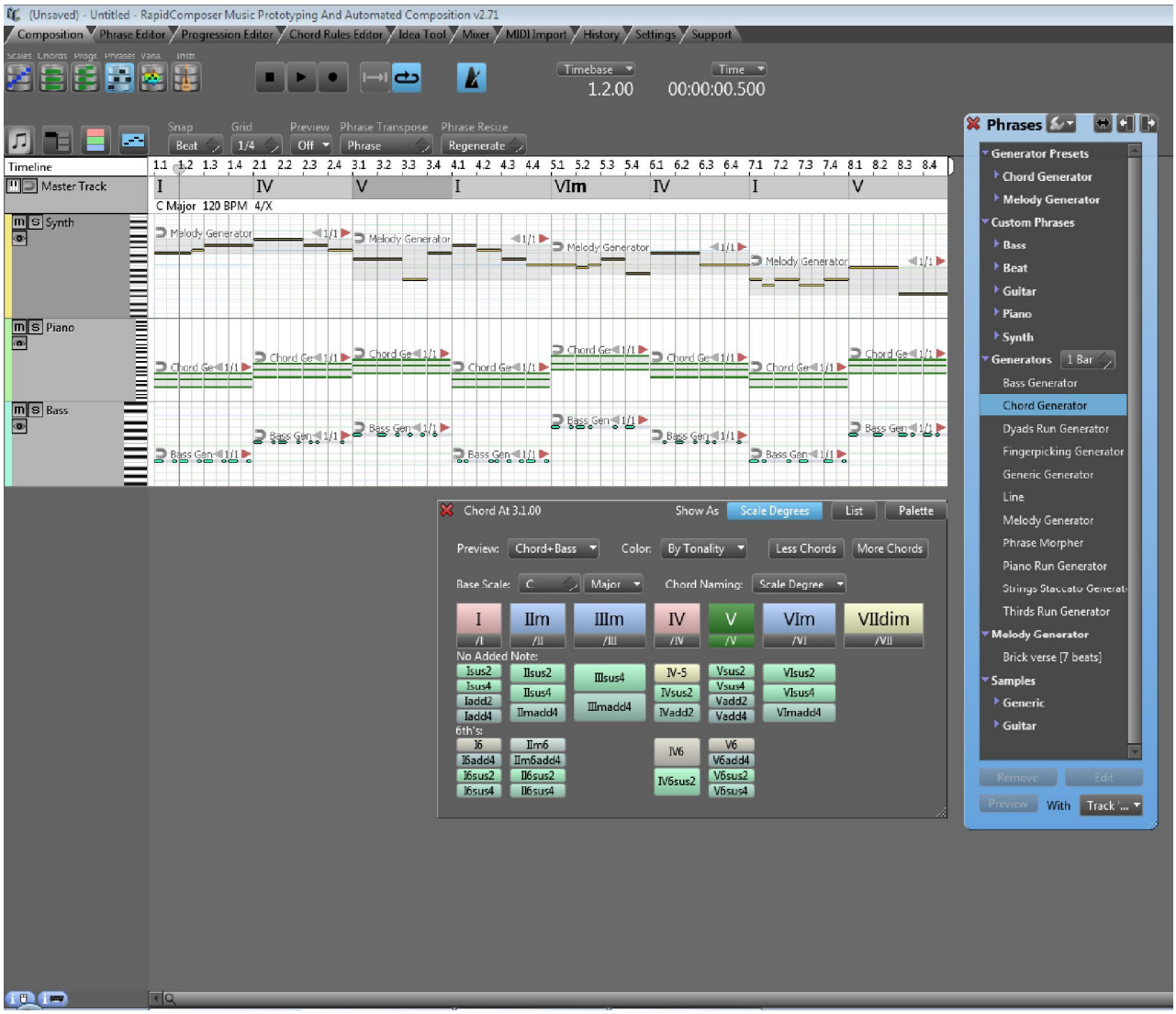


MusicDevelopments

Music Prototyping and Automated Composition Solutions

RapidComposer Version 2.83 Manual

Manual text, screenshots and layout by Chris Caulder

Please visit **www.musicdevelopments.com/wiki** for all future manual updates

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Please visit **www.musicdevelopments.com/wiki**
for all future manual updates, tips, tricks, and more.
Wiki manual/site updated frequently!

INTRODUCTION

RapidComposer is a unique, non-destructive, phrase-based music prototyping software, with VSTi and SoundFont support. You can read more about the features, view screenshots and tutorials (including tutorial videos) at www.musicdevelopments.com.

If you ever used a DAW, you won't have any difficulties using RapidComposer. However, the software does assume that you have a basic knowledge of music theory, but even if you don't, RC is very helpful in assisting you in regards to which chords fit together, and how scale intervals relate to chords.

This guide provides an introduction to RapidComposer and takes you through the basic workflow. You are advised to use the pop-up help windows (also known as tooltips) which contain more detail. If you hover the mouse on any user interface element, a tooltip window appears after a few seconds.

The Power Of Right-Click
Like other powerful DAWs (including Reaper by Cockos Software and Studio One by PreSonus), **RapidComposer** makes extensive use of right-clicking with the mouse. if you right-click on most elements, you will see a menu of the available actions for it. Some essential right-clicking operations include editing phrases (the central functionality of the program) and basic song info (tempo, key/scale, time-signature) when starting a new Composition.

BASIC CONCEPT & FUNCTIONALITY

RapidComposer (RC) is used to produce compositions quickly using MIDI phrases. It is not meant to, and cannot mix, or master music. Once a composition have been finished, it can be exported as a MIDI, WAV, or AIFF file. These files can then be imported into a DAW for mixing and mastering. RC can also be used as a VST plugin inside your favorite DAW, for synching up audio and virtual instrument tracks (and vocals) with your RapidComposer compositions. Additionally, you can drag-n-drop entire Compositions or separate tracks to your DAW as MIDI files.

Before you start using **RC**, it is important to understand exactly what a Composition consists of. A **Composition** is a collection of one or more **Tracks**, each which contains an **Instrument** (SoundFont, or VSTi) controlled by a **Phrase or Phrase Generator.** Tracks are common to the whole composition, and, like DAWs, combine to produce a musical arrangement with harmony and melody.

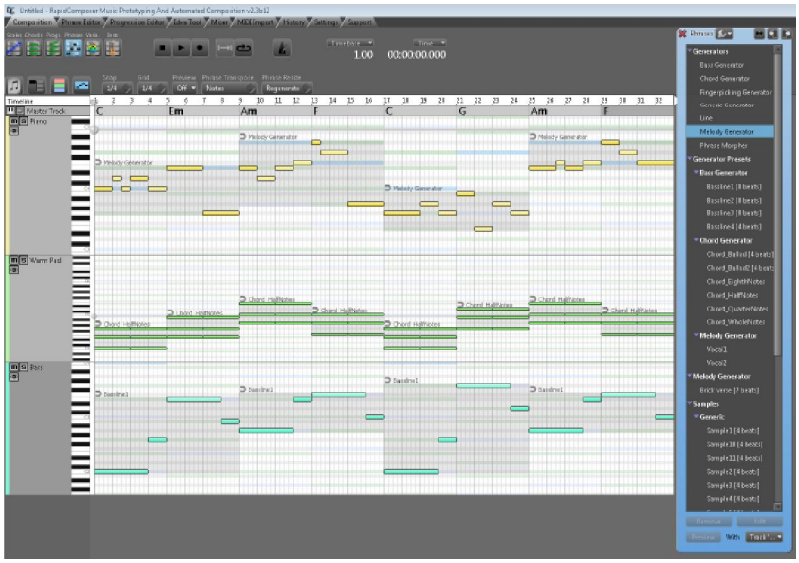
The basic unit of composition is a **Phrase**, which is a sequence of notes and/or chords (i.e. notes in parallel). Most commonly, phrases are created and extensively manipulated by using a **Generator.** There are 10 common Generators in RC:

Bass Generator (melody in a lower octave, resembling a bass guitar performance)
Chord Generator (simple rhythms: quarter notes, half notes, whole notes, etc.)
Fingerpicking Generator (guitar-style patterns/arpeggios)
Generic Generator (piano-like patterns that can be easily manipulated rhythmically, based on a series of variables)
Melody Generator (generates melodies that intelligently fit over any chord or key. *Not available in LE version*)
Phrase Morpher (intelligently connects Generators/Phrases, via voice-leading/analyzation. *Not available in LE version*)
Thirds Run Generator (generates a "thirds run", similar to the bridge of "Let It Be" by The Beatles)
new as of version 2.7:
Piano Run Generator (rhythmically rich arpeggios running up and down chords, similar to the piano playing of P. Glass)
Dyads Run Generator (generates a MIDI run, specifically by interval... not just Thirds, like the Thirds Run)
Strings Staccato Generator (creates beautiful staccato patterns, perfect for orchestral and string quartet arrangements)

You can also create a phrase manually (in Note Mode, by entering with mouse or recording from a MIDI keyboard). Furthermore, you are able to save custom phrases with RC. Generators and the Phrase Browser are covered in detail in Chapter 1. Commonly, you will start with a **Generator** and tweak it, as this is the fastest way to get ideas going in RC.

There are two types of tracks utilized in RapidComposer:
• **Standard Tracks (MIDI)** – Contain notes/chords/phrases for a particular Instrument. These track types are the bread and butter of RapidComposer.

• **Audio Tracks** – Audio track implementation is very basic with limited functionality (no pitch-detection or timestretch/tempo-matching). 16-bit/44.1 WAV and AIFF import only. Useful for sound effect placement, perfectly-chopped drum loops with a known, solid tempo, or for non-harmonic sounds.



Typical RC **Composition** (8 bars long), with 3 standard tracks that have soundfonts as each of their instruments. Track 1 (piano) shown with four 2-bar-long Melody Generators, Track 2 (pad) shown with eight 1-bar Chord Generators, and Track 3 (bass) shown with four 2-bar Bass Generator phrases.

RAPIDCOMPOSER SUGGESTED USES

RapidComposer is capable of doing a lot of interesting, powerful things, but here are just a few suggestions for how the program may be useful to you:

- allowing you to make great-sounding music with no prior musical experience at all

- helping you to better understand harmonic relationships in music, and finding chords that fit together, musically

- learning “piano-style” patterns, if you’ve never touched a piano and would like to learn how to write songs or accompany yourself on piano while you sing

- in VST plugin mode, using some of the pre-made jazz-style chord progressions, synched with drum loops in your favorite DAW software to use for solo practice, in various keys (for lead guitarists and pianists)

- using the Idea Tool (full version only) to quickly generate chord progressions (random key, or user-specified) to help you come up with other parts for your songs, if you’re stuck and only have one part.

- using the Melody Generator (full version only) to come up with melodies (for lead parts, vocal melodies, countermelodies underneath vocals, and much more!)

- using the Melody Generator in VST mode (inside your favorite DAW), to hear how random, in-key melodies might sound over your half-finished audio tracks (perfectly in sync). You can generate a new/random melody idea over and over again, in any scale, any key, over any chord! Especially useful for singer/songwriters who have no problem coming up with chords and lyrics, but can’t seem to come up with melodies for their lyrics.

- for making ambient/soundtrack-ish music (certain VST instruments are tailor-made for ambient music, such as Green Oak’s Crystal, or Athereal by Psychic Modulation Software, and others). Use some of the pre-made “ambient” chord progressions from the Chord Progression Browser, and get ideas going fast!

- for making “chiptune”-style music (similar to the background music of video games from the mid-to-late 80s and early 90s), by using the included “RCChiptunes” soundfont. No program lets you create fun 8-bit chiptune music faster than RC!

- layer various melodic phrases together (on different tracks, with different instruments if you like) to create dense, poly-rhythmic harmonic textures that otherwise would take a lot of time (and musical theory knowledge) to complete, in any other program!

SYSTEM REQUIREMENTS / INSTALLATION

WINDOWS
- Supported operating systems: Windows XP/Vista/7/8 (32-bit or 64-bit) with at least 1GB RAM
- Intel/AMD processor (1.4ghz minimum)
- Horizontal resolution of at least 1280 pixels (1600 pixels or higher, such as full HD) is highly recommended
- Windows MME or DirectSound compatible audio hardware is required (though we fully recommend using a professional audio interface, with ASIO driver support). ASIO-compatible soundcards are the standard for audio and MIDI production.
- VST host required if using RC as a VST (many VST hosts/DAWs have been tested to work with RC including Reaper, Sonar, Cubase, etc)
- more RAM may be required for RAM-hungry VST instruments. A computer owner can never have "too much" RAM!

MAC OS X
- Mac OS X 10.6, 10.7, 10.8, 10.9 (latest update)
- 1GB RAM
- Intel Core Duo
- min. resolution 1280 pixels wide

SUPPORT OPTIONS
More information can be found at **www.musicdevelopments.com**.
If you need to contact MusicDevelopments directly, you can email us at **info@musicdevelopments.com**.
We also have a support forum at KVR Audio. There, you can talk to us and other users of RapidComposer. You can find our forum at **http://www.kvraudio.com/forum/viewforum.php?f=168**

INSTALL: WINDOWS
The setup file automatically installs RapidComposer into the "Program Files" or "Program Files (x86)" folder (depending on your operating system, and whether it is the 32-bit or 64-bit version of RapidComposer). The data and settings files are installed to the *C:\Users\(Username)\AppData\Roaming\RapidComposer* folder. This is because Windows User Account Control (UAC) does not allow any software to modify its own files in the "Program Files" directory. It is possible to copy the contents of "AppData/Roaming/RapidComposer" to "Program Files/RapidComposer" when User Account Control is turned off (or if you're on Windows XP). During the installation, neither DLL files nor services are installed in the Windows system directories.

UNINSTALL: WINDOWS
Uninstalling the application can be done either by selecting "Uninstall RapidComposer" in the Windows Start Menu (inside the RapidComposer folder), or from the Windows Control Panel. Since the system is not changed in any way during the installation, you can also remove the folders without uninstalling the software. However, this is not recommended.

INSTALL: VST plugin
The VST version of RapidComposer is installed in the same folder as the standalone version. You need to move the VST version (with the .dll file extension) manually to your preferred VST plugin folder (*this folder is different on anyone's computer, but most of the time, plugins can be found in any of the following locations)*:

C:\Program Files (x86)\VSTplugins
C:\Program Files (x86)\Steinberg\VSTplugins
C:\Program Files\VSTplugins
C:\VSTplugins

INSTALL: MAC OS X
Open the .dmg file, and drag the RapidComposer Application to your Applications folder. The settings file and the chords/scales/etc. databases can be found in ~/Documents/RapidComposer.

SOFTWARE ACTIVATION
When first running RapidComposer, you will be asked to type the key code that you received with your order. No internet connection is required.

*We ask you kindly to **please refrain from pirating/stealing software**, especially from tiny companies such as ours. If you obtained a licensed version of RC for free somewhere on the internet, please consider deleting it from your computer, and buying a legitimate license from our official store. Countless hours of work was spent in the creation and tweaking of this unique, speedy, groundbreaking software, and we would appreciate if you respect the developers. Thank you!*

INCLUDED INSTRUMENTS, CUSTOM PHRASES, & MORE!

SOUNDFONT INSTRUMENTS
We've included several useful Soundfonts, to help you get started with RC right away, even if you have no idea how to use VST instruments or don't know much about MIDI. If you're unsure exactly what a Soundfont is, a quick search of the web will provide you with the basics of what they are and how they're used. Here are the included Soundfonts with RC:

RCPiano (grand piano)
RCBass (bass guitar)
RCPad (ambient-sounding "dreamy" pad)
RCGuitar (steel-string acoustic guitar)
RCClarinet (clarinet sound, perfect for Melody tracks)
RCChiptunes (8-bit video-game-style sounds, with 9 different presets)
RCDrums (basic drum sounds, on different MIDI notes)
RCDrumsUrban (4 presets of hip-hop-style drums)
RCDrumsAcou (a basic acoustic drumkit soundfont)
RCDrumsDance (a basic dance/techno-style drumkit)

NOTE: We will be including more Soundfonts as we create them, in future updates and installer files. Always trying to find great sounds that are completely useful for RC users and composers!

You can find other Soundfonts on the web (commercial, or user-created) with a quick internet search. Lots of good stuff out there!

CUSTOM PHRASES
Demo version: Included in the Demo version of RapidComposer are about 20 Phrases (5 basslines, 10 piano-style phrases, 2 "Chiptune" style phrases, and 5 Fingerpicking Phrases.)

Registered version (LE or Full): 200+ Generator Presets, and Custom (non-generator) Phrases for registered users of the program (accessible by special, private download link), including:

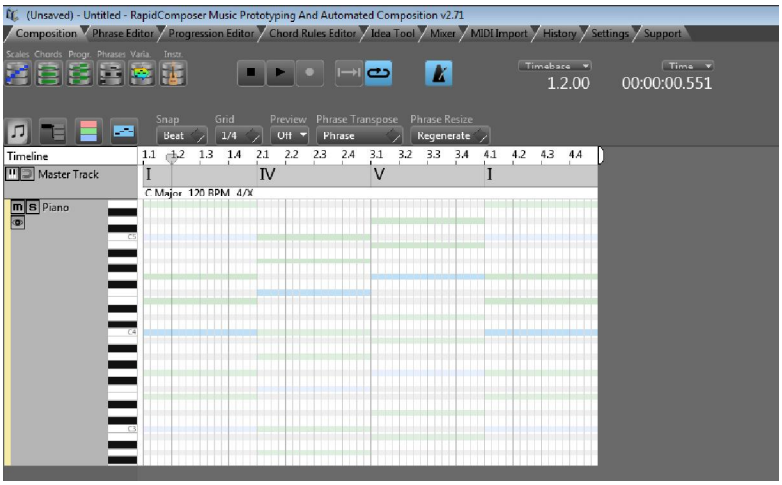
25+ Bassline Phrases
55+ Basic Piano, Rock/Pop, and Funk Piano Phrases (straight & swing/shuffle styles)
12+ Fingerpicking Phrases
50 "Chiptune"-style Phrases (straight & swing/shuffle styles)
10 Techno/Dance-style Phrases
50+ Vocal-rhythm-style Melody Generator Presets (2-bar and 4-bar lengths)
plus, 50+ basic Beat Phrases (rock/pop, jazz, funk, R&B, etc) which are general-midi compatible and can use the DrumsAcou, DrumsUrban, or DrumsDance soundfonts!

CUSTOM MIDI FILES, SAMPLE COMPOSITIONS, and AUDIO SAMPLES
Demo & Registered versions: Available as a public download on the Music Developments website. Ten custom, original MIDI files for import into RC, as well as matching Composition files, covering the following genres: Ballad, Classical, Chiptunes (fun, upbeat), Jazz, Soul, Techno, R&B, etc. Also available in the zip file are audio samples of Compositions (using all included Soundfonts) thrown together by users in mere minutes, to show you the capability of RapidComposer!

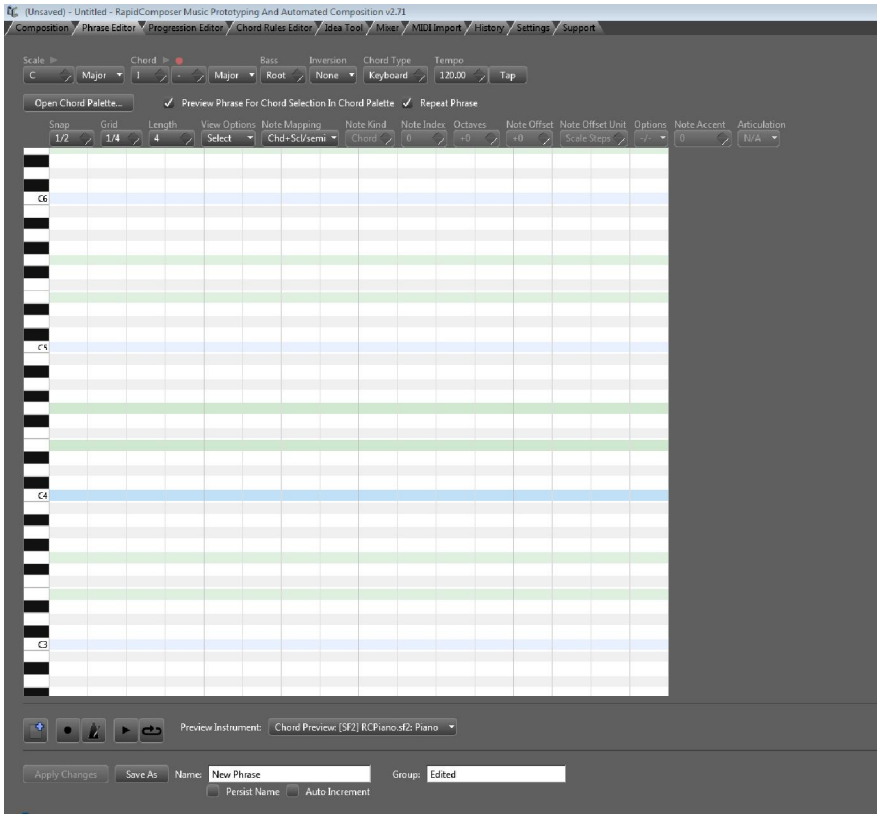
The Custom Phrases zip file (includes over 200 Phrases) can be accessed by registered users after MusicDevelopments sends you an email (within 24 hours) with a special (temporary) download link.

IMPORTANT NOTE: *You must let RC know of where you wish to store your Custom Phrases (Settings/Directories). We use C:\RCCustomPhrases, on Windows. Once this folder is set, you can extract the zip file contents to this folder. The next time you open RC, all of the Custom Phrases will be available (and organized by style/type) in the Phrase Browser.*

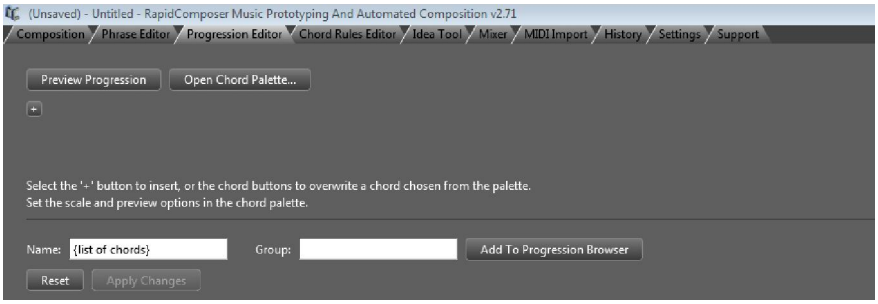
PROGRAM INTERFACE & SECTIONS



COMPOSITION VIEW (default)
This is where you will do a majority of your RC work. Here is where you can set your key, tempo, time-signature, composition length, “snap” settings, and do common things such as add phrases, select/change chords, add tracks, and set each instrument for each track (among many other things).

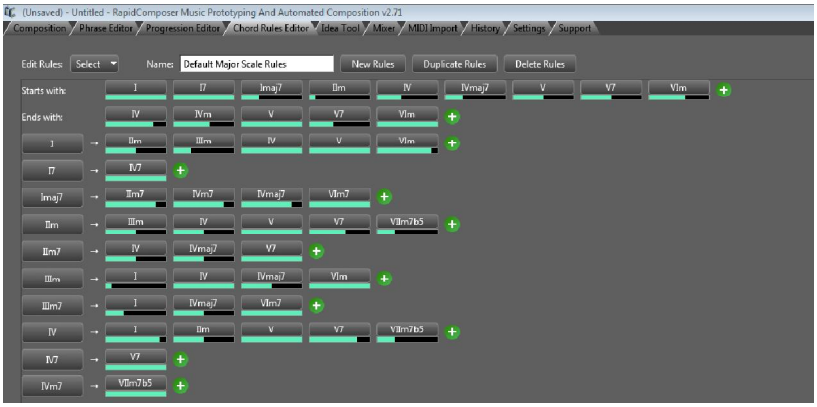


PHRASE EDITOR VIEW (becomes active view after double-clicking a phrase in Composition View)
This is where you can tweak phrases to your liking, or create your own, and add them to the Composition, or save them as custom phrases into a custom folder location.



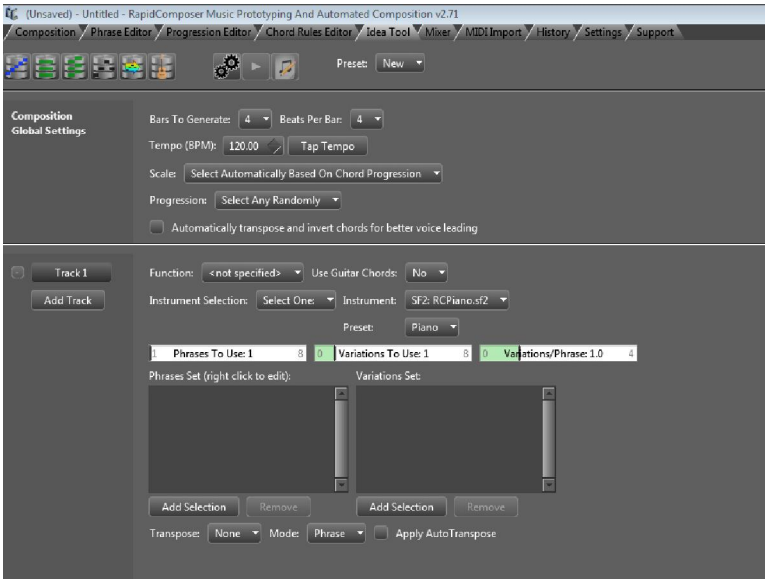
PROGRESSION EDITOR VIEW

Here, you can build/add chord progressions that you like the sound of or know you'd like to use (or use often), and save them as custom progressions in the Progression Browser, to easily add to a Composition. Click "Open Chord Palette" to preview the sound of a chord by clicking on a chord button.



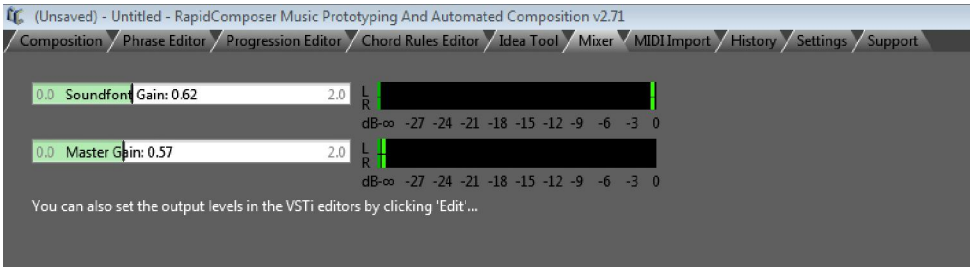
CHORD RULES EDITOR VIEW

New as of version 2.7, the Chord Rules Editor gives you complete customization of chord progression probability and chord suggestions, when you might be stuck on where to go next. Very powerful!

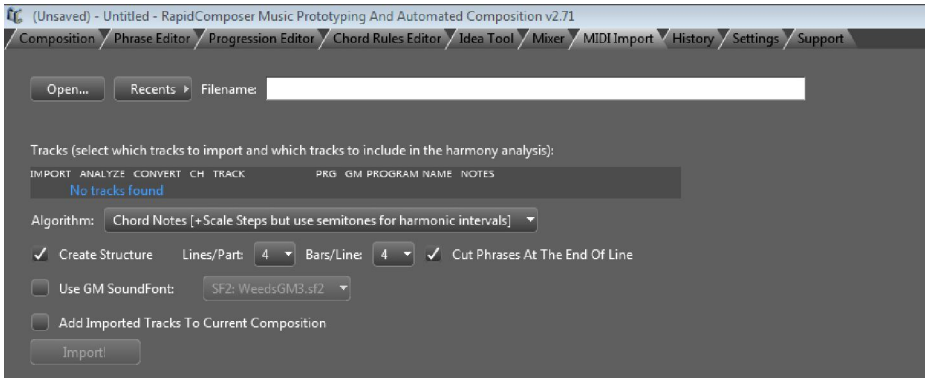


IDEA TOOL VIEW

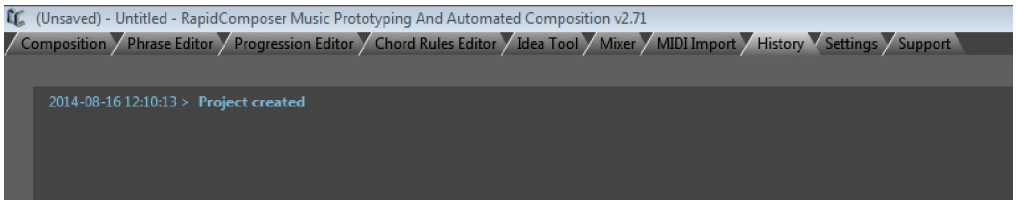
One of the most powerful functions of RC, the Idea Tool (available only in the Full version, not LE version or demo) is an extremely simple way to generate a completely new composition (up to 8 bars) filled with phrases of your choice, on the tracks you specify, with the instruments you want. It takes a minute or two to set your contraints and parameters, but RC does all the work in seconds. Shortcut is SHIFT+G (generates an Idea, and takes you right to Composition view) after you set your phrases, tracks, and chord progression/scale. If you don't like the idea that was generated, just hit SHIFT+G again and RC generates a completely new idea! It won't run out of ideas. Just keep generating until you find something that will get the creative juices flowing.



MIXER VIEW
Set the master volume of your soundfonts, and overall master volume of your Composition.



MIDI IMPORT VIEW
Import a MIDI file into your Composition, and RC will analyze the chords and let you tweak the file to your liking (and, you can also split MIDI performances, convert the MIDI notes from absolute to relative form, and save them as custom Phrases to use in your own Compositions!)



HISTORY VIEW
Shows undo/redo history as well as every step of the creation of your Composition.



SUPPORT VIEW
Check for updates and more.

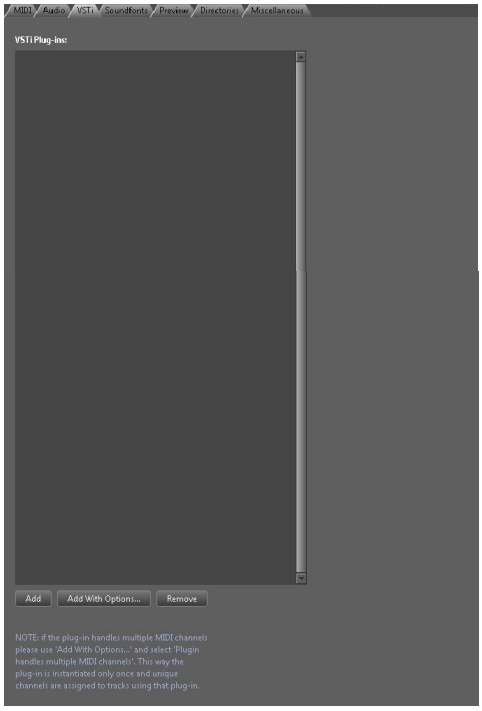
SETTINGS VIEW (Multiple Tabs)



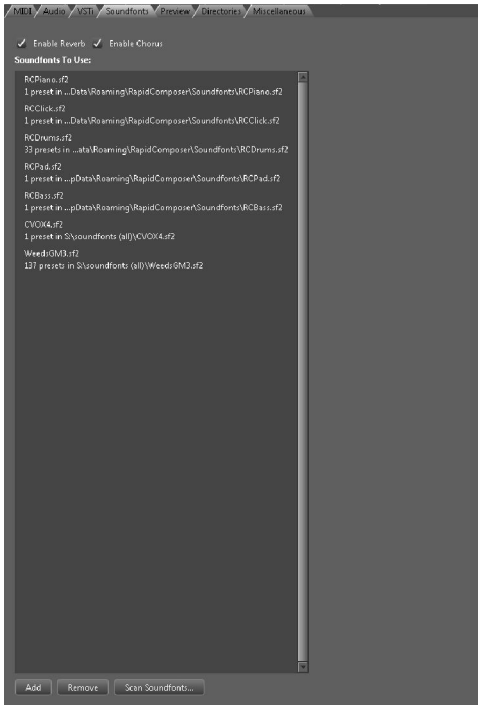
MIDI SETTINGS
Set the ins and outs of your preferred MIDI interface. Each direction supports a maximum of one device.



