MidChordr

MidChordr is a device for use in a Sonic Core® Scope® systems.

MidChordr allows the construction of (up to) 6 note chords that then can be played by hitting a single note (The Fundamental).

A '12 String' switch is provided to simulate 12 string Guitar chording or the like.

It is a way of playing various chords in various inversions and structures with minimal keyboard playing skills.

The MidChordr is a device that allows the establishment of sets of 12 chords that are switchable via midi, or by clicking on the keyboard display C1 to B1).

If you understand the note structure of a particular chord (Major, Minor, 7th, 6th, Suspended 4th, Diminished, etc.), then you can setup the chord within a 12-chord set and access it via midi Chord Switching selection.

Chords are playable by inputting a single note (except 'C1 to B1').

Various Chord sets can be established via presets.

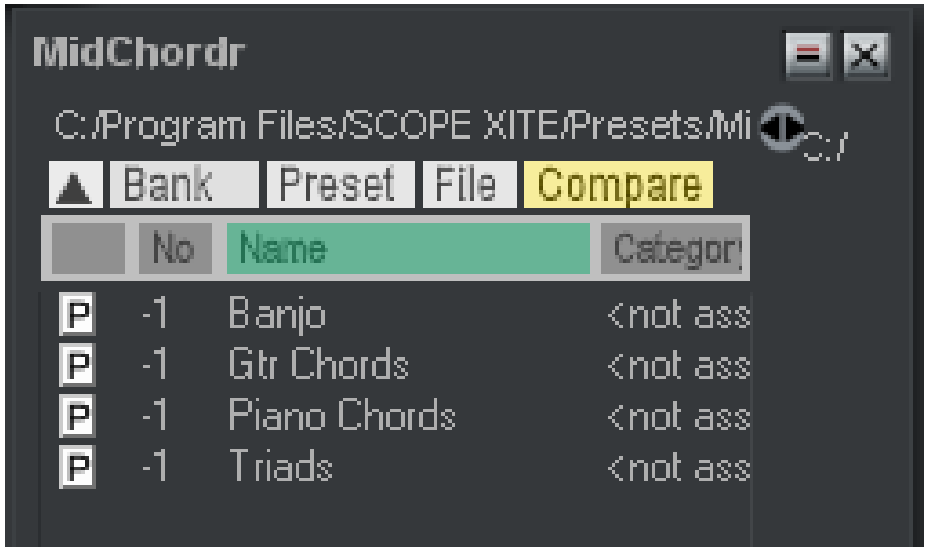
Features

- Midi Channel can be set as required;
- Midi In notes displayed in real time;
- Each chord can have up to 6 notes assigned to it (Each note is duplicated at a higher octave if the 12 String button is on);
- Chord switching note range C1 to B1;
- Chords can be dynamically selected via midi in notes (within the Chord select range);
- Chords can also be selected by pressing a key on the keyboard display (C1 to B1). This allows for chord setup and comparisons;
- 'Mute All' button mutes incoming notes for all notes;
- Note 1 to Note 6 in each chord can be individually set on or off, allowing for single note to 6 note chord constructs;
- Each note (Note 1 – Note 6) in each chord can be set anywhere from -1 Octave (below the fundamental) to +2 Octave (above the fundamental) (**Note**: Chords do not have to include the fundamental if so desired);
- Chords can be named using the naming field for each chord in the set (Keep in mind the actual chord is based on the 'fundamental' input notes, so naming a chord (e.g. C major) can be misleading as the inputted note sets the actual chord played. It is better to name chords based on their structure (e.g., Major, Minor, Minor 7^{th}, Diminished, etc.);
- '12 String' function replicates all playable notes to an octave above. Full functionality may require setting Scope® instruments to 12 voices (Can run into DSP limitation issues with such a high voice setting);
- Copy and Paste functions. Copy any chord structure and paste another Chord (even in a different preset). Useful for setting up Chord variances (Copy a Chord – Paste to another Chord and change a note or two to setup the variance, then name the new Chord accordingly).

Presets

Each preset saved provides a set of 12 playable chords.

Factory presets include various chord sets based on standard guitar chords played in various guitar chord structures (i.e., open or bar chord). Of course, further presets could be saved to support chord structures based on other instruments and chord inversions. The aim is to give more natural sounding chords for various instruments.



