nativeKONTROL Arsenal_AP2 User Manual

Version 1.0.8

6 MATRIX MODES

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1 CHANGES IN THIS VERSION

Additions/Improvements:
- In [Device Mode](), it is now possible to toggle between Device and Clip View.

- Various minor improvements.

Fixes:
- Fixed issue where [Script Linking]() with the Push2 script wouldn't work on some systems.

- Various minor fixes.

UPDATE NOTES: In some cases, changes can be made to a Mode that impact the Mode, but that do not change the structure of the Mode. For that reason, although changes may be listed for a Mode, the Mode itself (or any Mode Pack that contains it) may not require updating. Mode/Mode Pack updates are only issued when the structure of a Mode changes.

2   SETUP

This section covers the initial installation steps you will need to complete in order to use Arsenal_AP2. Please **take your time** when completing these steps. If you should run into trouble when performing any of these steps, please refer to the Troubleshooting section.

Installing Arsenal_AP2

To install Arsenal_AP2, first close Live and then run the provided Setup executable (Windows) or package (OS X). At the end of the installation, you'll be presented with a dialog box indicating the Live installation(s) that Arsenal_AP2 was installed into. If you do not see the Live installation you're using listed there, you can select it manually.

In most cases, you will only need to install Arsenal_AP2 once. It will remain installed even after updating to a newer version of Live (when using Live's autoupdate feature). However, if you re-install Live or install Live to a new location, you will need to install Arsenal_AP2 again. It's recommended that you keep the Arsenal_AP2 Setup files on hand for such cases.

Once installation is complete, please launch Live to complete setup.

Live Settings

The following settings will be found in Live's Preferences on the *Link/MIDI* tab. All of the settings listed here are required for proper functionality of Arsenal_AP2.

1. Under **MIDI Ports**, turn off all of the Sync and Remote switches related to the *Akai APC20*.

2. Select *Arsenal_AP2_A* as a **Control Surface**.

3. For the **Input** and **Output**, select *Akai APC20*.

4. For **Takeover Mode**, select an option other than *None* to prevent jumps in values when using the ENCODERS.

5. Under **MIDI Ports**, turn on the Track switches for *Arsenal_AP2_A Input* and *Arsenal_AP2_A Output*.
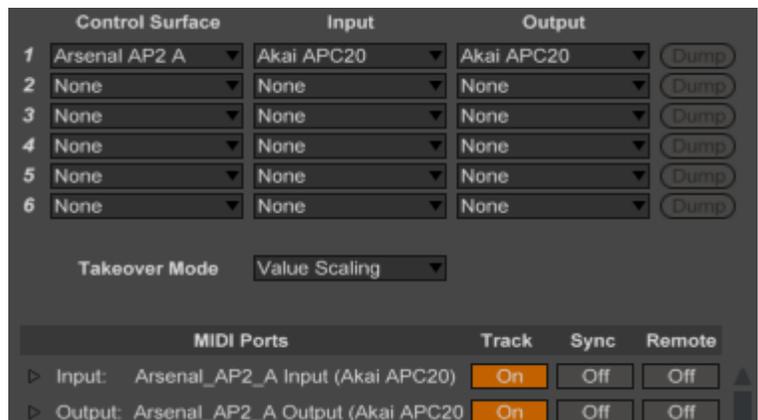
Next Steps

After completing installation and setup, you'll immediately be able to use Arsenal_AP2. However, before doing so, it is recommended that you familiarize yourself with the Core Concepts and Control Layout of Arsenal_AP2. Once you've gotten acclimated, please refer to the Encoder Modes and Matrix Modes sections to learn more about the optional features that you can add to Arsenal_AP2.

3   CORE CONCEPTS

Arsenal_AP2 is a so called *Arsenal-powered Control Surface script*. This is a special type of Control Surface script that includes some new and innovative concepts as well as concepts that are common to Control Surface scripts in general. This section covers these concepts.

ⓘ **NOTE**: *All documentation related to Arsenal-powered Control Surface scripts uses the term 'encoder' to mean an encoder, knob, fader or slider. Essentially, an encoder is anything that isn't a button or switch.*

Pluggability

Arsenal_AP2 ships with a number of Encoder Modes and Matrix Modes so that it is immediately useable. However, the Encoder Modes and Matrix Modes that are accessible from Arsenal_AP2 can be re-arranged or replaced by other Modes as you see fit. New Modes can be added and used in Arsenal_AP2 by installing new Modes or Mode Packs, which can be purchased from our site: http://www.nativekontrol.com/

Additionally, except where noted, all installed Modes can be used with any Arsenal-powered Control Surface script. In other words, if you purchase and install a Matrix Mode for use with Arsenal_AP2, it can also be used with any Arsenal-powered Control Surface script that has a `MATRIX`. Encoder Modes work the same way with Arsenal-powered Control Surface scripts that have `ENCODERS`.

Multiple Scripts

Arsenal_AP2 ships as 6 Control Surface scripts (Arsenal_AP2_A – Arsenal_AP2_F). These are all functionally identical, but each can have its own settings (as dictated by its settings files described in the next section). This makes it so you can use two (or more) APC20s, each running its own script with each script having entirely different settings. Alternatively, if you're only using a single APC20, you can set up multiple scripts, each with different settings (one for studio use, one for stage use, etc) that you can switch between on-the-fly depending on your needs at any given time.

Each Arsenal_AP2 script will use the same Live Settings. The only difference is in step #2. For example, if you'd like to use Arsenal_AP2_B, you'll select *Arsenal_AP2_B* in step #2 instead of *Arsenal_AP2_A*.

Settings Folders/Files

The functionality of each Arsenal_AP2 Control Surface script is largely determined by the settings files within its settings folder. This folder will be created upon completing the Live Settings for an Arsenal_AP2 script. For example, the first time you complete the Live Settings for Arsenal_AP2_A, a settings folder containing several settings files will be created.

You can find the settings folder in the nativeKONTROL/Arsenal directory within your User directory. The settings folder will have the same name as the script (*Arsenal_AP2_A* for example).

By default, 3 settings files will be created in the settings folder:
- *Settings-General.txt* – Contains general settings related to the script's operation.
- *Settings-Encoder Mode List.txt* – Contains the list of Encoder Modes the script will have access to.
- *Settings-Matrix Mode List.txt* – Contains the list of Matrix Modes the script will have access to.

Some Modes have associated settings files. Upon using one of these in an Arsenal_AP2 script, a settings file for it will be created in the settings folder.

Finally, the root nativeKONTROL/Arsenal directory within your User directory contains a settings file related to Linking that applies to all Arsenal-powered Control Surface scripts. Additionally, this directory contains two text files (*Arsenal Encoder Modes.txt* and *Arsenal Matrix Modes.txt*) that list all of the installed Encoder Modes and Matrix Modes that can be used along with a brief description of each Mode.

✔ **TIP:** *In addition to the settings that can be made in the settings files mentioned above, there are some additional settings that can be made as well. These settings are covered here.*

Linking

Arsenal_AP2 can be linked to other Control Surface scripts so that it and the scripts it's linked to will control groups of Tracks and/or Scenes relative to each other. Up to 6 scripts can be linked.

In order for a script to be linked, it needs to include a linkable component. All Arsenal-powered Control Surface scripts include such a component as do many of the scripts built into Live (such as Push or APC40). In general, if a script has an associated colored border (with a fixed size) that surrounds the Tracks and Scenes it's controlling, it can be linked.

