

# RHYTHM CORE ALPHA 2

## User Manual

Note that this manual is based on an early draft of the built-in user manual, and there may be some subtle differences between this and the final content. In all cases, please refer to the internal user manual when there is a question of proper operation that doesn't match this guide.

## Introducing Rhythm Core Alpha 2!

**Rhythm Core Alpha 2** is an advanced music creation and performance tool. It allows you to build loops of music with drums and a variety of instruments, as well as to play live music with the stylus using the **Solo Mode**. With this software, you can build music quickly, and perform it live in front of an audience!

This new version greatly expands the capabilities of the original *Rhythm Core Alpha* by adding:

- Drum Screen
- Mixer Screen
- 8 Way Solo Mode
- 1,2, and 3 Layer Piano Solo Mode
- Large “finger playable” Solo Modes
- Vibrato\*
- Portamento
- Pitch Envelopes
- Envelope Curve Options
- Echo
- Individual Sound Tuning
- Recording of Solos\*
- Recording of Patterns\*
- Recording of Control Inputs to SD Card
- MIDI File Export to SD Card
- Import and Export of Individual Blocks
- Renaming of Tracks and Blocks

... and many other new features, fixes, and tweaks designed to make this the best live music program on any mobile device!



\* Recording of solos, patterns, and vibrato were included in the European version of Rhythm Core Alpha.

**The Main Menu** – tabs at the bottom of every screen provide a shortcut to all the main screens of *Rhythm Core Alpha 2*. Simply touch the tab for the desired screen, to display it instantly. You can also select screens by using **O**SELECT.



The main menu options are:

- \* File** – All commands for saving and loading your work, as well as the settings menu.
- W Solo** – Play the selected instrument live with your stylus! You can customize this screen quite a bit with a sub-menu. While in solo mode, just tap the solo tab again.
- + Drum** – NEW! With this screen you can play the drums live. You can even play the Touch Screen with your fingers!
- Mixer** – NEW! With this screen you control the volume and panning of all tracks.
- X Pattern** – Arrange blocks (loops) and key / scale changes into a complete song! You can even make different looping sections that you can access with the +Control Pad.
- Y Block** – On this main screen of the program you can build drum and instrument parts by drawing on the appropriate grid, set the function of the buttons, mute or solo tracks, control the pattern sequencer, and much more.
- ? Help** – This option opens the instruction manual!

### The BLOCK screen

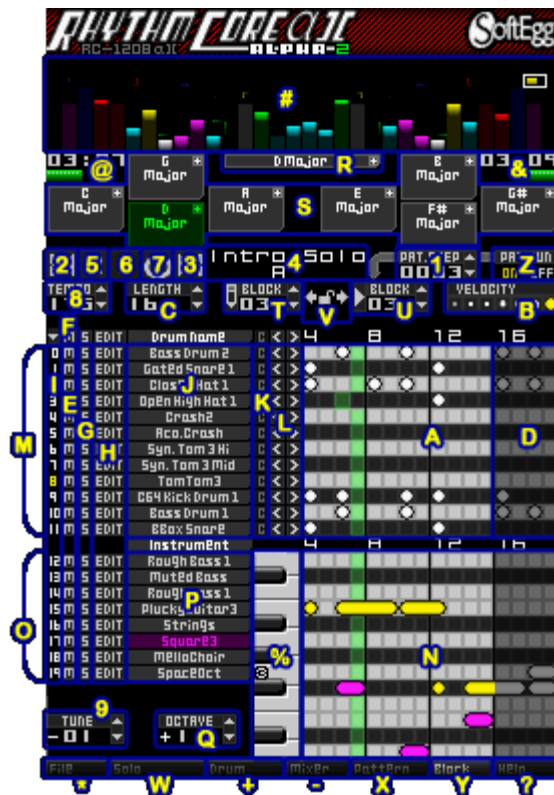
At **A** is the **Drum Grid**. Each square on the Drum Grid corresponds to **one beat** (1/16th note) of the drum that is named in the left column of that row.

Tapping on the grid places a **drum beat** in a track. Tapping on a drum beat that is already placed will erase it.

To the upper right of the Drum Grid is the **VELOCITY control** **B**. Each dot corresponds to a different velocity (loudness) of a drum beat.

**VELOCITY** Tap on the dot for the desired velocity (loudness) for all subsequently added **drum beats**.

The Drum Grid starts with sixteen beats visible, and is preset **to loop** after that many beats have played. You can adjust the length of the Drum Grid to as many as 64 beats by using the **C**



**LENGTH spinner** **C** above and to the left of the Drum Grid.



**Spinner controls** can be operated in two ways. Tapping the **up** and **down** **arrow controls** will increase or decrease the value by one. **Holding** the control will automatically change the value after a short time has elapsed. You can also change the value by touching the number with the stylus and sliding the stylus up and/or to the right to increase the value, or down and/or to the left to decrease it.

*Tip: On most controls holding **L** or **R** (together referred to as **Shift Buttons**) while tapping controls or sliding the stylus on a control will change values more quickly.*

To set more than sixteen (16) beats on the screen, you need to scroll the visible area of the Drum Grid. "Flick" the Touch Screen to slide the Drum Grid left or right. To "flick," touch the Touch Screen with the stylus while already sliding left or right. You can do this almost anywhere on the Touch Screen, but avoid spinner controls or you will change their value instead of scrolling (moving).

Beats past the end of the looped area are shown darker **D** to indicate that they are not played. You can set beats in the dark area, but they will not be played until you increase the **LENGTH** setting so that the area is no longer dark.

*Tip: Holding a Shift Button while changing the LENGTH control will adjust it by four (4) beats. Unless you are writing a waltz (three beats), using multiples of four is a good idea. 4, 8, 16, 32, or 64 beat loops will keep your music from sounding strange.*

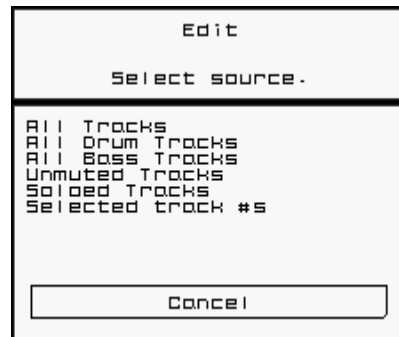
To the left of the Drum Grid are several controls.

**M** **M** is the **MUTE** control **E**. The M on the left of each track turns off playback of the drum track in this row. Tapping on the **M** above **all** tracks will reverse the mute status of **all** tracks. (Mute tracks will play and vice versa.). Tapping on the M above all the tracks **F** while holding a **Shift Button** (**L** or **R**) turns off mute on all tracks so that they play again.

**S** **S** is the **SOLO** control **G**. If it is turned on, only this track (and other Solo tracks) will play. Clicking on the **S** above all the drum tracks works the same as it does for MUTE.

