playback in Java programs. The Dictation mode also includes features for recording in separate "takes", including an Undo feature.

Meeting

The Meeting recording mode creates standard WAV files in 22K/16bit/Mono format. This is a very high quality recording for voice recording. Files take 158 Megabytes per hour. VoiceBoost is performed at record time to enhance clarity and intelligibility.

Conference

The Conference recording mode creates proprietary CF3 format files. The CF3 file contains standard MP3 audio data at the beginning of the file, followed by the recording-specific data (such as agenda, notes, recording mode, etc). MP3 format used is 48kbps mono. This results in near-WAV quality recordings that are suitable for voice recording. Recording from the sound card occurs at 22K samples per second, with conversion to MP3 occurring on-the-fly. Files take 22 Megabytes per hour for storage on the disk drive while recording. There is no intermediate storage of the audio data in WAV files that would take large amounts of disk space. VoiceBoost is also performed at record time to enhance clarity and intelligibility.

Meeting (stereo)

The Meeting Stereo recording mode is similar to regular (mono) Meeting mode. However, it produces 22K/16bit/Stereo WAV files. File size is 316 Megabytes per hour.

VoiceBoost processing is suitable when the audio signal being recorded is true stereo (two microphones in the same recording space).

Multichannel

This feature applies only to SoniClear Gov Recorder.

There are two multichannel recording modes.

Multichannel (WAV) records into standard WAV file format and Multichannel (MP3) records into standard MP3 format.

The selector to the right of these two multichannel options represents the number of channel to record.

Note: the first two channels of a multichannel recording are shown in the playback channel selector as “Stereo”, and “Left” or “Right” channels. The third through fourteenth channels are displayed as 1-12 in the playback channel selector. This design is primarily to work with multichannel audio interfaces that incorporate a hardware mixer that produces a stereo mix of all of the input channels. The software can also be used with audio interface devices that do not include a stereo mix option. In that case, the first channel will be “Left”, the second “Right”, the third “1”, the fourth “2”, and so on.

VoiceBoost Settings

Exporting VoiceBoost Options

The default setting for Exporting VoiceBoost options is to be enabled. This setting applies the VoiceBoost audio enhancement for files created in Export to CD Image, Manage Lan Archives, and Manage Web Archives. The values can be set to optimize audio quality for the types of recordings being made with the software. The default values are a good general choice, but can be adjusted to improve quality depending on recording conditions.

VoiceBoost Options Dialog

Enabled

When the Enabled check box is checked, the VoiceBoost processing will be performed (while recording or exporting).

Close Mic, Far Mic

If the microphone is placed close to the person speaking in the recording, the Close Mic setting will reduce background noise by applying a "noise gate". When the person speaking is located away from the microphone, the Far Mic setting is required so that the noise gate does not cut off words that are recorded at a lower volume.

Custom

Check checking the Custom Settings check box, the entire range of VoiceBoost audio enhancements can be set to optimize the values for the specific recording situation.

Noise Gate

The Noise Gate allows you to reduce the volume of background noise. By positioning the Noise Gate level above the noise volume and below the volume of people speaking, VoiceBoost will increase the volume of speaking and not the noise.

Volume

You can increase or decrease the overall volume of the recording with the Volume slider. This volume control allows you to boost up dramatically people speaking softly in the recording so that they can be heard distinctly. This is different than the volume for the playback device in the main window, which must be set high enough to hear the sound from the speaker or headphones.

Rumble Filter

Low frequency noise can interfere with the ability to hear people speaking. When there is loud air conditioning noise or street traffic, this will often include a large low frequency component. By moving the Rumble Filter setting further to the right, it will cut out more of the low frequencies.

Mid. Gain

The Mid Filter slider is designed to boost the loudness of middle frequencies, the frequency range that contains most of the detail of spoken language. By moving the Mid Filter slider further to the right, it will boost these frequencies to make the speaking louder. Moving the slider further to the right will make the sound quality more natural sounding.

High Cut

The High Filter slider allows you to reduce high frequencies. Background noise in the high frequency range can sometimes interfere with intelligibility of speaking the the mid range frequencies. Moving the slider further to the left will reduce the high frequencies.

Defaults Button

The Defaults button will reset the custom settings to factory default values.

Custom

This section of the dialog display is for information purposes only. It shows the settings for any given Sound Quality type selected above. These settings cannot be changed.

Display Options

Type

The Type field can be set to one of the predefined recording types.

Custom Name

The Custom Name field is not used in this version of SoniClear.

Always Confirm for Stop Recording

When the user presses the Stop button (or the "s" key) during recording, this feature will display a dialog box to confirm that the user intended to stop recording. This is mainly for recordings of meetings where inadvertently discontinuing recording could have adverse consequences. This feature is enabled by default for only the Meeting setting.

Append Recording to End of File

When the "Append recording to end of file" is checked SoniClear will always start recording at the end of the file, regardless of where the current playback position is located. This is the default setting.

Enable Undo

The Undo feature is especially useful for recording dictation and voiceovers where the text can be read in sections to perfect the details of the dictation or the quality of the performance. The Undo feature is only enabled when the Append Recording to End of File is also enabled.

Recording Format

The Recording Format settings tell SoniClear how to read audio data from the sound card. Higher speeds will create a more accurate digitization of the sound, but will require a higher CPU processing speed for resampling to the desired File Format.

File Format

The File Format settings tell SoniClear how to format new files that are created with the File/New menu option or the New button. Higher sample rates and bit rates will result in a better sounding recording, while lower settings will reduce disk space usage. When selecting 8kHz, 8Bit AU files, a simple form of signal encoding (called "mulaw") is employed, resulting in better sounding files than the equivalent bitrate for WAV or AIFF files.

Hardware Preference Tab

The Hardware Preferences tab allows you to specify the hardware to use for recording and playback. Multiple sound cards are supported, and you can use separate sound cards for recording and playback. The system also provides for automatic detection and usage of USB sound devices, when they are connected to the computer.

Recording Device Selection

This section of the Hardware tab controls the usage of the sound cards in the computer during recording.

Default Recording Device

This is the default sound card that will be used for recording into a file. The default value is the first card in the computer (known technically as "card zero"). If a removable sound card is not automatically selected (see below), this is the card that will be used for recording. Use the combo box to select a different default device.

The Input Source combo box lists all of the input sources provided by the default sound card selected. The default input source is the Microphone. However, this can be changed to any other device, such as the Line In device.

If recording from a webcast, the input device must be changed to the Wave output from the playback side of the sound card. This will have a different name, depending on the card, but may be something like "Wave Out Mix".

Your sound card may include other input sound sources. For example, some sound cards can record from the CD player, phone line, or MIDI music player. To use these sources when recording with SoniClear, select the appropriate Input Source from the list.

Recording Array

This field is only visible in Gov Recorder. See the Gov Recorder Multichannel Configuration instructions elsewhere in this Installation Guide.

Removable Recording Device

SoniClear has the ability to detect and/or use a removable sound device, such as a USB audio interface. By entering the name into this field and selecting to use the device, if present, SoniClear can automatically switch recording to the removable device when it is plugged into the computer.

The device name and input source fields can either be set automatically or manually. The field can also be cleared to blank (disabled) by using the Clear button.

Use Removable Device If Present

When this option is selected, the program checks for the Removable Recording Device, and use it for recording if it is present. The default is for the program is unchecked, so the presence of a removable audio device is not detected. If removable USB audio devices are to be used, and the presence or absence of the device is to be detected at startup, this option must be set.

Automatic Removable Device Selection

The "Automatic Removable Device Selection" option controls whether SoniClear automatically tries to decide which of the audio devices recognized by the computer is a removable device suitable for recording. By deselecting this option, the computer will only use the removable device that has been manually specified by the user. The default setting is to use the manual device selection.

If a particular device is not recognized by the system as removable, there are two options to fix this problem. A configuration file `RemovableDevices.txt` (in the SoniClear program directory) contains the device names of removable devices that are not automatically detected by the program. By adding the name of the device to this list, it will be correctly recognized by the system.

It is also possible to force the selection of a particular removable device. By disabling the Automatic Removable Device Selection option, the user can manually set a removable device name and Input Source. To do that, uncheck the automatic selection option, and select the removable device in the Default Recording Device section. Click the "Set Default Device as Removable" button. Then reset the Default Recording Device to the default internal sound card.

The manual selection procedure will also need to be performed in cases where SoniClear incorrectly selects the wrong removable sound card.

Advanced Recording Options

These options control how recording is processed. These fields should only be changed in the event of problems with recording using the default settings. Consult Trio Systems support for assistance.

Recording Process Priority

SoniClear allows the user to make recordings while running other programs. This requires an internal setting of the amount of time SoniClear needs to make an error-free recording while allowing time for other programs to run. The "high" default setting will adjust the recording process to a priority level that is appropriate for the CPU processor speed of the computer. In some situations and for some computers, this setting may not be correct. If you find that recording in the background does not allow foreground programs to run fast enough, you may be able to make good recordings by setting the Recording Process Priority to Medium or Low, while freeing up more processor time for the other program. These settings, however, may not allow other programs to run at the same time, with Buffer Overrun errors indicating that the processor is not able to run fast enough. In that case, you will need to use a faster computer for SoniClear, or not run other programs at the same time.

Buffer Size

Like Recording Process Priority, this option is used to deal with problems of glitches in recordings caused by failure to read the input sound data fast enough. The default Automatic setting will work in virtually all circumstances.

Disk Update Time

This is the amount of time before SoniClear gives the Windows operating system an instruction to force the recording data to disk. In the event of a system crash, the unwritten audio data will be lost. The default value provides a very small window of time for lost data. However, it will increase the amount of time the computer spends writing to disk. This value can be made longer or shorter, depending on the application requirements and the behavior of the specific computer.

Force Recording at 44.1KHz.

