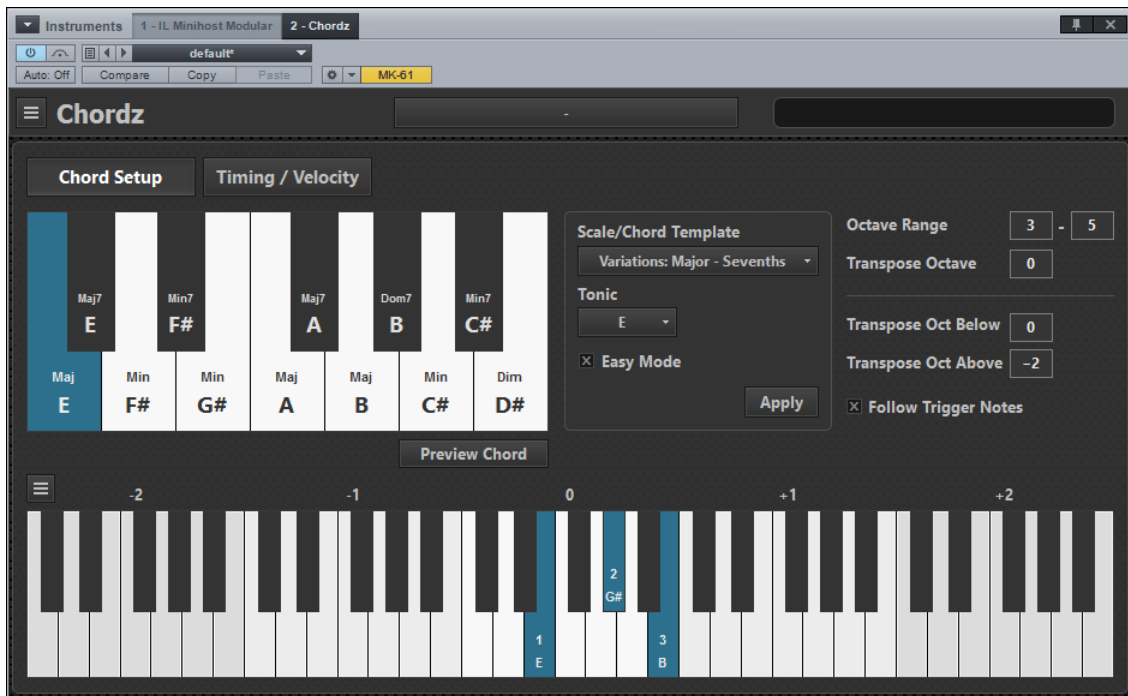


Chordz

User Guide



Chordz is developed with Delphi XE5 using the Delphi ASIO & VST framework

VST is a trademark of Steinberg Media Technologies GmbH

Email: info@codefn42.com

Website: <http://www.codefn42.com>

© 2015 - CodeFN42

Table of Contents

Introduction	4
System Requirements	5
Installation	5
Setting up Chordz in your DAW	6
User Interface	7
User interface controls	7
Checkboxes	7
Knobs	8
Numeric input boxes	8
Slider boxes	8
How to use Chordz	10
What is "easy mode"?	11
Keyboard zones	12
Applying a scale/chord template	13
Editing Parameters	16
Chord triggers	16
Chord notes	17
Other parameters	19
Octave Range	19
Transpose Octave	20
Transpose Oct Below	20
Transpose Oct Above	20
Follow Trigger Notes	20

Chordz - User Guide

Start Delay	20
End Delay	21
Velocity Scale	21
Velocity Random	21
Relative Timing	21
Same Random Velocity	21
Random Note Assignment	21
 Editing the Scale Templates.txt file	 22
 Editing the Chords.txt file	 25
 Presets	 27
To save a preset	27
To load a preset	27
To delete a preset	27
To open the presets folder	28
 MIDI Control / Automation	 29
To assign a MIDI CC message with MIDI learn	29
To assign a specific MIDI CC message	29
To remove a MIDI CC assignment	29

Introduction

Chordz is a VST plugin that allows you to trigger full chords by playing single notes. Each trigger note is associated with a separate chord. Each chord may consist of any number of notes. Play complicated chord progressions with one finger, with a MIDI keyboard or a drum-pad, or trigger chords from single notes added in your DAW's piano roll.

A chord can be set up to include individual notes spread out over several octaves (two octaves both below and above the octave of the trigger note). This means you can easily create chord inversions and other custom chord voicings, for example double certain notes, both above and below the root note. The chord suggestion feature suggests diatonic chords based on the selected scale and root note.

When "easy mode" is enabled, you can play the chords in any scale using only the white keys, with "C" always being the I chord. The black keys can then be used for chord variations (for example "C#" to trigger a major seventh or ninth chord, while "C" triggers a regular major chord).

