



Wave Agent Beta 1.2

WAV File Librarian Software for Windows and Mac Operating Systems Software Revision 1.2

Sound Devices, LLC

E7556 State Highway 23 and 33 • Reedsburg, WI • USA +1 (608) 524-0625 • fax: +1 (608) 524-0655
Toll-Free: (800) 505-0625
www.sounddevices.com
support@sounddevices.com

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Welcome

Thank you for choosing Wave Agent, the multi-purpose, cross-platform utility for playing, editing and managing WAV files. Wave Agent includes a comprehensive and indispensable range of tools for preparing audio files for problem-free passage through complex production workflows. Wave Agent also allows for extended metering, display, and control of a connected Sound Devices 788T.

Key Features

- Playback of polyphonic and monophonic WAV and Broadcast Wave files from any source. (Supports up to 32 tracks).
- Viewing and editing file metadata
- Changing of sampling rate, frame rate, and start time code metadata stamps
- Splitting and combining polyphonic and monophonic files with selectable track assignments
- Batch editing
- Generating customized PDF and CSV Sound Reports
- Large time code display
- Monitor mixer with faders, pans, solos, mutes, and meters
- Drag-and-drop operation and comprehensive keyboard shortcuts for accelerated operation
- 788T Track Metering, Time Code Display, Record and Stop Control, Metadata Editing
- Mac OS and Windows compatible

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Installing Wave Agent

The instructions in this guide apply to both the Mac OS and Windows OS versions of the application unless otherwise noted. Screen shot examples are taken from the Windows version. Where there are differences, screen shots and information for both Windows and Mac will be clearly detailed.

System Requirements

Operating Systems	Windows XP Service Pack 2 Windows Vista, SP1 recommended Windows 7 MAC OS X (10.6 or greater), Intel
Hard Drive Space	45 MB
Display Resolution	1024 x 600 (recommended minimum)
Control Mode	788T/788T-SSD v2.10+

Realtime anti-virus monitoring applications may affect the performance of Wave Agent. Sound Devices recommends temporarily disabling or configuring them to ignore directories from which WAV files are to be imported.

Mac OS

- 1. Download the Mac installation .dmg file from www.sounddevices.com
- 2. Run the WaveAgentInstall.mpkg.
- 3. Follow the installer instructions.
- 4. Once installation is complete, restart the computer.
- 5. After restart, launch the application by double-clicking **Wave Agent.app** located in the Wave Agent folder within the Applications directory.

Windows OS

- 1. Download the installation .exe file from Sound Devices web site at www.sounddevices.com.
- 2. Run the WaveAgentInstall.exe file.
- 3. Follow the installer instructions.
- 4. Once installation is complete, restart the computer.
- 5. After restart, launch the application by double-clicking the Wave Agent icon on the Windows desktop.

Wave Agent Beta 1.2 is free, unsupported software. For questions or comments, please send inquiries via e-mail to support@sounddevices.com or enter an inquiry at www.sounddevices.com/support/. Telephone support is not available for Wave Agent Beta 1.2



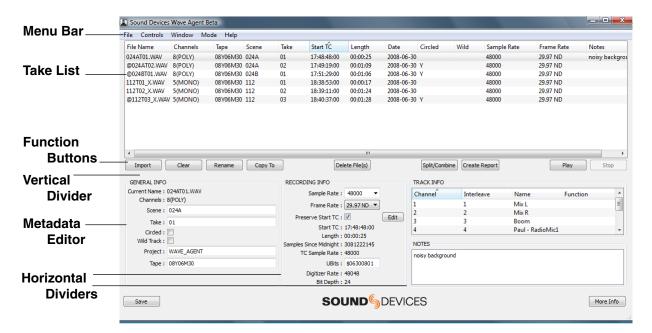
The Main Window

Wave Agent has two main modes, Edit and Control Modes. The selected mode determines the overall functionality of Wave Agent. Edit Mode is the default mode and is used to manage files that were previously recorded. Control Mode is used during the recording, it allows for extended display and control- of the connected Sound Devices 788T or 788T SSD v.2.10 or higher. See Control Mode for details.

Edit Mode's Main Window is made up of two sections, the Take List of all imported takes and the Metadata editor. All windows and sections within them can be resized.

Wave Agent's commands and windows are accessed from the application's menu bar, keyboard shortcuts, or the dedicated Function Buttons. Multiple windows can be open at the same time.

Wave Agent always displays the Main Window on start up. The size and placement of the various windows is automatically saved so that when a window is opened, it is the same layout as when it was last open. Restore the factory default layout at any time by selecting Window > Restore Default Layout.



Menu Bar

Accesses the drop-down menus for various commands and functions. See Menu Bar for more details.

Take List

Displays an overview of user-selected metadata for all imported takes. See Take List for more details.

Function Buttons

Provide quick access to common functions and windows. See Function Buttons for more details.

Metadata Editor

Allows user to view and edit metadata fields. See Metadata Editor for more details.

Vertical Divider

Click and drag over this boundary to resize the Metadata Editor/Take List to the desired size.

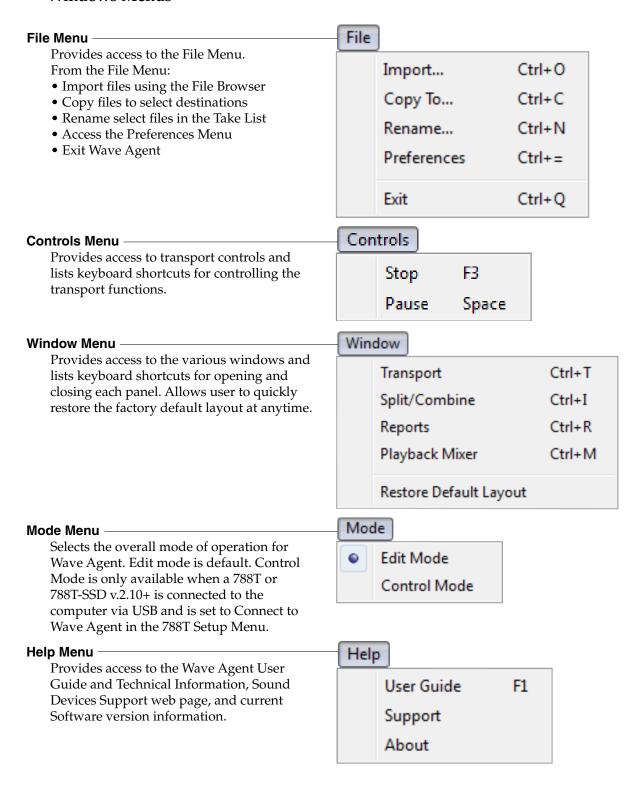
Horizontal Dividers

Click and drag over these areas to resize and hide the Metadata Info sections.

