

# Amit's Riff Maker App User Guide

version 1.0.0

Riff Maker is a Web Based 1 bar Midi Sequencer App to Generate and Program Midi Patterns. This App Runs Inside a web browser (Chrome/Edge) and is mostly Platform Independent.

Unfortunately It does not perform very well on IOS (First Gen Ipad Pro) as Apple does not natively support WebMidi.

## Requirements:

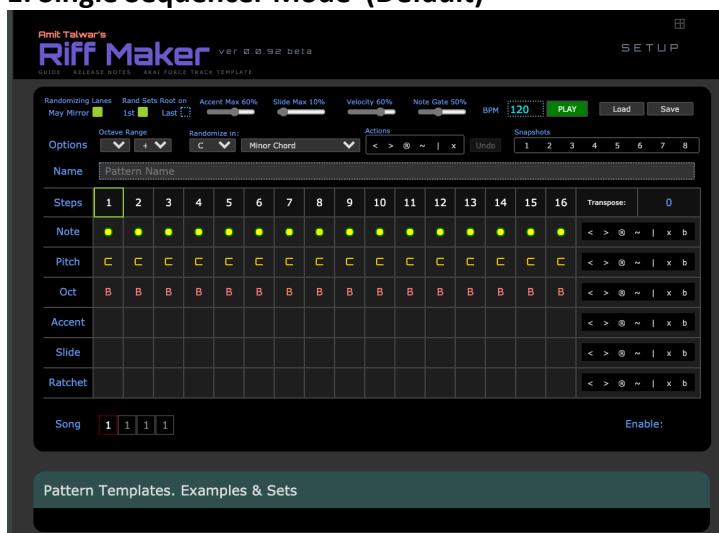
1. **Computer: Windows/Mac/Linux PC** Running a Webmidi Capable Web Browser
2. **A Midi Synth / Endpoint to play Generated Sequences (Midi Out).**
3. **Optional But Recommended : Midi Controller** Connected to Midi Input and Capable of Sending Clock.

## How it Works:

1. It Generates a Midi Pattern Sequences based on the input Parameters (Randomization).
2. Although It can play patterns with user specified BPM, but it recommended that it runs on external Clock/Sync.
3. I will automatically track BPM once it received Ext Clock Pulse.
4. It will Automatically Start/Stop playback when it receives Ext Clock + Start/Stop Messages (for Example MPC/Akai Force /Ableton other Sequencers..)

## Modes:

### 1: Single Sequencer Mode (Default)



## 2: Multi Sequencer Mode (Load Up to 6 Sequencers in the browser window)



### Functions

#### 1. The Setup Menu

##### 1. MIDI IN



- i. MIDI IN : Midi Controller Input Port (clock and control)
- ii. CH :Midi Channel used for Midi Control Messages (CC and Note) (Default 16)
- iii. Sync :=> Send Incoming Midi Clock to Midi Out (Ext)  
Default: Disabled, when in multi mode and sending sequences to a multi timbral synth/machine/Daw you only should enable first sequencer to send clock and disable others.

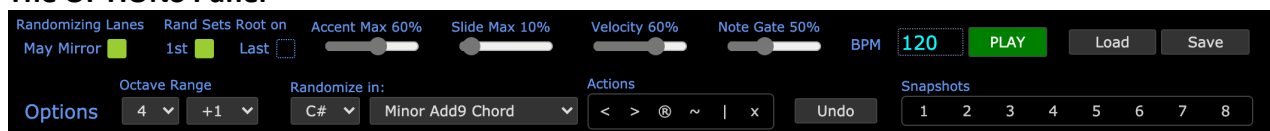
##### 2. Midi Out



Midi output Device/Synth Port and Midi Channel.

