



*Sinfonia*<sup>®</sup>

 *Realtime*  
*Music Solutions*

US PATENT 6,696,631

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## Welcome To Sinfonia®

Sinfonia® is an extremely sophisticated and expressive orchestra enhancement system. With Sinfonia®, a production of any size can have the sound of a full, lush orchestra, without sacrificing any of the spontaneity of live performance.

### Before We Begin...

Sinfonia® gives a lot of power and flexibility to organizations that are putting on musicals. With Sinfonia®, you can perform a large orchestration in real-time, manipulating tempo on the fly to follow action on stage. You can support an existing small ensemble, customizing Sinfonia® to perform only the missing instruments. You can change keys for alternate performers, make cuts, repeats, react to typical live performance emergencies and more.

However, all this power and flexibility make Sinfonia® an involved and detailed piece of equipment. Sinfonia® is not a “push-button orchestra.” Instead, think of it like you would any other musical instrument. You need to spend some time learning its fundamentals, and you need to practice the actual music that will be performed.

### Who Should Play Sinfonia®?

Any musician who wants to. The basic principles of operation are quite easy and can be learned in a day or two. Once the principles are learned, the quality of the Sinfonia® performance is in direct proportion with the Sinfonia® player’s innate musicianship and the time spent practicing. 15-year-old high school students with only a few years of flute lessons have performed Sinfonia® beautifully, as well as professional opera conductors, and everyone in between. The most important thing is to have some basic musicianship and a game spirit. That said, we have outlined a few prerequisites we think will make for the happiest, most successful Sinfonia® experience.

### Prerequisites

1. You must be a musician.

Sinfonia® is a new musical instrument. While it does not require the years of training for mastery that, say, a piano or violin demands, you should be familiar with the basic vocabulary of music. You should be able to follow along with a musical score and understand concepts of meter and tempo.

2. You must be willing to work with technology.

Sinfonia® does not require computer or related technology experience. You simply need a willingness to learn and work with things that are new and on the cutting edge. Those with prior technology experience tend to embrace the potential more readily, and therefore may pick it up faster. But, if you have never touched a computer before, don’t be intimidated by Sinfonia®. Go at it with a sense of adventure, invest some time, and you’ll be a pro before you know it. Which brings us to the next point...

3. You must devote time to Sinfonia®.

You don't need a lot of time, but there should be at least a few days away from the pressures of rehearsal for the Sinfonia® player to familiarize him or herself with how it works. With anything new, there may be initial confusions. The player needs some quiet time and space to get a basic understanding of the instrument. Once the foundation is there, the more time spent practicing Sinfonia®, the better.

## Let's Get Started!

### Logging On, Loading A Show, Logging Off

#### Logging On

Once Sinfonia® has been powered up, it will go through a series of startup processes. This should take less than thirty seconds. After these processes are complete, a log-in dialog box will appear.

1. Click the icon next to *rms*..

You will see the main player load, with the default show. This should already be set to Act1 of whatever show you have licensed. So, if for example, you are producing *Annie*, something along the lines of *annie1*, will appear in the "Current Show" field, with all the songs in the first act of *Annie* present in the "SONG LIST" window. See Figure 1.

Figure 1 - Sinfonia® Player Window



You are now ready to play Sinfonia® (see instructions in next section)

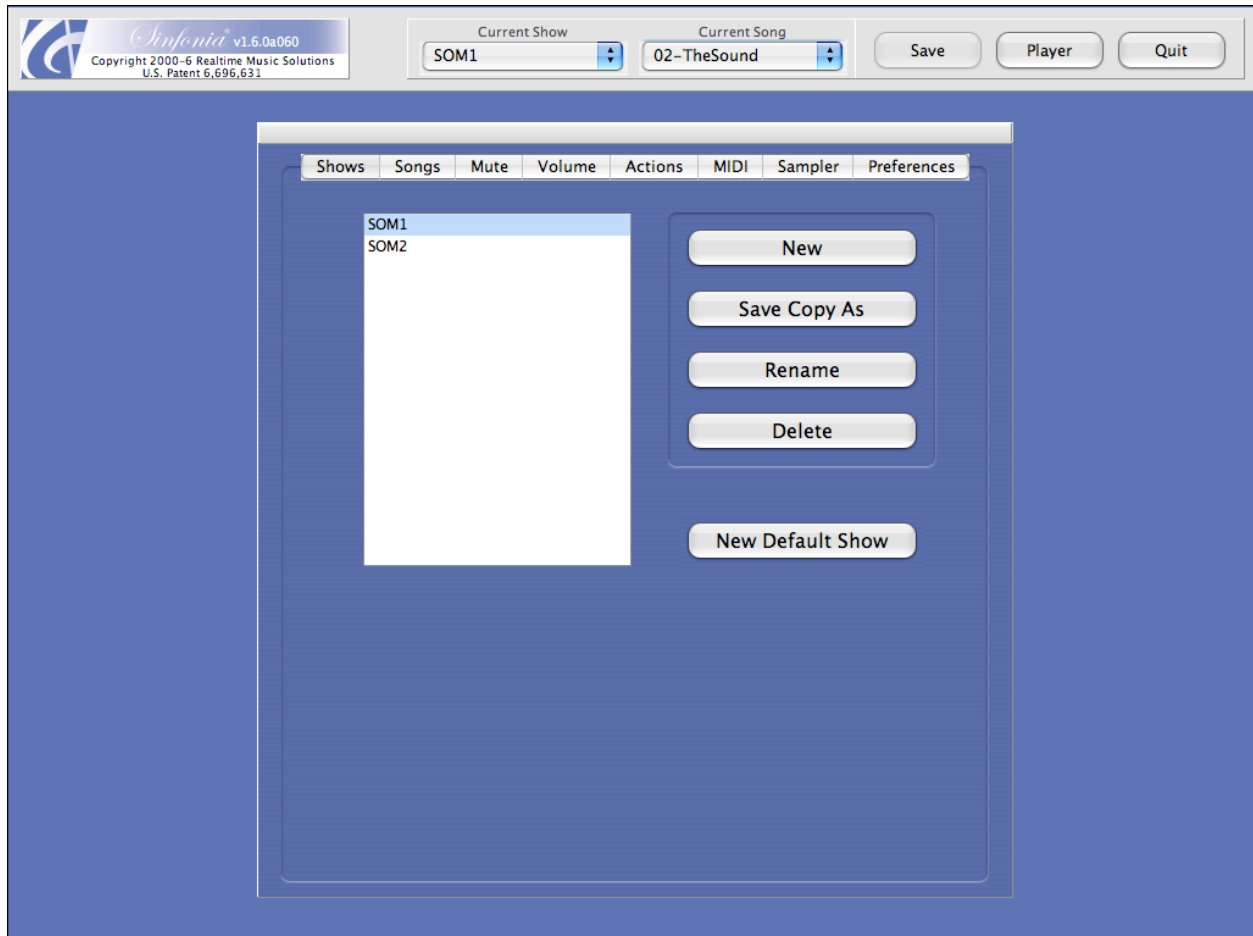
### Loading A New Show

After you have finished with the first act, you will need to load another show - the second act of ANNIE for example, which may be called “[annie2](#)” or something similar. Sinfonia® treats the separate acts of a musical as individual shows.

1. Click the “[Editor](#)” button from the Player window.

You will immediately be taken to the Editor. See Figure 2.

Figure 2 - Sinfonia® Editor (main window)



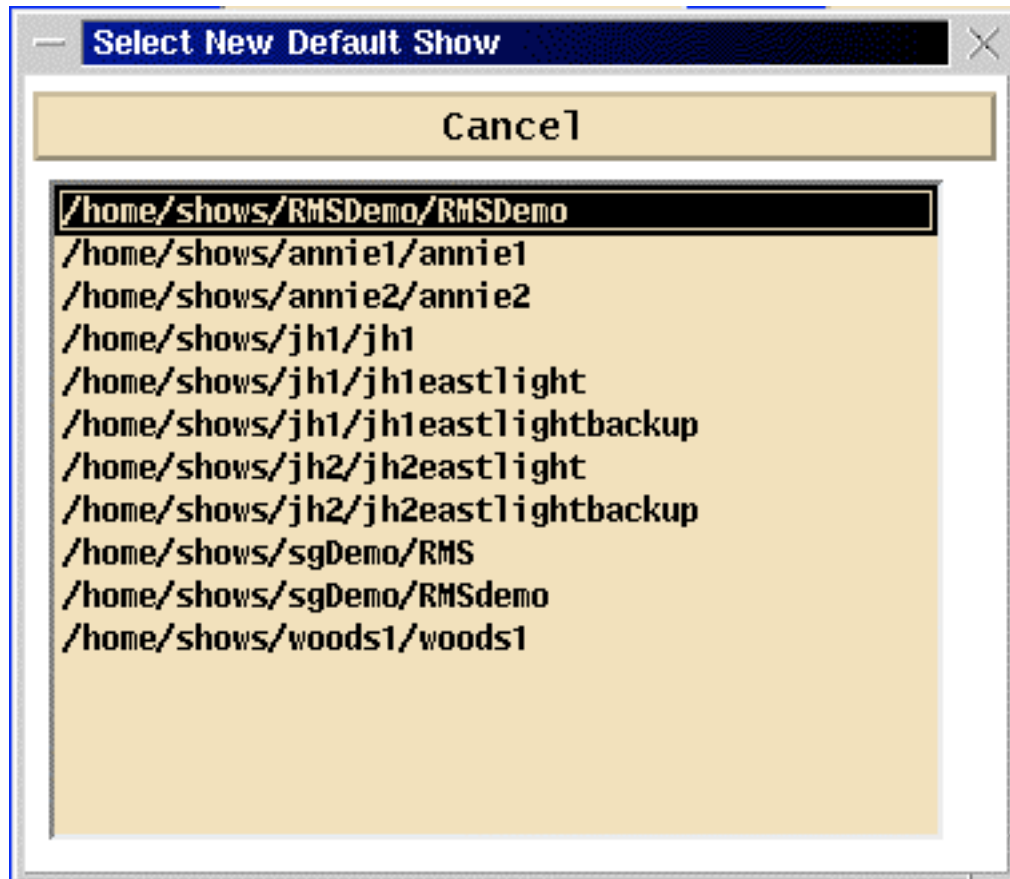
2. If it is not already selected, click the “Shows” tab.

This will take you to the area of the Editor where general housekeeping for show files takes place—including selecting the next show.

3. Click “New Default Show”

A pop-up window will appear containing all available shows in the box. See Figure 3 - New Default Show Window

Figure 3 - New Default Show Window



4. Click on the show you want.

The show names appear as computer path information. Don't worry so much about the first few items that appear between the slash marks. The important information is the title on the far right of each line. So far, example, if you wanted to load the second act of *Annie*, click on the third line in the box.

5. You will return to the “Shows” tab (the previous screen).

Notice that your selected show now appears in the “Show List” box and the “Current Show” field.

6. Click “Exit”

This returns you to the Player with the new show loaded.

### An Alternative Way To Load A New Show

When you enter the Editor from the Player window you will see the current show listed in the top left corner of the Editor window. Clicking on the arrow to the right of that show name will bring up a pop-up box; click on the name of the show you would like to load. You may then click the Exit button to return to the player.



## Logging Off

1. Click on the ‘Quit’ button from the Player window.  
You will be returned to the original Log-On Screen.
2. Click on the ‘Shutdown’ button.  
The computer will go through various shutdown routines. After about a minute, the computer will shut itself off.
3. At the ‘Power down’ message, it is safe to turn off Sinfonia®

## Playing Sinfonia®

Remember – Sinfonia® is an instrument. It is meant to be played and performed over the course of the show. It is not a playback device like a tape deck or CD player.

The most basic way to play Sinfonia® is through the “Play” keys. By fingering the play keys, as you would a piano, at your desired tempo, you propel the song according to your individual interpretation. The process is analogous to conducting in the traditional sense; as you beat time, Sinfonia® responds. You can and speed up and slow down to follow the performance. You can create deep rubato passages or taut accelerandos. ‘Playing’ is the essential way to breathe life into Sinfonia®. So for starters, try using the play keys to perform some songs.

### An Early Pitfall

Operation of Sinfonia® is pretty straightforward. It does, however, require the use of the MIDI keyboard to function properly.

- Make sure the MIDI Keyboard is powered on with the red power light illuminated.

### Show Navigation

The top two center stacked boxes are labeled ***Current Show*** and ***Current Song***. These indicate what you are about to perform.

When Sinfonia® is first launched (see “Logging On”), it will automatically load the first song (i.e., 01-Overture). Notice that the first song in the ***Song List*** is highlighted. The highlight is another indicator of the current song. You may begin playing this song by pressing “GO” on the MIDI Keyboard; Sinfonia® will play the song at the pre-programmed tempo as defined in the score. [Of course, what sets Sinfonia® apart from pre-recorded music is its unique ability to follow a conductor or singer—acting like any other instrument in the pit, except sounding like many instruments playing at one time.]

