

EG NODES HOST/SEQUENCER

EG Nodes is a clip based Audio Unit host with sequencing capabilities to play external instruments, Audio Unit or MIDI hardware and create a complete audio project. It has 5 different modules called nodes that can be combined and recalled into your project and saved into scenes.

1. NODES

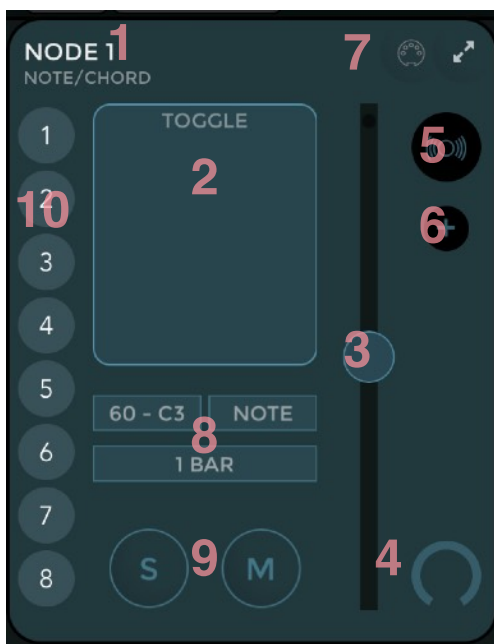
NOTE/CHORD - generates a single note or a chord

ARPEGGIO - generates chord arpeggios

SEQUENCER - to play a note sequence

RHYTHM - to play drums, percussion or rhythmic instruments

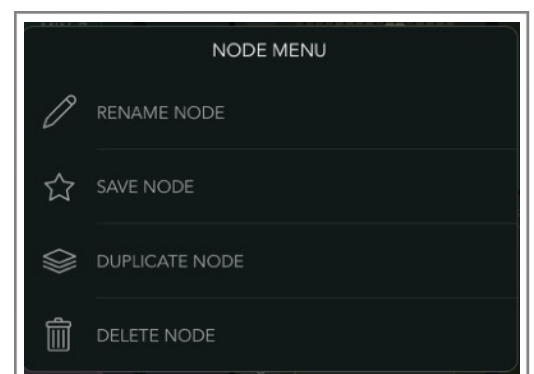
PIANO ROLL - to write more complex MIDI part in a classic piano roll editor



1. Node title and type - tap on it to open the NODE MENU (see below)
2. Active button - enable/disable the node playing. If you tap on the 'TOGGLE' label you can change it to 'TRIGGER' or 'HOLD'
3. Node volume
4. Node pan
5. AU3 Instrument slot - tap on it to select an Audio Unit instrument or, once the instrument has been loaded, to open its UI. Long press on it to remove the instrument.
6. AU3 Effect slot - to load AU3 effects
7. Midi configuration - set the MIDI in & out for the node
8. Editor preview - tap on it to open the node editor
9. Mute & Solo controls
10. Node scenes preset

If you tap on the Node name (1) the NODE MENU will appear. Here you can rename the Node, save it into your favourite node list, duplicate it or delete it,

Saved nodes can be added from the main nodes list and they can be exported to be shared on other devices or with other users. Swipe to left an item in the saved nodes list to share or delete it.