##### 3. Midi Map : Midi input Controller Mapping (the underlined link can be clicked to view graphic when available)

#### 2. The OPTIONS Panel



- 1. Randomizing Lanes May Mirror: When Randomizing the Lanes other The Entire Pattern may Mirror itself Randomly (Second half of pattern opposite of First Half)

##### 2. Rand Sets Root on

- i. 1<sup>st</sup> : Random Sequence First Note will be Forced to Root (Key)

- ii. **Last** : When Radomizing Last Note will be Forced to Root (Key)
3. **Accent Max % Slider** : Max Number of Steps allowed to Have Accent.
  4. **Slide Max % Slider** : Max Number of Steps allowed to Have Slides.
  5. **Velocity %**: Non Accent Velocity as % of Accent Velocity ( 127)
  6. **Note Gate**: Length/Duration of Non Slide Note (default 50%).
  7. **BPM** : You can Enter the BPM to use when no ext clock is being used.
  8. **Play / Stop**: Play /Stop the Sequencer.
  9. **Load** : Load a Saved Pattern/Set from local computer.
  10. **Save : Different Save Options**:
    - i. **Save Pattern** : Save Current Pattern to Local System.
    - ii. **Save Set** : Saves the Set of 8 Patterns along with Song Sequence if any.
    - iii. **Save MPC** : Exports the current pattern in Akai MPC/Force mpcpattern format.
    - iv. **Save MIDI** : Exports the current pattern as a General Midi File.
  11. **Octave Range**:
    - i. **Octave Base** : Lowest Octave for Note/Sequence Randomization
    - ii. **Range**: Octave Shifts Allowed for the Note (B =Base Octave Only).
  12. **Randomize in**:
 

Limits the Key and The Scale/ Interval / Chords / Raga as Cluster of Notes available for Pitch randomization.

Hint: You can set it to root or an interval to randomize a drum kit (say hihat /open hats).
  13. **Auto** : Will auto randomize the sequencer after Set number of Bars. Great for Self Regenerating Sequences.
  14. **Actions**:
 

The Actions Apply to Entire Sequence (Bypassed(b button red on lance) Lanes are Skipped)

See Lane Buttons for Explanation
  15. **Undo**: It Keeps Track of last few sequences so you can revert back to a pattern if you accidently made some changes.
  16. **Snapshots**:



The 8 Snapshot slots Allow you to save and load the current pattern from them. You can easily build a Song with these. These Sets can also be saved to disk as loaded for performance.

### 3. The Sequencer

#### 1. Steps BAR

- i. **1-16**: Clicking on any of these will set the Length of Current Sequence
- ii. **Transpose**: Allows you to Transpose current Playing Sequence pitch by +/- 12 Semitones.

4. **The Individual Lanes** : These 6 Lanes are where the Pattern Sequencing Happens. Using the Mouse/Touch you will get a menu on each cell to select a value for that. (Can also use the Midi controller to edit each step)

**The Pattern/Lane Modifier Buttons :** These Buttons allow you to perform various operations on the pattern or a single pattern lane.



: **Shift** the Pattern/lane **Left** by 1 Step



: **Shift** the Pattern/lane **Right** by 1 Step



: **Randomize** the Pattern based on key and Note Cluster (cell fill and contents)



: **Reverse** the pattern



: **Mirror** the Pattern (Splits in half, and adds reversed half back)



: **Clear Pattern/Lane** to Default (Also Clear any Bypass Modes)



: **Bypass** : Skips the Pattern Modifier Operations on the Lane.  
(Useful for Locking in a specific pattern on a lane)

## 5. Song Mode

The Song Mode Allows you to arrange your Snapshots in any order and as many times to build a longer sequence/songs.

For Example:

11112233 : Play Snapshot #1x4 times , followed by snapshot #2x2 times followed by snapshot #3x2 time and Then It loops back.

## 6. AKAI Force Setup for Realtime Control

Akai Force requires a certain track config to be uses as Realtime controller. However once it's set up. It's game changer.