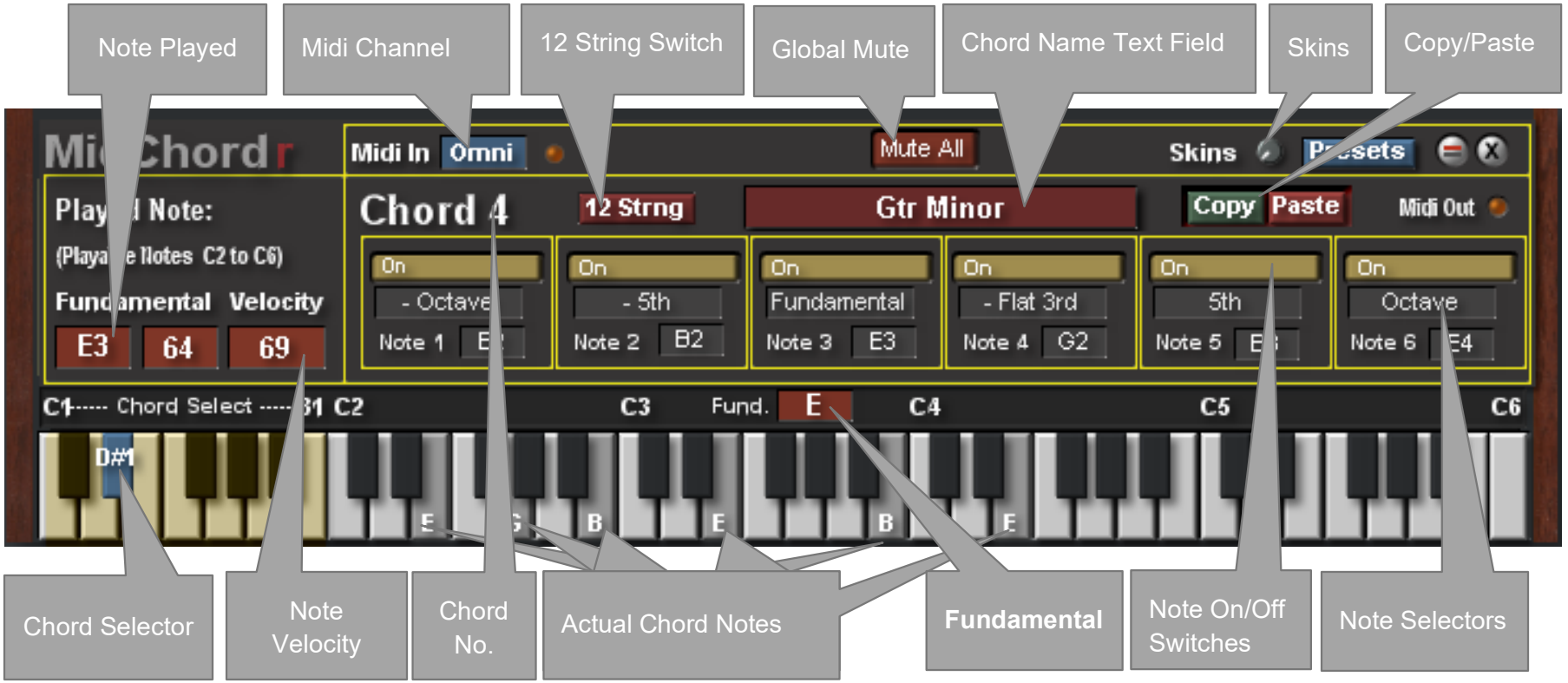
Note Naming and Range

Each note is identified based on its relationship to the fundamental. This allows for chords to be constructed without actual note nomenclature (a, c, or d, etc.).