The Up [↑] and Down [↓] arrow keys on the typewriter keyboard allow you to select other songs. If you are already in play mode (the current song has not ended), the arrow keys will also act as a stop button. If the current song ends, you will either need to arrow to another song

(probably the next song in the show) or go to an earlier spot in the current song to continue playing (see “Song Navigation”).

## Song Navigation

As mentioned earlier, hitting “GO” on the MIDI keyboard will set the song in motion. You can also enter “GO” mode by hitting [F8] on the typewriter keyboard. While a song is playing, hitting “STOP” on the MIDI keyboard or hitting [F6] on the typewriter keyboard will stop the song. If you want to jump around within a song (for rehearsal purposes or stage emergencies), there is a three-step process:

1. On the numeric keypad, type the measure you want to go to.

You will notice as you type that the measure number appears in the “Information” box in the bottom center portion of the screen. You must enter an actual measure number from the song or you will get an “Invalid Measure” message. Treat lettered measures with relative numbers after a decimal point (e.g. 45b= 45.2, 12c=12.3, A=0.1)

2. Hit <ENTER>

You will get a message that says “GO TO [*measure number*] ARMED!!!” In this way you can prepare a score jump while in performance. For example, if an actor skips a verse and the conductor says, “Take it from measure 32 on my mark,” the Sinfonia® player can, while the music plays on naturally, set up the jump by typing 32 and hitting enter. OrchExtra™ is now ready for the Conductor’s cue...

3. Hit “GO” on the MIDI keyboard or [F8] on the typewriter keyboard.

This executes the relocation. If it happens while Sinfonia® is playing, the music continues from the jump point without disruption. Therefore, approach this step in a musical fashion (hit the keyboard on the beat, right at the appropriate cue). If these three steps are performed after a “STOP” command (i.e. during rehearsal), Sinfonia® will await your instructions to play on.

To rewind to the beginning of the currently selected song, hit [F5] on the typewriter keyboard.

## The Player Window

The main Player Window provides the basic information about the music and show being performed. It is mostly there for reference, rather than something to be watched continuously. It is analogous to the dashboard on your car. When you are driving, you should mostly keep your eyes on the road, with occasional glances at the gauges and meters. Similarly, when playing Sinfonia®, you should usually be looking at your music, the Conductor, the stage action – with periodic glances at the Player Window for reference.

## Navigational Indicators

There are five boxes roughly in the center of the screen (labeled from left to right): *Measure*, *Beat*, *Meter*, *Tempo*, and (centered underneath *Beat*) *Rhythm*. These are your basic gauges of where you are and how fast you are traveling in a particular song.

- Measure – This tells you what measure you are currently in.
- Beat – This tells you what beat you are in. Off beats are denoted by non-numeric symbols.
- Meter – This displays the current meter.
- Tempo – This displays the current beats per minute played.
- Rhythm – This tells you the current beat subdivision or pattern controlled by the “PLAY” keys.

As you play, Sinfonia® counts off the bars and measure numbers. The Sinfonia® measure numbers correspond to the conductor score measure numbers—they are not necessarily consecutive. NOTE: If the score measure numbers include letters (i.e., 13a, 13b), Sinfonia® will display those measure numbers as 13.1, 13.2, etc.

Underneath these gauges, there are three stacked horizontal boxes, roughly four inches long. The most important of these boxes is probably the middle one, labeled *Next Event*. Some songs have pre-programmed “Events” if they exist in the score (for example, repeats or vamps, etc.). As each event passes by, the next event will appear in this window. For example, there may be a repeat of Bars 5 to 11. As soon as Sinfonia® finishes playing bar 11 for the second time, the next action event will appear (which may say vamp Bar 111 to 112). This event will remain in the window until the measure in which it occurs has played.

The *Information* window (just beneath *Next Event*) is where typed information appears. For example, if you need to jump to measure 45, this number will appear in the *Information* box as you type it.

The box above the *Next Event* window serves a dual purpose. Most of the time it functions as a symbolic timeline, giving a satellite view of the entire song and events (repeats, cuts, etc.) contained within. However, if certain arbitrary activities are initiated, such as a cut to an alternate measure location or a vamp-on-the-fly, the box will indicate this process. You can think of it as warning lights for certain critical real-time activities.

If ‘show hotkeys in player’ is selected in the Preferences section of the Editor, there will also be a grid of 36 cells (6 rows x 6 columns) at the bottom of the screen. This will display Hotkey labels, if they are created. See ‘Preferences and ‘Advanced Editor’ for more information.

## Performance Modes

In the center of the screen, just above the Beat and Measure indicators, is a box that tells you what mode you are in at any given time during the operation of Sinfonia®. The possible modes are:

- Go
- Stop

- Play
- Cruise
- Pause
- Vamp

These Modes are entered or exited depending on the way the song is performed via the MIDI keyboard (or typewriter keyboard).

## Using The MIDI Keyboard



Figure 4 - 37 key MIDI Keyboard

Sinfonia® is capable of mapping nearly 200 functions to different MIDI keys. Most people will not have this many MIDI keys (and would not want to map that many functions even if they did). A typical small keyboard included with a rental package would come pre-mapped as in Figure 4 with the following functions labeled on the keys: Slower A Tempo Faster Vamp Hotkey Prev Bar CutOff Next Bar Stop All Notes Off Next Song Pause Exit Vamp Go Cruise Play

- **PLAY:** Playing is one of the key elements that make Sinfonia® a powerful performance instrument. With PLAY, Sinfonia® becomes truly expressive, following a conductor or stage action just like any other live element in the performance. With each hit of a PLAY key, the music moves along at the assigned play value (quarter, eighth, half, etc. – or patterns, like triplet swing, rumba, etc.) thereby following the tempo of the player’s performance. There are multiple Play keys - in addition to the key labeled “Play,” each key with a downward pointing arrow is a Play key. The various Play keys are functionally identical and are there to allow for a more comfortable, pianistic performance. The Play Indicator on the computer screen displays the current Play resolution or pattern name. Also, the piano-conductor score will communicate what beat or pattern was assigned to the play keys in any given measure. Out of the box, most songs are programmed to be played in one rhythmic unit throughout the entire song, unless certain time signatures or musical phrases make a change in unit more intuitive. This may be customized to the tastes and sensibilities of the Sinfonist. Once a song has been

loaded, you may begin performing the song by pressing any play key in a rhythm following the conductor or performer.

- **CRUISE:** Cruise is similar to Play in that each time you press the key, the music moves to the next beat subdivision and calculates tempo information. However, Cruise allows you to simply lift off from the keyboard in order to set the music in motion at whatever is the established tempo. You do not have to hit Go after hitting Cruise. You should note that because of the built-in inertia of Cruise (the music continues to move forward at an established tempo after each strike), you will only be able to affect gradual tempo changes with Cruise. It's a little like steering a ship: you can't change directions suddenly. More extreme tempo changes should be handled with regular Play. With a little practice, you'll learn which musical situations are better handled by Cruise v. Regular Play. And you can always switch back and forth between the two.
- **GO:** When you hit the "GO" key, you enter GO mode. Music will play at the established tempo. Therefore if no tempo has been set with either PLAY or CRUISE, the music will perform on autopilot at the preprogrammed tempo. If you have established a desired tempo with PLAY or CRUISE and then hit the "GO" button, Sinfonia® will continue playing at the tempo you have set. Just like cruise control on a car, you can jump in with the play keys at any time if you need to change the tempo. NOTE: The Sinfonia® calculates the tempo from the last two notes you hit (including the tap on the "GO" button. You must hit the "GO" button in the same tempo as the play key, otherwise, you may find yourself in a tempo you didn't intend!
- **EXIT VAMP:** Whether you are in a pre-programmed vamp (see "Action Events" above), or in a vamp you have created "on-the-fly" (see "Vamp" Key below), hitting the "EXIT VAMP" key will cause Sinfonia® to exit the vamp on the next pass through (i.e., if you have a 4-measure vamp, hitting the "EXIT VAMP" key in measure 4 of the vamp will cause Sinfonia® to exit the vamp immediately. Conversely, if you hit the "EXIT VAMP" key in measure 1 of the vamp, Sinfonia® will complete one pass of the vamp playing through measures 2, 3, and 4 before exiting). "EXIT VAMP" will also similarly function to exit a pre-programmed repeat if you need to in an emergency situation.
- **PAUSE:** Hitting the "PAUSE" key will cause Sinfonia® to hold in place until another key is struck. This is especially advantageous on long fermatas you may want to take, such as going from the "Tomorrow" theme into "Hard-Knock Life" in the ANNIE Overture, or at the end of big numbers where a longer hold is desired. The "PAUSE" key is used in conjunction with the "CUTOFF" key (see below).
- **STOP:** The "STOP" key is essentially an "all notes off" command. It takes Sinfonia® out of any mode where music is still playing and puts it into STOP mode. It is essential that you hit the "STOP" key when you are finished playing, but you are still in the middle of a song. Failure to do so can cause Sinfonia® to crash. Instances like this can occur in many varieties: during rehearsal you may be playing a song and the rehearsal is momentarily stopped. You are in the middle of the song, and because you are not playing, no sound is being generated by Sinfonia®. However, the computer thinks you are just "between notes" unless you press the "STOP" key. If you try to resume playing, or give Sinfonia® another command, it will try to calculate a tempo based on your last hit of a play key (maybe several minutes ago). THE SYSTEM WILL CRASH!

- **NEXT BAR:** While it sounds like a great place to be on a wild night on the town, the “NEXT BAR” actually is a quick way to jump to the first beat of the next measure in the score. Hitting the “NEXT BAR” key several times will advance you though the score bar by bar. (I’ll be in the corner in the dark). Use this key if you find that you are getting behind and want to jump immediately a bar ahead.
- **CUTOFF:** The “CUTOFF” key will cut off a held or paused note, while keeping Sinfonia® in performance mode (this is how the “CUTOFF” key is different than the “STOP” key). This is the recommended way to cutoff a chord held by the “PAUSE” key. Hitting the “PLAY” or “GO” keys after hitting the “CUTOFF” key will resume play. Likewise, hitting the “CUTOFF” key and not hitting another key for awhile will cause Sinfonia® to CRASH as described above (see “STOP” key).
- **PREV BAR:** Previous Bar—works just like the “NEXT BAR” key, except in reverse. Use this key if you find that you are getting ahead and want to jump immediately a bar behind.
- **VAMP:** Hitting the “VAMP” key will cause The Sinfonia® to create an immediate vamp in a song. The length of the vamp will be equal to the number of times you hit the “VAMP” key. This is especially good if a scene change has not happened as quickly as anticipated or a piece of scenery has gotten “hung up,” etc. If the conductor gives the sign to “vamp measures 22 through 25,” you would hit the “VAMP” key four times once you are in measure 22. The “on-the-fly” vamp would appear in the “Action Event” window, and The Sinfonia® will keep vamping until the “EXIT VAMP” key is struck (see above).
- **FASTER:** While in “GO” mode, hitting the “FASTER” button will nudge the tempo up. You will see the tempo marking change on the monitor a tic or two at a time.
- **A TEMPO:** Hitting the “A TEMPO” button while in “GO” mode will cause The Sinfonia® to revert to the preset tempo in the file which will correspond to the tempo markings in the score.
- **SLOWER:** While in “GO” mode, hitting the “SLOWER” button will nudge the tempo down. You will see the tempo marking change on the monitor a tic or two at a time.
- **NEXT SONG:** As the name suggests, hitting this key will take you to the next song in the Song List.
- **ALL NOTES OFF:** This button will send a note off event to all MIDI channels. It will also reset key performance values, such as pitch bend and modulation, to zero. If anything seems stuck (or if an instrument seems out of tune), try hitting ‘All Notes Off.’
- **HOTKEY:** Hotkeys may be programmed for unique functionality – such as arbitrary relocates, mutes and more. Hitting this key will trigger the specially programmed function. See the ‘Advanced Editor’ section for information about programming Hotkeys.

For information about mapping additional functionality, as well as remapping the existing functionality, see ‘Remap.’

## Typewriter Commands

The typewriter keyboard can also accomplish many commands that are MIDI Keyboard or Mouse driven. Following is a list:

F1 = Slower  
F2 = A Tempo  
F3 = Faster  
F4 = Cut Off  
F5 = Rewind  
F6 = Stop  
F7 = Pause  
F8 = Go  
F9 = Reset  
F10 = Exit Vamp  
F11 = Vamp  
F12 = Cruise

Shift F1 = Quit  
Shift F2 = Reinit  
Shift F3 = Editor  
Shift F4 = All Notes Off

Space Bar = Play

## The Editor

Clicking on the Editor button on the upper right portion of the Sinfonia® Player window will take you to the Editor. From here, you can customize your own version of the show.