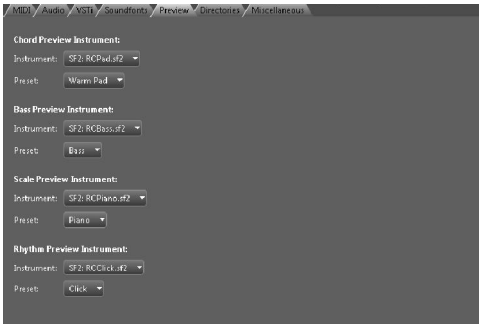
AUDIO SETTINGS
Set your preferred audio interface and driver type (ASIO highly recommended).



VSTi SETTINGS
Add your favorite VST instruments (one at a time) for use with RC. “Add With Options” allows custom settings for multitimbral/multichannel VSTis (such as Sampletank 2, Kontakt, or Purity).



SOUNDFONT SETTINGS
Add your favorite Soundfont instruments (one at a time) for use with RC.

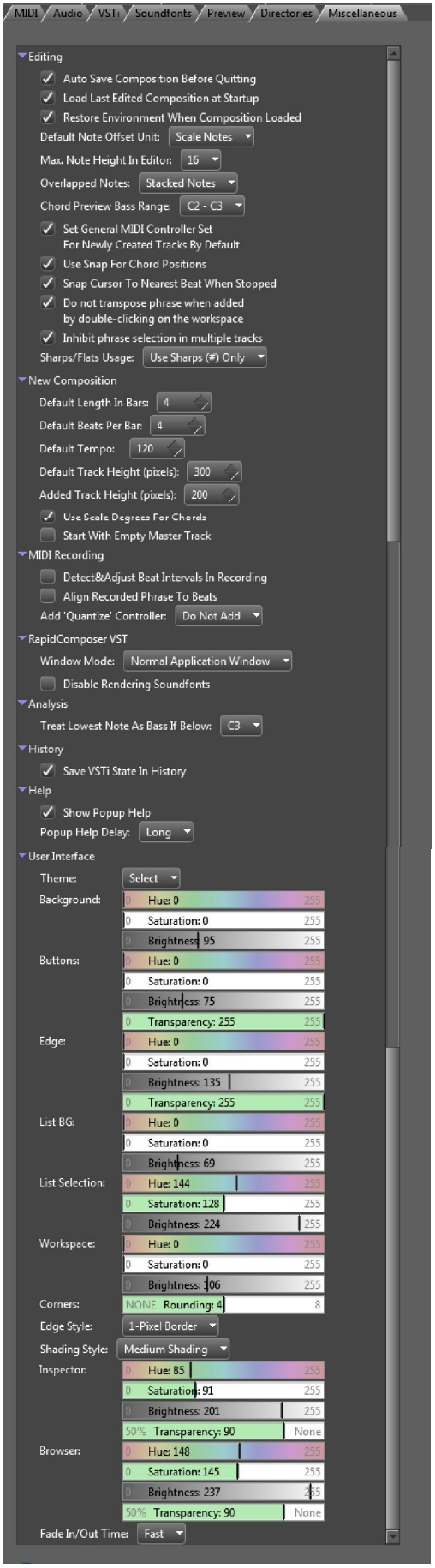


PREVIEW SETTINGS
Set your preferred instrument (Soundfont or VSTi) for each preview (Chords, Bass, Scale, and Rhythm).



CUSTOM PHRASE DIRECTORY SETTINGS
Before making and tweaking your own custom phrases, it is recommended to set a specific folder where they can all be found (and easily backed up).

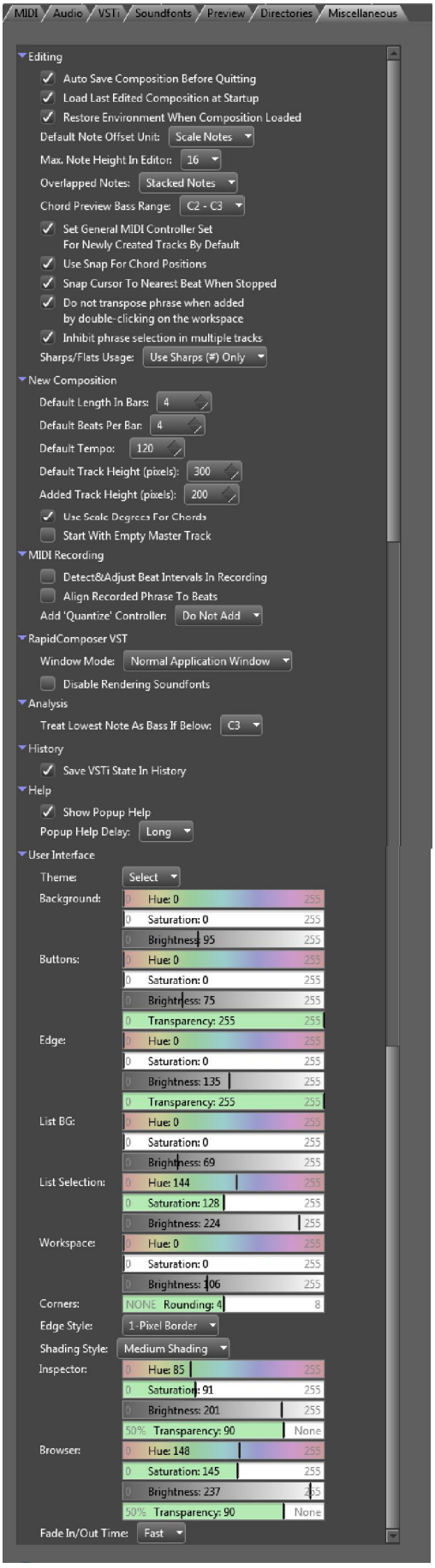
SETTINGS VIEW (Multiple Tabs - continued)



MISCELLANEOUS SETTINGS

EDITING section

- **Auto Save Composition Before Quitting**
  In the event of a crash or mere forgetfulness, RC can automatically save the last edited composition
- **Load Last Edited Composition at Startup**
  Loads the last Composition that was worked on
- **Restore Environment When Composition Loaded**
  Restores screen state/layout when loading Composition
- **Remember Browser Positions & Sizes**
  Remembers position & sizes of browser windows
- **Default Note Offset Unit**
  Set to “Scale Notes” by default, as this is what most users will need, when moving phrases up and down, or creating their own custom phrases. The other option is “Semitones.”
- **Maximum Note Height In Editor**
  Set to 16 by default. Available sizes are 4-20, in even increments.
- **Note Shape**
  Options include Rectangle Wtih Narrowing End (default), or Rectangle.
- **Overlapped Notes**
  Available options are Off, Parallel Notes, or Stacked Notes. Stacked Notes is the default. This option changes the way phrases appear in the Composition, when they are accidentally placed on top of each other.
- **Chord Preview Bass Range**
  Set to C2-C3 by default (typical range of a 5-string bass, beginning at 1st fret).
- **Set Gen. MIDI Controller Set For Newly Created Tracks By Default**
  Sets each new track up for common MIDI controller message tweaks (volume, pitch bend, poly pressure, modulation, sustain, reverb & chorus).
- **Use Snap For Chord Positions**
  Default is ticked. Recommended, as you will be moving phrases around constantly, and chances are you want them to line up depending on your snap settings.
- **Snap Cursor To Nearest Beat When Stopped**
  As stated, the cursor or “now time” snaps to the nearest quarter note when stopping playback.
- **Do not transpose phrase ... by double-clicking on the workspace**
  When checked, double-clicking on the workspace to insert a phrase inserts at the original position/pitch/voicing.
- **Inhibit Phrase Selection In Multiple Tracks**
  Whichever phrase you select becomes the only selected phrase, even if you selected something in another track.
- **Sharps/Flats Usage**
  If you are familiar with the Circle of Fifths (or Fourths, if going in reverse), you may prefer seeing accidentals shown as flats (com mon practice for the major keys F, Bb, Eb, Ab, Db, and Gb). Default is “Use Sharps Only”. Other options include “Use Flats Only”, and “Automatic.”
- **Allow Transposition in guitar tracks**
  Default is ticked.
- **Open VST plug-in editor window after it was loaded**
  Default is unticked.



NEW COMPOSITION section (*Double-click to change values quickly)*

- **Default Length in Bars** (1 to 64). Default is 4.
- **Default Beats Per Bar** (1 to 16). Default is 4.
- **Default Tempo** (1bpm to 600bpm). Default is 120.
- **Default Track Height** (pixels - default 300)
- **Added Track Height** (pixels - default 300)
- **Use Scale Degrees For Chords** (default is ticked)
- **Start With Empty Master Track** (default is unticked)
- **Enable "Auto Scale" (application restart required)** (default unticked)

MIDI RECORDING section

- **Detect & Adjust Beat Intervals In Recording**
  Useful when recording custom phrases (acts like Quantize). You can also apply this while in the Phrase Editor.
- **Align Recorded Phrase To Beats**
  Again, this acts like Quantize, after recording.
- **Add Quantize Controller**
  Quantize option becomes available after recording a Phrase, and right-clicking to edit. Default is "Do Not Add." Other options include divisions of beats (one, half, quarter, eighth and sixteenth).

VST section

- **Window Mode**
  Options include Normal Application Window (default), Always On Top, or Embed In Host Window
- **Disable Rendering Soundfonts** (default is "Enabled.")

ANALYSIS section

- **Treat Lowest Note As Bass If Below:**
  Default set to C3. Makes phrases a bit more natural-sounding.

HISTORY section

- **Save VSTi State In History**
  Remembers the setting of each VST instrument in your composition.

HELP section

- **Show Popup Help / Popup Help Delay**
  Default is ticked. If you hover your mouse over many graphic elements and header sections in the program for a few seconds, a popup window appears, explaining what that specific function does. Default delay is "Long".

USER INTERFACE section

- **Theme**
  Various color themes to choose from.
- **Background/Buttons/Edge/List BG/List Selection/Workspace/Corners**
  Various visual settings for each element of RapidComposer.
- **Edge Style**
  Default is 1-Pixel Border. Other setting is "None."
- **Shading Style**
  Choose from None, Light, Medium (default), Strong. Also Glassy Light/Medium/Dark.
- **Inspector & Browser / Active & Inactive Filter**
  Various visual settings for the Inspector (right-clicking a phrase brings up an Inspector view) and the common Browser windows (Phrase, Progression, Variation, etc).
- **Fade In/Out Time**
  Occasionally RC will give you an salmon-colored error message if you are trying to do something with the wrong procedure or steps (such as generate an Idea using the Idea Tool, without choosing phrases first). This setting is for the speed of the error messages.

Keyboard Shortcuts

First things first. Before we learn the basics of the program (bringing phrases in, building a composition, etc) let's get familiar with RC's keyboard shortcuts (first listed in alphanumeric order, then organized by program function/section).

If these commands and functions seem confusing at first, don't worry. Each will be explained throughout this manual, and you will be using these keyboard shortcuts more and more as you become more comfortable with the program.

Alphanumeric List:

0	Show entire composition
1, 2, 3, 4, 5, 6, 7, 8, 9	Select/edit Line (Structure Inspector)
ALT+1 through 9	Select Nth Track *(new in version 2.7)*
CTRL+1, 2, 3.....	Select/edit Part (Structure Inspector)
A	Add track
CTRL+A	Select All Phrases In Current Track *(new in version 2.7)*
B / SHIFT+B	Fill track with Bass Generator / Use Ghosts
C / CTRL+C	Copy phrase
D	Deselect all
E / SHIFT+E	Export MIDI file
F / SHIFT+F	Fill track with selected Phrase / Use Ghosts
G / SHIFT+G	Generate / Generate and Edit (Idea Tool)
CTRL+G	Regenerate All Selected Generators *(new in version 2.7)*
H	Fill track with default Chord Generator
I	Insert Phrase from Browser
K	Add Composition to History with Comments
L	Generate & Apply (Phrase Inspector)
M / SHIFT+M	Fill track with Melody Generator / Use Ghosts
N / SHIFT+N	Fill track with Fingerpicking Generator / Use Ghosts
P	Toggle Enable Preview
Q / SHIFT+Q	Fill track with Generic Generator / Use Ghosts
S / SHIFT+S	Save
T / CTRL+T	Paste phrases to selected Track
U	Add audio track
V / CTRL+V	Paste phrases to Original Track
W	Close All Inspector & Browser Windows *(new in version 2.7)*
X / CTRL+X	Cut phrase
Y / CTRL+Y	Redo
Z / CTRL+Z	Undo
\ (backslash)	Split Selected Phrase(s)
| (shift+backslash)	Split Phrases At Chord Boundaries in Timeline Inspector *(new in version 2.7)*
SPACEBAR	Start/Stop Playback
RETURN / ENTER	Stop Playback/Jump To Beginning
SHIFT+SPACE	Play Selected Region In Loop
ESC	Panic / All Sounds Off
INS / CTRL+INS	Add One Beat / Bar to Timeline Position
DEL / BACKSPACE	Delete Selection/Phrase
F1,F2,F3,F4	Change Editing Mode
-/+	Minimize/Maximize Tracks
* (asterisk)	Minimize Tracks Except Current Track
/ (forward slash)	Maximize Current Track

Keyboard Shortcuts (continued)

Listed by program function/section:

BASIC FUNCTIONS

SPACEBAR	Start/Stop Playback
RETURN / ENTER	Stop Playback/Jump To Beginning
SHIFT+SPACE	Play Selected Region In Loop
P	Toggle Enable Preview
ESC	Panic / All Sounds Off
S / SHIFT+S	Save
Y / CTRL+Y	Redo
Z / CTRL+Z	Undo

PHRASE-RELATED

F / SHIFT+F	Fill track with selected Phrase / Use Ghosts
M / SHIFT+M	Fill track with Melody Generator / Use Ghosts
Q / SHIFT+Q	Fill track with Generic Generator / Use Ghosts
B / SHIFT+B	Fill track with Bass Generator / Use Ghosts
N / SHIFT+N	Fill track with Fingerpicking Generator / Use Ghosts
H	Fill track with default (quarter-note) Chord Generator
I	Insert Phrase from Browser
L	Generate & Apply (Phrase Inspector)
CTRL+G	Regenerate All Selected Generators *(new in version 2.7)*
\ (backslash)	Split Selected Phrase(s)
| (shift+backslash)	Split Phrases At Chord Boundaries in Timeline Inspector *(new in version 2.7)*

TRACKS / COMPOSITION / EDITING

A	Add track
INS / CTRL+INS	Add One Beat / Bar to Timeline Position
0 (zero)	Show entire composition
1, 2, 3, 4, 5, 6, 7, 8, 9	Select/edit Line (Structure Inspector)
CTRL+1, 2, 3.....	Select/edit Part (Structure Inspector)
C / CTRL+C	Copy phrase
X / CTRL+X	Cut phrase
DEL / BACKSPACE	Delete Selection/Phrase
T / CTRL+T	Paste phrases to selected Track
V / CTRL+V	Paste phrases to Original Track
D	Deselect all
ALT+1 through 9	Select Nth Track *(new in version 2.7)*
CTRL+A	Select All Phrases In Current Track *(new in version 2.7)*
W	Close All Inspector & Browser Windows *(new in version 2.7)*
-/+	Minimize/Maximize Tracks
* (asterisk)	Minimize Tracks Except Current Track
/ (forward slash)	Maximize Current Track
K	Add Composition to History with Comments
U	Add audio track

OTHER

G / SHIFT+G	Generate / Generate and Edit (Idea Tool)
E / SHIFT+E	Export MIDI file
F1,F2,F3,F4	Change Editing Mode

CHAPTER 1: THE BASICS / PHRASES

Tutorial Videos mentioned in this Chapter:
Part 7 - Structure Inspector (Section 1C, 1E)
Part 8 - Building a Composition, Part By Part (Section 1E)
Part 9A, 9B and 9C - Generators (Section 1E)

Section 1A: Phrases Explained

As mentioned previously, **Phrases** are the bread-and-butter of RapidComposer. RC uses MIDI phrases intelligently, as no notes are "absolute" unless you want them to be. Since notes in phrases are not "absolute", you can move phrases up and down after placing them in a **Composition** and they will automatically (and quickly) be re-shaped by inverting the notes, all the while staying in key, and keeping the same notes of whatever chord you chose!

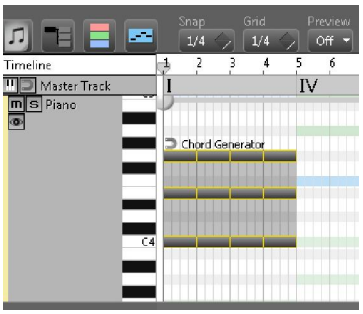
Common practice with efficient piano playing requires the player to be able to easily "invert" chords as needed, which, in the simplest of terms, means re-ordering the notes of the chord, to move between chords easily, without moving your hands much (the fingers do most of the moving). This is also called "voice leading."

In **"root position"**, a C major chord consists of the following notes on a piano (in order from lowest to highest): C E G. The scale notes in that order are named "root, 3rd, 5th."

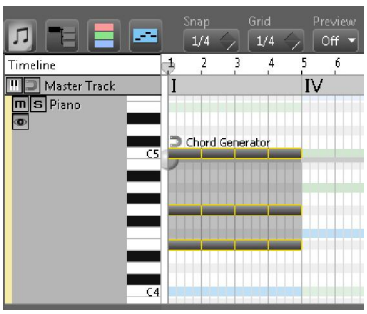
In **"1st inversion"**, a C major chord consists of the following notes (lowest to highest): E G C
Tthe "3rd" of the chord is now the lowest note... also known as "3rd in the bass."

in **"2nd inversion"**, a C major chord consists of the following notes (lowest to highest): G C E
The "5th" of the chord is now the lowest note... also known as "5th in the bass."

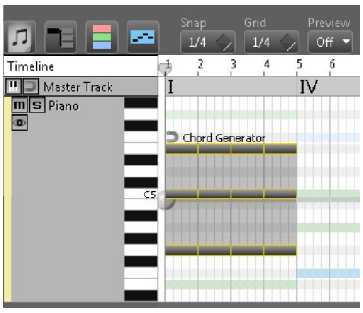
Each of these voicings has a certain type of sound. You can easily move between inversions by left-clicking & dragging a phrase up or down. This is how the voicings look inside a Composition, using the default Chord Generator (quarter notes):



ROOT POSITION
C major--- C E G (low to high)

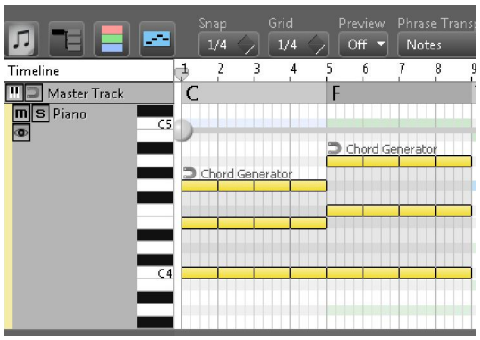


1st INVERSION
C major--- E G C (low to high)



2nd INVERSION
C major--- G C E (low to high)

Let's say you have a C chord followed by an F chord in your Composition. The following screenshot shows a Chord Generator in "root position" (over the C bar), and an identical Chord Generator in "2nd inversion" (over the F bar). Notice how the lowest note (C) stays where it is, when "voice-leading" to the F chord. **RapidComposer does this automatically, and intelligently**, as this is what the program was designed to do!



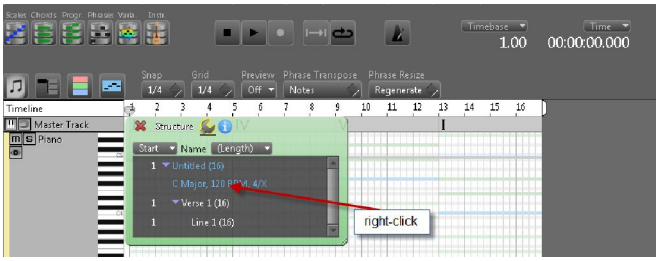
C (root position), then F (2nd inversion)

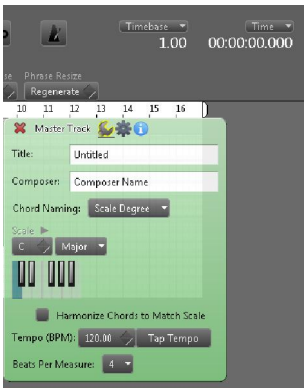
Section 1B: New Composition Settings

Now that you understand how phrases work in RC (inversions/moving but keeping the same notes), let's learn more about composing in RC, and become more familiar with how Compositions are structured in RC (using the Structure Inspector). Let's start a new **Composition**. The easiest way is to click this icon  and choose "New Composition" from the menu.

Then, you should open the Structure Inspector: 

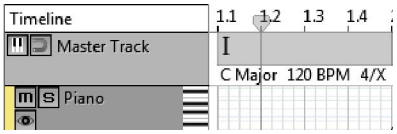
Once you do that, this green Structure Inspector window will appear:





If you then right-click, you'll see this second Inspector window that appears directly to the right of the main Structure Inspector window. Here, you can set your Composition name, tempo, key/scale, and time signature.

You can also click the "C Major 120 BPM 4/X" text items that appear at Bar 1, Beat 1, to set your tempo, key/scale, and time sig.



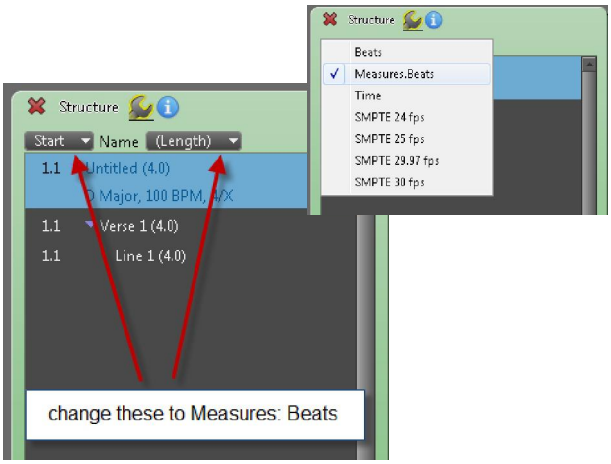
Pick any tempo you like, and set your key/scale. For this example, we'll use the key of D major, at 100BPM, in 4/4 time. We can always change it back later.

We'll also need to change some settings in the Structure Inspector (if they're not already changed):

Click "Start" and change to "Bars.Beats", and repeat the same for the "Length" button.

The Structure Inspector now shows where each Part starts and how long it goes for (Measure / Beat).

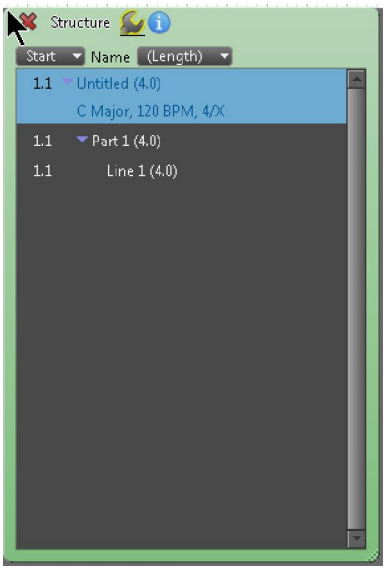
You will notice that the Composition timebase is a combination of Bars (Measures) and their respective beats, as well.



Section 1C: Structure Inspector

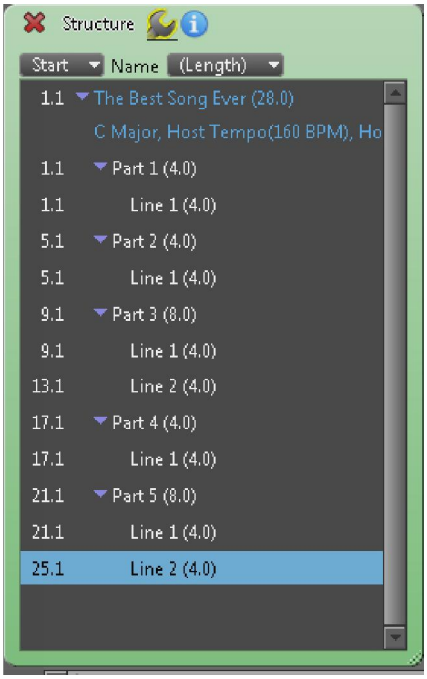
The Structure Inspector is yet another “rapid” part of RapidComposer. You can use it to build Parts of your Composition, and copy/paste new ones, and rearrange them on the fly. Each Part can have its own key, tempo and time-signature that all override the global Composition settings. On the previous page, we changed some settings in the Structure Inspector window (we picked a key, a tempo, and a time signature). Now let’s go over how RC Compositions are structured, within this very important (and powerful) window:

When you first start RC, you see your “entire” Composition. Within this Composition are **“Parts”**, and within those **“Parts”** are **“Lines.”** When you start a new Composition, you only see one part, and one line, like this:



COMPOSITION (entire song)
composition info (key, tempo, etc)

PART 1
Line 1



Once you’re a little more familiar with RC, you might come up with a Structure that looks like this...

(the “Host Tempo” indicates that RC is running as a VSTi inside of a DAW):

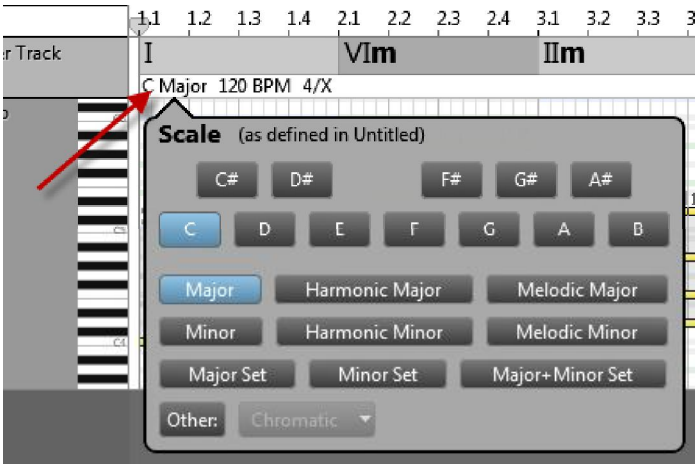
You can easily add new **Parts** (and rename them to something logical such as “Verse” or “Chorus” or “Pre-Chorus 1” or “Chorus 2” if you want) and you can add new **Lines** to those Parts (Lines are automatically named Line1, Line2, and are tied to each Part they are made from). You can edit one **Part** at a time, by double-clicking its name in the Structure Inspector, or using a keyboard shortcut CTRL+(number).

It’s not too confusing. Let’s take the screenshot above. The 28-bar Composition has five separate **Parts**. These Parts are instantly selected by using the shortcuts CTRL+1 (for Part 1), CTRL+2 (for Part 2) and so on. The lowest number (1) is assigned to the top or first Part, and any number higher than that (up to 9) selects each subsequent Part. Notice also how there are a total of seven Lines beneath these five Parts. The numbers 1 through 7 (*without* the CTRL key modifier) instantly select those Lines. *If you’re still confused, please see our Part 7 Tutorial video “Structure Inspector” at* ***http://musicdevelopments.com/videos.html.***

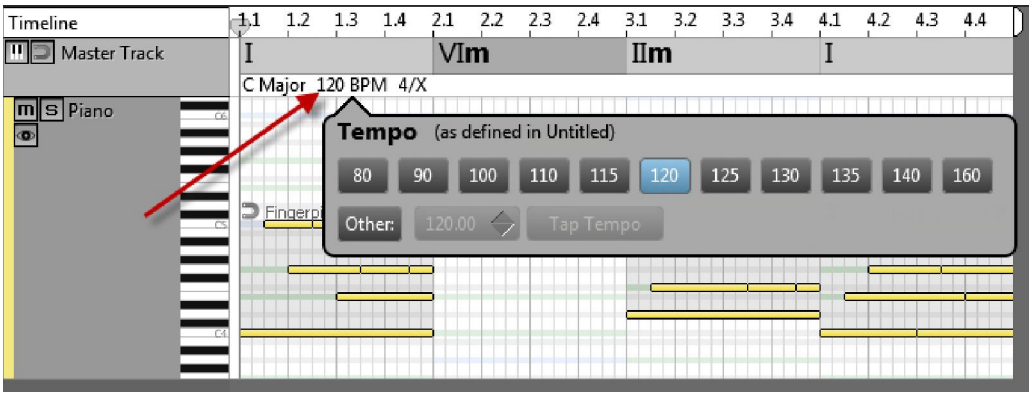
More about **Parts/Lines**: Say you have a Part with a Line that’s four measures long. If you add another Line to that Part, that Part is now a total of eight measures long (Line 1 is the first half of that Part, and Line 2 is the second half of that Part. Both Lines can be different bar lengths & have different chord progressions, if you want!). Seems complicated at first, but the more you use it, the easier it gets.

Section 1D: Working With The Master Track

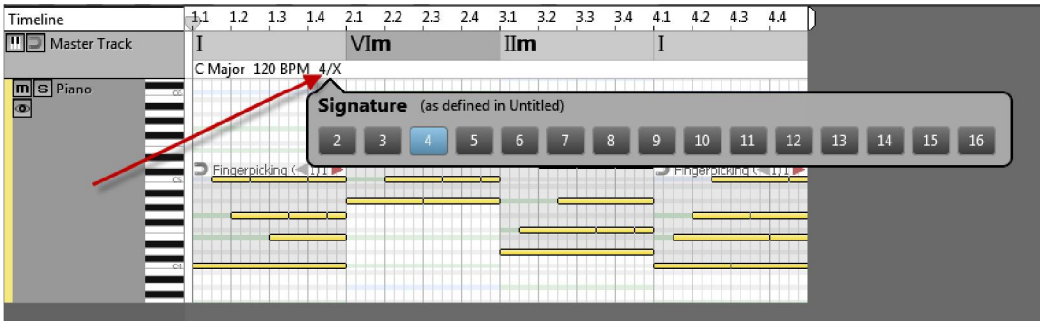
Scale / Tempo / Time Signature are always displayed on the Master Track (new in version 2.7).
Left-click the *scale and key* (in this case, “C Major”, which highlights blue when you hover the mouse over it) to bring up the window below. You can easily pick a root, and common scale set.



Tempo
Left-click the *tempo* (in this case, “120 BPM”, which highlights blue when you hover the mouse over it) to bring up the window below. You can easily pick a new tempo (increments of 5 BPM, or a custom tempo). You can also tap-tempo after you click “Other”.

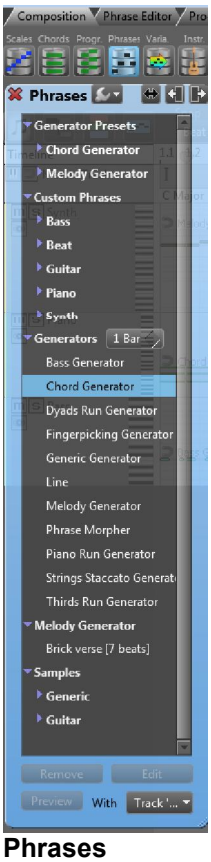


Time Signature
Left-click the *time signature* (in this case, “4/X”, which highlights blue when you hover the mouse over it) to bring up the window below. You can easily pick a new time signature. For example, clicking “3” would insert a new Time Signature of 3/4 in your Composition.



Want to insert multiple Key Changes, Tempos, and Time Signatures in your Composition? You easily can, at any measure you want. If you **right-click** on that part of the timeline, elsewhere in the timeline, you can easily change these properties later in your Composition, multiple times if you’d like (and you can change just the Tempo, or all three Composition properties if you like, anywhere you want!)

Section 1E: The Browsers / Browser Windows



Phrases & Generators



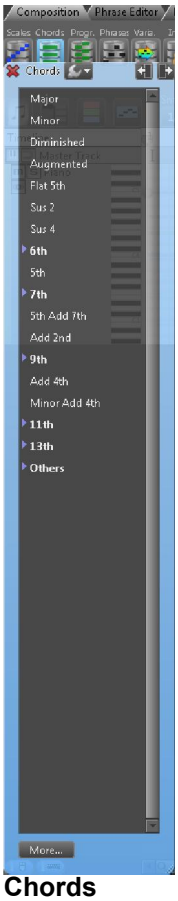
Variations



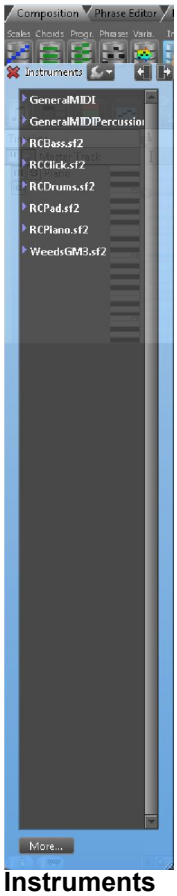
Progressions



Scales



Chords



Instruments

The six icons in the top left of the main RC interface are the **Browsers** or Browser Windows. The three you will use most are on the left side of this page (Phrases, Variations and Progressions), and the three you may not use as frequently are on the right side (Scales, Chords and Instruments).