Some professional audio interface devices will only capture audio at 44KHz or faster. Because SoniClear requires other slower recording bitrates (typically 22kHz), an error can occur when starting recording, indicating an incompatibility of the recording bit rates. If this happens, this check box will force SoniClear to read recording data from the audio interface at 44.1KHz, regardless of the bitrate of the audio being stored in the recording file.

Playback Device Selection

This set of fields controls the selection of sound cards that will be used for playback.

Default Speaker Device Selection

This is the device the program will use to play audio during normal playback (clicking the Play button). The default value is the first card in the computer (known technically as "card zero"). If a removable sound card is not automatically selected for playback (see below), this is the card that will be selected. Use the combo box to select a different default device.

Enable Live Monitoring

The default value for this feature is Disabled. When Enabled is checked, the user can listen to recorded audio prior to the data being written to disk. This helps to ensure that the audio equipment connected to the computer (such as microphones) is working correctly. To prevent feedback, it is recommended that the Headphone Monitor Device Selection field is set to a playback device that will only be connected to headphones.

Removable Playback Device

SoniClear has the ability to detect and/or use a removable sound device, such as a USB audio interface. By entering the name into this field and selecting to use the device, if present, SoniClear can automatically switch playback to the removable device when it is plugged into the computer.

The device name can either be set automatically, or manually. The field can also be cleared to blank (disabled) by using the Clear button.

The default is for the program to check for the presence of a removable audio device (which will be displayed in these fields), and to use it for playback when it is available.

Use Removable Device If Present

When this option is selected, the program checks for the Removable Recording Device, and uses it for playback if it is present. This field defaults to unchecked when the software is installed.

Automatic Removable Device Selection

The "Automatic Removable Device Selection" option controls whether SoniClear automatically tries to locate a removable device suitable for playback. This option is set to a default value of unchecked when the software is installed.

If this option is not enabled, the user can manually set a removable device name. To do that, uncheck the automatic selection option, and select the removable device in the Default Playback Device Selection combo box. Click the "Set Default Device as Removable" button. Then reset the Default Playback Device Selection to the default internal sound card.

The manual selection procedure will need to be performed in cases where SoniClear incorrectly selects a sound card, due to differences in the design of various cards.

Advanced Playback Options

These options control how playback is processed. These fields should only be changed in the event of problems with playback using the default settings. Increasing the number of buffers or buffer size will slightly change the behavior of playback, so the value should not be changed unless the computer exhibits problems with losing data during playback (which will sound like a glitch in the recording, even though the noise does not exist in the recording itself). Consult Trio Systems support for assistance.

Playback Buffers

This is the number of buffers used to feed audio data to the sound card. The default setting has been found to be optimal under most circumstances. A larger number will give a longer period of time for the computer to process other things before SoniClear updates the buffers. Default value is 4 buffers.

Buffer Size

Like the Playback Buffer option, this is used to control the playback processing for smooth, error free audio, and has been optimized for most computer systems. Default value is 250 mSec.

Force Playback at 44.1KHz.

Some professional audio interface devices will only play audio at 44.1KHz or faster. Because SoniClear uses file formats with slower recording bitrates (typically 22kHz), an error can occur when attempting to play files, indicating an incompatibility of the recording bit rates. If this happens, this check box will force SoniClear to send recording data to the audio interface at 44.1KHz, regardless of the bitrate of the audio file being played.

Marker Preference Tab

The Marker tab in the Preferences dialog allows you to enter a set of 24 predefined Marker notes as default text values. Each time a new Conference, Meeting or Lecture file is created, the Marker text entered in the Preferences screen will be copied into the new file as the default values.

Edit

The Edit button brings up the Edit Marker dialog. This has a field for entering the Marker text value. In addition, the Edit Marker dialog has three other fields that control the Marker behavior:

- Don't Export This Note To Archive
When this option is enabled, the note that this Marker is entered into will have the "Don't Export This Note To Archive" field set. This makes it easy to enter routine Markers that are used for preparation of minutes and other review activities, while preventing that information from being added to exported and archived copies of the recording. The default value of this option is unchecked.
- Add as separate note
When this option is checked, the text of this Marker will be added in a separate note. If a note has been partially entered into the New Note field, it will be added before the note containing this Marker. If this option is unchecked, selecting to add this Marker will result in the Marker text value being appended to the end of the current note. Default value of this option is checked.
- Assign to key
This is the function key that will cause the Marker to be added to the notes.

Delete

The Delete button deletes the text of the selected Marker and resets the other Marker fields to the default values.

Clear All

The Clear All button clears the text of all default notes to blank. Default value for these fields when the program is installed is blank.

Save

Saves the values of the Markers to a text file that can be used by the Load option.

Load

Loads the values of the Markers from a text file that was created using the Save option.

Automation Preference Tab

The Automatic Notation tab in the Preferences dialog allows you to tailor the action of the automatic bookmarking feature to suit personal preferences.

Automatic Level Detection

Automatic Level Detection is used to assist in locating portions of the audio where there is no speaking (or other forms of silence). This is used normally to indicate silence (such as a point when people stop speaking at a meeting), but can also be used to determine when an audio recording source has failed (no audio being delivered to the computer).

The software continuously measures the amplitude of the audio data being recorded. If the level of the audio remains lower than the specified Low Volume Level threshold for the Low Volume Minimum Time Length specified, a timestamped note will be entered automatically. The time indicated in the note will be the beginning point in time where the low volume was encountered, not at the point where the minimum time has been reached.

Situations where loud noises other than talking are being picked up by the system may cause this automatic notation feature to be unusable, because such loud sounds will always reset the time counter before the Low Volume Minimum Time is reached.

Add Bookmarks When Audio Level is Low

Checking this option will enable the feature to automatically add bookmarks based on detection of low recording volume. Unchecking this option is disable this feature.

Defaults Button

The Defaults button returns the Automatic Level Detection fields to the factory default settings.

Low Volume Level

This is the decibel level that triggers the detection of low audio volume. The number is actually the negative of the value entered. For example, the default value of 60 means -60db below 0db (where 0db is the maximum recording volume). In other words, the larger the numeric value, the softer the level that will trigger the threshold for detecting a low recording level.

If this feature is being used to detect when people have stopped speaking (such as at a meeting or courtroom session), the correct setting for Low Volume Level will depend on the level of background noise. This can be affected by noise sources such as air conditioning noise, street noise or people talking in an audience. In teleconferences the

quality of the phone line and the equipment used to attach the computer to the phone system can dramatically affect level of background noise.

To properly detect what the user considers silence, experimentation with recording in the actual recording environment will be required in order for the program to trigger correctly.

Low Volume Min. Time

Low Volume Minimum Time is a value representing the number of seconds that the audio recording level must stay below the Low Volume Level threshold before a note is automatically entered. If audio data is encountered that is higher than the threshold value at any time before this time constant is reached, the time counter will be reset.

The default value is 15 seconds. The most useful value for this time constant will vary widely, depending on the type of speaking that is being recorded. Again, experimentation is the only way to determine the most accurate setting.

Playback Speed Control

Sets the rate of slow down or speed up when selecting either of those playback options in the main window. The Defaults button returns the fields to the factory default settings.

Foot Pedal Preference Tab

The Foot Pedal tab in the Preferences dialog allows you to tailor the action of the foot pedal to suit personal preferences.

Test X-keys Foot Pedal

When installing the software and foot pedal on a new computer, this button allow user to verify the foot pedal is operating correctly.

Left Foot Pedal

Enabled when the Enable check box is selected. Rewinds the audio playback by the number of seconds indicated. Default value is Enabled, with a value of 10 seconds of rewind time when the left pedal is pressed.

Alternatively, the left foot pedal switch (or virtual foot pedal) can be used to toggle between channels of a 2-Channel or Stereo recording. Select Enable and Left/Right Toggle to specify this option.

Center Foot Pedal

Enabled when the Enable check box is selected. Default action is to play audio while the pedal is pressed, with a rewind value of 5 seconds when the pedal is lifted. Alternative action is to play audio only when the center foot pedal is pressed.

Right Foot Pedal

Enabled when the Enable check box is selected. Fast forwards the audio playback by the number of seconds indicated. Default value is Enabled, with a value of 10 seconds of fast forward time when the right pedal is pressed.

Like the left foot pedal, the right foot pedal switch (or virtual foot pedal) can also be used to toggle between channels of a 2-Channel or Stereo recording. Select Enable and Left/Right Toggle to specify this option.

When Recording Options

Each foot pedal can have a default action to take when pressed while the program is recording. The choices are:

- Do Nothing
- Edit Note (add a note and pop up the Edit Note dialog).
- Add Note (adds a blank note, not Edit Note dialog).
- Add Next Agenda Item (only available for middle foot pedal).

License Tab

This feature applies to all versions of SoniClear that are supplied with the Floating License System.

The Floating License System manages the software licenses that are shipped to the customer on a USB Key device (sometimes referred to as a USB “dongle”). Each USB Key device can store up to 5 separate licenses. From the License tab of the Edit Preferences dialog, a license stored on the USB Key device can be locked to the computer. Once the license is locked on the computer, the USB Key device does not need to be plugged into the computer to run the software.

If the USB Key is plugged into the computer before running SoniClear, the License Status will be shown (number of licenses on the USB Key and a list of Computer Licenses). If the USB Key was not inserted at the time the SoniClear program was started, the Check for USB Key button can be clicked after plugging the device into the computer. This will update the License Status information.

The total number of licenses included on the USB Key is shown. If no USB Key is inserted, the number will default to one license, which may not match the number of licenses on the actual device used to lock this license.

In the Computer Licenses section, each computer that has a license locked from the USB Key is shown with the computer name and the lock status. A button next to the current computer will show either Lock or Unlock, depending on the status. If the license needs to be locked to this computer, click the Lock button. Once it has been locked to the computer, the button will show Unlock. Clicking the Unlock button will move the license back to the USB Key, where it can be used on other computers. Unlocking requires having the USB Key used to lock the license. If more than one USB Key is available, using the wrong key will disable the Unlock feature.