The keyboard can be divided into three zones, one for playing chords, the other two (one below, and one above, the chord trigger zone) for playing single notes. Each zone can be independently transposed up or down by any number of octaves. This allows you to play chords with your left hand, while your right hand plays the melody.

Optionally, single notes outside the chord trigger zone can be forced to stay within the selected scale. When easy mode is enabled, it will follow the chord trigger setup (for example, if scale is set to F minor and a C note will produce a F minor chord, a C note outside the chord trigger zone will play a F note). This will ensure that you will always stay in key, and never hit a wrong note.

The plugin supports optional velocity scaling and randomization for each note of the chord. Another feature is the start and end delay (this can also be randomized), which can be used to, for example, emulate strumming or to create more unpredictable results (works great with sounds with a long attack and/or decay, such as pads or strings).

Chordz comes with more than 40 scale/chord templates, and a chord library with more than 50 chord types. You can add your own custom templates, and new chord types by editing the relevant text file. And you can, of course, customize the chords directly in the GUI.

Chordz - User Guide

System Requirements

To use Chordz you need a VST2 compatible 32-bit or 64-bit host running on Windows XP, Vista, 7 or 8.

Installation

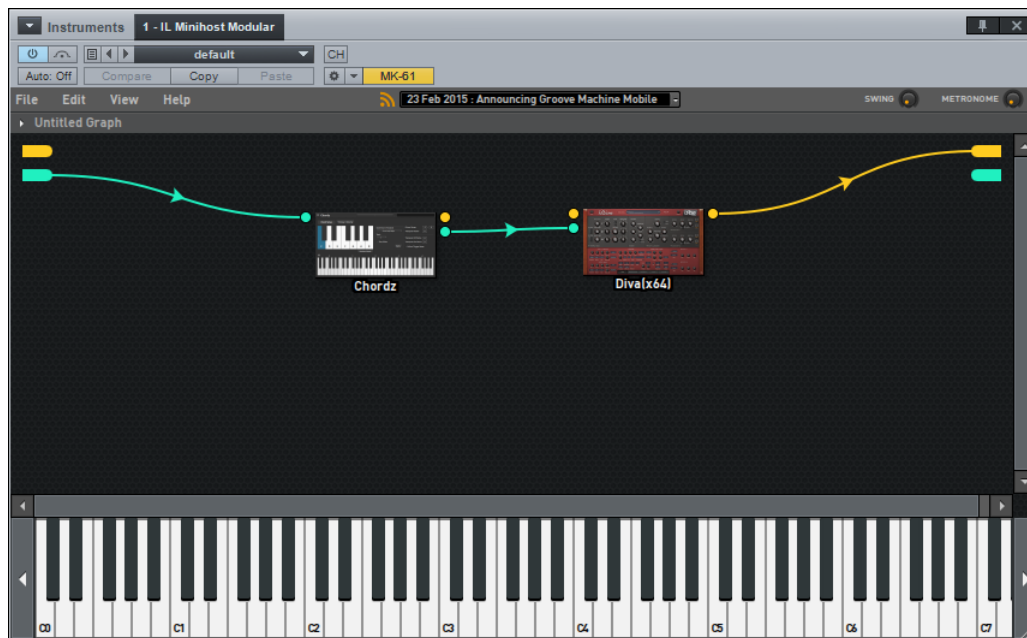
To install Chordz, simply open the downloaded zip file and extract the dll file to your VST plugin folder (Chordz32.dll if you use a 32-bit host, or Chordz.dll if you use a 64-bit host).

Setting up Chordz in your DAW

Chordz is a MIDI only VST plugin. It does not produce any sound of its own. You need to set it up so it receives MIDI data, and then route the MIDI output to the desired instrument. How easy (or even possible) it is to do this depends on your DAW's MIDI routing capabilities.

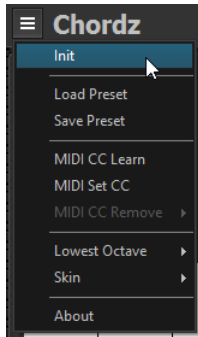
Generally, you should add Chordz to a new MIDI or instrument track. This is the same procedure you would follow adding any VST instrument in your DAW. Then you will have to route the output from Chordz to another VST instrument. If you are not sure how to do this, please refer to your DAW's documentation.

An alternative is to use the excellent (and free) [Minihost Modular](#) plugin from Image Line. Minihost Modular can be used to extend the capabilities of your DAW software with its powerful modular environment.

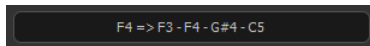


User Interface

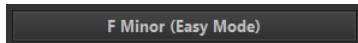
In the upper left corner of the plugin window you find the main menu. From this menu you can initialize the plugin (reset all parameters), load and save presets, configure MIDI CC assignments, customize the octave numbering, and change the current skin.