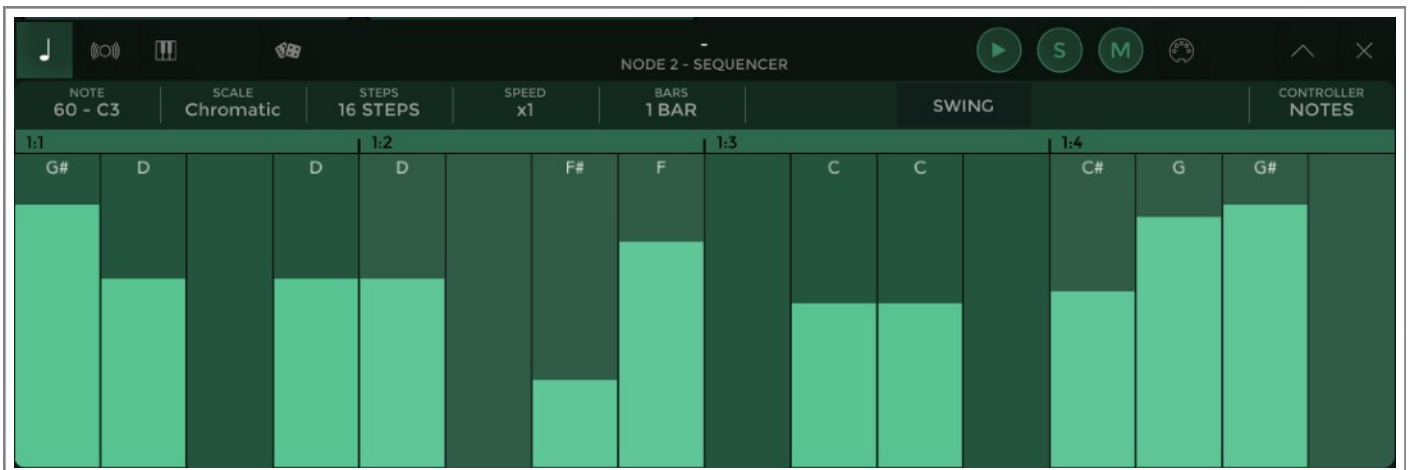
1.a NOTE/CHORD & ARPEGGIO



The NOTE/CHORD editor can be opened clicking on the editor preview section of the node (8). Here you can choose the root note and the chord you want to play with its relative chord inversion. The note will be triggered at the beginning of the clip and you can select how many steps your clip has (from 1 to 16 steps), how many bars it lasts (from 1 to 4) and the speed rate.

The ARPEGGIO editor has the same NOTE/CHORD control, plus the arpeggio direction selection (UP,DOWN, UP & DOWN, RANDOM) and the swing control.

1.b SEQUENCER



The SEQUENCER editor is ideal to create monophonic melodic lines or bass lines. You can set your root note and a preferred scale to quantise notes to the scale; you can also choose the steps length of your clip, the number of bars, the speed rate and the swing.