## The Main Editor Screen

The main Editor screen (see Figure 2) may be thought of in two parts.

1. The top line of fields and buttons is the information and navigation center. From here you can identify and select which show and/or song you want to edit. You can identify the currently active Edit window. You can save your work and exit the Editor.
  - **Current Show** - The top left field shows the currently active show. Your editing will only affect this show. If multiple versions of a particular show have been created, you can select one of your alternate versions by clicking on the arrow to the right of the field. NOTE: Sinfonia® considers Acts as individual shows. You will only see the various versions of the currently active show (i.e. Act). See “Loading A New Show” or “Edit Show List” for instructions on switching acts.
  - **Current Song** – Underneath the Current Show field is the Current Song field. This indicates the song that is ready to be edited. Clicking on the arrow to the right of the field will display all the available songs in the show. You can then click on a new song title for editing.
  - **Save** – Click this button to save your work. If no changes have been made (and therefore no work to be saved), it will be grayed-out and inactive.
  - **Player** – Click this button to exit the Editor and return to the Sinfonia® Player. NOTE: You can only exit from the ‘Main’ Editor screen. If you have entered one of the sub-consoles (i.e. Muting, Transpose, etc.), you must first exit the sub-console and return to the Main screen.
  - **Quit** – Click this button to quit out of Sinfonia®
2. Underneath the main information console, occupying the majority of the screen, are several tabs. Clicking these tabs will take you to the various sub-consoles where specific editing tasks are accomplished.



## Shows Tab

If you plan on doing any editing, it's a good idea to save multiple versions of your show. This way, if there's a problem or you make a mistake, you can easily return to a previous or alternate version.

The Shows Console is where you can copy, delete, and rename shows listed in the master show list.

- Clicking “**New**” will generate a fresh copy of the original show data. These new files will not contain edits and will reflect the shows as they were originally shipped.
- Click “**Save Copy As**” to create a copy of the selected show. Any edits present in the selected show will be reflected in this new show.
- “**Rename Show**” allows you to rename an existing show.
- Clicking “**Delete**” will delete the selected show.
- “**New Default Show**” is where you can select which show will load when you return to the Player. See “Loading A New Show” for details.

**When naming shows, please limit your titles to 14 characters or less and use only letters and numbers. Don't use any spaces, punctuation marks or other non-alphanumeric characters.**

### Good Show Names

jimshow1  
fiddler2v91502  
HSTHSannie1  
bestguysdolls2

### Bad Show Names

jim's show act 1  
Act 2 Fiddler – 9/15/02 edits  
HarryS.TrumanHighSchoolAnnie1  
Best version of Guys & Dolls Act 2 ever!!!

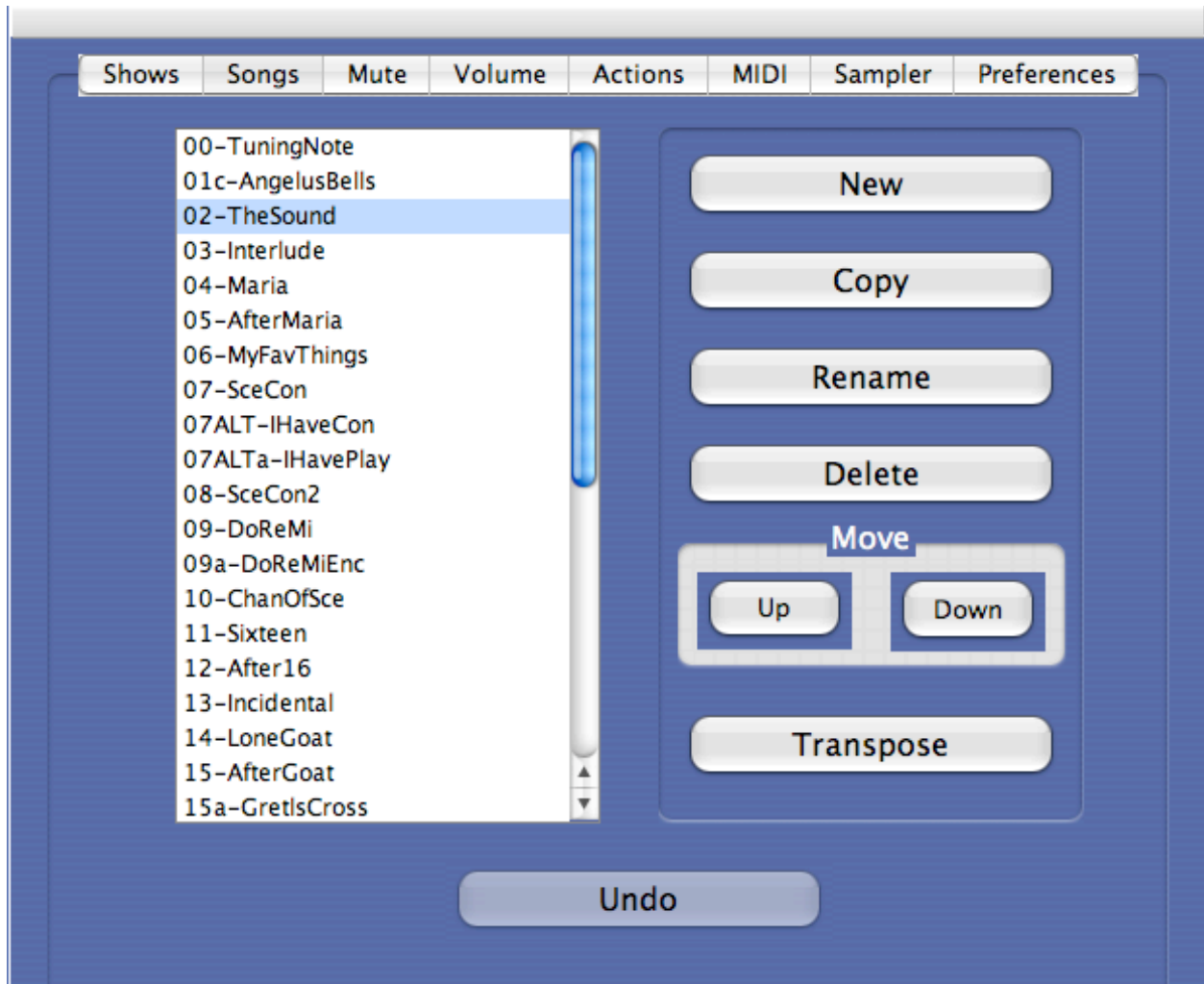
## Songs Tab

This is where you can perform general Song edits, including reordering, renaming and transpositions.

- **New** – This button allows you to add a song from any existing show. With this button, you could, for example put some incidental music from Act 2 into Act 1. Any new songs will be placed at the end of the song list of the currently active show.
- **Copy** – This button allows you to duplicate the selected song. Any edits that exist in the selected song will also be copied. The copy will be placed immediately following the source song.
- **Rename** – This button allows you to rename the selected song. When renaming, please use contiguous alphanumeric characters.
- **Delete** – This will delete the selected song.

- **Move Up/Down** – The selected song will move incrementally in the selected direction.
- **Transpose** – This button allows you to transpose the selected song up or down in half step increments. See Transpose Edits for more details.

Figure 5 - Songs Edit Console



### Transpose Edits

If a song is too high or low for a particular performer, the Transpose Edit Window allows you to change the key easily. To transpose a song:

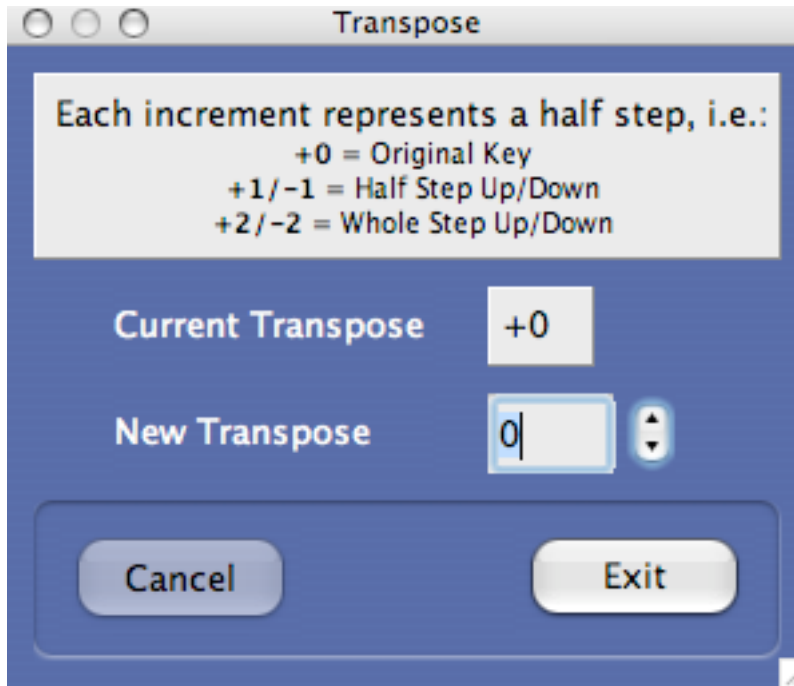
1. From the Songs Tab, select the song you wish to transpose.
2. Click on the Transpose button.
3. Click the up or or down arrows to raise or lower your song choice.
4. Each increment represents a half step.
5. Click **Exit**

These transpositions are intelligent. Non-pitched interments and other instrumental lines that are not meant to be transposed will be unaffected by Transpose Edits.

These Transpositions will affect the entire a song. If you want to transpose just a portion of a song, you may do so in the Actions Tab described later in the manual.

**\*\*\*Save your work by clicking the Save button\*\*\***

Figure 6 - Transpose Edit Window



## Mute Tab

The Mute Tab will take you to the muting sub-console.

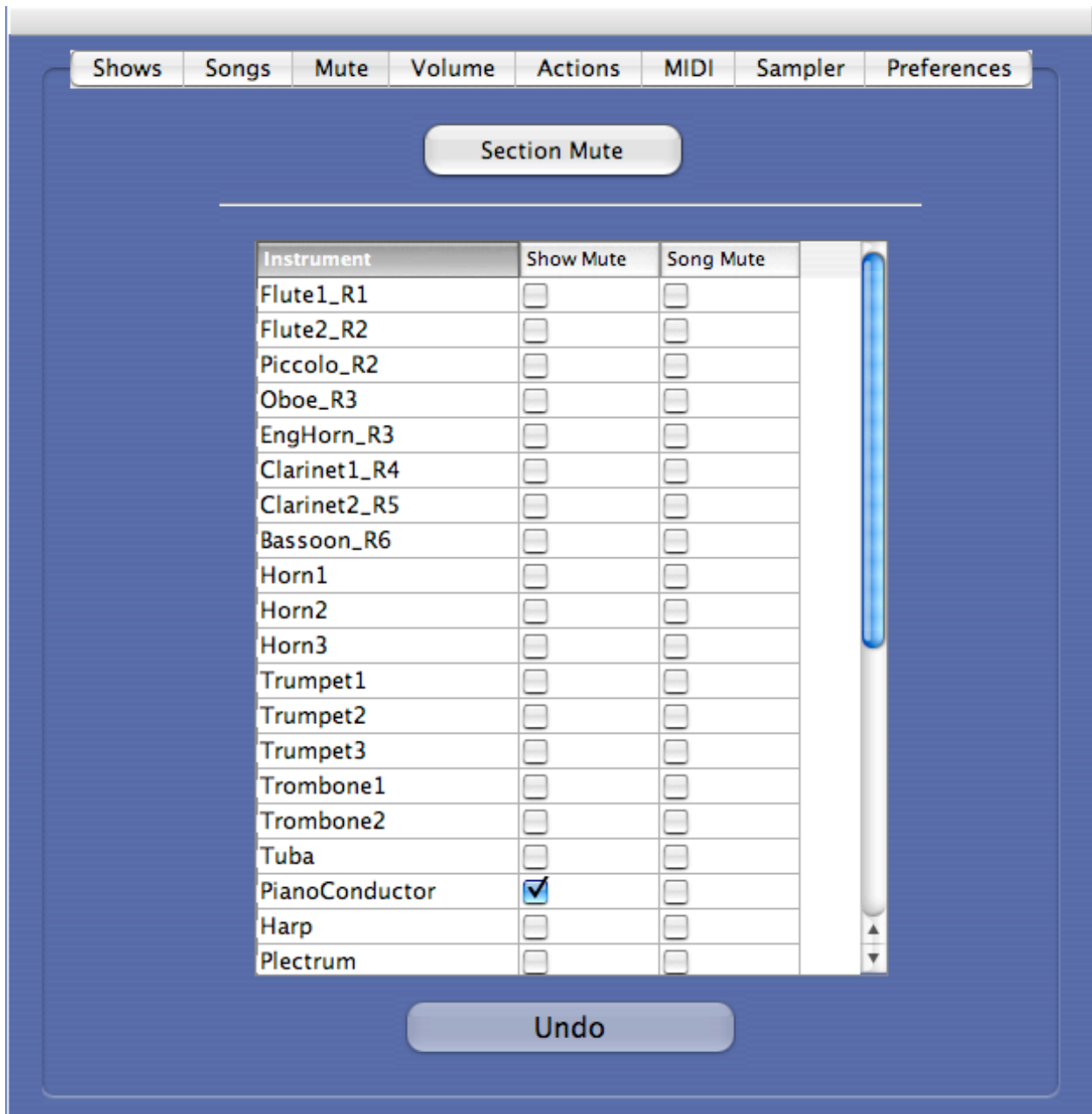
You will want to customize Sinfonia® to mute any instruments that are being performed by traditional instruments. This way, Sinfonia® only covers the parts that are not present in your usual ensemble. You can mute instruments on a show basis, on a song basis or even for just a small portion of a song. You can also *unmute* instruments that may have been previously muted. All these tasks can be accomplished in the Mute sub-console.