**EDIT** Tapping the **EDIT** control **H** displays a menu that allows multiple drum beats in the track to be copied, set, cleared, etc.

Tapping the EDIT control above all tracks allows multiple tracks to be processed at once. Tracks can be selected by tapping the number **I** to the far left of the track until it turns yellow. There are also other ways to select a track. For more information, please read the section on the EDIT menu.








The **Drum Name** **J** is to the right of the EDIT control. Tapping on a name displays the "Load or Modify Sound" menu. From this menu you can select





different sounds, or change all attributes of the selected sound. Because there are so many options for adjusting the sound in *Rhythm Core Alpha 2*, they are divided into several sub-menus. Please see the section on the “Load or Modify Sound” menus for more information. Touching **Cancel** leaves that list without changing the sound.


*Tip! If you hold a Shift Button while tapping the Drum Name, you will go directly to the “Load Sound” menu, which also includes controls for ADSR, volume, pan, and key change.*

 The **C** control  clears all the drum beats in the entire track. Because this control is dangerous, it will only work if you hold a **Shift Button**.

 The “←” and  “→”  controls shift the beats in the track left or right, respectively. Any beat past the end of the grid loops back to the beginning, depending on the track length.


There are twelve (12) available drum tracks . Below them are tracks for other musical instruments. For the other instruments there is a **Note Grid** instead of a **Drum Grid**. This grid can be used to build bass and melody tracks .

Most of the controls in this section work like the controls on the Drum Grid with a few exceptions.

Tapping in the **Note Grid** adds a musical note using the currently selected instrument. The note of the sound is based on its vertical position in the grid. To draw notes with a different instrument, tap on its name . If you tap on its name when it is already selected, the “Load or Modify Sound” menu will appear, just as when you tap on a drum name.




As on the Drum Grid, holding a **Shift Button** while tapping the selected instrument name will go directly to the “Load Sound” sub-menu.



You can make a note that is longer than one beat by tapping the note to start, holding briefly and then dragging to the right to increase the length of the note. On an existing note, tap and hold to change its length. With scrolling, you can make a note longer than sixteen beats.

Each  **instrument track** can only play one note at a time. If you extend the length of a note so that it overtakes other notes, they will be erased. Be careful!




To make a chord where all notes are played on the same instrument, set three instrument tracks to use the same sound (by double-tapping on their name and selecting the same sound). Then draw each note of the chord separately after tapping on that instrument track name.





The keyboard to the right of the instrument name will play the currently selected sound when you tap on it. This is useful for composing, but it is not recommended for live performance. For that you use the **Solo Mode**, which you enter by tapping on the  **Solo**  **tab** at the bottom of the Touch Screen, or by paging through screens with . Please see the section about the **Solo Mode** for more information.


 You can record notes that you play on this keyboard or in the Solo Mode with the Solo Record Mode. If you press a Shift Button (L or R), a panel will drop from the top of the Touch Screen. Tap the “”





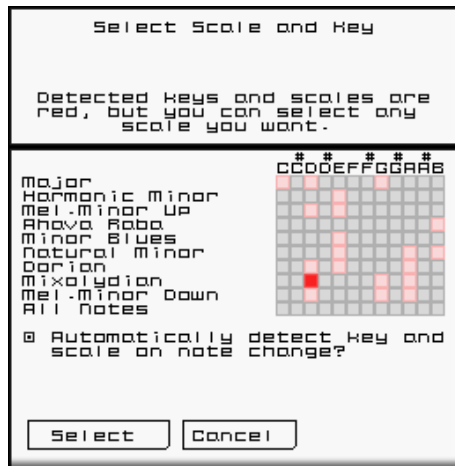
control once and the control will turn red indicating that recording has started . Now, any notes that you play on the keyboard or in the Solo Mode (during playback) will be recorded using the currently selected instrument track in the currently edited block. If notes are recorded where other notes are already in the track, the old notes will be overwritten and deleted. Tapping the  control again so that it changes the color to grey will stop recording. The other control, , is used for recording the Pattern Mode (described later). Tapping the word “REC” on the left will turn on recording for both Pattern and Solo mode, or, if either is already turned on, will turn both recording types off.

 Just below the instrument names there is an **OCTAVE**  control to the left of the Note Grid. With this control you can change the octave of the Note Grid you are viewing. Although a wide pitch range for notes is available, some instruments sound better in certain pitch ranges than others. For example, bass sounds generally sound better with 3 or 4.

Note: The octave numbers are different than in Rhythm Core Alpha 1. In that version, Middle C was treated as octave 0, but now it is octave 4, as it would be on a real piano keyboard. Some instrument sounds are pitched higher than the corresponding note on a piano keyboard to reduce screen scrolling when entering instrument parts. You can now modify the pitch of the sound yourself from the “Echo and Pitch” sub-menu of the “Load or Modify Sound” menu if you prefer.

As you draw notes in the Note Grid, *Rhythm Core Alpha 2* tries to identify the **key** and **scale** (**keyscale** for simplicity) of the notes you have added. This information will appear in the **block keyscale** box control  below the **VU Meters** in the center of the screen.

 On the right side of this control is a small “+”. If you  tap on it, it will bring up a “Select Scale and Key” menu.




In the “Select Scale and Key” menu for the **block keyscale** control:

A grid control on the right makes it easy to set the **key** and **scale**. The **key / scale** combinations with a red highlight are recommended by *Rhythm Core Alpha 2* as best for the notes that you have currently drawn. However, you can tap on any of the **keyscale** combinations.

Below the **keyscale** grid you will see an option that is used to tell *Rhythm Core Alpha 2* to automatically redetect the appropriate **keyscale** when you draw new notes. If the control is not checked, *Rhythm Core Alpha*

*2* will use your selected **keyscale** from now on.

On the **Block** screen, below and to the left and right of the **block keyscale** control are **remap** controls . Tapping on any of the remap controls will automatically cause playback to use the **keyscale** shown on that **remap** control, or perform other actions assigned to that control. The control will highlight in color to show that it is selected.



Like on the **block keyscale** (long box) control, there is a small “” in the upper right corner of each remap control. Tapping this control brings up a similar “Select Scale and Key” menu that allows the function of that control to be changed.

In the “Select Scale and Key” menu for the **remap** controls:

The keyscale selection grid on this “Select Scale and Key” menu works the same way as before. This menu includes an option not to change the keyscale at all.

At the bottom of the menu there are controls to change the block number or pattern step number. This feature is useful for moving around in a song structure, or for triggering drum fills.

Tapping the “Next” button will display the second page of the menu “Additional Button Options”. The “Shift Notes” option shifts the pitch without changing key. The “Allow block or pattern step change on # beats” option sets the length of the wait time after you tap the control or press the button to change to

Select Scale and Key

Detected keys and scales are red, but you can select any scale you want.