TIPS: press the dice in the toolbar to create random lines

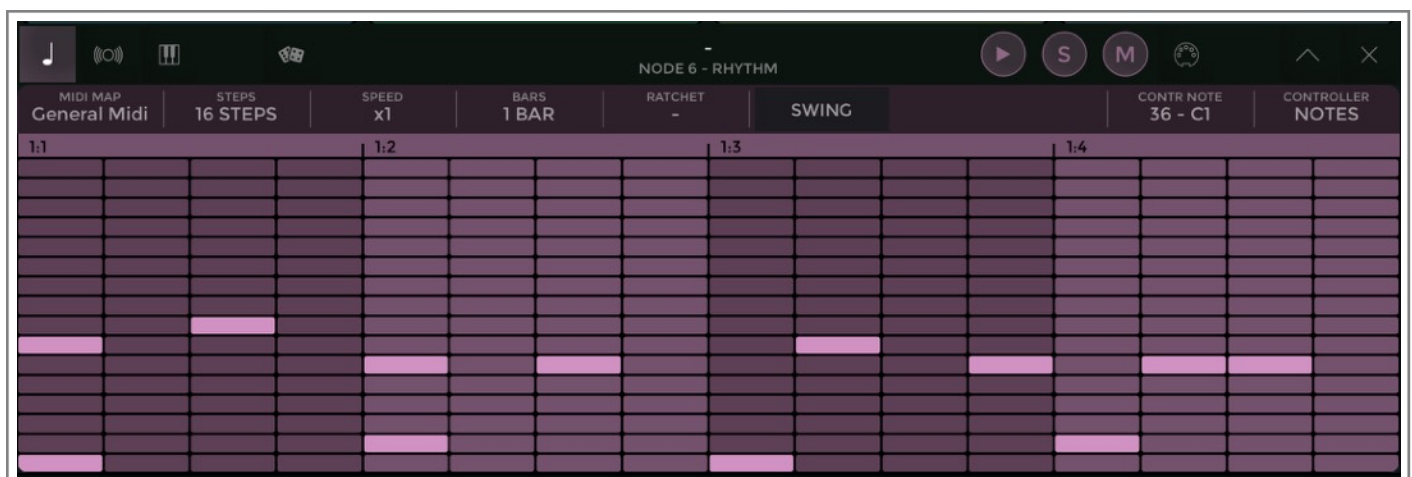


Tap on the 'CONTROLLER' button (11) to see the sequencer controllers for velocity, probability, frequency, randomise, hold and chords.

You can set the velocity level of each note in the sequencer and the probability it will play (from 0 to 100%). You can also set the frequency to play a selected step each bar, each 2 bars and so on. If randomise control is enable a random note will be generated on the selected step, to automatically create new melodic lines each time. Finally with the chords controller you can play a different chord for each step to create harmonies and arrangements, and with the hold controller you can set the note/chord length in steps.

TIPS: when clip length is 2 bars or more you can pinch zoom the editor to zoom in/out

1.c RHYTHM



To play drums/percussion or rhythmic instruments in general you can choose a RHYTHM node. The editor is polyphonic grid of 16 sounds x 16 steps that will automatically recognised the MIDI map of the AU3 instrument loaded into the node.

WARNING: some AU3 may not be automatically mapped and the GENERAL MIDI map will be loaded

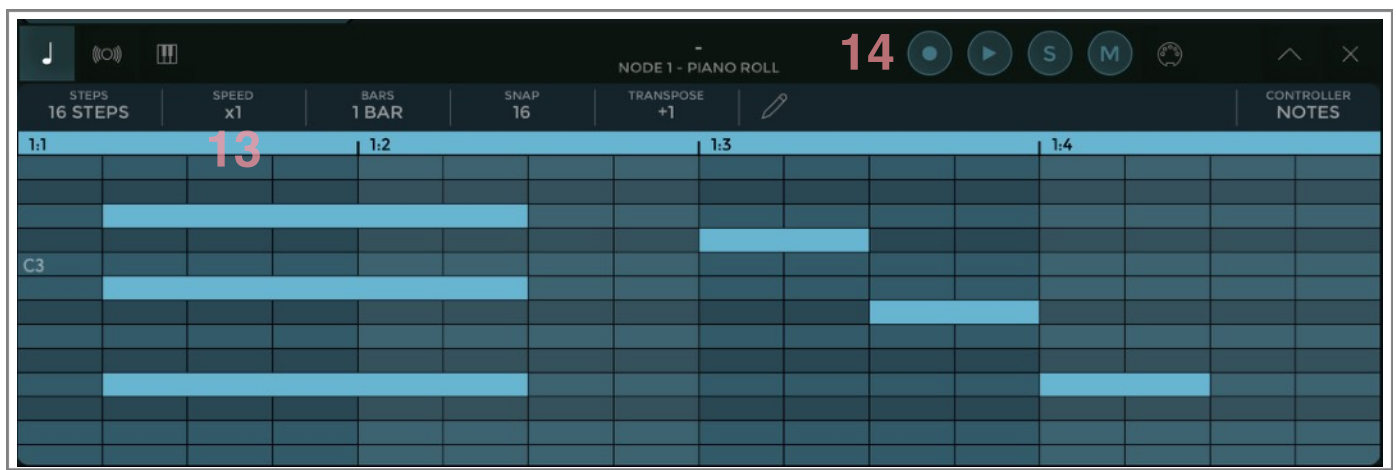
For RHYTHM nodes you can also set the steps length, the speed rate, the number of bar for the clip and the swing.

