



Sound Byte Version 4.3.1 October 24, 2012

Sound Byte is a computerized cart machine program. It is very similar to the so-called cart machines used at radio stations in the past. Each clip (recording) - a jingle, advertisement, etc, was on a cartidge, which could be quickly selected and played. Following this introduction are chapters that explain how to use **Sound Byte**.

Sound Byte brings the cart machine to the computer age. You can assign select up to 75 recordings to a rack, and assign each to a button. Clicking on a button plays that recording. Multiple recordings can be played at the same time.

Sound Byte handles all of the audio formats supported by QuickTime, including:

- AIFF
- WAV
- AU
- MP3
- AAC/m4a

Sound Byte is the perfect application to use whenever you need to quickly and easily play a variety of recorded sounds.

Possible Uses:

Radio Stations - jingles, advertisements, PSAs, songs, announcements, and more.

Plays and radio/TV productions - perfect for playing sound effects.

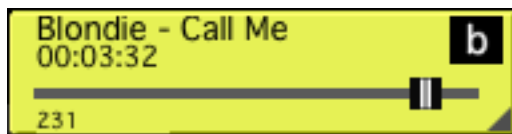
DJs - set up your play-list for the evening.

Sporting events - play sound effects when the home team scores, etc.

Rack Window:

When you start the program, you'll see a window with 75 buttons, arranged in a 5 by 15 array. The buttons will be empty, until you add a sound file.

Each button represents one sound file (clip) that may be played. This window is also called a “rack” - a term from back in older days of radio when recordings (songs, stations jingles, advertisements, etc) were all stored on cartridges, or carts for short. The carts were all kept on a rack. To play a song or ad, the DJ would grab the cart, plug it in, and play it. Many consoles allowed several carts to be queued up ahead of time, so the next one would always be ready to play.



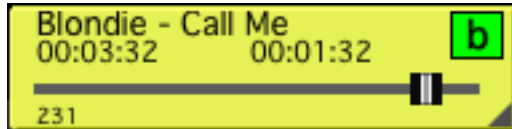
The top line of each button shows the title of the recording. By default it is the name of the file, but you can change it. Below this the length of the recording is shown, in Hours:Minutes:Seconds. At the bottom of the button is a volume control, so you can set the playback level for that particular recording. In the upper right corner of the button is an indicator that is normally black, and turns green when the recording is playing. Inside this, the hotkey character for the recording is shown. Each button can be assigned a hotkey, typing this key starts (or stops) the recording. You can also start a recording by clicking on the button. Click on the indicator, or the upper part of the button. Don't click on the volume slider area. You can stop playback by clicking on the green indicator, or typing the hotkey again.

You can also navigate the carts by using the arrow keys. The up, down, left, and right keys will advance from the currently playing cart to the adjacent cart, and start it playing. You can also use the space bar to play the next (to the right) cart. This is handy if you need to play a sequence of carts in a row in order. Just set the up in the rack in the correct order, and hit the spacebar to start the next one. If you're already in the right most column, hitting the space bar again will jump to the cart in the left most column of the next row.

If the buttons are too small, you can use the Change Cart Size item in the

Action menu to display larger sized carts.

Here's what a button looks like when the recording is playing:



The second line now shows the elapsed playback time as well.