	#	#	#	#	#	#	#	#	#
	C	C	D	E	F	F	G	G	A
Major									
Harmonic Minor									
Mel. Minor Up									
Ahava Raba									
Minor Blues									
Natural Minor									
Dorian									
Mixolydian									
Mel. Minor Down									
All Notes									

Don't change key / scale.

Change to block # 00 ▲▼

Change to pattern step # 00 ▲▼

Select
Cancel
Next

the next block. The delay can be any multiple of the number you set. “00” will wait till the end of the block. If you set it to “04” then you can change block on beats 4, 8, 12, 16... while “05” will change on 5, 10, 15, 20, etc.

Tapping “Select” on either menu accepts the options as selected; tapping “Cancel” returns without changing anything.

On the **Block** Screen, notice that the **remap** controls are arranged like the **+Control Pad** and **(A)**, **(B)**, **(X)**, and **(Y)**. If you press either the **+Control Pad** or tap any one of the remap controls, the result will be the same: change the **remap keyscale**.

Additional Button Options

More options on pressing this button.

Shift Notes +000▲▼

Allow block or pattern step change on # beats 00 ▲▼

Select
Cancel
Back

Holding **L** or **R** (Shift Buttons) will change to a different set of **remap** controls, depending on which button is held. In this way, up to 24 different combinations can be instantly selected! Change these additional keyscales the same way you do normally, but simultaneously hold the correct Shift Control.

## The EDIT menu.

On the left of each track (whether drum or instrument) there is an **EDIT** control. Tapping it gives the following options.

**Copy** - Copies a set of drum beats or notes to a new location in the same track, or even to a different track or block. (A block is a set of tracks containing drums and drum beats, instruments and notes. See the section on blocks later in this manual.) Note that blank space is not copied.

**Shift** - Like copy, but the original data is removed.

**Set** - Sets every single drumbeat or note data to be turned on. Useful for setting up Hi-Hat sounds quickly.

**Clear** - Removes all drum or note data for every selected beat.

**Random** - Generates drum or note data by chance. It might be interesting! Take a chance!

**Echo** - Generates additional drum beats or notes by tapering off the velocity (loudness) over time, giving an echo effect. Note that there is also a non-destructive version of echo as part of the sound parameters; see the “Echo and Pitch” sub-menu under the “Load or Modify Sound” menu.

**Velocity** - Changes the velocity (loudness) of drum beats or notes.

**Transpose** – For note tracks only. Shifts the pitch of notes up or down in semitones. Note that there is also a non-destructive version of transpose as part of the sound parameters; see the “Echo and Pitch” sub-menu under the “Load or Modify Sound” menu.

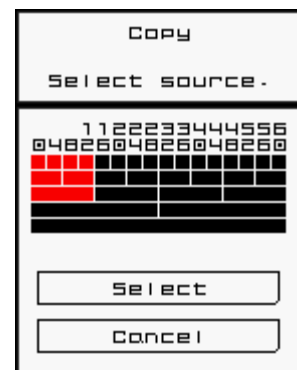
**Copy Instrument(s)** – Copies all of the parameters of an instrument sound (ADSR, vibrato, portamento, echo, etc.) to another track and/or block. Notes and drum beats are not copied here!

For every operation, there is a **Select Source** dialog box. Used correctly, this is a very powerful feature.

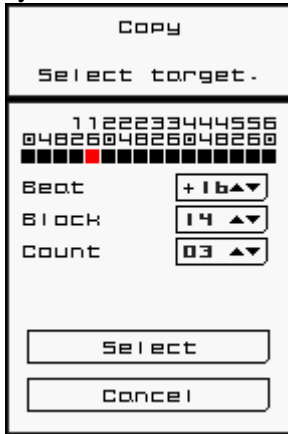
With this dialog, you can select the beats of the track **to which** the selected operation will apply. At the top of the dialog is a grid that divides the track into sections of four beats. Tap on the squares in the grid to tell the program that you want only those beats to be affected by copying, setting, etc.

Below the first line of boxes, the grid is divided into sections of 8 beats, 16 beats, etc. The bottom box selects all of the beats in the track. To select all beats quickly, just tap the bottom rectangle till it turns red. Red means “Selected”; black means “Off.”

When you have selected the desired beat ranges, tap the “Select” control. To cancel the change, tap “Cancel”.



If you have not selected any beats, when you complete the operation, nothing will happen! So be sure something is selected!



For the **Copy** and **Shift** commands there is also a "Select Target" dialog box. With this dialog, you establish the destination of the drum beats or notes you have selected. The grid at the top gives you the destination in four-beat chunks. You can also use the spinner below the grid to select beats located before the start of the track, or beats that do not fall on a four-beat boundary.

Tip: The destination beat is not an offset, but the actual position where the first beat you selected in the source dialog will be placed.

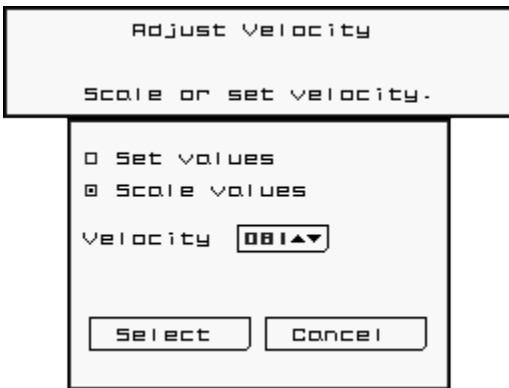
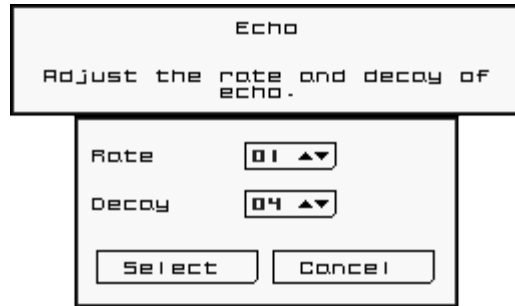
The "Track" spinner allows you to select another track as the destination. This is useful for doubling instrument parts inside the same block.

The "Block" spinner allows you to select a destination in another block. That is how you can build new loops out of parts of old ones.

**Count** allows you to duplicate more than once. If you select the first sixteen beats to copy, and then want that data to repeat all the way to beat 64, select beat "16" and count of "03", and you will copy the data three more times until it reaches the end of the track. (If you only wanted to copy to the middle of the track at beat 32, you would select a count of "01").

Tap "Select" to perform the operation, or "Cancel" to exit without doing anything.

The **Echo** command allows you to set repeating drum beats or notes of reducing velocity (loudness) for an echo effect. With the echo dialog you can set the "Rate" (number of beats between each echo) and "Decay" (number of echoes it will take to reduce from the initial velocity to zero).