The default note length has a duration of 1/16th, but with the 'ratchet' control (12) you can draw notes with duration 1/32nd or triplets.



For each sound (row) of the editor you can set velocity, probability and frequency. To change the sound you want to set the controls to, press and hold the 'CONTR NOTE' button in the toolbar and tap on the related row.

1.d PIANO ROLL



To create more complex harmonies and MIDI parts you can use a PIANO ROLL node.

As for the other nodes you can set the steps length, speed rate and number of bars of the clip; additionally you can transpose the whole clip by semitones.

You can also control velocity, probability and frequency of each note opening the controller subview clicking on the 'CONTROLLER' button. The current notes selection (use the piano roll lasso) will be reflected in the controllers subview.

TIPS: double tap on the beats timeline (13) to delete all notes in the bar, drag from the beats timeline to another bar to copy notes

The piano roll editor will allow the import of MIDI files, dragging them from FILES app or another files management app (feature available on iPad only).

You can also record MIDI incoming from an external controller, the MIDI output of the AU3 loaded into your node or, in general, the notes coming from the MIDI input source set for the node.

Tap on the 'MIDI' button in the toolbar to choose the MIDI input source, arm the clip for recording by clicking the 'RECORD' button (14) in the toolbar editor and check the node toggle is enable.

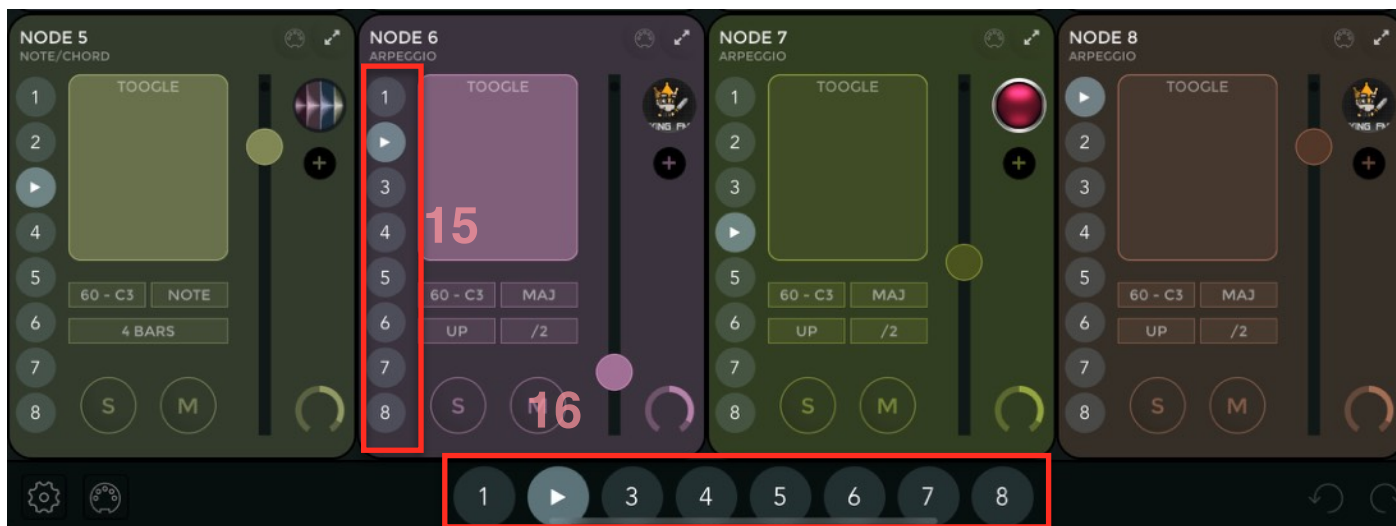
Longpress the 'RECORD' button to open the recording configuration:

- **Start record on MIDI in** : if enabled each armed node will automatically start the playback and recording once a MIDI note will be sent to the node
- **Stop on bar end** : automatically stop the recording when the bar end will be reached

1.e MIDI FX

AU3 MIDI processor and fx can be loaded into a MIDI FX node to send MIDI to other nodes in the project. Once the AU3 MIDI fx is loaded into the node slot, you can select its routing pressing on the MIDI button (7) in the top section of the node layout (see the MIDI & INTERNAL ROUTING section below)

2. SCENES



Each node can save its parameters, toggle button, volume, pan and notes into one of the 8 available scene (mute and solo are temporary parameters and they will not saved).