Link-related settings can be made in *Settings-Linking.txt*, which you'll find in the root nativeKONTROL/Arsenal directory within your User directory.

Current Track

Many of the available Encoder Modes and Matrix Modes operate upon a single Track and/or the Clips/Devices on a single Track. By default, these Modes will apply to the Track that is selected in Live. However, Arsenal_AP2 includes the ability to lock these Modes to a particular Track. This way, the Modes will continue to operate on the Track regardless of whether it's selected or not. When Modes are locked to a Track, the Track is referred to as *the current Track*.

Fixed Length Recording

Arsenal_AP2 includes Fixed Length Recording capability. This allows controls that launch individual Clips and controls assigned to Live's Session Record button to record Clips that have a fixed length, which will seamlessly switch from recording to playback.

In *Settings-General.txt*, you'll find two settings that govern how this functionality works. The `FIXED_LENGTH_ON_BY_DEFAULT` setting determines if Fixed Length Recording should be turned on by default. The `FIXED_LENGTH_DEFAULT_LENGTH` setting determines the default fixed length to use.

Grid Selector

Arsenal_AP2 includes a Grid Selector, which is a colored border that indicates the Tracks and Scenes Arsenal_AP2 controls. The color of this border is dependent upon the Control Surface slot (in Live's Preferences on the *Link/MIDI* tab) the Arsenal_AP2 script you're using is selected in. For example, a script selected in the first Control Surface slot will have a red Grid Selector while a script selected in the fourth Control Surface slot will have a green Grid Selector.

Status Bar

Arsenal_AP2 as well as the Encoder Modes and Matrix Modes it can utilize make heavy use of Live's Status Bar, which is the horizontal bar at the bottom of Live's main window. This helps to keep you informed of what is going on in Arsenal_AP2 such as which Mode is selected.
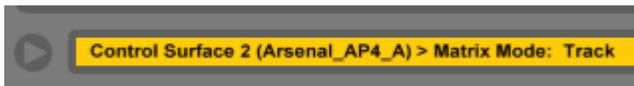
Max for Live Interface

Arsenal_AP2 includes a handy Max for Live interface that makes it extremely easy to access the script's controls/groups of controls, components and properties from Max for Live devices. This allows you to create new (or retrofit existing) Max for Live devices to work directly with the APC20. You can find a variety of devices that use/demonstrate this on the Arsenal M4L Repository.

MIDI Mapping

When using the default Live Settings for Arsenal_AP2, it functions as a separate entity from other MIDI devices and so other MIDI devices cannot conflict with it and vice versa. However, the default Live Settings will also not allow Arsenal_AP2 to be used for MIDI mapping. Unless it's absolutely necessary, we would recommend not using MIDI mapping.

Having said that, MIDI mapping is necessary in certain use cases. For that reason, we've provided Encoder Modes (such as User) and Matrix Modes (such as User) that can be used for MIDI mapping and that minimize the potential for conflicts with other MIDI devices. However, it is not possible to completely eliminate conflicts due to the nature of MIDI mapping.

In order to use the aforementioned Modes for MIDI mapping, you will need to turn on the Remote switches for the Arsenal_AP2 script you're using. These switches can be found in Live's Preferences on the *Link/MIDI* tab and are right next to the Track switches you turned on while completing your Live Settings.

Finally, you should **not** use any controls or Modes for MIDI mapping unless it's explicitly stated that they are intended to be used for MIDI mapping.

HazMapping

Some of the Encoder Modes and Matrix Modes that can be used with Arsenal_AP2 utilize **HazMapping**. HazMapping is somewhat similar to conventional MIDI mapping in Live, but with a bit more intelligence. In particular, unlike MIDI mappings which apply to specific items in specific locations within a Live Set, HazMappings apply to specific items that can exist in multiple places within a Live Set.

There are three types of HazMapping: **Track**-based HazMapping allows you to control parameters on the current Track. **Chain**-based HazMapping allows you to control parameters on the selected Chain of a Rack on the current Track. **Mix**-based HazMapping allows you to control parameters across the Tracks within the Grid Selector.

Creating HazMappings

HazMappings are created based on the Track that is selected in Live. So you first need to select the Track that contains the parameters you'd like to create HazMappings for. Once that's done, you'll need to enter HazMap Mapping Mode. The way in which that's done depends on the Mode you're using, so please refer to the documentation of the Mode for details on that.

After entering HazMap Mapping Mode, you simply click on the parameter you'd like to create a HazMapping for (which must exist on the Track that is selected in Live) and then move or press the physical control that you'd like to control the parameter with. Although this process is quite simple, the Status Bar guides you through the process to make things even easier.

① **NOTES:** *Selecting a different Track or entering/exiting MIDI mapping mode while in HazMap Mapping Mode will cause HazMap Mapping Mode to be exited. Also, although any parameter can be clicked on in Live, not all parameters are considered by Live to be 'selected'. Parameters of that sort (such as the Crossfader) will not be controllable via HazMapping.*

Device Parameters

When HazMapping parameters of a Device, there are a few things to be aware of:

- HazMapping does not take into account the position of a Device on a Track or Chain. Instead, HazMapping will apply to the first instance of a Device found on a Track or Chain.

- When using Track or Mix-based HazMapping on a parameter of a built in Live Device, HazMapping will apply only to instances of that Device that have the same name as the instance of the Device the HazMapping was created for. For example, if you created a HazMapping for the Filter Type of an Auto Filter Device named *My Filter*, HazMapping would only apply to Auto Filters named *My Filter*. If you'd like HazMapping to apply to any instance of a built in Live Device regardless of its name, create a HazMapping using an instance of the Device that has the default name for the Device (such as *Auto Filter*).

- A Mode that utilizes Chain-based HazMapping can only apply to a single type of Rack. For example, if you create a HazMapping for a parameter within a Drum Rack, it will only apply to Drum Racks. Of course, you can use multiple Modes that utilize Chain-based HazMapping and each of those can apply to a different type of Rack.

Mode Classes

There are two classes of Modes that can used in Arsenal_AP2; **Static** and **Mutable**.

Static Modes always perform the same function regardless of how many times they are specified in a [Mode list file](). For example, [Volume]() is a Static Mode that will always control the Volume of Tracks.

Mutable Modes can perform different functionality and/or control different parameters based on the name that is specified for the Mode in a Mode list file. For example, [Send]() is a Mutable Mode that can control one of the Sends levels of Tracks. If SEND A is specified, the Mode will control the Send A levels of Tracks. If SEND L is specified, the Mode will control the Send L levels of Tracks.

ClyphX/ClyphX Pro Integration

Arsenal_AP2 offers integration with ClyphX and ClyphX Pro and allows you to access ClyphX/ClyphX Pro functionality from Modes such as [Clip](), [ClyphX]() and [Global User]() Modes.

In the case of ClyphX, in order to access its functionality, ClyphX needs to be installed and selected as a Control Surface. You can download and learn more about ClyphX here:
http://beatwise.proboards.com/board/5/clyphx

In the case of ClyphX Pro, in order to access its functionality, ClyphX Pro simply needs to be installed. Arsenal_AP2 will automatically load ClyphX Pro so that you don't need to use up a Control Surface slot for ClyphX Pro. However, in some cases, you may want to use ClyphX Pro as a standalone Control Surface. To do that, simply select ClyphX Pro as a Control Surface. That will cause Arsenal_AP2 to not load ClyphX Pro.