Configuring Export to CD Image

Export Image Directory

The CD image files are stored in a single directory. The directory location is specified in the Edit/Preferences dialog. On the Files tab of the Preferences dialog, set the CD Image Folder directory using the Browse button. The directory must already exist before setting it as the export directory. Alternatively, check the box “Store Export Folders in Original File’s Location”. This will result in the CD Image folders being created in a subfolder under the location where the file being processed resides.

Archive CD Files

The exporting process will generate a single .AF3 file. The .AF3 is similar to SoniClear .CF3 files, the audio is encoded in MP3 format and the notes are appended to the end of the file. The export process also copies a set of files from the CDPlayer directory under the program directory (c:\Program Files\SoniClear7\CDPlayer), and the SoniClearPlayer directory (c:\Program Files\SoniClear7\SoniClearPlayer). These files are used for playing the recording on a computer and include:

- **Autorun.inf** – auto runs the SoniClearPlayer.exe program when the CD is inserted into a Windows computer.
- **SoniClearPlayer.exe** - The SoniClear Player program is a reduced-feature version of the SoniClear products that only plays .AF3 files.
- **Mp3dec.dll** – MP3 decoding library required by SoniClearPlayer.exe.

You can add additional files to the CDPlayer folder that you want to include on every disk, such as a readme file or other instructions or information that needs to be included with the recording.

Configuring LAN Archive

This feature applies only to SoniClear Gov Recorder.

The Manage Lan Archive feature creates an archive of recordings for access from a shared drive on the local area network.

LAN Archive Directory

The archive files are stored in a two level directory structure. The top directory (also called the "base directory" in this manual) contains the files needed to display a list of recordings in the archive. Under that directory is a single directory for each recording (normally the same name as the original recording file).

The LAN Archive directory location is specified in the Edit/Preferences dialog. On the Files tab of the Preferences dialog, set the LAN Archive Export directory using the Browse button. The directory must already exist before setting it as the export directory.

LAN Archive Format

The LAN Archive can be stored in one of two different formats. The default method stores the recordings in .AF3 files that play back using the SoniClear Player program (SoniClearPlayer.exe). This is suitable for playback in organizations that have Windows computers. The advantage of using the SoniClear Player is that it allows the user a great deal of flexibility in playing the files, almost exactly as if they had the full SoniClear program (less the transcribing features).

For organizations that have all Macintosh computers, or a mixture of Macintosh and Windows computers, the alternative “Browser” playback method must be used. In this case the recording is stored in the same format as SoniClear webcasts, MP3 files that are played back through a web browser using the Adobe Flash plugin to play the audio. This will allow any type of computer to play the archive files, but has less flexibility for playing back recordings than the SoniClear Player.

A radio button selection in the Edit/Preferences/Files dialog controls the selection of format type. When the Player Type is set to SoniClear is selected in the Preferences, the recordings are stored in folder using the .AF3 format, similar to the method for the Export to CD Image feature. When the Player Type is set to Browser, MP3 files are generated using a method similar to the Manage Web Archive feature.

LAN Archive SoniClear Player Files

When the SoniClear Player Type is selected, the control files stored in the archive base directory include:

- **Autorun.inf** – auto runs the SoniClearPlayer.exe program when the CD is inserted into a Windows computer.
- **SoniClearPlayer.exe** - The SoniClear Player program is a reduced-feature version of the SoniClear products that only plays .AF3 files.
- **Mp3dec.dll** – MP3 decoding library required by SoniClearPlayer.exe.
- **Archivelist.txt** – list of archive files to display to the user, read by SoniClearPlayer.exe on startup.

LAN Archive Browser Files

When the Browser Player Type is selected, the control files stored in the archive base directory include:

- **Index.html** - The web page that contains the embedded Archive7.swf Flash program.
- **Archive7.swf** - The SoniClear Archive Flash program for execution in a Flash-capable web browser.
- **Autorun.inf** – When the entire directory structure is burned to a CDROM disk, the autorun.inf file will enable that disk to autostart the default browser, displaying the index.html file when the disk is inserted into a Windows computer.

Files created for each recording and stored in the directory for that recording are:

- **Index.html** - The web page that contains the embedded Archive7.swf Flash program.
- **Archive7.swf** - The SoniClear Archive Flash program for execution in a Flash-capable web browser.
- **Autorun.inf** – When the entire directory structure is burned to a CDROM disk, the autorun.inf file will enable that disk to autostart the default browser, displaying the index.html file when the disk is inserted into a Windows computer.
- **MP3 files** - one MP3 file for each section of the recording:
 - note0001.mp3
 - note0002.mp3
 - note0003.mp3
 - (etc)

Auto Archive

This feature applies only to SoniClear Gov Recorder.

Auto Archive Setup

When enabled, the Auto Archive feature can be selected by the user clicking the “Archive” button in the program main window. This causes the program to back up the original file to the default backup directory, and then to add the recording to the LAN Archive directory. If both of these processes complete successfully, the program then deletes the original file from the default recording directory.

By default, the Auto Archive button is disabled. To enable the Auto Archive button, the check box “Enable Audio Archive Button” (in Edit/Preferences/Files dialog) must be checked. If the check box is not checked, the “Archive” button is hidden. However, the user can always invoke Auto Archive feature from the File/Auto Archive option in the pulldown menu, irrespective of how this check box is set.

Publishing the Web Archive to a Web Server

This feature applies only to SoniClear Gov Recorder.

To publish the recording archive to a web server, copy the home directory of the web archive (and all the subdirectories under it) to the web server, and link the index.html file into an existing page on the server. It may be preferable to display the archive home page in a separate window, in case the user does not have the plugin installed and is directed to the Macromedia site to install it.

Because the audio recording files are relatively large, you will probably want to set up an automatic copying process that uploads only the changed files to the web server (sometimes referred to as "mirroring"). That way each time the Web Archive is updated, only the new files need to be transferred.

Link from other pages of the website to the index.html file in the base directory of the archive to provide access to the recording. Each time a new recording is added to the archive, the links to the archive do not need to be changed, as they will always point to the index.html file that does not change.

It is also possible to publish individual recordings that are in the archive by uploading to the server just the directory containing that recording, (the base directory of the web archive is not needed in this case). Manually link from other pages of the website to the index.html file in each uploaded directory to provide access to the recording.

How Web Archiving Works

Files stored in the archive are created in the same manner as the Export to Image Folder feature. Special files are included with the SoniClear program that implement the archive capability. When recordings are added to the archive, these files are copied from the WebArchiveHome and WebArchivePlayer directories (under the SoniClear program directory) to the Web archive directories. MP3 audio files of the recording are generated during the export process, splitting the original recording into sections, based on the location of notes entered in the file (and the Export options selected in each note).

The archive files are stored in a two level directory structure. The top directory (also called the "base directory" in this manual) contains the files needed to display a list of recordings in the archive. Under that directory is a single directory for each recording (normally the same name as the original recording file). The location of the archive base directory is specified in the Files tab of the Edit Preferences dialog (Edit/Preferences from the pulldown menu).

Files stored in the Web Archive base directory are:

- **Index.html** - The Javascript embedded in this page automatically detects if the Flash MX plugin is installed on this computer. If it is, the Flash archive selection and playback program (WebArchive5.swf) is displayed on the page. If there is no plugin, the Javascript directs the user to download the plugin from Macromedia.
- **WebArchive7.swf** - The SoniClear Archive Flash plugin movie, which displays the list of files and plays the selected file.

Files created for each recording and stored in the directory for that recording are:

- **Index.html** - The Javascript embedded in this page automatically detects if the Flash MX plugin is installed on this computer. If it is, the Flash player program (Player5.swf) is displayed on the page. If there is no plugin, the Javascript directs the user to download the plugin from Macromedia.
- **Player7.swf** - The SoniClear Player Flash plugin movie, which displays the list of notes and plays the associated MP3 files.
- **MP3 files** - one MP3 file for each section of the recording:
 - note0001.mp3
 - note0002.mp3
 - note0003.mp3
 - (etc)

Note that, like the Archive Format option of Export to Image Folder and Manage LAN Archive, when the file being exported is a “Meeting (2-channel)” Recording Type only the left channel will be exported to the archive file. Audio from the right channel is not exported into the archive recording file. When archiving “Meeting (stereo)” Recording Type, the two stereo channels are output together in a single mono channel.

Customizing Web Page Appearance

The template files used to display the Web Archive home page and each recording player page are stored in the WebArchiveHome and WebArchivePlayer directories (under the SoniClear program directory). The index.html files in these two directories can be modified for a customized appearance to match the rest of the website.

Web Player Limitations

The current version of the player has the following limitation:

1. The SoniClear Player display cannot resize based on the space available on the page.
2. There is a rebuffering time to start playback of each section of the meeting. This varies from 3-7 seconds, depending on the server and the speed of the user's connection to the Internet. While the buffering process is occurring, the user will see the "Loading..." status message displayed on the screen.
3. The playback is set to a fixed 24kbps MP3 encoding rate. There is no ability to switch between higher or lower bitrates depending on the speed of the user's connection.
4. The user has the ability to pause playback using the Pause/Play button. However, the user cannot position within a section of the recording, only to the beginning of each section indicated by a note in the display.

Running SoniClear from the Command Line

SoniClear can be run from a command line statement. This is useful for integrating SoniClear with other programs that need to control the management of files and workflow.

The general command line syntax is:

```
<program path>SoniClear7.exe <command> <output file> <input file >
```

The commands available are:

| Action | Command |
|--|-----------------|
| Create Agenda Template | CreateAgenda |
| Create New File | CreateRecording |
| Create New File and Start Recording | StartRecording |

Input Data Format

SoniClear will accept Agenda and Marker data from a text file when that file is specified in the command line statement. The text file is a “tab delimited ascii” file in the following format:

| Column | Value |
|----------|---|
| 1 | “A” or “M” character indicating Agenda item or Marker |
| 2 | Title |
| 3 | Detail (Agenda Items) or Function Key # (Markers) |
| 4 | Don’t Export This Note To Archive (1=True, 0=False) |
| 5 | Add as separate note (1=True, 0=False) |

Notes:

- Marker function key number is indicated by the letter F followed by the key number. For example F1, F2, F3, etc.
- The Title and Detail text fields can incorporate the RTF markup for New Paragraph: “\par”, where the backslash functions as a escape character. To include the backslash character in the text string, it must also be escaped, i.e: “\\”.