The node scene can be switched tapping the rounded buttons vertical column in the node layout (15); when the project is playing the next scene will be enqueued to play the next bar will start, on the contrary, if the project is stopped, the scene will switch immediately.

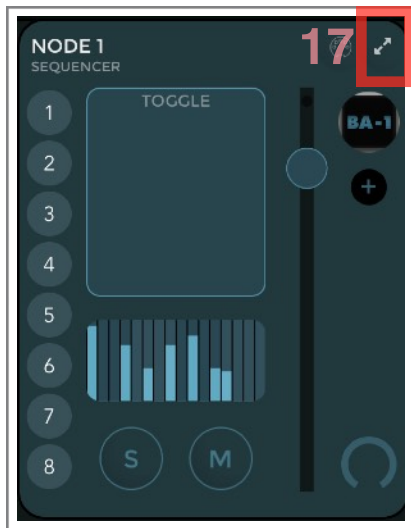
Changes to parameters or notes are automatically saved into the scene when switching to another scene.

The horizontal rounded buttons in the bottom of the screen (16) are the project main scenes and they can be used to store a particular configuration of the nodes scenes; long press on one of the bottom buttons to save the current nodes scenes configuration into it.

For example in the above screenshot scene3 for node5, scene2 for node6, scene4 for node7 and scene1 for node8 are saved into the main scene number 2; this feature allows users to create songs part that can be easily recalled.

TIPS: to copy a node scene or a project scene into another one, select the scene to be copied and then long press on the destination scene.

3. PARAMETER AUTOMATIONS



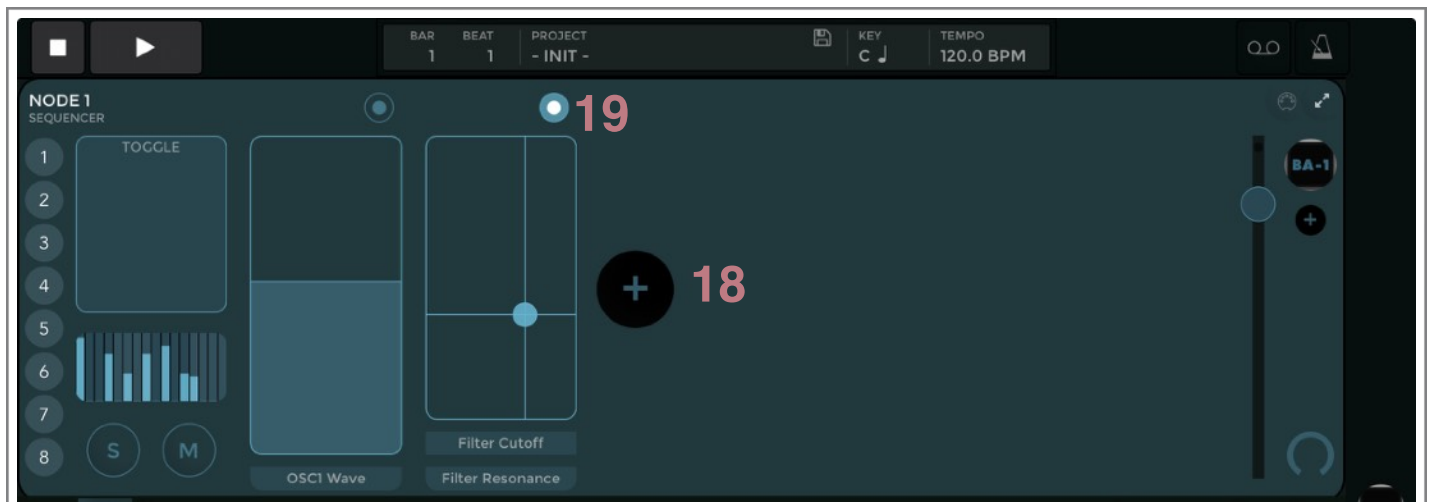
Each node can be expanded to access additional controls clicking on the button in the top right corner (17).