When you enter the Mute sub-console, you will see a large box with a list of all the instruments scored in the show. Next to each instrument is a **Show Mute** box and a **Song Mute** box.

- To mute an instrument for the entire show, click on the instrument's corresponding Show Mute check box.
- To mute an instrument for an individual song:
  - 1) Make sure your desired song is in the Current Song field.

2) Click on the instrument's corresponding Song Mute check box.

Figure 7 - Mute Edit Console



There are times when it makes sense to mute and unmute instruments for just a portion of a song. For example, if you are performing a musical with four reed books, but you only have two reed players, you would probably show-mute Reeds 1 and 2 in Sinfonia® and give these parts to your acoustic players. However, there might be a 16 bar section of one song where there is a particularly interesting phrase written for Reeds 3 & 4, while Reeds 1 & 2 are tacit. You might then want to move your acoustic players to the Reed 3 & 4 books just for that section.

The easiest way to accomplish this is through the **Section Mute** window. Section muting is convenient because it allows you to specify a duration that your muting or unmuting will last; in

so doing, it automatically performs the step of re-muting or re-unmuting the instrument at the end of the duration. Section Mute also allows you to perform similar mutes or unmutes on a group of instruments. So to take the example above, you can mute Reeds 3 & 4 together from measures 10 to 27 in one fell swoop.

To accomplish a Section Mute, do the following:

1. From the Mute Tab, click on the Section Mute button.

This will take you to the **Section Mute Select** window.

2. Select the instrument(s) you wish to mute or unmute

You can select multiple instruments if you want.

3. Click **Continue**

This will take you to the **Section Mute Edit** window (See Figure 8 - Section Mute Edit Window). The instruments you selected, as well as their current mute status, will appear in the main central box.

4. Click New

5. Select either either **Mute** or **Unmute** from the pop-up menu, depending on what you want to do.

6. Type the start measure number for your mute/unmute.

Be sure to enter a number that actually exists for the song in question. If it's a lettered measure, use a corresponding decimal point for the letter (i.e. a = 0.1; 12b = 12.2)

7. Hit <tab> on your typewriter keyboard.

The cursor will advance to the next field.

8. Type the starting beat for your mute/unmute.

Again be sure to enter a beat that makes sense. Don't type beat 4 if you are working in a piece that is in 3/4 time.

9. Hit <tab> on your typewriter keyboard.

The cursor will advance to the next field.

10. Type the end measure number.

As before, be sure to enter a number that actually exists for the song in question. If it's a lettered measure, use a corresponding decimal point for the letter (i.e. 9c = 9.3; 36d = 36.4).

11. Hit <tab> on your typewriter keyboard.

12. Type the end beat number.

13. Click <Okay>

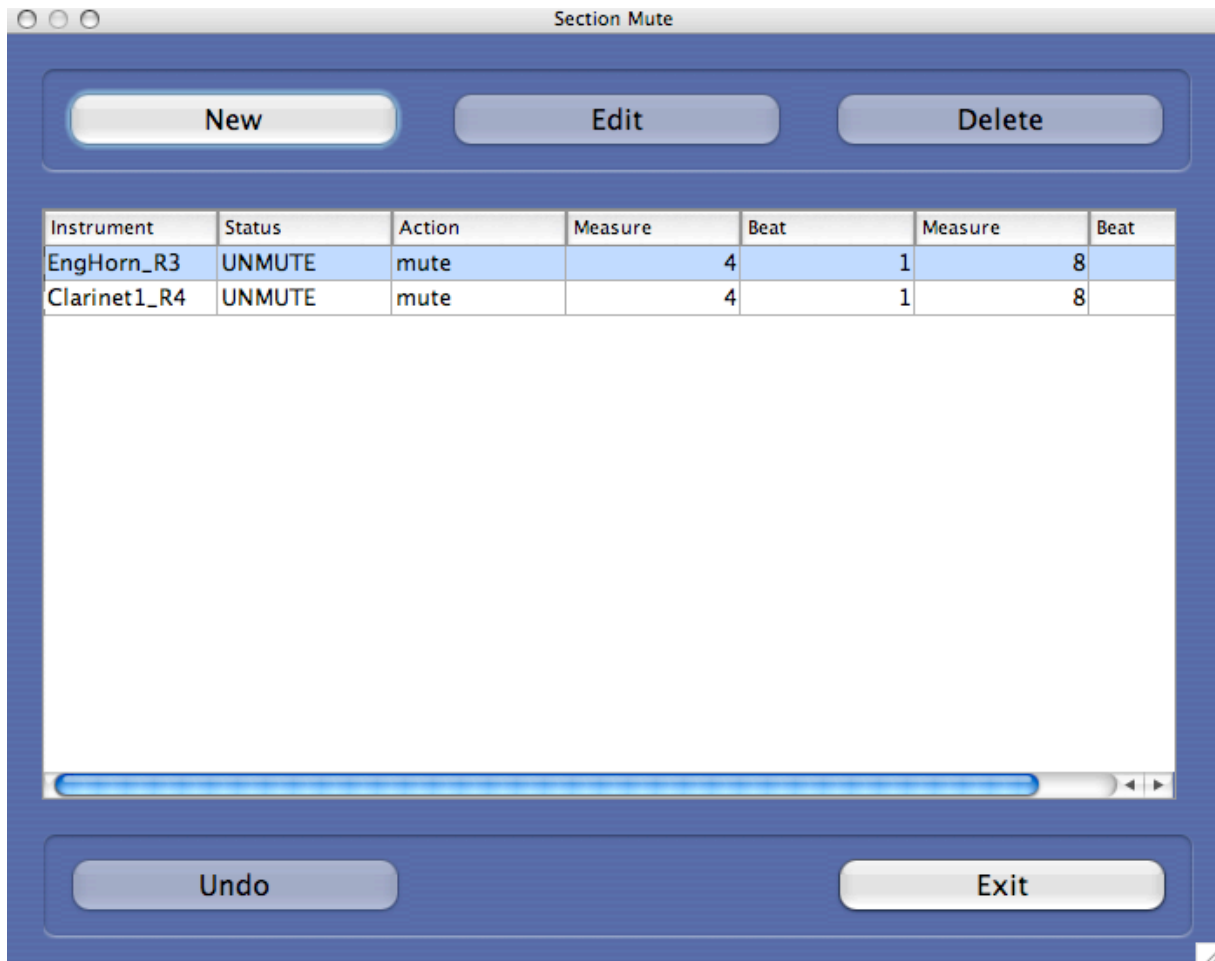
14. At this point, the mute/unmute you are creating will appear in the central Section Mute box display. If you are satisfied with it, click on the Section Mute **Exit** button at the bottom right portion of the screen.

This will return you to the Section Mute Select window, where you can choose additional instruments for different mutes/unmutes or click the Section Mute Select Exit button to return to the original Muting Edits window.

If you are not satisfied with your section mute or unmute, you can click cancel to erase your work and start over. You can also highlight individual mutes/unmute commands and click the Edit Selection button to make changes or the Delete Selection button to delete it. When editing, the <tab> key advances you to the next field.

**\*\*\*Save your work by clicking the Save button\*\*\***

Figure 8 - Section Mute Edit Window



## Volume Tab

The Volume Edit module allows you to apply a percentage adjustment to individual instruments on either a show or song basis. To edit specific songs, be sure the song in question is selected in the top 'Current Song' field.

Note: Volumes settings live within a range of 0-127. Therefore, there are limits to the amount you can increase volume. For example, if an instrument is preprogrammed at a volume level of 100, the most you will be able to increase it is 27% to get to the maximum value of 127.

Attempting an increase greater than 27%, in this case, will still result in just a 27% boost, since the setting has already reached its upper limit. Generally speaking, volume adjustments should be kept within a 15-20% range. If you feel you need a very large gain, consider lowering the other instruments instead, so the instrument in question stands out more.

It is also possible to adjust volumes for a portion of a song in the Actions Tab.

## Actions Tab

Figure 9 - Actions Edit Console

Action Type	Measure	Beat	Tick	Wait	Times	Target/Info	Value
rhythm	1	1	0	0	0		4
atempo	1	1	1	0	0		
rhythm	8	2	0	0	0		8
rhythm	8	3	0	0	0		4
rhythm	9	4	0	0	0		8
rhythm	10	1	0	0	0		4
rhythm	12	2	0	0	0		8
rhythm	12	3	0	0	0		4
rhythm	13	4	0	0	0		8
rhythm	14	1	0	0	0		4
atempo	16	1	1	0	0		
atempo	26	1	1	0	0		

### Repeat, Cut, Vamp Editor

The first button in the Actions Tab allows basic navigational edits. If you want to quickly shorten or extend a song, this is the place to go.

The process for creating these edits is similar to creating sections mutes (clicking on a drop down item or hitting tab within a field will cause the cursor to advance to the next field).



1. Click the Repeat, Cut, Vamp button.

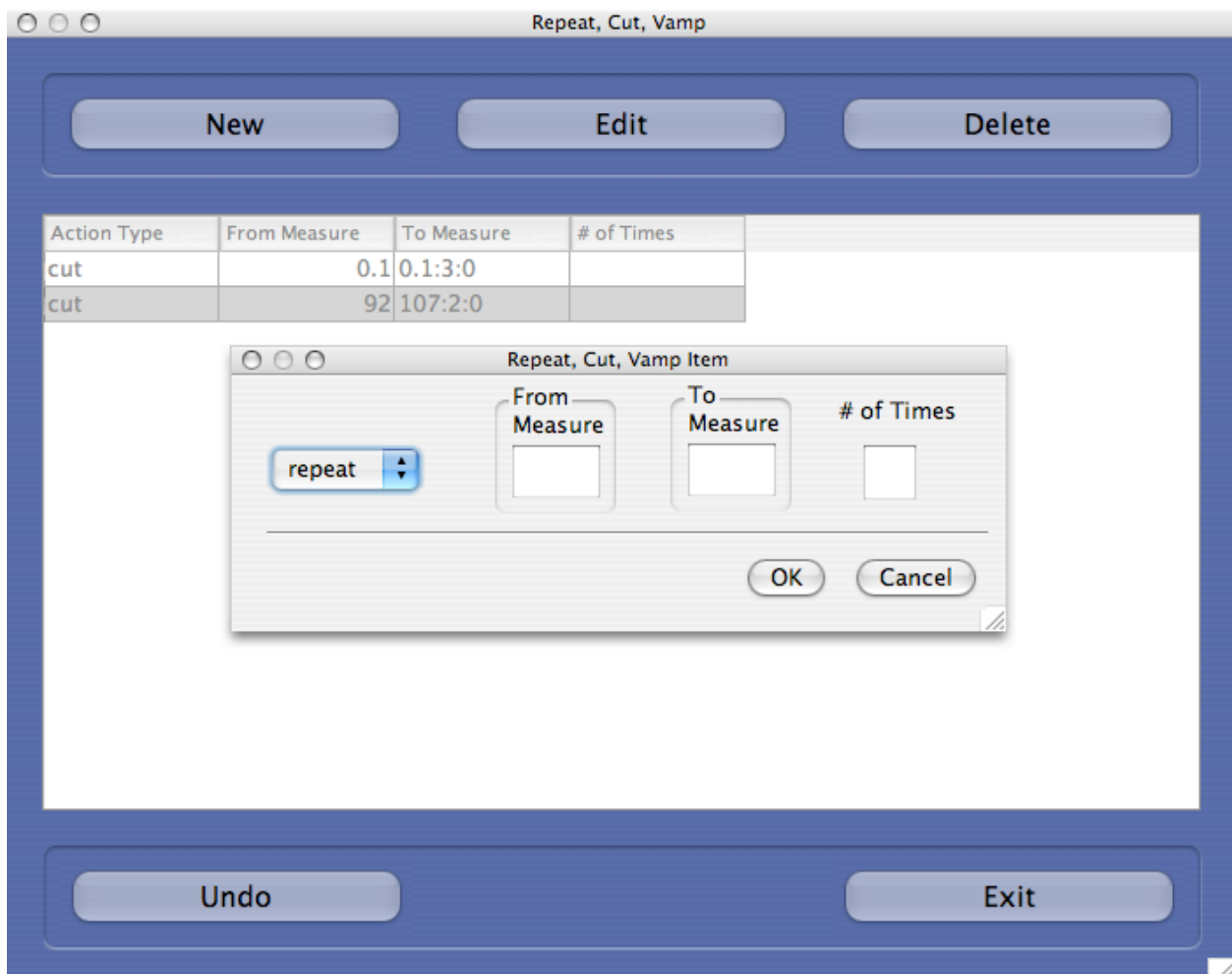
The Repeat, Cut, Vamp edit window will appear.