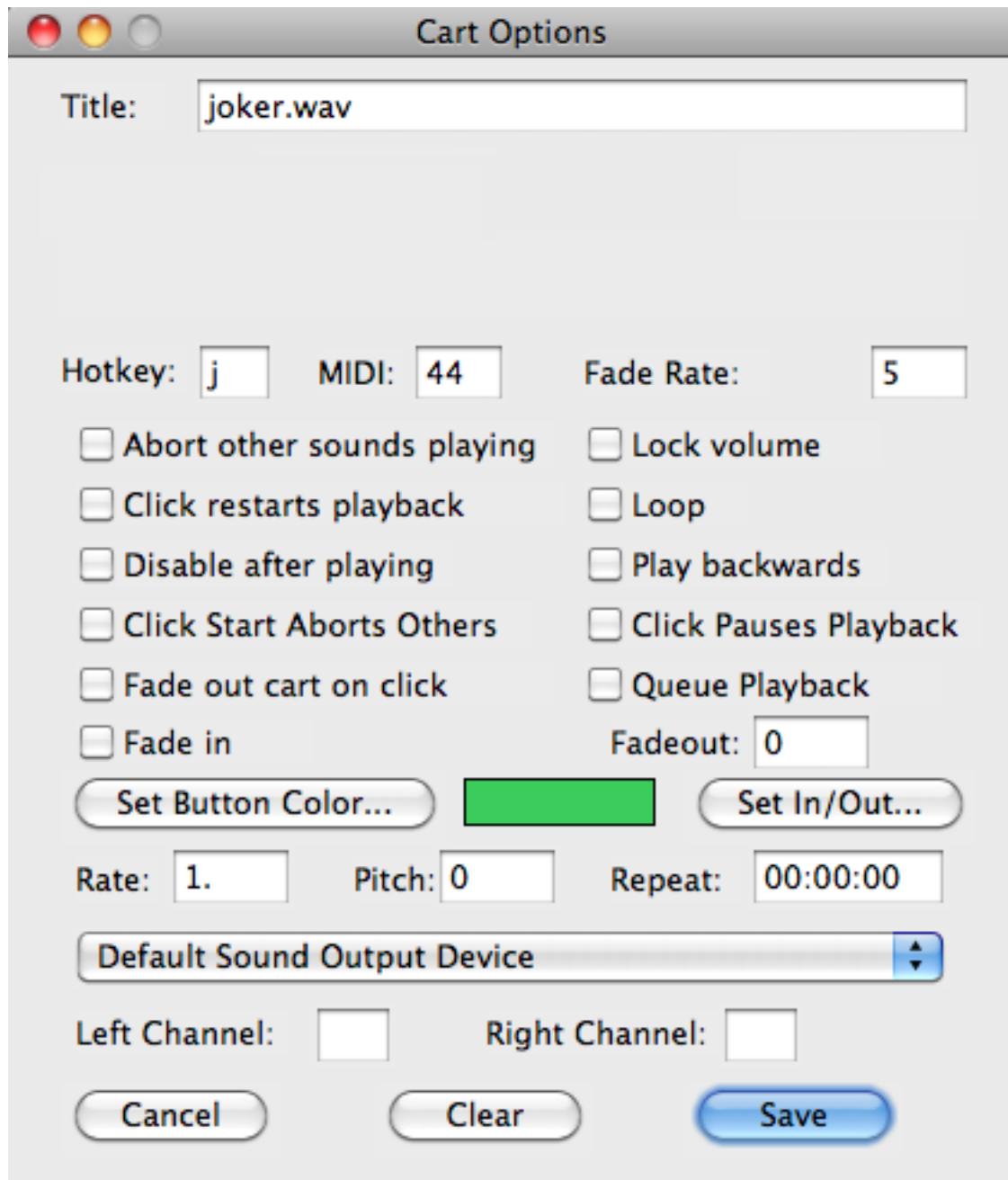
Clicking on the Mute button (or selecting Mute from the Edit menu, cmd-T) will mute any currently playing carts, which is handy during a voice-over, etc.

Also be sure to check the section on Preferences, which can set some useful features of Sound Byte.

There are two ways to assign a clip to a button. The first, and easiest way is to just drag the sound file into the button.

Holding down the shift key when you drop the file will change the file that is played, but keep the button color, text, hotkey, etc all the same.

To change the details of a cart button, right click on it, or, you can click on the button while holding down the command key (the alt key under Windows). This will bring up the a window called "Cart Options", shown below:

A screenshot of a 'Cart Options' dialog box. The title bar shows three window control buttons (red, yellow, grey) and the text 'Cart Options'. The main area has a 'Title:' label followed by a text field containing 'joker.wav'. Below this are three input fields: 'Hotkey:' with 'j', 'MIDI:' with '44', and 'Fade Rate:' with '5'. There are two columns of checkboxes. The left column includes 'Abort other sounds playing', 'Click restarts playback', 'Disable after playing', 'Click Start Aborts Others', 'Fade out cart on click', and 'Fade in'. The right column includes 'Lock volume', 'Loop', 'Play backwards', 'Click Pauses Playback', and 'Queue Playback'. Below the checkboxes is a 'Fadeout:' label with a text field containing '0'. There are two buttons: 'Set Button Color...' followed by a green color swatch, and 'Set In/Out...'. Below these are three input fields: 'Rate:' with '1.', 'Pitch:' with '0', and 'Repeat:' with '00:00:00'. There is a dropdown menu labeled 'Default Sound Output Device'. At the bottom are three buttons: 'Left Channel:' followed by an empty text field, 'Right Channel:' followed by an empty text field, and a row of three buttons: 'Cancel', 'Clear', and 'Save'.

The name of the file is automatically used as the button title. If you'd like to change the title, type the name you'd like to assign to this sound clip in the field called Title. You'll want to do this **after** you select the sound file, or the name you've typed in will get replaced by the name of the sound file, and you'll have to enter it in again.

If you select the **Abort other sounds playing** option, then whenever you

play this sound, any other sounds that are currently playing will automatically be stopped. This can be much more convenient than having to manually stop the other sounds that may be playing.

When **Click restarts playback** is checked, a cart will restart playback from the beginning when clicked, rather than stop playback.

If you select the **Loop** option, then when the sound is done playing, it will automatically be re-played.

If you select the **Disable After Playing** option, then when the sound is done playing, the cart will automatically be disabled. It will appear faded in the Rack, and you won't be able to play it again until you've selected the Reset Disabled Carts option in the Edit menu. This is useful when you only want to play a sound once, and don't want to accidentally play it again, and want to make it so that unplayed sounds are more obvious in the Rack window.

The **Play Backwards** option will cause playback to start at the end of the recording, and it will be played backwards. Note that there may be some clicking or other distortions to the sound when this option is used, nothing can be done about that. Please be sure to fully test this option before using it in a production setting, if it is important to you.