Here you can add sliders & XY pads pressing the '+' button (18) to automate the node AU parameters both for the AU instrument than the AU effects loaded on it.

The sliders and XY values will be saved into the current scene.

Parameters can be automated recording the sliders and XY position; simply press the 'RECORD' automation button (19) and start moving the controls. The automations will respect the bar length set for the node instrument.

To remove a parameter control long press on it; a prompt with delete confirmation will popup.



Press again the 'EXPAND' button (17) if you want to minimise the node layout and go back to the project standard layout.

TIPS: when a node view is expanded you can use the icons on the left side of the screen to quickly switch nodes.w

4. TOP TOOLBAR



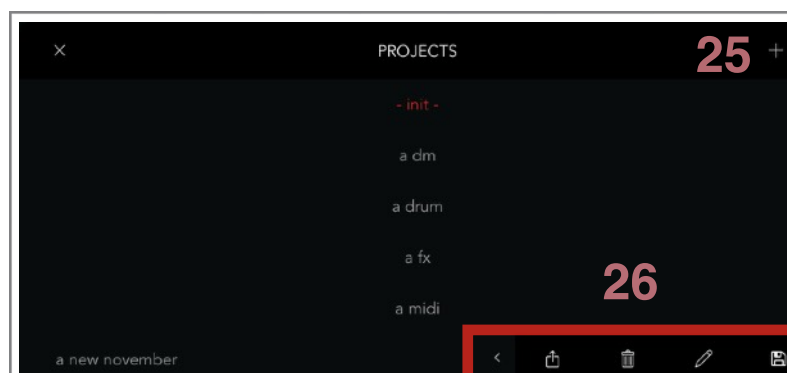
In the top toolbar you can find the transport controls (20), the current bar & beat position (21), the current project name (22) and the project tempo and scale info (23).

On the top right corner there are the mixdown button and the button to enable/disable metronome (24).

4a. PROJECT SAVE

Tap on the project name to save and recall your songs. To save a project press the '+' button (25) and assign it a name.

You can swipe left on a previously saved project to access an additional menu to share, delete, rename or overwrite the selected project.



TIPS: to start from scratch you can use the '- init -' project.

4b. TEMPO & SCALE

To change the tempo, the project scale and key root click on the tempo label (23).

You can swipe the tempo label or click on the left/right arrow for decimal precision tempo changes; additionally you can tap tempo on the label or long press on it to manually enter a value.

The key and scale values will transpose all the notes of your project to the selected root scale (all nodes will be affected except for RHYTHM ones). To disable it simply set the scale value to 'CHROMATIC'.

4c. MIXDOWN

To mixdown your performance and export audio you can use the 'mixdwon' button (24). The project playback will automatically start when enabled and will stop when the button will be pressed again.