Sample Import File

Following is an example data import text file including agenda items and markers:

| | | | | |
|---|----------------------------|---|---|---|
| A | FINANCE COMMISSION MEETING | June 14, 2010 | 0 | 1 |
| A | CALL TO ORDER | | 0 | 1 |
| A | ROLL CALL | | 0 | 1 |
| A | PLEDGE OF ALLEGIANCE | | 0 | 1 |
| A | PRESENTATIONS | Award Ceremony | 0 | 1 |
| A | COMMITTEE REPORTS | School Financing Plan | 0 | 1 |
| A | PUBLIC COMMENTS | Public comments regarding the Finance Commission committee reports. | 0 | 1 |
| A | ADJOURNMENT | | 0 | 1 |
| M | Motion | F1 | 0 | 1 |
| M | Vote | F2 | 0 | 1 |
| M | Action Item | F3 | 0 | 1 |
| M | Next Speaker | F4 | 0 | 1 |
| M | Board Member Jim Smith | F5 | 0 | 1 |
| M | Board Member Sally Jones | F6 | 0 | 1 |
| M | Board Member Robert Garcia | F7 | 0 | 1 |
| M | Hidden Note | F12 | 1 | 1 |

Create Agenda Template

SoniClear can create an agenda template automatically from a specially formatted text file. The command line syntax is:

```
<program path>SoniClear7.exe CreateAgenda <output file> <input file >
```

For example (on one line):

```
“c:\Program Files\SoniClear7\SoniClear7.exe” CreateAgenda  
“c:\My Documents\SampleAgenda.agd”  
“c:\BatchImports\SampleAgenda.txt”
```

Create New File

SoniClear can create a new file and leave the program displayed and ready to start recording. The command line syntax is:

```
<program path>SoniClear7.exe CreateRecording <output file>
```

For example (on one line):

```
“c:\Program Files\SoniClear7\SoniClear7.exe” CreateRecording  
“c:\My Documents\MeetingXYZ.wav”
```

Notes:

- The output file type must match the default recording type set in the SoniClear preferences.

Create New File and Import Agenda

SoniClear can create a new file and leave the program displayed and ready to start recording. The command line syntax is:

```
<program path>SoniClear7.exe CreateRecording <output file> <input file >
```

For example (on one line):

```
“c:\Program Files\SoniClear7\SoniClear7.exe” CreateRecording  
“c:\My Documents\MeetingXYZ.wav”  
“c:\BatchImports\SampleAgenda.txt”
```

Notes:

- The output file type must match the default recording type set in the SoniClear preferences.
- The input file is the Agenda and Marker information in a text file in the format required for importing data.

Create New File and Start Recording

SoniClear creates a new file and starts recording. The command line syntax is:

```
<program path>SoniClear7.exe StartRecording <output file>
```

For example (on one line):

```
“c:\Program Files\SoniClear7\SoniClear7.exe” StartRecording  
“c:\My Documents\MeetingXYZ.wav”
```

Notes:

- The output file type must match the default recording type set in the SoniClear preferences.

Create New File, Import Agenda, and Start Recording

SoniClear creates a new file, imports the agenda and marker data, and starts recording. The command line syntax is:

```
<program path>SoniClear7.exe StartRecording <output file> <input file >
```

For example (on one line):

```
“c:\Program Files\SoniClear7\SoniClear7.exe” StartRecording  
“c:\My Documents\MeetingXYZ.wav”  
“c:\BatchImports\SampleAgenda.txt”
```

Notes:

- The output file type must match the default recording type set in the SoniClear preferences.
- The input file is the Agenda and Marker information in a text file in the format required for importing data.

Sample Batch File

For convenience, the command can be included in a text file with the .BAT extension. Then the user can double click on that file each time the command should be run. Following is a sample batch file that launches SoniClear and generates an agenda template from a text file:

```
cls  
@ECHO OFF  
ECHO. *****  
ECHO. ** Create Agenda Import Data  
ECHO. *****  
“c:\Program Files\SoniClear7\SoniClear7.exe” CreateAgenda “c:\My  
Documents\SampleAgenda.agd” “c:\BatchImports\SampleAgenda.txt”  
cls  
EXIT
```

Setup Using Internal Sound Card

Overview

Most recording configurations will make use of the internal sound card included with virtually all computers. The typical hardware for this configuration consists of the following items:

- Laptop or Desktop Computer
- Windows XP Professional
- Labtec 333 or Centrum Sound CM-3 microphones
- Speakers and/or Headphones

Software Installation

SoniClear is installed from the supplied software CD. Insert the CD into the computer drive. The system should automatically start the installation program. If it does not start, run the installation program manually from the CD.

The internal sound card does not require a driver to be installed, as it uses the Windows audio driver that is built into every Windows XP system.

Hardware Installation

Once the SoniClear software has been installed, the microphone can be plugged directly into the microphone jack on the computer. This is a 1/8" audio input jack that can be used only with microphones designed specifically to work with computers. Microphones intended for use with cassette recorders will not work correctly. Be sure to connect the microphone to the correct jack, as it is easy to confuse with the headphone jack on most computers.

The recorded audio can be played back into the room through speakers using the sound card in the computer. When using a laptop computer, if the speakers are not high enough quality, use a portable external speaker. A suitable speaker would be the type used for portable music players, connected to the headphone output of the computer.

Software Configuration

After installation of the software and hardware, SoniClear must be configured to match the hardware in use. To do this, start SoniClear and select Edit/Preferences from the pulldown menu. Then select the Hardware tab and modify the settings according the following instructions.

Recording Device Selection

The Recording Device Selection section of the Hardware tab controls the usage of the sound cards in the computer during recording.

Default Recording Device

This is the default sound card that will be used as the audio source for the two audio channels stored in the recording file. Normally this will be correctly set to the internal sound card when the software is installed. In some rare cases, the device needs to be set to a different device. When this is selected it will automatically set the Input Source to “Microphone”.

Removable Recording Device

The “Use Removable Device If Present” and “Automatic Removable Device Selection” check boxes should be checked, in case the user decides to use a removable audio interface device, such as the iMic (see separate setup instructions for the iMic).

Advanced Recording Options

These options control how recording is processed. These fields should only be changed in the event of problems with recording using the default settings. Consult SoniClear support for assistance.

Recording Process Priority

Default value should be set to Medium.

Buffer Size

The default value should be set to Automatic.

Disk Update Time

The default value should be set to 5000 milliseconds.

Force Recording at 44.1KHz.

The default value should be set to Unchecked.

Playback Device Selection

The Playback Device Selection section of the Hardware tab controls the usage of the sound cards in the computer during playback.

Default Playback Device Selection

This is the sound card that will be used for playback through headphones. It should be set to the internal sound card. This is normally set correctly when the software is installed.

Enable Live Monitoring

This feature allows the user to listen to the audio as it is being recorded in the computer. Normally it is desirable to use a separate device for monitoring, to prevent accidental feedback from the computer speakers to the recording microphone. If the user is careful to attach headphones in advance of recording, the internal sound card can be set as the monitor device. The default is for Live Monitoring to be disabled.

Removable Recording Device

The “Use Removable Device If Present” and “Automatic Removable Device Selection” check boxes should be checked in case the user decides to use a USB audio interface device, such as the iMic (see separate setup instructions for the iMic).

Advanced Playback Options

These options control how playback is processed. These fields should only be changed in the event of problems with playback using the default settings. Consult SoniClear support for assistance.

Playback Buffers

The default value should be set to 2 buffers.

Buffer Size

The default value should be set to 1000mSec.

Monitor Delay

Monitor Delay should be set to the default of 3 seconds.

Force Recording at 44.1KHz.

This field should be set to the default value of Unchecked.

Adjusting Recording and Playback Volume

Volume for recording is controlled using the volume control sliders displayed in SoniClear when recording and playing. In some cases, SoniClear will not be able to adjust the volume settings because of non-standard audio device drivers. In that case, the volume is set using the Windows Volume Control Panel.

To display the correct panel, follow these instructions:

- Double click on the speaker icon in the system tray. If the speaker icon is not visible:
 - Click the Start button and select Control Panel
 - Double click “Sounds and Audio Devices”.
 - Make sure the option “Place volume icon in the taskbar” is checked and click Apply.
 - The Volume icon should appear in the system tray of the taskbar. If this does not cause the speaker icon to be displayed, consult with technical support for the computer. In any case you will be able to select the Audio tab and click the Volume button to display it from this dialog.
- When the Volume Control dialog is displayed do the following to adjust playback volume:
 - From the Options pulldown, select from the Properties command.
 - In the Mixer device control, select the sound card in your computer, and make sure the “Adjust volume for” control is set to Playback. This will display the system sound card playback Volume Control panel.
 - In the Volume Control panel, make sure that the Wave output is not muted and that the rest of the audio sources are muted.
 - The Wave and Volume Control sliders control the volume of the playback. Adjust to a suitable level.
- To adjust recording volume:
 - From the Options pulldown, select from the Properties command.
 - In the Mixer device control, select the sound card in your computer, and make sure the “Adjust volume for” control is set to Recording. This will display the system sound card recording Volume Control panel.
 - In the Volume Control panel, make sure that the Microphone input is not muted and that the rest of the audio inputs are muted (or not selected).
 - Adjust the microphone volume to a suitable level.

- If the recording volume is too low after setting the microphone to the maximum:
 - From the Options pulldown menu, make sure that the Advanced Controls option is set.
 - In the section with the recording volume slider, click the Advanced button.
 - Enable the Mic Boost option to increase recording volume.