4   CONTROL LAYOUT

This section covers the control layout and default functionality of Arsenal_AP2.
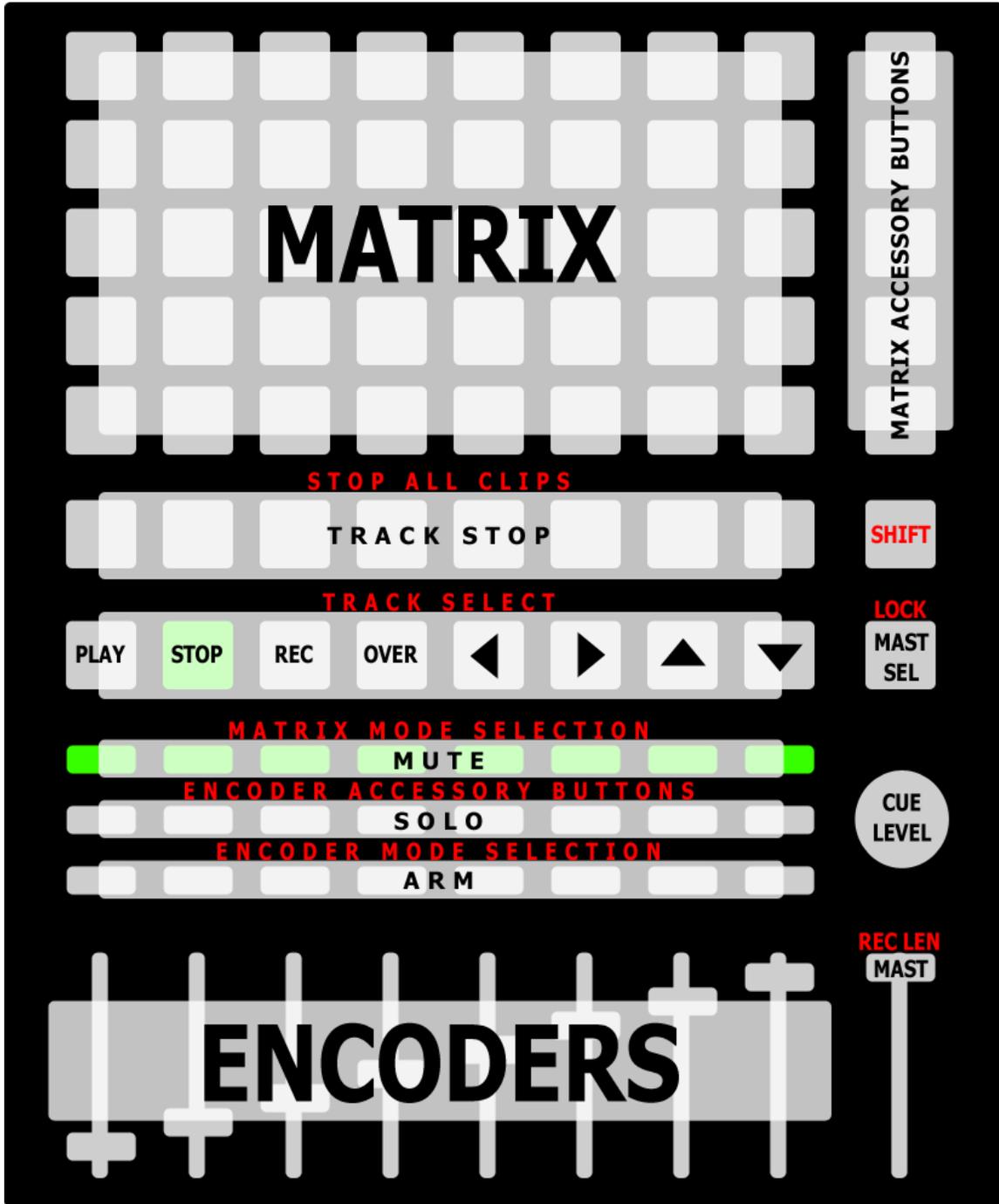
MATRIX – This section can have up to 8 Matrix Mode assignments, which can be specified in *Settings-Matrix Mode List.txt*.

MATRIX ACCESSORY BUTTONS – The function of these Buttons is determined by the selected Matrix Mode.

TRACK STOP – Stop Clips on the Tracks within the Grid Selector.
- When **SHIFT** is held down, these Buttons stop all Clips.

SHIFT – Modifies the function of other controls.

TRACK SELECTION BUTTONS – When `SHIFT` is held down, these Buttons are used for selecting the Tracks within the Grid Selector. If the Track is a Group Track, holding down the associated Button will fold/unfold the Group Track. When `SHIFT` is **not** held, these Buttons perform the following functions:

- **PLAY** – Starts playback.

- **STOP** – Stops playback.

- **REC** – Toggles/triggers Session Record.

- **OVER** – Toggles Session overdubbing.

- ◀ ▶ ▲ ▼ – The function of these Buttons is determined by the selected Matrix Mode. However, they are always used for some sort of navigation.

✔ **TIP:** *By default, Session Recording will apply to all armed Tracks. This can optionally only apply to the current Track via the* `ALLOW_MULTI_TRACK_SESSION_RECORD` *setting in* Settings-General.txt. *Also, by default, Session Recording will not automatically stop recording. You can cause it to automatically stop recording after a certain number of bars via the* `FIXED_LENGTH_ON_BY_DEFAULT` *setting in Settings-General.txt. You can specify the number of bars via the* `FIXED_LENGTH_DEFAULT_LENGTH` *setting in Settings-General.txt.*

MAST SEL – Selects the Master Track or selects the previously selected Track if the Master Track is already selected.
- When `SHIFT` is held down, pressing this quickly will lock Modes that control items on the selected Track to the selected Track so that they will continue controlling items on the Track (referred to as the current Track) even while navigating to other Tracks. When pressed quickly again, this will unlock from the current Track. The Status Bar will indicate lock status. When held down, this will trigger the Mode-specific lock function of any Modes that have such a function. The LED of this Button will indicate when this Mode-specific lock function has been triggered.

MUTE – Toggle the Mute state of the Tracks within the Grid Selector. When held down, these will function as momentary Mute switches.
- When `SHIFT` is held down, these Buttons are used for selecting Matrix Modes and provide momentary (if held down) or toggle (if pressed quickly) functionality. By default, these will select Session, Scale and six Dummy Modes (which have no functionality of their own, but can be used with Max for Live) respectively. The Status Bar will indicate the selected Matrix Mode.

SOLO – Toggle the Solo state of the Tracks within the Grid Selector. When held down, these will function as momentary Solo switches.
- When `SHIFT` is held down, these Buttons are referred to as `ENCODER ACCESSORY BUTTONS` and their function is determined by the selected Encoder Mode.

✔ **TIP:** *You can swap the Shifted and default function of* `SOLO` *via the* `SWAP_SOLO_BUTTONS_FUNCTION` *setting in* Settings-General.txt.

ARM – Toggle the Arm state of the Tracks within the Grid Selector.
- When `SHIFT` is held down, these Buttons are used for selecting Encoder Modes and provide momentary (if held down) or toggle (if pressed quickly) functionality. By default, these will select Volume, Pan, Send A – C and User A – C respectively. The Status Bar will indicate the selected Encoder Mode.

ENCODERS – These controls can have up to 8 Encoder Mode assignments, which can be specified in *Settings-Encoder Mode List.txt*.

CUE LEVEL – Controls Cue Level.