The note range (related to the fundamental) include:

Octave Range	**Notes**												
Fund: -1/ +2	Fundamental	Flat2nd	2nd	Flat3rd	3rd	4th	Flat5th	5th	Flat6th	6th	7th	Maj7th	Octave

Functions


Note Played
Midi Channel
12 String Switch
Global Mute
Chord Name Text Field
Skins
Copy/Paste
Midi In
Omni
Mute All
Skins
Copy
Paste
Midi Out
Chord 4
12 Strng
Gtr Minor
Fundamental
Velocity
E3
64
69
On
- Octave
Note 1
On
- 5th
Note 2
B2
On
Fundamental
Note 3
E3
On
- Flat 3rd
Note 4
G2
On
5th
Note 5
On
Octave
Note 6
E4
C1----- Chord Select -----
C2
C3
Fund.
E
C4
C5
C6
D#1
Chord Selector
Note Velocity
Chord No.
Actual Chord Notes
Fundamental
Note On/Off Switches
Note Selectors

Setups

MidChordr can be used either with Scope® Synths or external Sequencer Plugin instruments.

Using MidChordr with Scope® Synths

The pic below indicates a midi setup to receive Sequencer and/or keyboard Midi data into the MidChordr and onto a Six-String Synth.

The Six String is depicted:

- Playing a Dmaj7th chord derived from an inputted ‘D3’ fundamental note;
- ’12 String’ button is ‘Off’;

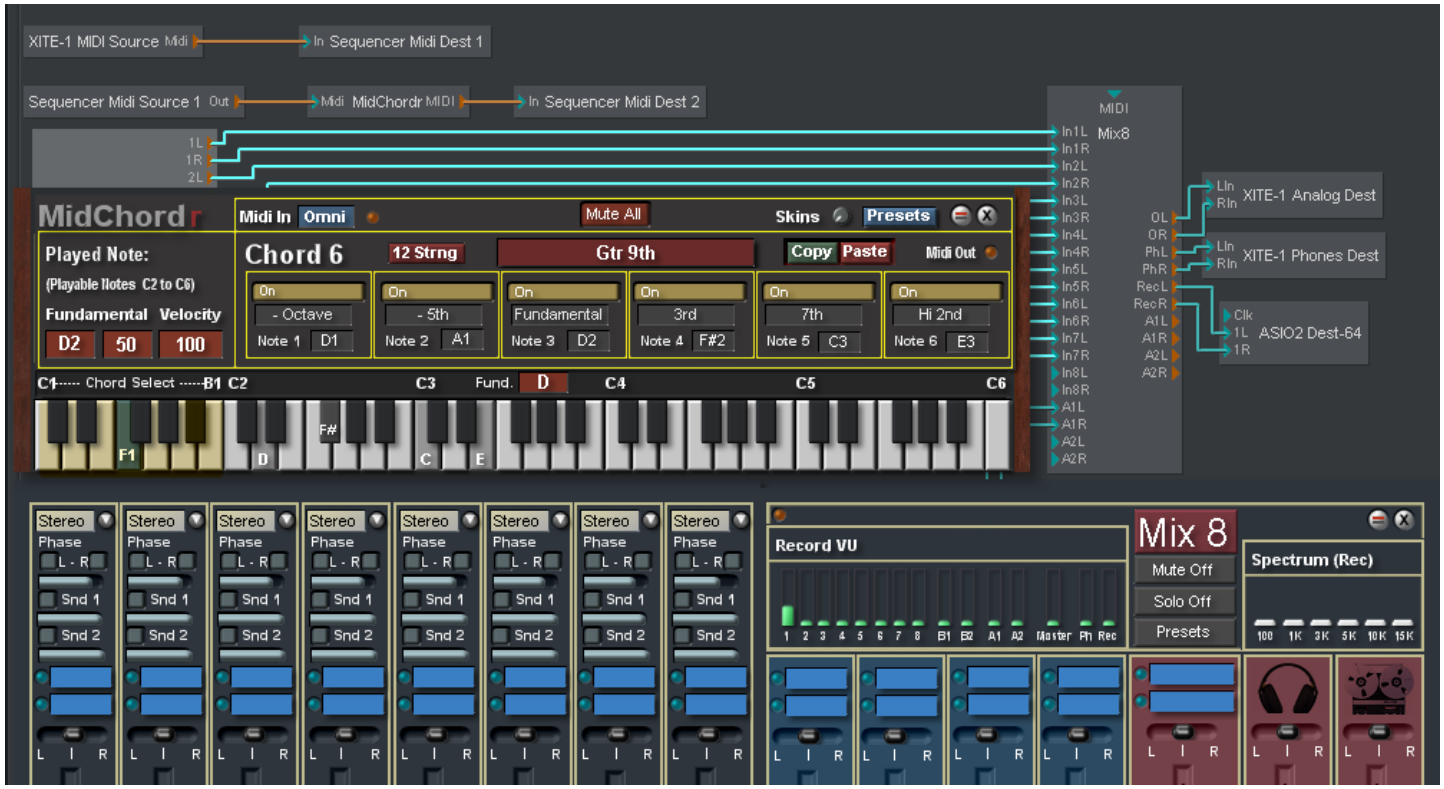
Note: The Scope Instrument responds best if set to six (6) Voices (or higher if using ‘12 Sting’ function) ensuring the full chord is played.