In the upper right corner you find the info panel. This shows information about the parameter you are editing, or the trigger note and the notes in the triggered chord when you are not editing a parameter.



In the middle you find the preset button. This shows the name of the current preset (if it is named). Click this button to open the 'Load Preset' panel. For more information on how to work with presets, see the "Presets" section.



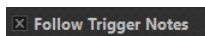
Below you find the main section with all the parameters you can edit on two tabs (Chord Setup and Timing / Velocity). You find more information on this in the "Editing Parameters" section.

User interface controls

In addition to the two virtual keyboards you use to set up note triggers and chord notes, there are four basic types of user interface controls.

Checkboxes

For example, Follow Trigger Notes.



Chordz - User Guide

Checkboxes can have one of two different values: on (checked) or off (unchecked). Simply click the box to change the value.

Hold down the Ctrl key and click to select the default value.

Knobs

For example, Velocity Scale.

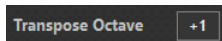


Click and drag down to decrease the value, or drag up to increase the value. To slow down the selection, hold down the Shift key while you drag (fine tuning). You can also use the mouse wheel to change the value.

Hold down the Ctrl key and click to select the default value.

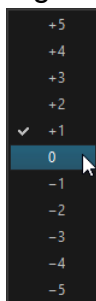
Numeric input boxes

For example, Transpose Octave.



There are three ways to change the value:

- Click with the mouse, then drag up (to increase the value) or down (to decrease the value). To slow down the selection, hold down the Shift key while you drag (fine tuning).
- Position the mouse cursor over the control, then use the mouse wheel.
- Right-click and select a value from the popup menu.

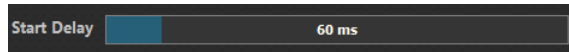


Hold down the Ctrl key and click to select the default value.

Slider boxes

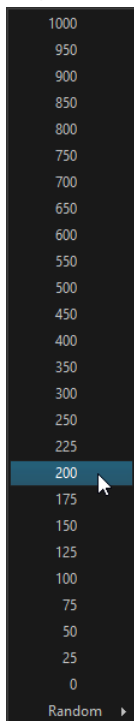
For example, Start Delay.

Chordz - User Guide



There are three ways to change the value:

- Click with the mouse, then drag to the left (to decrease the value) or to the right (to increase the value). To slow down the selection, hold down the Shift key while you drag (fine tuning).
- Position the mouse cursor over the control, then use the mouse wheel.
- Right-click and select a value from the popup menu.



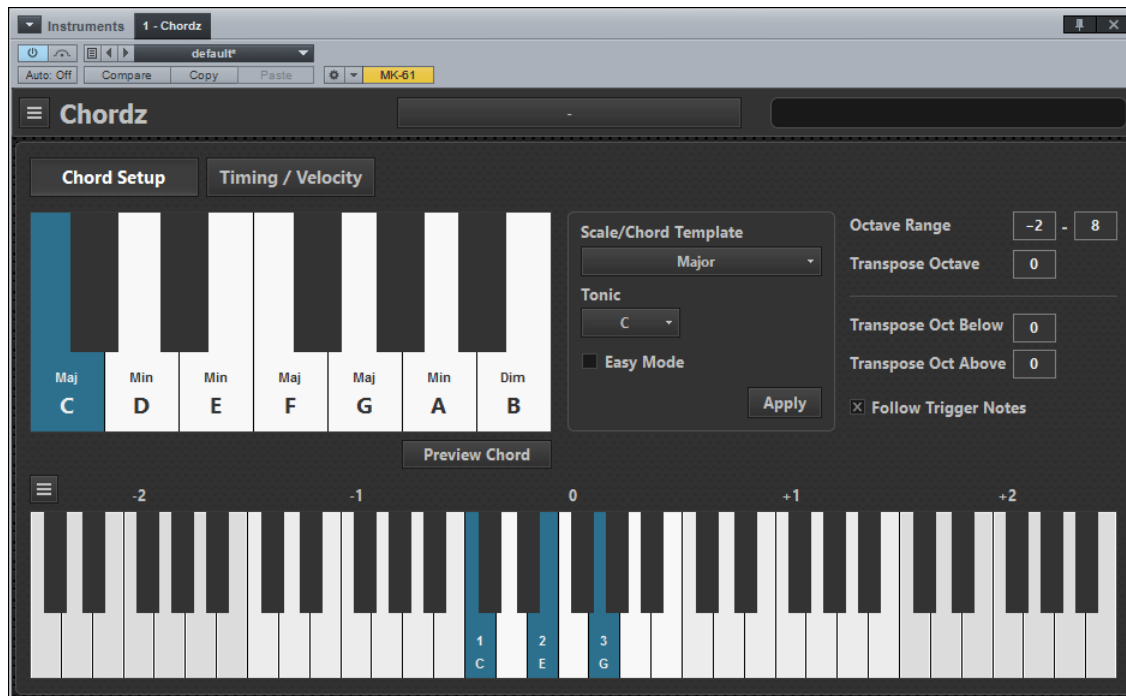
Hold down the Ctrl key and click to select the default value.