Menu Bar

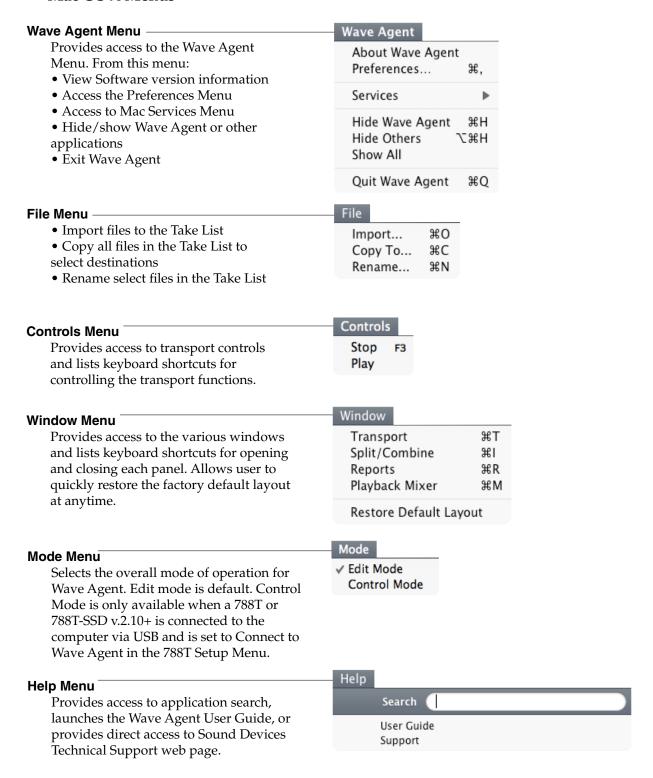
Accesses the drop-down menus for various commands and functions.

Windows Menus





Mac OS X Menus



Function Buttons

Import Button

Opens the Import window from which you can select and import files.

Ctrl + O (Windows)

Apple + O (Mac).

Clear Button

Click to remove the highlighted takes from the Take List. This does not delete the actual files.

Delete (Windows)

Fn + Delete (Mac).

Rename Button

Click to rename the takes highlighted in the Take List. Files will be renamed according to the selected take's scene and take number. *Warning: this instantly renames the original file(s). This action cannot be undone.*

Ctrl + N (Windows)

Apple + N (Mac).

Copy To Button

Click to copy the highlighted takes in the Take List to a user-defined destination.

Ctrl + C (Windows)

Apple + C (Mac).

Delete File(s) Button

Click to permanently delete the highlighted take(s) from the computer or attached storage medium from which the file(s) were imported. *Warning: this permanently deletes the original file, it does not put the file in the Trash or Recycle Bin.*

Split/Combine Button

Opens the Split/Combine window from which WAV files can be de-interleaved or interleaved.

Ctrl + I (Windows)

Apple + I (Mac).

Create Report Button

Opens the Reports window from which you can customize and create sound report PDFs.

Ctrl + R (Windows)

Apple + R (Mac).

Play/Pause Button

Toggles between playing and pausing the currently selected take.

Space Bar (Windows and Mac).

Stop Button

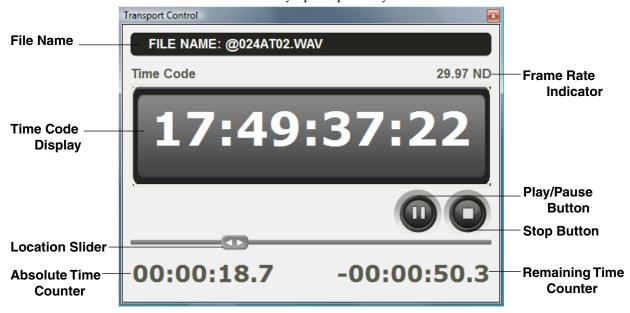
Stops playback and cues to the beginning of the currently selected take.

F3 (Windows and Mac, on the Mac you may have to press fn + F3 depending on how this is set in Keyboard System Preferences).



Transport Control Window

The Transport Control window manages all playback functions. It also shows time code, absolute time, and remaining time values when a file is being played. The Transport Control Window can be set in the Preferences Menu to automatically open upon Playback.



Take/File Name

Displays the filename of the take currently selected in the Take List and cued for playback.

Time Code Display

The HH:MM:SS:FF (Hours: Minutes: Seconds: Frames) display the current time code of the take selected in the Take List. If the file is a standard WAV file without a time code stamp, absolute time is displayed. A semicolon between the SS and FF fields indicates that the frame rate format is Drop frame (DF).

Frame Rate Indicator

Displays the time code frame rate of the selected take.

Play/Pause Button

Toggles between playing and pausing the currently selected take.

Stop Button

Stops playback and cues back to the beginning of the currently selected take.

Absolute Time Counter

Represents time elapsed from the beginning of the take.

Location Slider

When playback is paused or stopped, drag the slider to the left or to the right to locate playback positions within the currently selected take. The slider provides a visual indication of the current playback position of a take. Functions during Play and Pause.

Remaining Time Counter

Counts down to the end of the take.

Take List

The Take List is an easy-to-read summary of metadata for all imported takes. All takes imported into Wave Agent can be viewed in the Take List.. See Importing Takes in to the Take List.

The Take List displays files by rows, with each row representing one take, whether or not that take is made up of a single, polyphonic file or a group of multiple monophonic files (siblings). Hovering the mouse over a take reveals the file's location.

The Channels column displays the number of tracks associated with each take and displays MONO or POLY to indicate whether the item comprises of monophonic files or a single polyphonic file. Takes comprising of monophonic files are also identified within the Current Name column by the suffix '_X' appended to the take's file name.

An asterisk following the MONO or POLY designator; that is, (MONO*) indicates that there is a possible problem with the channel header information within the WAV file.

Importing Takes Into The Take List

Import individual files, groups of files, or entire folders of files into the Take List. Only files with a .WAV extension can be imported. There are two ways to import files into the Take List:

- Drag-and-drop files or folders directly into the Take List,
- Use the Import button to open the Import File Browser and select individual or multiple files.

When files are imported from a folder into the Take List, Wave Agent automatically searches the folder for files belonging to the same take.

Customizing the Take List

Configure the Take List's column headings and layout so that only relevant information is displayed. Add or remove columns using the Metadata Fields List: Right-click (Windows) or Ctrl + click (Mac) in the Take List to display the list of metadata fields available for viewing. Metadata fields with check marks will be displayed in the Take List. Click any item in the list to place or remove a check mark

Change the order in which the columns are displayed in the Take List by clicking and dragging the column headers. Change the width of any column by using the resizing tool. The resizing tool will appear when the cursor is placed between column headers.

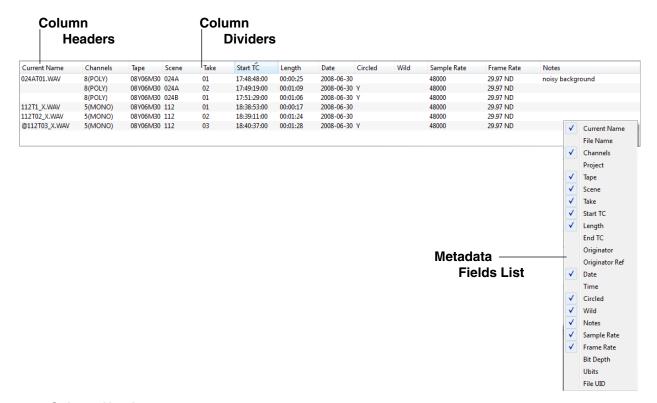
Sorting the Take List

Organize takes in the Take List in various ways by sorting according to column headings.

Click on any column heading to sort the Take List by that column heading type. To sort in the opposite direction, click on the column heading again. An arrow appears in the column heading to indicate sorting direction.

When files are imported into the Take List, they are automatically sorted by Start Time Code.





Column Headers

Column Headers represent the various properties of the listed takes. Choose which columns are displayed by using the Metadata Fields List. Change the order of columns by clicking and dragging a column heading.

Column Dividers

Click and drag a column divider to change the width of a column.

Metadata Fields List

Right-click (Windows) or Ctrl + click (Mac) in the Take List to display the list of metadata fields available for viewing. Metadata fields with check marks will be displayed in the Take List. Click any item in the list to place or remove a check mark.