The **Click Start Aborts Others** option, when enabled, will stop playback of any other carts which are playing, when this cart is clicked to start playback. This works the same as the option in the Sound Byte preferences, but allows a cart-by-cart control of this feature.

The **Click Pauses Playback** option, when enabled, will pause playback of this cart when the cart button is clicked, rather than stopping playback which is the default operation. This works the same as the option in the Sound Byte preferences, but allows a cart-by-cart control of this feature.

If you select the **Lock Volume** option, then the volume slider can't be adjusted. This is to prevent accidentally changing the volume setting when you click on a cart to play it.

You can also assign a **hot key** to this sound. This allows you to play the clip by just typing that key, without using the mouse. Hot key's may include the shift key, that is, you can use both upper and lower case letters. If you'd

like to use one of the function keys (F1, F2, etc) type in the function key name (which must be in upper case). Note that some function keys have special uses with various operating systems, and may not be used.

Clicking on the "Set Button Color..." button lets you change the color of the button. This can be very handy if you want to color code buttons to make them easier to find. You'll get a color picker window, with lots of options, depending on which operating system you're running. Select the color, then click on OK.

If you want to change several carts to the same color, the easiest way is to change one of them, then select Copy Cart Color under the Maintenance menu. An open hand cursor will appear. Click on the cart with the color you wish to apply to other carts. The cursor will change to a closed hand. Then click on the other carts you wish to change to that color. When you're done, hit the ESC key, and the cursor will change back to the normal pointer. Note that you can only copy cart colors within one Rack, not between different Racks.

Set In/Out brings up another window, to allow you to precisely set the in and out times. Read further down under Set In Out Window for more details.

The **Fade Rate** field specifies how quickly the sound fades to silence when you select the Fade Current Cart item from the Edit menu. Larger numbers cause faster fades, and the fading rate is linear. A value of 1, for example, fades from maximum volume to complete silence in about 32 seconds. A value of 8 does the same fade in about 4 seconds.

Fadeout specifies when (referenced from the end of the track), the cart should automatically start to fade out. For example, 5 means that 5 seconds before the end of the track, it will begin to fade (at the specified Fade Rate).

You can check **Fade out cart on click** to have the cart fade out if it is clicked while it is playing.

Checking **Fade In** will cause the cart to fade in when it is played.

You can use the **Rate** value to change the playback speed. A value of 1 will play back at the normal speed. A value of 1.1 would be 10% faster than

normal, 2 would be double speed, etc. Negative values can be used for reverse playback, although the sound may be distorted.

The **Pitch** value, as expected, controls the pitch of the audio. Here, zero is normal pitch, a value of 1.0 would be an increase of one cent, 100.0 is one semi-tone up, and 1200.0 would be one octave higher. Negative values can be used to lower the pitch.

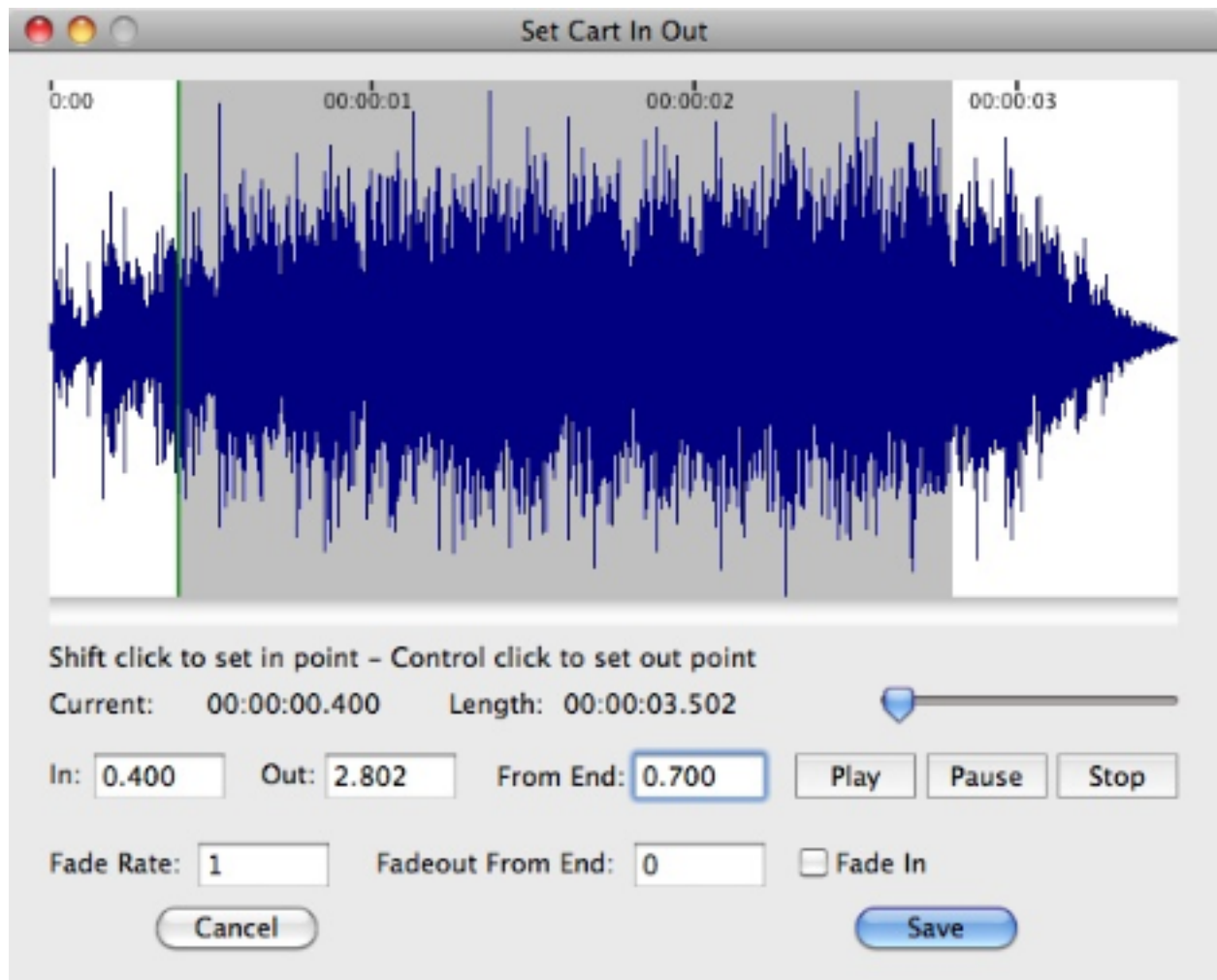
The **Repeat** value allows a cart to be automatically replayed. Enter in a time (in HH:MM:SS) as the repetition period. When you click on the cart, it will play normally. Then, after the repetition period, it will be played again, and so on. This can be used to play periodic announcement messages, etc. When this is active, the indicator box in the upper right corner will be blue, rather than the usual black. To stop the periodic playback, click on the cart again, and the indicator will turn back to black from blue.