The **Browsers** are part of why RapidComposer is indeed, so rapid.

For example, you can open up the **Progressions Browser** and drag in absolute chords (in specific keys) or a “Roman Numeral”-style progression (in your favorite key) to the Timeline in your Composition, and instantly create a song arrangement. After dragging in a progression, you’ll then need some phrases to play over your chord progression. You can drag in a Generator or specific phrase of your choice from the **Phrase Browser** (or, even faster, select a phrase you want from the Phrase Browser, then if your desired track is selected (it should be, if you only have one track in your Composition), just hit the letter F, which is a keyboard shortcut for Fill Track With Selected Generator). This takes no more than 10 seconds to do. Hit the spacebar and voila... you’re now listening to a rapidly-composed piece of MIDI music.

The **Variations Browser** gives you exactly that: a bunch of variations for phrases. Any phrase you select can be tweaked with anything in the Variations Browser. For instance, you might choose to apply some swing to a phrase, giving it a shuffle-feel, or you might want to mirror the phrase horizontally, or humanize the phrase. These things and more can be found in the Variations Browser. This Browser is especially useful when combined with the **Idea Tool (Chapter 4)**.

The **Scales and Chord Browsers** are mainly used to audition the sounds of scales and chords you might not be familiar with. **Scales Browser** previews all types of scales from lowest note to highest note, and back down. **Chords Browser** plays a chord type or “color” (such as minor 7th or sus2) so you can hear how it sounds, and if you like it, you can drag that type to a chord already in the Composition (doing so will change the chord type, but retain its root).

The Instruments Browser shows all of the Soundfonts you added for use with RC (as well as their presets), and all of the VST instruments you added (along with their presets).

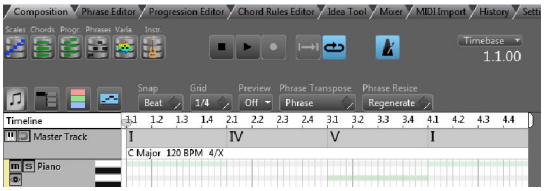
Section 1F: Working With Phrases / Composing / Chords

So we're now familiar with the basic functions of RapidComposer. Let's build an arrangement for real.

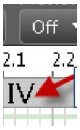
1. Start a new Composition. 

2. Click the Structure Inspector icon  and set your Key (Scale), Tempo, and Time Signature. You can also do this by left-clicking just below Bar 1, Measure 1 in the Composition ("Master Track" - new to version 2.7). Remember that any Parts you add to the Composition can have their own Key, Tempo, or Time Signature that all override the global setting. For this example, let's keep the key of C major, tempo 120, and time signature of 4/4 (default when starting a new Composition).

3. The Composition defaults to the chord progression I - IV - V - I.



Since we're still in C major, the chords I - IV - V - I are C - F - G - C, respectively. But from here, you can change them to any chords you want. **Right-click** the chord right below the timeline to change whatever chord you like (Right-clicking brings up the **Chord Selector window** right after you click).





The **Chord Selector** window (above) has three "views" (Scale Degrees, List, or Palette). Choose whichever you like most. **Scale Degrees View** shows only the "Roman Numeral" chord intervals, which is also commonly known in North America as the "Nashville Number System" or simply, the "Number Chords". **List View** and **Palette View** show the note letters (C, D, E, etc), and **Palette View** also shows the chord interval numbers. RC can intelligently combine "absolute" chords with "Roman Numeral" chords (a progression could show as "C, IV, Am, V" in the Composition, for instance).

You can leave the **Chord Selector** window open as you change the chords on each bar (the Chord Selector view is a window that stays "always on top"). Simply right-click the chord in the timeline, and change it to whatever you want by clicking a chord in the Chord Selector. Remember that the Composition shows we are editing/working with Part 1, and Line 1 (in the Structure Inspector).

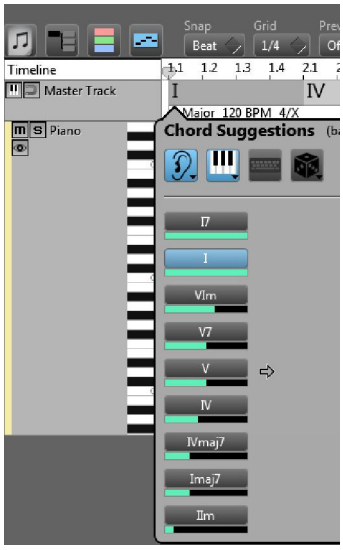
Now...

Let's assume you *already* have writer's block. It's the perfect time to introduce a new feature (as of version 2.7) in RapidComposer-- **Chord Suggestions!**

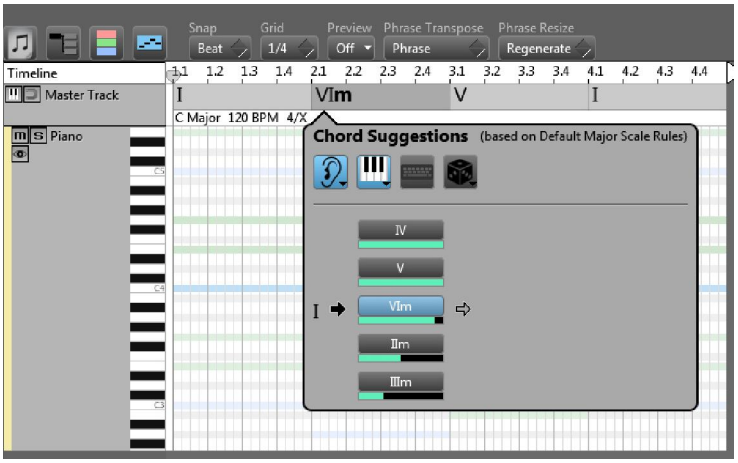
Chord Suggestions *(new in version 2.7!)*



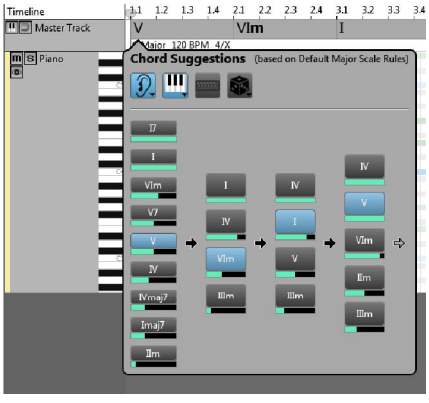
As we learned on the previous page, **right-clicking** a chord in the Composition timeline brings up the **Chord Selector** window. As of version 2.7, we can now **left-click** the chord instead, and left-clicking brings up the brand new **Chord Suggestions** window (**Chord Suggestions** depend heavily on the **Chord Rules** you specify - see **Chapter 3 (EDITORS)**, and how to use the **Chord Rules Editor**.



You can use the **Chord Suggestions** feature on any chord in the Composion, at any time! For this example, let's keep the first chord as Chord I. For the next chord, however, we want to change the IV chord to a vi, instead. Notice how vi is an option for the next chord, when we left-click the IV in the Composition timeline. Notice also how the probability (neon green horizontal bar, underneath the chord degree) is high, for the vi chord, as the next chord in our progression.



You can also click the **right-pointing arrow** in the **Chord Suggestions** window to show (and be able to change) the additional chords that are suggested. Furthermore, if you click the Randomize icon (rightmost icon at the top of Chord Suggestions window), you can create a randomized progression that adheres to the Chord Rule set (and also immediately shows up in the Timeline). This is a powerful tool to find interesting chords very quickly!



Before we go any further, let's look at the four main functions/icons in the **Chord Suggestions** window:



Chord Preview (default is on)

When you click on a suggested chord, you can hear what it sounds like. Right-clicking offers more options for preview (Chord+Bass, Chord only, force root position, etc)



MIDI input (default is on)

If you have a MIDI device (keyboard) specified in Settings, you can play the chord and RapidComposer will add it to the Composition on the beat & bar you clicked on. If the chord you play is in the Suggestions section, you will see it highlighted after you input it from your MIDI keyboard. Right-clicking offers "Add octave number to chord", so you can get a detailed view of the chord you input, on the Composition timeline.



Text input

Clicking on this icon allows you to input the chord you want with your computer keyboard. Acceptable formats are the note letter (C for C major), lowercase m for minor, a number for an extended voicing (6, 7, 9, 11, 13), "sus" for suspended chords, etc.



Randomize

Clicking on this icon gives you a random chord suggestion, and a random progression, after you click the **right-pointing** arrows in the Chord Suggestions window, to expand the available chords. You can right-click the icon for even more further (and uncommon) options for randomization!

All of these suggestions can be completely customized in the **Chord Rules Editor (Chapter 3).** You can use the included Chord Rules or create your own!

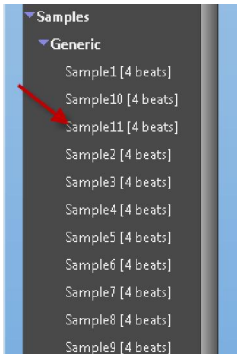
Included Rules:

Bach Harmonic Minor Scale Rules
Bach Major Scale Rules
Default Major Scale Rules (default)
Default Minor Scale Rules
Mozart Harmonic Minor Scale Rules
Mozart Major Scale Rules
Pop Major Scale Rules
Pop Minor Scale Rules
New Rule --- *create your own using your favorite chords, even if they're out of key!*

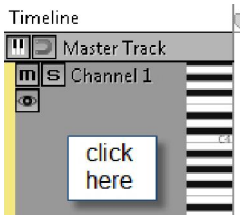
Judging from the feedback of our customers/users at our forum, this is a very popular new feature in RapidComposer. We definitely find it very helpful, to make your Compositions truly rapid!

Let's get back to our Composition example... remember, the progression we created so far is I - VIm- V - I. To make something completely different from the default progression, we can change the V chord (on Bar 3) to a IV chord instead, and then the last chord (I on Bar 4) to a V chord. This is a simple pop progression, that was very popular in the 50s.

4. If you are happy with this progression (I - VIm - IV - V), and want to hear how Phrases sound over those chords, let's choose some. You are more than welcome to change the chords even more, if you'd like. But just to keep things simple, let's stick with the progression and add some Phrases.

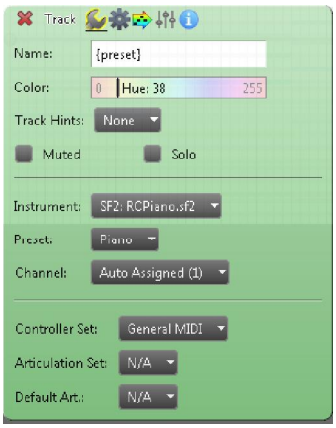


For this example, let's open the Phrase Browser and go to Sample11. Click it once, then click Preview to listen to it. Wherever your timeline indicator ("now time") is, the Phrase Preview will play the phrase using the chord at that exact timeline position. For instance, with our example, if you set your "now time" to 2.1 (Bar 2, beat 1), the Phrase Preview will play an Am chord. Likewise if you set the timeline to 3.1 (Bar 3, beat 1), the Phrase Preview will play a F major chord.



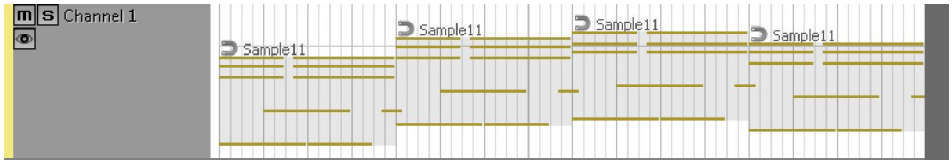
5. With Sample11 still selected in the Phrase Browser, go over to the track and click the grey area (right underneath the track name). That makes the current track active/selected.

Track Inspector



RIGHT-CLICK: If you right-click this area, it brings up the **Track Inspector** window, where you can change the Soundfont or VSTi instrument (as well as their respective presets). You can also change the track/phrase color if you like, and other options.

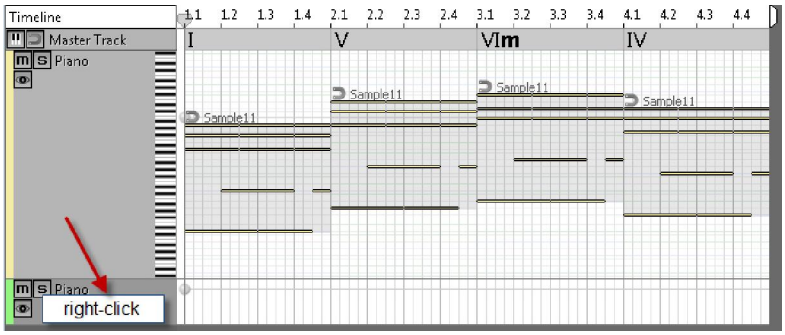
Now hit the letter F on your keyboard, and you will see that RC filled that track with the Sample11 phrase. Hit the spacebar to hear how Sample11 sounds over the chord progression you made.

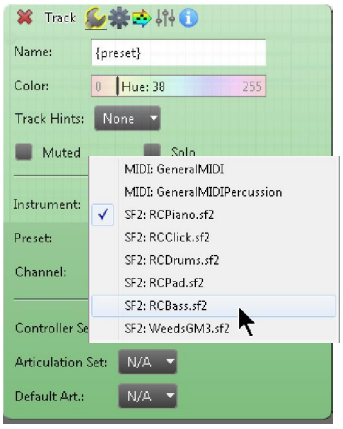


Keep in mind that RC's default track (Track 1) uses RCPiano (included Soundont) as its default Instrument. If you'd like to change it, you can do so by right-clicking where it says Track 1 (you can change it to a different Soundfont, or a VSTi of your choice).

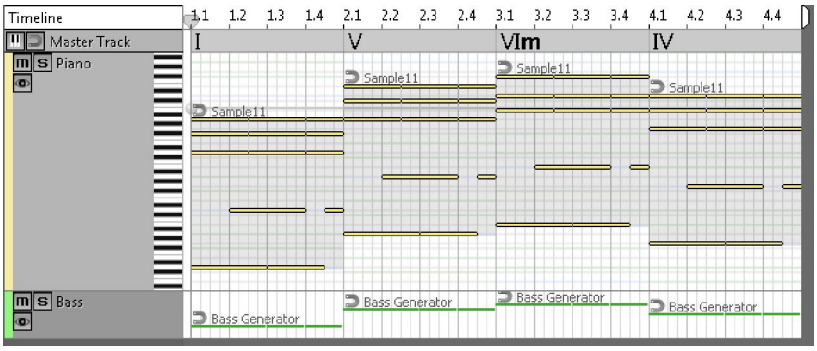
If you don't like the way the Phrases sound, either delete it (hit DEL) and choose another, or insert a Generator (such as Generic) and right-click the Generator to edit it to your liking, using one of the many Rhythm types (more on this in Chapter 2). If you want to delete all of the Phrases at once and use another Phrase (or Generator), select them all by left-clicking and dragging (doing so will highlight all phrases in that track) and then hit DEL.

6. If you're happy with Sample 11 (let's assume you are, for this example), let's now change the chord progression to a I - V - VIm - IV progression. Then, let's add another Track to our Composition. Hit the letter A to quickly add another Track, and then right-click the Track's grey area The **Track Inspector** window will open). For this example, we will choose the RCBass Soundfont.

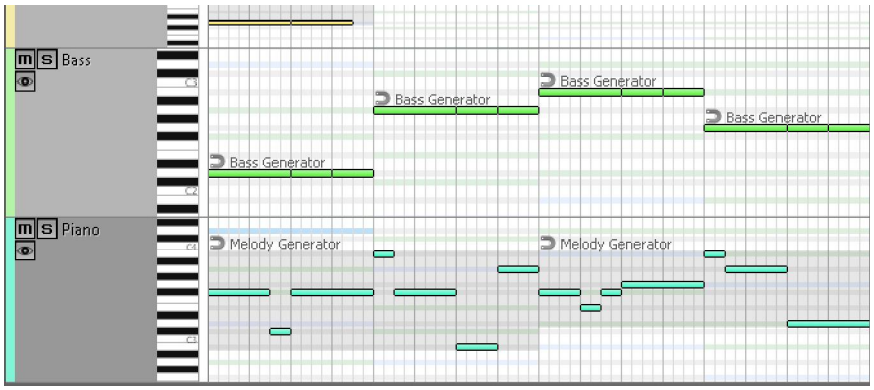




7. Go into the Phrase Browser, and select Bass Generator. Then actively select our new track, then hit the letter F on your keyboard. RC will fill that track with the default Bass Generator, and every time the bar or chord changes, the Bass Generator will of course follow it and match perfectly.



8. Let's add another track. Hit the letter A. You'll see a track right below the Bass Generator track. Let's leave the instrument as is (default: RCPiano Soundfont), as we will now make this a Melody track (using the Melody Generator - *not available in LE version*). Go into the Phrase Browser and select the Melody Generator. Select this new (third) track, and hit the letter F. You will see the Melody Generator filled the four measures with a random melody that spans across two bars (or 8 beats). *In this screenshot, we dragged the Bass and Melody tracks vertically, so we could see the MIDI notes and phrases better.*



9. You may or may not like what was generated. You can easily edit the Melody Generator (or any Phrase Generator) by right-clicking the Phrase, and tweaking it using the many parameters in the Phrase Inspector. *Please see Chapter 2 and also see our Part 9 Tutorials on "Generators" at* ***http://musicdevelopments.com/videos.html*** *for more details on how to edit ("tweak") Generators.*

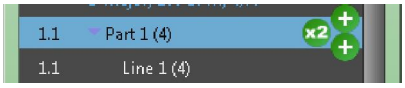
In the interest of saving time following this tutorial, let's assume you are ok with these randomly generated melodies. Let's now build more sections of our Composition.

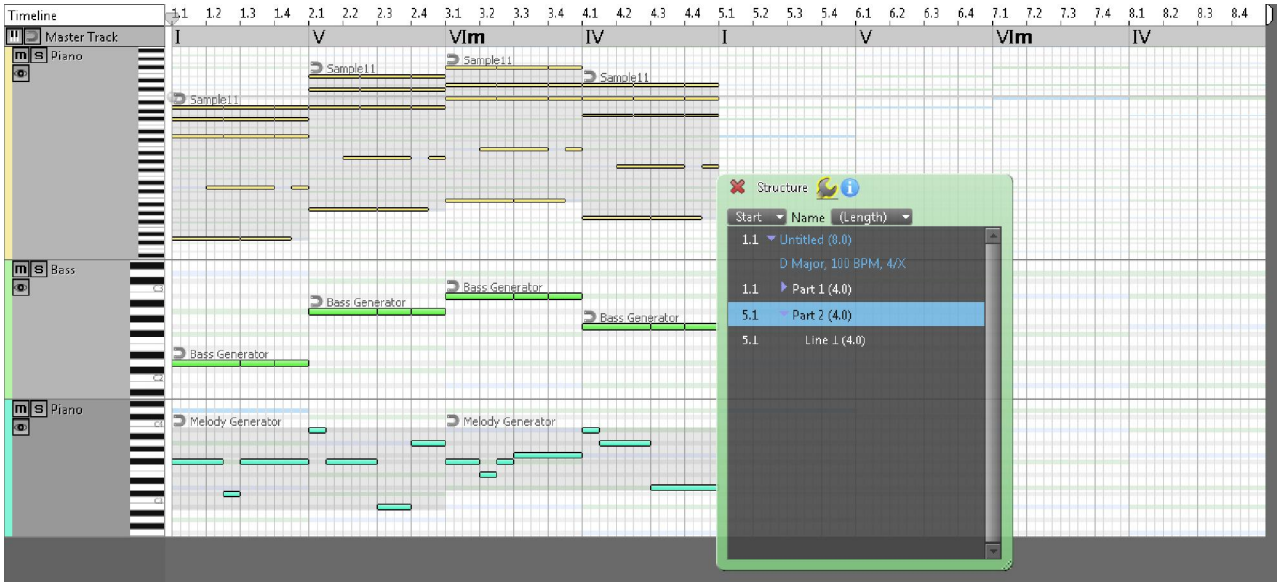
10. Go back into the Structure Inspector 

11. Click Part 1 (where we have been working) and you'll see two "plus sign" icons pop up (and, you'll see an "x2" button-- not shown in this screenshot as it is a brand-new feature). Click the bottom plus sign to add a part AFTER Part 1 (most common) or click the top one to add another Part BEFORE Part 1. In this example, we clicked the bottom plus sign and you can see that the Composition has expanded to 8 bars total, and notice how this new Part has kept the same chords in the same place (and has been conveniently named "Part 2"), but RC left the workspace open for new Phrases to be inserted.

You may have also noticed the "**x2**" button next to the plus sign buttons. **x2** is a new function that allows you to duplicate the current Part right after it, but **x2** does something special-- it retains all the Chords *and* Phrases from the duplicated Part, thus saving you even more time!

Again, for this example, we used the bottom plus sign, so it added four new measures, keeping the same chords as the previous part, but leaving the workspace open to add different Phrases.





From here, you can change the chords if you'd like, or put some new Phrases in. Notice how easy it is to create new parts and build a Composition filled with Phrases. Again, this is how RapidComposer does its thing.

We assume you now have the basics of how Compositions work in RC, and how you can add new Parts and Lines with the Structure Inspector. *Again, we recommend watching our Tutorial videos, especially Part 7 ("Structure Inspector") and Part 8, entitled "Building A Composition Part By Part" at* ***http://musicdevelopments.com/videos.html*** *for more details.*

Section 1G: Phrase Morpher & Using Phrase Magnets

The small magnet icon at the top left corner of each phrase can help you to automatically transpose the phrase relative to the previous phrase or an envelope. You cannot move a phrase when the magnet is active. When several phrases are connected, you can move the first phrase and all other phrases will follow it.

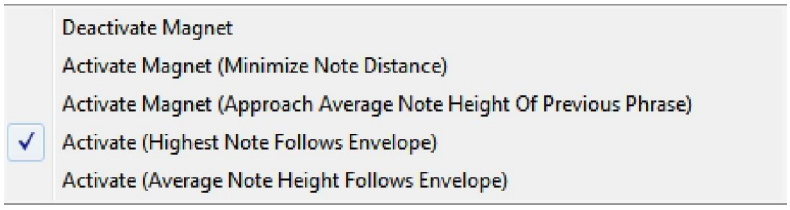
The magnet has three states:

 disabled, you can freely move the phrase around

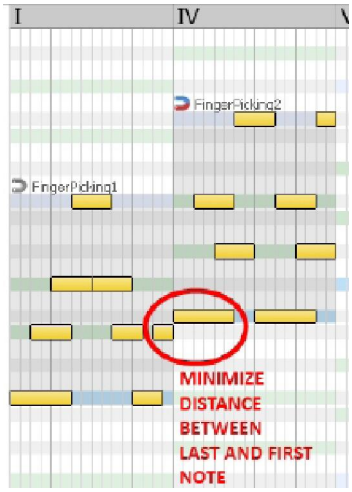
 it may point to the previous phrase which means the phrase will be adjusted to the previous phrase

 it may point upwards which make the phrase follow the phrase envelope.

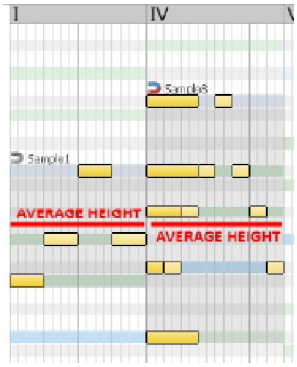
Right-clicking on the magnet will offer 2 algorithms for each mode:



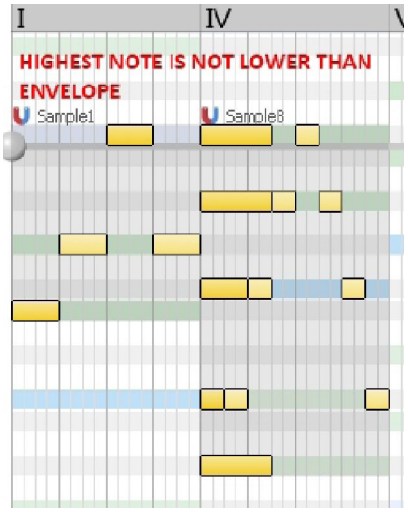
 1: Minimize Note Distance
The phrase is transposed so that the distance between the first note of the phrase and last note of the previous phrase is minimized. This works best for monophonic phrases when there is exactly one ‘first’ note and one ‘last’ note.



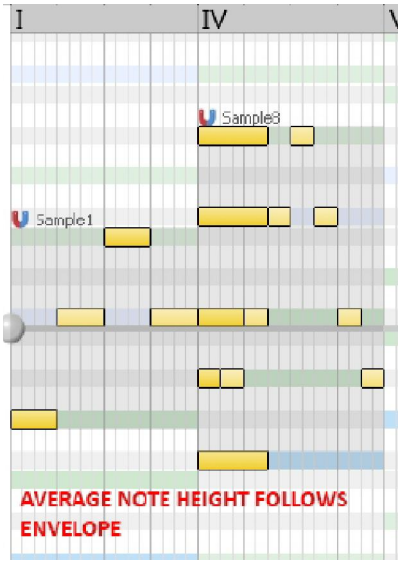
 2: Approach Average Note Height
The phrase is transposed so that the distance between the the average of the lowest and highest notes is minimized. This works well for both monophonic and polyphonic phrases.



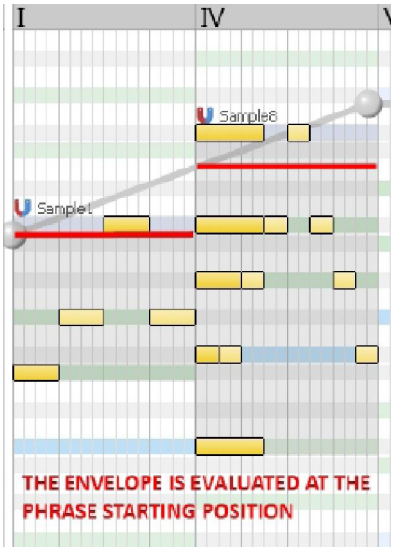
3: Highest Note Follows Envelope
The phrases are transposed so that the highest note is not lower than the envelope.



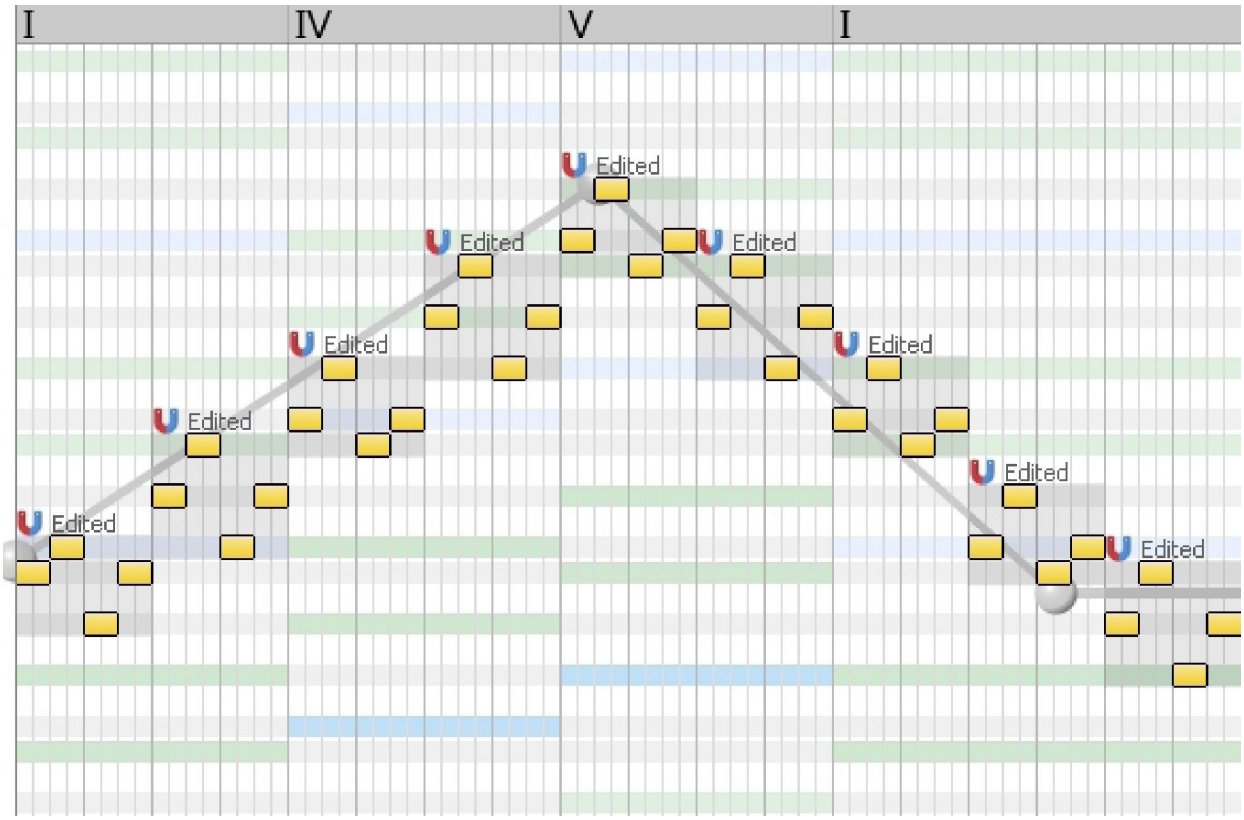
The envelope is evaluated at the phrase starting position:



4: Average Note Height Follows Envelope
The phrases are transposed so that the average of the highest and lowest note is on the envelope:



The shorter the phrases are the smoother they will follow the envelope. Here we created a very simple phrase lasting for 2 beats that consists of only scale notes (set the Note Mapping option to “Scale+semi”):



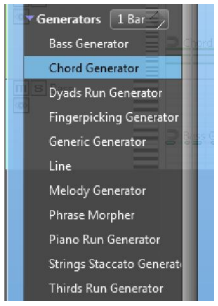
CHAPTER 2: Generators & Variations

Tutorial Videos mentioned in this Chapter:
Part 9A - Generators & Phrase Parameters (Section 2A)
Part 9B and Part 9C - Tweaking Generators (Section 2B to 2F)
Part 10 - Variations (Section 2G)

Section 2A: Generators Explained

Generators are fully customizable MIDI phrases, which can be variations of chord accompaniment (basic rock/pop piano), arpeggios (fingerpicking, piano-style, or string-ensemble-style), or legato/monophonic (melodies, or basslines). In Chapter 1 (and in many of our Tutorial videos), we threw some Generators into our Composition, to get some quick ideas going with phrases and patterns.

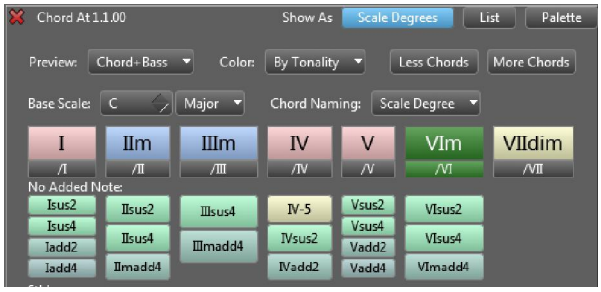
Let's get to know Generators in detail. First, open up the Phrase Browser:



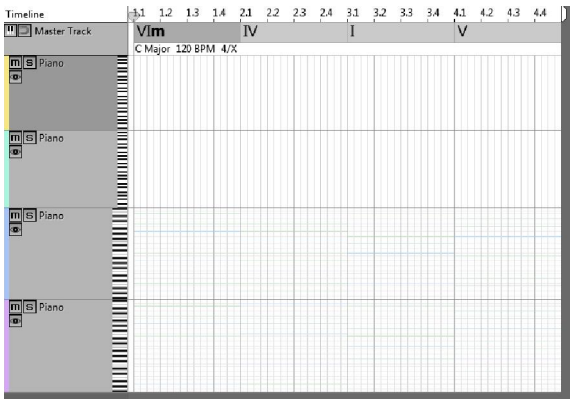
As you can see, there are several Generator types. *As of version 2.7, there are three new Generators: Strings Staccato, Dyads Run, and Piano Run.* You can learn more about those in the next Section (Generator Parameters). In earlier chapters, we mentioned which Generators are more commonly used, and which ones are used less frequently. In case you forgot, here are the most common Generator types, according to our customers/users:

Bass, Chord, Fingerpicking, Generic, and Melody Generators.