Selecting a Take for Playback

Select a take for playback by clicking on it in the Take List. Alternatively, click anywhere in the list and use the up/down arrows to select any take.

There are several ways to start playback. Either double click on a take or select a take with a single click then press the Play button in the Transport Control or Main window.

Selecting Multiple Takes in the Take List

In order to select multiple takes for batch editing, clearing, renaming, copying, or deleting, it is necessary to highlight multiple takes in the Take List. Select multiple takes in Windows by using the standard Shift + click or Ctrl + click selection methods. Select multiple takes in Mac, by using the Shift + click or Apple + click selection methods.

Select all takes in the take list by using Ctrl + A (Windows) or Apple + A (Mac).

When a multiple take selection is made, the Metadata Editor below shows the metadata for the last take that was added (clicked) to the multiple take selection. See Editing Takes - Batch Editing.

Removing Takes From the Take List

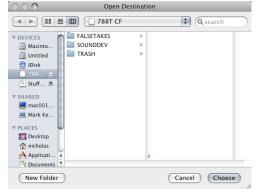
To remove items from the Take List, simply highlight the takes you want to remove and click the Clear button or use the keyboard shortcut keys Delete (Windows) Fn + Delete (Mac).

Copying Takes From the Take List

The Copy To button is a convenient tool for copying edited files to any local destination directory or FAT (File Allocation Table) based removable media connected via FireWire or USB. It can also be used to use copy files across a suitably configured network. To copy files from the Take List:

- 1. Select a take or takes from the Take List and click the Copy To button.
- 2. In the destination browser, select a destination and click OK (Windows) or Choose (Mac).





Windows

Mac OS

Renaming Takes and Files

WAV files with descriptive file names are useful in Post Production, even with comprehensive metadata available in a Broadcast WAV file. Descriptive file names can immediately indicate the contents of the file without having to import the file into a specialist application.

Wave Agent simplifies the renaming of files/takes. Wave Agent allows the user to:

- Rename individual files or batch rename files.
- Ensure file name tallies with embedded metadata.
- Ensure that file name edits are rippled through to all sibling files.

Wave Agent renames files according to their embedded scene and take metadata. For example, a file with scene name = 001 and take number = 12 is renamed as follows:

001T12.WAV

The 'T' separator identifies the take number.

To rename files:

- 1. Select a take or takes from the Take List and click the Rename button.
- 2. Click OK to process or Cancel to exit without processing.

Wave Agent will not rename a take if it detects that the rename process will result in file name duplication.



Deleting Files

To permanently delete a take and its constituent files:

- 1. Select a take or takes from the Take List and click the Delete File(s) button.
- 2. Click OK to process or Cancel to exit without deleting

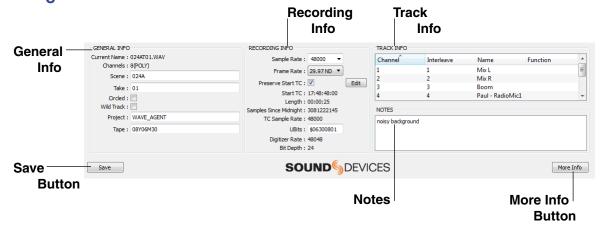
Deleting files permanently removes the file from the computer or attached storage medium from which the file(s) were imported into Wave Agent. Deleted files do not get sent to the Trash or Recycle Bin.

The Metadata Editor

The Metadata Editor allows you to view and edit WAV file metadata. Select iXML, BEXT, and Format chunk metadata are editable, including Project, Tape (Roll), Scene, Take, Track Name, Track Function, and Notes. The Metadata Editor is also used to change sampling rate, time code frame rates, and start time code stamps and ensures that time code information is updated accordingly. Changing sampling rates can also be used to alter playback speed. Takes can be identified as Circle Takes or Wild Tracks and edit descriptive notes. *See Appendix 1 - Metadata Implementation Chart*.

Standard WAV files do not contain bEXT or iXML information. When iXML or bEXT type metadata is added by the user to a standard WAV, Wave Agent automatically generates Broadcast WAV metadata and generates the necessary metadata chunks.

Page 1 Metadata



General Info

Displays various metadata including Project, Scene, Take, Tape, etc...

Recording Info

Displays various recording characteristics including sample rate, frame rate, and time code information.

Track Info

Displays various track-related info such as channel number, track name, and track function. Track names and functions can be edited by clicking the text fields.

Notes

Displays notes entered by the user.

Circled Take

Clicking this check box circles the currently selected take by setting the corresponding iXML circle flag. Circling can be used to identify or recommend which takes should be used in Post.

Wild Track

Clicking this check box identifies the currently selected take as a Wild Track by setting the corresponding iXML wildtrack flag. Wild Tracks are typically atmosphere or sound effects recordings that have no corresponding picture to sync with.

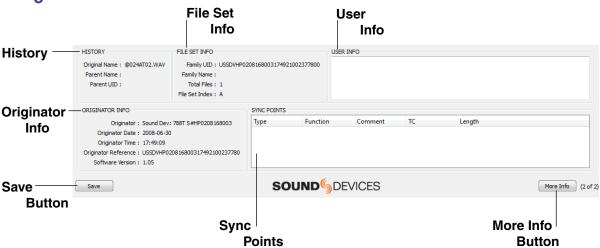
Save Button

Click to save metadata changes to highlighted takes in the Take List. Keyboard Shortcut: Ctrl + S (Windows) and Apple + S (Mac).

More Info Button

Click this button to toggle between the two pages of the Metadata Editor.

Page 2 Metadata



History Info

Displays a selected file's Original File Name and Parent Name, the name of the file from which the current file was derived.

User Info

Additional iXML notes field.

Originator Info

Contains information about the recorder used and original time stamp of the recording.

File Set Info

Displays data that provides links between sibling files so that applications can automatically rebuild complete takes.

Sync Point Info

Displays sync point, cue, mark, region, and slate position data, if available.



Navigating the Metadata Editor

The Metadata Editor is divided into two pages. Toggle between the two pages by clicking the More Info button. Each page organizes metadata into logical groups, making it easy to view and analyze related file properties.

For fast navigation between the Take List and the most commonly used metadata fields in page one of the Metadata Editor, use the tab key to select among the following: Take List > Scene > Take > Notes.

Editing Take Metadata

Metadata for single takes or a whole list of takes are editable with Wave Agent. *See Appendix 1 - Metadata Implementation Chart to see which metadata can be edited and which can be batch-edited in Wave Agent.*

Editing an Individual Take

To view and edit an individual take:

- 1. Highlight an individual take in the Take List by single-clicking it or by moving through takes with the up/down arrows. The metadata for the selected take is displayed in the Metadata Editor. To use the up/down arrows for selecting takes, click anywhere in the Take List.
- 2. Modify the contents of editable metadata fields, then save changes by clicking the Save button or by using Ctrl + S (Windows) or Apple + S (MAC). If a different take is selected from the Take List without first clicking the Save button, a warning dialog box will prompt to discard the changes or return to take editing.





Windows OS

Mac OS

When editing a take of several sibling files, Wave Agent makes changes to all associated files.

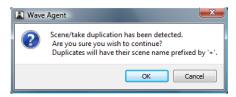
Batch Editing

To edit a batch of takes:

- 1. Select multiple takes in the Take List. See Selecting Multiple Takes in the Take List. The metadata for the last selected take is shown in the Metadata Editor.
- 2. Modify the contents of any editable metadata field, then save the changes by clicking the Save button or by using Ctrl + S (Windows) or Apple + S (MAC). Changes will be made to all selected takes. If a different take is selected from the Take List without first clicking the Save button, a warning dialog box will prompt to discard the changes or return to take editing.