The **MIDI** value allows you to specify which note on a connected MIDI keyboard will cause the sound file to play (it works just like a hotkey). You need to have MIDI enabled in the Sound Byte Preferences for this to work. Just hit the note on the keyboard and the value will appear in the entry box, or type in the note value.

Using the popup menu at the bottom of the window, you can select the sound output device to use, if you want the sound to play on a device other than the default. You can also specify the channel numbers to use (if your device has more than two output channels) for the left and right outputs. These settings will override any in the overall Sound Byte preferences.

When you're done, click on the OK button. Clicking on the Clear button will erase the button name and file association, essentially erasing the button entry.

Set Cart In Out Window



This window allows the cut in and out times for the cart to be precisely set. At the top of the window, the waveform for the sound file is displayed. The slider below and to the right allows the magnification level to be changed, letting you zoom in and out. You can also scroll around a zoomed in waveform use the scroll bar below it.

Shift clicking sets the in point, and control clicking sets the out point. The out point is referenced in two ways, first the time from the start of the file, and second from the end of the file. You can change either, and the other will also change appropriately.

The portion of the sound file that will actually be played is surrounded by gray.

The fade rate and fadeout time from the end of the file, as well as whether or not the sound file will fade in, can also be set.

The Play, Pause, and Stop buttons work as expect.

Drag and Drop

If you want to move buttons around (within the same rack), you can just drag one button on top of the other. They will automatically trade places. If you want to replicate a button, hold down the shift key as you drag it to a blank cart, and you will get a copy. If the destination cart is not blank, it will be overwritten. You need to grab the lower right corner of the cart to be able to drag it.

Playing a Sound

To play a clip, just click on the button, or type the hot key. The indicator in the upper right of the button will turn green, to show that the clip is playing.

The volume slider can be used to adjust the playback volume of the cart. You can also position the mouse cursor over the cart, and use the scroll wheel.

Clicking on the indicator while the clip is still playing will stop playback. You can have more than one clip play at the same time.

You can stop all currently playing clips by pressing the ESC (escape) key.

Holding down the control key while clicking on a button will bring up a window that will let you specify the starting point in the recording to begin playback. This is useful if you do not want to start playback at the beginning. After entering in the start time and clicking OK, the cart will be paused. Select Pause Playing Carts from the Edit menu (control or command U as the shortcut) to begin playback.

More About Racks

Under the Rack menu is a list of the racks available. To choose a new rack, just select it from the menu. The name of the rack can be changed by selecting "Rename..." from the Rack menu while that rack is the currently active window.

Your rack is automatically saved when you quit the program, or close it.

If instead of the volume slider, you'd rather see a progress bar showing the amount of the cart that has played so far, select Show Play Progress from the Edit menu. Each cart will now look like the following:



With this view enabled, you can click on the progress bar to set the playback position of the cart. You do this while it is playing, or before it plays, to cue the position, then click on the cart to start playback.

Clicking on the cart while holding down the shift and control keys will bring up a window to allow you to precisely cue the playback start time, down to the second.

You can select Show Volume Sliders to get the sliders back, or select Show Nothing if you'd rather see neither.