2. Click Add **New**

Your options – **Repeat**, **Cut** or **Vamp** will appear in a drop down menu in a new selection window.

3. Make your selection - **Repeat**, **Cut** or **Vamp**.

Figure 10 - Repeat, Cut, Vamp Edit Windows



4. Enter the **From Measure**

This number must actually exist in the score. As with Section Mutes, treat letters with their corresponding decimal (12c = 12.3). With repeats and vamps, the 'From Measure' is the start of the repeated or vamped section of music. With cuts, the 'From Measure' is the jumping point.

5. Enter the **To Measure**

With repeats and vamps, the 'To Measure' is the end of the repeated or vamped section of music. With cuts its the arrival point. (don't forget to use actual measures and convert letters to decimals).

#### 6. Enter the **# of Times** (Repeats Only)

For repeats, this is where you specify the number of repeats you want. The integer value should be one less then the total times you want the music to play. That is to say – if you want a section of music to play twice, you would want it to repeat once (# of Times = 1). If the section is only played once, that means it does not repeat at all.

- When you hit enter from the '# of Times' field, the new action will appear in the central display box. At this point, you can add additional cuts, repeats or vamps. You can make changes by highlighting an existing item, clicking on Edit Selection, and following the above process. You can delete items by highlighting your choice and clicking Delete Selection.

After you have performed all of your Repeat, Cut and Vamp edits, exit the this sub-console by clicking the **Exit** button at the lower right of the Repeat, Cut, Vamp Edits window. This will return you to Main Edit screen.

**\*\*\*Save your work by clicking the Save button\*\*\***

### Rhythm Editor

Sinfonia® is performed by playing the beat or rhythmic subdivision of the song. When music is initially crafted for Sinfonia®, choices are made as to what are logical and organic rhythms to use to drive the tempo. For example, we may assign a quarter note play for a brisk walking tempo; dotted quarter play for a fast 6/8 march; eight note play for a particularly expressive rubato melody, or a swing pattern for a swing number. Furthermore the play assignment might change within a song as its character changes. (These assignments are noted in the Sinfonia score for the show you are producing as well as in the Play field of the Player window.)

However, these choices are subjective. The Sinfonia® player might prefer to play quarters in a place where we've programmed eighths, etc. You can customize the way you perform Sinfonia® in the Rhythm window.

To add a new Play subdivision change:

1. Click the Rhythm button
2. Click New

The various beat subdivision and pattern options will appear in a pup-up menu within the resulting Rhythm Item window.

3. Select your desired beat or pattern subdivision.
4. Enter the measure where you want the new play subdivision to take effect.

As always, the measure number must actually exist within the score. Translate lettered measures into their decimal equivalent (i.e. 12c = 12.3).

## 5. Hit <OK>

Your new play subdivision will appear in the central display box.

- At this point, you can add additional play subdivision changes. You can change existing items by h

Note: in the Rhythm field, pattern subdivisions are often abbreviated (eight note=E, quarter note=Q, etc.) Here are some common patterns with their full explanations so you may acquaint yourself with how the abbreviations work:

E-Q-E	= eight note, quarter note, eight note (a two-beat pattern)
2E-Q	= two eight notes followed by a quarter note (also a two-beat pattern)
Etrip	= eighth note triplets
HtE	= half note tied to an eight note (note that this takes up two and a half beats; in 4/4 time, the next pattern entered should be dQ (dotted quarter) to fill the measure out.
dE swing	= the swing/shuffle rhythm formed when a notated dotted-eight + sixteenth note pattern (dE-S) is intended to be played “swung” (like if they were part of a tuplet.)

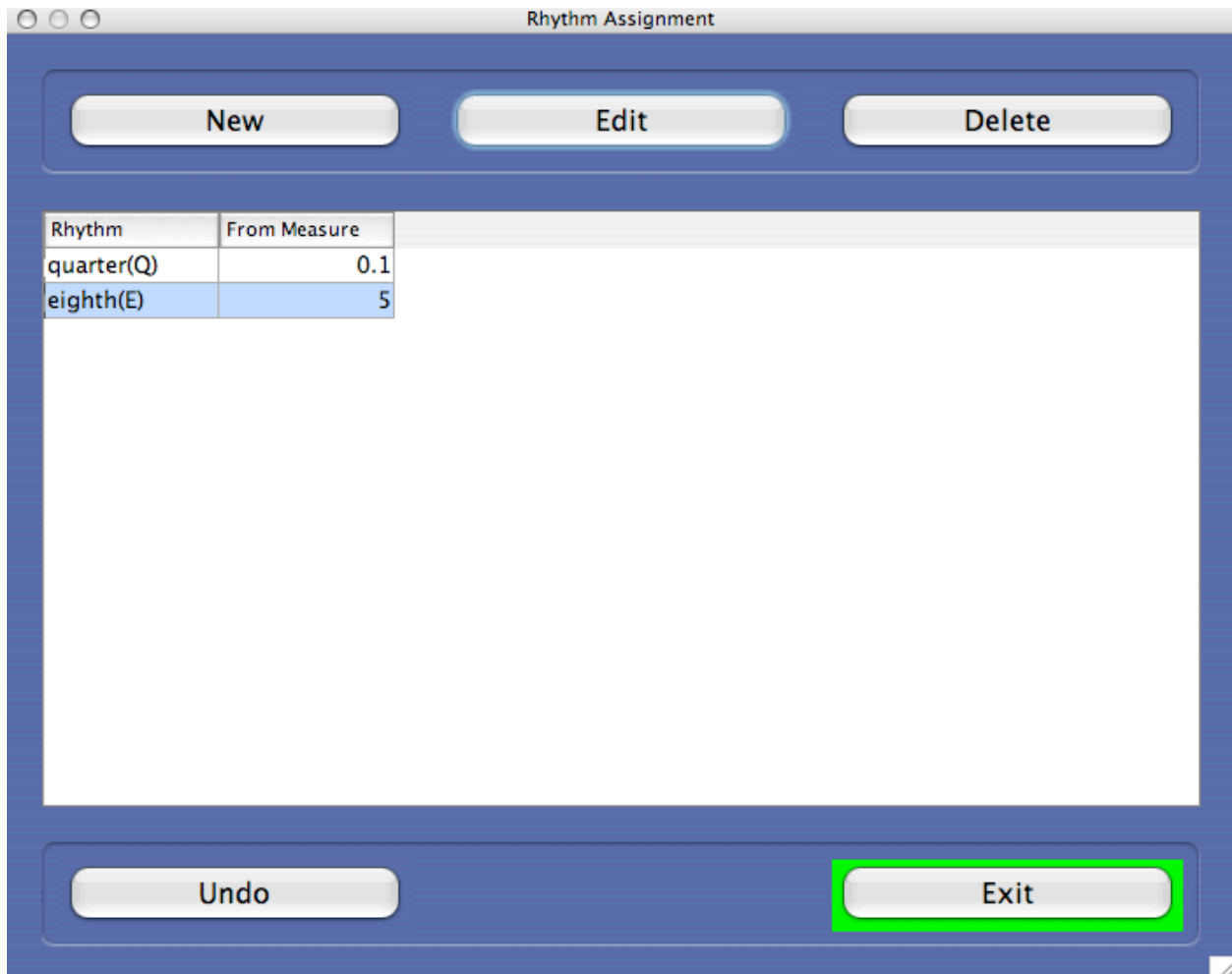
Note: to enter play or pattern subdivisions at a point other than the downbeat of a measure, use the ADVANCED EDITING window described later in this manual.

**WARNING!** Do not attempt to delete the first (topmost) rhythm event in the central display box (assigned to measure 1 or whatever the first measure of the song is.) If you do, an error message will appear when you return to the player window and you will be taken back to the editor window to remedy this.

After you have performed all of your Play subdivision edits, exit the this sub-console by clicking the **Exit** button at the lower right portion of the window. This will return you to Main Editor screen.

**\*\*\*Save your work by clicking the Save button\*\*\***

Figure 11 - Rhythm Assignment Window



## Tempo Editor

Sinfonia® is meant to be played by a musician following the conductor or stage action in real time. Nevertheless, there may be occasions where you need to have Sinfonia® (as opposed to the player) control the tempo. For this purpose, there are tempos preprogrammed into most shows. Sinfonia® references these tempos if you enter *Go* or *Cruise* mode without otherwise establishing a tempo with the *Play* keys. *A Tempo* also references them; hitting *A Tempo* makes Sinfonia® snap to the preprogrammed values. Note: During normal playing, *Play* mode will override any programmed settings. But if it is necessary to put Sinfonia® on automatic pilot, and you want to modify the tempos, use the Tempo Editor.

### Editing Existing Tempos

To edit specific song tempos, do the following

1. Start by making sure the song in question is selected in the top 'Current Song' field.
2. Click the [Tempo] button in the Actions Tab.

This will take you to the Tempo Editor console. In the large window, you will see the existing programmed tempo(s) for the song. You might get a warning that a Sinfonia® tempo map does not yet exist for the selected song. If this happens, simply click “OK” to generate a new map.

3. Either double click inside a specific field, or single click inside a field and then click the [Edit] button.

If you modify the location (Measure:Beat:Tick values) for a tempo, make sure the location actually exists within the score. Note: there are 480 ticks in a Quarter note. If you use the [Edit] button to modify location, be sure to enter values for Measure, Beat, and Tick and to separate these values with colons (i.e. **3:1:0**, **12:2:240**)

4. If necessary, adjust the duration value by clicking inside the gray box. This brings up a pop-up menu from which you can select a rhythmic durational value.
5. If you have edited a Tempo with the [Edit] button, click [Finish] to dismiss the dialog box. If you have edited a value after double-clicking on its respective field, simply hit [Enter] on the typewriter keyboard to confirm the change.
6. There is an [Undo/Redo] button at the bottom of the screen if you need to back out of a step.
7. When you are done editing, click the [Save] button to save your work.
8. Click [Exit] to return to the Main Editor screen.

### Creating New Tempos

The process is similar for adding new Tempo events. Go to the Tempo Editor console, click the [New] button, and proceed from Step 3 above as if you had hit the [Edit] button. Remember to follow the Measure:Beat:Tick format when locating the Tempo (i.e. **3:1:0**, **12:2:240**). Also, remember that the Tempo needs to be placed at a location that actually exists in the score. If you want, you can click the “Show All Measures” checkbox to see a full list of the selected song’s measure numbers. Sinfonia® refers to lettered measures by a decimal equivalent. So for example, suppose a song starts with three pick-up measures before measure 1 – and these measures are called A, B and C. If you want to put a new Tempo at the start of the second measure, you would place it at **0.2:1:0**.

### Scaling Tempos

It’s possible to get a song that may have a great number of Tempo events spanning a short period of time – say, over a few measures. This generally happens when a ritard or an accelerando has been pre-programmed. If you want to change the speed of many adjacent Tempo events, it could be a bit tedious to edit each individually. Therefore we have provided a scaling option, which allows you to apply a percentage adjustment to a range of tempo events. To take advantage of this, do the following from the Tempo Editor:

1. In any column, click and drag until all the Tempos you want to change are highlighted.

You will only see the highlight in the column in which you clicked and dragged. Also, while you will see a box around all the events you have selected, the last one will just have an outline, while the rest will be shaded.

2. Type the desired scale value in the **Scale** box.

A value of 100 means you are scaling at 100% of the current value – in other words, no change. So for example, if you want to make things 10% faster, you would enter a Scale value of 110%

3. Hit [Enter] or [Return] on the typewriter keyboard.

You will notice all the Tempo values change accordingly in the selected region. The value in the Scale box will return to 100 – representing the new 100%.