MAST – Controls Master Track Volume.
- When `SHIFT` is held down, this will adjust the Fixed Length to use for Session Recording. Moving the Fader all the way down will turn off Fixed Length recording. The Status Bar will indicate the selected Fixed Length setting.

✔ **TIP:** *By default,* `MAST` *will control the entire Volume range of the Master Track. This can optionally be limited to 0db via the* `LIMIT_VOLUME_CONTROL_TO_0_DB` *setting in Settings-General.txt.*

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5   ENCODER MODES

Encoder Modes determine the function of the `ENCODERS` and `ENCODER ACCESSORY BUTTONS`. This section covers the Encoder Modes that can be used in Arsenal_AP2. In order to use a Mode, you'll need to specify the Mode's name in *Settings-Encoder Mode List.txt*.

You'll notice that many of the Encoder Modes have overlapping functionality. For example, the functionality found in Volume, Pan and Sends is also available in Mix. The reason for this is to provide you with options. In some cases, you may prefer to use Encoder Modes with discrete functionality (such as Volume). In other cases, you may prefer to use Encoder Modes with multiple layers of functionality (such as Mix). The latter essentially consolidates multiple Encoder Modes into a single Encoder Mode.

Clip

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `CLIP`

This Mode sets up the **ENCODERS** for controlling properties of the selected Clip on the current Track. This Mode also sets up the **ENCODER ACCESSORY BUTTONS** for triggering ClyphX actions. The ClyphX actions that the Mode will trigger can be specified in *Settings-Clip.txt*.

ENCODER 1 – Controls the Clip's Start Marker in 1 bar increments or 1 beat increments when **SHIFT** is held down.

ENCODER 2 – No function in this Mode.

ENCODER 3 – Controls the Position of the Clip's Loop in 1 bar increments or 1 beat increments when **SHIFT** is held down. This **ENCODER** will do nothing if the Clip's Loop switch is turned off.

ENCODER 4 – Controls the Length of the Clip's Loop in 1 bar increments or 1 beat increments when **SHIFT** is held down. This **ENCODER** will do nothing if the Clip's Loop switch is turned off.

ENCODER 5 – Selects the Clip's Warp Mode. This **ENCODER** will do nothing if the Clip is a MIDI Clip or an Audio Clip that is not warped.

ENCODER 6 – Controls the Clip's Transposition in semitone increments. This **ENCODER** will do nothing if the Clip is a MIDI Clip.

ENCODER 7 – Controls the Clip's Transposition in cent increments. This **ENCODER** will do nothing if the Clip is a MIDI Clip.

ENCODER 8 – Controls the Clip's Gain. This **ENCODER** will do nothing if the Clip is a MIDI Clip.

ENCODER ACCESSORY BUTTONS – Trigger ClyphX actions.

Device

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `DEVICE`

This Mode sets up the **ENCODERS** for controlling parameters of the selected Device (indicated by a blue hand icon on the Device's title bar).

ENCODERS – Control the parameters of the selected Device.

ENCODER ACCESSORY BUTTONS 1-2 – If the Device has more than 8 parameters, these will move between Banks of 8 parameters to control. The Status Bar will indicate the name of the selected Bank.

ENCODER ACCESSORY BUTTONS 3-4 – No function in this Mode.

ENCODER ACCESSORY BUTTON 5 – If pressed quickly, this will toggle the selected Device on/off. If held down, this will momentarily toggle the Device on/off.

ENCODER ACCESSORY BUTTON 6 – No function in this Mode.

ENCODER ACCESSORY BUTTONS 7-8 – Navigate left/right between Devices.

✔ **TIP:** *This Mode can be locked to the currently selected Device via the Button assigned to Lock. The Status Bar will indicate lock status.*

Drum Pad Mix

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `DRUM_PAD_MIX`

This Mode sets up the `ENCODERS` for controlling Mixer-related parameters of the selected Drum Rack Pad on the current Track.

ENCODER 1 – Controls the Volume of the selected Drum Rack Pad.

ENCODER 2 – Controls the Panning of the selected Drum Rack Pad.

ENCODERS 3-7 – Control the first 5 Send levels of the selected Drum Rack Pad.

ENCODER 8 – Selects the Drum Rack Pad (within the 16 visible Drum Rack Pads) to control. The Status Bar will indicate the name of the selected Pad.
- When `SHIFT` is held down, this will move the Drum Rack's Selector to select the 16 visible Drum Rack Pads.

ENCODER ACCESSORY BUTTON 1 – Triggers the selected Drum Rack Pad.

ENCODER ACCESSORY BUTTON 2 – No function in this Mode.

ENCODER ACCESSORY BUTTON 3 – Toggles the Mute state of the selected Drum Rack Pad. When held down, this will function as a momentary Mute switch.

ENCODER ACCESSORY BUTTON 4 – No function in this Mode.

ENCODER ACCESSORY BUTTON 5 – Toggles the Solo state of the selected Drum Rack Pad. When held down, this will function as a momentary Solo switch.

ENCODER ACCESSORY BUTTON 6 – No function in this Mode.

ENCODER ACCESSORY BUTTONS 7-8 – Navigate between Drum Rack Pads. The Status Bar will indicate the name of the selected Pad.

✔ **TIP:** *By default,* `ENCODER 1` *will control the entire Volume range of Drum Rack Pads. This can optionally be limited to 0db via the* `LIMIT_VOLUME_CONTROL_TO_0_DB` *setting in* Settings-General.txt.

Drum Pad Parameters
MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **DRUM_PAD_PARAMS**

This Mode sets up the **ENCODERS** for controlling special parameters of the selected Drum Rack Pad as well as the Macros of the Drum Rack on the current Track.

ENCODERS 1–5 – Control the first 5 Macros of the Drum Rack.

ENCODER 6 – Controls the Out Note (allowing for transposition) of the selected Drum Rack Pad. The Status Bar will indicate the new value.

ENCODER 7 – Controls the Sample Selector of the Sampler or the Chain Selector of the Instrument Rack on the selected Drum Rack Pad. The Status Bar will indicate the new value.

ENCODER 8 – Selects the Drum Rack Pad (within the 16 visible Drum Rack Pads) to control. The Status Bar will indicate the name of the selected Pad.
- When **SHIFT** is held down, this will move the Drum Rack's Selector to select the 16 visible Drum Rack Pads.

ENCODER ACCESSORY BUTTON 1 – Triggers the selected Drum Rack Pad.

ENCODER ACCESSORY BUTTON 2 – No function in this Mode.

ENCODER ACCESSORY BUTTON 3 – Toggles the Mute state of the selected Drum Rack Pad. When held down, this will function as a momentary Mute switch.

ENCODER ACCESSORY BUTTON 4 – No function in this Mode.

ENCODER ACCESSORY BUTTON 5 – Toggles the Solo state of the selected Drum Rack Pad. When held down, this will function as a momentary Solo switch.

ENCODER ACCESSORY BUTTON 6 – No function in this Mode.

ENCODER ACCESSORY BUTTONS 7–8 – Navigate between Drum Rack Pads. The Status Bar will indicate the name of the selected Pad.

Global

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **GLOBAL**

This Mode sets up the **ENCODERS** for controlling global properties.

ENCODER 1 – Controls Tempo in 1-BPM increments. The control range is limited to 60 BPM – 187 BPM.

ENCODER 2 – Controls Global Groove Amount. The Status Bar will indicate the new value.

ENCODER 3 – Controls Global Quantization.

ENCODER 4 – Controls Record Quantization. The Status Bar will indicate the new value.