Selecting Max All Volumes from the Edit menu will set all volume sliders to the maximum volume.

Selecting Fade Current Cart from the Edit menu will fade the volume of the currently playing cart over a few seconds. This operation of this function is undefined if you have more than one cart playing. You can select the fade rate for each cart by cmd-clicking on the cart to bring up the editing window for that cart.

Selecting Pause Playing Carts from the Edit menu will pause the playback of all active carts. Selecting it again will start them playing from where they left off.

If you want to add several files to a rack at once, select all them, and drop them onto the small area labeled "Drop Files Here". Each file will be assigned to an empty cart button. You can always re-arrange the order of the carts by dragging them around, if they don't land in the order you wish.

Clicking the MUTE button will mute playback of carts. Clicking with TALK button will change the volume to a lower setting, you can adjust this setting while TALK is pressed, and it will be saved for the next time you press TALK.

This can be useful when doing a voice-over.

Queuing Carts

You can queue carts on a rack, so that as soon as one cart is done playing, the next queued cart will play. This lets you quickly and easily specify a sequence of carts to play, without having to manually start each cart at exactly when the previous cart ends.

To do this, you must enable queuing in the Sound Byte preferences if you would like to be able to queue all carts, or you must enable it on a cart by cart basis. When a cart (or all carts) are enabled for queuing, you lose the ability to play two or more of those carts at the same time.

When a cart is playing, if you click on another cart (or type the hotkey for it), that second cart will not start playing immediately, but will instead be queued. When the first cart is done playing, it will then start playback.

Carts that are queued will have a number displayed on the cart, in a large blue font, indicating the position in the queue. Number 1 means that cart will start playing immediately after the currently playing cart stops, queued cart 2 will play next, and so on. As the carts move up in the queue, the displayed numbers will update.

If you have two or more carts with the same hotkey, and type the hotkey to queue them, both will be queued, but they will not play at the same time. The first cart (as defined by highest row and leftmost column) will play first, then the next cart.

Archiving Racks

You can archive the contents of a rack (along with the referenced sound files). This archive can be used as a backup, or as a way to move an entire rack to another computer. Note that this feature is only available with the Regular and Pro versions of Sound Byte, not the Lite version.

To archive a rack, open and select that rack window, then choose Archive from the Management menu. You will be asked to specify the name of archive file to be created. The archiving process can take some time, depending on the size of the various sound files. A progress bar will update during the archiving process.

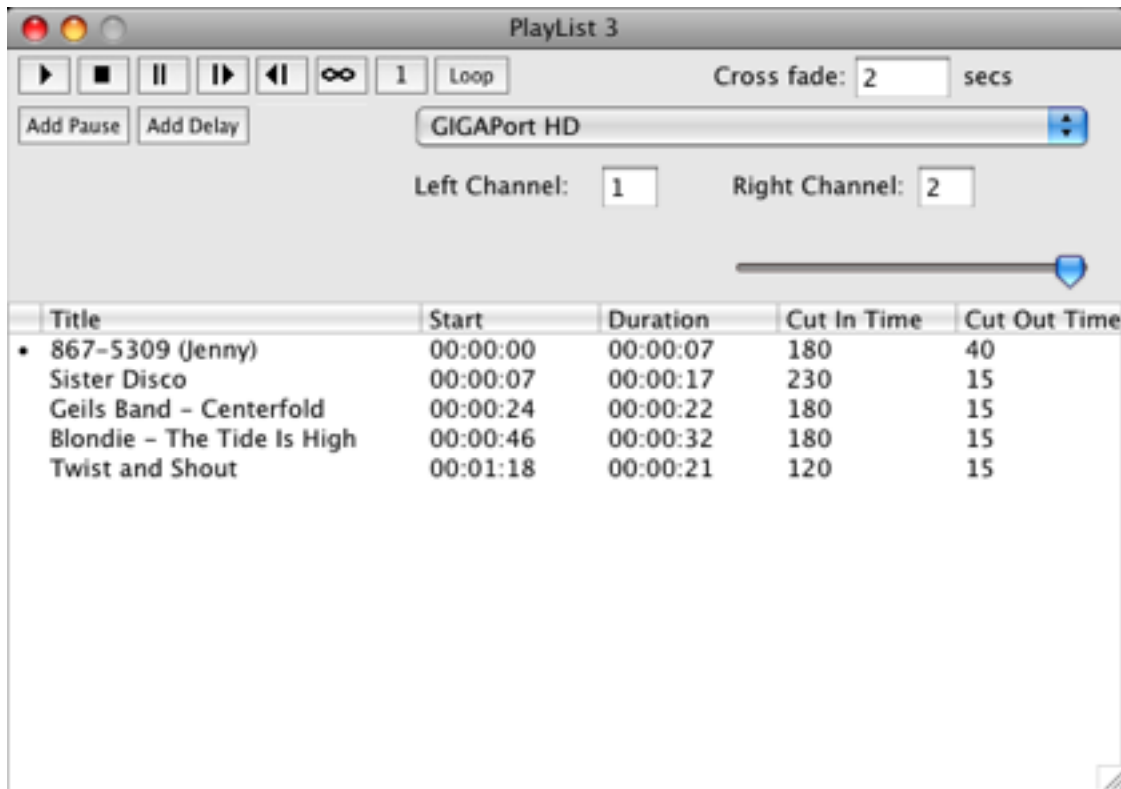
To unarchive, you need to open and select the rack window that you wish the archive file contents to be restored to. Note that all of the existing carts on that window will be erased (the referenced sound files themselves will not be affected). Select Unarchive from the Management menu. You will be asked to specify the name of archive file, and the destination folder, where the sound files will be stored.