NOTE: Both the Start and End Delay sliders gives you the ability to specify a random value. To do this, hold down the Alt key while you edit the value. The random range has a different color. You find more information in the "Editing Parameters" section.

How to use Chordz

The main part of the user interface is divided into two tabs: Chord Setup and Timing / Velocity.

On the Chord Setup tab you set up the scale / chord triggers, and the individual notes in each chord.



Chordz - User Guide

On the Timing / Velocity tab you can set up an optional start/end delay (up to 1000 ms), velocity scaling and velocity randomization for each note in the chord.



Each note in the chord can be linked to a specific timing/velocity setting. The start/end delay can be used to emulate strumming, but it also works great with sounds with a long attack and/or decay, such as pads or strings. With the velocity settings you can make certain notes in the chord stand out (for example the root or the third). The randomization options are a great way to create a more unpredictable result.

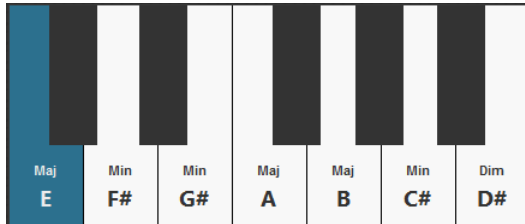
For more information on how to edit chord triggers, chord notes and the timing and velocity parameters, see the "Editing Parameters" section.

What is "easy mode"?

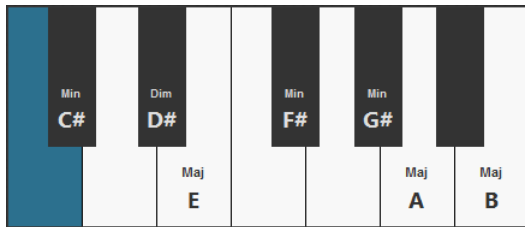
When "easy mode" is enabled, you can play the chords in any scale using only the white keys, with "C" always being the I chord. The black keys can then be used for chord variations (for example "C#" to trigger a major seventh or ninth chord, while "C" triggers a regular major chord).

Chordz - User Guide

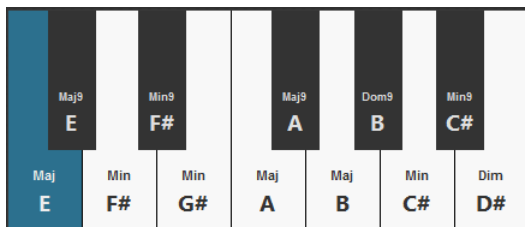
For example, if you select a scale/chord template based on E Major, "C" will be mapped to "E", "D" to "F#", "E" to "G#", "F" to "A", "G" to "B", "A" to "C#" and "B" will be mapped to "D#".



When easy mode is disabled, the trigger notes are not mapped to other notes, and notes outside the scale are silent (will not play).



When easy mode enabled, you can use the black keys for chord variations, for example ninths.



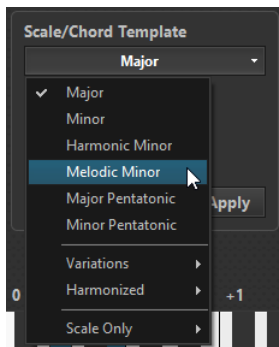
Keyboard zones

The keyboard can be divided into three zones, one for playing chords, the other two (one below, and one above, the chord trigger zone) for playing single notes. Each zone can be independently transposed up or down by any number of octaves. This allows you to play chords with your left hand, while your right hand plays the melody.

Optionally, single notes outside the chord trigger zone can be forced to stay within the selected scale. When easy mode is enabled, it will follow the chord trigger setup (for example, if scale is set to F minor and a C note will produce a F minor chord, a C note outside the chord trigger zone will play a F note). This will ensure that you will always stay in key, and never hit a wrong note.

Applying a scale/chord template

To apply a scale/chord template, first select a template from the **Scale/Chord Template** drop-down menu.



Most of the options on this menu contains both a scale, and a chord for each scale degree. First the most common major and minor scales with diatonic chords, then templates where the black keys are used for chord variations (suspended, seventh, ninth chords, etc. – *note: these can only be used when easy mode is enabled*), and templates where the scale is harmonized in thirds, fifths and octaves.