Preventing Duplicate Takes

When metadata edits are saved, Wave Agent scans the Take List for files with duplicate scene/take combinations. If a duplicate is detected, a dialog box prompts to continue or cancel the edit.





Windows OS

Mac OS

Click OK to continue. Wave Agent will prefix a duplicate take's scene name with the + symbol. This makes it easy to identify which takes are duplicates.

Tip: Sort by Scene Name to group all duplicate takes together in the take list.

Click Cancel to return all metadata to its original state.

Editing Track Name and Function

Track Names and Functions can be viewed and edited from within the Metadata Editor. To edit Track Names and Functions.

- 1. Select a take or multiple takes by highlighting them in the Take List.
- 2. Locate the Track Info section of the Metadata Editor. Click the Track Name or Track Function text field for the desired channel to be edited.
- 3. A text cursor will appear, edit the Track Name and/or Function.
- 4. Deselect the edited text field by clicking elsewhere or pressing the Enter or Tab keys.
- 5. Save edits by clicking the Save button or by pressing Ctrl + S (Windows) or Apple + S (MAC).

Batch Track Info editing is only applied to Takes with the same number of channels.

Editing Sampling Rate and Frame Rate

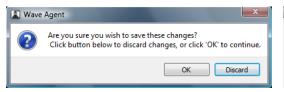
A file, or group of file's, Sampling Rate and Time Code Frame Rate stamps can be changed from their originally recorded value. Changing one or both of these parameters alters the file's time code metadata. Additionally, changing the File Sampling Rate alters the file's playback speed. This feature can be used to resolve various post-production problems, but it can also cause problems if misused. *Please use with caution!*

Before editing the File Sample Rate or Frame Rate, check or uncheck the Preserve Start TC check box. When the box is checked, changing the frame rate or sampling rate does not alter the Start TC (HH:MM:SS:FF); Wave Agent recalculates the Samples Since Midnight stamp to preserve the Start TC. By preserving the Start TC, synchronization with cameras and other time code equipment is maintained. Preserve Start TC is checked by default and should be for most situations.

When the check box is unchecked, changing the Frame Rate or Sampling Rate will recalculate the Start TC to preserve the Samples Since Midnight stamp. Do not use this method unless there is a specific reason to recalculate the Start TC value.

By altering the sampling rate Wave Agent can play back files over a wide range of standard and non-standard speeds.

To edit the Frame Rate click on the drop-down box and make a selection from the list. After you have made changes to the sampling rate and frame rate, click Save. A dialog box will prompt you to continue.





Windows OS

Mac OS



Playback at Different Speeds

By changing the file sampling rate metadata, Wave Agent can be used to playback takes at almost any speed. For instance, changing the sampling rate of a file recorded at 96 kHz to 48 kHz will make the take playback at half its originally recorded speed and pitch. This technique is often used for creating special sound effects. Non-standard file sampling rates can be set too.

To set a non-standard sample rate:

- 1) In the file sample rate box, manually type a number from 2,000 (2 kHz) to 200,000 (200 kHz), then press ENTER.
- Click Save to apply the sampling rate change.

Playback speed is limited by the hardware capabilities of the computer's sound card.

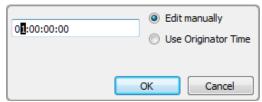
Editing Start Time Code Values

Start Time Code values can be viewed and edited from within the Metadata Editor. Standard WAV files without time code will have a default Start TC stamp of 00:00:00:00 when imported into Wave Agent. Standard WAV files imported and saved in Wave Agent will be converted to Broadcast WAV files (with WAV extensions). This means the file will have additional file information called metadata (iXML and bEXT) written to the file's header.

Batch editing of Start Time Code values is not supported. If multiple takes are highlighted in the Take List, the new Start Time Code value will only apply to the take currently loaded in the Metadata Editor.

To edit the Start Time Code value.

- 1. Select a take by highlighting the take in the Take List.
- 2. Click the EDIT button located in the Start TC field of the Metadata Editor.
- The Start TC Edit Window will appear, select to Edit Manually (proceed to step 4a) or Use Originator Time (proceed to step 4b).



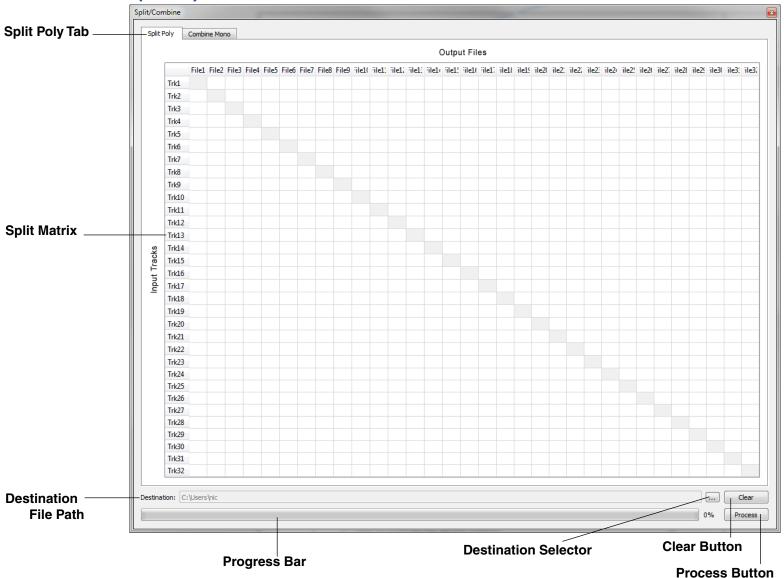
- 4a. If Edit Manually is selected, enter a time code value using two digits in each time field HH:MM:SS:FF. Hours should not exceed a value of 23, minutes and seconds should not exceed a value of 59, and frames should not exceed one less of the value of the selected take's frame rate, for example, if the frame rate is set to 30 the value should not exceed 29. If the entered value is invalid a prompt will appear. Reenter the time code value with a valid time.
- 4b. If Use Originator Time is selected, the time code value will automatically be entered according to the take's originator time. If a Originator Time is not available a prompt will appear and the Start TC value will have to be entered manually (see step 4a).
- 5. Click OK to exit the Start TC Edit Window.
- 6. Click Save or Ctrl + S (Windows) or Apple + S (MAC) to save the changes.

The Split/Combine Window

The Split/Combine window enables the splitting (de-interleaving) of polyphonic files and combining (merging or interleaving) of monophonic sibling files into a single polyphonic file. Up to 32 tracks per take are supported.

The split and combine functions apply to all takes in the Take List except Combine Mono Manual mode.

The Split Poly Window



Wave Agent supports up to 32 tracks per take for all functions (split, combine, playback). Split/Combine screen shots in this guide show less tracks for visual formatting purposes. The above screen shot illustrates what the entire Split/Combine screen looks like when expanded.



Split Poly Tab

Click to display the Split Poly window.

2. Split Matrix

Click in a cell to route an input track to a particular destination file. Blue highlighted cells indicate the current track-to-file routing.

3. Destination File Path

Displays the destination for the processed split files.

4. Destination Selector

Click to browse for a folder destination for the processed split files.

5. Clear Button

Clears the matrix.

6. Process Button

Click to begin processing of all takes in the Take List.

7. Progress Bar

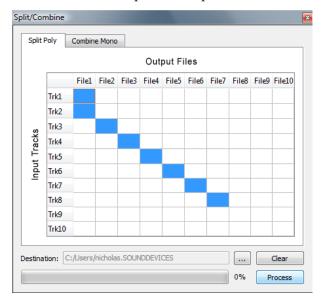
Displays the progress of the operation.