Setup using iMic Audio Interface

Overview

This is the recommended setup for recording in situations that require a Voice Tracker, or where you are trying to reduce the size and weight of items to carry and a less advanced microphone is adequate.

The Griffin Technology iMic is a consumer-grade audio interface that works well when connecting either a line-level microphone (such as the Acoustic Magic Voice Tracker), or a computer-compatible microphone (such as the Labtec 333 or Centrum Sound CM-3). The microphone is connected to the 1/8" input jack on the iMic and the audio signal is sent to the computer through a USB cable.

The typical hardware for this configuration consists of the following items:

- Laptop or Desktop Computer
- Windows XP Professional
- Griffin Technology iMic
- Acoustic Magic Voice Tracker
- Digital backup recorder
- Speakers

Software Installation

SoniClear is installed from the supplied software CD. Insert the CD into the computer drive. The system should automatically start the installation program. If it does not start, run the installation program manually from the CD.

The Griffin Technology iMic does not require a driver to be installed, as it uses the Windows USB audio driver that is built into every Windows XP system. Support information for the iMic can be obtained from the Griffin Technology website (www.griffintechology.com).

Hardware Installation

Once the SoniClear software has been installed, the iMic can be plugged directly into the USB port of the computer. You should not connect the iMic to a USB hub, as this may result in unreliable audio recording.

The iMic includes a single 1/8" audio input jack that can be used either as a mono microphone input (for use with computer-compatible microphones only), or as a line

level input. The function of the input jack is set using the switch on the side of the iMic unit.

The first time the software is run after installing the device drivers and plugging in the unit, the recording and playback levels must be set in the Windows Volume control panel (the control panel is installed automatically along with the device drivers). Double click on the speaker icon in the system tray to bring up this control panel. See detailed instructions below, “Adjusting iMic Recording and Playback Volume”.

For monitoring audio off of the computer, connect headphones to the headphone jack on the MobilePre. Playback from the computer will be heard on the headphones. Volume can be adjusted using the volume control knob on the MobilePre unit.

The recorded audio can be played back into the room through speakers using the sound card in the computer. When using a laptop computer, if the speakers are not high enough quality, use a portable external speaker. A suitable speaker would be the type used for portable music players, connected to the headphone output of the computer.

Software Configuration

After installation of the software and hardware, SoniClear must be configured to match the hardware in use. To do this, start SoniClear and select Edit/Preferences from the pulldown menu. Then select the Hardware tab and modify the settings according the following instructions.

Recording Device Selection

The Recording Device Selection section of the Hardware tab controls the usage of the sound cards in the computer during recording.

Default Recording Device

This is the default sound card that will be used as the audio source for the two audio channels stored in the recording file. It should be set to the iMic USB driver (“iMic USB audio system”, or similar wording). When this is selected it will automatically set the Input Source to “Capture” (or similar wording).

Removable Recording Device

SoniClear does not normally use the automatic removable devices selection feature. The “Use Removable Device If Present” and “Automatic Removable Device Selection” check boxes should be unchecked.

Advanced Recording Options

These options control how recording is processed. These fields should only be changed in the event of problems with recording using the default settings. Consult SoniClear support for assistance.

Recording Process Priority

Default value should be set to Medium.

Buffer Size

The default value should be set to Automatic.

Disk Update Time

The default value should be set to 5000 milliseconds.

Force Recording at 44.1KHz.

The default value should be set to Unchecked.

Playback Device Selection

The Playback Device Selection section of the Hardware tab controls the usage of the sound cards in the computer during playback. It should be set to the internal audio card for playback through the computer speakers.

Default Playback Device Selection

This is the sound card that will be used for playback through headphones. It should be set to the iMic device driver.

Speaker Device Selection

This is the sound card that will be used for playback through speakers (when the Speaker option is checked in the main window). This should be set to the device driver of the computer internal sound card.

Removable Recording Device

SoniClear does not normally use the automatic removable devices selection feature. The “Use Removable Device If Present” and “Automatic Removable Device Selection” check boxes should be unchecked.

Advanced Playback Options

These options control how playback is processed. These fields should only be changed in the event of problems with playback using the default settings. Consult SoniClear support for assistance.

Playback Buffers

The default value should be set to 2 buffers.

Buffer Size

The default value should be set to 1000mSec.

Monitor Delay

Monitor Delay should be set to the default of 3 seconds.

Force Recording at 44.1KHz.

This field should be set to the default value of Unchecked.

Adjusting iMic Recording and Playback Volume

Recording Volume

Volume for recording is controlled using the Windows Volume Control panel. To access the recording panel for the iMic, follow these instructions:

- Double click on the speaker icon in the system tray. If the speaker icon is not visible:
 - Click the Start button and select Control Panel
 - Double click “Sounds and Audio Devices”.
 - Make sure the option “Place volume icon in the taskbar” is checked and click Apply.
 - The Volume icon should appear in the system tray of the taskbar. If this does not cause the speaker icon to be displayed, consult with technical support for the computer. In any case you will be able to select the Audio tab and click the Volume button to display it from this dialog.
- When the Volume Control dialog is displayed:
 - From the Options pulldown, select from the Properties command.
 - In the Mixer device control, select the iMic driver, set the “Adjust volume for” control to Recording, and make sure the Capture volume control is checked. This will display the iMic Record Volume Control panel for the “Capture” device (the input audio source).
 - In the Volume Control panel, make sure that the Capture device is not muted.
 - The Volume slider controls the volume of the recording signal. Adjust to a suitable level.

Playback Volume

Volume for playback through the computer speakers is set using the Windows Volume Control Panel. The default Windows Volume Control that is displayed when using an external audio interface is not the internal sound card. To display the correct panel, follow these instructions:

- Double click on the speaker icon in the system tray. If the speaker icon is not visible:
 - Click the Start button and select Control Panel
 - Double click “Sounds and Audio Devices”.
 - Make sure the option “Place volume icon in the taskbar” is checked and click Apply.
 - The Volume icon should appear in the system tray of the taskbar. If this does not cause the speaker icon to be displayed, consult with technical

support for the computer. In any case you will be able to select the Audio tab and click the Volume button to display it from this dialog.

- When the Volume Control dialog is displayed:
 - From the Options pulldown, select from the Properties command.
 - In the Mixer device control, select the sound card in your computer, and make sure the “Adjust volume for” control is set to Playback. This will display the system sound card playback Volume Control panel.
 - In the Volume Control panel, make sure that the Wave output is not muted and that the rest of the audio sources are muted.
 - The Wave and Volume Control sliders control the volume of the playback. Adjust to a suitable level.

Setup using MobilePre Audio Interface

Overview

This is the recommended setup for recording in situations that require professional microphones, such as two conference microphones that use XLR connections and require phantom power.

The M-Audio MobilePre is a professional audio interface. Microphones are connected to the XLR connectors on the MobilePre and the audio signal is sent to the computer through a USB cable.

The typical hardware for this configuration consists of the following items:

- Laptop or Desktop Computer
- Windows XP Professional
- M-Audio MobilePre Audio Interface
- Conference microphones (one or two)
- Digital backup recorder
- Speakers

Software Installation

SoniClear is installed from the supplied software CD. Insert the CD into the computer drive. The system should automatically start the installation program. If it does not start, run the installation program manually from the CD.

The M-Audio MobilePre driver software must be installed from the disk supplied with the unit. Alternatively, the latest version can be downloaded and installed from the M-Audio website (www.m-audio.com). Follow the instructions provided by M-Audio.

Hardware Installation

Once the SoniClear and MobilePre software have been installed, the MobilePre can be plugged directly into the USB port of the computer. You should not connect the MobilePre to a USB hub, as this may result in unreliable audio recording.

The microphones must be connected to the XLR connectors of the MobilePre. For microphones that do not have the correct connector, an adapter must be used. Do not connect a microphone to the ¼" phone jacks, as these are designed for line level signals.

The first time the software is run after installing the device drivers and plugging in the unit, the recording and playback levels must be set in the MobilePre control panel (the control panel is installed automatically along with the device drivers). Double click on

the M-Audio icon in the system tray to bring up this control panel (a small round icon that looks like a greater-than “>” symbol on a red background).

The USB Record setting should be set to zero (near the middle of the scale), and with the mute button Unchecked. The Direct Monitor must be muted (Mute check box Checked). The Device Output must be set to zero (top of the scale, maximum volume). Device Output should have the mute option off (Mute check box Unchecked).

Software Configuration

After installation of the software and hardware, SoniClear must be configured to match the hardware in use. To do this, start SoniClear and select Edit/Preferences from the pulldown menu. Then select the Hardware tab and modify the settings according the following instructions.

Recording Device Selection

The Recording Device Selection section of the Hardware tab controls the usage of the sound cards in the computer during recording.

Default Recording Device

This is the default sound card that will be used as the audio source for the Stereo Mix channels stored in the primary recording file. It should be set to the M-Audio MobilePre driver. When this is selected it will automatically set the Input Source to Wave In.

Removable Recording Device

SoniClear does not normally use the automatic removable devices selection feature. The “Use Removable Device If Present” and “Automatic Removable Device Selection” check boxes should be unchecked.

Advanced Recording Options

These options control how recording is processed. These fields should only be changed in the event of problems with recording using the default settings. Consult SoniClear support for assistance.

Recording Process Priority

Default value should be set to Medium.

Buffer Size

The default value should be set to Automatic.

Disk Update Time

The default value should be set to 5000 milliseconds.

Force Recording at 44.1KHz.

The default value should be set to Unchecked.

Playback Device Selection

The Playback Device Selection section of the Hardware tab controls the usage of the sound cards in the computer during playback.

Default Playback Device Selection

This is the sound card that will be used for playback through headphones. It should be set to the M-Audio MobilePre device driver.

Speaker Device Selection

This is the sound card that will be used for playback through speakers (when the Speaker option is checked in the main window). This should be set to the device driver of the computer internal sound card.