In addition, you find a "scale only" section that contains scales only, with no predefined chords. You can then manually add chords to each trigger note from the Chords menu (more information about this in the "Editing Parameters" section).

NOTE: For information on how to edit the templates, see the "Editing the Scale Templates.txt file" section.

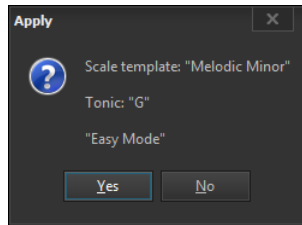
Then select the scale tonic (root note).



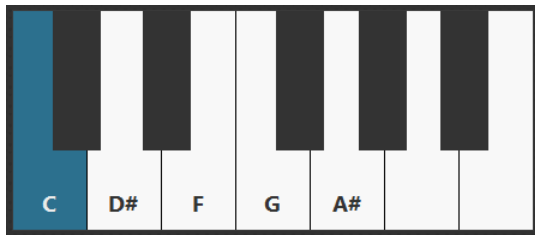
Chordz - User Guide

And finally, select whether you want to use the "easy mode" feature or not.

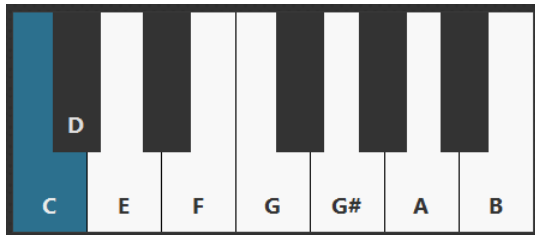
To apply the template, click the **Apply** button and confirm by clicking **Yes**.



NOTE: If a scale has less than seven notes, one or more of the white keys will not be used when you enable easy mode. For example, if you select the C Minor Pentatonic scale (five notes), the "A" and "B" keys will not be used.



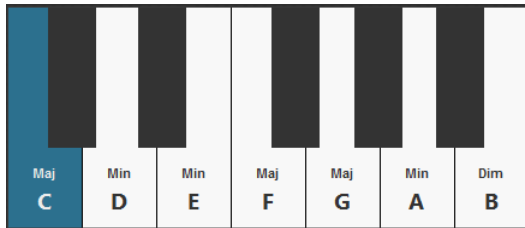
NOTE: If a scale has more than seven notes, one or more of the black keys will be used when you enable easy mode. For example, if you select the C Bebop Major scale (eight notes), the "C#" key will be used for the "D" note.



Editing Parameters

Chord triggers

The virtual keyboard at the top of the plugin window on the Chord Setup tab controls the trigger notes.



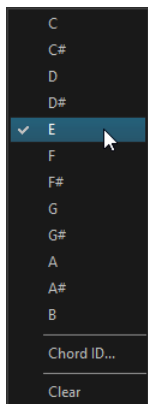
This lets you specify both a scale, and assign a chord to each trigger note. If the chord trigger zone spans multiple octaves, a specific note will generate the same chord in each octave, but the chord will be transposed up or down according to the octave.

The selected trigger note is highlighted. To change the selected trigger note, simply click with the mouse. The virtual keyboard at the bottom of the plugin window is then updated to show the notes assigned to the selected trigger note.

NOTE: If no chord notes are set up, the root note is automatically generated when you press a chord trigger key.

You can either select a scale/chord template to automatically assign a scale and chords (you can then edit the setup, if desired), or manually set this up. For more information, see the next section ("Chord notes").

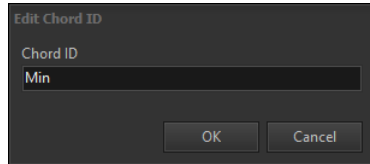
To manually change the root note of a trigger note, right click a key on the virtual keyboard and select note from the popup menu.



Chordz - User Guide

You can assign a Chord ID to each trigger key to describe the chord type. To edit this id, either select **Chord ID** from the popup menu, or double-click the key in the virtual keyboard.

This will open the 'Edit Chord ID' window. Note that the maximum length of the chord id is 6 characters.



To preview the chord assigned to the currently selected chord trigger, simply click the **Preview Chord** button. Alternatively, you can hold down the Ctrl key and click any of the chord trigger keys with the mouse (or you can, of course, press the relevant key on your MIDI keyboard).

To remove the note assigned to a key, right-click and select **Clear** from the popup menu.