Llet's start a New Composition, and create a chord progression. Right-click the first chord on each bar (in the Chord Selector window, choose "Scale Degrees" instead of "List", to work with the chords by Roman Numerals.). Now, create the common chord progression VIm - IV - I - V.



Now, let's create several new tracks in our Composition, by pressing the A key on your keyboard three times. This should create 4 tracks total, as seen below:



Now let's set the instrument for each track that we're going to put a Generator on. In these examples, we will be using the included Soundfonts that come with RapidComposer. To customize the Instrument for each track, you'll need to pull up the Track Inspector (mentioned in Chapter 1, Section 1E). In case you forgot, here is how to access the Track Inspector:

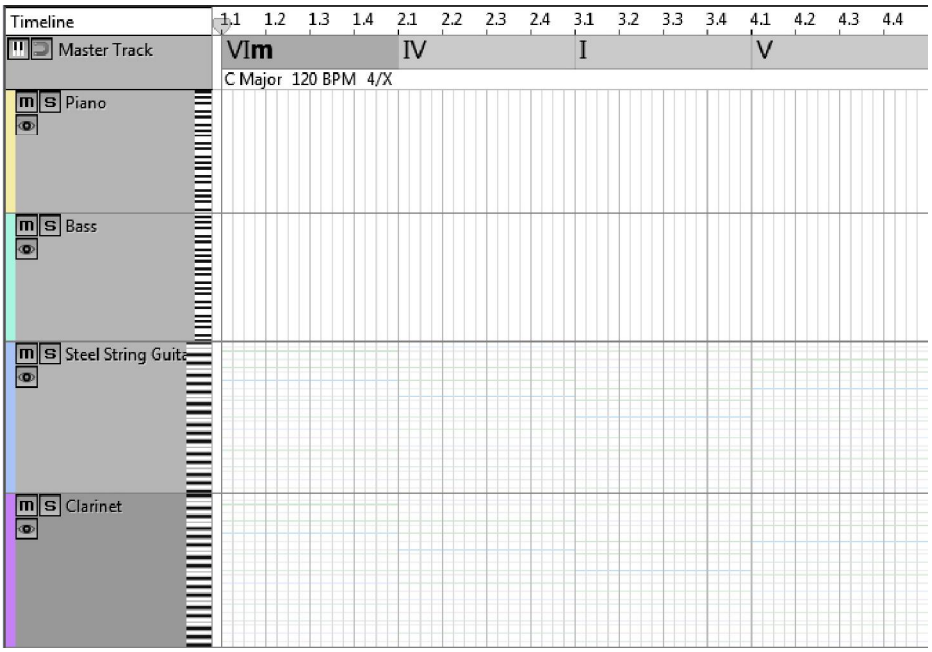


Track Inspector



Leave track 1's Instrument as default (it defaults to the RCPiano soundfont).
Set track 2's Instrument to the RCBass soundfont (this will be our Bass track, of course)
Set track 3's Instrument to RCGuitar (we will be putting a Fingerpicking Generator on this track).
Set track 4's Instrument to the RCClarinet soundfont (this will be our Melody Generator track). *If you are using the LE version, you can skip adding a 4th track, as Melody Generator is only available in the Full version.*

Your Composition should now look like this:



Now insert some chords.... for this example (previous page), our progression is VIm - IV - I - V (Am, F, C, G) and we left our Composition / Master Track settings default (key of C, 120BPM, 4/4 time).

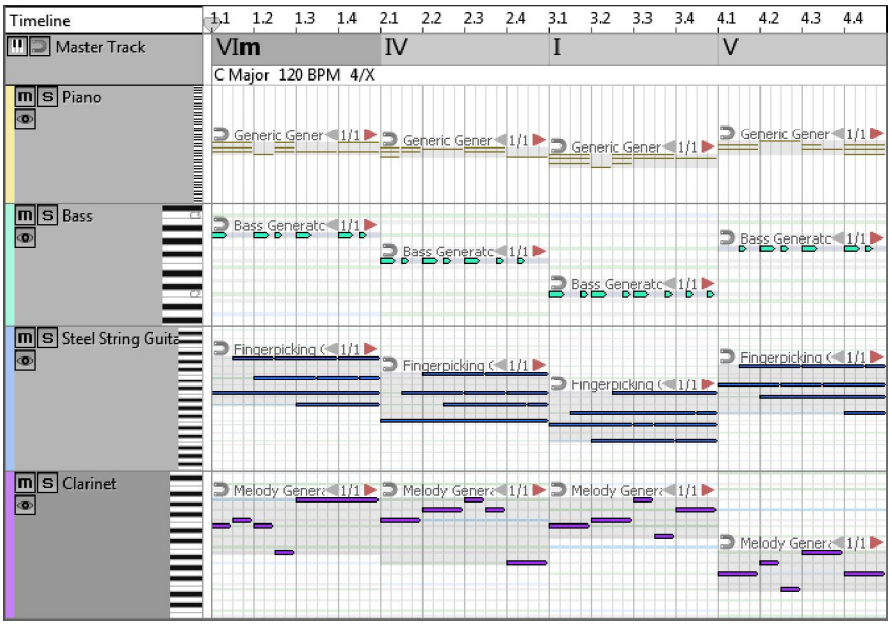
Left-click the Track Header for Track 1, so Track 1 is the active/selected track. Hit Q on your computer keyboard, and Track 1 will fill with the default Generic Generator.

Left-click the Track Header for Track 2, so Track 2 is the active/selected track. Hit B on your computer keyboard, and Track 2 will fill with the default Bass Generator.

Left-click the Track Header for Track 3, so Track 3 is the active/selected track. Hit N on your computer keyboard, and Track 3 will fill with the default Fingerpicking Generator.

Left-click the Track Header for Track 4, so Track 4 is the active/selected track. Hit M on your computer keyboard, and Track 4 will fill with the default Melody Generator *(not available in LE version)*.

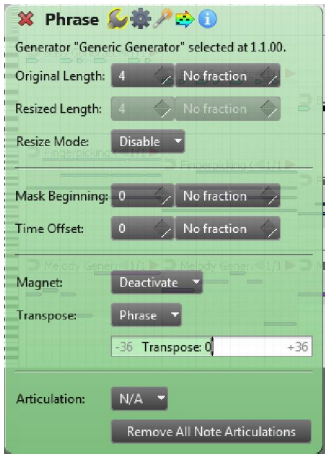
Your Composition should now look like this:



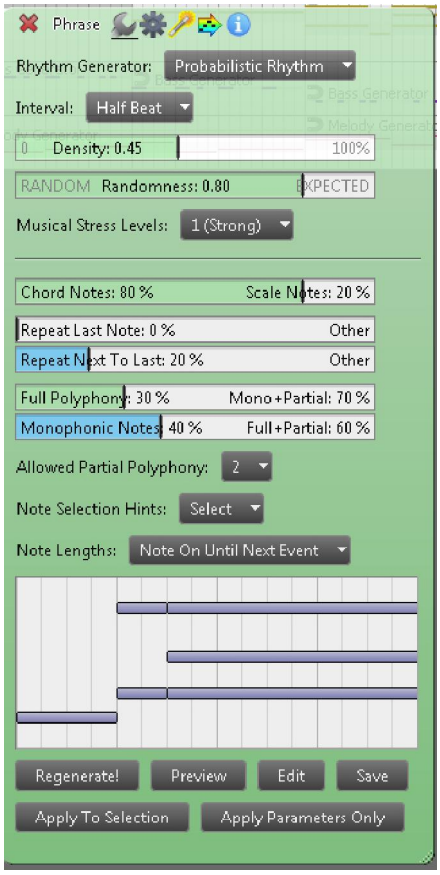
We're going to "tweak" one Generator at a time in this chapter. Let's first work with the **Generic Generator** on Track 1. To pull up the Phrase Inspector window, right-click one of the Phrases (for example, the Phrase in Bar 1, which plays through the VIm chord).

You'll see this Phrase Inspector window (at right). There are 5 icons at the top of the window. Click the 3rd one, which looks like a magic wand. This is where you will make the common changes to your Generators.

NOTE: For these examples, we won't change much, but the next Section of this Chapter (Generator Parameters) shows the many, many ways Generators can be "tweaked" to achieve your desired result.

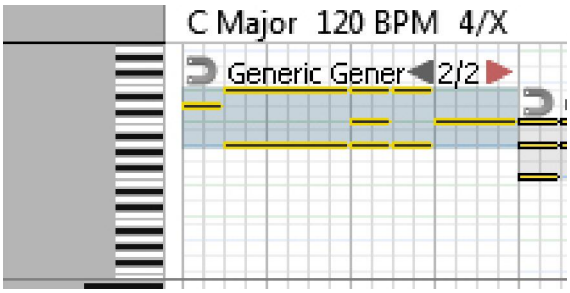


After you click the magic wand icon, you'll see that the Phrase Inspector window enlarges and shows lots of cool parameters for the **Generic Generator** we placed on Track 1.



Let's hit the main PLAY button to hear how the Phrase sounds, with the rest of the tracks. Sounds alright, but we might want to tweak the Generic Generator by "randomizing" it (in RC, this is called "Generate+Apply" and there is also a keyboard shortcut for it, which is the letter L.)

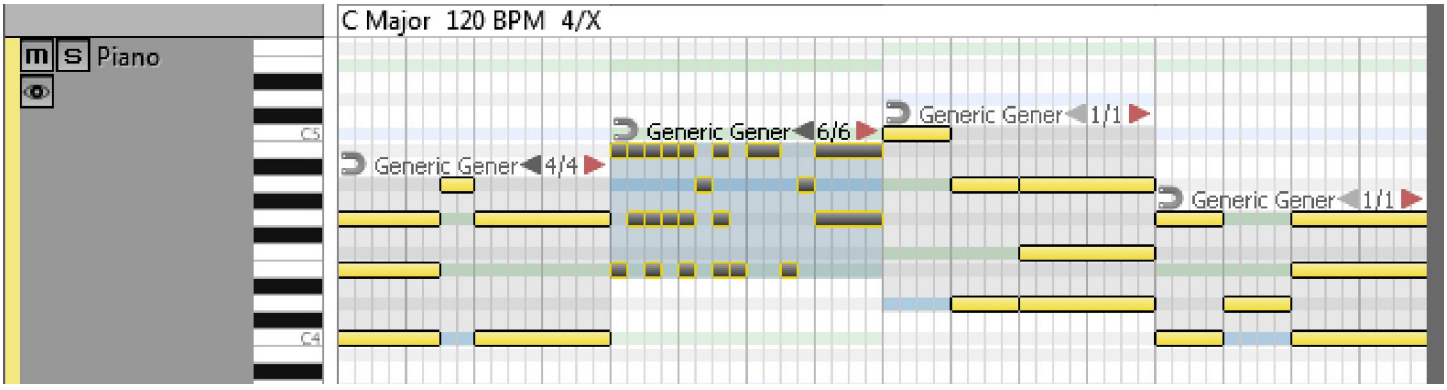
With the Phrase highlighted and the Phrase Inspector window open, we can hit the letter L to create a new randomization of the Generator. Another easy and fast way to do this is as follows: Hit the right-facing arrow next to the Generator name. Whichever way you choose, you'll see the 1/1 changed to 2/2.



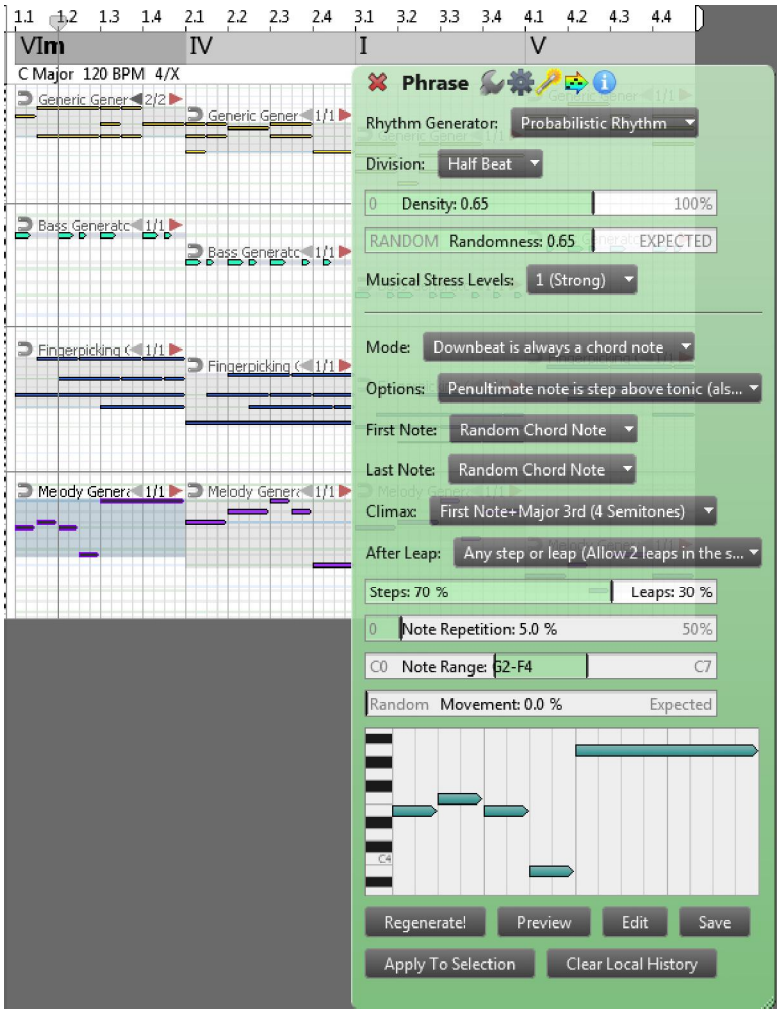
This is called **Phrase Local History.** Let's learn more about it, below.

Phrase Local History (added in version 2.7)

Save and recall previous states of phrase generation (most commonly used with Generators). Notice the "4th of 4" and "6th of 6" indicators, near the Generator names. These indicate that we've generated/applied three additional Generators on the first bar, and five additional Generators (using different parameters) on the second bar. These can be recalled and changed at any time, by clicking the left or right arrows on each phrase!



Let's go back to our Composition. Press PLAY again and listen to all four bars. Sounds pretty good, but maybe the Melody Generator in Bar 1 isn't complimenting the Composition the way we'd hoped. Let's work with **Phrase Local History** some more, but before we do, let's tweak some of the Melody Generator parameters, in the Phrase that is located on the 1st bar.



1. Change the "Division" parameters to **Quarter Beat**, instead of Half Beat.

2. Change the "Mode" to **Scale Notes+Chord Notes**., instead of Downbeat is always a Chord Note.

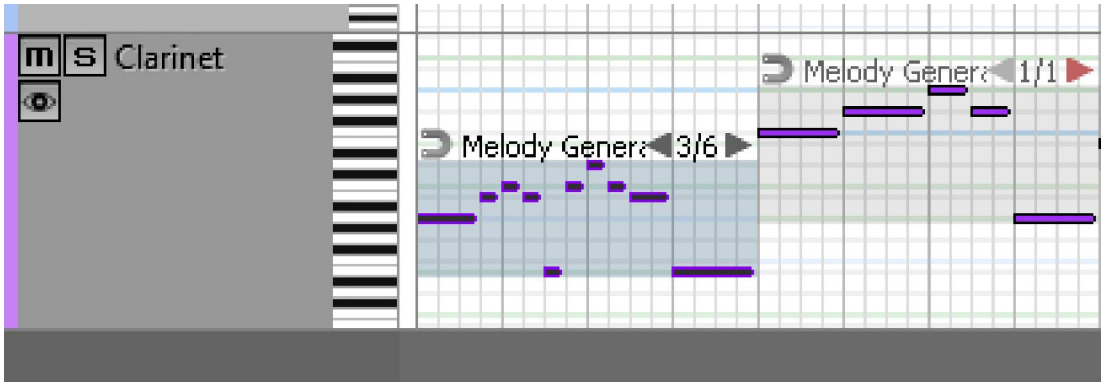
3. Now, click the "Regenerate!" button. Then "Apply To Selection." (or just hit the letter L, as it combines both commands).

4. Press PLAY. Still not satisfied?

5. Left-click the right-facing arrow next to the Generator name, to create entirely new Generator Phrases quickly (as long as the Generator is highlighted). Both the letter L and clicking the right-facing arrow do the same thing: "Generate+Apply".

6. Keep pressing PLAY until you find something you like.

In the screenshot below, it took us only 5 additional generations/randomizations of the Melody Generator before we found something we liked. Initially we were going to go with the 6th generation. But we decided after listening back to the earlier generations, that the 3rd generation sounded better to our ears. To cycle through the generations, simply left-click the left-facing arrow or right-facing arrow, and you can press PLAY to see how each sounds in the Composition. Truly rapid composing!

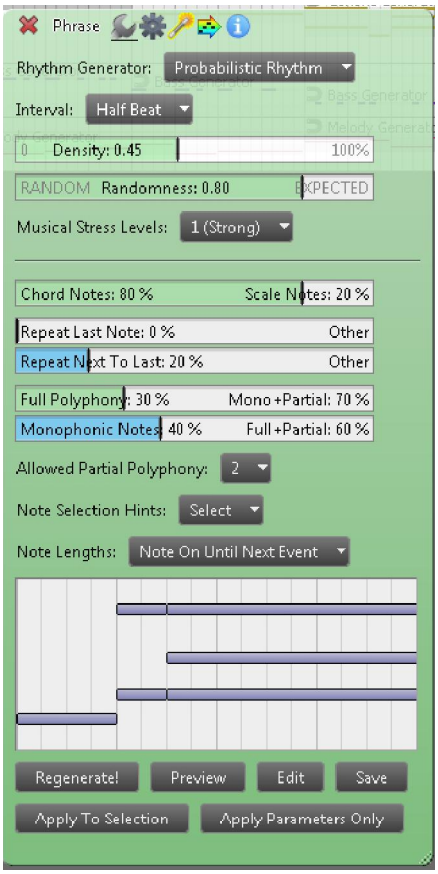


Now, we might want to "tweak" the Generator even more. **That's what the next section is all about!**

Section 2B: Generator Parameters (using Generic Generator)

So, you want to tweak some Generators in your Composition? You've come to the right Section!

As mentioned on the previous page, clicking the magic wand icon in the Phrase Inspector enlarges the window and shows lots of cool parameters for the **Generic Generator** we placed on Track 1. Let's go over what each Parameter is and what it does. All Generators have a Rhythm Generator option at the top. Keep in mind, some Generators have certain parameters that other Generators don't. It all depends on the chosen Generator you initially pick (and of course, the chosen Rhythm type).



Probabilistic Rhythm (default)

The settings to the left show the defaults for a **Generic Generator**. Notice how the default Rhythm is "Probabilistic", interval at "Half Beat", etc. All of these parameters can be changed and tweaked to your liking.

Let's run through what each setting for Probabilistic Rhythm means.

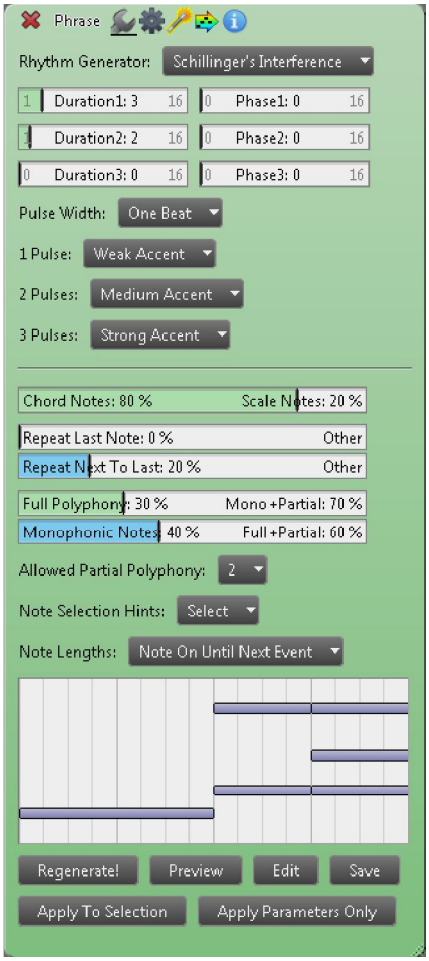
NOTE: This series of Sections is quite long, as the Generators are infinitely complex. We recommend just experimenting, by playing around with the parameters.

Probablistic Rhythm Settings:

Drop-Downs:
Interval: Available settings are One Beat, Half Beat, and Quarter Beat. Depending on how these are set, you'll see the notes below change to be more "busy" or more "simple."
Musical Stress Levels: Available settings are Strong, Strong-Middle, and Strong-Middle-Weak.
Allowed Partial Polyphony: Available settings are 2, 3, and 4.
Note Selection Hints: Available "Include" settings are Bass Note, Chord Highest Note, Note Below Chord Highest, Note Above Chord Highest
Note Lengths: Available settings are "Note On Until Next Event" (default), and various "Equal" lengths (Shortest Interval, 1 Beat, 1/2 Beat, 1/4 Beat, 1/8 Beat, and 1/16 Beat).

Sliders:
Density: How "busy" the Phrase can be (or how "simple")
Randomness: Sets the movement or phrasing of the Phrase. Random can lead to some unexpected surprises, and Expected is the opposite.
Chord/Scale Notes: 100% Chord Notes only use the notes from the chord in your Phrase, and other settings mix scale notes in.
Repeat Last Note: How often you'll hear repeated notes back-to-back in your Phrase.
Repeat Next To Last: How often you'll hear notes repeat, though not back-to-back.
Full Polyphony: Sets the amount of notes that are played together (up to 4).

Schillinger's Interference is a very complex mathematical equation that, in the simplest of terms, deals with where notes are heard and where notes are not heard, using simple ratios and divisions. You can achieve a lot of nice results using this rhythm type. Experimentation is the key!



Schillinger's Interference

The settings to the left show the defaults for the Schillinger's Interference Rhythm (using the **Generic Generator**). All of these parameters can be changed and tweaked to your liking.

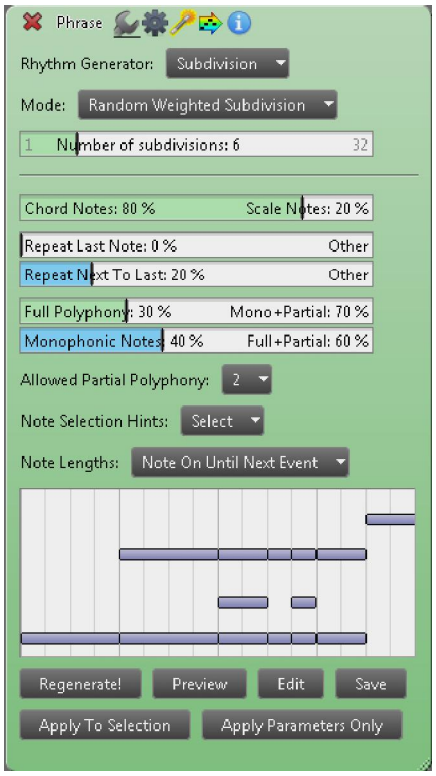
Let's run through what each setting for Schillinger's Interference means.

Schillinger's Interference Settings:

Drop-Downs:
Pulse Width: Available settings are One Beat, Half Beat, and Quarter Beat. Depending on how these are set, you'll see the notes below change to be more "busy" or more "simple" rhythms.
1 Pulse / 2 Pulses / 3 Pulses: Available settings are No Event, Strong, Medium and Weak.
Allowed Partial Polyphony: Available settings are 2, 3, and 4.
Note Selection Hints: Available "Include" settings are Bass Note, Chord Highest Note, Note Below Chord Highest, Note Above Chord Highest
Note Lengths: Available settings are "Note On Until Next Event" (default), and various "Equal" lengths (Shortest Interval, 1 Beat, 1/2 Beat, 1/4 Beat, 1/8 Beat, and 1/16 Beat).

Sliders:
Duration / Phase: How "busy" or complex the Phrase can be (or how "simple")
Chord/Scale Notes: 100% Chord Notes only use the notes from the chord in your Phrase, and other settings mix scale notes in.
Repeat Last Note: How often you'll hear repeated notes back-to-back in your Phrase.
Repeat Next To Last: How often you'll hear notes repeat, though not back-to-back.
Full Polyphony: Sets the amount of notes that are played together (up to 4).
Monophonic Notes: A mixture of single notes mixed with polyphonic chordal harmony

Subdivision can create some very melodic and quirky patterns, which can be perfect for “chiptune” music, or 8-bit video game-style music (music featured in video games from the 80s into the early 90s). You can achieve a lot of great results in this style by increasing the Number of Subdivisions slider above the default of 6 (13 to 16 is a great number), and also increasing the Full Polyphony slider to above 50%. Subdivision is useful in a lot of other ways, but we find that we use those settings most often as we love the sound of chiptunes!



Subdivision Rhythm

The settings to the left show the defaults for the Subdivision Rhythm (using the **Generic Generator**). All of these parameters can be changed and tweaked to your liking.

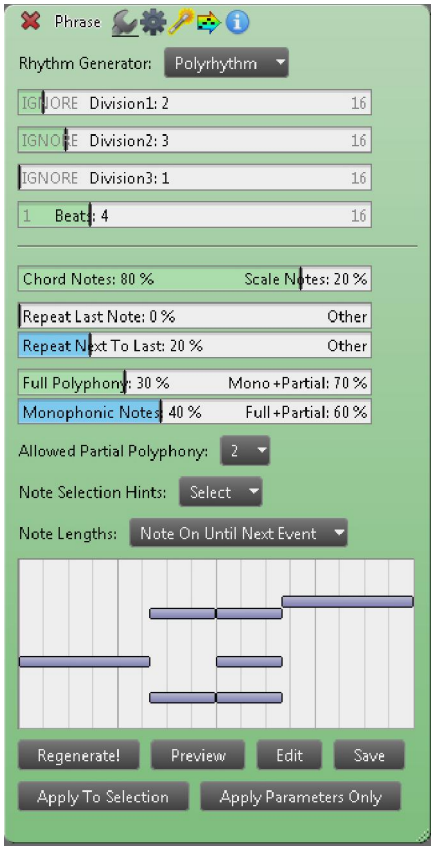
Let’s run through what each Subdivision setting means.

Subdivision Rhythm Settings:

Drop-Downs:
Mode: Available settings are Random Weighted (default), Random, or Successive. Depending on how these are set, you’ll see the notes below change to be more “busy” or more “simple.”
Allowed Partial Polyphony: Available settings are 2, 3, and 4.
Note Selection Hints: Available “Include” settings are Bass Note, Chord Highest Note, Note Below Chord Highest, Note Above Chord Highest
Note Lengths: Available settings are “Note On Until Next Event” (default), and various “Equal” lengths (Shortest Interval, 1 Beat, 1/2 Beat, 1/4 Beat, 1/8 Beat, and 1/16 Beat).

Sliders:
Number of Subdivisions: How “busy” the Phrase can be (or how “simple”).
Chord/Scale Notes: 100% Chord Notes only use the notes from the chord in your Phrase, and other settings mix scale notes in.
Repeat Last Note: How often you’ll hear repeated notes back-to-back in your Phrase.
Repeat Next To Last: How often you’ll hear notes repeat, though not back-to-back.
Full Polyphony: Sets the amount of notes that are played together (up to 4).
Monophonic Notes: A mixture of single notes mixed with polyphonic chordal harmony

Polyrhythm allows a phrase to include notes that are off-beat or uncommonly-placed. You can achieve a humanlike performance quality using this rhythm generator type.



Polyrhythm

The settings to the left show the defaults for Polyrhythm (using the **Generic Generator**). All of these parameters can be changed and tweaked to your liking.

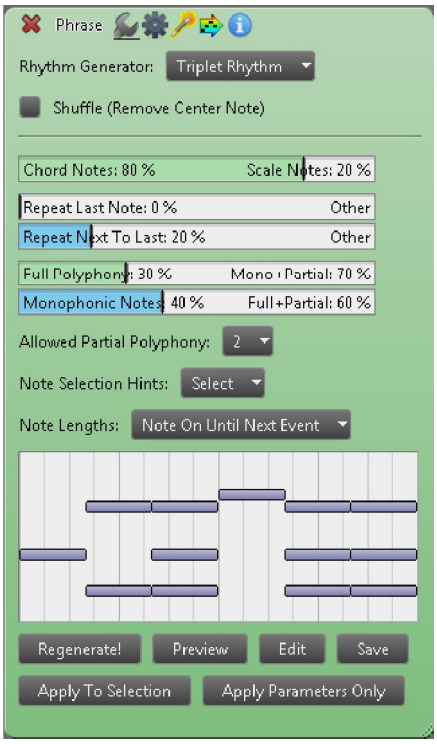
Let's run through what each Polyrhythm setting means.

Polyrhythm Settings:

Drop-Downs:
Allowed Partial Polyphony: Available settings are 2, 3, and 4.
Note Selection Hints: Available "Include" settings are Bass Note, Chord Highest Note, Note Below Chord Highest, Note Above Chord Highest
Note Lengths: Available settings are "Note On Until Next Event" (default), and various "Equal" lengths (Shortest Interval, 1 Beat, 1/2 Beat, 1/4 Beat, 1/8 Beat, and 1/16 Beat).

Sliders:
Ignore Divisions: Allows for complete customization of where polyrhythmic notes are heard and where they are not.
Beats: Sets where exactly most of the polyrhythmic notes will appear.
Chord/Scale Notes: 100% Chord Notes only use the notes from the chord in your Phrase, and other settings mix scale notes in.
Repeat Last Note: How often you'll hear repeated notes back-to-back in your Phrase.
Repeat Next To Last: How often you'll hear notes repeat, though not back-to-back.
Full Polyphony: Sets the amount of notes that are played together (up to 4).
Monophonic Notes: A mixture of single notes mixed with polyphonic chordal harmony

Triplet Rhythm allows for basic quarter note triplet rhythms in your phrases. You can also get basic “shuffle” patterns by putting a tick mark inside the “Shuffle (Remove Center Note)” parameter.



Triplet Rhythm

The settings to the left show the defaults for Triplet Rhythm (using the **Generic Generator**). All of these parameters can be changed and tweaked to your liking.

Let’s run through what each Triplet Rhythm setting means.

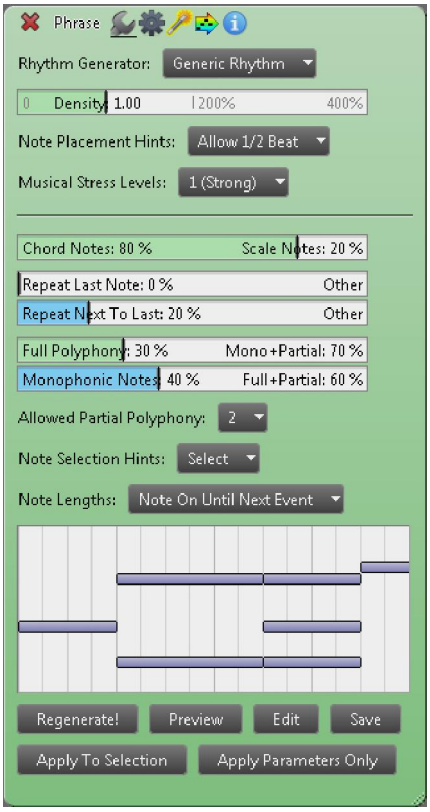
Triplet Rhythm Settings:

Tick-Box:
Shuffle (Remove Center Note): This allows for basic shuffle patterns within the phrase.

Drop-Downs:
Allowed Partial Polyphony: Available settings are 2, 3, and 4.
Note Selection Hints: Available “Include” settings are Bass Note, Chord Highest Note, Note Below Chord Highest, Note Above Chord Highest
Note Lengths: Available settings are “Note On Until Next Event” (default), and various “Equal” lengths (Shortest Interval, 1 Beat, 1/2 Beat, 1/4 Beat, 1/8 Beat, and 1/16 Beat).

Sliders:
Chord/Scale Notes: 100% Chord Notes only use the notes from the chord in your Phrase, and other settings mix scale notes in.
Repeat Last Note: How often you’ll hear repeated notes back-to-back in your Phrase.
Repeat Next To Last: How often you’ll hear notes repeat, though not back-to-back.
Full Polyphony: Sets the amount of notes that are played together (up to 4).
Monophonic Notes: A mixture of single notes mixed with polyphonic chordal harmony

Generic Rhythm (especially inside a Generic Generator) is one of the most useful ways to generate “piano-style” patterns. Don’t be fooled by the word “generic”, as it is anything but.