Removable Recording Device

SoniClear does not normally use the automatic removable devices selection feature. The “Use Removable Device If Present” and “Automatic Removable Device Selection” check boxes should be unchecked.

Advanced Playback Options

These options control how playback is processed. These fields should only be changed in the event of problems with playback using the default settings. Consult SoniClear support for assistance.

Playback Buffers

The default value should be set to 2 buffers.

Buffer Size

The default value should be set to 1000mSec.

Monitor Delay

Monitor Delay should be set to the default of 3 seconds.

Force Recording at 44.1KHz.

This field should be set to the default value of Unchecked.

Adjusting MobilePre Recording and Playback Volume

Volume for recording is controlled using the MobilePre volume control knobs on the front of the unit. Playback volume on the headphones is also set using the volume knob on the front of the unit.

Volume for playback through the computer speakers is set using the Windows Volume Control Panel. The default Windows Volume Control that is displayed when using an external audio interface is not the internal sound card. To display the correct panel, follow these instructions:

- Double click on the speaker icon in the system tray. If the speaker icon is not visible:
 - Click the Start button and select Control Panel
 - Double click “Sounds and Audio Devices”.
 - Make sure the option “Place volume icon in the taskbar” is checked and click Apply.
 - The Volume icon should appear in the system tray of the taskbar. If this does not cause the speaker icon to be displayed, consult with technical support for the computer. In any case you will be able to select the Audio tab and click the Volume button to display it from this dialog.
- When the Volume Control dialog is displayed:
 - From the Options pulldown, select from the Properties command.
 - In the Mixer device control, select the sound card in your computer, and make sure the “Adjust volume for” control is set to Playback. This will display the system sound card playback Volume Control panel.
 - In the Volume Control panel, make sure that the Wave output is not muted and that the rest of the audio sources are muted.
 - The Wave and Volume Control sliders control the volume of the playback. Adjust to a suitable level.

Gov Recorder Multichannel Installation

Overview

Gov Recorder can be configured to capture multiple channels of audio into separate channels in the recorded file. Most installations will use an audio interface that uses a firewire connection. Alternatively, multichannel PCI sound cards can be used when line-level inputs are available from a sound system. Following are example configurations using a firewire interface. For assistance with other multichannel audio interface options, contact SoniClear support.

Firewire Connections

Depending on the type of desktop or laptop computer used a firewire interface device may need to be added to the computer system. If the computer has a built-in firewire port, it must be compatible with the supplied interface. If the built-in interface is incompatible, or if the computer does not have a firewire interface, a firewire card must be added to the computer.

Contact Trio Systems for a current list of supported firewire interface card options.

Built-in Firewire Connections

Many computers include a built-in firewire interface. This can be used provided that it has a chipset that compatible with the firewire audio interface being used.

For systems incorporating the Motu 8Pre interface, the Texas Instruments, Via, and Lucent laptop chipsets are supported. For the RME Fireface 800 interface, most Firewire 400 or Firewire 800 chipsets are supported.

Laptop Firewire Add-On Cards

If a laptop computer is being used for recording that does not include a firewire port, an add-on firewire PCMCIA PC Card or ExpressCard can be added to the computer. The card plugs into the PCMCIA card slot. No device drivers need to be installed.

Be sure the laptop is turned off when plugging it in. It is also recommended that the computer and firewire interface be turned off when connecting the laptop to the audio interface.

Note: the firewire interface may not work correctly if the computer has gone into a power saving mode, such as sleep mode or hibernation. You will need to reboot the computer before using the firewire interface if this should occur.

Desktop Firewire Add-On Cards

If a desktop computer is being used for recording that does not include a firewire port, an add-on firewire PCI card can be added to the computer. No device drivers need to be installed.

Motu 8Pre Configuration

Motu 8Pre Installation

The Motu 8Pre firewire audio interface is used for connecting microphone and line-level audio signals to the computer. When connecting to user-supplied computer systems, the 8Pre device drivers must be installed and the system configured for use with the Gov Recorder software.

Power and Data Interface Cables

The Motu 8Pre requires a connection to a power outlet. It does not support battery operation. Be sure to obtain extension power cables for providing power to the audio interface unit and the computer in the meeting room where recordings will be made.

The Motu 8Pre connects to the computer using a standard firewire cable. Because power is not derived from the firewire bus, both 4 and 6 pin connectors are satisfactory. You will need to ensure that the method of connecting the cable to the computer is physically sound so that the cable cannot be accidentally disconnected from the computer during recording. Loose connectors or situations where the cable can become snagged and pulled out of the plug need to be addressed in the setup of the equipment. In addition, use of an inflexible firewire cable for connection to a laptop may result in unreliable recording and damage to the laptop connector. For this reason it is important to use thin firewire cables, such as the proprietary, very thin, Apple Computer firewire cables.

Motu 8Pre Software Installation

Driver and Control Panel Installation

The Motu 8Pre provides drivers and control panel software with the product on CDROM. Installation of drivers should be performed by a qualified computer technician.

When installing a new system, the CDROM drivers can be used. It is recommended, however, that you download the latest Windows software available from the Motu website if there are more recent updates (see www.motu.com).

To install from the supplied CD, insert the disk and follow the instructions in the manual and on screen. To install the downloaded drivers follow the instructions provided on the Motu support website.

After installing the drivers, reboot the computer to complete the installation process. Depending on the driver version, it will normally display additional installation messages

after rebooting. If the system prompts you to install the new hardware, do not select the option to search Windows Update, and use the Automatic Install option. This prompt may occur several times. Carefully follow the written and on-screen instructions to ensure proper installation.

Driver Configuration

Once driver installation is complete, run the Motu Audio Setup wizard from the Start/All Programs menu. The following settings are required:

- General Tab
 - 44100 Sample Rate
 - Clock Source Internal
 - Samples/Buffer 512
 - Pedal – unchecked
 - Enable full wave supported – checked
 - Enable Multichannel Sync – checked
- 8Pre Tab
 - Optical Input – off
 - Optical Output – off
 - Phones – Phones 1-2

After running the Audio Setup wizard, run the Cue Mix control panel from the Start/All Programs menu. Adjust the level controls for the mix to create a 2-channel mix that will be suitable for transcription and archive review. This will generally involve panning each microphone to the same spatial location in the stereo mix as the location of the microphone in the meeting room. This mix can be adjusted after completing installation of the Gov Recorder software.

Gov Recorder Software Configuration

After installation of the software and hardware, Gov Recorder must be configured to work with the Motu 8Pre unit. To do this, start Gov Recorder and select Edit/Preferences from the pulldown menu. Then select the Hardware tab and modify the settings according to the following instructions.

Recording Device Selection

The Recording Device Selection section of the Hardware tab controls the usage of the sound cards in the computer during recording.

Default Recording Device

This is the default sound card that will be used as the audio source for the Stereo Mix channels stored in the primary recording file. The default value should be set to 8Pre Mix Input source.

First Recording Array Device

Multi-channel recordings accept audio input from a series of audio interface channels that are numbered sequentially. The value in this field should be set to the first input source in the sequence (“Array” of inputs). The default value should be set to 8Pre channels 1+2. Click the Edit button, select the 8Pre channels 1+2 in the first array device and click the Default button to set the remaining devices. Click OK to save.

Removable Recording Device

Gov Recorder does not use the automatic removable devices selection feature in this configuration. The “Use Removable Device If Present” and “Automatic Removable Device Selection” check boxes should be unchecked.

Advanced Recording Options

These options control how recording is processed. These fields should only be changed in the event of problems with recording using the default settings. Contact SoniClear support for assistance.

Recording Process Priority

Default value should be set to Medium.

Buffer Size

The default value should be set to Automatic.

Disk Update Time

The default value should be set to 5000 milliseconds.

Force Recording at 44.1KHz.

The default value should be set to Checked.

Playback Device Selection

Normally the Transcriber Live program will be used for playback. However, Gov Recorder must be configured correctly in the event that playback is selected by the user. The Playback Device Selection section of the Hardware tab controls the usage of the sound cards in the computer during playback from the Gov Recorder program.

Default Speaker Device Selection

This is the sound card that will be used for playback through speakers (when the Speaker option is checked in the main window). The default value should be set to the internal sound card device.

Enable Live Monitoring and Headphone Monitor Device Selection

When checked, the Monitor feature is enabled to allow the user to hear the audio as it is being recorded. This playback audio is intercepted in the recording chain before being stored on disk.

Removable Recording Device

Gov Recorder does not use the automatic removable devices selection feature in this configuration. The “Use Removable Device If Present” and “Automatic Removable Device Selection” check boxes should be unchecked.

Advanced Playback Options

Playback Buffers

The default value should be set to 4 buffers.

Buffer Size

The default value should be set to 1000mSec.

Monitor Delay

Monitor Delay should be set to the default of 3 seconds.

Force Recording at 44.1KHz.

This field should be set to the default value of Checked.

Motu 8Pre Audio Connections

Using Microphones

Microphones are attached to the Motu 8Pre using standard balanced XLR connectors. If the microphones require phantom power, this must be turned on using the front panel switch for each microphone channel (up position). In addition, the Pad switch should be set to Up (no Pad).

When purchasing Gov Recorder as a complete system, the 8Pre unit may be supplied with a microphone “snake” cable. This will allow placement of the microphones at a greater distance from the recording system. The snake can be left connected to the interface unit. For portable recording applications, the snake can be rolled up and stored inside the portable case. Care should be taken to avoid physical damage to the microphone cables and microphone snake, such as smashing or crimping the cable. If the cables are not kept in good condition, hum and/or intermittent signal may result.

When connecting the 8Pre to a microphone-level output from a sound system (instead of microphones), isolation transformers may be required to prevent ground loop hum problems. Consult with an audio installation technician regarding this application.

Using Analog Line Input or Digital Input

Line-level analog audio connections to the Motu 8Pre use ¼” TRS balanced line connections. Digital inputs and outputs are also provided using standard ADAT optical connections.