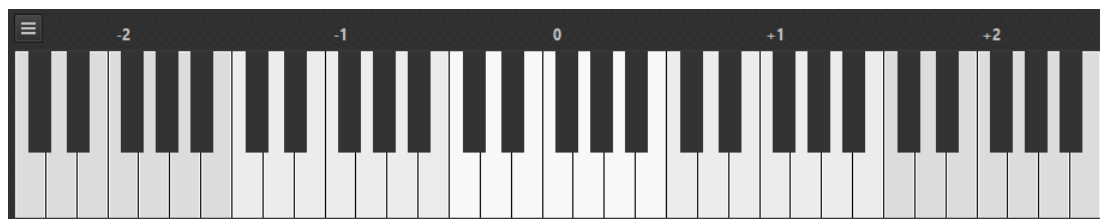
NOTE: This will also remove the chord notes assigned to this key.

When no note is assigned to a trigger key, pressing this key will not generate any note. This will also happen when pressing the same note outside the key trigger zone if Follow Trigger Notes is enabled.

Chord notes

In the virtual keyboard at the bottom of the plugin window you specify the notes in the chord assigned to the currently selected chord trigger key.

This keyboard spans five octaves.



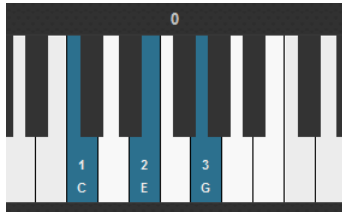
NOTE: To preview a note, click while you hold down the Ctrl key.

The middle octave corresponds to the octave of the chord trigger note. A chord can be setup up to include individual notes spread out over several octaves (two octaves both

Chordz - User Guide

below and above the chord trigger octave). This means you can easily create chord inversions, and other custom chord voicings, for example double certain notes.

To select a note, simply click one of the keys in the virtual keyboard. The key is highlighted, and shows both the note name and the note number.



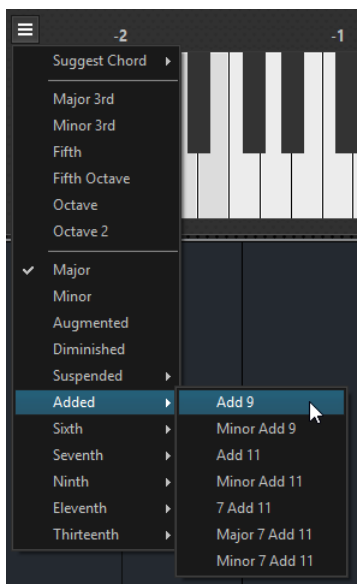
The note number (1 – 5) links a chord note to the note settings on the Timing / Velocity tab. Here you can specify start/end delay and velocity scaling for each individual note (if the chord consists of more than five notes, some of the notes must share the same settings).

The note numbers are automatically assigned when you add new notes. To change the note number, right-click and choose from the popup menu.



To remove a note from the chord, simply click the highlighted note.

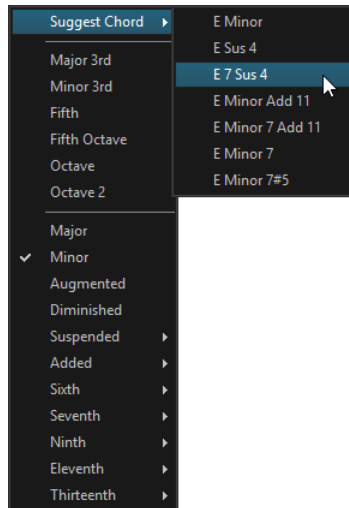
You can automatically add a chord by choosing a chord type from the Chord menu.



Chordz - User Guide

NOTE: For information on how to edit the list of chord types, see the "Editing the Chord.txt file" section.

You can use the chord suggestion feature to suggest diatonic chords based on the selected scale and root note.



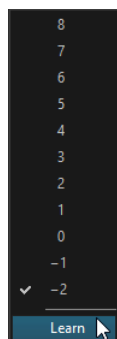
Other parameters

Octave Range

The keyboard can be divided into three zones, one for playing chords, the other two (one below, and one above, the chord trigger zone) for playing single notes.

The octave range specifies the octaves where individual notes will trigger chords. By default, all octaves will trigger chords.

NOTE: You can right-click one of the range boxes and choose **Learn** from the popup menu, and then press a key on your MIDI keyboard to automatically set the corresponding octave number.



Chordz - User Guide

NOTE: To specify whether the octaves are numbered from -2 to 7 (default), -1 to 8 or 0 to 9, make your selection from the main menu (Lowest Octave).

Transpose Octave

This determines the number of octaves the generated chords will be transposed up or down.

Transpose Oct Below

This determines the number of octaves notes below the chord trigger zone are transposed up or down.

Transpose Oct Above

This determines the number of octaves notes above the chord trigger zone are transposed up or down.

Follow Trigger Notes

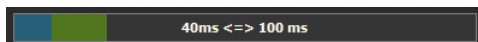
When this option is enabled, single notes outside the chord trigger zone are forced to stay within the selected scale. This will ensure that you will always stay in key, and never hit a wrong note.