Generic Rhythm

The settings to the left show the defaults for Generic Rhythm (using the **Generic Generator**). All of these parameters can be changed and tweaked to your liking.

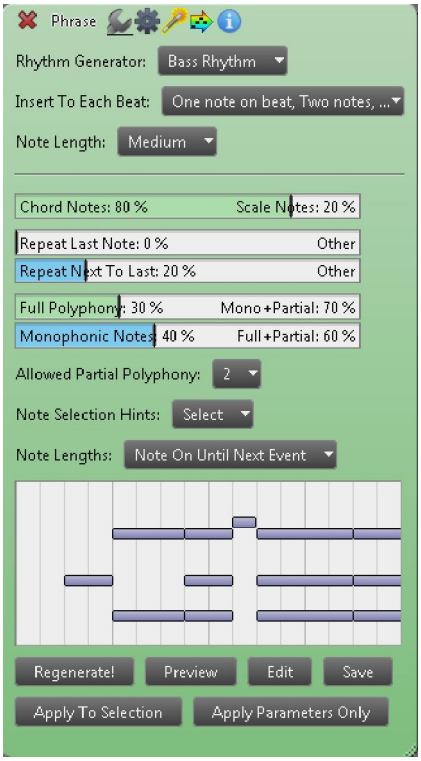
Let’s run through what each Generic Rhythm setting means.

Generic Rhythm Settings:

Drop-Downs:
Note Placement Hints: Available settings are Whole Notes Only, Allow 1/2 Beat, Allow 1/2 and 1/4 Beat, Allow 1/2, 1/4, and 1/8 Beat. Depending on how these are set, you’ll see the notes below change to be more “busy” or more “simple.”
Musical Stress Levels: Available settings are Strong, Strong-Middle, and Strong-Medium-Weak.
Allowed Partial Polyphony: Available settings are 2, 3, and 4 (or any combination of these).
Note Selection Hints: Available “Include” settings are Bass Note, Chord Highest Note, Note Below Chord Highest, Note Above Chord Highest
Note Lengths: Available settings are “Note On Until Next Event” (default), and various “Equal” lengths (Shortest Interval, 1 Beat, 1/2 Beat, 1/4 Beat, 1/8 Beat, and 1/16 Beat).

Sliders:
Density: How “busy” the Phrase can be (or how “simple”)
Chord/Scale Notes: 100% Chord Notes only use the notes from the chord in your Phrase, and other settings mix scale notes in.
Repeat Last Note: How often you’ll hear repeated notes back-to-back in your Phrase.
Repeat Next To Last: How often you’ll hear notes repeat, though not back-to-back.
Full Polyphony: Sets the amount of notes that are played together (up to 4).
Monophonic Notes: A mixture of single notes mixed with polyphonic chordal harmony

Bass Rhythm suits monophonic sounds (obviously a bass guitar, and other instruments) best. Although in this chapter, and all of these examples, it is part of a **Generic Generator**. If you play with the sliders a bit, you can achieve a lot of great dance/trance/techno-style piano patterns using this Rhythm type, with a **Generic Generator.**



Bass Rhythm

The settings to the left show the defaults for Bass Rhythm (using the **Generic Generator**). All of these parameters can be changed and tweaked to your liking.

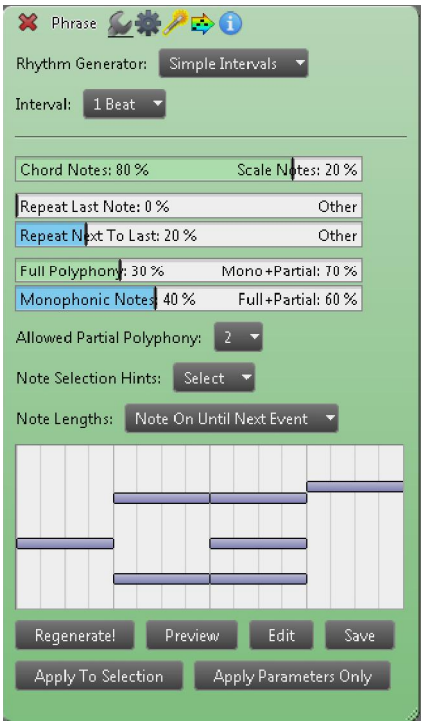
Let's run through what each Bass Rhythm setting means.

Bass Rhythm Settings:

Drop-Downs:
Insert To Each Beat: Available settings are One Note On Beat, Two 16th Notes Before and After Beat, Two 8th Notes Before and After Beat, Two 16th Notes Before and a Note On Beat, and finally, Two 8th Notes Before and a Note On Beat. Depending on how these are set, you'll see the notes below change to be more "busy" or more "simple."
Note Length: Available settings are Short, Medium (default) and Long.
Allowed Partial Polyphony: Available settings are 2, 3, and 4 (or any combination of these).
Note Selection Hints: Available "Include" settings are Bass Note, Chord Highest Note, Note Below Chord Highest, Note Above Chord Highest
Note Lengths: Available settings are "Note On Until Next Event" (default), and various "Equal" lengths (Shortest Interval, 1 Beat, 1/2 Beat, 1/4 Beat, 1/8 Beat, and 1/16 Beat).

Sliders:
Chord/Scale Notes: 100% Chord Notes only use the notes from the chord in your Phrase, and other settings mix scale notes in.
Repeat Last Note: How often you'll hear repeated notes back-to-back in your Phrase.
Repeat Next To Last: How often you'll hear notes repeat, though not back-to-back.
Full Polyphony: Sets the amount of notes that are played together (up to 4).
Monophonic Notes: A mixture of single notes mixed with polyphonic chordal harmony

Simple Intervals are exactly that: simple rhythmic intervals. Sometimes you just need something simple and fast, that gets the harmonic job done, with a basic rhythm. **NOTE:** The **Chord Generator** uses the same type of simple rhythmic generation as **Simple Intervals**.



Simple Intervals

The settings to the left show the defaults for Simple Intervals (using the **Generic Generator**). All of these parameters can be changed and tweaked to your liking.

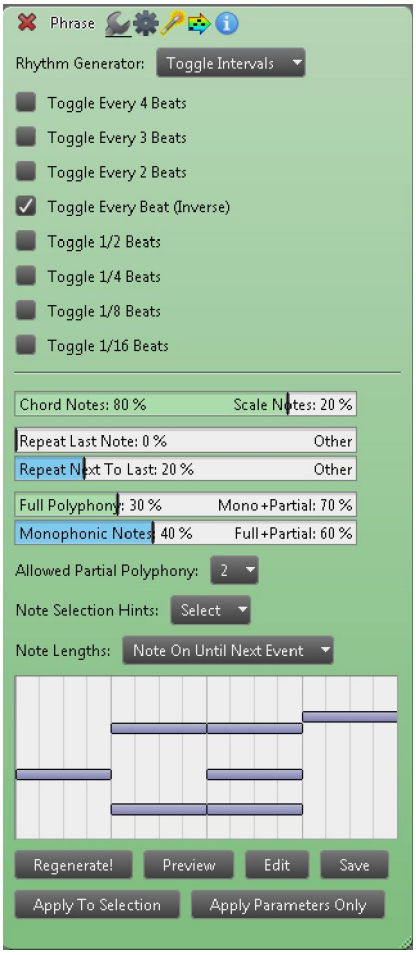
Let's run through what each Simple Intervals setting means.

Simple Interval Settings:

Drop-Downs:
Interval: Available settings are Measure, 3 Beats, 2 Beats, 1 Beat, Half Beat, Quarter Beat, 1/8 Beat, and 1/16 Beat. Depending on how these are set, you'll see the notes below change to be more "busy" or more "simple."
Allowed Partial Polyphony: Available settings are 2, 3, and 4 (or any combination of these).
Note Selection Hints: Available "Include" settings are Bass Note, Chord Highest Note, Note Below Chord Highest, Note Above Chord Highest
Note Lengths: Available settings are "Note On Until Next Event" (default), and various "Equal" lengths (Shortest Interval, 1 Beat, 1/2 Beat, 1/4 Beat, 1/8 Beat, and 1/16 Beat).

Sliders:
Chord/Scale Notes: 100% Chord Notes only use the notes from the chord in your Phrase, and other settings mix scale notes in.
Repeat Last Note: How often you'll hear repeated notes back-to-back in your Phrase.
Repeat Next To Last: How often you'll hear notes repeat, though not back-to-back.
Full Polyphony: Sets the amount of notes that are played together (up to 4).
Monophonic Notes: A mixture of single notes mixed with polyphonic chordal harmony

Toggle Intervals, like Simple Intervals, toggle when certain MIDI notes are played and when and where they are not. You can create very useful Phrases with Toggle Intervals, if you have a certain “groove” in mind.



Toggle Intervals

The settings to the left show the defaults for Toggle Intervals (using the **Generic Generator**). All of these parameters can be changed and tweaked to your liking.

Let’s run through what each Toggle Intervals setting means.

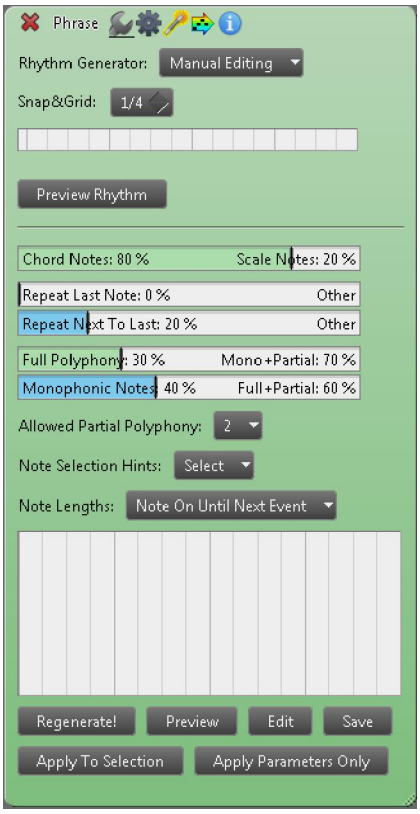
Toggle Interval Settings:

Tick Boxes: Toggle Every 4 Beats, 3 Beats, 2 Beats, 1 Beat, 1/2 Beat, 1/4 Beat, 1/8 Beat, 1/16 Beat.

Drop-Downs:
Allowed Partial Polyphony: Available settings are 2, 3, and 4 (or any combination of these).
Note Selection Hints: Available “Include” settings are Bass Note, Chord Highest Note, Note Below Chord Highest, Note Above Chord Highest
Note Lengths: Available settings are “Note On Until Next Event” (default), and various “Equal” lengths (Shortest Interval, 1 Beat, 1/2 Beat, 1/4 Beat, 1/8 Beat, and 1/16 Beat).

Sliders:
Chord/Scale Notes: 100% Chord Notes only use the notes from the chord in your Phrase, and other settings mix scale notes in.
Repeat Last Note: How often you’ll hear repeated notes back-to-back in your Phrase.
Repeat Next To Last: How often you’ll hear notes repeat, though not back-to-back.
Full Polyphony: Sets the amount of notes that are played together (up to 4).
Monophonic Notes: A mixture of single notes mixed with polyphonic chordal harmony

Manual Editing is one of the most powerful Rhythm types when it comes to Generators. You can create a manual rhythm that the Generators will perfectly follow, while they work their harmonic magic by staying perfectly in key.



Manual Editing

The settings to the left show the defaults for Manual Editing (using the **Generic Generator**). All of these parameters can be changed and tweaked to your liking.

Let's run through what each Manual Editing setting means, and also (on the following page), we'll learn how to use the little ruler right below "Snap & Grid" settings, to create your own custom rhythms.

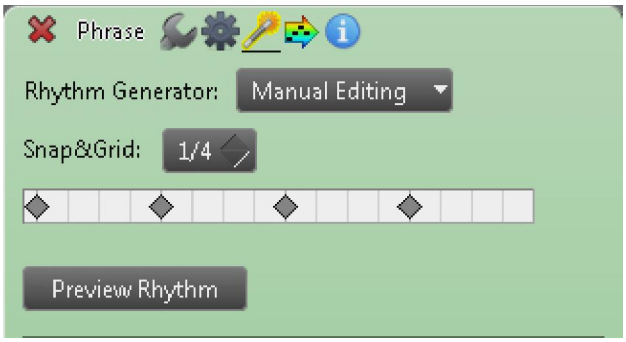
Manual Rhythm Settings:

Drop-Downs:
Snap & Grid: Here is where you'll set the grid/snap lengths for the "diamonds" you'll be moving around when you create a custom rhythm.
Note Selection Hints: Available "Include" settings are Bass Note, Chord Highest Note, Note Below Chord Highest, Note Above Chord Highest
Note Lengths: Available settings are "Note On Until Next Event" (default), and various "Equal" lengths (Shortest Interval, 1 Beat, 1/2 Beat, 1/4 Beat, 1/8 Beat, and 1/16 Beat).

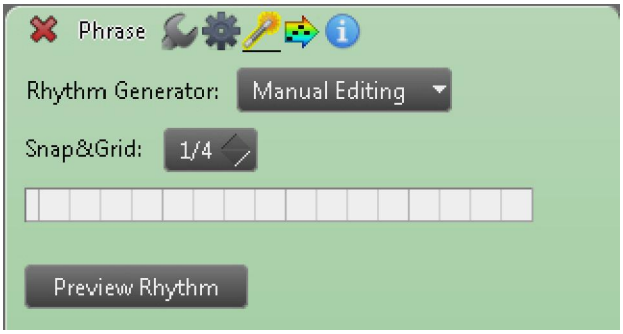
Sliders:
Chord/Scale Notes: 100% Chord Notes only use the notes from the chord in your Phrase, and other settings mix scale notes in.
Repeat Last Note: How often you'll hear repeated notes back-to-back in your Phrase.
Repeat Next To Last: How often you'll hear notes repeat, though not back-to-back.
Full Polyphony: Sets the amount of notes that are played together (up to 4).
Monophonic Notes: A mixture of single notes mixed with polyphonic chordal harmony

Manual Editing 101

Your default **Generic Generator** might have a simple rhythm like shown below, or it might have something slightly different:



No matter what is, let's clear it by right-clicking on the ruler wherever one of the "diamond" shapes (a note) is not currently located. After you clear the rhythm, it will look like this:

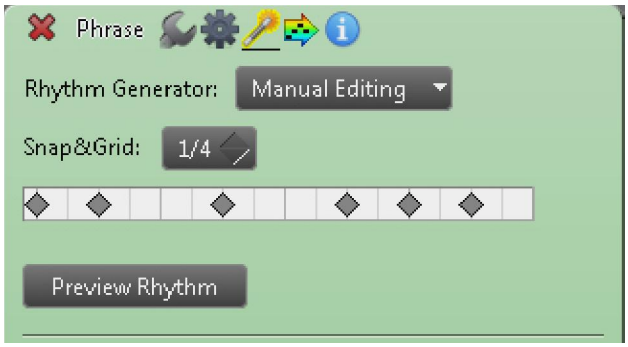


Let's assume you want to create a somewhat interesting rhythm for your phrase, such as:

1 and (2) **and** (3) **and 4 and**

Let's change the Snap & Grid setting to 1/4, which gives us a 16th note Grid (As you can see in the top photo on this page, the diamonds/notes are located on counts 1, 2, 3, and 4, and you can see the remaining 16th note grid lines between each of those diamonds. Left-click to insert a "diamond" wherever you want, and right-click on the diamond to erase it if you made a mistake. Each left-click on the same grid line inserts a diamond/note at various velocities: soft, medium, and loud. Keep this in mind, as this helps you create exactly the type of "feel" you want, as well as the exact rhythm you want.

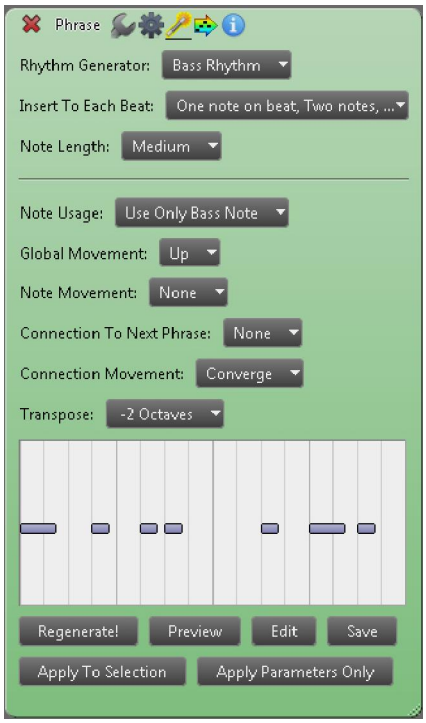
So, assuming we want that rhythm above: [**1 and** (2) **and** (3) **and 4 and]**, it will look like this. You can also hit the Preview button to hear how the rhythm sounds with a metronome click/cowbell-type sound (if you're unsure if you placed the diamonds/notes correctly):



TIP: Melody Generator tweaked with your own rhythms via Manual Editing: great results.

Section 2C: Generator Parameters (using Bass Generator)

Earlier in this Chapter, we created a basic multi-track Composition. Right-click one of the Bass Generator phrases in your Bass track (should be Track 2). The Phrase Inspector window appears. After you click the magic wand icon in the Phrase Inspector window, you'll see that the Phrase Inspector window enlarges and shows lots of cool parameters for the **Bass Generator** we placed on Track 2. Let's go over what each parameter is and what it does (Remember, parameters change depending on your Generator type). Most Generators have a Rhythm Generator option at the top. As mentioned above, some Generators have different parameters than other Generators. It all depends on the chosen Generator you initially pick (and of course, the chosen Rhythm type).



Bass Rhythm (default)

The settings to the left show the defaults for a **Bass Generator**. Notice how the default Rhythm is "Bass Rhythm", note length "Medium", etc. All of these parameters can be changed and tweaked to your liking.

Let's run through what each setting for Bass Rhythm means (when using a Bass Generator). Again, parameter settings are different for the other Generator types.

Bass Rhythm Settings:

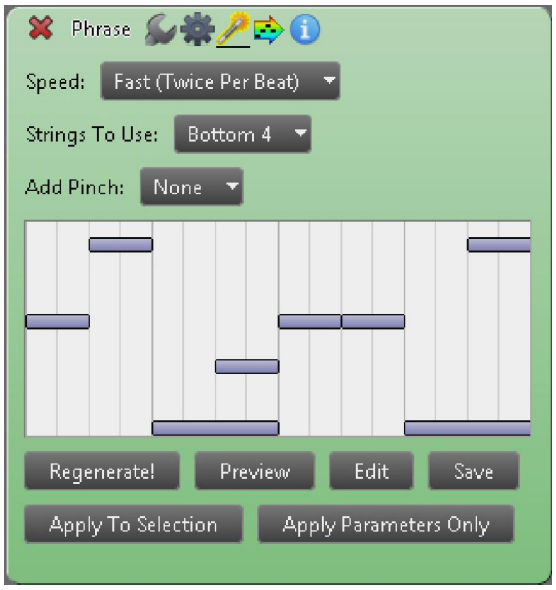
Drop-Downs:
Insert To Each Beat: Available settings are One Note On Beat, Two 16th Notes Before and After Beat, Two 8th Notes Before and After Beat, Two 16th Notes Before and a Note On Beat, and finally, Two 8th Notes Before and a Note On Beat. Depending on how these are set, you'll see the notes below change to be more "busy" or more "simple."
Note Length: Available settings are Short, Medium (default) and Long.
Note Usage: There are MANY settings inside this drop-down, besides the default "Use Only Bass Notes". Some of the other useful ones are "Use Bass Note+Fifth" or "Use Bass Note+Fifth+Octave". Experiment!
Global Movement: Available settings are Up (default), Down, Up-Down, Down-Up, Random, and Select Randomly.
Note Movement: Available settings are None (default), Select Randomly, or Alternating.
Connection To Next Phrase: Available settings are None (default), Select Randomly, One-Note, or Two-Note.
Connection Movement: Available settings are Converge (default), Select Randomly, Approach From Opposite Direction, or Mixed/Random.
Transpose: Available settings are -2 Octaves (default), and -1 Octave, -3 Octaves, or -4 Octaves.

- -

***To save pages and your time**, we encourage you to experiment with the other Rhythm types for the Bass Generator. The Bass Rhythm is very useful, indeed, but you might want something different from your Bass Generator phrases. Notice how (after selecting the other Rhythm types) that all of the parameters might be similar, with slight changes to accomodate the legato and/or monophonic performance and playing style of bass instruments.*

Section 2D: Generator Parameters (Fingerpicking Generator)

Right-click one of the Fingerpicking Generator phrases in your Fingerpicking track (should be Track 3). The Phrase Inspector window appears. After you click the magic wand icon in the Phrase Inspector window, you'll see that the Phrase Inspector window enlarges and shows a few parameters for the **Fingerpicking Generator** we placed on Track 3. Let's go over what each parameter is and what it does (Remember, parameters change depending on your Generator type). Most Generators have a rhythm Generator option at the top. The Fingerpicking Generator is one that doesn't. As mentioned above, some Generators have different parameters than other Generators. It all depends on the chosen Generator you initially pick (and of course, the chosen Rhythm type).



Fingerpicking

The settings to the left show the defaults for a **Fingerpicking Generator**. Notice how there is no default Rhythm type, as Fingerpicking only has one rhythm type: itself.

These special parameters can be changed and tweaked to your liking.

Let's run through what each setting means.

Don't forget-- parameter settings are different for the other Generator types.

Fingerpicking Generator Settings:

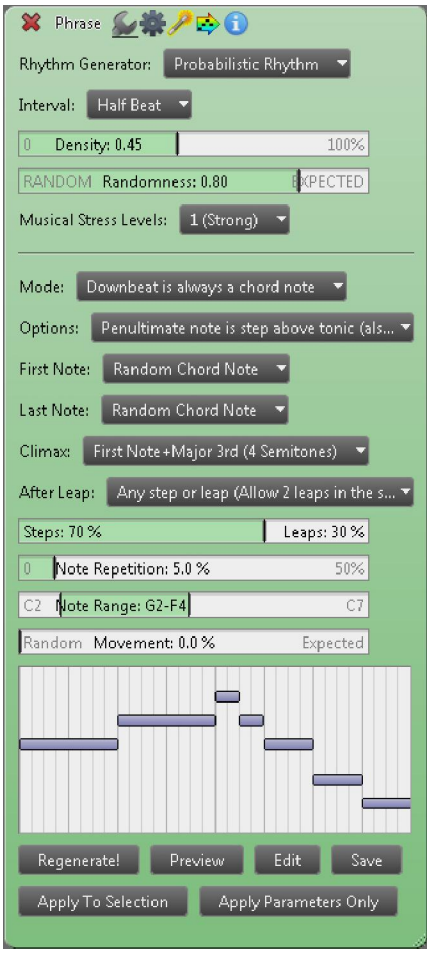
Drop-Downs:
Speed: Available settings are Fast (default), Slow, or Travis Picking. Depending on how these are set, you'll see the notes below change to be more "busy" or more "simple."
Strings To Use: Lots of settings here. Don't be afraid to experiment! Default is "Bottom 4 Strings."
Add Pinch: Available settings are "None" (default), Once, Sometimes, and Always.

Tick Box (not shown in the screenshot):
Sustain Notes: Default setting is enabled, where the MIDI notes resemble fingerpicking an acoustic guitar.

Section 2E: Generator Parameters (Melody Generator)

The **Melody Generator** is a relatively new Generator type (released in version 2.5) which we at MusicDevelopments feel is a great and incredibly useful addition to the Full version of the program. There aren't too many melody generation programs out there (only one application that we know of, for a smart phone, and a few older free ones from the web). These programs don't let you choose your own chords (the harmony) underneath, which is the most important aspect to make the melody work, and all of them are either too confusing to use, or too limited, or generate melodies that sound like nursery rhymes. This is not the case with RapidComposer's Melody Generator. There are lots and lots of parameters to choose from and tweak, and you can get very usable results, in a very short amount of time!

As frequently mentioned, certain Generators have different parameters than other Generators. It all depends on the chosen Generator you initially pick (and of course, the chosen Rhythm type). This is especially true with the Melody Generator, which has the most parameters out of any Generator.



Probabilistic Rhythm (default)

The settings to the left show the defaults for a **Melody Generator**. Notice how the default Rhythm type is Probabilistic.

These special parameters can be changed and tweaked to your liking.

Let's run through what each setting means.

Don't forget-- parameter settings are different for the other Generator types.

Probabilistic Rhythm (default) Settings:

Drop-Downs:
Interval: Available settings are “Half Beat” (default), One Beat, or Quarter Beat. This setting goes along with the Density slider, and allows your melody to be “simple” or “busy.”
Musical Stress Levels: Default setting is “Strong”. Other settings are “Strong-Middle” and “Strong-Middle-Weak.”
Mode: Available settings are “Downbeat is always a chord note” (default), “Scale notes only (independent of harmony)”, “1st & 3rd beat is always a chord note”, and “Chord notes only.” Depending on how these are set, you’ll hear more “chord-al” melodies, or more “scalar” melodies.
Options: Lots of settings here. Don’t be afraid to experiment! Default settings are “Penultimate note is a step above tonic (also depends on the chord!)”, and nearly all “Allowed Up Motion” and “Allowed Down Motion” scale intervals are checked (except Octave motion).
First Note: Available settings are “Random chord note” (default), Chord base note, Random scale note in note range, and various absolute notes.
Last Note: Available settings are “Random chord note” (default), Chord base note, Random scale note in note range, and various absolute notes.
Climax: There are many settings here. The default Climax setting is “First Note plus Major 3rd”. You can also choose “No Climax”, or various scale interval movements. Experiment!
After Leap: This is the behavior that Melody Generator uses after notes “leap” (such as go up or down equal to or greater than a minor 3rd). The default setting is “Any step or leap (allow 2 leaps in the same direction)”. You can also choose “Step in the opposite direction”, “Step in any direction”, “Step or smaller leap in opposite direction”, or “Leap in opposite direction”.

Sliders:
Density: Depending on how these are set, you’ll see the notes below change to be more “busy” or more “simple” (shorter note lengths such as 16ths or 32nds will be frequently used as the Density increases. Likewise, when you move the Density slider to the left, you’ll hear mostly half notes, quarter notes, dotted quarter notes, etc).
Randomness: Move to the right to use more chord notes and common melodic movement, and move to the left to have your melody be well, more random!
Steps & Leaps: Move to the right to have your melody movement be more “scalar” or step-wise, and move to the left to add more leaps to the melody.
Note Repetition: Move to the right to increase the number of consecutive repeated notes in the melody.
Note Range: Default range is G2 to F4 (common tenor range).

Melody Generator Quick tip: *Set the Movement slider all the way to the right (100% expected), and increase the Note Repetition slider for more “melodic” results.*

Melody Generator Quick tip: *Set the Steps slider for a majority of steps (with fewer % leaps) for additional “melodic” results.*

Melody Generator Quick tip: *Set the Climax to “No Climax” for melodies that don’t reach a “peak.” (a lot of melodies don’t... they hang around in one place, unless the melody is deliberately trying to draw attention to itself (then, a climax is recommended).*

Probabilistic Rhythm Quick tip: *For longer notes that are more “vocal-style”, change your Interval to One Beat, and increase the Density slider to .70.*

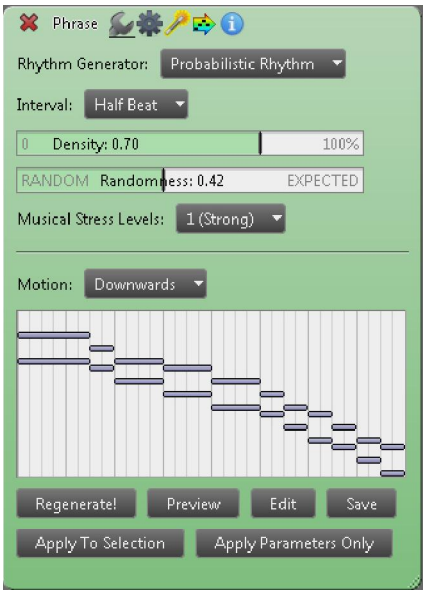
- -

To save pages and your time*, we encourage you to experiment with the other Rhythm types for the Melody Generator. The Probabilistic Rhythm is one of the most useful rhythm types for melodies (we’ve done extensive tests to see which rhythm type should be the default, and the Probabilistic Rhythm always produced the most useful results, and quickly. Though ALL of the Rhythm types will generate something useful. Notice how (after selecting the other Rhythm types) that all of the parameters might be similar, with slight changes to accomodate the legato and/or monophonic performance of melody.*

Section 2F: Generator Parameters (Thirds Run Generator)

The **Thirds Run Generator** is another relatively new Generator type (released in version 2.5) which we at MusicDevelopments feel is a great and incredibly useful addition to the program. If you have ever heard the Beatles song “Let It Be”, and the bridge part right before the guitar solo, you know what a thirds run is. It’s common practice in pop/rock songwriting to throw in one of these runs to function as a countermelody to add variety to an arrangement.

As frequently mentioned, certain Generators have different parameters than other Generators. It all depends on the chosen Generator you initially pick (and of course, the chosen Rhythm type). This is especially true with the Melody Generator, which has the most parameters out of any Generator.



Probabilistic Rhythm (default)

The settings to the left show the defaults for a **Thirds Run Generator**. Notice how the default Rhythm type is Probabilistic.

These special parameters can be changed and tweaked to your liking.

Let’s run through what each setting means.

Don’t forget-- parameter settings are different for the other Generator types.

Probablistic Rhythm Settings:

Drop-Downs:
Interval: Available settings are One Beat, Half Beat, and Quarter Beat. Depending on how these are set, you’ll see the notes below change to be more “busy” or more “simple.”
Musical Stress Levels: Available settings are Strong, Strong-Middle, and Strong-Middle-Weak.
Motion: Available settings are Downwards (default) or Upwards.

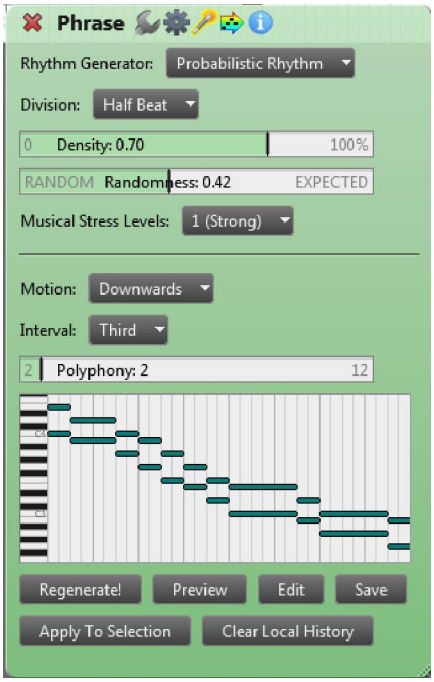
Sliders:
Density: How “busy” the Phrase can be, rhythmically (or how “simple”). Less dense means more longer-duration notes. More dense means more shorter-duration (8th, 16th) notes.
Randomness: Sets the movement or phrasing of the Run. Random can lead to some unexpected surprises, and Expected is the opposite.

***To save pages and your time**, we encourage you to experiment with the other Rhythm types for the Thirds Run Generator (though, the Probabilistic Rhythm generates the most realistic/common types of Runs. As mentioned elsewhere, ALL of the Rhythm types will generate something useful for a Thirds Run. Notice how (after selecting the other Rhythm types) that all of the parameters might be similar, with slight changes to accomodate the run performance.*

Section 2G: Generator Parameters (Dyads Run Generator)

The **Dyads Run Generator** is one of three new Generator types, new to version 2.7. It is similar to the Thirds Run Generator, but offers different interval types, instead of just thirds, and also offers more polyphony in the run.

As frequently mentioned, certain Generators have different parameters than other Generators. It all depends on the chosen Generator you initially pick (and of course, the chosen Rhythm type). This is especially true with the Melody Generator, which has the most parameters out of any Generator.



Probabilistic Rhythm (default)

The settings to the left show the defaults for a **Dyads Run Generator**. Notice how the default Rhythm type is Probabilistic.

These special parameters can be changed and tweaked to your liking.

Let's run through what each setting means.

Don't forget-- parameter settings are different for the other Generator types.