Using MidChordr with an External Sequencer Instruments

Depicted below is a setup to receive midi data from the sequencer (Notes and Chord Changes) and then to resend MidChordr data back to play an instrument.

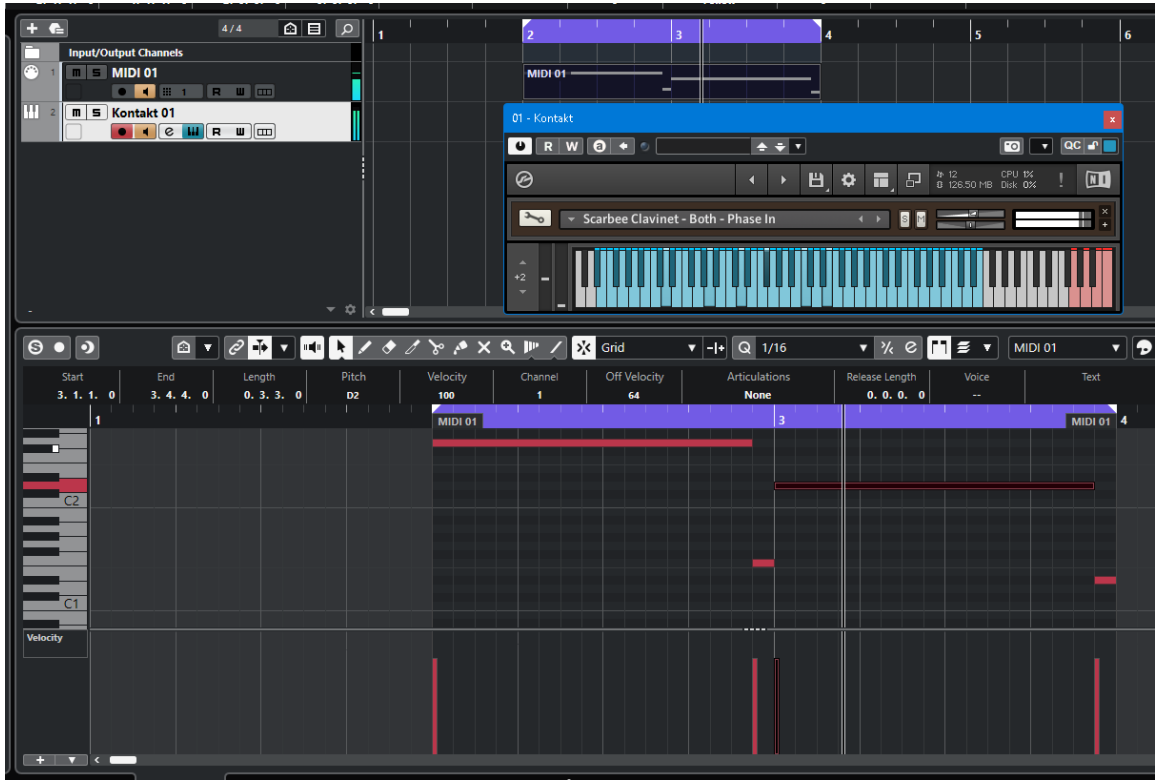
The MidChordr is depicted:

- Playing a D9th Chord derived from a ‘D2’ inputted note received from the sequencer;
- The selected chord (F1) was also received from the sequencer;
- ’12 String’ button is ‘On’/



The sequencer (Cubase 12 in this case) is depicted:

- A midi track with for sequence notes and chord selection;
- Instrument track (NI Kontakt Scarbee Clavinet track depicted here) to receive and play MidChordr received back Scope®'



Notes:

1. Stuck notes are always possible if you select a new chord before all the notes in the currently played chord have received their 'Note Off' midi message. It is best to allow some time (a 32nd or 16th) between chords and respective chord selection notes in your midi sequence.
2. Sequencer midi setups when using MidChordr should be carefully considered as midi loops are possible. Input Midi notes to the midi sequencer track on (say) Scope Midi 1 and receive MidChordr data back into the sequencer via Scope Midi 2.
3. Bear in mind many instruments have their own switchable sections for function and timbre, and you may overlap into these note areas if you are not careful.
4. In some cases missed notes and notes left ringing may occur, especially if using the '12 String' function.