When easy mode is enabled, it will follow the chord trigger setup (for example, if scale is set to F minor and a C note will produce a F minor chord, a C note outside the chord trigger zone will play a F note).

Start Delay

This is the delay in milliseconds (up to 1000 ms) from when you press the chord trigger key to this note starts playing. This can be used to emulate strumming, but it also works great with sounds with a long attack, such as pads or strings.

Chordz also gives you the ability to randomize the start delay. To add a randomization range, hold down the Alt key while you change the value. The random range has a different color.



For example, if the "normal" value is 40 ms (blue in the example above) and the "random" value is 60 ms (green), the actual start delay will vary between 40 and 100 milliseconds.

End Delay

This is the delay in milliseconds (up to 1000 ms) from when you release the chord trigger key to this note stops playing. This works great with sounds with a long decay, such as pads or strings.

To add a randomization range, hold down the Alt key while you change the value.

Velocity Scale

You can scale the velocity by a specified percentage. The scaling can be set to a value between -100% and +100%.

Velocity Random

You can apply randomization to make the velocity scaling more unpredictable. When you use randomization, the random value is added to the velocity scale value to create the actual scaling percentage. For example, if you set the scaling value to -20% and the random value to 40, the actual scaling value will vary between -20% and 20%.

Relative Timing

When this option is enabled, the timing of each note is based on the timing of the previous note. This is especially useful if you randomize the start/end delay, but want to make sure the notes are started / ended in a specific order.

For example, if the start delay of note 1 is "0", note 2 is "50" and note 3 is "100", the third note will start 150 ms later than the first note when relative timing is enabled. If not, it will start 100 ms later.

Same Random Velocity

When this option is enabled, all notes will use the same random velocity setting as the first note. This is useful if you want to apply some velocity randomization, but keep the relative velocity of each note (based on the velocity scale) the same.

Random Note Assignment

When this option is enabled, each individual note in the chord will be linked to a note setting completely by random (that is, the note number assigned to each chord note is ignored).

Editing the Scale Templates.txt file

Chordz comes with a library of more than 40 scale/chord templates. You can add your own templates by editing the Scale Templates.txt file. This file is located in the Chordz data folder ('\\CodeFN42\\Chordz' in your 'Documents' folder).

Scale Templates.txt is a standard text file you can edit in any text editor (for example Notepad).

NOTE: This file is automatically created when you open Chordz if it does not already exist.

Add each template on a separate line. First the template name (displayed in the menu), followed by a semicolon, then for each scale degree separated by a semicolon, the root note (in semitones) relative to the tonic of the scale, the chord id (displayed in the virtual chord trigger keyboard – limited to 6 characters), followed by numbers to describe the chord formula in semitones, all separated by a comma.

See the next section, "Editing the Chords.txt file", for more information on how to specify the chord formula.

For example, the major scale:

Major;0,Maj,0,4,7;2,Min,0,3,7;4,Min,0,3,7;5,Maj,0,4,7;7,Maj,0,4,7;9,Min,0,3,7;11,Dim,0,3,6

To create a template where the black keys are used for chord variations (suspended, seventh, ninth chords, etc.) when easy mode is enabled, add a "pipe" character ("|"), followed by the chord variations (up to five chord variations, automatically added to the "C#", "D#", "F#", "G#" and "A#" keys). For example, to add seventh chords to the black keys in a major scale:

**Major -
Sevenths;0,Maj,0,4,7;2,Min,0,3,7;4,Min,0,3,7;5,Maj,0,4,7;7,Maj,0,4,7;9,Min,0,3,7;11,Dim,0,3,6|0,Maj7,0,4,7,11;2,Min7,0,3,7,10;5,Maj7,0,4,7,11;7,Dom7,0,4,7,10;9,Min7,0,3,7,10**

To create a scale template without chords, simply skip the chord id and chord formula, for example:

Minor;0;2;3;5;7;8;10

Chordz - User Guide

To create a separator item in the drop-down menu, add a hyphen on a separate line.
For example:

Blues;0;3;5;6;7;10

-

Dorian;0;2;3;5;7;9;10

To create a submenu in the drop-down menu, add a greater than symbol, followed by the submenu name. For example:

>Variations

Editing the Chords.txt file

Chordz comes with a library of more than 50 chord types. You can add you own chords by editing the Chords.txt file. This file is located in the Chordz data folder ('\\CodeFN42\\Chordz' in your 'Documents' folder).

Chords.txt is a standard text file you can edit in any text editor (for example Notepad).

NOTE: This file is automatically created when you open Chordz if it does not already exist.

Add each chord setup on a separate line. First the chord name (displayed in the menu), followed by a semicolon, then the chord id (displayed in the virtual chord trigger keyboard – limited to 6 characters), followed by the numbers to describe the chord formula in semitones, all separated by a comma.