Probablistic Rhythm Settings:

Drop-Downs:
Division: Available settings are One Beat, Half Beat, and Quarter Beat. Depending on how these are set, you'll see the notes below change to be more "busy" or more "simple."
Musical Stress Levels: Available settings are Strong, Strong-Middle, and Strong-Middle-Weak.
Motion: Available settings are Downwards (default) or Upwards.
Interval: Third (default), Fourth, Fifth, Sixth, Seventh, Octave

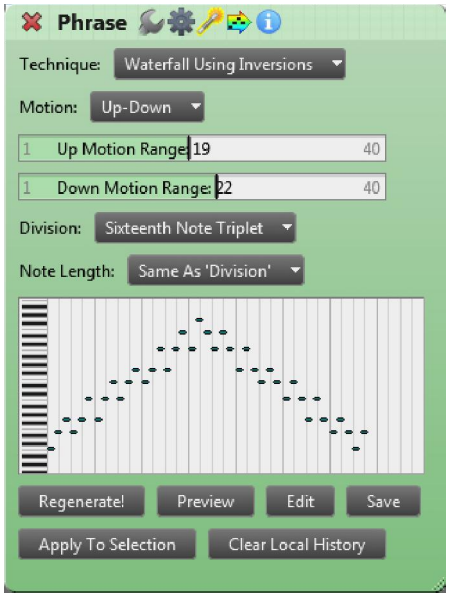
Sliders:
Density: How "busy" the Phrase can be, rhythmically (or how "simple"). Less dense means more longer-duration notes. More dense means more shorter-duration (8th, 16th) notes.
Randomness: Sets the movement or phrasing of the Run. Random can lead to some unexpected surprises, and Expected is the opposite.
Polyphony: 2 (default) through 12. Additional notes added in different octaves.

***To save pages and your time**, we encourage you to experiment with the other Rhythm types for the Dyads Run Generator (though, the Probabilistic Rhythm generates the most realistic/common types of Runs. As mentioned elsewhere, ALL of the Rhythm types will generate something useful for a Dyads Run. Notice how (after selecting the other Rhythm types) that all of the parameters might be similar, with slight changes to accomodate the run performance.*

Section 2H: Generator Parameters (Piano Run Generator)

The **Piano Run Generator** is another brand-new Generator type, new to version 2.7. It offers a variable-note-length run through different octaves, in any direction, to easily add intensity or energy to a Composition. If you're into minimalist piano composers such as Philip Glass or even Moby, you'll love this Generator!

As frequently mentioned, certain Generators have different parameters than other Generators. It all depends on the chosen Generator you initially pick (and of course, the chosen Rhythm type). This is especially true with the Melody Generator, which has the most parameters out of any Generator.



Waterfall Using Inversions (default)

The settings to the left show the defaults for a **Piano Run Generator**. Notice how there is no default Rhythm type, however, there are different Techniques for this Generator.

These special parameters can be changed and tweaked to your liking.

Let's run through what each setting means.

Don't forget-- parameter settings are different for the other Generator types.

Waterfall Using Inversions Settings:

Drop-Downs:
Technique: The "style" of the run. Default is "Waterfall Using Inversions". Additional options are Straddle, Straddle Without Middle Note, 2-1 Breakup, 3-1 Breakup, and Waterfall. Depending on how these are set, you'll see the notes change in the Inspector to be more "busy" or more "simple."
Motion: Available settings are Upwards, Downwards, Up-Down (default), Down-Up, Up-Down-Up-Down, and Down-Up-Down-Up.
Division: The note length. Default is Sixteenth Note Triplet. Other options include Eighth Note, Eighth Note Triplet, 16th Note, 32nd Note, 32nd Note Triplet, and 64th Note.
Note Length: Default is "Same As Division". Half Beat, One Beat or Two Beats are the additional options.

Sliders:
Up Motion Range: How many octaves the Run plays through. Lower number means less octaves. Higher number means more.
Down Motion Range: How many octaves the Run plays through. Lower number means less octaves. Higher number means more.

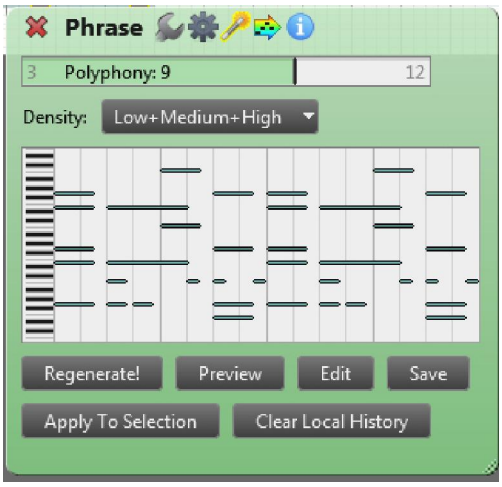
The Up/Down sliders can be set independently of each other. For example-- you can set the Up slider to 6, and the Down slider to 16, and the run will briefly run upwards, then go steadily downwards through more lower octaves.

***To save pages and your time**, we encourage you to experiment with the other Rhythm types for the Piano Run Generator (though, the Probabilistic Rhythm generates the most realistic/common types of Runs. As mentioned elsewhere, ALL of the Rhythm types will generate something useful for a Piano Run. Notice how (after selecting the other Rhythm types) that all of the parameters might be similar, with slight changes to accomodate the run performance.*

Section 2I: Generator Parameters (Strings Staccato Generator)

The **Staccato Strings Generator** is the third newest Generator type, new to version 2.7. It is obviously best utilized with a Staccato Strings soundfont or VSTi. This Generator is absolutely perfect to create classical runs/arpeggios, that stay true to string ensemble arrangements, and the intervals they often use. The algorithm was painstakingly created through extensive study of classical compositions by Beethoven, Mozart, and Bach. If you love classical music and the beauty of staccato string arpeggios, this Generator might be the missing puzzle piece for your ideas.

As frequently mentioned, certain Generators have different parameters than other Generators. It all depends on the chosen Generator you initially pick (and of course, the chosen Rhythm type). This is especially true with the Melody Generator, which has the most parameters out of any Generator.



Default

The settings to the left show the defaults for a **Staccato Strings Generator**. Notice how there is no default Rhythm type, like with most other Generators.

These special parameters can be changed and tweaked to your liking.

Let's run through what each setting means.

Don't forget-- parameter settings are different for the other Generator types.

Staccato Strings Generator Settings:

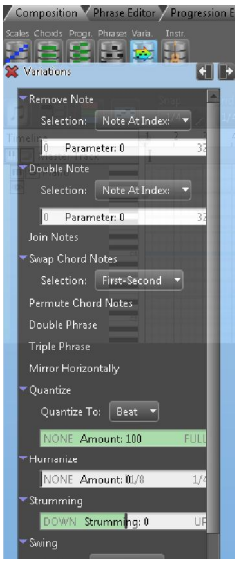
Drop-Downs:
Density: Default setting is Low+Medium+High. Other available settings are Low, Low+Medium, Medium, Medium+High, and High.

Sliders:
Polyphony: How "thin" the Phrase can be (Polyphony 3), or how "full" (Polyphony 8 or 9). Put simply: Polyphony 3 means 3 performers playing complimentary arpeggios, and Polyphony 9 or 10 means more than 3 performers playing complimentary arpeggios in different octaves.

***To save pages and your time**, we encourage you to experiment with the other Rhythm types for the Thirds Run Generator (though, the Probabilistic Rhythm generates the most realistic/common types of Runs. As mentioned elsewhere, ALL of the Rhythm types will generate something useful for a Thirds Run. Notice how (after selecting the other Rhythm types) that all of the parameters might be similar, with slight changes to accomodate the run performance.*

Section 2J: Variations (Generator / Phrase / Track)

Variations are tweakable parameters that can be applied to entire tracks, or specific Phrases (Generators, or Custom Phrases). They can be accessed via the Variations Browser, or the Track Inspector. Multiple instances of the same variation (with different parameters) can be applied to a track or a Phrase.

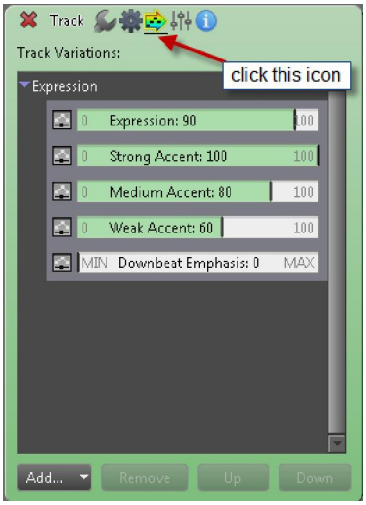


Variations are also a great way to get really interesting and unique ideas from the Idea Tool.

New in version 2.7: You can mute any variations by removing the checkmark in the box next to the Variation name.

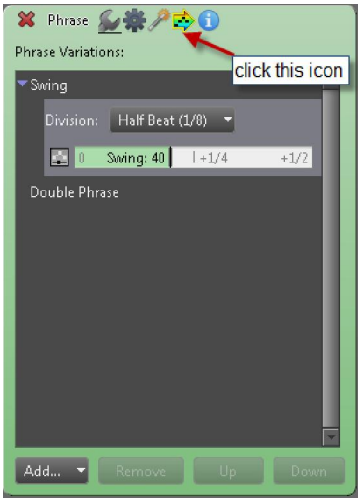
TIP: A few of the most commonly-used Variations among RC users is the “Swing” variation, “Mirror Horizontally” variation, and “Staccato-Legato” variation.

APPLYING VARIATIONS TO THE ENTIRE TRACK
Right-click the Track Header/Track Name to pull up the **Track Inspector**, and then click the icon shown to the right to access the Variations from the Track Inspector window.



Click the “Add” button on the bottom left to add (and tweak) Variations to the entire track.

APPLYING VARIATIONS TO A PHRASE
Right-click the Phrase to pull up the **Phrase Inspector**, and then click the icon shown to the right to access the Variations from the Phrase Inspector window.



Click the “Add” button on the bottom left to add (and tweak) Variations to the Phrase.

Here is a list of available variations in RC:

Add Interval: Add specific intervals (1 or more) to monophonic or polyphonic Phrases or Tracks. Easy way to harmonize a melody (add a Third, and/or a 6th).

Adjust Note Lengths: Similar to Staccato-Legato Variation, but more specific note options.

Delay Notes: Offset the beats/counts of notes by tiny increments (for a more "human" feel). Similiar to "Humanize."

Double Note: Opposite of "Remove Note" with same settings (see below)

Double Phrase: Acts as a multiplier for the MIDI notes inside a phrase. If you have 8 straight 8th notes, it creates 16 16th notes).

Expression: Many slider variables available here. Works as MIDI velocity (soft to loud notes).

Humanize: "Loosens" the timing of a phrase or track, for a more "human" performance.

Join Notes: No parameters - Glues two notes together when the first note ends and the second one begins.

Limit Note Range: Two sliders available, controlling the lowest note and highest note. Currently only effects entire Tracks as a Track Variation (not specific Phrases).

MIDI Echo: Adds an echo-effect by adding quieter MIDI notes to the main notes of a Phrase.

Mirror Horizontally: No parameters (reverses the MIDI notes, rhythmically and/or melodically, inside a phrase)

Mirror Vertically: No parameters (reverses the MIDI notes, melodically (not rhythmically), inside a phrase)

Permute Chord Notes: No parameters. Like Swap Chord Notes, it rearranges the chord notes randomly.

Quantize: Tightens timing or changes timing entirely. Has many note alignments, including triplets, quintuplets, and more. Includes slider amount for Quantize percentage.

Remove Note: Available settings that are affected by the slider are Note at Index, Event at Index, Before Time and After Time. Settings that the slider has no effect on include All, Even Beats, Odd Beats, Random Note, Random Time, Shortest Note, Longest Note, All Shortest Notes, All Longest Notes, Notes on Whole Beats, Notes Between Beats.

Rests: Two sliders available, to generate rests in various places at at various lengths.

Spread Out Chord Notes: Makes phrases more full by spreading out the intervals of a chord.

Staccato-Legato: Makes notes more "choppy" or more "smooth".

Strumming: Moves MIDI notes by a tiny amount, to simulate a guitar chord strumming (works best on chord Phrases with longer-duration notes... or any Phrase with 3 or more notes played simultaneously).

Swap Chord Notes: Available settings are First-Second, First-Third, First-Last, Second-Third, Second-Last, Third-Last. This Variation can di very interesting transformations on Phrases: it rearranges the chord notes depending on your setting.

Swing: Applies a "shuffle" to straight Phrases. Great for making a phrase more funky or "bouncy". Very useful also, for generating "chiptune/8-bit video-game" music phrases. Many settings. Common swing setting: Half Beat (1/8 Note), w/ Swing slider set to 40.

Transpose: Increase or decrease the pitch of the Phrase or Track.

Triple Phrase: No parameters (acts as a multiplier just like Double Phrase. If you have 4 quarter notes in a phrase, it creates 12 notes, which become 8th note triplets).

Velocity: Basic MIDI velocity adjustment (soft to loud).

Velocity Generator: Many variables here that affect MIDI velocity and performance.

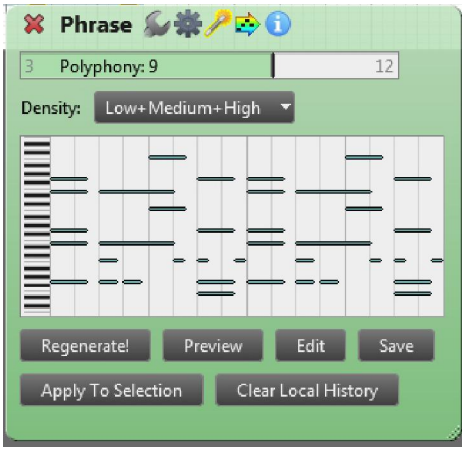
TIP: *If you find an 8-bar/16-bar section too repetitive (say you filled the track with a single Phrase such as PianoBasic02), try adding some small variations to a few Phrases in that section such as "Remove Note", "Double Note, and others, which will keep the part/section from sounding too repetitive.*

As we say throughout this manual--- EXPERIMENT! Tweak, tweak, tweak!

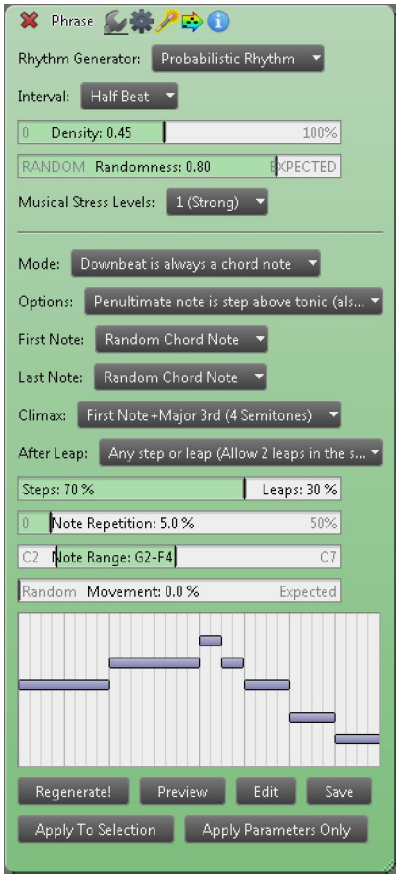
Without a doubt, Generators and Variations are a HUGE part of RapidComposer, and are also one of the most complex parts of the program. If you're new to RapidComposer, you might be confused about the intricate details of both.

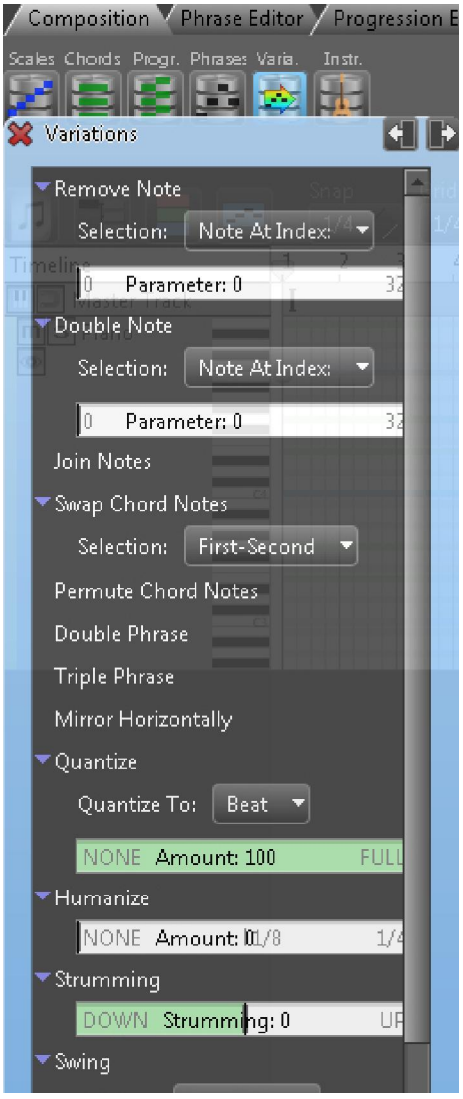
We recommend watching our Tutorial videos so you can see the basics of "tweaking" Generators and the basics of Variations, and how best to use them in your Compositions.

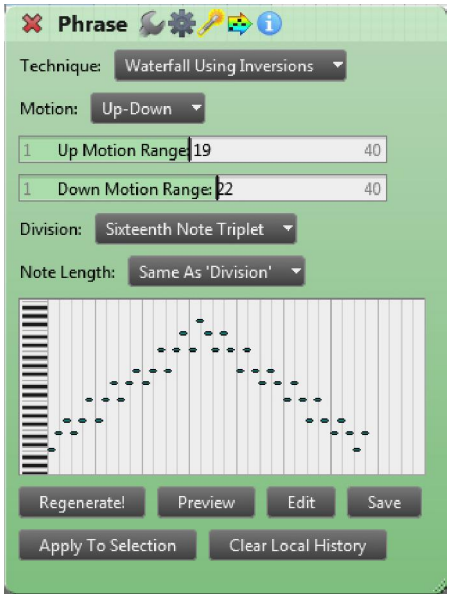
http://musicdevelopments.com/videos.html













CHAPTER 3: EDITORS (Phrase Editor / Chord Rules Editor)

Tutorial Videos mentioned in this Chapter:
Part 11 - Phrase Editor

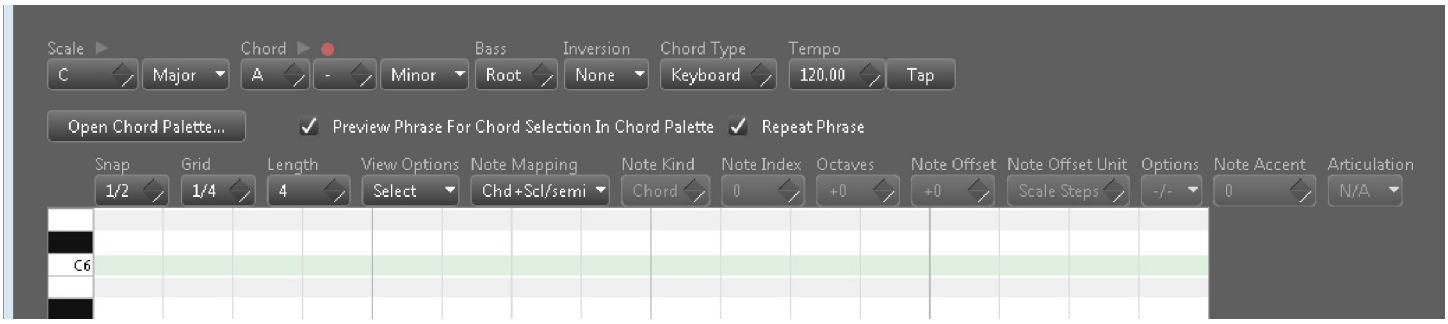
Section 3A: Phrase Editor Explained

The Phrase Editor is another extremely powerful tool in **RapidComposer.** Here is where you can create custom phrases that fit your style, genre, or workflow. Bear in mind that while this is an extremely powerful tool to use, if you don't use it correctly it can make your phrases sound really weird or incorrect, when you intended them to sound much differently. Also, it can be one of those confusing aspects of RapidComposer.

If editing Phrases isn't your thing at all, fear not! We have included many Phrases with the LE version, and a *huge* number of custom Phrases with the Full version of RapidComposer, that cover many different styles and "feels."

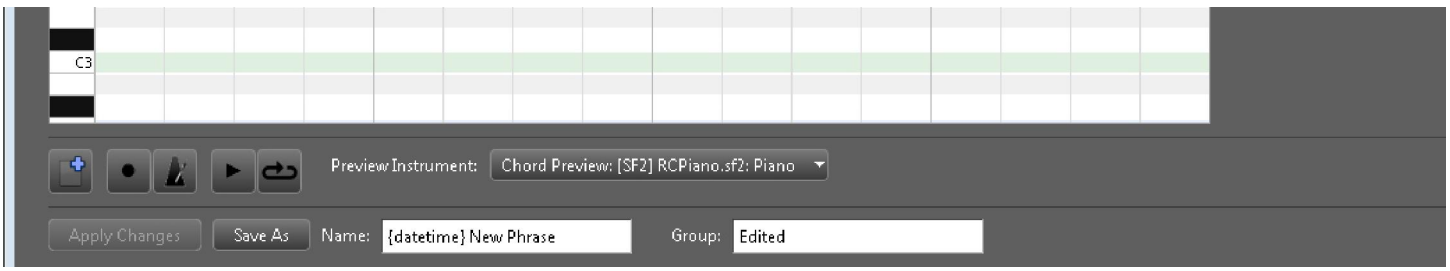
If you're into editing your own phrases, though... we've definitely got you covered here, too. Again, the Phrase Editor is extremely powerful, and confusing. So let's get familiar with it and its functions.

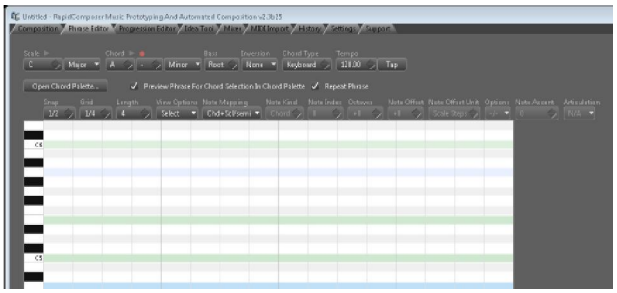
Section 3B: Phrase Editor Functions & Parameters



At the top of the Phrase Editor are many settings (especially in the row that begins with Snap and Grid settings). To make things somewhat easy, let's ignore most of these functions for now. What you should pay the most attention to is what scale you are in (in this case, C Major), and what the Snap and Grid settings are set to. We recommend setting Snap to 1/2 (means that if you draw notes in with the mouse, they draw and snap to eighth notes), and Grid set to 1/4 (this means 16th notes). You can see the vertical grid makes 16th note divisions inside each measure.

You can use your mouse to draw in notes (as we will do in this example), or you can record a Phrase live, with a MIDI keyboard. In this latest version of RC, we have added the much-requested Metronome and Record function. There is a count-in once you press record (as long as the Metronome is enabled). RC will not record anything until you press keys on your MIDI keyboard, and it will give you three full seconds to "get ready" (you can at least get a 1-bar count-in during this time, depending on your Phrase tempo). If you don't play anything after withing these three seconds, RC times out and says "No Phrase Was Recorded." *For full details on how to use the Phrase Editor, please see our Part 11 Tutorial video at* ***http://musicdevelopments.com/videos.html***





Let's say you want to use the Phrase Editor to create a simple piano pattern in the style of "Imagine" by John Lennon. Knowledge of chord theory and music theory in general will help you a LOT, here. Here's how it's done:

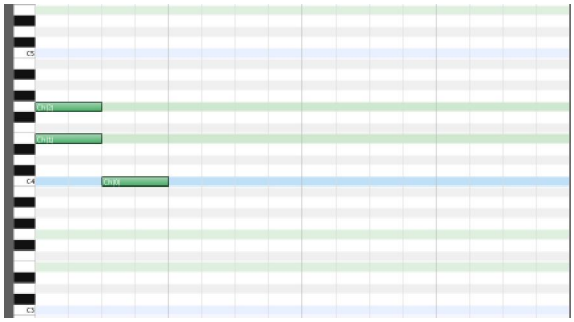
If you're familiar with the song, it begins with an alternating right-hand pattern playing a C chord (fingers play E and G, then the thumb plays C). This is a very common "ballad-style" piano pattern. Let's say you love it, and want to use it over your own chord progressions. You'll have to edit it a certain way. Since the song is in the key of C major, it makes it easy to get started.

1. Double-click at the beginning of the phrase, on the line that the "E" note is on.
RC creates a MIDI note on the E line, and calls it "Ch(1)".

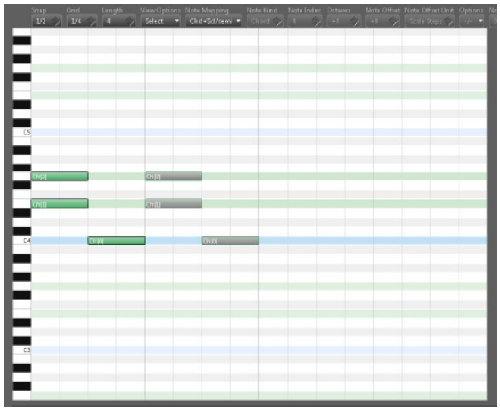
2. Double-click at the same location, but this time at the "G" line.
RC creates a MIDI note on the G line, and calls it "Ch(2)"

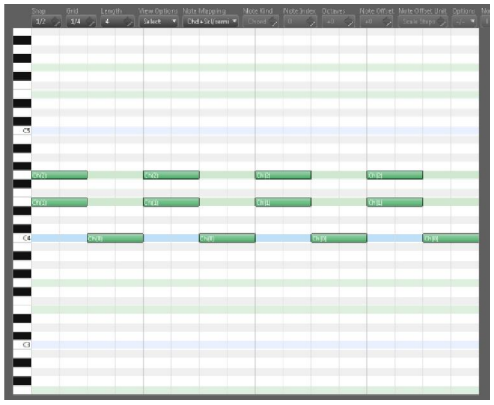
3. Double-click at the "and of 1", right on the "C" line (below the E and G).
RC creates a MIDI note on the C line and calls it "Ch(0)".

It should look like this when you're done with these first three steps:



Now, select the three notes by clicking/dragging around them, then hold ALT. and drag these three notes to the next bar line (beat 1 of bar 2). Should now look like this (bottom left).... Repeat the same process for bars 3 and 4.... (bottom right)





Understanding Note Indexes / Relative Notes

Now let's take a moment to understand how RC intelligently makes phrases fit chords....

Note Index 0 means "root of chord".
Note Index 1 means "third of chord" (or it could mean the 2nd or 4th, in a suspended 2nd or suspended 4th chord)
Note Index 2 means "fifth of chord"
Note Index 3 means "additional chord note" (such as the 7th in a dominant 7th chord, or the 9th in an added 9th)
Note Index 4 means "2nd additional chord note" (such as the 9th in a minor 9th chord)

Note Indexes in Phrases don't have a set "minor" or "major" tonality. For example, with Note Index 1..... it can be a "major third" or a "minor third" (depending on the chord in our Composition).... or, it could be a 2nd or 4th (if a Sus2 or Sus4 chord is in our Composition). The Note Index adapts to whatever chord we choose in our Composition, plain and simple. This is very easy to accept, but extremely complicated to grasp. RC is incredibly flexible and always "knows" what Note Index it needs to be to fit the chord.

Saving Custom Phrases

Ok, now, let's save this custom phrase. Type a name for it in the left-side box (let's call it "Imagine"), and you don't have to put anything for the "Group" if you don't want to... it will show up in the Phrase Browser immediately (at the bottom). But if you'd like to put it into a specific Group and keep things organized (we recommended doing so), here's what you put in the other (right-side) box:

- To have the Phrase appear in the **Custom Phrases/Piano** group... type this exactly: **Custom Phrases/Piano**

"Imagine" (without the quotes) will then appear in the Phrase Browser (though it might show up at the bottom, until you close and restart the program. in which case it will appear in the other Custom Phrases).

- To have the Phrase appear in your own, new group... put whatever you want in the box, such as **MyPhrases** (or **MyPhrases/Piano**). RC will create a new Group called **MyPhrases** in the Phrase Browser, with "Imagine" inside.

Now, click the "Add To Phrase Browser" button. Then, go into the Composition and select the following chords (one per bar): C, Am, F, G

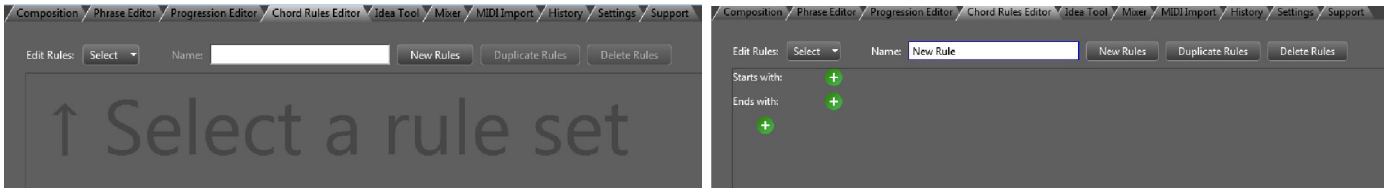
Then, go to the Phrase Browser, and find "Imagine". Click it once to make it the active/selected Phrase. Now hit the letter F to fill the Track with this new, custom Phrase.

You can also make more complex phrases that work with extended chords (7ths, 9ths, add9ths, etc). We will do another Phrase Editor tutorial video in the future, explaining higher Note Indexes and what parameters need to be set to make a Custom Phrase that works with extended chord types (7ths, 9ths, 11ths, etc). It takes some experimentation, so don't be afraid to experiment and see what you can come up with! In the meantime, we've included many Custom Phrases for you to choose from and use!

Section 3C: Chord Rules Editor Explained

The **Chord Rules Editor** is a brand-new feature of **RapidComposer**, as of version 2.7. It allows you to set up a set of rules, regarding chord probability for the new **Chord Suggestions** feature, which suggest chords based on the rules you create. They can adhere strictly to music theory and songwriting probability, or they can completely break traditional music theory rules, if you'd like! Sounds complicated, but it's actually very easy to use!

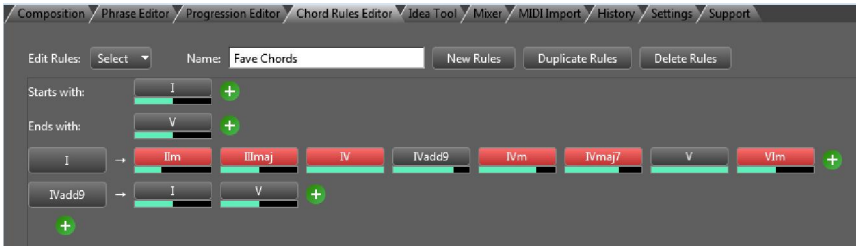
First, let's click the Chord Rules Editor tab, and then the "New Rules" button.



Next, name your New Rule... for this example, let's call this "Fave Chords", then hit Enter. Now click the plus sign that is underneath the "Ends with" text. This plus sign adds a chord to the "from" column (leftmost column). Clicking this will bring up two red "?" buttons, one in the "from" column, and one in the "to" row. Double-click the button on the left, and put a capital i (I) in the "Enter Chord Name" box, and hit Enter. Why Chord I? It's always good to start with Chord I. Most chord progressions start with Chord I.