The **Velocity** command allows you to set all of the selected beats or notes in the track to the same velocity (use the set value control), or to scale them up or down by a percentage of their current velocity. The spinner on the Touch Screen represents a percentage. For "Set" it is the percent of the maximum velocity for every note or drum beat, and for "Scale" is the percentage of the change.

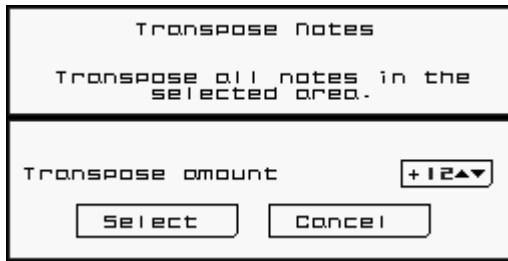
If "Set values" is selected and the velocity spinner control is set to 100%, then all notes or beats will be played as loud as they can be, whereas if it is set to

50%, they will be only half of the maximum loudness.



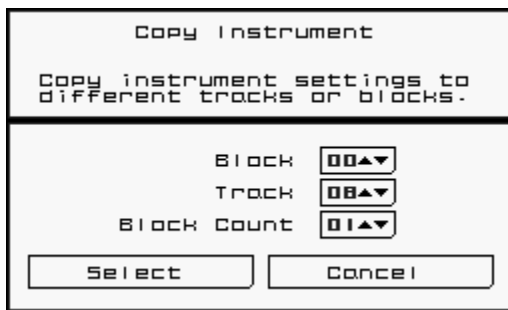
If “Scale values” is selected and the velocity spinner control is set to 100%, the loudness of notes or beats will not change. If it is set to 50%, they will become half as loud as they currently are. So if they are already at 50% loudness, then they would change to 25% of their maximum loudness.

For instrument tracks, there is also a “**Transpose**” option. The amount of the pitch change (in semitones) can be selected with the **spinner** on the dialog box.



The **Copy Instrument(s)** command allows all of the parameters of the given sound (sample waveform, envelope ADSR, pitch envelope, echo, pitch, vibrato, portamento, volume, pan, and instrument name) to be copied to any other track in any block. The notes are not copied!

Use this menu to select the destination for the copied data. “Block” is the destination block number. “Track” is the destination track number. “Block Count” is number of destination blocks in a row. So if you set “Block” to “05” and “Block Count” to “10”, you will copy the sound data to all blocks from block 5 up to block 14.



If you use the top edit button to select a group of tracks, the “Track” option will be missing, and you will copy all the sounds selected to the same track number in the selected “Block”.

### The “Load or Modify Sound” Menus

Tapping on a **drum name** or on a selected **instrument name** for any **track** on the **Block Screen** will display the “Load or Modify Sound” menu. This menu has six (6) options that allow you to change the sound for that track:



**Load Sound** – Displays a menu for selecting a preset sound, adjusting its volume, panning and envelope options.

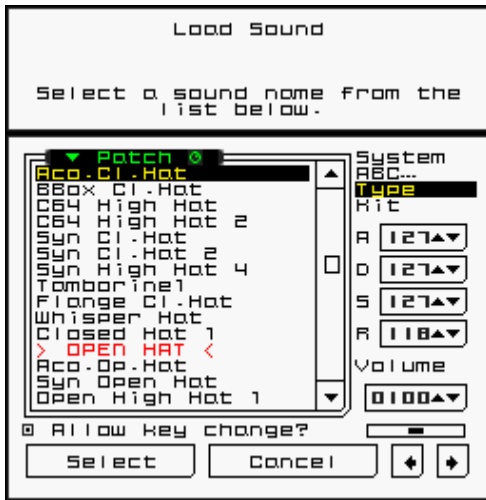
**Sample Waveform** – Displays a menu for selecting a waveform style to be used for the sound without changing the ADSR envelope or any other parameters of the sound (including the name).

**Envelope** – Displays a menu to set the loudness and pitch envelopes for this track’s sound.

**Echo and Pitch** – Displays a menu for setting a sound to echo, and changing its pitch.

**Vibrato & Portamento** – Vibrato makes the sound richer by a vibrating pitch. Portamento slides the pitch slowly when the note changes, a new feature for *Rhythm Core Alpha 2!*

**Edit Instrument Name** – You can now change the name of the instrument to anything you like!



“Select” will accept the changes. “Cancel” will exit without changing anything.

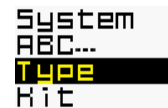
Here is a more detailed description of each menu:

### The “Load Sound” Menu

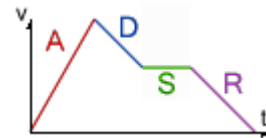
The left side of this menu lists all of the sounds (both drums and instruments) that are available for this track. Tapping on the name of the sound sets the sound waveform as well as all of the other parameters, including parameters on other screens like vibrato, echo, portamento, etc. Holding a Shift Button while tapping will change only the sample waveform, without changing the other parameters.

On the upper-right are a number of options to control the sorting of the list:

- “System” sorts in the order input in the system. This is useful mostly if you are used to the way *Rhythm Core Alpha 1* sorted sounds.
- “ABC...” sorts in alphabetical order.
- “Type” sorts by the instrument type, so that all the snare drums will be grouped together, all the bass synth sounds together, etc.
- “Kit” is only available for drums. It groups sounds that belong together: all the acoustic drum sounds are in one kit; all the synth drum sounds are in another, etc.

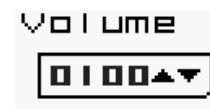


The **A**, **D**, **S**, and **R** spinner controls modify **Attack**, **Sustain**, **Decay** and **Release** of the sound loudness (volume). A value of 0 is the longest, and 127 is the shortest. **Attack** controls the time taken to reach full volume (loudest), while **Release** controls how long it takes to taper off. **Sustain** controls the volume level where it is held (0 softest, 127 loudest), and **Decay** is the time to reach the **Sustain** level after the **Attack**



peak is reached.

Below the **R (Release)** control is a control to adjust the **Volume** of the sound. This is a percentage of total available loudness. If the volume is set to greater than 100%, notes and beats with low velocities will be made louder, but those at 100% velocity will not get any louder.



Below the volume control is a slider for panning. Simply drag it left or right to pan the sound.