By default, all of the sound files will have a four digit number prepended to their name. This is to handle the situation where the rack has carts that reference two or more sound files of the same name (but originally stored in different directories), so that the unarchived files do not overwrite each other. During the unarchiving process, you will be alerted to this renaming, and given the option to not perform it, if you wish, at your risk.

If you wish to move the rack to another computer, you need to copy the archive file to the second machine, which must have a licensed copy of Sound Byte installed. Then run Sound Byte, unarchiving the file as described above. Both copies of Sound Byte must be the same version number, and running on an Intel processor.

Play List

The Play List allows you to select cuts to play ahead of time, organize them in a list, and control their playback.



For each recording in the playlist, the title (name of recording file), length in Hours : Minutes : Seconds is shown, as well as how much time into the playback session that recording will start. A small black dot appears to the right of the title of the active (currently playing or next to play) recording.

To create a play list, select **New PlayList...** from the **File** menu. You'll be asked to name the play list. You can bring up a list of all of the playlists by selecting Show Play Lists Window from the File menu. Just double click on a playlist in that window to open it.

You can drag a cart over to the play list window from a button on the main window, or you can drag a sound file over directly from Finder. Drop it onto the "Drag Files Here" box to have them appended onto the end of the play list, or drag them into the position where you want them. You can always change the order of items in the play list up or down, by dragging the entries

around.

You can then drag additional cuts over. Dragging them after cuts already in the play list schedules them later. Dragging them onto an existing scheduled cut schedules them before that cut.

You can delete a scheduled cut by selecting it, and selecting **Delete Playlist Track** from the **Edit** menu. You can also re-arrange the order by dragging entries around.

The play list has seven buttons. Let's go through them in order from left to right:



Play - Clicking this button starts playback of the selected recordings, in order. A small dot is displayed next to the active (playing) cut.



Stop - Clicking this button stops playback. Clicking Play again will start the active recording, at the beginning.



Pause - Clicking this button pauses playback. Clicking Play will start it again, right where it left off, not at the beginning of the recording.



Skip - Clicking this button will stop playback of the currently playing recording, and start playback of the next. Think of it as a way to abort a cut, and jump right to the next one.



Rewind - Stops playback, and selects the first recording as the active recording. When play is clicked, the first recording will start playback.



Loop - When depressed, the loop button will cause the playlist to start over again, after the last cut is finished.



Play One Cut - Click once to select, again to de-select. When selected, only one recording will be played when Play is clicked. Pressing Play again will play the next recording. Useful to queue up several recordings in a row, and play them one by one, under your control as to when they start. For example, sound effects for a play or other production, etc.

Hitting either the spacebar or return/enter key when a playlist window is active will begin playback of the currently selected track.

The up and down arrow keys can be used to navigate up and down through the list of tracks.

The left arrow key will restart (or start) playback of a track.

The right arrow key will stop playback of the current track and start playback of the next track.

Add Pause - Clicking this button adds an entry called PAUSE PLAYBACK. You can drag this entry to position it wherever you wish, and you have several of these in a playlist. When playback reaches this entry, it will stop. You can then click the play button to start playback again with the next entry. This allows you to create a playlist for an extended time period, where you will only want to play a few tracks in a row, such as a series of commercials or other announcements, songs, etc.

Add Delay - Clicking this button adds an entry called DELAY PLAYBACK. You can drag this entry to position it wherever you wish, and you have several of these in a playlist. When playback reaches this entry, it will stop, then resume after a specified time period. This period defaults to 10 seconds, and may be changed by double clicking the DELAY PLAYBACK entry.

The Cross Fade entry can be used to specify a time period, in seconds, over which the currently playing track will be faded out, while the next track will be faded in.

Each track also has a Cut In and Cut Out time, in seconds, that you can specify. The track will start playing at the Cut In time, and the end of the track will be offset by the Cut Out time (for example, if a track is 3 minutes, 20 seconds long, and the Cut Out time is 5 seconds, then it will stop playing at 3 minutes, 15 seconds).

To change the Cut In or Cut Out times, or to delete a track, double click on it to bring up an editing window.

There is a volume control for each playlist, which controls the playback volume of tracks on that list.

Your play list is automatically saved when you quit the program, or close it.

You can open a window with a list of all of the playlists that are in your Playlists folder by selecting Show Play Lists Window from the File menu. Double clicking on an entry will automatically open that playlist. Note that you need to save your playlists in the Playlists folder for them to appear in the listing.