Testing

The MidChordr was tested and found to work with the following sequencers:

- Cubase® 12;
- Studio One® 5;
- Samplitude® Pro X5;
- Mixbus 32C – 6®; and
- Reaper® 6.51.

Note: I was not able to get a working project in Reason® 12, as I could not figure out how to get separate scope midi sources to individually feed a midi track and an instrument track.

MidChordr was tested successfully on XITE-1 (Win 11, 64Bit PC) and a Pulsar 2 card (Win 10, 32Bit PC).

Using the '12 String' function was possible on the Pulsar 2 card, with acceptable results:

- Lightwave - 6 voices only, leading, of course, to some voice robbing, but is useable effectively giving a higher inversion of the played chord.
- STS 5000 Sampler allowed the establishment of 12voices.

MidChordr


MidChordr
Midi In Omni
Mute All
Skins
Presets
Played Note:
(Playable Notes C2 to C6)
Fundamental Velocity
C3 60 62
Chord 1
12 Strng
Gtr Major
Copy Paste
Midi Out
On - Octave Note 1 C2
On - 5th Note 2 G2
On Fundamental Note 3 C3
On 3rd Note 4 E3
On 5th Note 5 G3
On Octave Note 6 C4
C1----- Chord Select -----B1 C2 C3 C4 C5 C6
C1
Lightwave
Main
Mod
MIDI omni
OSC1
JazPic
Coarse Fine Grunge
0 0 100
Off 0
Pitch Modulation
OSC2
Partials 5-8
Coarse Fine Grunge
0 7 100
Off 0
Pitch Modulation
Mix
Oscillator1 64
Off 0
Balance1 -64
Off 0
Oscillator2 40
Free Env+ 63
Balance2 63
Off 0
Gain 90
VCF1 LPF
CF Res Keyf Env
38 20 70 32
Off CF 0
Off Res 0
VCF2 LPF
CF Res Keyf Env
54 39 70 8
LFO2 CF 32
Off Res 0
VCF
ser.
por.
Link Filter1/2
Cutoff Mod
Off
0
Res Mod
Off
0
VCF Env
TKf TVel LVel
0 0 64
A D S R
Amp
Volume 127
Pan1
LFO
LFO
TKf
0
DSP Meter
Pulsar2
DSPs 6
DSP Sync ASync %
1 636 10
2 1046 9
3 181 0
4 1000 9
5 125 0
6 69 0

MidChordr


MidChordr
Midi In Omni
Mute All
Skins
Presets
Played Note:
(Playable Notes C2 to C6)
Fundamental Velocity
G3 67 67
Chord 4
12 Strng
Gtr Minor
Copy Paste
Midi Out
On - Octave Note 1 G2
On - 5th Note 2 D3
On Fundamental Note 3 G3
On - Flat 3rd Note 4 A#2
On 5th Note 5 D4
On Octave Note 6 G4
C1----- Chord Select -----B1 C2 C3 Fund. G C4 C5 C6
D#1
G A# D G D G
STS 5000
Main Additional Memory Presets
No. S M Program Midi Level Pan Poly
1 NYLON CON 16 1 99 0 17
2 0 0
3 0 0
4 0 0
5 0 0
6 0 0
7 0 0
8 0 0
Program KeyGroups Pool Settings MIDI to Span AutoSelect
DSP Meter
Pulsar2
DSPs 6
DSP Sync ASync %
1 369 6
2 756 3
3 729 5
4 72 0
5 156 0
6 69 0
SONIC CORE
File Set ?
Blue Synth 3 Voices
Dev INs OUTs
MidChordr
Pulsar2 MID omni
STS 5000
STS 5000
MidChordr
12
ScreenSets