Now, here's where your probability comes into play. You'll need to put a handful of chords after Chord I, because Chord I truly can go anywhere. Double-click the other "?" button, and put IV in the box, then hit Enter. Move the slider all the way to the right..... hit the plus sign, and repeat... and repeat.. and repeat... using different chords, all to your liking. Let's speed up this process:

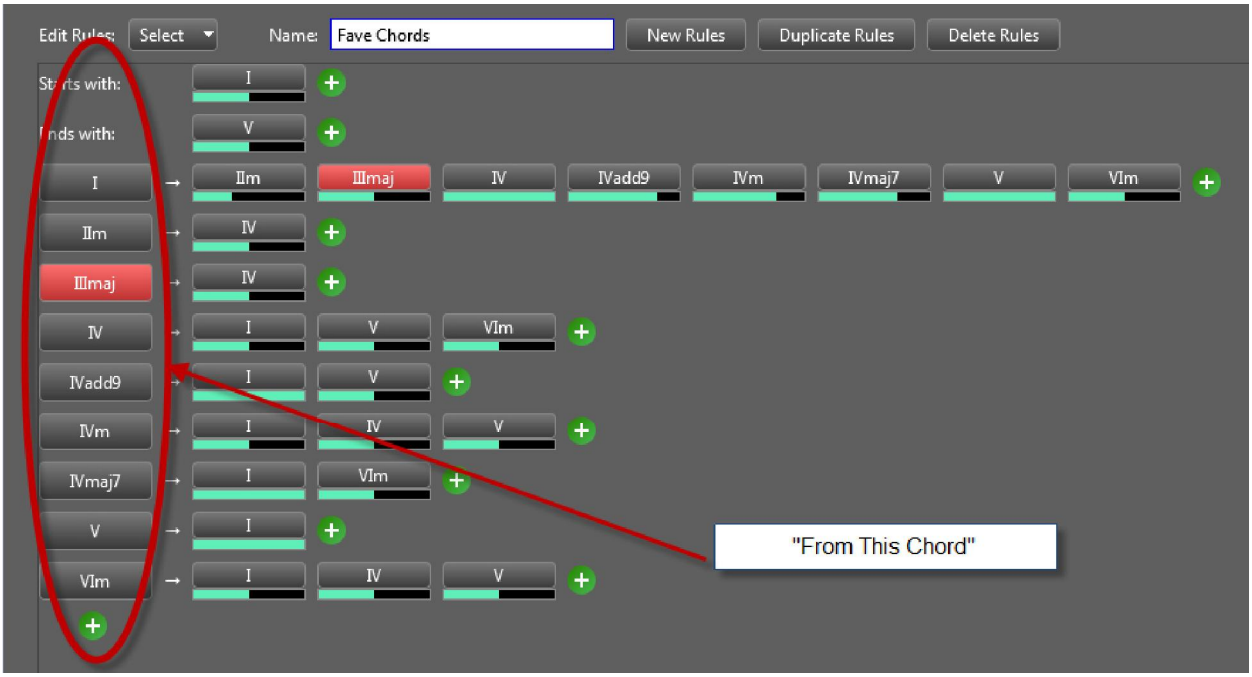


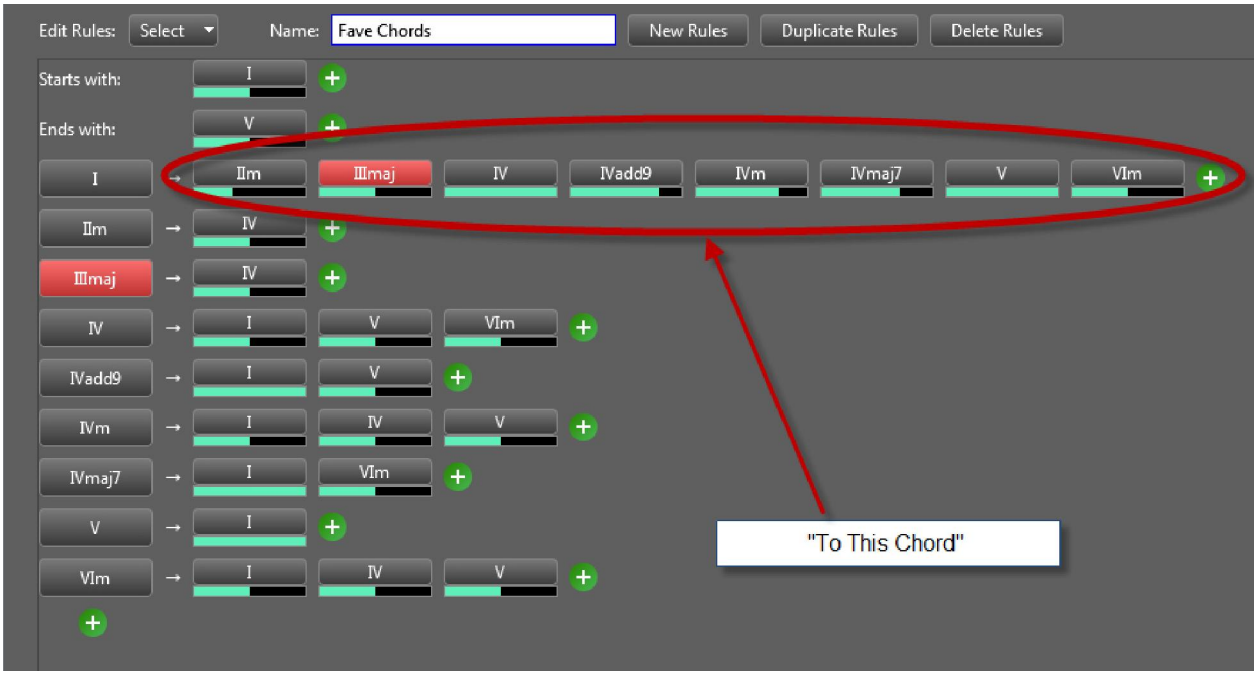
As you add more and more chords to the horizontal row (this row is "To This Chord"), you'll see that some chord boxes/ buttons turn red. This could mean one of two things---

1. They're out of key (basic major and minor harmony) or
2. They haven't yet been added to the "From This Chord" column (leftmost column... see the screenshot on the next page)

They will stay red if they're out of key, and they'll stay red if they haven't been added to the "From This Chord" column, as seen on the following page:

Section 3D: Chord Rules Editor (continued)





Once you get the hang of the **Chord Rules Editor** (it's pretty easy to understand now that you know the basics), you should be able to make an extensive set of rules, with all of your favorite chords. It helps to know a bit of music/chord theory... for example... it's common to go from Chord I to Chord IV, and back. And just as common to go from Chord I to Chord VIm, then to Chord IV. Or, if you're in a minor key, you could use the tried-and-true pop progression of VIm - IV - I - V (the "six four one five"). It takes a little bit of planning and thought, but you could create a very useful set of rules that fits your style, and your favorite chord progressions. And if you get stuck, the **Chord Suggestion** feature will adhere to your rules, as long as you specify that you want to use your set, in the Composition Settings / Structure Inspector.

NOTE: You may need to close RC and re-open it, to see your new Chord Rule Set appear in the list.

We will make a tutorial about this in the future, so hang tight and as always, ***EXPERIMENT!***

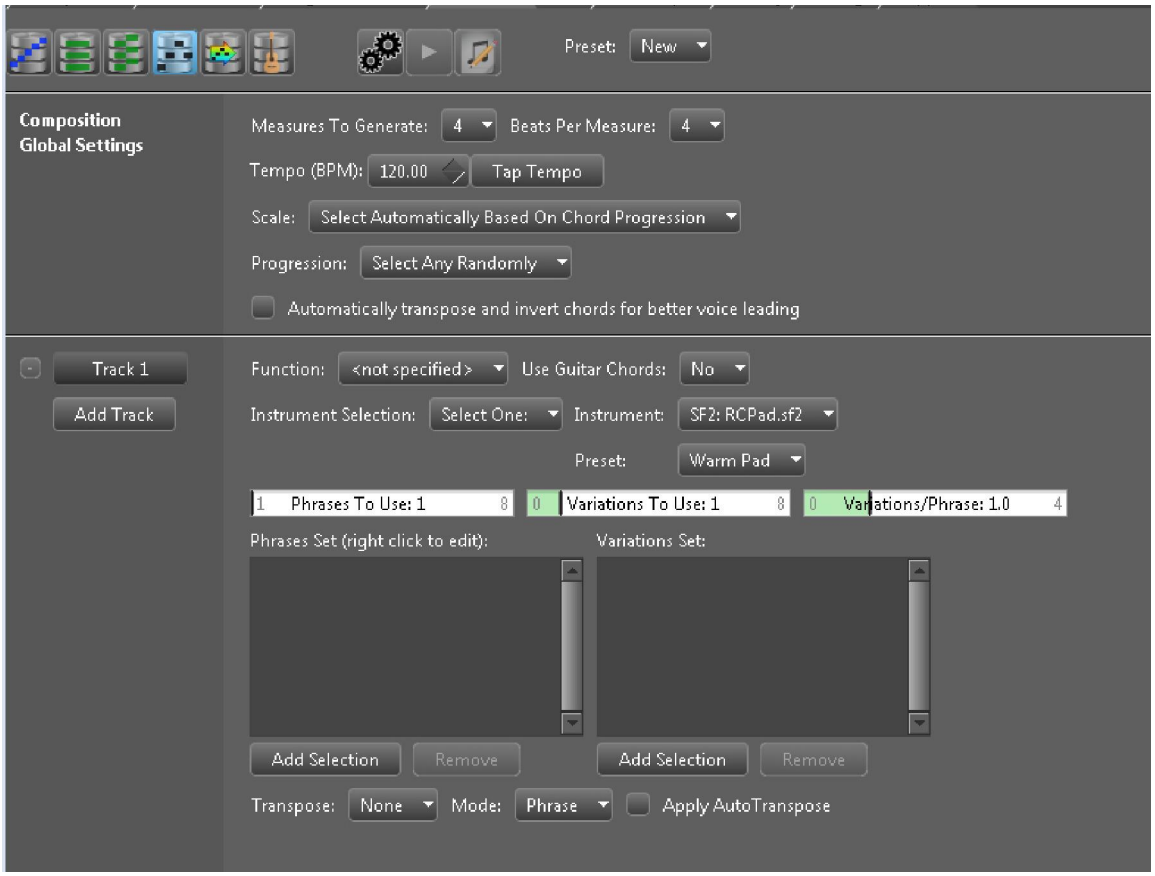
CHAPTER 4: Idea Tool (Full Version Only)

Tutorial Videos mentioned in this Chapter:
Part 3A and 3B - Using The Idea Tool

Section 4A: Idea Tool Explained

In Chapter I, we learned the basics of how RC works. The Idea Tool takes what we did in Chapter I, but basically does all the work for us!

After some tiny, quick manual settings, RapidComposer's Idea Tool can easily create a New Composition with the following: a random (or key-specific) Chord Progression, any number of Phrases (or Phrase types), any number of Tracks, and specific instruments for those Tracks.... in basically seconds!



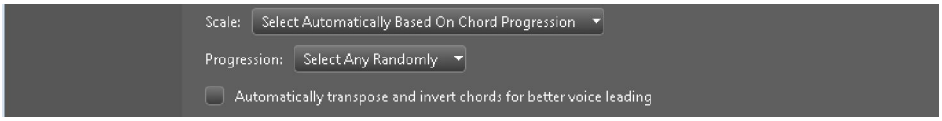
Section 4B: Idea Tool Settings (Specific Key/Scale)

There has been some confusion with RapidComposer's Idea Tool. It's very easy to use, but you need to follow some steps before any ideas are to be generated. Here are the basics of setting up the Idea Tool for a New Composition:

1. First, let's establish a Tempo. We can use the default of 120, or if you're in a slower (ballad) mood, change it to 80.

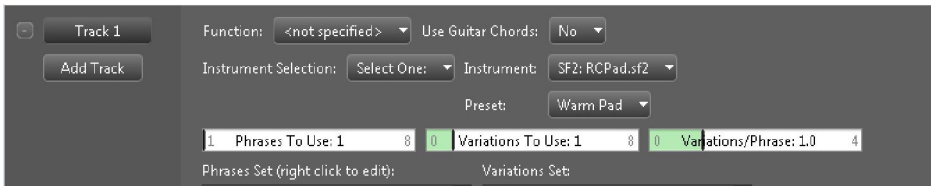


2. Now let's choose an amount of measures to generate. The default is four, but we can generate any number, up to eight, in any time signature we choose. We cannot generate a higher number of measures than this, due to the complexity of the Idea Tool and the algorithms used to make it work. Four or eight measures seems to be a nice round number when you're completely stuck. We'll leave the Idea Tool set to four for this example, and we'll leave it set to 4 beats per measure (4/4 time).

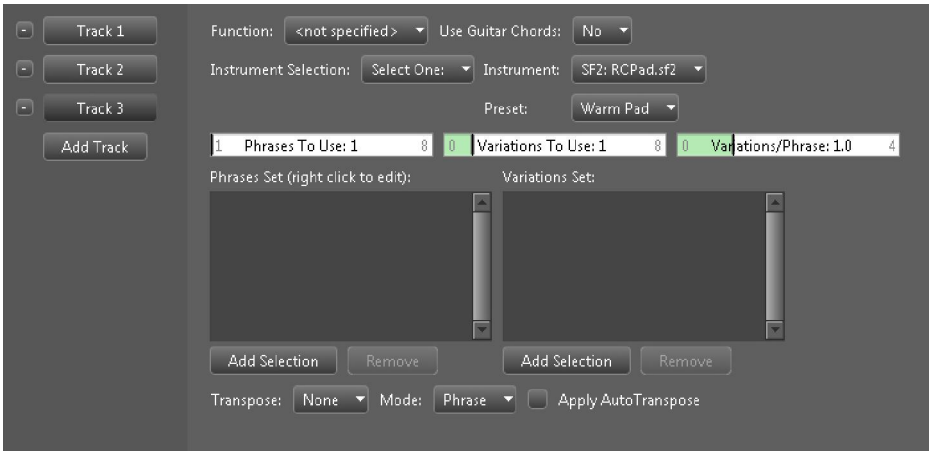


3. Now, we have several options for Scale and Progression. If you want to pick a certain key/scale to work in, then choose the option "Use Specific" under Scale. Here you can pick your key and scale/chord set. For this example, I'll use the key of A, with the scale/chord set "Harmonic Minor". Now, for Progression, we will choose "Select Any For Scale." The Idea Tool will intelligently create a chord progression in A Harmonic Minor with these settings.

4. Now we're at the Track setup section. We can add tracks to serve specific functions (such as "Chords" or "Melody", etc), and we can also set the Instrument for each Track.

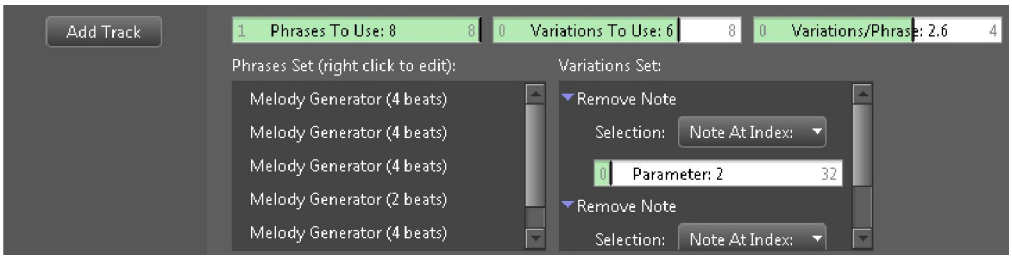


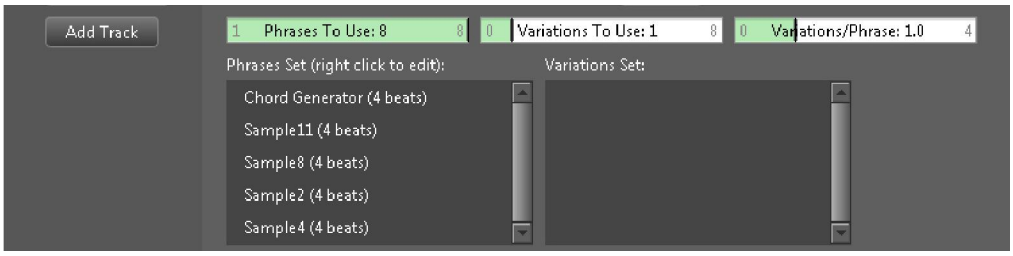
Let's add two more tracks by clicking "Add Track", so we now have a total of three Tracks:

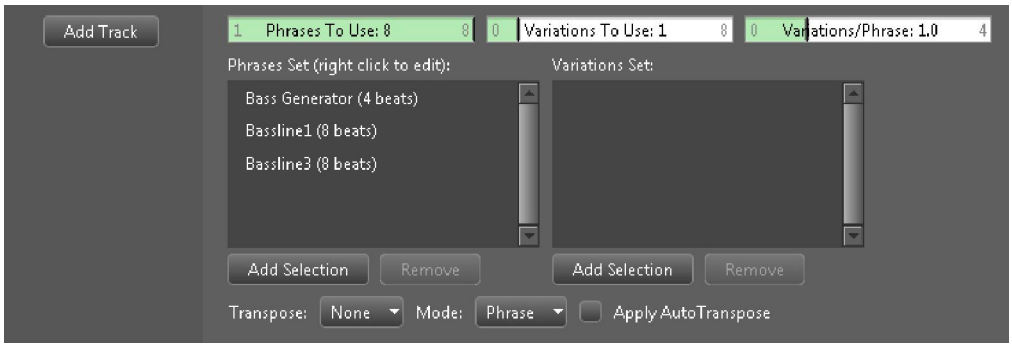


5. Now let's set the Instrument for each Track. For Track 1, let's set it to RCClar (and we'll set the Function to "Solo") since it will be our Melody track. For Track 2, let's set it to RCPiano (function will be "Harmony"), and we'll be putting a Chord Generator on it. On Track 3, we'll set the Instrument to RCBass. Change the Function to "Bass". This, of course, will be our bass track).

6. **Now, here comes the really important stuff.** Which phrases to put on each track, and how many different kinds? The cool thing is, we can put anything we want, of any kind! We can also put several different Variations if we want. This part is crazy powerful and what makes the Idea Tool so cool! See the next page to see how many different Phrases can be used and how many different Variations we can use for each track....







7. In the screenshots above, Idea tool shows the settings for the three Tracks we created: the **top screenshot is Track 1** (our Melody track), with our Instrument as the RCClar soundfont (clarinet). **Track 2 (middle screenshot)** is our Chords/ Harmony track, with RCPiano as our Instrument. Track 3 **(bottom screenshot)** is our Bass Track, and its Instrument is RCBass.

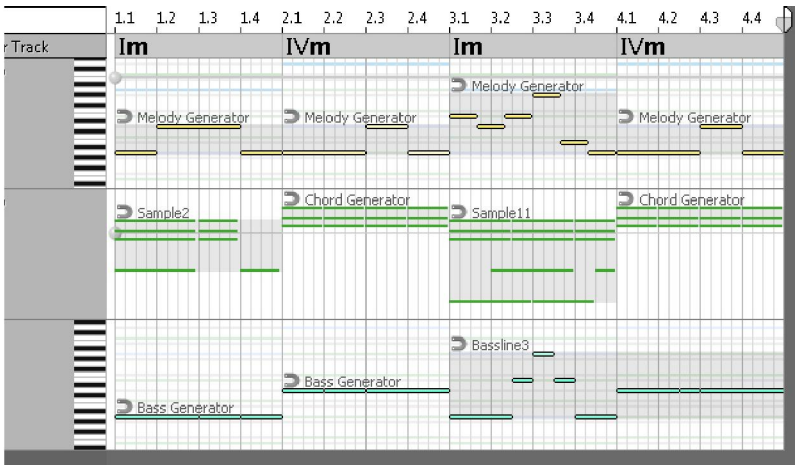
Notice how many different Melody Generators are included in Track 1. We changed the lengths of each phrase (sometimes 4 beats, sometimes 2, etc), and, although it is not visible, we set the Melody Generators to all different Rhythms. The first one uses the default “Probabilistic Rhythm”, the second uses “Triplet Rhythm”, the third uses “Subdvision”, the fourth uses a different one and so on, so forth. We increased the number of “Pheases To Use” to the maximum of 8, to generate as many random possibilities as we could.

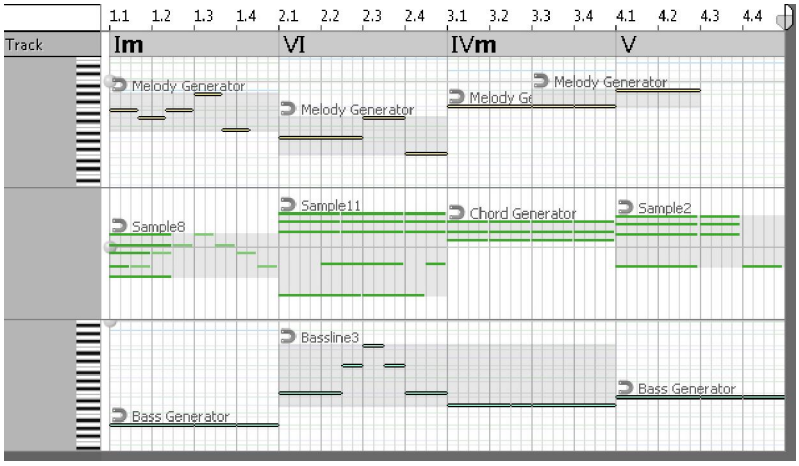
Track 1 also has several Variations included: “Remove Note”, and then another “Remove Note”, and “Permute Chord Notes”. We also increased the “Variations To Use” and “Variations Per Phrase” sliders so we can get even more variety.

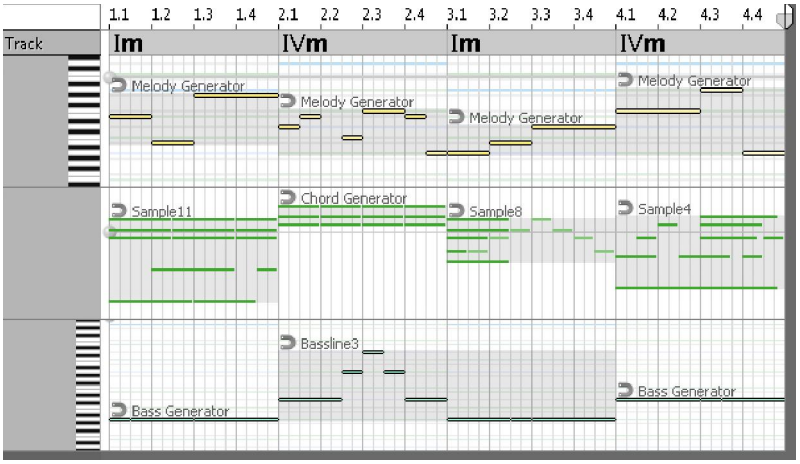
Track 2, being our “Chords/Harmony” track is using the default Chord Generator (creates four quarter notes in a bar), but we are also able to add custom Phrases, such as Sample11, Sample8, Sample2 and Sample4).

Track 3 is our “Bass” track of course... so we want the Idea Tool to create non-chordal phrases, which of course, the Bass Generator and some custom Bassline phrases are perfect for. We increased the number of Phrases To Use to maximum, and even though Variations To Use is set to 1, we don’t have any Variations set, so that doesn’t matter.

So, after all this stuff is set, we’re ready to generate some ideas! All you have to do is hit SHIFT+G, and the Idea Tool will generate an Idea, and bring you directly to Composition View. The following page shows four different generated ideas, each of which only took seconds to create.....





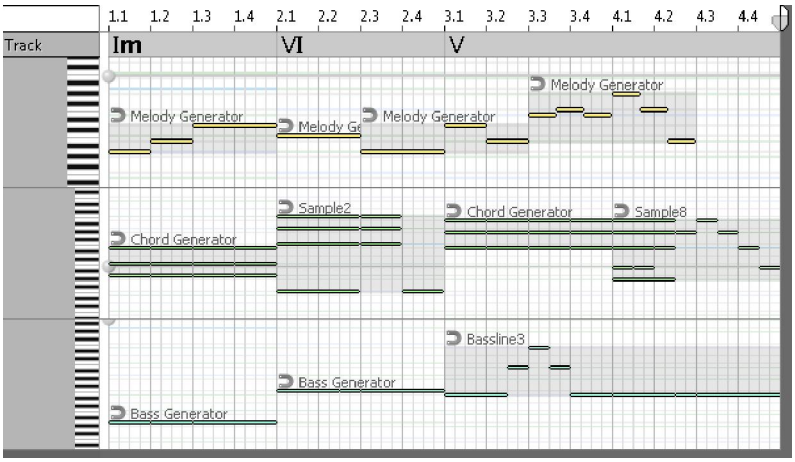


Idea Tool's Generated Ideas

key: A Harmonic Minor
length: 4 measures

Total Phrases used for Generation (14):

Melody Generator (6)
Chord Generator & Custom Phrases (5)
Bass Generator & Custom Phrases (3)



As you can see, the Idea Tool is VERY powerful, and fun to use! A keystroke or two, and you can quickly generate infinite variations of Chord Progressions, Phrases and variations of Phrases! And this is just from one specific scale and key. Let's try another way to use the Idea Tool.

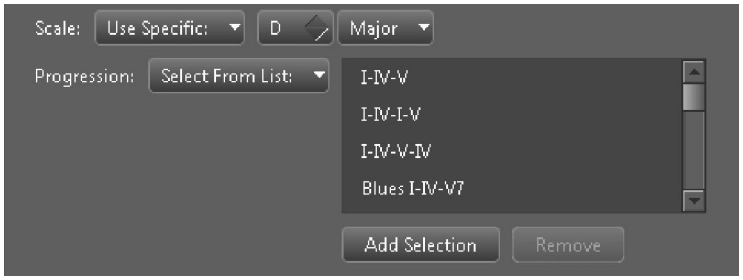
Section 4C: Idea Tool Settings (Specific Chord Progressions)

1. First, let's establish a new Tempo. We mentioned we can use a slower tempo if we're in a ballad mood, so let's do 80.

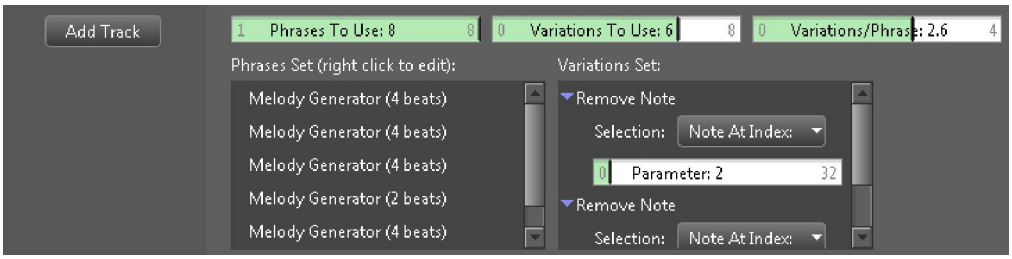


2. Now let's choose an amount of measures to generate. In Chapter 1 Section 2, we used the default of four measures. Let's make it eight this time (time signature still set to 4/4 time).

3. Now, as mentioned before, we have several options for Scale and Progression. For this example, I'll use the key of D, with the scale/chord set to the very common Major. Now, for Progression, instead of choosing "Select Any For Scale", we're going to use "Select From List." Right-click inside the little box where you can pick your progressions (right above "Add Selection"), and the Progressions Browser window will pop up. From here, let's choose all of the available progressions (under the Major Chord Formulas section). To easily do this, simply click the first one in the list (I-IV-V), hold the SHIFT key, and then click the last one (Circle I-IV....) in the Major Chord Formulas section. The result is that all of the progressions will be highlighted. Now, go back to Idea Tool and click the "Add Selection" button. you'll see the progressions added to the box with a scrollbar.

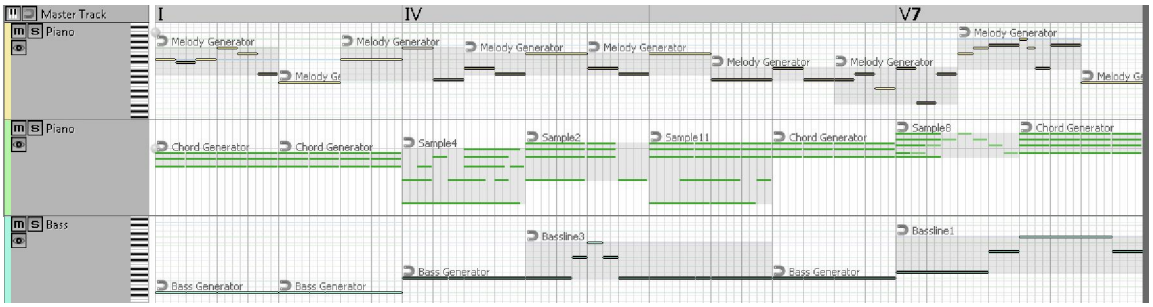


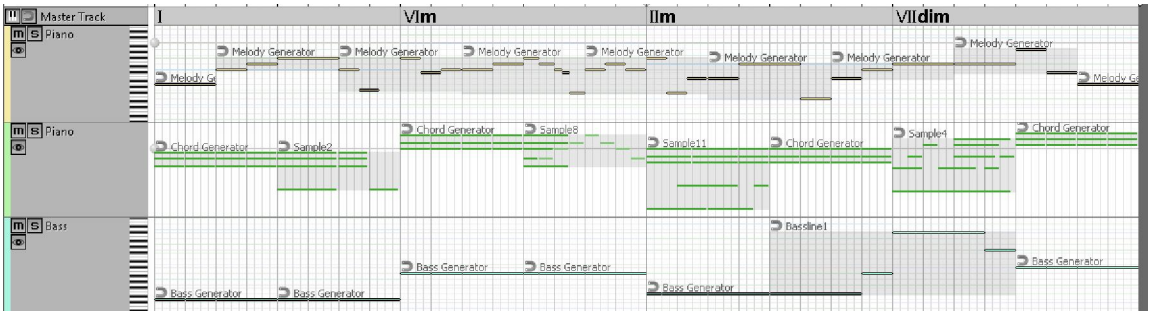
4. Now we're at the Track setup section again. Let's leave everything exactly the same as it was before.

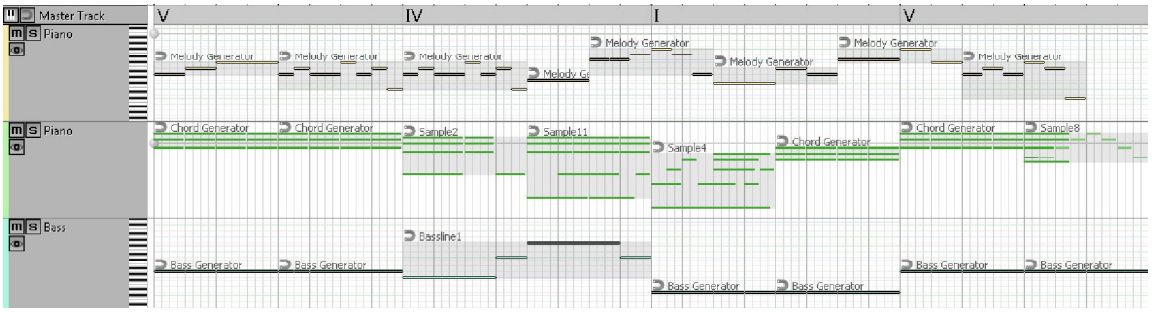


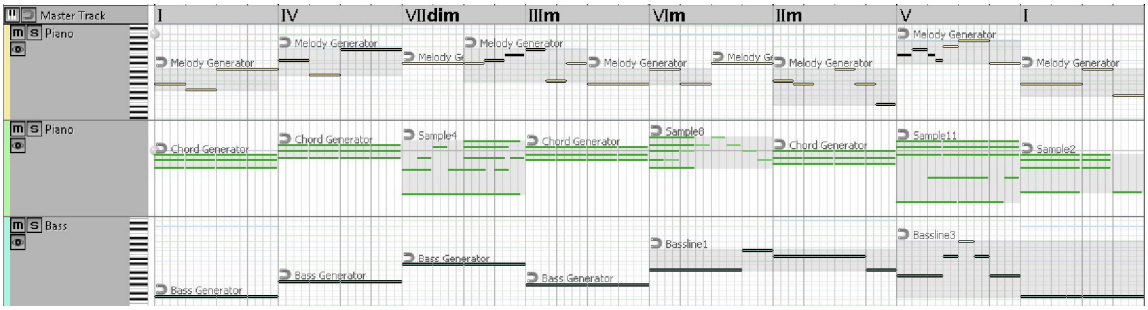
Now let's hit SHIFT+G to generate some new stuff, in D major.

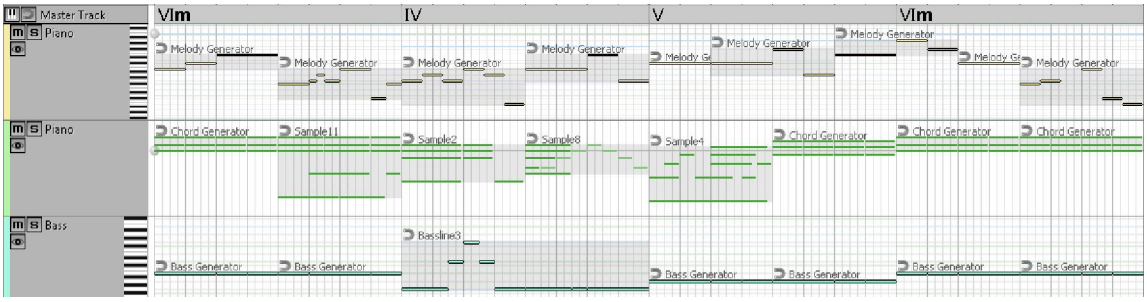
The following page shows 6 different generated ideas.....