Splitting Polyphonics

Using the The Split Poly panel polyphonic WAV files selected from the Take List can be separated into mono files. The matrix defines how tracks are grouped and split. The matrix allows splitting into almost any combination of poly and mono files. To split poly files:

- 1. Select the Split Poly tab in the Split/Combine panel.
- 2. Select a destination directory for the split files.
- 3. To route a particular input track to a particular output file, click in the relevant matrix cell.

For Example, an 8-track poly file comprising of a stereo mix on tracks 1 and 2 and ISO tracks on tracks 3-8 was recorded. Using Wave Agent's Split Poly feature the file can be split into one stereo poly file for the mix (tracks 1 and 2) and six mono files for the ISOs (tracks 3-8). The following screen shot displays the proper cell selection for this particular split.



By default, track 1 is routed to file 1, track 2 is routed to file 2 etc. This results in one track per file, that is the poly is split into mono files only.

Wave Agent automatically names each resulting split file with a suffix that identifies the tracks that it contains. For example, when an 8-track poly file named S001T01.wav is split into four 2-channel poly files (tracks 1-2, tracks 3-4, tracks 5-6, tracks 7-8), the resulting file names are:

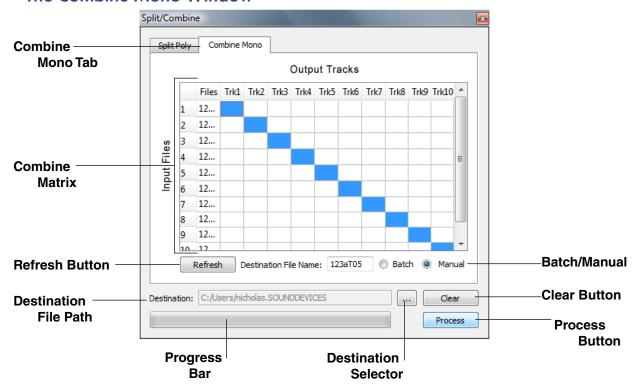
S001T01 1 2.wav

S001T01_3_4.wav

S001T01_5_6.wav

S001T01_7_8.wav

The Combine Mono Window



1. Combine Mono Tab

Click to display the Combine window.

2. Combine Matrix

Click in a cell to route an input mono file to an output track of the destination file.

3. Destination File Path

Displays the destination for the combined files.

4. Destination Selector

Click to browse for a folder destination for the combined files.

5. Clear Button

Clears the matrix.

6. Process Button

Click to begin the combine process.

Combining Files

The Combine Mono feature is used to join separate, related monophonic WAV files into a single polyphonic WAV file. It can also be used to change the order of tracks; this is particularly useful for moving a mix track so that it appears as the top track in a picture editor's timeline, which is typically an editor's preference. Before combining files Wave Agent automatically assesses whether mono files are originally from the same take. Up to 32 tracks per take are supported.

There are two methods for combining files in Wave Agent.

- Automatically batch combine all files in the Take List
- Manually select which files to combine

To batch combine files:

- 1. Import the required WAV files into the Take List.
- 2. Select the Combine Mono tab in the Split/Combine panel.
- 3. Select Batch.
- 4. Choose a destination folder for the target files.
- 5. Route each input mono file to an output track of the destination poly file by clicking in the relevant matrix cells. A blue-filled cell indicates the current routing.

In batch mode, target files are automatically named by appending track number ID's separated by underscores to the end of the original file name.

For example, if mono files S001T1_1.wav, S001T1_2.wav, S001T1_3.wav and S001T1_4.wav which represent tracks 1 through 4 are combined, the resulting polyphonic file is named S001T1_1_2_3_4.wav. Tip: If desired, change the filename S001T1_1_2_3_4.wav to S001T1.wav using the rename function.

To manually combine files:

- 1. Import the required WAV files into the Take List
- 2 Select the Combine Mono tab in the Split/Combine panel
- 3. Select Manual.

7. Progress Button

Indicates file operation progress.

8. Destination File Name

Enter a name for the resulting combined file when Manual combining is selected.

9. Batch

Select to have Wave Agent automatically process all files in the Take List.

10. Manual

Select to manually select and route mono files.

11. Refresh Button

Refreshes the matrix when the take list has been reloaded.

- 4. Choose a destination folder for the target file.
- 5. Enter a name for the target file in the Destination File Name box.



6. Manually select the files you would like to combine and route them to tracks by clicking in the relevant matrix cells. A blue-filled cell indicates the current routing.

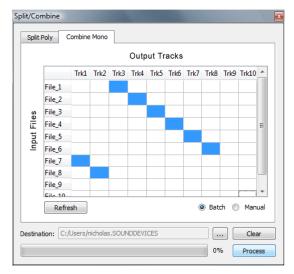
If unrelated files are selected for combining, Wave Agent will report "Selected Files cannot be combined".



Reordering Tracks While Combining

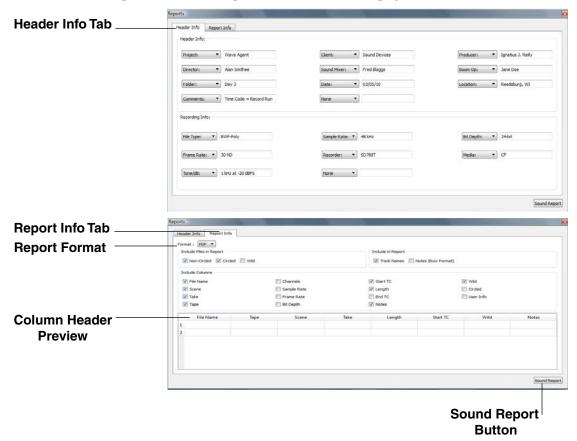
The Combine matrix allows you to reorder tracks. For example, a mix recorded on tracks 7 and 8 can be moved to tracks 1 and 2. This is sometimes required by AVID operators who like to have the mix tracks appear at the top in the Avid timeline.

For example, consider a take comprising of 8 monophonic files where tracks 7 and 8 represent a 2-channel mix and tracks 1-6 represent 6 ISO tracks. To move the 2-channel mix to tracks 1 and 2 and have tracks 1-6 shift up to tracks 3-8, select the cells as follows:



The Reports Window

The Reports window simplifies the task of creating sound reports. Sound Reports can be customized and exported as a PDF or a CSV (Comma Separated Value) file. *See Appendix 3 - Sound Report PDF Example.* The Reports window is separated into two tabbed pages:



Header Info Tab

Click to display, choose, and enter project, contact, and recording parameter details. Select the information to appear in each field of the Sound Report by clicking on the relevant drop down boxes.

Report Info Tab

Click to choose which column headers to include in the report. Select from File Name, Scene, Take, Tape, Channels, Sample Rate, Frame Rate, Bit Depth, Start TC, Duration, End TC, Notes (in column or row format), Wild-track, Circled, and Track Info. Choose whether to include all the takes contained within the Take List or only the Circled, Non-Circled and/or Wild takes.

Report Format Selector

Selects the file format in which the Sound Report will be generated. Using the drop-down-menu, select between PDF or CSV. PDF Sound Reports will only contain fifteen column headers, this includes the Track Info columns. CSV Sound Reports have no column header limitations and are commonly imported into applications designed to manage spreadsheets.

Column Header Preview

Previews the layout of the column headers selected in Include Columns.