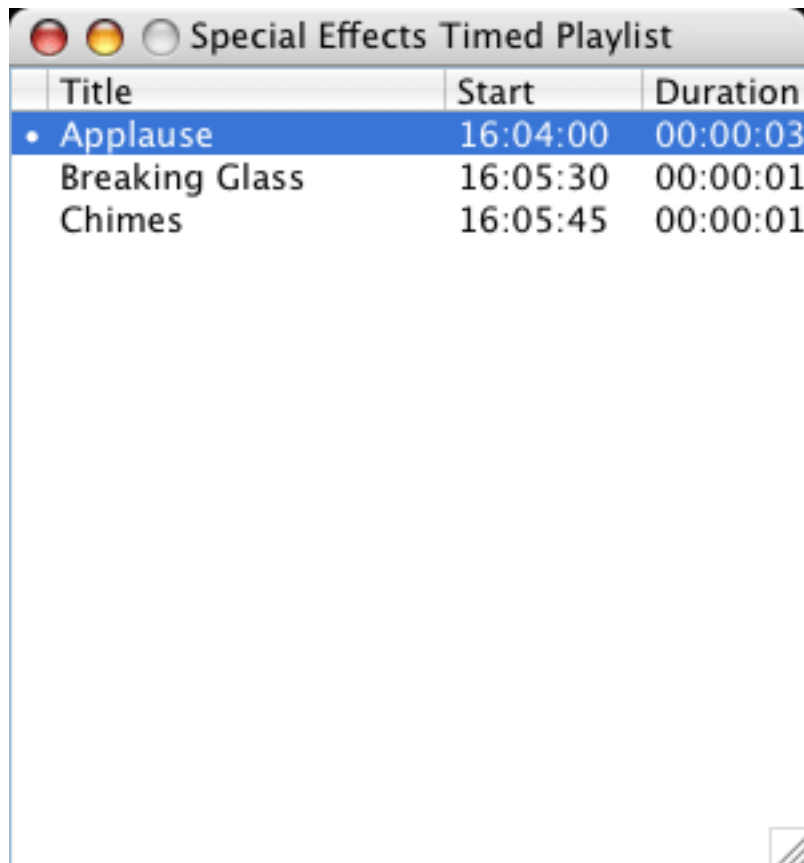
You can drag and drop a playlist file onto a cart button in a rack. When you do this, the name of the playlist will appear as the cart's title. If you click on the cart, the playlist will open, and the first track in the playlist will play. Each subsequent click on the cart will play the next track of the play list.

A playlist can be made to open and play when a cart button is pressed. Drag and drop the file for the playlist (from the Finder or Windows Explorer, not the list of playlists within Sound Byte itself) to a cart. The name of the cart will become the name of the playlist.

When this cart is run, the playlist will automatically open, and playback will begin. If the playlist is set to only play one track at a time, then only the first track will play, each subsequent click of the cart (or press of the hotkey) will play the next track.

The popup menu can be used to specify the sound output device, and the left and right channels can also be specified (or leave them blank to use the defaults).

Timed Play List



Title	Start	Duration
• Applause	16:04:00	00:00:03
Breaking Glass	16:05:30	00:00:01
Chimes	16:05:45	00:00:01

The Timed Play List allows you to create a set of sound files, each one will play at a user defined time of the day. This can be a handy way to have lead in or out jingles play at certain times, without manual intervention. Very useful for a live show, for example. You could have a certain clip automatically start to play at certain times, to remind you that it's time to go into a break.

Create a new timed play list window, and then drag sound files (or carts) into it. The start time for each recording will default to 00:00:00 which is midnight. Go to this value, and click it twice to allow you to edit it. You can then change it to whatever time of the day you wish. Use 24 hour time, that is, 2 PM would be 14:00:00. When you close the window for the first time, or if you have made changes to it, you'll be asked to give it a name so it can be saved.

When the specified time of any recording in an opened timed play list window is reached, that recording will start to play. You can have multiple recordings