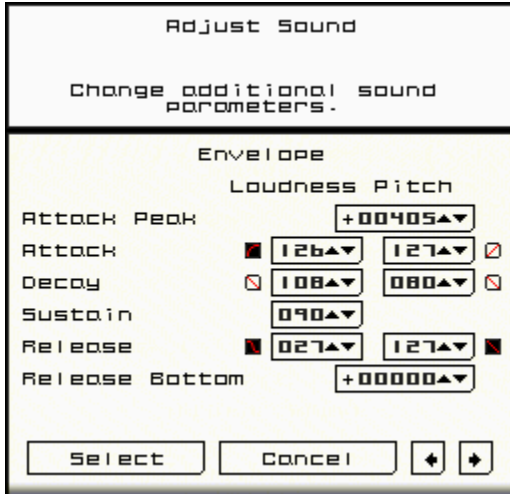
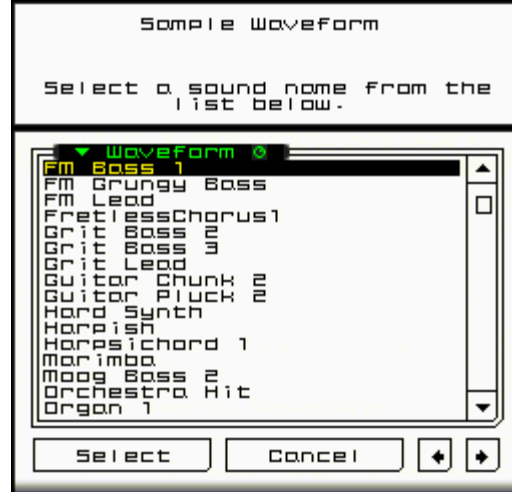


The “Allow key change” checkbox control is normally selected. Unselecting it will prevent the **Remap Controls** from changing the key of notes in this track.

The “Select” control accepts the changes, and the “Cancel” control returns the adjustments to the way they were before. The “←” “→” buttons display the previous or next sound adjustment menus in the order listed on the “Load or Modify Sound” menu.

**The “Sample Waveform” menu**

This menu changes only the sound sample (waveform) of the sound. A sample is like a recording of a sound. The recordings are sped up or slowed down to make the different pitches of the notes. Simply tap on the name of the waveform to change the sample that is played for that track.



**The “Envelope” menu**

This menu adjusts the envelopes for both the loudness and the pitch. The loudness envelope is the same as the ADSR data from the “Load Sound” menu. There is also a pitch envelope which works very similarly, but has a few important differences. For the pitch envelope, there are the additional parameters “Attack Peak” and “Release Bottom”.



These parameters control the pitch that is reached at the end of the Attack time, and at the end of the release time. Both are offsets from the current note in 1/64 of a semitone, with 768 being one octave (12 semitones). These values can be positive or negative, with a negative value being a lower pitch.

For the pitch envelope, the sustain point is always the current note, so there is no spinner for that value.

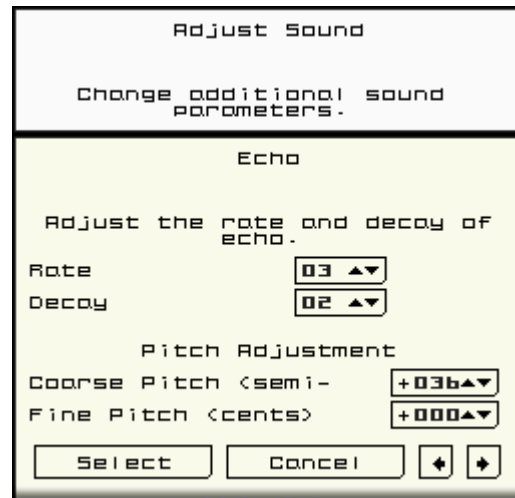
Each step of each envelope also has a “Curve Type” control. This allows you to set the shape of the curve for that step. The choices are:

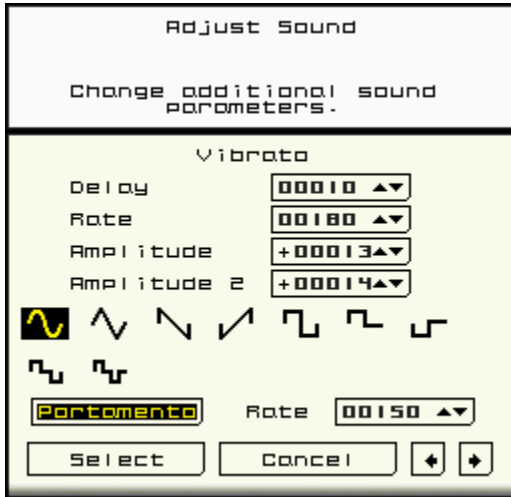
- Linear
- Exponential
- Reverse Exponential
- Smooth

**The “Echo and Pitch” menu**

This menu sets the echo and pitch of the current track.

Echo is specified by Rate and Decay spinners. Rate is the number of beats between each echo. Decay is the number of echoes that will be played before the echo volume decays to nothing.

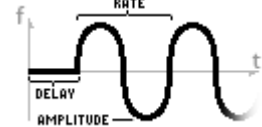




For Pitch Adjustment, there are Coarse Pitch and Fine Pitch spinners. Coarse Pitch is specified in semitones, while fine pitch is specified in percent of a semitone (cents). Note that internally, there are only 64 pitch divisions per semitone, so the number of cents might seem to vary slightly from what you specify when you return to this menu.

**The “Vibrato” menu**

Vibrato adds richness to a sound by changing the pitch of a sound periodically over time. Delay is the period before the vibrato starts. Rate is the speed of the vibrato loop repeats (ms). If you try to set a rate less than 0, there are options to set the rate in terms of 1/2 beat, 1/3<sup>rd</sup> beat, 1/4



beat, and beat counts from 1 to 16.

Amplitude refers to how much the pitch will change (in 1/64 of a half-step or semi-tone). A value of 64 will vary pitch by a whole note, which is usually far too much unless you are doing a special effect.

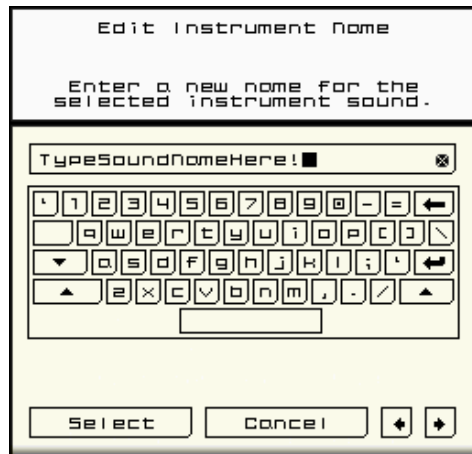
Amplitude 2 is how much the pitch will change if you are holding one of the shift buttons (L or R).



Below the vibrato controls is a set of pictures of waveforms for the vibrato function. Tapping on a waveform selects it. Square waves are useful with very large Amplitude settings, e.g. 768 for a whole octave.

**The “Edit Instrument Name” menu**

This menu lets you change the instrument name as displayed on the **Block Screen** for this **Track**. The Touch Screen is set up exactly like a computer keyboard. Simply type on the keys with the stylus to enter an instrument name. Pressing the ⊗ control will clear the name completely so that you can enter a new name.