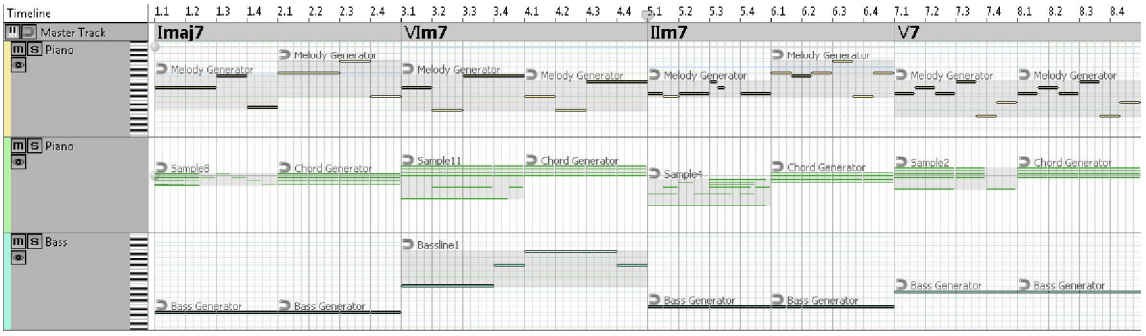












Idea Tool's Generated Ideas

key: D Major
length: 8 measures

Section 4D: Possibilities of Idea Tool

The examples shown in this Chapter are only basic ways of how to use the Idea Tool. These examples were made with the singer/songwriter in mind, who may have trouble coming up with vocal melodies for their music, or chord progressions, or both! It might be exactly what you need to get the creative juices flowing.

The Idea Tool can also easily be used to great effect for electronic and dance-based music. Set your tempo to something medium-fast or above that (anything between 130 and 180 usually work pretty well for most electronic styles), pick some common dance-type chords (usually the vi-IV is a common chord sequence, such as Am to F in the key of C major)... and use some of your favorite VSTs that do the sound of dance music well (NI's "Massive" is a very popular one. Some other VSTs which are free include Togu Audio Line's "Noizemaker" or Superwave P8)... and just experiment!

You can get a lot of good results when RC is a VST inside your favorite DAW, too... as you'll be able to run RC right alongside some audio drumloops, or a sequenced beat you made.... to easily come up with some synth melodies or dance-style chord rhythms.

dance music/techno Phrase editing hint:
- Drop a Generic Generator onto a track, right-click it to bring up the Phrase Inspector window
- Change the Rhythm Type to Subdivision and increase the number of Subdivisions
- Slide the "Full Polyphony" slider a bit to the right
- Hit L to "Generate and Apply" and voila...
a nice-sounding dance rhythm over your favorite chord sequence!

The possibilities are truly endless with RapidComposer, and especially the Idea Tool (as of version 2.7, you can use the Idea Tool while RC is a plugin inside your favorite DAW!).

NOTE: In a future RapidComposer Full version update, we plan on adding much more powerful functionality to the Idea Tool, including allowing users to:

- generate Ideas of various bar lengths (above 8 bars)
- keep all your Track settings (so RC doesn't create an entirely new Composition every time you generate an Idea) and
- generate Ideas for each Part (or all Parts) of a Composition... thus effectively automatically creating/generating an entire 5-minute-long Composition (with your settings/constraints/favorite Progressions/Phrases/keys/scales) in less than ten minutes. Now, *that's* some rapid composing, right there! Stay tuned, as the best is yet to come.

CHAPTER 5: VST Use & Configuration

Tutorial Videos mentioned in this Chapter:
Part 12 - VST Use & Configuration

Section 5A: Setting up RC as a VST inside Reaper 4

RapidComposer is great in standalone mode, but you can get a great deal more functionality out of it when used as a VST/plugin inside your favorite DAW. For this chapter (and our Part 12 Tutorial Video which we highly recommend you watch), we will be using Reaper 4 as our VST host/DAW. The reason we chose Reaper is its increasing popularity among home studio users, songwriters, and electronic music producers. It loads fast, is incredibly stable, and you can download a fully-functioning trial version that doesn't expire (though it will bug you to purchase a license... it doesn't "die" or disallow you to get into the program after 30 days like typical demos do.

Here are a few a step-by-step procedures on how we set up RC from scratch, as a VST in Reaper.

SCENARIO 1 (having RC control two separate VSTi instruments)
In this first scenario, let's say we want RC to control the sound of two of our favorite VST instruments, hosted inside Reaper. RC's Track 1 will have Chord Generators on it, and RC Track 2 will have Melody Generators on it. We want these Phrases to control the following freeware VST instruments on Reaper tracks: LazySnake (for the Chords), and Organized Trio (for the Melody). You may want to use your own VST instruments, and that's fine!

1. First, make sure the RapidComposer.dll file is copied to your favorite VST folder, so Reaper knows where to find it, and so that it will show up in the available VSTis in Reaper.

2. Second, start a completely blank Reaper project. Insert one single track (CTRL+T is the Reaper command for adding a track to your project). This will have the RC VST on it.

3. Click the "FX" icon on the track we just inserted, browse to the VSTi section and find "RapidComposer (MusicDevelopments)." Double-click to insert RC on the track.

4. Rename the track to "RC Output" or "RapidComposerOut" or something similar. Open the RC window or GUI, and click "A" to add a second track to the Composition.

5. Create two new tracks in Reaper, above our RapidComposer track.
    5a. Click FX on the first track, and insert the LazySnake VSTi on it, and name the track "1 LazySnake".
    5b. On the second track, click FX and insert Organized Trio on it, and name the track "2 Organ".
    5c. Now, change the input of the 1 Lazysnake track from whatever your soundcard says (probably Input 1 or Input L or something like that), and set the input to "Input: MIDI", then "All MIDI Inputs", then "All Channels".
    Then, click it again, and after you click "Input: MIDI", you'll see a "Map Input To Channel" near the bottom. Change this to 1.
    5d. Repeat the same steps from 5c, and change the "2 Organ" track to 2, in the "Map Input To Channel" section. (On all of these steps (including the track names): the numbers represent our MIDI channels)

6. Now, click the "I/O" button on the "1 Lazysnake" track. Go to the "Receive" section and select "RC Output" (or whatever you named the track that has the RapidComposer VSTi on it). Then, below that, you'll see two buttons that say MIDI: ALL. Change them both to MIDI: 1 (this is important, as it tells RC to play its Track 1/Channel 1 track, to the matching one in Reaper.

7. Similar to Step 6, click the "I/O" button on the "2 Organ" track. Go to the "Receive" section and select "RC Output" (or whatever the name is). You'll see the same two buttons... MIDI: ALL. Change them both to MIDI: 2 (this is equally important).

Before we go any further, we should save this layout as a Reaper ProjectTemplate. Go to File / Project Templates, and save it whatever filename you like, for example, "RC Scenario 1"
8. Add some chords in the RC VST window... and throw the Generators on the tracks (remember, track 1 is for Chord Generators, and track 2 will be for Melody Generators).

9. Press play in Reaper and you will hear the phrases being sent to the Reaper tracks that have the VSTis on them.

10. With the way we set Reaper up, we're also able to play the VSTs live (depending on what track we have selected, and whether or not it is armed for recording, and also has record monitoring enabled), and record our own MIDI clips in addition to hearing MIDI being sent from RapidComposer's VSTi track. This scenario can be worked with further, using Scenario 3 (below). All of this already is pretty involved, and is mainly for people greatly familiar with the MIDI routing capabilities of their favorite DAW. Although Reaper seems complicated, we find its routing pretty easy to grasp.

SCENARIO 2 (having RC control a multitimbral or multichannel VST)
Let's say we have an awesome multichannel VST such as Native Instruments' Kontakt, or Sampletank 2 by IK Multimedia. Let's use Sampletank 2 for our example.

1. Repeat steps 1-4 from Scenario 1.

2. Insert a new track in Reaper, and click "FX", then insert the Sampletank 2 VST. Name this track "Sampletank Out".
    2a. Choose your sounds for each Sampletank slot, starting with slot 1. For this example, let's put a Piano on slot 1/channel 1, a Vocal preset on slot 2/channel 2, a Bass guitar sound on slot 3/channel 3, and a Guitar sund on slot 4/channel 4.
    2b. Click the "Options" menu item in the FX window in Reaper (the one where you can see Sampletank). Choose "Build 16 channels of MIDI routing to this track" (though, we won't use all 16 channels, because we only chose 4 sounds in Step 2a.)
    2c. Delete the tracks numbered MIDI 5 to MIDI 16 (in Reaper).
    2d. Highlight MIDI 1 through MIDI 4 by holding shift and clicking each one, then right-click the record buttons, choose "automatically record-arm when track selected", and then click the Recording Monitoring button so it shows a green arrow.
    2e. Click the "I/O" button on the "Sampletank Out" track, and go to the "Receives" section... and choose "RC Ouput", or whatever you named it. This will let RC send its MIDI phrases to each Sampletank channel. If you add more tracks in RC, you'll need to add more Sampletank instruments to each new Sampletank slot, and you'll also need to add more tracks in Reaper, and send them to the "Sampletank Out" track (MIDI channel routing can get very confusing, so we recommend asking any questions on the Reaper forum, if you get lost).

3. Repeat Step 8 fand Step 9 from Scenario 1, and take a listen to your creation! Remember, you can also play along with whatever RC is playing, by selecting the Reaper track that matches the Sampletank slot... (MIDI 1 is Sampletank slot 1, MIDI 2 is Sampletank slot 2, etc.)

SCENARIO 3 (recording the MIDI output of RC onto MIDI tracks in Reaper)

This is basically the same as Scenario 1, but all you have to do is highlight each MIDI track that has a VST instrument on it, right-click its arm-record button, and choose "Record: Output" and then "Record: Output (MIDI)". Then, you'll need to right-click each track's arm-record button, and de-select "automatically arm when track selected."

Assuming all channels are routed correctly for as many tracks as you have in RC (and matching tracks, in Reaper), if you hit the main record button in Reaper, you will see the RapidComposer tracks and Phrases being recorded in real-time, on separate Reaper tracks, for further manipulation and editing (if you like). This is a quick way to build patterns, without generating a long Composition inside the RC VST. Certain users may want to generate quick MIDI phrases with RC, and then "bounce" them immediately to Reaper tracks, so they can do whatever they like.

There are so many ways to work with RC (and DAWs) and these are just a few examples of a quick workflow with MIDI and RC Phrases.

CHAPTER 6: Drag-N-Drop

Tutorial Videos mentioned in this Chapter:
Part 13 - Drag-N-Drop

Section 6A: Simple Drag-N-Drop Functionality

RapidComposer has the useful ability to drag-n-drop individual tracks (assuming they have Phrases or Generators on them already, as they should!) or an entire Composition, into tracks in your favorite DAW. This works in standalone mode, or in VST mode.

Some DAWs require MIDI tracks to be pre-created, while others (such as Reaper 4) allow you to simply drag on any track in your DAW (Reaper's tracks are universal: audio/midi/anything).

DRAG ENTIRE COMPOSITION
To drag your entire Composition to separate MIDI tracks in your DAW, hold the **CTRL** key, and left-drag this icon: 

Your DAW should then either automatically import the MIDI, or ask you if you'd like to put each RC track onto different MIDI tracks inside your DAW (Reaper asks if you'd like to expand the MIDI tracks to match the number of tracks you created in your RC Composition).

DRAG ONE TRACK AT A TIME
Hold the **CTRL** key, and left-drag the track header (in the screenshot, drag the word "Piano".



CHAPTER 7: Music Theory & Composition Help

Section 7A: Chords That Fit Together (Major Keys)

BASIC ROCK / POP / FOLK / DANCE / SINGER-SONGWRITER CHORDS

C Major

I	ii	iii	IV	V	vi
C	Dm	Em	F	G	Am

G Major

I	ii	iii	IV	V	vi
G	Am	Bm	C	D	Em

D Major

I	ii	iii	IV	V	vi
D	Em	F#m	G	A	Bm

A Major

I	ii	iii	IV	V	vi
A	Bm	C#m	D	E	F#m

E Major

I	ii	iii	IV	V	vi
E	F#m	G#m	A	B	C#m

B Major

I	ii	iii	IV	V	vi
B	C#m	D#m	E	F#	G#m

F#(Gb) Major

I	ii	iii	IV	V	vi
F#	G#m	A#m	B	C#	D#m

Db Major

I	ii	iii	IV	V	vi
Db	Ebm	Fm	Gb	Ab	Bbm

Ab Major

I	ii	iii	IV	V	vi
Ab	Bbm	Cm	Db	Eb	Fm

Eb Major

I	ii	iii	IV	V	vi
Eb	Fm	Gm	Ab	Bb	Cm

Bb Major

I	ii	iii	IV	V	vi
Bb	Cm	Dm	Eb	F	Gm

F Major

I	ii	iii	IV	V	vi
F	Gm	Am	Bb	C	Dm

MAJOR KEY TIPS:

- Chords I, IV, and V are commonly Major Chords.
- Chords ii, iii, and vi are commonly Minor Chords.
- Chord V can be V7 ("dominant 7") (example: G7 in the key of C major)
- Chords I and IV can be Major 7ths (example: Fmaj7 and Bbmaj7 in the key of F major)
- Common "cadences" (endings) in Major key chord progressions:
V - I (technical name: Dominant-Tonic)
IV - I (technical name: Subdominant-Tonic)
ivm - I
- Extra chords that are slightly out of key (but still usable) can be found in RC's special extended scale "Major+Minor Set". These chords include:
II (major variation of chord ii)
III (major variation of chord iii)
ivm (minor variation of chord IV)
vm (minor variation of chord V)
bIII (example: Eb major, in the key of C major)
bVI (example: Ab major, in the key of C major)
bVII (example: Bb major, in the key of C major)

- Suspended chords (commonly sus2, sus4, 7sus4) can be placed anywhere. Sus2 chords can be followed or preceded by the majors OR minors they came from (example: Dsus2 to D major, or D major to Dsus2... and also A minor to Asus2... or Asus2 to A minor). Sus4 chords are usually followed by the majors they came from (example: Fsus4 to F major). Though you can mix and match them however you like, and you can throw in a random Suspended chord wherever you want for some tension (sus4 or 7sus4) or a "neutral" sound (sus2).

- "Dominant" chords usually are found on Scale Degree V (in Major keys) and Scale Degree v (in Minor keys). They can also be found anywhere in a musical composition (depending on the complexity). Variations of "Dominant" chords include (starting with most common): "7th", "9th", "7(b5)", "7(#9)" , "7(b9)", "7/6", and "9(b13)"

- "Extended" chords (7ths, etc) can be used as long as they match the basic type of chord/scale degree they get extended from.
For example, in the key of C major, the second chord of the scale is always Dminor. You could throw in a Dm7 chord instead of the regular Dm. Likewise, you can throw in a Dm9 chord instead of Dm. As far as majors go, you can use Fmaj7 or Fmaj9 instead of F (in the key of C major). This is basic chord/harmonic theory, and it's very useful!
Just pay attention to the tables shown in this chapter, to see where you can use "extended" chord types (extended chords are common in jazz, R&B, ambient & electronic music, indie rock... really any styles outside of the typical rock/pop world). You can also try different scale types (outside of Major, Minor, and Major+Minor Set). RapidComposer has HUNDREDS of different scale types that use extended chords frequently. As we've said throughout this manual-- don't be afraid to experiment!

Section 7B: Chords That Fit Together (Minor Keys)

BASIC ROCK / POP / FOLK / DANCE / SINGER-SONGWRITER CHORDS

A Minor

i	III	iv	v	VI	VII
Am	C	Dm	Em	F	G

E Minor

i	III	iv	v	VI	VII
Em	G	Am	Bm	C	D

B Minor

i	III	iv	v	VI	VII
Bm	D	Em	F#m	G	A

F# Minor

i	III	iv	v	VI	VII
F#m	A	Bm	C#m	D	E

C# Minor

i	III	iv	v	VI	VII
C#m	E	F#m	G#m	A	B

G# Minor

i	III	iv	v	VI	VII
G#m	B	C#m	D#m	E	F#

D# Minor

i	III	iv	v	VI	VII
D#m	F#	G#m	A#m	B	C#

Bb Minor

i	III	iv	v	VI	VII
Bbm	Db	Ebm	Fm	Gb	Ab

F Minor

i	III	iv	v	VI	VII
Fm	Ab	Bbm	Cm	Db	Eb

C Minor

i	III	iv	v	VI	VII
Cm	Eb	Fm	Gm	Ab	Bb

G Minor

i	III	iv	v	VI	VII
Gm	Bb	Cm	Dm	Eb	F

D Minor

i	III	iv	v	VI	VII
Dm	F	Gm	Am	Bb	C

MINOR KEY TIPS:

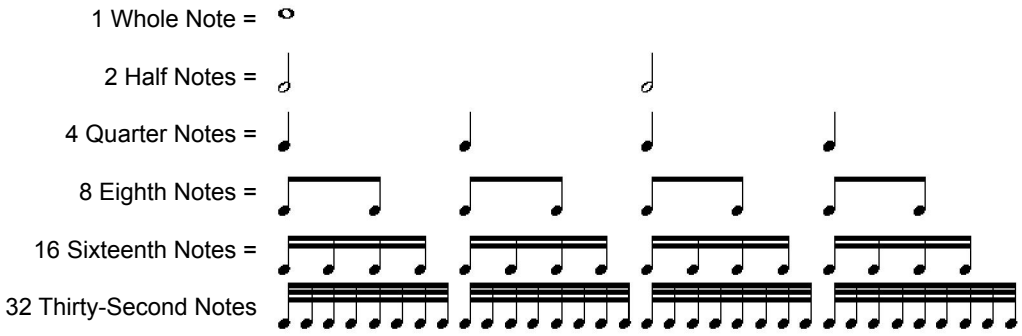
- Chords i, iv, and v are commonly Minor Chords.
- Chords III, VI, and VII are commonly Major Chords.
- Chord v can also commonly be V (Major) instead of minor (example: E major in the key of A minor)
- Common "cadences" (chord progression endings) in Minor key chord progressions:
v - i
VII - i
iv - i

- Suspended chords (commonly sus2, sus4, 7sus4) can be placed anywhere. Sus2 chords can be followed or preceded by the majors OR minors they came from (example: Dsus2 to D major, or D major to Dsus2... and also A minor to Asus2... or Asus2 to A minor). Sus4 chords are usually followed by the majors they came from (example: Fsus4 to F major). Though you can mix and match them however you like, and you can throw in a random Suspended chord wherever you want for some tension (sus4 or 7sus4) or a "neutral" sound (sus2).

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For example, in the key of C major, the second chord of the scale is always Dminor. You could throw in a Dm7 chord instead of the regular Dm. Likewise, you can throw in a Dm9 chord instead of Dm. As far as majors go, you can use Fmaj7 or Fmaj9 instead of F (in the key of C major). This is basic chord/harmonic theory, and it's very useful!
Just pay attention to the tables shown in this chapter, to see where you can use "extended" chord types (extended chords are common in jazz, R&B, ambient & electronic music, indie rock... really any styles outside of the typical rock/pop world). You can also try different scale types (outside of Major, Minor, and Major+Minor Set). RapidComposer has HUNDREDS of different scale types that use extended chords frequently. As we've said throughout this manual-- don't be afraid to experiment!

Section 7C: Basic Rhythm Theory



"Bar" in RC's Grid/Snap

"2 Beats" in RC's Grid/Snap

"Beat" in RC's Grid/Snap

"1/2" in RC's Grid/Snap

"1/4" in RC's Grid/Snap

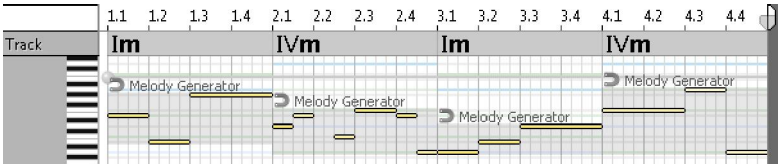
"1/8" in RC's Grid/Snap

not pictured:
"1/16" -- 64th Notes
"1/32" -- 128th Notes

"Triplet"
1/4 Note Triplet -- 6 notes per bar

"Eighth Triplet"
8th Note Triplet -- 12 notes per bar

RC's Timeline



1.1 means "Bar 1, Count (or Beat) 1.

3.4 means the 4th Count (or Beat) of Bar 3 (etc).

The thinner grid lines (on the track)
show that RC's Grid is set to "1/4" (16th Notes).

Manual Rhythm Generator (Phrase Inspector Window)



Since RC doesn't use traditional notation, the "diamond" shapes are found on the notes

1 and (2) **and** (3) **and 4 and**

(as seen in Chapter 2). Note that the Grid setting is the same as the Timeline screenshot above (the darker lines show the *down*beats)

Section 7D: Basic Melody-Writing Tips

Melody is such a revered, and beautiful thing in music. A lot of well-written songs have some of the catchiest or most beautiful melodies (not just in lead parts, but behind lead parts, known as “countermelodies”). RapidComposer may not be able to pen your next top 40 hit, but it can certainly get you in the right direction, and even generate some awesome melodies automatically (We’ve come up with some great melodic phrases for our MIDI compositions every single time we’ve used RC since the Melody Generator was added, no joke. We are sure you’ll be able to come up with some great stuff, generatively). But let’s say you don’t wish to have RC generate melodies for you. Let’s say you’re using RC to come up with quick chord progressions and performances set to your settings (using Fingerpicking Generators, or the included Basic Piano phrases, etc, and want to come up with melodies entirely your own... if so, this section is for you!

Melody-writing for vocals

1. Think of how you speak, and the pitches you hear in the words you say. Some of the best vocal melodies come from the way someone speaks... and how certain words are accented or higher-pitched, depending on what you’re saying.

2. Remember to leave space for yourself (or someone singing along to your songs) to breathe! Melodies that are too “busy” tend to sound annoying or wander around aimlessly.

3. Use chord notes to start (the root note, the third (major if singing over a major chord, minor if singing over a minor chord), and the fifth). These three notes are the most-sung notes in nearly all popular songs.

4. Use scale notes (non-chord notes) in your melodies, to keep things occasionally tense and interesting (and let them move to more “stable” notes, such as the root, third, or fifth of a chord).

5. Basic vocal harmony is a melody sung directly a third above the main melody (these intervals change as the scale notes change... it could be a major third above, or a minor third above). If this seems confusing to you, look around the Web and you’ll find lots of information about how to sing vocal harmony.

How scale notes (intervals) create and release melodic tension

Exercise: let’s highlight the “loop” icon in RC, and fill our default track with the “Chord Generator (Whole Notes)” phrase. Select this Phrase in the Phrase Browser, then hit the letter F on your computer keyboard. You’ll hear a C major chord play whole notes for four bars and then loop... While this C major chord is playing... we’re going to sing (or play) different notes of the C major scale:

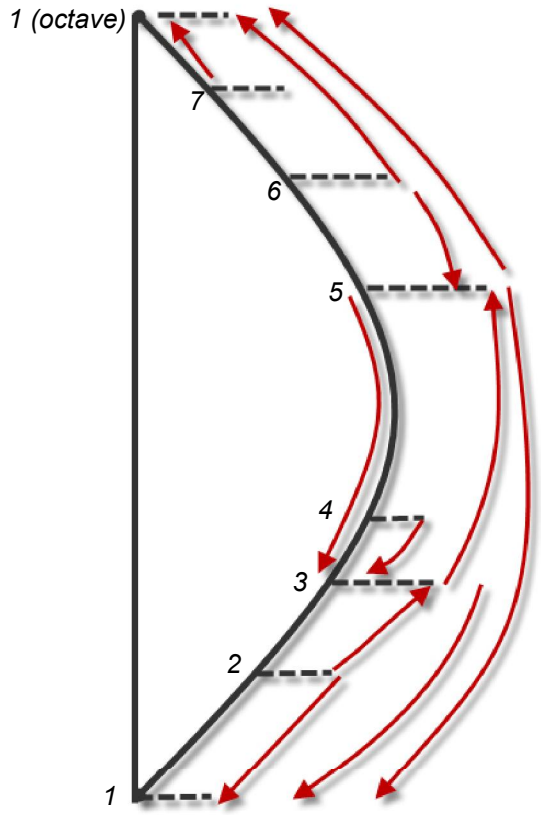
Play (or sing) the note C while this Composition is looping. Notice how you don’t have to “move” away from this note if you don’t want to. Obviously, it’s the root of the chord, so it sounds great. Now play or sing the note E over this C major chord. It’s a nice sound, right? Of course (it’s another chord note). And, you know where we’re going with this... let’s now play or sing the note G over this looped Composition of C major. This “fits” too, and doesn’t seem to want to “move” anywhere.... these notes are commonly known as “stable” notes in melodies. So, we now know that notes that belong to a chord, are either called “chord notes” (or “chord tones”) or “stable notes/tones.”

Now here’s where things get a little more interesting...

While this loop is still playing, let’s play (or sing) different notes. Play/sing a D note. It needs to move. Where do you “hear” it wanting to go? Up? Down? Do the same with an F note. It’s almost universal knowledge that that F note over a C chord wants to move down just a little bit, to become an E (a chord note). Let’s try playing/singing a B note. Whoa, that’s tense! Seems like it wants to move up, and quickly... right? (if it moves up a tiny bit, it becomes another chord note). What about an A? An A note can go in either direction... up a little more (to reach the C chord tone), or down a tiny bit (to reach the G, another chord tone). It can also move down a good amount (to E, another safe chord note).

This whole exercise demonstrates exactly why melodies need to “move”... if a note’s tense, you move it to a non-tense note (something from the chord at that exact moment the melody is heard). If a note sounds good where it is... move it, to create some tension! And then bring it back, to release the tension. It’s such a simple process, but oh my, the possibilities! Harmonic music’s been around for several thousand years..... and even now, in 2013, we still hear songs that introduce melodies we’ve never heard before. Out of the zillion songs that are out there, somehow, people write fresh ones... with melodies that might seem familiar, but are often different. It’s a pretty amazing thing.

How scale notes create and release melodic tension (visual diagram)



Please excuse the crudely-made diagram above. Despite its crude assembly, it tells us a lot about how scale notes need to move to others.

Let's assume the diagram shows the Major scale, as most melodies come from said scale. Each dotted line is each note/ interval of the scale. 1 is obviously the root of the scale, 3 is the third of the scale, 5 is the fifth... etc.

If we analyze this diagram, we find the following things to be true:

- From note 1, or its octave, we can go anywhere we want.
- From note 2, we could move back to note 1, or up to note 3 (as we know, both of these notes are stable chord notes).
- From note 3, we commonly want to either come down to 1, or up to 5 (to another stable chord note).
- From note 4, the strongest movement is down to the 3 (though we could go up to 5 if we wanted).
- From note 5 (the "fifth")... we can go up, or down, but there's a strong pull to chord notes (either up to the octave, or down to note 3).
- From note 6, the strongest pull is down to note 5 (a stable chord note), but there's another pull up to to the octave.
- From note 7, the strongest movement is up to the root of the chord (note 1). Lots of tension, here. We could also move down to the 6, then down to the 5 if we wanted to.

This is just a very basic representation of how notes create and release melodic tension. There are so many variables to a melody... including what chord is underneath, what chord comes before that note and what chord comes after... if chords change slowly or change fast... the sky's the limit. And then, if you want your melody to be sung... there's another variable that comes into play: lyrics, and their emphasis on certain notes. It's crazy when you think about it, but hopefully this sheds some light on the magical, expressive science that is *melody*.

Recommended Reading

The Complete Idiot's Guide To Music Theory 2nd Edition - Michael Miller (Idiotsguide.com)

The Complete Idiot's Guide To Music Composition - Michael Miller (Idiotsguide.com)

Melody In Songwriting - Jack Perricone (Berklee Press)

How To Write Songs On Keyboards - Rikky Rooksby (Backbeat Books)

How To Write Songs On Guitar - Rikky Rooksby (Backbeat Books)

Songwriter's Workshop: Melody - Jimmy Kachulis (Berklee Press)

Songwriter's Workshop: Harmony - Jimmy Kachulis (Berklee Press)

Reharmonization Techniques - Randy Felts (Berklee Press)

Writer. Producer. Engineer: Handbook for ... Commerical Music - Michael Farquharson (Berklee Press)

Composing Music: A New Approach - William Russo (University of Chicago Press)

Study of Counterpoint - Johann Joseph Fux / Alfred Mann (W. W. Norton & Co.)

Craft of Musical Composition: Theoretical Part Book 1 - Paul Hindesmith (Schott)

Concentrated Course in Traditional Harmony Book 1 - Paul Hindesmith (Schott)

Twentieth-Century Harmony: Creative Aspects & Practice - Vincent Persichetti (W.W. Norton & Co.)

Alfred's Essentials of Music Theory: A Complete Self-Study Course - Andrew Surmani (Alfred)

Appendix: Custom Phrase/Composition Info

Custom Phrases

Anything named "Bassline"
Sound best with RCBass soundfont, or your favorite VSTi. Phrases have style suggestions within the name, but they are not limited to those styles!

Anything beginning with the word "Piano"
Sound best with RCPiano soundfont, or your favorite piano VSTi (could work with regular piano or electric piano/Rhodes-style VSTs). As mentioned above, each Phrase doesn't have to just be used for the style in the Phrase name... for instance, PianoBasic set could work best with classical, or it might be great for pop. PianoRockPop set is designed for rock & pop of course, but could work for funk or R&B. PianoFunk set could work with jazz/funk/fusion R&B styles, or rock & pop, etc. No limits!

Any phrase that says "FingerPicking"
Sound best with RCGuitar soundfont, or your favorite acoustic-guitar VSTi. Most useful for folk-style patterns, or basic arpeggios (if not using a Guitar-based instrument). You can also use these with piano or synth instruments.

"Synth" category

a. "Chiptunes" set sound best with RCChiptunes soundfont, or your favorite synth VSTi
b. "Techno" set sounds best with either the RCChiptunes soundfont, or your favorite trance/techno synth VSTi

Beat category and anything that begins with "BeatGM"
General-midi-compatible beats (use the RCDrumsAcou soundfont, or your favorite drum sampler VSTi for the rock/basic-style beats. Use RCDrumsUrban or RCDrumsDance for the Hip-Hop, R&B, Electro or Techno-style beats.)

Custom Templates

For demonstration or "jamming" purposes, the custom Compositions (found in the File menu-- *New Composition: Using...*) cover several basic musical styles, including Ballad, Soul, Jazz, Techno, Chill, Funk, and more. Upon opening each Composition, the tracks are set with the built-in Soundfonts included with RC (and are assigned to separate channels). You can also use your own favorite VSTis or patches, change the tempo, the chords, and/or change the Phrases used, if you'd like. Again, they are just for demonstration or "jamming" purposes. Have fun!

Credits

RapidComposer 2.83 by MusicDevelopments. Initial concept, coding, and programming by Attila Mezei. All program content is Copyright 2009-2015 MusicDevelopments.

Significant bug-testing/reporting, feature/functionality requests, MIDI track assembly/performance, and music theory assistance by Chris Caulder.

Recent Mac beta-testing and bug-testing (version 2.7 through 2.83) by Stacy St. Yves and Chris Caulder.

Additional bug-reporting by the active forum members at the official MusicDevelopments forum (www.kvraudio.com).
THANK YOU ALL for sticking with us!

This Manual (version 2.5 through 2.83) by Chris Caulder.
(Additional text by Nigel and Attila Mezei, in “Introduction” and “Basic Concept & Functionality”)

Tutorial Videos produced, edited, and narrated by Chris Caulder.

Custom Phrases, Chord Progressions, and Generator Presets by Chris Caulder and Attila Mezei.

THANK YOU’s:

The Mezei Family, Computer Music Magazine (for our first review!), Chris Caulder, the KVR/MusicDevelopments forum members, SoundOnSound Magazine, songwritingandrecordingtips.wordpress.com, Cockos Software, Soundfont technology, Polyphone open-source Soundfont-designer program, Steinberg/VST plugin creation/development, TechSmith (for SnagIt, and Camtasia Studio), Stacy St. Yves, and YOU!