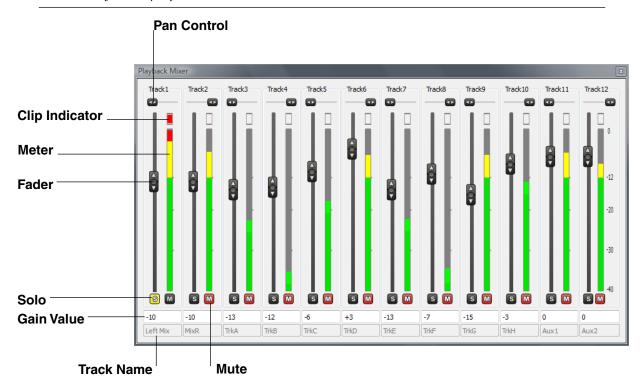
Sound Report Button

Click to create your own customized Sound Report. See Appendix 3 - Sound Report PDF Example.

The Playback Mixer

The Playback Mixer provides multi-channel monitoring, metering, and adjustment of files while playing back. Up to 32 tracks are supported. Faders and left-center-right pan controls are usable in real-time to mix to the computer's default sound card. Channel solos and mutes apply to individual channels or groups of channels. Track names beneath the meter columns identify the source of each track. The Playback Mixer window can be set in the Preferences Menu to automatically open upon file Playback.

Meters always show pre-fader levels.



Pan Control

Each track can be panned left, center or right.

Clip Indicator

Displays clip/overload activity.

Meter

High-resolution pre-fade meters.

Fader

Drag up/down to change track gain from -48 dB to +12 dB.

Solo

Click to solo the track.

Gain Value

Displays the current gain value. Gain can be changed by entering a value between -48 dB and +12 dB.

Track Name

Displays the track name of the channel.

Mute

Click to mute the track.



Control Mode

Wave Agent Control Mode allows a Sound Devices 788T or 788T-SSD to be connected to Wave Agent over USB. When connected, Wave Agent can be used to display 788T track metering, time code, and various other settings. Wave Agent can also be used to start and stop recordings of the connected 788T and to enter or edit metadata for previous, current, and upcoming takes. The 788T does not send any audio to Wave Agent over the USB connection. 788T audio is still monitored locally from the 788T. Wave Agent does not send any audio to the computer's sound card while in Control Mode.

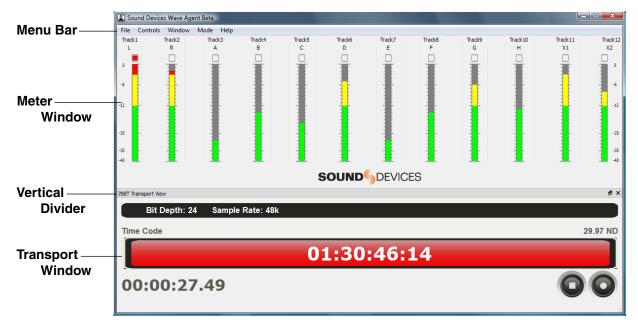
Control Mode option is grayed out and unavailable when the 788T is not properly connected or if the 788T connected is running a revision of firmware that is not compatible with the software revision of Wave Agent. It is best practice that both Wave Agent and the 788T are running the latest software revisions.

The 788T C. Link In port is disabled when the Setup Menu FireWire/USB: Connection is set to Connect to Wave Agent. 788T Multi-Unit Linking and Sound Devices CL-1 and CL-2 accessories are not supported when this mode is selected.

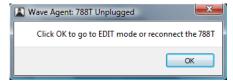
To connect the 788T (v. 2.10+) to Wave Agent Beta, perform the following steps.

- 1. Enter the 788T Setup Menu option FIREWIRE/USB: CONNECTION.
- 2. Select the **CONNECT TO WAVE AGENT (USB ONLY)** option.
- 3. Connect a USB cable to the 788T USB-B port and to one of the computer's USB-A ports.
- 4. Launch Wave Agent Beta.
- 5. Click on the Mode pull-down menu. Select the Control Mode option. The Control Mode option is grayed out and unavailable when the 788T is not properly connected.

There are three windows in Control Mode, the Meter Window, Transport Window, and 788T Take List Window. By default the Meter and Transport windows are docked together. The Meter Window is the main window, closing this window will exit Wave Agent altogether. To close the Transport Window click on the X located on the right hand-side of the Vertical Divider. To separate it from the Meter Window click and drag it away from the Meter Window or click the "Restore Down" icon adjacent to the X. Each window can be resized to the user's preference.



The following warning screen appears when the USB connection between the computer and the 788T is disrupted. Click OK to exit to Edit Mode, or reestablish the USB connection for Control Mode.



Things to Consider When Using Wave Agent Control Mode

The following is a list of recommended practices for best performance when using the 788T/Wave Agent Control Mode System.

- Be certain both Wave Agent and the 788T are running the latest version of software.
- Record to one or two media.
- Record polyphonic files.
- Record to fast media such as hard drives, solid state drives, and high performance CompactFlash cards.
- Format 788T media on a regular basis.
- Wait for the System Status messages in the Wave Agent Take List to clear before making additional edits.
- Make metadata edits while the 788T is in standby mode, this is the most efficient time to make
 edits to previously recorded takes. Editing previously recorded takes while recording, requires
 having multiple files open at the same time which increases the chance of a media slow error.

Control Mode Meters Window

The Meters Window allows the user to view metering of all 12-tracks of the connected 788T.





Menu Bar

Accesses the drop-down menus for various commands and functions available in Control Mode. See Control Mode Menu Bar for more details.

Track Indicator

Displays the track number and letter of the corresponding 788T track.

Clip Indicator

Displays clip/overload activity.

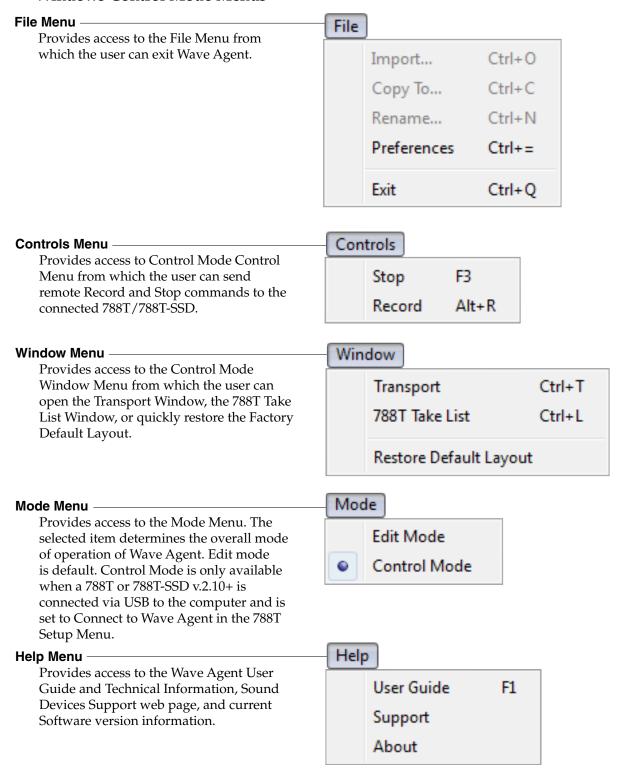
Meter

High-resolution track meters. The ballistics and peak hold time follow the settings of the connected 788T.

Control Mode Menu Bar

Accesses the drop-down menus for various commands and functions while in Control Mode.