For example, the major triad chord, minor triad chord, major seventh chord, and minor ninth chord, respectively:

Major;Maj,0,4,7

Minor;Min,0,3,7

Major 7;Maj7,0,4,7,11

Minor 9;Min9,0,3,7,10,14

"0" is the root note of the chord. "3" means three semitones (a 3rd) above the root, "4" means four semitones (a major 3rd), "7" means seven semitones (a 5th) and so on.

You can use negative numbers to add notes below the root. For example, to double the octave both one octave below and one octave above the root.

Octave 2;Oct 2,0,-12,12

To create a separator item in the drop-down menu, add a hyphen on a separate line. For example:

Octave 2;Oct 2,0,-12,12

-

Major;Maj,0,4,7

Chordz - User Guide

To create a submenu in the drop-down menu, add a greater than symbol, followed by the submenu name. For example:

>Suspended

Presets

To save a preset

1. Open the main menu and choose **Save Preset**.
2. Type the name you want to give the preset, and click **OK**.
The preset button shows the name of the preset you just saved.

NOTE: If you name the preset "**init**", it is automatically used when you choose Init from the main menu to reset the plugin parameters, or when you create a new instance of the plugin.

To load a preset

1. Either open the main menu and choose **Load Preset**, or click the preset button.
You see the 'Load Preset' panel.
2. Select the preset you want to load and click **OK** (or you can simply double-click the preset name).
The preset button now shows the name of the preset you just opened.

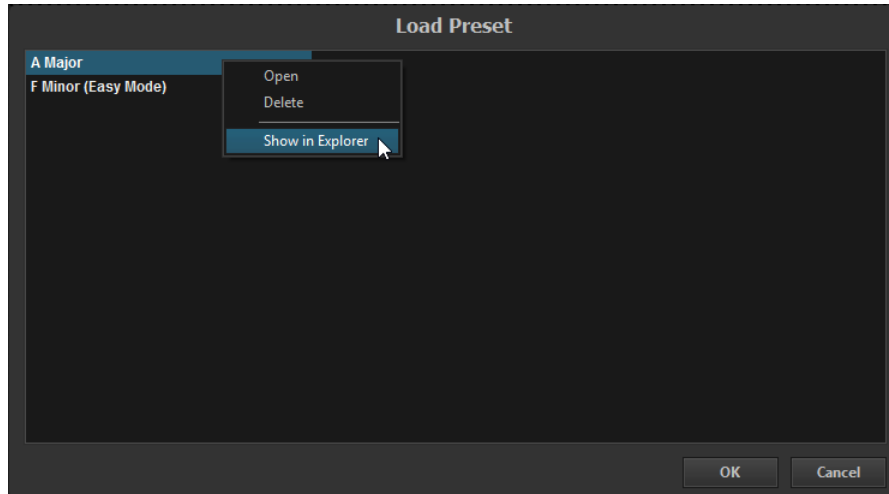
To delete a preset

1. Open the 'Load Preset' panel.
2. Right-click the preset you want to delete, and choose **Delete** from the popup menu.

Chordz - User Guide

To open the presets folder

1. Open the 'Load Preset' panel.
2. Right-click the preset list and choose **Show in Explorer** from the popup menu.



The presets are stored in a folder named '\\CodeFN42\\Chordz\\Presets' in your 'Documents' folder.

MIDI Control / Automation

The Start/End Delay and Velocity Scale/Random parameters on the Timing / Velocity tab can be remote-controlled / automated via MIDI messages from a hardware controller, or from your DAW. MIDI learn is used to assign MIDI CC (continuous controller) messages to Chordit's parameters (controls).

NOTE: You can assign the same MIDI CC to different parameters, but you cannot assign different MIDI CCs to the same parameter.

To assign a MIDI CC message with MIDI learn

1. Open the main menu and choose **MIDI CC Learn**.
2. Click on the control (for example one of the Velocity Scale knobs) you want to remote-control.
3. Move a knob or fader on your MIDI device, or make sure the MIDI device in your DAW is sending out the correct MIDI CC message.

To assign a specific MIDI CC message

1. Open the main menu and choose **MIDI Set CC**.
2. Click on the control you want assign the CC message to.
3. Enter the CC message number (from 0 to 127) and click **OK**.

This is useful if you if you know the CC message number to assign, for example a standard CC message (like CC #1 for the mod wheel), or you use [CCStepper](#) to control parameters in Chordit.

To remove a MIDI CC assignment

1. Open the main menu and choose **MIDI CC Remove**.
This will open a sub-menu that shows all currently assigned MIDI CC messages.
Choose the MIDI CC assignment you want to remove.