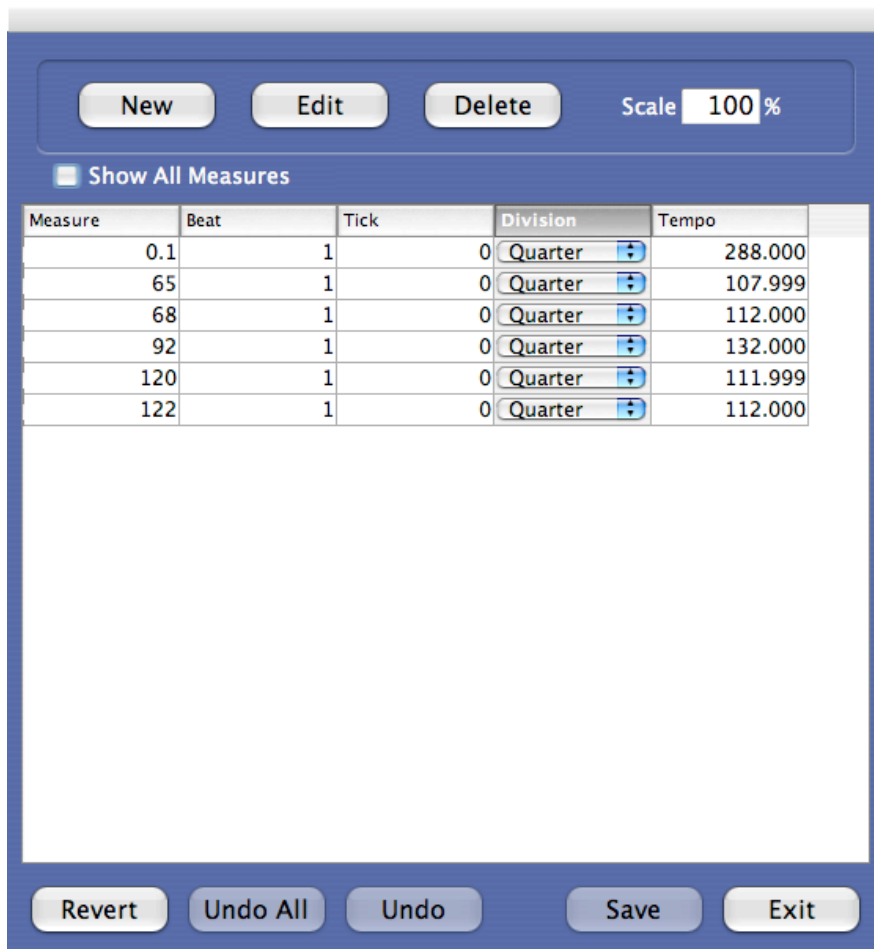
(Of course, the way to get the best ritard, accelerando or any flexible, nuanced performance, is to play this music live with the Play keys.)

At any time, you can click the [Revert] button to revert to the original Tempo map that came with the system. This action cannot be undone.

**Warning!** Be VERY CAREFUL when doing tempo edits. Failing to follow the protocols above (such as forgetting a colon or putting in an incorrect value in the measure, beat or tick fields) may result in a corrupted, non-functioning tempo file.

**One final note:** Any changes made to a song's tempo file will affect all shows that reference that song. Thus, the tempos you set for "Tomorrow" in your show file "MyAnnie1" will appear in the show file "Annie1" (or any other show which contains that song.)

Figure 12 - Tempo Edit Window



### New (Advanced Editor)

The New button allows you to create any of Sinfonia®'s available Actions. As such, we also refer to it as the Advanced Editor. Here you can perform with a greater degree of precision almost any of the edits discussed previously. There are also additional miscellaneous commands. For special circumstances, the Advanced Editor allows very detailed and unique customization.

Sinfonia® uses its own programming language to understand the way a song should behave. There are commands that tell Sinfonia® how to navigate through a repeat or cut, which instruments to mute and when, which beat subdivision is to be played, etc. When changes are made in the other editing areas, these commands, which are called metaevents, are automatically written into the Sinfonia® show file. In fact, when you go to the Advanced Editor, you'll see all the metaevents for a given song, including the ones that were written from any edits you may have made.

While different editing tasks involve different arguments and parameters, the commands, as metaevents, share a common syntax. The Advanced Editor lays out the syntax elements for you, so that the metaevent can be constructed in a consistent fashion. These syntax elements appear as separate fields above the central display box:

- **Action Type**

The basic command title (i.e. mute, repeat, cut). The individual actions will be explained in greater detail later in this section.

- **Measure**

The measure where the action will occur. Lettered measures convert to decimals (12c = 12.3).

- **Beat**

The beat where the action will occur. If this field is left blank, Sinfonia® will assume a value of 1 (or the first beat in the selected measure).

- **Tick**

Each quarter note beat consists of 480 ticks. The tick number specifies where within the beat the action will occur. For example, an action that happens on the second sixteenth note of a quarter note beat would be placed at tick 120. If the tick field is left blank, Sinfonia® will assume a value of 0 (or the very start of the selected beat).

- **Wait**

If actions are placed within a repeated section of music, the wait field allows you to specify a number of times to wait before performing the action. For example, if you repeat measures 10-20 three times, you can tell Sinfonia® to mute the flute the second time around by specifying a wait value of 1 (Sinfonia® waits one time before performing the action). If the wait value is 0 or left blank, Sinfonia® will assume you want the action to be performed every time. Be aware: if you specify a wait value other than 0 and your action is not placed within music that is repeated, the action will not be performed (Sinfonia® will be waiting for that second or third time around, which won't happen if there are no repeats).

- **Times**

The times field tells Sinfonia® how many times to perform an action. After Sinfonia® has fulfilled its obligation and performed the action the specified number of times, it will ignore the metaevent on subsequent passes. The most common way to use this field is with repeat (i.e. repeat measures 10-20 three times). But there are other interesting ways to use it. For example, if measures 10-20 are repeated three times, and within this repeated section there are commands to mute the flute two times at measure 19 and unmute the flute at measure 20, Sinfonia® would play the flute at measure 19 on the third pass after skipping it the first two times. If the times number is 0 or is left blank, Sinfonia® will perform the action every time it is encountered.

- **Target**

The target is the object of a given action. Targets vary according to action. For song navigation actions (cut, vamp, repeat, relocate, firstend, secondend) the target is the measure number where you will jump to when the action is performed. For show navigation actions (attacca, relseq), the target is the song to which you will relocate. For instrument actions (muteinstr, unmuteinstr, instrvolume) the target is the



instrument you wish to manipulate. The targets are outlined with their corresponding action type below.

- **Value**

Value is used with the instrvolume metaevent. This should be a number expressed relative to 1 with two decimal points. The value 1 indicates an unchanged volume level (or 100% of the preprogrammed value). Any value above or below 1 instructs Sinfonia® to play a selected instrument relatively louder or softer. So for example, if an instrvolume action is added for the flute with a value of 1.25, Sinfonia® will play the flute 25% louder than the preprogrammed level.

Actions are created, edited and deleted in the same way as the other editing windows, although not all fields apply to each action type. Highlight an existing action in the central display box and click **Edit Selection** or **Delete Selection** to edit or delete. Pressing enter on the typewriter keyboard from within any of the data fields will advance you to the next field. Also, clicking on a selection anytime there is a dropdown box of choices will advance you to the next field. In addition, there are several actions (transpose, hotkeys, and preferences) which bring up their own pop-up dialog box.

When you click **New**, a box appears where you can select from all the available Actions:

- **Stop**

When Sinfonia® arrives at a Stop action event, it will stop. Notes will cut off and the tempo clock will halt so that Sinfonia® will not think you are switching to an extremely slow play tempo (as it would if you simply stopped playing). A stop metaevent is equivalent to hitting stop on the piano or typewriter keyboard. This might be useful if you want Sinfonia® to stop at a specific spot for a bit of stage action.

Stop events do not have a target or value. Leave these fields blank when creating stops.

- **Pause**

Sinfonia® will pause when it arrives at this action event. Forward motion of the song will stop, but whatever notes were playing when you arrived at the pause event will continue to play until you give Sinfonia® further instructions (like additional taps or a cut-off command from the piano or typewriter keyboard). Like Stop, the tempo clock will freeze so that Sinfonia® doesn't think you have shifted to a very slow playing pattern. Pause events can be useful in musical fermatas or rubato passages.

Pause events do not have a target or a value. Leave these fields blank when creating pauses.

- **Relocate**

The relocate command is the generic way to move around a song. Relocate can accomplish the same tasks as any of the other song navigation commands (cut, repeat, vamp, etc.) The placement of the relocate action denotes the spot from which Sinfonia® will jump to a new location. The target is the new measure to which

Sinfonia® will jump.

Leave the value field blank on relocate events.

- **Vamp**

Vamp events establish a new vamp, or section of music that is repeated an indefinite number of times. The vamped music will repeat until the player tells Sinfonia® to exit the vamp. The vamp action is placed at the ending boundary of the vamped section of music and the target is the beginning. For example, if you wanted to add a new vamp of measures 1 through 4, you would place a vamp action at measure 5, beat 1, tick 0 (in other words – the place where measure 4 is completed, the barline to the right of m4). The target would then be 1 (for measure 1). The times value would be 0 or left blank since you would want the action to be performed indefinitely. (It is possible, though uncommon, that you might want a wait value – if for example this vamp fell within a larger repeated section of music).

Leave the value field blank on vamp events.

- **Repeat**

Repeat events establish a new repeat. Like vamps, the repeat action occurs at the end point of the repeated section and the target is the beginning.

Leave the value field blank on vamp events.

Note the distinction between entering repeats (and vamps) in the Advanced Editor versus entering them from Repeat, Cut, Vamp editor window. In an effort to make the system more user-friendly, the Repeat, Cut, Vamp editor deals with repeats and vamps in a way that is more typically idiomatic to musicians. That is to say, it discusses repeats and vamps from the earlier measure forward. For example, a musician would usually say, “repeat measures 10 through 20” rather than “go from the beginning of measure 21 to the beginning of measure 10.” You can enter a repeat or vamp in the Repeat, Cut, Vamp editor using a more common parlance and Sinfonia® will convert it into a metaevent with the syntax it needs. However, the Advanced Editor, where more specialized repeats and vamps are created, requires the proper syntax upfront. Focus on where the action will actually occur. In the case of repeats and vamps, this is the endpoint of the repeated section of music.

- **Firstend**

The firstend action, which is used in tandem with a corresponding secondend action, allows you to create repeated sections of music with different endings (Ending #1 and Ending #2). Get ready for a bit of a brain twister here: The firstend action is placed at the beginning of the first ending and its target is the beginning of the second ending. It's equivalent to a relocate metaevent with a target that is the second ending start measure number and a wait value of 1 (it performs the action on the second pass). In this way, the firstend action defines the front boundary of the first ending.

Leave the wait and times field blank with firstend events; these mechanisms are already built into the command. Leave the value field blank on firstend events.

- **Secondend**

The secondend action is used with the firstend action to establish a repeated section of music with two different endings. Place the secondend action at the end of the first ending for the repeated music (which is usually – though not always – also the beginning of the second ending) with a target that is the measure number for the repeated section of music.

Leave the wait and times field blank with secondend events; these mechanisms are already built into the command. Leave the value field blank on secondend events.

*An example of firstend and secondend in practice:* Lets say you wanted to repeat measures 10-20 with a first ending at measure 19 and a second ending at measure 21. You would create two events:

<u>Action Type</u>	<u>Measure</u>	<u>Beat</u>	<u>Tick</u>	<u>Wait</u>	<u>Times</u>	<u>Target</u>	<u>Value</u>
firstend	19	1	0			21	
secondend	21	1	0			10	

- **Relseq**

The relseq action allows you to go immediately and automatically to a new song from a specific point in the current song. When the relseq is performed, Sinfonia® will relocate to the selected song, stop and wait for further instructions (i.e. tap, go, etc.). Place the relseq action at the point you want to switch songs. The target will be the new song to which you wish to relocate. When creating or editing relseq actions, a drop down list of the various songs in the show will appear when you get to the target field. Click on your target choice.

Leave the value field blank on relseq events.

- **Attacca**

The attacca action allows you to segue between two songs without stopping. Usually this happens at the end of a given song such that the music flows from the end of one song into the beginning of the next song. However it's possible to place attacca anywhere in a song and to segue into any song in the show. Place the attacca action at the point you wish to segue with the destination song as your target. The available choices will appear in a drop down list when you get to the target field.

Leave the value field blank on attacca events.

- **Reset**

For actions that have either wait or times arguments, the actions will stop functioning or will function differently based on the number of times Sinfonia® has passed. If you have a repeat to measure 10 that lives at measure 21 and it has a times of 2, than Sinfonia® will relocate to measure 10 the first two times it hits measure 21 and ignore the command on the third and subsequent times. A reset action will reset all

the action counters to their original values. So if Sinfonia® encounters a reset action and then relocates to places where there are previously expired actions, Sinfonia® will perform these actions as if they are being passed for the first time

Leave the target and value fields blank on reset events.