Windows Control Mode Menus



Mac Control Mode Menus

Wave Agent Menu **Wave Agent** Provides access to the Wave Agent About Wave Agent Menu. From this menu: Preferences... Ж, • View Software version information Services • Access the Preferences Menu Access to Mac Services Menu Hide Wave Agent жн • Hide/show Wave Agent or other Hide Others H#Tapplications Show All • Exit Wave Agent Quit Wave Agent #Q File Menu File Provides access to the Control Mode Import... 20 File Menu, all items are grayed out Copy To ... #C when in Control Mode. Rename... ₩N Controls Menu -Controls Provides access to Control Mode Control Stop F3 Menu from which the user can send Record ₹R remote Record and Stop commands to the connected 788T/788T-SSD. Window Menu Window Provides access to the Control Mode Transport жт Window Menu from which the user can 788T Take List ЖL open the Transport Window, the 788T Take List Window, or quickly restore the Restore Default Layout Factory Default Layout. Mode Menu Mode Provides access to the Mode Menu. The Edit Mode selected item determines the overall mode ✓ Control Mode of operation of Wave Agent. Edit mode is default. Control Mode is only available when a 788T or 788T-SSD v.2.10+ is connected via USB to the computer and is set to Connect to Wave Agent in the 788T Setup Menu. Help Menu Help Launches the Wave Agent User Guide or Search (Sound Devices Technical Support web User Guide page. Support

Control Mode Transport Window

The Control Mode Transport Window allows the user to view the rolling time code value, A-time (absolute time), time code frame rate, bit depth, and sampling rate status of the connected 788T. From the Control Mode Transport Window the user can also start and stop recordings of the connected 788T.



Bit Depth

Displays the Bit Depth setting of the connected 788T.

Sample Rate

Displays the Sample Rate setting of the connected 788T.

Time Code Counter

Displays the HH:MM:SS:FF (Hours: Minutes: Seconds: Frames) of the time code generated or received by the connected 788T. When the 788T is playing back a file, the time code display continues to show the generated or received time code value.

Frame Rate Indicator

Displays the time code frame rate of the connected 788T.

Absolute Time Counter

Represents time elapsed from the beginning of the take. This is available during 788T playback and for recordings in progress.

Record Indicator

Display is red when the connected 788T is in record mode.

Stop Button

Stops recording and playback of the connected 788T.

Record Button

Duplicates the Record button of the connected 788T.

Control Mode 788T Take List Window

The Control Mode 788T Take List Window allows the user to view, enter, or edit metadata for previous, current, and upcoming takes of the connected 788T. The 788T Take List Window is not displayed by default, it must be opened by selecting it from the pull-down Control Mode Window Menu or by pressing Ctrl + L for Windows or Apple + L for Mac. Just like the actual 788T Take List, any changes are applied to all sibling files and across all available media where the take was recorded.

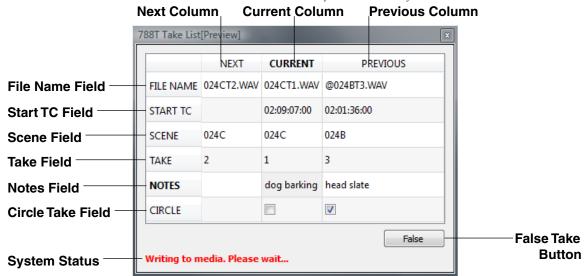
The time it takes to build the Take List depends on how many files are on the attached media. Recording while the Take List is building will slow the process down and the application may need to be restarted.

By default the Take List displays three takes, Next, Current, and Previous takes. To display ten takes in the Take List navigate to Wave Agent Preferences and select Show Last 10 Takes then click Apply.

Wave Agent supports "copy and paste" action in the Control Mode Take List, this allows for quick metadata edits for cells with common entries.



Tip: When viewing the 788T Setup Menu option Rec: Scene Name/Number you can use the Wave Agent Control Mode Take List Next Scene column to create multiple new entries for scene names.



Next Take Column

This column displays information for the take that will be generated upon pressing record.

Current Take Column

This column displays information for the take that is either currently recording or the last take recorded, depending on the state of the 788T. The Current column header text is red when the 788T is in record mode and returns to black when the recording is stopped.

Previous Take Column

This column displays information for the take recorded prior to the current take.

PREV-1 - 7 Take Columns (not shown)

These columns appear when set to Show Last 10 Takes in the Wave Agent Preferences Window. They display information for previously recorded takes.

File Name Field

Displays the File Name for the Next, Current, and Previous takes. The Next File Name contains an "_X" when set to recording mono.

Start Time Code Field

Displays the Start Time Code value for the Current and Previous takes.

Scene Field

Displays the Scene Name for the Next, Current, and Previous takes, click in the cell to edit the Scene Name. All text is automatically converted into upper case characters. If the Current Scene Name is edited the Next Scene Name is also updated. The 788T must be in Standby mode to edit the Next Scene Name.

Take Field

Displays the Take Number for the Next, Current, and Previous takes, click in the cell to edit the Take Number. The cells only allows the entry of number characters. Editing the Next Take's Scene Name will automatically reset the Take number if set to do so in the 788T Setup Menu. If the Current Take Number is edited the Next Take Number is also updated.

Notes

Displays the Notes for the Next, Current, and Previous takes, click in the cell to enter or edit the Notes.

Circle Take Field

Displays the Circle status of the take, click in the box or press the space bar when the Circled cell is highlighted to mark/unmark a take as circled.

System Status

Displays various messages when the system is busy. Wait for messages to clear before making any additional edits to ensure all edits are saved and changes have been applied.

False Take Button

Highlight any cell in the Current Take column while in stand by mode and click the False Takes button to send the Current Take to the media's FALSETAKES folder and decrement the take number by one. False Take cannot be performed on takes that have been edited.

Control Mode Take List Navigation

Action	Behavior
Mouse Single Click	Highlights a cell.
Mouse Double Click	Highlights a cell and enters text editing (if applicable).
Enter	Saves and exits text edits. Enters text editing for the highlighted cell (Mac Only).
Esc	Exits text edits without saving.
Up Arrow	Highlights the cell above.
Down Arrow	Highlights the cell below.
Left Arrow	Highlights the cell to the left or moves text cursor to the left.
Right Arrow	Highlights the cell to the left or moves text cursor to the right.
Tab	Highlights the cell to the right. If Tab is pressed from a text edit, the changes will be saved and the text editor for the next cell will automatically be entered.
Shift + Tab	Highlights the cell to the left. If Shift + Tab is pressed from a text edit, the changes will be saved and the text editor for the previous cell will automatically be entered.
Space	Toggles circle status of the highlighted cell.