**About Blocks**

A **block** is a complete loop of musical data. Everything you see in the Drum and Note Grids, including LENGTH, drum names and instrument settings are in a block. You can make different blocks and switch between them instantly!

Above the Drum Grid, you will see two controls marked "**BLOCK**".



Beside one of the **BLOCK** controls is a pencil icon. This is the **currently edited block** or **1 Edit Block**. This is the block that is currently displayed and changed by the user.



At the left of the other **BLOCK** control is an icon of a right-facing arrow, like a play button on an audio player. This is the **currently playing block** or **U Play Block**.

By changing the Edit Block without changing the Play Block, you can make a completely different loop (or block) of music, while another block is still playing.



Between the two **Block** controls are two small arrows pointing left and right. Tapping on each arrow will copy the number behind the arrow (block number) to the control in front of the arrow. This is useful to say "edit the **currently playing block**" or "play the **currently edited block**".

Note that when the **Play Block** is changed, the revised block will not play until the currently playing block has reached the end, or has reached a multiple of the number set in the "Allow block or pattern step change on # beats".

New for **Rhythm Core Alpha 2** is the "Block Lock" mode, selected by touching the padlock icon between the Edit and Play Block spinner controls. When the lock is closed (yellow), changing either block will change the other. Note that the currently playing block must finish playing according to the previously established settings.



The "Block Lock" is useful if you are recording Solo data that spans several blocks. When **Rhythm Core Alpha 2** plays a pattern of blocks (as set in the Pattern Screen), the Edit Block will follow the Play Block, so that your edits will be recorded into the currently playing track. There may be some gaps at the track changes as recorded notes are automatically cut off at the end of a track.

### Solo Mode

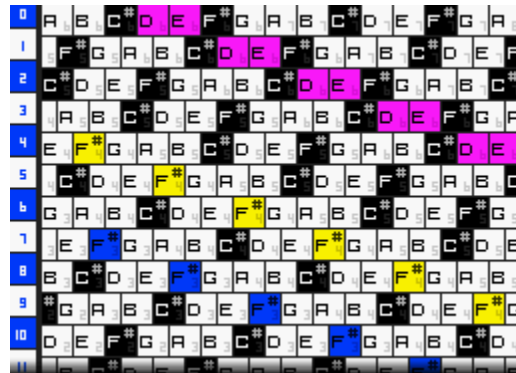


In the **Solo mode** you can play the Touch Screen as a musical instrument with the stylus!

**NEW** Now, the notes that are played by the sequencer light up in color in the **Solo Mode**!

Using **SELECT**, or tapping on the **Solo** option **W** at the bottom of the Touch Screen displays a new screen, the Solo Mode. In this mode, you can

play music live by tapping and holding on the appropriate note on the Touch Screen. On the left of the Touch Screen, there are controls for playing each of the drum sounds.



The **notes** available on the Touch Screen reflect the currently selected **key** and **scale** (keyscale). When you change keyscale using the **+Control Pad** or the remap controls, the notes available on the Touch Screen also change to match. You can't hit a wrong note!

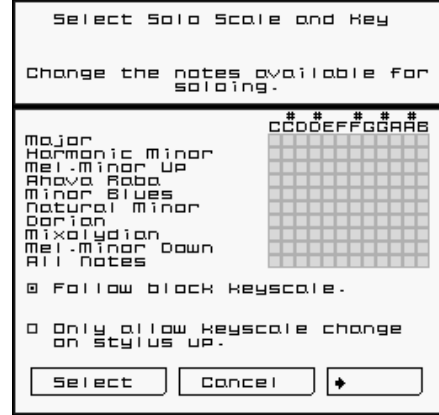
The Solo Mode uses the instrument that is currently selected on the **Block Screen**. Solo sounds play with the velocity (loudness) that is selected on the **Block Screen** as well.





Along the left side of the **Solo Screen**, there are twelve (12) numbered controls that make the selected drum sounds when tapped with the stylus.

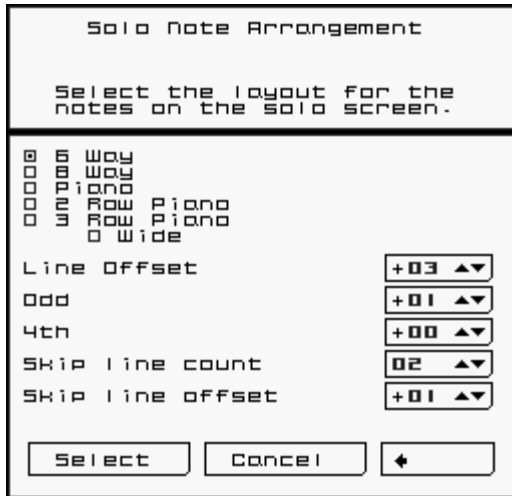
Sometimes, you don't want the scale to change automatically. If you tap the main menu option for **Solo Mode** while you are already in Solo Mode, a new dialog box will appear for selecting the **key** and **scale** for Solo Mode, turning off automatic tracking of key and scale, and preventing key and scale from changing until you lift the stylus.



Tapping the “→” control on the bottom of the menu displays the “Solo Note Arrangement” menu. This menu allows you to select between 6 way grid, 8 way grid, or 1,2, or 3 row piano keyboard arrangements for the **Solo Mode**.



For the grid modes, there are five spinners to control the arrangement of the notes:



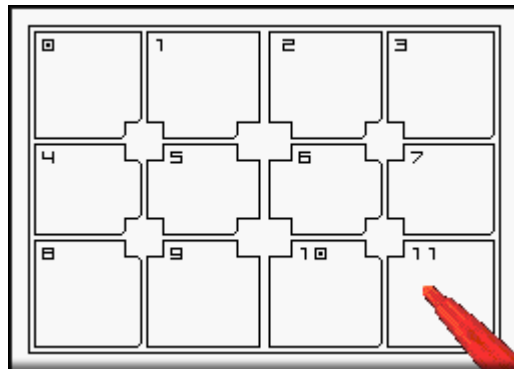
- “Line Offset” sets the difference in notes (in the given scale) between each line (row) of the Touch Screen. “0” is the same note all the way up the Touch Screen, “1” is one note difference for each row, so dragging the stylus up will go one note up.
- “Odd” is an additional difference for every odd line (1,3, 5,, etc.)
- “4<sup>th</sup>” is an additional difference for every 4<sup>th</sup> line.
- “Skip line count” and “Skip line offset” work together. “Skip line count” is how many lines to skip before applying the “Skip line offset”. If “Skip line count” is 5 and “Skip line offset” is 3, then every 5

lines it will add 3 to the note.

This is a bit complicated, we know, but we want to put all of the power we can in the hands of the user. The default arrangement in **Rhythm Core Alpha 2** is slightly different than in the original version, but it gives more flexibility!