ENCODER 5 – Controls the last parameter that was selected (by clicking on it). The Status Bar will indicate the name of the parameter assigned to this control any time it changes. Note that, although any parameter can be clicked on in Live, not all parameters are considered by Live to be 'selected'. Parameters of that sort (such as the Crossfader) will not be controllable from this control.

ENCODER 6 – Controls the Crossfader. The Status Bar will indicate the new value.

ENCODER 7 – Controls Cue Volume

ENCODER 8 – Controls Master Volume.

ENCODER ACCESSORY BUTTON 1 – Locks/unlocks the parameter assigned to **ENCODER 5**. When locked, **ENCODER 5** will continue to control the parameter it's assigned to even if other parameters are selected. The Status Bar will indicate lock status.

ENCODER ACCESSORY BUTTONS 2-8 – No function in this Mode.

✔ **TIP:** *By default,* **ENCODER 8** *will control the entire Volume range of the Master Track. This can optionally be limited to 0db via the* **LIMIT_VOLUME_CONTROL_TO_0_DB** *setting in* *Settings-General.txt*.

HazMap Chain

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **HM_CHAIN x** (where **x** is the name to use for an instance of the Mode. **HM_CHAIN DR** for example.)

This Mode sets up the **ENCODERS** for Chain-based HazMapping to parameters of the selected Chain of a Rack on the current Track.

ENCODERS – Control the HazMapped parameters of the selected Chain of a Rack on the current Track.

When **SHIFT** is held down, the first **ENCODER** provides access to mapping functionality. Moving the **ENCODER** to its maximum value will turn HazMap Mapping Mode On or Off.   When On, you can create HazMappings for the **ENCODERS**.

Moving the **ENCODER** to its minimum value will initiate deletion of the mappings of this Mode. Once initiated, the **ENCODER** must be moved to its maximum value to perform the actual deletion.

The Status Bar will display information on all of this to help guide you through the process.

ENCODER ACCESSORY BUTTON 1 – Shows or hides the Devices on the selected Chain.

ENCODER ACCESSORY BUTTON 2 – No function in this Mode.

ENCODER ACCESSORY BUTTON 3 – Toggles the Mute state of the selected Chain. When held down, this will function as a momentary Mute switch.

ENCODER ACCESSORY BUTTON 4 – No function in this Mode.

ENCODER ACCESSORY BUTTON 5 – Toggles the Solo state of the selected Chain. When held down, this will function as a momentary Solo switch.

ENCODER ACCESSORY BUTTON 6 – No function in this Mode.

ENCODER ACCESSORY BUTTONS 7-8 – Navigate between the Chains of the Rack. The Status Bar will indicate the name of the selected Chain.

HazMap Mix

`MODE NAME` (to specify in *Settings-Encoder Mode List.txt*): `HM_MIX` x (where x is the name to use for an instance of the Mode. `HM_MIX EQ` for example.)

This Mode sets up the `ENCODERS` for Mix-based HazMapping to parameters across the Tracks within the Grid Selector.

`ENCODERS` – Control the HazMapped parameters of the Tracks within the Grid Selector.

When `SHIFT` is held down, the first `ENCODER` provides access to mapping functionality. Moving the `ENCODER` to its maximum value will turn HazMap Mapping Mode On or Off.   When On, you can create HazMappings for the `ENCODERS`. However, unlike other HazMap Modes, this Mode strictly uses the first `ENCODER` for creating HazMappings. Also, this Mode provides multiple Pages of mappings. Each Page allows for one mapping, which you'll create with the first `ENCODER`. You can switch between Pages while in HazMap Mapping Mode.

Moving the `ENCODER` to its minimum value will initiate deletion of the mappings of this Mode. Once initiated, the `ENCODER` must be moved to its maximum value to perform the actual deletion.

The Status Bar will display information on all of this to help guide you through the process.

`ENCODER ACCESSORY BUTTONS` – These select the Page of mappings to use or, while in HazMap Mapping Mode, the Page to create mappings for. The Status Bar will display the name of the selected Page.

Pre-configured Instances

This Mode includes a variety of pre-configured instances that you can use by specifying the name of the instance in *Settings-Encoder Mode List.txt*. For the most part, these instances are provided for backwards compatibility with previous versions of Arsenal that included them as Static Modes. In all cases, the mappings of these instances cannot be changed. Also, unless otherwise note, the `ENCODER ACCESSORY BUTTONS` have no function in these instances.

INSTANCE NAME(S) to specify in *Settings-Encoder Mode List.txt*	ENCODER PARAMETER(S)	ENCODER ACCESSORY BUTTONS
`EQ_GAIN_1_MIX – EQ_GAIN_8_MIX`	Control the Gain of an EQ Eight or EQ Three band. For example, `EQ8_GAIN_2_MIX` will control the Gain of the 2nd band.	-
`EQ8_FREQ_1_MIX – EQ8_FREQ_8_MIX`	Control the Frequency of an EQ Eight band. For example, `EQ8_FREQ_2_MIX` will control the Frequency of the 2nd band.	-
`EQ8_RES_1_MIX – EQ8_RES_8_MIX`	Control the Resonance of an EQ Eight band. For example, `EQ8_RES_2_MIX` will control the Resonance of the 2nd band.	-
`EQ8_FREQ_MIX`	Control the Frequency of the bands of EQ Eight.	Select the EQ Eight band for the `ENCODERS` to control.
`EQ8_GAIN_MIX`	Control the Gain of the bands of EQ Eight.	Same as above.
`EQ8_RES_MIX`	Control the Resonance of the bands of EQ Eight.	Same as above.
`FILTER`	Control the Filter Drive, Frequency, Resonance or Type of the Filter Device*.	Select the Filter-related parameter (Drive, Frequency, Resonance or Type) for the `ENCODERS` to control.
`FILTER_DRIVE`	Control the Filter Drive of the Filter Device*.	-
`FILTER_FREQ`	Control the Filter Frequency of the Filter Device*.	-
`FILTER_RES`	Control the Filter Resonance of the Filter Device*.	-
`FILTER_TYPE`	Control the Filter Type of the Filter Device*.	-

* The following devices are recognized as Filter Devices: Analog, Auto Filter, Operator, Sampler, Simpler and Tension.

HazMap Track

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **HM_TRACK x** (where **x** is the name to use for an instance of the Mode. **HM_TRACK SYNTH** for example.)

This Mode sets up the **ENCODERS** for Track-based HazMapping to parameters on the current Track.

ENCODERS – Control the HazMapped parameters of the current Track.

When **SHIFT** is held down, the first **ENCODER** provides access to mapping functionality. Moving the **ENCODER** to its maximum value will turn HazMap Mapping Mode On or Off.   When On, you can create HazMappings for the **ENCODERS**.

Moving the **ENCODER** to its minimum value will initiate deletion of the mappings of this Mode. Once initiated, the **ENCODER** must be moved to its maximum value to perform the actual deletion.

The Status Bar will display information on all of this to help guide you through the process.

ENCODER ACCESSORY BUTTONS – No function in this Mode.

Pre-configured Instances

This Mode includes a variety of pre-configured instances that you can use by specifying the name of the instance in *Settings-Encoder Mode List.txt*. For the most part, these instances are provided for backwards compatibility with previous versions of Arsenal that included them as Static Modes. In all cases, the mappings of these instances cannot be changed. Also, unless otherwise note, the **ENCODER ACCESSORY BUTTONS** have no function in these instances.