Appendix 1 - Metadata Implementation Chart

Metadata	Read	Edit	Batch Edit
GENERAL INFO			
Current Name / File Name *See Note Below	V	~	V
Channels	~		
Project	~	· ·	V
Roll (Tape)	V	✓	V
Scene	~	✓	V
Take	~	V	
Circle Take	~	✓	V
Wild Track	~	✓	V
RECORDING INFO			
File Sample Rate	~	✓	V
Bit Depth	~		
Digitizer Sample Rate	✓		
TC Frame Rate	~	✓	✓
Start Time Code (Samples since Midnight)	~	V	Updated by Wave Agent
Duration	~	Updated by Wave Agent	Updated by Wave Agent
U-Bits	~	✓	✓
Time Code Sample Rate	~	Updated by Wave Agent	Updated by Wave Agent
TRACK INFO			
Channel Index	✓	Edited when splitting and combining	Edited when splitting and combining
Interleave Index	V	Edited when splitting and combining	Edited when splitting and combining
Track Function	~	✓	V



Track Name	✓	✓	✓
Notes	V	V	V
ORIGINATOR INFO	•		
Originator	·	Generated when converting a standard WAV to a BWF	Generated when converting a standard WAV to a BWF
Creation Date	V		
Creation Time	V		
Originator Reference	V	Generated when converting a standard WAV to a BWF	Generated when converting a standard WAV to a BWF
Software Revision	Reads Sound Devices 7-Series software revision		
FILE SET INFO			
Family UID	V	V	V
Family Name	V		
Total Files	V	V	✓
File Set Index	V	✓	✓
HISTORY			
Original File Name	~	Generated when converting a standard WAV to a BWF	Generated when converting a standard WAV to a BWF
Parent UID	~	Created when splitting a polyphonic	Created when splitting a polyphonic
Parent Name	·	Created when splitting a polyphonic	Created when splitting a polyphonic
SYNC POINTS			
Туре	V		
Function	V		
Comments	V		
TC	V		
Duration	V		

The Current Name is the name of the file stored within the BEXT/IXML metadata. File Name is the actual file name as seen when exploring computer directories. Normally Current Name and File Name should be the same. If they are different, it highlights an inconsistency that should be resolved by Wave Agent. An inconsistency of this type will usually be caused when a file has been renamed using an application that does not update embedded metadata; for example, Windows Explorer or the Mac Finder.

Appendix 2 - Keyboard Shortcuts

Function	Windows Key Sequence	Mac Key Sequence
Save	Ctrl + S	Apple + S
Exit Wave Agent	Ctrl + Q	Apple + Q
Import	Ctrl + O	Apple + O
Сору То	Ctrl + C	Apple + C
Rename	Ctrl + N	Apple + N
Stop	F3	F3
Record (Control Mode Only)	Alt + R	Option + R
Play/Pause	Space Bar	Space Bar
Transport Window	Ctrl + T	Apple + T
Split/Combine	Ctrl + I	Apple + I
Reports	Ctrl + R	Apple + R
Playback Mixer	Ctrl + M	Apple + M
788T Take List (Control Mode Only)	Ctrl + L	Apple + L
Clear Take(s) from the Take List	Delete	Fn + Delete
Move Up through the Take List	Up Arrow	Up Arrow
Move Down through the Take List	Down Arrow	Down Arrow
Move between Metadata Fields See Navigating the Metadata Editor - Tab Behavior	Tab or Shift + Tab	Tab or Shift + Tab
User Guide	F1	Apple + ?
Preferences	Ctrl + =	Apple + ,
Hide Wave Agent		Apple + H
Hide Other Applications		Option + Apple + H

Sound Report

Appendix 3 - Sound Report PDF Example

Project: WaveAgent Director: Alan Smithee Folder: Day 3	Wave Age Alan Smit av 3	nt thee			Clier Sour Date	Client: Sound Devices Sound Mixer: Fred Date: 03/05/10	d Devices Fred Bloggs 0		Prod Boon	Producer: Boom Op: Location:	Ignatius J. Reil Jane Doe Reedsburg. W	Ignatius J. Reilly Jane Doe Reedsburg W.	<u>~</u>			
Comments: Time Code = Record Run	s: Time(Code = F	Record	Run	He .	HIE Type: BWF-Roly	WF-Poly		Sam	~	48	48 K-F				
Bit Depth: Media: OF	24-bit F				Fran Tone	Frame Rate: 30 ND Tone/dB: 1 kHz at -2	Frame Rate: 30 ND Tone/dB: 1 kHz at -20 dBFS		R eco	Recorder:	SD788T	L				
File Name	Таре	Scene	Take	Length	Start TC	WT Circ Notes	Notes	F	멑	됸	互	न्ध	92	4	8	
104AT01	10Y03M05 104A	104A	10	00:01:08	01:00:00:00		traffic noise at end	MixL	MixR	Boom	nd	Matt	J.	Radio4	Boundary	
104AT02	10Y03M05 104A	104A	05	00:00:45	01:01:08:00		NG	Mix	MixR	Boom	nop	Matt	li n	Radio4	Boundary	
@104AT03	10Y03M05 104A	104A	03	00:01:13	01:01:53:00	>-		Mix	MixR	Boom	nd	Matt	J.	Radio4	Boundary	
104AT04	10Y03M05 104A	104A	8	00:01:31	01:03:06:00	>	atmo	Mix	MixR	Boom	nop	Matt	Ji n	Radio4	Boundary	
104BT01	10Y03M05 104B	104B	10	96:00:00	01:04:37:00		wind noise	Mix	MixR	Boom	of	Matt	Jim	Radio4	Boundary	_
104BT02	10Y03M05 104B	104B	05	00:00:56	01:05:13:00		NG	Mix	MixR	Boom	nop	Matt	u <u>i</u> r	Radio4	Boundary	_
@104BT03	10Y03M05 104B	104B	03	00:00:44	01:05:39:00	>		MixL	MixR	Boom	nd	Matt	Jim	Radio4	Boundary	
104CT01	10Y03M05 104C	104C	01	00:00:49	01:06:23:00		NG	Mix	MixR	Boom	nop	Matt	Jim	Radio4	Boundary	
104CT02	10Y03M05 104C	104C	02	00:00:41	01:07:12:00		helioopter noise	MixL	Mix	Boom	Jon	Matt	Jim	Radio4	Boundary	
@104CT03	10Y03M05 104C	104C	03	00:00:48	01:07:53:00	>		Mix	MixR	Boom	nor	Matt	Jim	Radio4	Boundary	"
104CT04	10Y03M05 104C	104C	8	00:00:53	01:08:41:00		NG	Mix	MixR	Boom	hor	Matt	Jim	Radio4	Boundary	_
105AT01	10Y03M05 105A	105A	01	00:00:16	01:09:34:00		coughing	Mix	MixR	Boom	nop	Matt	Jim	Radio4	Boundary	
@105AT02	10Y03M05 105A	105A	05	00:00:21	01:09:50:00	>-		Mix	MixR	Boom	of	Matt	Jim	Radio4	Boundary	
105AT03	10Y03M05 105A	105A	03	00:00:40	01:10:11:00	>	atmo	Mix	MixR	Boom	nop	Matt	Jim	Radio4	Boundary	
@105BT01	10Y03M05 105B	105B	10	00:00:34	01:10:51:00	>		MixL	MixR	Boom	nd	Matt	Jim	Radio4	Boundary	
105BT02	10Y03M05 105B	105B	05	00:00:22	01:11:25:00		NG	Mix	MixR	Boom	nop	Matt	Jim	Radio4	Boundary	
105BT03	10Y03M05 105B	105B	03	00:00:11	01:12:20:00		car alarm	Mix	MixR	Boom	м	Matt	Jim	Radio4	Boundary	
105BT04	10Y03M05 105B	105B	8	00:00:40	01:12:31:00		NG	Mix	MixR	Boom	nor	Matt	Jim	Radio4	Boundary	
105CT01	10Y03M05 105C	105C	10	00:00:37	01:13:11:00		NG	Mix	MixR	Boom	Jon	Matt	Jim	Radio4	Boundary	
105CT02	10Y03M05 105C	105C	05	96:00:00	01:13:48:00		minor wind noise at end	Mix	MixR	Boom	nd	Matt	L m	Radio4	Boundary	
105CT03	10Y03M05 105C	105C	03	00:00:25	01:14:26:00		coughing	Mix	MixR	Boom	nop	Matt	Jim	Radio4	Boundary	
@105CT04	10Y03M05 105C	105C	8	00:00:38	01:14:51:00	>		Mix	Mix	Boom	lon	Matt	Ē	Radio4	Boundary	=