When connecting the Motu 8Pre to a sound system using analog line-level signals, isolation transformers may be required to prevent ground loop problems. Consult with an audio installation technician regarding this application.

Antex Electronics DMX-4 Configuration

DMX-4 Installation

The DMX-4 USB audio interface is used for connecting up to four microphones or line-level inputs to the computer. When connecting to user-supplied computer systems, the DMX-4 device drivers must be installed and the system configured for use with the SoniClear software.

Power and Data Interface Cables

The DMX-4 requires a connection to a power outlet. It does not support battery operation. Be sure to obtain extension power cables for providing power to the audio interface unit and the computer in the meeting room where recordings will be made.

The DMX-4 connects to the computer using a standard USB cable. You will need to ensure that the method of connecting the cable to the computer is physically sound so that the cable cannot be accidentally disconnected from the computer during recording. Loose connectors or situations where the cable can become snagged and pulled out of the plug need to be addressed in the setup of the equipment. In addition, use of an inflexible USB cable for connection to a laptop may result in unreliable recording and damage to the laptop connector.

DMX-4 Software Installation

Driver and Control Panel Installation

The DMX-4 provides drivers and control panel software with the product on CDROM or by download from the manufacturer's website. Installation of drivers should be performed by a qualified computer technician.

To install from the supplied CD, insert the disk and follow the instructions in the manual and on screen. To install the downloaded drivers, follow the instructions provided on the Antex Electronics support website.

Driver Configuration

Once driver installation is complete, run the DMX-4 Configuration program from the Start/All Programs menu. Set the following values:

- Select Line or Microphone input type
- Turn the channels button to ON for each channel that is used.

- Click Phantom Power for microphones requiring power.
- Assign a recording channel for each. Normally this would be assigning input #1 to Recording Channel 1, input #2 to Channel 2, and so forth.
- Adjust the Input Level to appropriate recording levels, depending on the type of microphone used and the recording situation.

SoniClear Software Configuration

After installation of the software and hardware, SoniClear must be configured to work with the DMX-4 unit. To do this, start SoniClear and select Edit/Preferences from the pulldown menu. Then select the Hardware tab and modify the settings according to the following instructions.

Recording Device Selection

The Recording Device Selection section of the Hardware tab controls the usage of the sound cards in the computer during recording.

Default Recording Device

This is the default sound card that will be used as the audio source for the Stereo Mix channels stored in the primary recording file. The default value should be set to “Antex Electronic” source (first of two stereo pairs provided by DMX-4 unit).

First Recording Array Device

Multi-channel recordings accept audio input from a series of audio interface channels that are numbered sequentially. The value in this field should be set to the first input source in the sequence (“Array” of inputs). The default value should be set to the second stereo pair provided by the DMX-4, labeled with “Antex Electronic (1)” in the title.

Removable Recording Device

SoniClear does not use the automatic removable devices selection feature in this configuration. The “Use Removable Device If Present” and “Automatic Removable Device Selection” check boxes should be unchecked.

Advanced Recording Options

These options control how the recording is processed. These fields should only be changed in the event of problems with recording using the default settings. Contact SoniClear support for assistance.

Recording Process Priority

Default value should be set to Medium.

Buffer Size

The default value should be set to Automatic.

Disk Update Time

The default value should be set to 5000 milliseconds.

Force Recording at 44.1KHz.

The default value should be set to unchecked.

Playback Device Selection

The Playback Device Selection section of the Hardware tab controls the usage of the sound cards in the computer during playback from the SoniClear program.

Default Speaker Device Selection

This is the sound card that will be used for playback through speakers (when the Speaker option is checked in the main window). The default value should be set to the internal sound card device.

Headphone Monitor Device Selection

This is the sound card that will be used for playback through headphones. The default value can be set to the internal sound card. For monitoring separate from playback, a separate playback device will need to be connected to the system.

Removable Playback Device

SoniClear does not use the automatic removable devices selection feature in this configuration. The “Use Removable Device If Present” and “Automatic Removable Device Selection” check boxes should be unchecked.

Advanced Playback Options

Playback Buffers

The default value should be set to 4 buffers.

Buffer Size

The default value should be set to 1000mSec.

Monitor Delay

Monitor Delay should be set to the default of 3 seconds.

Force Recording at 44.1KHz.

This field should be set to the default value of unchecked.

Transcriber Live Software Configuration

This feature applies to SoniClear Gov Recorder.

To configure Transcriber Live, start the program and select Edit/Preferences from the pulldown menu. Then select the Hardware tab and modify the settings according to the following instructions.

Recording Device Selection

The Recording Device Selection section does not apply to Transcriber Live, as it is a playback only program.

Playback Device Selection

The Playback Device Selection section of the Hardware tab controls the usage of the sound cards in the computer during playback.

Default Speaker Device Selection

This is the sound card that will be used for playback through speakers (when the Speaker option is checked in the main window). The default value should be set to the internal sound card device.

Headphone Monitor Device Selection

This is the sound card that will be used for playback through headphones. The default value can be set to the internal sound card. For monitoring separate from playback, a separate playback device will need to be connected to the system.

Removable Playback Device

SoniClear does not use the automatic removable devices selection feature in this configuration. The “Use Removable Device If Present” and “Automatic Removable Device Selection” check boxes should be unchecked.

Advanced Playback Options

Playback Buffers

The default value should be set to 4 buffers.

Buffer Size

The default value should be set to 1000mSec.

Monitor Delay

Monitor Delay should be set to the default of 3 seconds.

Force Recording at 44.1KHz.

This field should be set to the default value of unchecked.

DMX-4 Audio Connections

Using Microphones

Microphones are attached to the DMX-4 using standard balanced XLR connectors. If the microphones require phantom power, this must be turned on using the screen control displayed in the DMX-4 Configuration program.

When purchasing SoniClear Gov Recorder as a complete system, the DMX-4 unit may be supplied with a microphone “snake” cable. This will allow placement of the microphones at a greater distance from the recording system. The snake can be left connected to the interface unit. For portable recording applications, the snake can be rolled up and stored inside the portable case. Care should be taken to avoid physical damage to the microphone cables and microphone snake, such as smashing or crimping the cable. If the cables are not kept in good condition, hum and/or intermittent signal may result.

When connecting the DMX-4 to a sound system (instead of microphones), isolation transformers may be required to prevent ground loop hum problems. Consult with an audio installation technician regarding this application.

RME Fireface 800 Configuration

RME Hardware Installation

Firewire Interface Requirements

The Fireface requires a reliable firewire connection on the computer. The manufacturer claims that their system will work reliably with any computer using a firewire 400 interface. However, RME also lists many examples of improperly designed firewire 800 circuitry. For that reason, SoniClear is only certified to work with firewire 400 connections, and only with the patches and fixes listed in these instructions.

For up-to-date compatibility information, consult the support section of the SoniClear website, or contract Trio Systems support.

Power and Cables

The Fireface includes a universal power supply for connection to a power outlet. It does not support battery operation.

The Fireface connects to the computer using a standard firewire cable. Because power is not derived from the firewire bus, both 4 and 6 pin connectors are satisfactory. You will need to ensure that the method of connecting the cable to the computer is physically sound so that the cable cannot be accidentally disconnected from the computer during recording. Loose connectors or situations where the cable can become snagged and pulled out of the plug need to be addressed in the setup of the equipment.

Microphones are connected using standard balanced XLR connectors. All other analog audio connections use 1/4" TRS balanced line connections. Digital inputs and outputs are provided using ADAT, SPDIF, and AES digital standards.

RME Software Installation

Drivers and Flash Update

The Fireface provides drivers and control panel software with the product on CDROM. It is recommended, however, that you download the latest Windows software available from the RME website if there are more recent updates (see www.rme-audio.com). The site also includes a download for updating the Flash memory in the unit to the latest firmware revision, which may be required for using the latest drivers. Consult the SoniClear release Readme.txt file for any additional driver requirements that may apply to the current SoniClear software.

To install from the supplied CD, insert the disk and follow the instructions in the manual and on screen.

To install the downloaded drivers you need to first unzip them into a directory where the files can be located during the installation process. Then plug in the firewire cable and turn on the Fireface power. The Windows New Hardware Wizard will be displayed. Select NO to the request to use Windows Update, select “Install from a list or specific location”, and then choose the directory where the downloaded files have been extracted.

To update the firmware, follow the instructions provided in the firmware update download. You must perform the exact sequence of steps indicated, or the update will not be installed correctly. In particular, ensure that you specify the downloaded version of driver, do not let Windows pick the driver it thinks is best.

After installing the drivers and updating the firmware, reboot the computer to ensure the installation is correct and to see the driver and mixer control panels in the task bar.

Windows XP Firewire Patch

A patch is required for Windows XP when recording using a Fireface interface device. When Microsoft released Service Pack 2 for Windows XP, they changed the handling of the firewire port in such a way as to render it unusable for audio recording. Instead of handling the full 400 Megabits/sec transfer rate, it only reportedly runs at 100 Megabits/sec. This is insufficient for reliable audio recording when there are many channels involved.

A patch for this problem is available from Microsoft that must be installed as part of the driver installation process. Consult the Microsoft article on the subject and follow their directions to fix this problem: <http://support.microsoft.com/kb/885222/en-us>.

Driver Configuration

After rebooting, double click on the Fireface Settings icon in the system tray to open the configuration dialog. The following are the correct values for each field of this dialog.

Fireface (1) Tab

Buffer Size: 256 Samples

Inputs (1): Rear

Inputs (7): Front+Rear

Inputs (8): Front+Rear

Limit Bandwidth: Analog+SPDIF+ADAT1

SPDIF In: Coaxial

SPDIF Out: nothing checked

Input Level: +4 dBu

Output Level: +4 dBu

Phantom Power: Check Mic 7-10 to turn on phantom power, if needed.
If using dynamic or self-powered microphones, do no check.