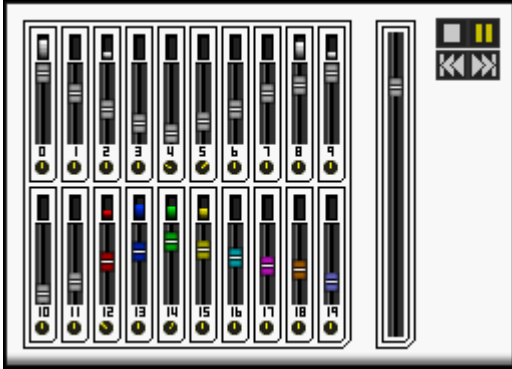
**Drum Mode** Drum

Drum Mode lets you play the drums live. There are twelve (12) drum controls arranged in a 4x3 grid. The number on each drum shows the track that it corresponds to. Simply tap the appropriate drum control to play that sound!



## Mixer Screen

**Mixer**



The **Mixer Screen** contains twenty-one (21) faders and twenty (20) pan controls to control the volume (loudness) of each individual track and the master volume. Simply tap or drag the fader with the same number as the track you wish to change and the volume will instantly change!



For pan controls, turn the knob by tapping or dragging the stylus across the Touch Screen around the edge of the circle of the knob, and the knob will instantly turn to that direction.

The large fader control on the right is the master volume control. Although the Nintendo DSi systems have hardware volume controls, this control is much more precise, and is useful for fading in or fading out your song!

There are also some controls for the pattern sequencer in the upper right. These work identically to the controls on the Block Screen.

## Pattern Screen

**Pattern**

Tapping on **Pattern**  on the menu tab at the bottom of the Touch Screen displays the **Pattern Screen**. You can also page to that screen using  on your console.

You can set a sequence of **blocks** and **keyscale** changes (**steps**) to be played back under machine control using this screen. This sequence of **steps** is called a **pattern**.

#	BLOCK	LENGTH	KEY	SCALE	SHIFT
033	07	0064	D	Major	+00 ↓
034	08	0064	D	Major	+00 ↓
035	09	0064	D	Major	+00 ↓
036	10	0064	D	Major	+00 ↓
037	11	0064	D	Major	+00 ↓
038	12	0064	D	Major	+00 ↓
039+	17	0064	D	Major	+00 ↓
040	20	0064	D	Major	+00 ↓
041	20	0001	D	Major	+00

All the controls on the bottom screen are spinners, but they work just a little differently than on the other screens. The up and down arrows will appear on the left and right of the value when you tap on it.

First tap on the number or text of the item you want to change. The arrows will appear on either side. Then you can tap on the arrows to change the value, or tap and slide on the value to change it.

There are seven values.

**Step Number (#)** cannot be changed. It is the order in which the steps will be played. You can add and remove steps in the middle of a pattern by tapping on the step number and then tapping on “+” to insert a step before the selected step, or “-” to delete the selected step.

**Block** indicates which block number to play.

**Length** determines for how many beats (16th notes) the block should be played.

**Key** shows the key to be used for playback (C, D, E, F...) ("Remap key") An "X" means that the key will not be changed.

**Scale** identifies the scale to remap the block to (Major, Minor, etc.) An "XXXXX" means that the scale will not be changed.

**Shift** adds an offset to the notes **before** applying the key and scale. So if the sequence has the note C, and is in C Major, and the key scale of the pattern step is also C Major, but the Shift is 2, it will play a D. D is in C major, but it is 2 notes up from C. If you set shift to 1, it will still play a C, because 1 up from C is only C# and that is not in the C Major scale.

Use this option when you are soloing and want the chord to change, but don't want the notes for the keyboard to change. As long as you keep the same key scale, the notes in the solo grid will stay the same. There are other ways to do this, but this method allows other sections of the song to change the keyboard layout if necessary.

► The last value sets what occurs at the end of this **Pattern Step**:

An arrow pointing down ( ↓ ) means "Go to next step".

A "Pause" icon ( || ) interrupts playback. To start again you must tap the play control on the **Block Screen**.

An arrow that points in a circle ( ↻ ) is a "Loop" command. The system will keep repeating this step until you turn off the loop using the loop control on the **Block Screen**.




An arrow that points up with a number ( ↶ ) means "jump backward this number of steps". This is very useful for setting up a looping chord progression.

Below the pattern steps are "+" and "-" **controls**. The "+" **control** adds a new step to the pattern after the last pattern step. The "-" **control** removes the last step from the pattern.

If you have made more steps than fit on the screen, you can scroll the Touch Screen vertically by "flicking" the Touch Screen in the same manner as you do on the **Block Screen**; touch the Touch Screen with the stylus while moving it vertically on the Touch Screen.

You can return to the Block Screen by using  again, or by tapping the "Block" tab  at the bottom of the Touch Screen.

On the Block Screen, there are several controls for the pattern mode.

 The **PAT.RUN** control  has **ON** and **OFF** positions. Tapping the **ON** position causes the pattern to begin playing at the step shown in the **PAT.STEP** control when the end of the current block is reached. Otherwise, it will start when the Play () control on the **Block Screen** or **Mixer Screen** is tapped, or when the **START** button is pressed to start the sequence.



To the left of **PAT.RUN** is the **PAT.STEP** control **1**. This control sets which pattern step will play next. The step can also be changed with the “◀” (rewind) **2** and “▶” (fast forward) **3** controls on the left of the Touch Screen.


The bent arrow next to **PAT.STEP** shows that the results of **PAT.STEP** will change the **Play Block** when the timer (in the upper right of the **Block Screen**) reaches zero.



In the center of these controls is the name of the current block **4**. Tap on this to change the name.


On the left of the screen are several controls like on a music player.




Rewind and Fast-Forward affect the next Pattern Step, and have already been mentioned.


 The **STOP** control **5** causes all playback to halt, and the current beat to be set to 0.


 The **PAUSE/PLAY** control **6** causes all playback to stop, but will resume playback at the same beat on which it was stopped when tapped again. The pattern can also use its **NEXT** action to put the program into "Pause" (  ), waiting for the user to un-pause it.


 The **LOOP** control **7** repeats the current pattern step when it is selected (yellow) and stops looping when it is tapped again.

The pattern's **Next** action can put the program into "Loop" (  ) state, waiting for the user to turn the loop off so that it may continue. This is useful if you want to leave some time for a **solo**, and start the song again after you are done.

There are two spinner controls of note on the **Block** screen.