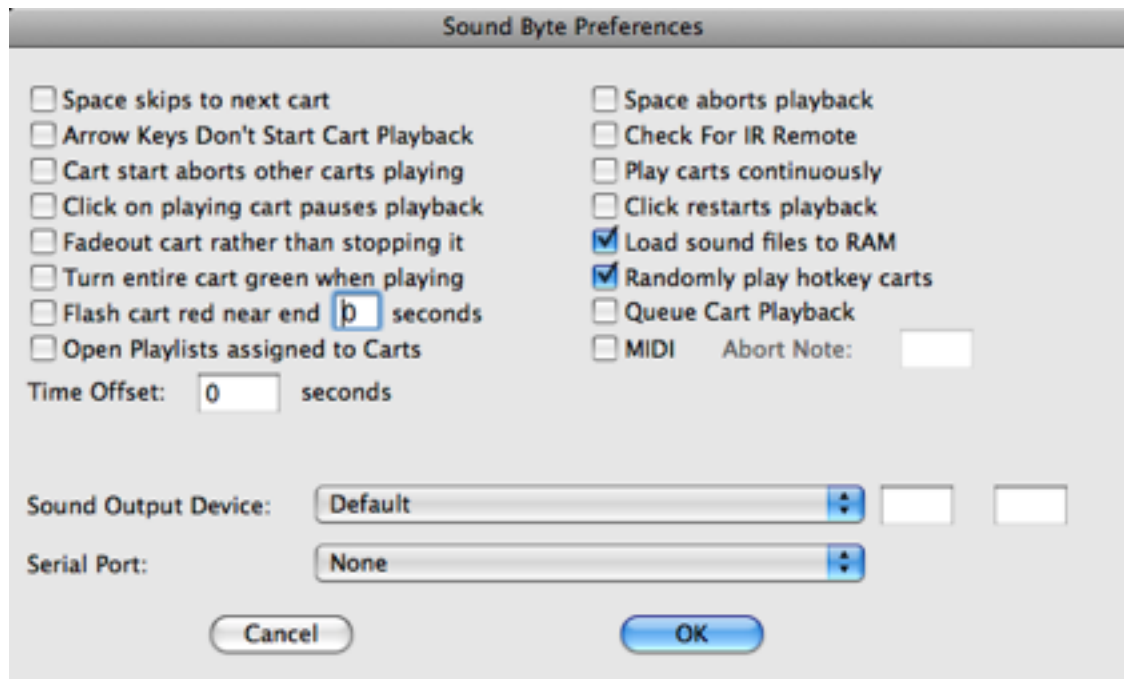
play at the same time, if you wish.

You can open a window with a list of all of the timed playlists by selecting Show Timed Play Lists Window from the File menu. Double clicking on an entry will open that playlist.

By selecting Reset Start Times from the Management window, the start times for each track in a timed playlist window can be changed. You will be presented with a small window, where you specify the start time for the first track (it will default to the current time). Each subsequent track's start time will also be changed, keeping the same relative spacing between start times as previously existed.

Preferences

The following preferences can be set:



Space skips to next cart

Hitting the spacebar will cause the next cart (to the right) to start playing.

Space aborts playback

Pressing the spacebar will stop playback, handy if hitting the small ESC key is too difficult.

Arrow Keys Don't Start Cart Playback

Using the arrow keys (or remote) to move the selector to choose the next cart to play won't actually start playback, you need to press enter to do that.

Check for IR Remote

Will check for the presence of an Apple IR Remote (only works on Mac OS X). If found, you can use the up/down/left/right buttons to select the cart to play next, and the play button to play it.

Cart start aborts other carts playing

Starting a cart will stop any other playing cart(s)

Play Carts Continuously

After one cart ends, the next cart (to the right) will play. When the end of a row is reached, the first cart in the next row will play.

Click on playing cart pauses playback instead of stopping it

Instead of stopping, a currently playing cart will pause when the cart button is clicked. Playback will resume when it is clicked again.

Fadeout cart rather than stopping it

Instead of abruptly stopping, a currently playing cart will fade out when another cart is started.

Turn entire cart green when playing

Checking this will turn the entire cart green, rather than just the small activity box, making it easier to see which cart is playing.

Flash cart red when nearing end

Checking this will cause the cart to flash red when it is nearing the end of playback. Enter the number of seconds before the end of playback in the box next to the option.

Time Offset

This allows you to take into account time delays. Enter a value here in seconds. The clock on the rack window will run ahead by this amount. Any timed play lists will then start ahead of time by this amount as well.

Click restarts playback

When checked, a cart will restart playback from the beginning when clicked, rather than stop playback.

Load Sound Files To RAM

When checked, Sound Byte will load each sound file in a rack to the computer's memory. This can reduce the delay before playback, at the expense of taking longer to load a rack, and potentially using a lot of memory.

Randomly Play Hotkey Carts

Normally, if more than one cart has the same hotkey, typing that hotkey will result in all those carts being played. When this option is checked, only one of the carts, randomly selected, will play.

Serial Port

If a serial port is selected in the popup menu, Sound Byte will assert the RTS and DTR lines when a sound file is being played. This can be used to control external hardware, such as a transmitter.

MIDI

When enabled, Sound Byte will allow notes from a MIDI keyboard to initiate sound file playback. If no MIDI input device can be found, an error message will be displayed when Sound Byte starts. You can also specify a MIDI note value that will abort sound playback, much like the ESC key. Just hit the note on the keyboard and the value will appear in the entry box, or type in the note value.

You can select which MIDI device to use via Select Midi Device... from the Management menu

Be sure to plug in your MIDI device before running Sound Byte.

Sound Output Device

you can select the sound output device to use, if you want the sound to play on a device other than the default. You can also specify the channel numbers to use (if your device has more than two output channels) for the left and right outputs.

Locking Sound Byte Against Unauthorized Changes

It may be desirable to prevent users from making accidental changes to cart settings and rack layouts. This can be done by selecting Lock Settings from the Edit menu, and checking the checkbox.

When checked, users will not be able to edit cart options, drag carts, or add new carts to racks.

To re-allow changes to be made, uncheck this checkbox.