### 1. Akai FORCE Config

- i. Create a Midi track
- ii. Go to **Note Config** (Shift + Note) as Set as Follows
  1. Type: Scales
  2. PAD ROWS : Continuous
  3. Root Note: C
  4. Scale Chromatic

5. Octave: 1
  6. Other parameters don't matter
- iii. **Track Settings :**
1. Midi output Channel : 16 (default)
  2. Midi Output Port: Force (if using 5 Pin Midi cable, otherwise as applicable depending on your midi interface.
- iv. You can Also Create Knob macros for this track to Control some parameters from midi CC ( see midi implementation in end)
- v. On the APP, from Midi Map Dropdown Select **8x8 Akai Force** mapping  
You can click the Blue Midi Map link to view the Mapping, if you so desire.

**Midi CC Implementation : Ch: [MIDI IN]**

Sn	CC #	Function	Range	Description
01	8	Key Select	0-11 (C to B)	Root Note/Key for Randomization Note Cluster
02	9	Scale / Note Cluster	0-50	Cluster of Notes To Randomize From (will change as I add more)
03	6	Transpose	52-76 (-12 to + 12)	Semitones (64=0)
04	11	Length	2-16	Pattern Length
05	12	Shift Pattern <<	0-1	1 = Perform Action
06	13	Shift Pattern >>	0-1	1 = Perform action
07	14	Lowest (Base) Octave	0-7	1-8
08	15	Oct Range	0 - 3	Base, +1 ,+2 +3
09	16	Normal Velocity	0-100	10-80% of Accent Velocity(127)
10	17	Gate	0-100	25-90% of Total Note Duration (excluding slides)
11	18	Accent Max	0-100	5-100% of Pattern Length Max Allowed Number of Steps with Accent
12	19	Slide Max	0-100	5-100% of Pattern Length Max Allowed Number of Steps with Slide
13	20	STEP	1-16	Current step for Manual Editing
14	21	Note	0-2	Timing of Selected Step 0=Normal Note,1=Tie,2=Rest
15	22	PITCH	0-11 (C to B)	Pitch of the Selected Step
16	23	OCTAVE	0-3	Pitch Octave of Selected Step Base, +1,+2,+3
17	24	ACCENT	0-1	
18	25	SLIDE	0-1	
19	26	Ratchet	0-7	Note Subdivisions 0, /2,/3,/4,/5,/6,/7,/8

## Scales/ Note Cluster Numbers

CC #9 Value	Scale / Note Cluster	Type
0	Chromatic	Scale
1	Major	Scale
2	Minor	Scale
3	Minor Pentatonic	Scale
4	Major Pentatonic	Scale
5	Sussed / Berlin School	Scale / Notes
6	Blues	Scale
7	Root	Note
8	bSeconds	Interval
9	Seconds	Interval
10	Minor Thirds	Interval
11	Thirds	Interval
12	Fourths	Interval
13	Aug Fourth	Interval
14	Fifths	Interval
15	Aug Fifths	Interval
16	Sixths	Interval
17	Aug Sixths	Interval
18	Seventh	Interval
19	Dorian	Scale / Mode
20	Phrygian	Scale / Mode
21	Phrygian Dominant	Scale / Mode
22	Lydian	Scale / Mode
23	Mixolydian	Scale / Mode
24	Locrian	Scale / Mode
25	Major Crd	Chord
26	Minor Crd	Chord
27	Sus2 Crd	Chord
28	Sus4 Crd	Chord
29	7th Crd	Chord
30	Maj7 Crd	Chord
31	Min7 Crd	Chord
32	7Sus Crd	Chord
33	Min7b5 Crd	Chord
34	Add9	Chord
35	Min Add9	Chord
36	Raga Asavari	Raga
37	Raga Bageshri	Raga
38	Raga Bhairva	Raga
39	Raga Bhairvi	Raga
40	Raga Bhimplasi	Raga, Same as Minor Pentatonic
41	Raga Bhupali	Raga, Same as Major Pentatonic
42	Raga Charukesi	Raga

43	Raga Desh	Raga
44	Raga Kafi	Raga
45	Raga Kirwani	Raga
46	Thaat Marwa	Raga/Thaat
47	Raga Pahadi	Raga
48	Raga Pilu - ASC	Raga
49	Thaat Todi	Raga/Thaat
50	Raga Yaman	Raga