INSTANCE NAME(S) to specify in *Settings-Encoder Mode List.txt*	ENCODER PARAMETER(S)	ENCODER ACCESSORY BUTTONS
EQ_GAIN	Control the Gain of the bands of EQ Eight or EQ Three.	-
EQ8	Control the Gain, Frequency or Resonance of the bands of EQ Eight.	Select the band parameter (Gain, Frequency or Resonance) for the **ENCODERS** to control.
EQ8_FREQ	Control the Frequency of the bands of EQ Eight.	-
EQ8_RES	Control the Resonance of the bands of EQ Eight.	-

MIDI

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **MIDI x** (where **x** is the name to use for an instance of the Mode. **MIDI MY SYNTH** for example.)

This Mode sets up the **ENCODERS** for sending MIDI data (Control Change messages) to MIDI Tracks to control instruments that natively respond to these messages or that feature MIDI learning capabilities that allow you to learn/assign parameters to MIDI messages. By default, these Modes will all send the following Control Change messages:
7 (Volume), 10 (Pan), 8 (Balance), 74 (Filter Cutoff), 71 (Filter Resonance), 73 (Amp Envelope Attack),
2 (Breath Controller), 1 (Mod Wheel)

The Mode needs to include an instance name (such as **MIDI BASIC**), which you'll specify in *Settings-Encoder Mode List.txt*. This allows each instance of the Mode to send different sets of MIDI messages. The MIDI messages each instance of the Mode should send can be specified in the instance's associated settings file. For example, the MIDI messages that **MIDI BASIC** will send are specified in the file named *Settings-MIDI Basic.txt*.

ENCODERS – Send MIDI data to MIDI Tracks.

ENCODER ACCESSORY BUTTONS – No function in this Mode.

Mix

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **MIX**

This Mode sets up the **ENCODERS** for controlling Mixer-related parameters of the Tracks within the Grid Selector.

ENCODERS – Control the selected parameter of the Tracks within the Grid Selector.

ENCODER ACCESSORY BUTTONS – Select the parameter (Volume, Pan or Send A – F respectively) the **ENCODERS** should control. The Status Bar will indicate the name of the selected parameter.

✔ **TIP:** *By default, when assigned to Volume, the **ENCODERS** will control the entire Volume range of Tracks. They can optionally be limited to 0db via the **LIMIT_VOLUME_CONTROL_TO_0_DB** setting in Settings-General.txt.*

Pan

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **PAN**

This Mode sets up the **ENCODERS** for controlling the Panning of the Tracks within the Grid Selector.

ENCODERS – Control the Panning of the Tracks within the Grid Selector.

ENCODER ACCESSORY BUTTONS – No function in this Mode.

Pan & Sends

MODE NAME (to specify *Settings-Encoder Mode List.txt*): **PAN_AND_SENDS**

This Mode sets up the **ENCODERS** for controlling Panning and Send levels of the Tracks within the Grid Selector. You can toggle between the parameters to control via the Button used for selecting this Mode. The Status Bar will indicate the selected parameter.

ENCODERS – Control the Panning or one of the Send levels of the Tracks within the Grid Selector.

ENCODER ACCESSORY BUTTONS – No function in this Mode.

Return Mix

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `RTN_MIX`

This Mode sets up the `ENCODERS` for controlling Mixer-related parameters of the first 8 Return Tracks.

`ENCODERS` – Control the selected parameter of the first 8 Return Tracks.

`ENCODER ACCESSORY BUTTONS` – Select the parameter (Volume, Pan or Send A – F respectively) the `ENCODERS` should control. The Status Bar will indicate the name of the selected parameter.

✔ **TIP:** *By default, when assigned to Volume, the `ENCODERS` will control the entire Volume range of Tracks. They can optionally be limited to 0db via the `LIMIT_VOLUME_CONTROL_TO_0_DB` setting in Settings-General.txt.*

Return Pan

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `RTN_PAN`

This Mode sets up the `ENCODERS` for controlling the Panning of the first 8 Return Tracks.

`ENCODERS` – Control the Panning of the first 8 Return Tracks.

`ENCODER ACCESSORY BUTTONS` – Select the first 8 Return Tracks.

Return Send

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `RTN_SEND` **x** (where **x** is the letter of the Send to control (in the range of A – L). `RTN_SEND B` for example.)

This Mode set up the `ENCODERS` for controlling one of the Send levels of the first 8 Return Tracks.

`ENCODERS` – Control one of the Send levels of the first 8 Return Tracks.

`ENCODER ACCESSORY BUTTONS` – Select the first 8 Return Tracks.

Return Sends

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `RTN_SENDS`

This Mode sets up the `ENCODERS` for controlling Send levels of the first 8 Return Tracks.

`ENCODERS` – Control the level of the selected Send of the first 8 Return Tracks.

`ENCODER ACCESSORY BUTTONS` – Select the Send (Send A – H respectively) the `ENCODERS` should control. The Status Bar will indicate the name of the selected Send.

Return Volume

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `RTN_VOLUME`

This Mode sets up the `ENCODERS` for controlling the Volume of the first 8 Return Tracks.

`ENCODERS` – Control the Volume of the first 8 Return Tracks.

`ENCODER ACCESSORY BUTTONS` – Select the first 8 Return Tracks.

✔ **TIP:** *By default, the `ENCODERS` will control the entire Volume range of Tracks. They can optionally be limited to 0db via the `LIMIT_VOLUME_CONTROL_TO_0_DB` setting in Settings-General.txt.*

Send

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **SEND x** (where **x** is the letter of the Send to control (in the range of A – L). **SEND B** for example.)

This Mode set up the **ENCODERS** for controlling one of the Send levels of the Tracks within the Grid Selector.

ENCODERS – Control one of the Send levels of the Tracks within the Grid Selector.

ENCODER ACCESSORY BUTTONS – No function in this Mode.

Sends

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **SENDS**

This Mode sets up the **ENCODERS** for controlling Send levels of the Tracks within the Grid Selector.

ENCODERS – Control the level of the selected Send of the Tracks within the Grid Selector.

ENCODER ACCESSORY BUTTONS – Select the Send (Send A – H respectively) the **ENCODERS** should control. The Status Bar will indicate the name of the selected Send.

Track

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **TRACK**

This Mode sets up the **ENCODERS** for controlling Mixer-related parameters of the current Track.

ENCODER 1 – Controls Volume.

ENCODER 2 – Controls Panning.

ENCODERS 3-8 – Control the first 6 Send levels.

ENCODER ACCESSORY BUTTONS – No function in this Mode.

✔ **TIP:** *By default,* **ENCODER 1** *will control the entire Volume range of the Track. This can optionally be limited to 0db via the* **LIMIT_VOLUME_CONTROL_TO_0_DB** *setting in* Settings-General.txt.

Track Route

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **TRACK_ROUTE**

This Mode sets up the **ENCODERS** for controlling Routing and Mixer-related parameters of the current Track.

ENCODER 1 – Controls Volume.

ENCODER 2 – Controls Panning.

ENCODER 3 – Controls Monitoring. The Status Bar will indicate the new value.

ENCODER 4 – Controls Crossfade Assignment. The Status Bar will indicate the new value.

ENCODER 5 – Controls Input Type. The Status Bar will indicate the new value.

ENCODER 6 – Controls Input Channel. The Status Bar will indicate the new value.

ENCODER 7 – Controls Output Type. The Status Bar will indicate the new value.

ENCODER 8 – Controls Output Channel. The Status Bar will indicate the new value.

ENCODER ACCESSORY BUTTONS – No function in this Mode.