[For rehearsal purposes, hitting F9 on the Typewriter keyboard, or leaving and returning to the current song with the arrow keys (in the Player window) will also serve to reset all the action events.]

- **Muteinstr**

A muteinstr action will mute a selected instrument. Place the muteinstr action at the desired location and select the target instrument from the drop down window at the target field. Leave the value field blank.

- **Unmuteinstr**

An unmuteinstr action will unmute a previously muted instrument. Place the unmuteinstr action at the desired location and select the target instrument from the drop down window at the target field. Leave the value field blank.

- **Atempo**

When Sinfonia® encounters an atempo command, it will reset the tempo clock to the preprogrammed tempo. This can be useful if you want to perform an extreme *ritardando* section of music followed by a quick shift back to the original tempo. Without the atempo action, Sinfonia® would take a few taps to realize your intentions and catch up. The atempo action allows you to give Sinfonia® a heads-up.

Leave target and value blank for atempo events.

- **Instrvolume**

Instrvolume actions allow you to adjust the relative volumes of instruments over the course of a song. Place the instrvolume event at the desired location. A drop down list at the target field allows you to specify the instrument target. Here (at last), you get to use the value field. A decimal figure above 1 will make the instrument relatively louder. A decimal figure below 1 will make the instrument relatively softer. Thus a instrvolume with a flute target and a value of 1.20 will make the flute 20% louder, while a value of 0.80 will make the flute 20% softer.

Note: Volumes settings live within a range of 0-127. Therefore, there are limits to the amount you can increase volume. For example, if an instrument is preprogrammed at a volume level of 100, the most you will be able to increase it is 27% to get to the maximum volume of 127. In this case, attempting an increase greater than 27% will still result in just a 27% increase, since the setting has already reached its upper limit. Generally speaking, volume adjustments should be kept within a 15-20% range. If you feel you need to increase by a large percentage, consider lowering the other instruments instead, so the instrument in question stands out more.

- **Rhythm**

The rhythm metaevent allows you to change the play beat subdivision. The target is the rhythm value choice. The options appear in a drop down list when you get to the target field. Leave the value field blank for rhythm events.

- **Cutoff**

When Sinfonia® encounters a cutoff action, it will turn off all notes that are playing at the time. Leave the target and value fields blank for cutoff events.

- **Cut**

The cut action is a relocate action, usually used to skip sections of music. Place the cut action at the desired jumping point with a target destination measure number. If you want to cut to a point mid-measure, enter the target as measure:beat:tick (for example, a cut to beat 2 of measure 4 would have **4:2:0** as the target.) Leave the value field blank.

- **Clickon and Clickoff**

Clickon and clickoff are not currently supported.

- **Seq**

The seq action is used to trigger a target external sequence. An external sequence is a little musical snippet that plays at a separate clock, outside of the meter and tempo controls of the primary sequence. An example might be a special drum fill or horn flourish. Most often these external sequences are triggered by hotkeys, so they can be cued in real time by a particular stage action. However, The ‘seq’ metaevent allows you to program them to occur at a specific location.

- **Hotkeys 1-36**

Hotkeys can be programmed for specialized functionality. With hotkeys, you can trigger unique relocations, mutes, external sequences and more. For example, you can set up a hotkey to take you automatically to measure 37. Or you can set up a hotkey to trigger the muting (or unmuting) of the flute part. Furthermore, because you can redefine the hotkeys as you go through the music, the same hotkey can perform an unlimited number of functions.

In the hotkey pop-up window, select the hotkey Target Type: Instrument (to mute/unmute an instrument), Location (where the target is the measure or place mid-measure you would like to relocate to.), or Sequence (to trigger an external sequence). If None is selected, Sinfonia® will look for prospects in the following order: Instruments, Targets, Sequences. For example, if the hotkey target is defined as “triangle”. Sinfonia® will first look to see if there is an instrument by this name. If Sinfonia finds it, it will act on it accordingly. If Sinfonia® doesn’t, it will then look to see if a location target names “Triangle” exists. If so, Sinfonia® will immediately relocate there. If the location is not found, Sinfonia® will finally look for an external sequence named “Triangle” and trigger it if its there. If it still is not found, Sinfonia® will then give a message that the target is not valid.

To create an Instrument Hotkey, enter the name of the instrument you would like to affect in the Target field. If you are unsure of the name, you may use the Output Test feature (described later) to find the name you are looking for. Be careful when entering the name in this field: spelling and capitalization counts! Thus, if the instrument is named “Trumpet1” in the Output Test window, don’t enter “Trumpet” or “trumpet1”. Also note that some instrument names have an underscore, such as “AltoSax\_R1”. This name must be entered exactly as it appears in the Output Test window.

For the “Hotkey Name” field, you may either enter a short name (under 10 characters) or you may leave this field blank. If you do enter a name, it will be displayed in the hotkeys window of the player if that preference is turned on (see “Preferences”).

When the Hotkey is set to an instrument, hitting the hotkey will activate the *opposite* mute state (if the instrument is currently muted, the hotkey will *unmute* it, and vice-versa).

When the Hotkey is set to a Location, hitting the hotkey will cause Sinfonia® to jump to the target measure as soon as the hotkey is pressed. If you are in Play mode, the hotkey will also act as if you just pressed a play key on the downbeat of the target measure. (If you are in Stop or Go mode when you hit the hotkey, you will still stay in that mode at the target measure.)

Remember that the sequence needs to pass the hotkey definition before it will take effect. If a hotkey is defined at measure 20, hitting it at measure 10 will have no effect (or it will have the effect of a previous definition). Also remember to be careful with what you write down as a target: spelling counts!

On smaller Sinfonia® systems, only one hotkey (hotkey 1) is programmed on the MIDI keyboard. If you need or want more, see Remap, or contact RMS for assistance.

- **Transpose**

If you need to change the key of a song, you can do that by using the Transpose feature in the main Editor window. If you need to make a transposition only for part of a song, you can add a Transpose metaevent at the location where you want the transposition to begin. The transpose metaevent and the Editor’s transpose feature work cumulatively: a Transpose metaevent of -1 placed in a song with a transposition setting of -2 will result in the song being transposed a minor 3<sup>rd</sup> down from the original key at the location of the metaevent.

- **Pref**

The ‘pref’ metaevent is used in conjunction with the preferences feature described in the next section. With the ‘pref’ metaevent, you can toggle a preference to its alternate state. If the preference is turned on, this action will turn it off, and vice versa. Note: when you arrive at a new song, the global state will be restored (unless another ‘pref’ event is programmed).

## MIDI Tab

From the MIDI Tab, you can select your MIDI input and output port assignments, remap your MIDI keyboard and perform the Output Test.

### MIDI Input/Output Ports

The Input Port should be set to your MIDI controller keyboard. Output ports will vary depending on show. For most OrchExtra and InstrumentalEase productions, only Ports B & C are used, set to Sinfonia Sampler 1 and Sinfonia Sampler 2 respectively.

### Remap

### Output Test

The Output Test is a diagnostic that helps you check and confirm MIDI data and audio signal on the individual instrument channels. It should be performed before every performance well enough in advance to address potential problems (at least one hour before house-open).

There are two basic modes to the Output Test:

- **Sine Wave**

With the Sine Wave Test, a 1k 0vu sine wave (this is the standard “test tone” used in pro audio) will be generated by those sound modules which are capable of sending this signal. It can be particularly useful when calibrating levels at the mixing board.

- **Instrument Test**

With the Instrument Test, a short pattern will be continuously played using the default sound of each instrument track. This Test can help isolate a misbehaving instrument and perhaps track down the problem to something like a disconnected cable.

You will notice that the instruments are grouped into columns by the ports used: B, C, D, etc. These ports correspond with the MIDI ports used by the sound module or modules in your Sinfonia® system. You will see as many ports as are utilized by the underlying content, up to 8 (Ports A-H). The Channel displayed corresponds with the MIDI channel number used by that instrument on that Port.

To use the Output Test, do the following:

1. Make sure all Sinfonia® and house sound components are powered on.
2. From the MIDI Tab, click the [Output Test] button.

You will be taken to Output Test screen.

3. Select the test mode you want “Sine Wave” or “Instrument Test.”

Modes are located in the upper left portion of the screen

4. Click the red [Test Off] button.

It will turn green and read “Test On.”

5. Click an Instrument checkbox to activate it for the test.

You can select multiple instruments simultaneously. Depending on the mode you are in, it will either send a Sine Wave out the selected channel(s) or small musical snippet. Click the [Select All] button to quickly select all available instruments.

6. Single click any active channels to deselect.

You can also click the [Clear All] button to quickly deselect all active channels.

7. After checking all channels, click the [Test On] button.

The button will toggle back to a red [Test Off].

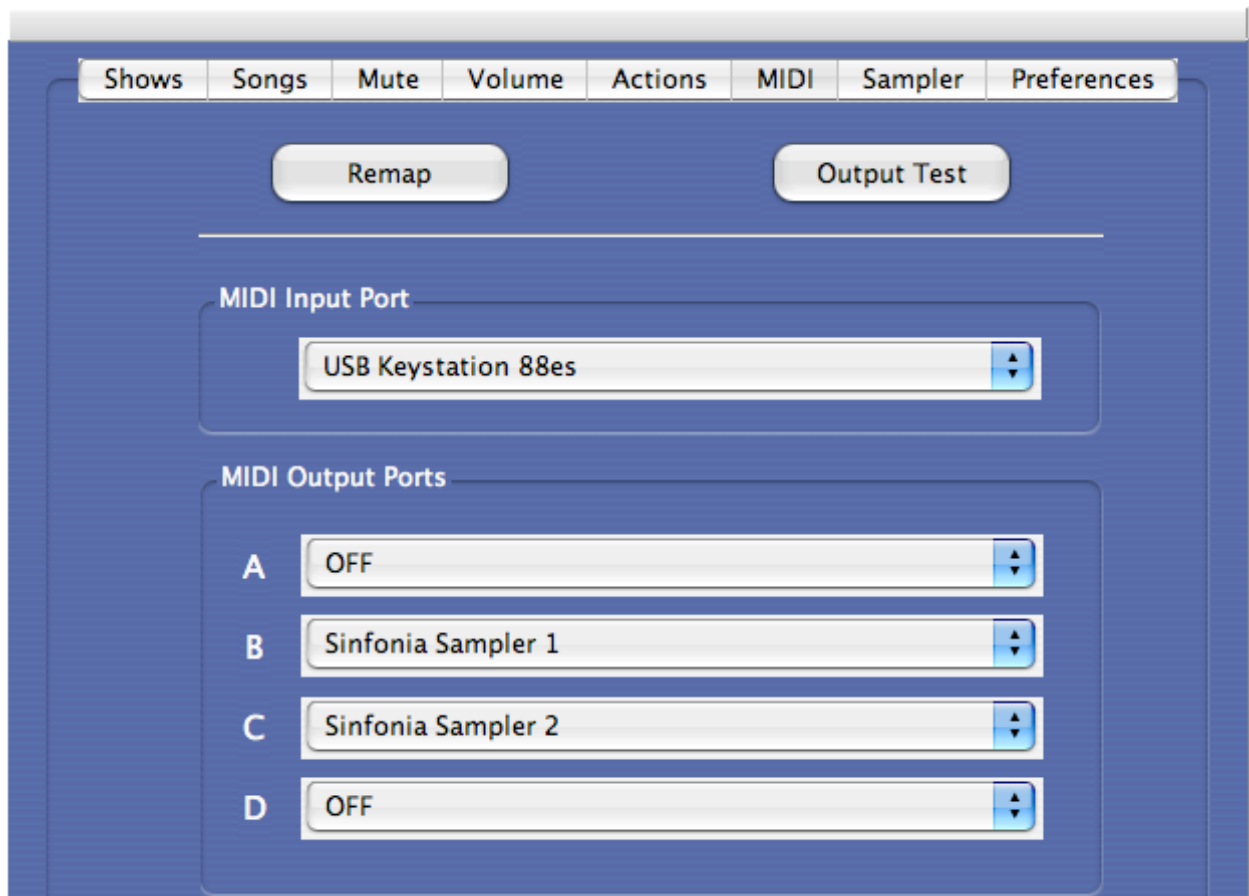
8. Click [Exit Test] to return to the Editor screen.

**Troubleshooting Hint:** If you turn on the Output Test and are not seeing or hearing Sinfonia® in your house sound system, plug a pair of headphones into the headphone jack of the main Sinfonia® sound module. If you hear the Output test in your headphones, the problem you are having is most likely not with Sinfonia®.

If a particular instrument family (such as all the strings) seems to be missing, the problem is most likely due to a loose or disconnected audio or MIDI cable. Use the Output Test to determine which Port or Channels are affected and recheck your connections!