5. MIDI & INTERNAL ROUTING

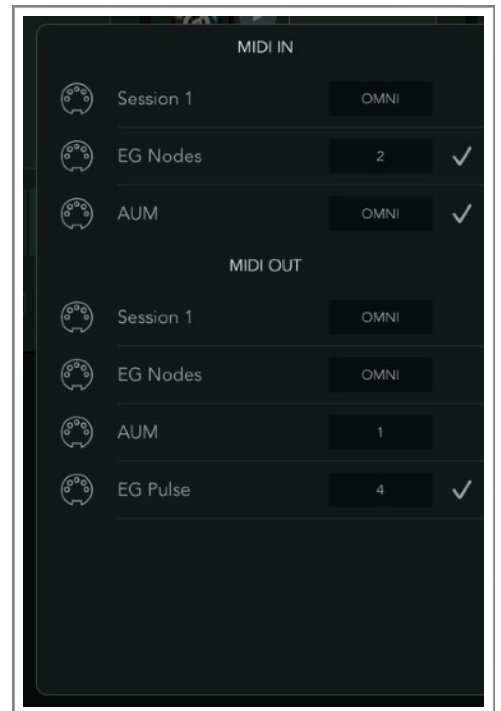
5.a MIDI ROUTING

Each node can be configured to send and receive MIDI from external controllers, software or app installed on your device, in order to play the node or record MIDI into a piano roll node.

Tap on the MIDI icon in the top right corner of your node (near 'EXPAND' button) top popup the MIDI configuration for it.

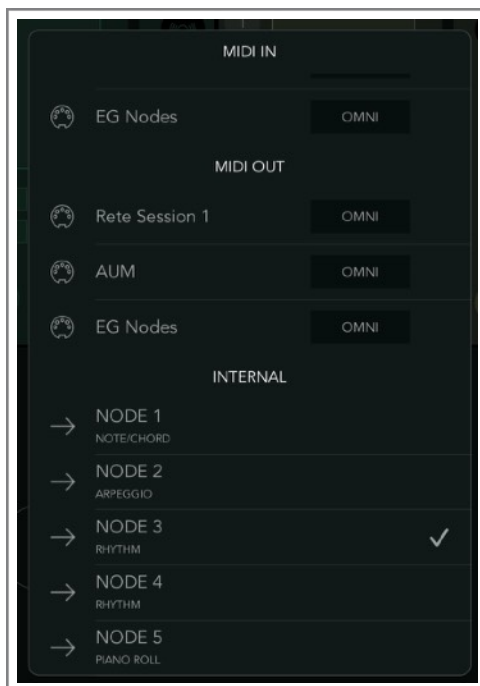
You will see all the current MIDI sources and MIDI destination available on your device. Tap on the one you want to assign to your node and eventually filter by MIDI channel in the right dropdown menu.

MIDI channel will be particularly useful when you need to send multiple nodes to the same MIDI destination.



IMPORTANT - To record MIDI into a piano roll you need first to set your MIDI source.

5.c INTERNAL ROUTING



In the MIDI routing popup you can also find the INTERNAL routing section; each node can send MIDI to other nodes in the project to create complex scenarios.

This is particularly useful for MIDI FX nodes, where you need to assign other instruments nodes to an AU3 MIDI processors.

5.b MIDI LEARN

You can controls several functionalities and parameters of EG Nodes with an external MIDI controller; stop & play, metronome and mixdown can be assigned to your controller MIDI notes or control change , you can switch the project scenes, you can toggle node on/off, mute or solo them, control pan and volume and automate instruments and effects parameters.