✔ **TIP:** *By default,* **ENCODER 1** *will control the entire Volume range of the Track. This can optionally be limited to 0db via the* **LIMIT_VOLUME_CONTROL_TO_0_DB** *setting in* Settings-General.txt.

User

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **USER x** (where **x** is the letter of the Mode (in the range of A – F). **USER B** for example.)

This Mode set up the **ENCODERS** for MIDI mapping on MIDI channels 9 – 14. For example, **USER A** operates on channel 9 and **USER D** operates on channel 12.

ENCODERS – Used for MIDI mapping.

ENCODER ACCESSORY BUTTONS – No function in this Mode.

Volume

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **VOLUME**

This Mode sets up the **ENCODERS** for controlling the Volume of the Tracks within the Grid Selector.

ENCODERS – Control the Volume of the Tracks within the Grid Selector.

ENCODER ACCESSORY BUTTONS – No function in this Mode.

✔ **TIP:** *By default, the* **ENCODERS** *will control the entire Volume range of Tracks. They can optionally be limited to 0db via the* **LIMIT_VOLUME_CONTROL_TO_0_DB** *setting in Settings-General.txt.*

6   MATRIX MODES

Matrix Modes determine the function of the `MATRIX`, `MATRIX ACCESSORY BUTTONS` and `ARROW BUTTONS`. This section covers the Matrix Modes that can be used in Arsenal_AP2. In order to use a Mode, you'll need to specify the Mode's name in *Settings-Matrix Mode List.txt*.

You'll notice that many of the Matrix Modes have overlapping functionality. For example, the functionality found in Chop and Loop Mono is also available in Clip Play Mono. Similarly, the functionality found in Volume, Pan and Sends is also available in Mix. The reason for this is to provide you with options. In some cases, you may prefer to use Matrix Modes with discrete functionality (such as Volume). In other cases, you may prefer to use Matrix Modes with multiple layers of functionality (such as Mix). The latter essentially consolidates multiple Matrix Modes into a single Matrix Mode.

Common Functionality

Many of the Matrix Modes share some of the same functionality. This section covers this common functionality. The description of each Matrix Mode that uses this functionality contains links to this section.

Clip Chopping

Clip Chopping allows you to Chop Clips up. Each Button assigned to Clip Chopping will be assigned to evenly distributed Start positions based on the Clip's length. For Clips that are Looping, the length will be based on the Clip's Loop Start and End Marker. For Clips that aren't Looping, the length will be solely based on the Clip's End Marker.

Pressing a Button assigned to Clip Chopping will move the Clip's Start Marker to the corresponding position and re-launch the Clip. The Quantization to use for re-launching Clips can be selected via the `MATRIX ACCESSORY BUTTONS`.

- When **SHIFT** is held down, pressing a Button assigned to Clip Chopping will re-align the playing position of the Clip with the playing position of Live. This is useful in cases where Clips have fallen out of sync.

ⓘ **NOTES:** *The Quantization functionality will only work correctly with Clips whose Launch Quantization is set to Global.*

Clip Chopping will not allow the Clip's Start Marker to be moved to a position that is less than 1/16th note away from the Clip's Loop End or End Marker.

The process of moving a Clip's Start Marker and re-launching it is a bit more resource-dependent than just launching a Clip. For that reason, it is possible to experience hard disk overloads and/or audio drop outs when Chopping Clips. You may be able to offset this by activating the Clip's RAM button and/or increasing the Quantization to use.

Clip Loop Control

Clip Loop Control allows you to select the Clip's Loop size and position. Each Button assigned to Clip Loop Control will set the Loop to the same size at evenly distributed positions based on the Clip's length. This supports multiple Button presses to allow for different sizes to be set.

✔ **TIP:** *By default, when modifying a Clip's Loop, the Clip's Start Marker will be moved to the beginning of the Clip's Loop and, in Live's Clip View, the portion of the Clip within the Loop braces will be zoomed into. These behaviors can be changed via the* `MOVE_START_WITH_LOOP` *and* `ZOOM_LOOP_ON_EDIT` *settings in* Settings-General.txt.

Clip Scrubbing

Clip Scrubbing allows you to Scrub Clips. This is somewhat similar to Clip Chopping. Each Button assigned to Clip Scrubbing will be assigned to evenly distributed Start positions based on the Clip's length. For Clips that are Looping, the length will be based on the Clip's Loop Start and End Marker. For Clips that aren't Looping, the length will be solely based on the Clip's End Marker.

Holding down a Button assigned to Clip Scrubbing will repeatedly retrigger the Clip from the corresponding Start position. The rate of the repeat as well as the length of the repeated section is determined by the Global Quantization value. The Global Quantization value can be selected via the `MATRIX ACCESSORY BUTTONS`.

- When **SHIFT** is held down, pressing a Button assigned to Clip Scrubbing will re-align the playing position of the Clip with the playing position of Live. This is useful in cases where Clips have fallen out of sync.

Intelligent Button Sliders

Intelligent Button Sliders sets up each Column of Buttons in the `MATRIX` as a Button Slider that can control a parameter and provide smoothing to avoid abrupt changes in value. The LED color, orientation and function of each Button Slider are determined by the parameter it's controlling.

Button Sliders that control continuous parameters (such as volume) use a variety of LED colors (dictated by the Matrix Mode that uses the Button Sliders) and use the standard orientation and function where the bottommost Button sets the parameter to its minimum value and the topmost Button sets the parameter to its maximum value.

Button Sliders that control center-detented parameters (such as panning) use Amber LEDs and bipolar orientation where the upper Buttons sets the parameter to positive values, the lower Buttons set the parameter to negative and the Button in the center of the Button Slider will center the parameter.

Button Sliders that control option-related parameters (such as a filter type chooser) use Red LEDs and only utilize the two Buttons in the center of the Button Slider. The upper Button will increase the parameter's value and the lower Button will decrease the parameter's value.

Button Sliders that control on/off parameters use Green LEDs and only utilize the topmost Button in the Button Slider. This Button will simply toggle the parameter on and off.

When `SHIFT` is held down, the `MATRIX` switches to an alternate form of parameter control:
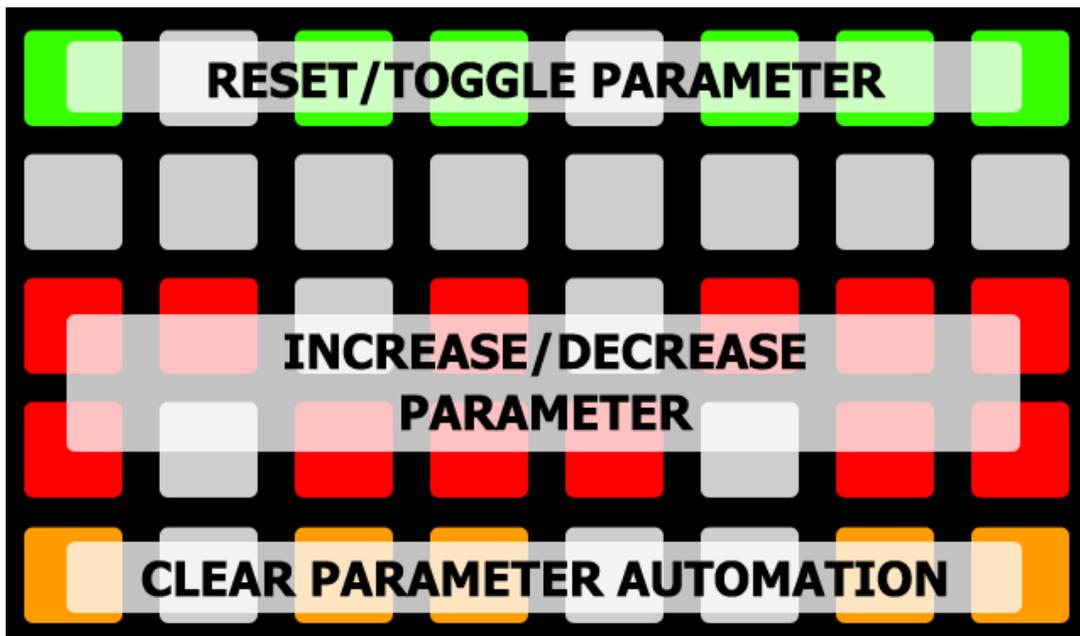
The top Row will reset or (in the case of quantized parameters) toggle parameter values. The bottom Row will clear parameter automation that has been recorded into the Clip playing on the current Track. The middle two Rows will finely increase/decrease parameter values.