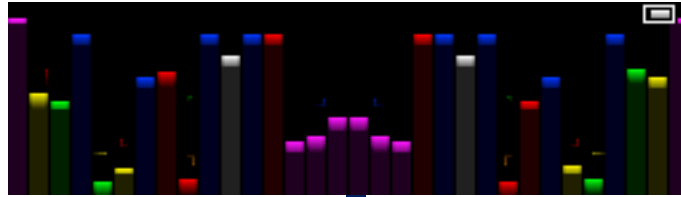
 The **Tempo spinner** **8** sets the rate at which the music plays in beats per minute (BPM), or quarter notes per minute. The *Rhythm Core Alpha 2* Drum and Note Grids are lined for sixteenth (1/16<sup>th</sup>) notes, so the beats should line up with the dark lines on the grid.

 The **Tune spinner** **9** adjusts the pitch of all instruments in increments of a percent-of-a-semitone. This is useful if you are playing with another musician.

The **Block Screen** also includes two “Song Location Meters” on the far left and right of the screen, above all the other controls. The left “Song Location Meter”  shows the currently playing block and the current beat number. A bar graph below shows how much of the current block has already been played. It changes color from blue to green to yellow to red, and finally to white on the last beat.





The right “Song Location Meter” & shows the number of the next block to be played and the number of beats remaining in the currently playing block. A bar graph below shows progress. Note that if the pattern is set to play a shorter or longer section of a block, the counter and bar graph will still show the number of beats to the end of the block, rather than till the next change.



Above all the controls is a section of VU meters #. They are arranged in the same order as the internal sound channels of the Nintendo DSi system. Channel 1 is in the center of the screen, and channel 16 is on the far edge. If a sound is panned to the right, only the right side will rise. The VU bars are colored to match the sound channel colors, and drum sounds are colorized similar to the bass channels. Repeating colors start at track 8.

The VU meters scale automatically to fit the available screen area, providing useful information even when the screen is scrolled almost all the way up!

**NEW** As mentioned earlier, if you turn on the pattern recording mode, you can record the block and chord changes made during live performance. When you press a Shift Button (L or R), a panel will drop from the top of the Touch Screen. Tap the “” control once and it will turn red () indicating that pattern recording has started. Any changes to key, scale, or block number being played will be recorded as they occur in the pattern at the position indicated by the PAT.STEP spinner control on the **Block Screen**.

The final tab at the bottom of the Touch Screen is the File option #\*.

## File Menu



Tapping the File option displays the **File Menu**. Here you can save, load, or delete songs or individual blocks to/from the **system memory**, export songs and other data to an SD Card, clear the current song, or change system settings.



**"Save Song"** - writes all of the song data to the **system memory**. When selected, a dialog box

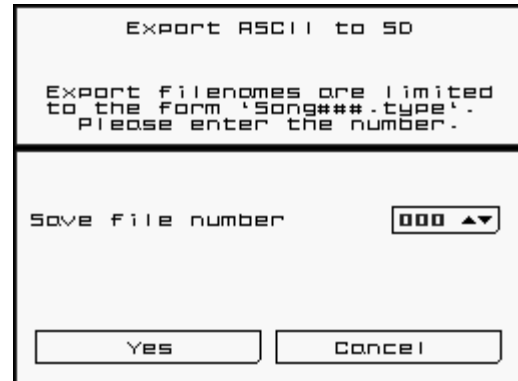
listing the songs currently in memory will be displayed. Tapping "--EMPTY SLOT--" will display a keyboard where you can type a new song name.

"**Load Song**" - lists all of the saved songs and allows you to restore any of them to play or make changes.

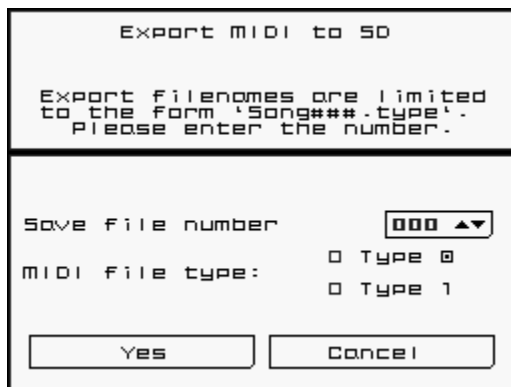
"**Delete Song**" - removes song files from the **internal memory**.

"**Clear Current Song**" - deletes all notes and beats from every track in every block. It destroys everything that hasn't been saved. Use with caution!

"**Export ASCII to SD Card**" - writes a human readable version of the song to the SD card slot. Because of unavoidable limitations, files can only be saved with a standard filename and a number that is selected with this menu. The files will be located in a directory on the card called \private\ds\app\#####\RCaASCII, where ##### is some arbitrary number. The file will be named "Song###.txt" where ### is the number you set in the menu.



"**Export Binary to SD Card**" - writes the binary save file to the SD card slot. The same name restrictions apply. Data will be saved in the directory "RCaBIN" and filename will be "Song###.RCa".



"**Export MIDI to SD Card**" - writes a MIDI file to the SD card slot. You can select between MIDI type 0 (16 MIDI channels only) or MIDI type 1 (separate MIDI tracks, each with one channel). Again, filename security restrictions apply, so the data will be saved in the directory "RCaMIDI" and have the filename "Song###.mid"

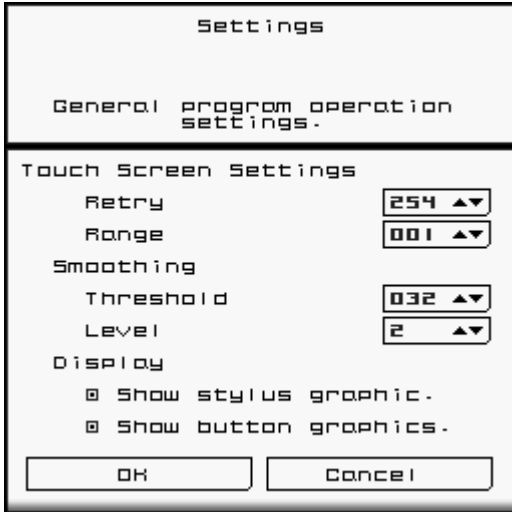
"**Export Controls to SD Card**" - *Rhythm Core Alpha 2* automatically saves the first 20 minutes of user input. This option allows you to save this data to the SD card. We hope to someday offer an

online tool to render your performances as audio or video files.

"**Export Block / Save Block**" - writes the currently selected **Edit Block** to a file in **system memory**.

"**Import Block / Load Block**" - reads a block from a file to the currently selected Edit Block. There is an option to merge the new data with existing data in the track.

"**Import RCA1 Song**" - reads a saved song from the original *Rhythm Core Alpha* (version 1), if it is installed.



"Settings" - allows you to adjust the Touch Screen sensitivity and choose whether the stylus and button graphics are displayed.

Please enjoy using *Rhythm Core Alpha 2*! We look forward to hearing your music!

**Credits:**

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Songs:  
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Terence James  
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Tina Belmont

Title Page Art:  
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Kevin Martinez (Wizwars)  
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Jeni Roberts  
Seth Sternberger (8-Bit Weapon)

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