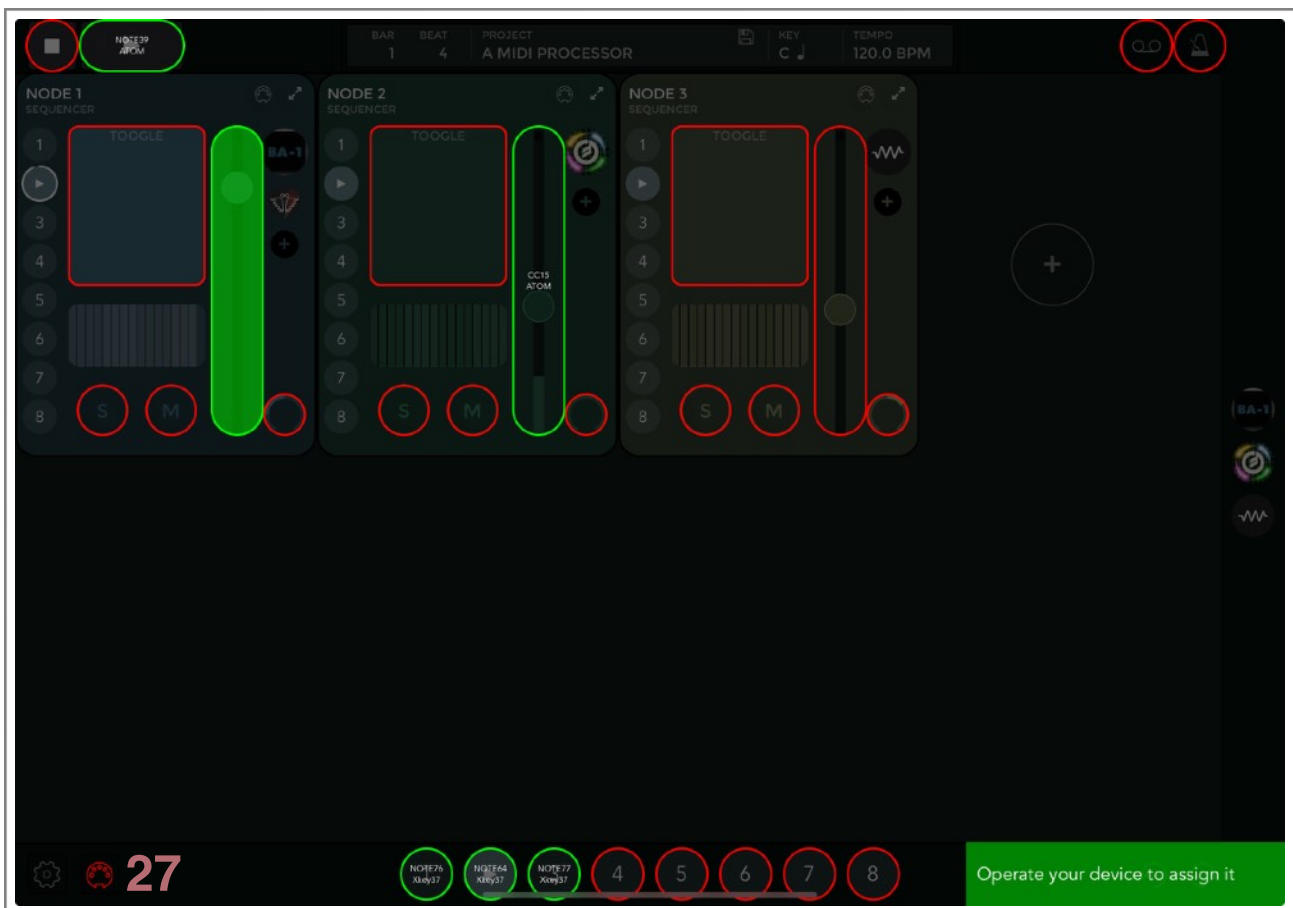
To open the MIDI learn configuration press on the button in the bottom bar (27); each mappable control will be outlined in red.

Following the help display in the bottom right corner of the screen, tap the control you want to map and it will be filled in green meaning that it's ready to be assigned.

Now press a note or move the control on your external device and it will be assigned to the green selected control of the app.

When you finish the mapping, simply close the view clicking again on the MIDI button in the bottom (27) and you're ready to use it.

Midi map will be stored into your project, so that each of your project can have its own map.



6. AU3

EG Nodes can be used as a standalone groovebox to host external AU3 instrument and effects, or can be hosted in other DAW as a MIDI generator AU3 ('aumi').

When hosted EG Nodes cannot load instruments and effects anymore due to iOS audio architecture, but you can use it as a flexible and complete MIDI sequencer to drive the other instruments in your DAW.