Instrument Options: NA (any setting is OK)

Word Clock Out: Unchecked

Options

Check Input: Unchecked

SyncAlign: Check

TMS: Check

Interleaved: Unchecked

Clock Mode: Master

Pref. Sync Ref: Word Clock

DDS Tab

DDS Active: Checked

Frequency: 44.100

Freq. Multiplier x1

Coarse: 0

Active: Unchecked

Fine: 0

Active: Unchecked

After entering and confirming these settings, click the Store in Flash Memory (on the Fireface (1) tab) and click OK to close the settings dialog.

Recording Mixer Configuration

SoniClear supports either two-channel recording or multi-channel recording, depending on the version of the software. Right click on the Fireface Mixer icon in the system tray and select Mixer to display the mixer control panel. If this is the first time setting up the system, click the Preset 5 button to load that preset provided by RME. Then select View/Matrix from the pulldown menu to display the patching matrix display. Click once on each of the matrix cells that shows a green background. This will turn off those matrix connections and you will have a completely blank set of connections.

Two-Channel Mixer Presets

The SoniClear software includes a set of preset controls stored in a .FPR Fireface mixer setting file (such as TwoChannelPresets.fpr for two channel recording). For release versions of SoniClear these preset files are copied into the SoniClear program directory when SoniClear is installed. For beta versions of the software, these files may require separate installation, see the installation instructions provided with the beta software. You load all of the presets for the type of recording software at once using File/Open All Presets, then select the correct preset from the Mixer panel.

Two-Channel Mixer Presets

For Two Channel recording using SoniClear, load the file TwoChannelPresets.fpr from the File/Open All Presets option in the Fireface Mixer panel.

Preset 1

This preset is designed to mix eight microphone sources (from an external microphone preamp) connected into analog lines 1-8. The eight signals are panned evenly across the stereo “field” to give the sense of microphones coming from a stage with the source of the speaking distributed from left to right. The front panel microphone inputs 9 and 10 are also included in the mix, panned to the left and right channels, respectively. The microphones are then fed into the computer as the audio driver selection FireFaceAN1+2. This two-channel mix is also fed into the SPDIF output for input into a PMD 570 digital recorder for backup purposes.

Preset 2

This preset is designed to mix four microphone sources from the internal microphone channels (connectors 7-10 on the front panel). These are panned evenly across the stereo “field” The microphones are then fed into the computer as the audio driver selection

FireFaceAN1+2. This two-channel mix is also fed into the SPDIF output for input into a PMD 570 digital recorder for backup purposes.

Presets 3-8

Unused.

Multi-channel Mixer Presets

For Multi-channel recording using SoniClear, load the file MultiChannelPresets.fpr from the File/Open All Presets option in the Fireface Mixer panel.

Preset 1

This preset is designed to mix eight microphone sources (from an external microphone preamp) connected into analog lines 1-8. The front panel microphone inputs 9 and 10 are also fed into channels 7 and 8, respectively. The eight channels are fed into four stereo pairs that are recorded in the software as FireFace Analog 1+2, Analog 3+4, Analog 5+6, and Analog 7+8. The eight signals are also panned evenly across the stereo “field” to give the sense of microphones coming from a stage with the source of the speaking distributed from left to right. This “Stereo Mix” is recorded as FireFace ADAT1 1+2, and is used as the default signal for readback and playback, and sent to the SPDIF output for the backup recorder.

Manual Two-Channel Setup

You can also recreate the SoniClear preset mixer settings manually. To accomplish the two-channel Preset #1, the Mixer and Matrix control panels require the following adjustments:

Mixer Settings

The two channel input submix set up in the Matrix control panel needs to be “looped back” as an input value for recording. Using a control-click command in the Mixer window enables Loopback mode. In the mixer strip section labeled “AN 1” (first mixer column of the output section, which is the bottom row of strips), Control-Click the white label below the mixer slider (hold down Control key while clicking on the white text that says “AN 1”). This will turn this label to a red color, indicating the loopback mode is on.

Matrix Settings

Set up the new patch connections in the Matrix control panel using the following table. The first number is input channel, listed on SIDE of matrix. The second number is the output channel, shown on TOP of matrix display. Turn each of the patch connections on by clicking once on the intersection of the input (row) and output (column). This will set the value to 0.0, shown on a green background color. To set the level, hold down the control key and click on the cell. While holding down the mouse button, slide mouse up or down to adjust to the desired value.

| Preset 1 | | | | |
|-----------------|--------------------|-----------------|---------------------|-----------------|
| Input Row | Output Column Left | Mix (Pan) Value | Output Column Right | Mix (Pan) Value |
| In 1 | AN 1 | 0.0 | | |
| In 2 | AN 1 | -1.3 | AN 2 | -16.9 |
| In 3 | AN 1 | -2.5 | AN 2 | -12.0 |
| In 4 | AN 1 | -5.4 | AN 2 | -6.7 |
| In 5 | AN 1 | -6.7 | AN 2 | -5.4 |
| In 6 | AN 1 | -12.0 | AN 2 | -2.5 |
| In 7 | AN 1 | -16.9 | AN 2 | -1.3 |
| In 8 | | | AN 2 | 0.0 |
| In 1 | SP L | 0.0 | | |
| In 2 | SP L | -1.3 | SP R | -16.9 |
| In 3 | SP L | -2.5 | SP R | -12.0 |
| In 4 | SP L | -5.4 | SP R | -6.7 |
| In 5 | SP L | -6.7 | SP R | -5.4 |
| In 6 | SP L | -12.0 | SP R | -2.5 |
| In 7 | SP L | -16.9 | SP R | -1.3 |
| In 8 | | | SP R | 0.0 |
| In 9 | SP L | 0.0 | | |
| In 10 | | | SP R | 0.0 |
| Out 1 | PH L | 0.0 | | |
| Out 2 | | | PH R | 0.0 |
| Out 3 | PH L | 0.0 | AN 3 | 0.0 |
| Out 4 | PH R | 0.0 | AN 4 | 0.0 |

Software Configuration for RME

After installation of the software and hardware, Gov Recorder is configured automatically to work with two channel interfaces. The software must be manually reset to the correct configuration to work with the RME unit. To do this, start Gov Recorder and select Edit/Preferences from the pulldown menu. Then select the Hardware tab and modify the settings according to the following instructions. Modifications to the configuration should only be made by a qualified SoniClear technician.

Recording Device Selection

The Recording Device Selection section of the Hardware tab controls the usage of the sound cards in the computer during recording.

Default Recording Device

This is the default sound card that will be used as the audio source for the Stereo Mix channels stored in the primary recording file. The default value should be set to Fireface 800 Analog (1+2). Input source will automatically be set to Recording Control.

First Recording Array Device

Multi-channel recordings accept audio input from a series of audio interface channels that are numbered sequentially. The value in this field should be set to the first input source in the sequence (“Array” of inputs). The default value should be set to Fireface 800 ADAT (1+2).

Removable Recording Device

SoniClear does not normally use the automatic removable devices selection feature. The “Use Removable Device If Present” and “Automatic Removable Device Selection” check boxes should be unchecked.

Advanced Recording Options

These options control how recording is processed. These fields should only be changed in the event of problems with recording using the default settings. Consult SoniClear support for assistance.

Recording Process Priority

Default value should be set to Medium.

Buffer Size

The default value should be set to Automatic.

Disk Update Time

The default value should be set to 5000 milliseconds.

Force Recording at 44.1KHz.

The default value should be set to Unchecked.

Playback Device Selection

The Playback Device Selection section of the Hardware tab controls the usage of the sound cards in the computer during playback.

Default Playback Device Selection

This is the sound card that will be used for playback through headphones. The default value should be set to Fireface 800 Analog (1+2).

Speaker Device Selection

This is the sound card that will be used for playback through speakers (when the Speaker option is checked in the main window). The default value should be set to Fireface 800 Analog (3+4).

Removable Recording Device

SoniClear does not normally use the automatic removable devices selection feature. The “Use Removable Device If Present” and “Automatic Removable Device Selection” check boxes should be unchecked.

Advanced Playback Options

These options control how playback is processed. These fields should only be changed in the event of problems with playback using the default settings. Consult SoniClear support for assistance.

Playback Buffers

The default value should be set to 2 buffers.

Buffer Size

The default value should be set to 1000mSec.

Monitor Delay

Monitor Delay should be set to the default of 3 seconds.

Force Recording at 44.1KHz.

This field should be set to the default value of Unchecked.

Marantz PMD 570 Recorder Configuration

Overview

The Fireface configuration listed above is set up to feed the PMD 570 (or PMD 560) recorder with a stereo mix of all microphones as a backup recording system. When the Fireface starts up, it will automatically load the last configuration setting from internal memory. If the computer is not functioning for any reason, the PMD 570 can continue to record from the Fireface without the need for control from the computer.

The unit can be connected using input and output signals that use SPDIF, balanced professional line, and consumer line standards. These instructions are specified using the SPDIF connection from the Fireface to reduce the number digital to analog conversions needed in the signal chain.

Power and Cables

The PMD 570 includes an internal power supply that can be used with US or European standards, depending on the model. It does not operate from battery power.

The SPDIF connection is made using an RCA male to RCA mail cable designed specifically for digital use. Connect the Fireface SPDIF output to the PMD 570 input, and Fireface SPDIF input to the PMD 570 output.

The option exists to connect the PMD 570 directly to the computer for accessing the data on the flash memory drive. It is recommended instead that when you need to access the backup recording on the flash disk that you remove the flash card from the PMD 570 and plug it into a computer using an appropriate CF Flash Card adapter.

Setup

Follow the PMD 570 installation manual to program the unit for recording from the SPDIF input at the sample rate of 44.1K, storing in MP3 stereo with 128kbps encoding. This will provide for over 17 hours of recording time on a 1 Gigabyte flash card.

Recording and Playback

Consult the PMD 570 instruction manual for directions on how to record and play back recordings. The headphone jack can be used to listen to the recording. Alternatively, the Fireface can be set to the optional Backup Playback preset to hear the audio using a headphone or speaker connected to the Fireface (NOT CURRENTLY IMPLEMENTED).