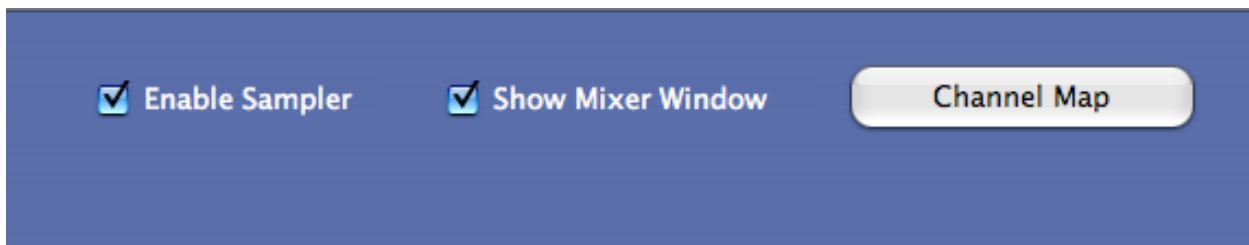
Figure 13 - MIDI Edit Console



## Sampler Console

The Sampler tab only applies to Macintosh based Sinfonia® systems that include the RMSSampler. If you are not using this type of system, you can skip this section.

Figure 14 - Sampler Console Window



The Sampler Tab of the Editor consists of three items:

- Enable Sampler checkbox

This should be checked when using the RMSSampler.

- Show Mixer Window checkbox

Check this box to display the floating Mixer Window in the Player. See below for more information.

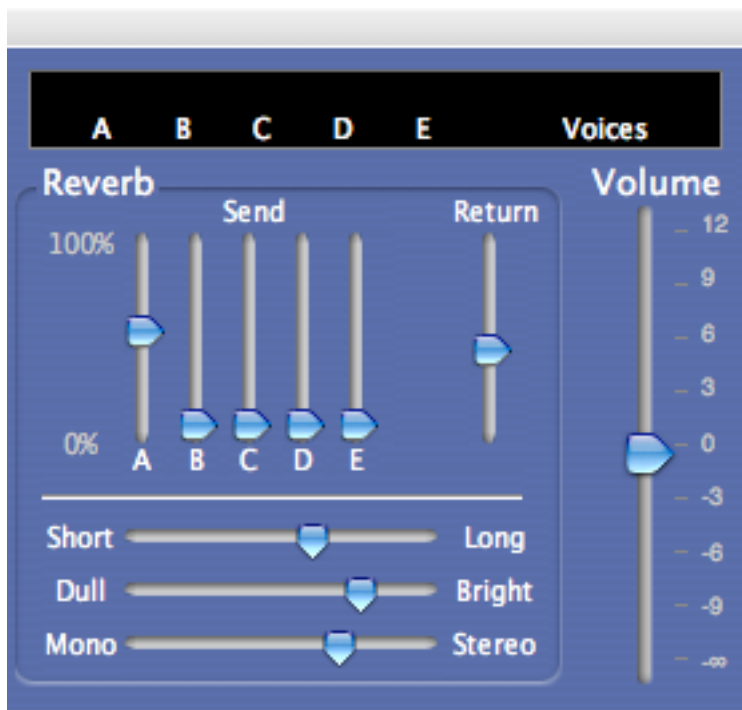
- Channel Map editor button

This button takes you to the Channel Map editor, from which you can set routing and panning information for the Firewire 410 audio break-out box. See below for more information.

### Mixer Window

The floating Mixer Window (that appears in RMSSampler based Sinfonia® systems if the “Show Mixer Window” is checked) allows you to set overall volume settings, set reverb settings for the various routing pairs on the Firewire 410, and monitor activity on the outputs.

Figure 15 - Floating Mixer Window



You can think of the Float Mixer Window as divided into three sections:

- Master Volume

On the right side of the Window is a large Volume slider. In most instances, it is best to keep this in the middle ‘0’ value. This is the nominal setting that provides the truest sample playback without distortion. However, if your Theatre has unique acoustics or sound design issues, you can increase or decrease the global volume of all the Sinfonia® samples with this setting. Note: This adjustment is different from edits you may perform with the Instrument Volume editor. Here you are adjusting the samples

themselves, whereas in the Instrument Volume editor, you are adjusting the MIDI files that trigger these samples. Be careful of too much adjustment here as it can cause distortion.

- Reverb

The majority of the Window is taken up by the various RMSSampler reverb settings. The first five vertical sliders above the letters A-E adjust the amount of reverb that is sent from these five output pairs. Next to this is a vertical slider that controls the single return value. All reverb data is piped through the A output pair. Depending on your Theatre's sound system, you can get very creative and specific with the way you treat reverb in the mix. For example, you might want to isolate reverb so you can mix it separately from the dry instruments. Or you may decide to give more reverb to the strings and less to the percussion, etc. See the Channel Map section to learn more about how to customize your routing.

The horizontal sliders allow you to change the character of the reverb – length of decay, amount of brightness, size of stereo spread. Experiment to find the right settings for your Theatre and tastes.

Note: Depending on your settings, the Reverb may add volume to your overall mix. Also note: try to be careful to only apply reverb to the outputs you are actually using. Otherwise, you will tax the Computer unnecessarily.

- Monitor

The top portion of the screen provides visual feedback of what Output Ports are in use. This will help you confirm or troubleshoot any adjustments you might make with the Channel Map editor.

Final note: We find that the Mixer Window is an important feature to have regular access to during rehearsal and tech. But once the settings have been determined, people generally want these to be locked in place and not change again. Therefore, we suggest turning off the Floating Mixer before performances begin. This will free up additional Player screen real-estate – and more importantly, prevent the accidental changing of mixer settings during the run.

### Channel Map Editor

The Channel Map editor (accessed from the 'Channel Map' button in the 'Sample' tab) allows you to customize the routing of the RMSSampler to the Firewire 410 audio breakout box.

When you arrive at the Channel Map editor, you will see the 32 channels of the RMSSampler (B1-16 & C1-16) displayed with five columns of information. The first four columns are not relevant here as they relate default patches that will change as soon as you start playing Sinfonia®. Focus instead on the last two columns: Pan and Output.

- Output

The Output option is a fairly straightforward concept. Clicking on the pop-up menu allows you to select one of the five available stereo output pairs on the Firewire 410. 'A-D' correspond to the 4 unbalanced ¼ inch output pairs as viewed from right to left on the back of the Firewire 410. 'E' corresponds to the coaxial S/PDIF port.

- Pan

Panning allows you to adjust where in the stereo spectrum each RMSSampler channel will land on its assigned output pairing. It's expressed as a value between 0 (hard left) and 127 (hard right). Use hard panning to route an instrument exclusively to a specific port for individual mixing at the Theatre's mixing board. Or for more general use, simply modify the various instruments to create a natural spread across the stereo field.

After you have made all of your panning and output assignments, click the 'Exit' button. Your changes will automatically save.

If you are unsure about which instruments are on which channels, you can go to the 'Output Test' (accessed from the 'MIDI' tab of the Editor) to see how everything lays out.

Give careful thought to how you can make best use of your Theatre's sound system and the available Sinfonia® channels. You might, for example, want to group instrument families together, so that brass can be mixed separately from strings. Or you might want to group low pitched instruments separately from high, so that you can feed these to an external subwoofer. As mentioned in the Reverb section, you might decide it's worthwhile to separate the reverb (which always routes to output A) from the dry instruments. Be creative, and you can maximize the sonic impact of Sinfonia®

Figure 16 - Channel Map Editor

**SINFONIA v1.6.0a034 Channel Map Editor**  
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Chann	Bank	Instrument	Volume	Pan	Output
B1	1	003-FH LN FF M	100	49	A
B2	1	003-FH LN FF M	100	64	A
B3	0	000-Sine Wave	100	79	A
B4	0	000-Sine Wave	100	34	A
B5	0	000-Sine Wave	100	94	A
B6	0	000-Sine Wave	100	54	A
B7	0	000-Sine Wave	100	64	A
B8	0	000-Sine Wave	100	74	A
B9	0	000-Sine Wave	100	49	A
B10	0	000-Sine Wave	100	39	A
B11	0	000-Sine Wave	100	69	A
B12	0	000-Sine Wave	100	89	A
B13	0	000-Sine Wave	100	94	A
B14	0	000-Sine Wave	100	69	A
B15	0	000-Sine Wave	100	59	A
B16	0	000-Sine Wave	100	74	A
C1	0	000-Sine Wave	100	54	A
C2	0	000-Sine Wave	100	49	A
C3	0	000-Sine Wave	100	54	A
C4	0	000-Sine Wave	100	49	A
C5	0	000-Sine Wave	100	54	A
C6	0	000-Sine Wave	100	64	A
C7	0	000-Sine Wave	100	74	A
C8	0	000-Sine Wave	100	64	A
C9	0	000-Sine Wave	100	59	A
C10	0	000-Sine Wave	100	60	A

## Preferences

Preferences are global features that alter the way Sinfonia® behaves. They are mostly for advanced users involved with the underlying content development. The ones that are likeliest to come in handy for general use are as follows:

- **show hotkeys in player**  
When this is checked, you will see a grid appear in the player window. When a hotkey is activated, its name (if it was given a name in the Hotkey Name field) will appear in this grid.
- **black background for player –**  
This changes the player screen from blue to black (useful in those situations when the lighting designer complains about Sinfonia®'s glowing blue monitors.)
- **Check for rhythms that cross measure boundaries [validatetap]**  
This is an error check preference that will warn you when an established Play rhythm does not fall cleanly within measure boundaries. For example, if this preference is checked, and you attempt to put a dotted half note rhythm at beat one of a 4/4 bar without first putting a quarter note or lesser value at beat 4, you will get an error message. (In this scenario, the second dotted half that would fall on beat 4 crosses the bar line.) You will keep getting error messages when you program additional rhythms until you fix the problem. If you plan on doing a lot of specialized rhythm programming, this can be a useful tool.

Following are brief explanations of the other preferences, which should only be used under instructions from the content developers.

- **disable CC64 reset on new song [relseqnochase]**  
Sinfonia® normally resets CC64 whenever there is any kind of relocate – whether within a song or between one song and another. With this option checked, Sinfonia® will keep any CC64-on events active through a segue. The CC64 events will remain on until a CC64-off event is encountered in the corresponding track of the subsequent song.
- **disable CC64 reset on intra-song relocate [relocatenochase]**  
Similar to the item above, but for use in intra-song relocates (i.e. cuts, repeats, vamps).
- **enable hotkey before playback of new song [autohotkey]**  
With this preference checked, any hotkey that is defined at the very first tick of song will be active as soon as the song loads. You will not need to first play through the definition.
- **avoid multiple articulations on hotkey relocates [hotkeydeflam]**  
With this preference checked, if on a given channel, the same note occurs at both the jumping point and the hotkey target location, the second note will not play.

- **ignore hotkey when near relocate target [hotkeytargetguard]**

With this preference checked, if a location hotkey is triggered within a fraction of a second near its own target, the hotkey will be ignored. This is generally only necessary if ‘avoid multiple articulations on hotkey relocates’ is also engaged.

For each preference, the word between the brackets – *relseqnochase*, *relocatenochase*, etc. - is the metaevent label for that preference. Use the corresponding term as your target when creating pref metaevents to temporarily turn on or off a preference. See the Advanced Editor for details.

## Suggestions For Playing A Perfect Show

Remember to use the “STOP” key. The Mode description on the screen is a big aid for making sure you know that you have actually “stopped” and aren’t continuing in a “play” mode (either “PLAY” or “GO”).

Take some time to rehearse and familiarize yourself with Sinfonia® before you get together with the conductor, pit musicians or performers. You have to become familiar with the system and also with the score to the show. In addition, you will want to be familiar with how the score and the system work together. A good way to do that is to take the score and go through each song, marking what the play duration is throughout each song and thinking of places where you think you will need to tap, versus setting a tempo and letting Sinfonia® run. REMEMBER: If you are working through the score and stopping to make notes, be sure to hit the “STOP” key when you pause to make a note—otherwise the system will CRASH!

If you are following a performer (versus following a conductor) remember that most performers like to “backphrase” or sing slightly behind the beat, especially on ballads and songs with a strong beat. You will have the most success if you help set the beat and let it remain constant, rather than trying to “PLAY” exactly with the singer. What can happen when you do that is that the singer will try and sing slightly behind the beat, but you’ll be slowing the song down. The singer will slow down further, and you will try and follow and soon the song will be crawling along and everyone will be extremely unhappy.

## Contact Information:

Remember, if you need any assistance whatsoever, contact RMS: **(212) 620-0774**. For technical support or software questions email us at: [info@rms.biz](mailto:info@rms.biz).

For more information about Realtime Music Solutions and Sinfonia®, please visit [www.rms.biz](http://www.rms.biz).

# Have a GREAT show!