> ✔ **TIP:** *You can specify the smoothing speed to use via the* `SMOOTHING_SPEED` *setting in* Settings-General.txt.

Note Repeat

Note Repeat allows Buttons assigned to play Notes to produce a stream of continuous, rhythmic Notes at different rates (such as 1/32 or 1/4). The Button used to turn Note Repeat on/off (`RPT I/O`) can toggle (if pressed quickly) or momentarily toggle (if held down) Note Repeat. The Status Bar will indicate the state.

Buttons used to adjust Note Repeat rate (`1/32 - 1/4`) select the rate at which Notes should be repeated. The Status Bar will indicate the rate.
- When `SHIFT` is held down, these Buttons can be used for adjusting the amount of Swing to apply to Note Repeat. The Status Bar will indicate the amount.

Scale Settings Page

The Scale Settings Page allows you to change the Scale settings used by Matrix Modes that play and/or Step-Sequence Scales.
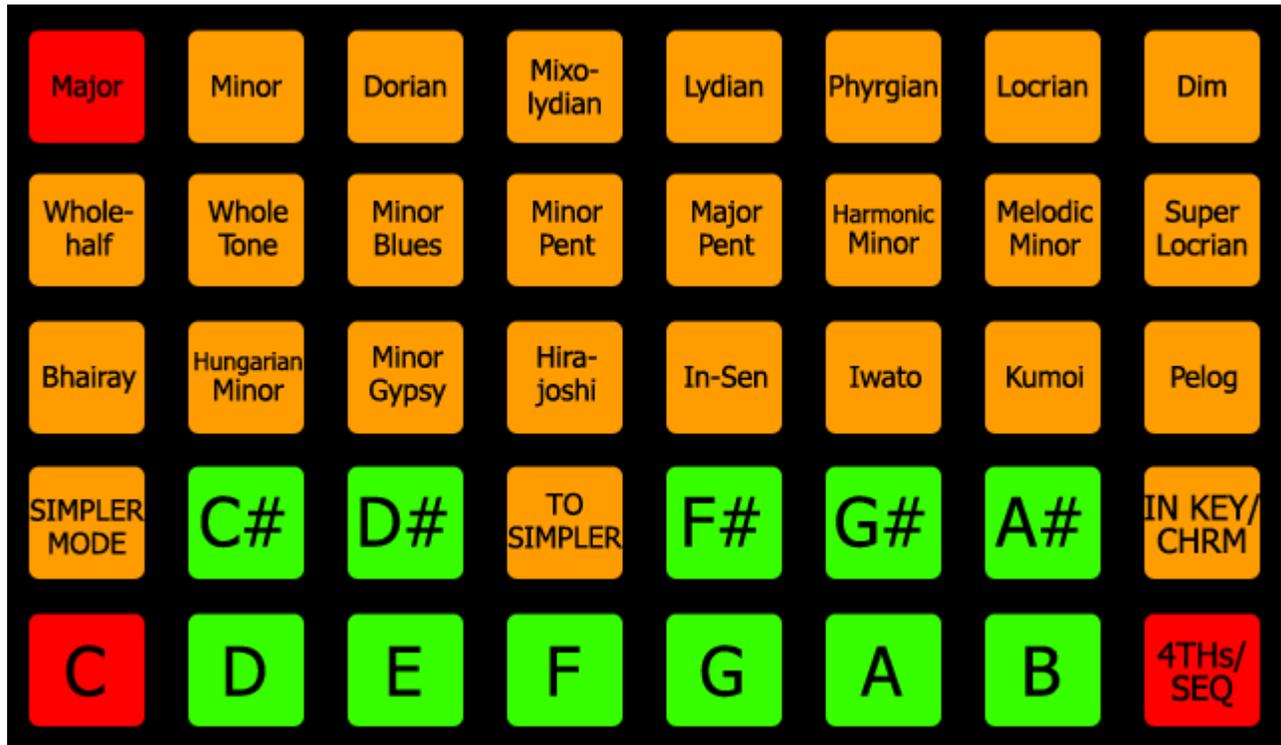
The upper 3 Rows select the Scale Type to use. The Status Bar will indicate the selected Scale Type. The last selected Scale Type will be stored within your Live Set and recalled the next time the Set is loaded.

The lower 2 Rows select the Root Note to use. The Status Bar will indicate the selected Root Note. The last selected Root Note will be stored within your Live Set and recalled the next time the Set is loaded.

SIMPLER MODE – Toggles between Simpler's three Playback Modes; *Classic, 1-Shot* and *Slice*. This setting will only be available if Simpler exists on the current Track and only in Note Mode and Note Plus Mode.

TO SIMPLER – Creates a new MIDI Track with a Simpler containing the selected Audio Clip. This setting will only be available if an Audio Clip is selected and only in Note Mode and Note Plus Mode.

IN KEY/CHRM – Toggles between *In Key* (where only Notes within the selected Scale are accessible) and *Chromatic* (where all Notes are accessible). The Status Bar will indicate the value of this setting.

4THS/SEQUENT – Toggles between the *4ths* (where Notes are oriented by 4ths) and *Sequent* (where Notes are laid out sequentially) Layouts. The Status Bar will indicate the value of this setting. This setting is not available in the Scale Sequence Mode.

Sequence Page Selection

Sequence Page Selection allows you to select the size and position of the selected Clip's Loop as well as the position(s) of the Clip that Buttons assigned to Step-Sequencing will edit. If a Clip is not selected, pressing a Button assigned to Sequence Page Selection will create a new Clip. Each Button assigned to Sequence Page Selection represents one Sequencer Page. The length of a Sequencer Page is determined by the selected Resolution, which can be adjusted via the `MATRIX ACCESSORY BUTTONS`. This supports multiple Button presses to allow for a range to be selected. The Status Bar will indicate the time range of the selected Page(s).

When a range is selected, Buttons assigned to Step-Sequencing will automatically switch between Sequencer Pages while the Clip is playing. This can sometimes make editing difficult. You can overcome this by pressing the Button assigned to Sequence Page Selection that corresponds to the Sequencer Page you want to edit. This will leave the Loop in place and allow you to edit a single Sequencer Page.

Step-Sequencing

Buttons that are assigned to Step-Sequencing add/remove Notes associated with the Buttons into/from the current Sequencer Page in the selected Clip. If a Clip is not selected, pressing a Button assigned to Step-Sequencing will create a new Clip. The Length and Velocity of the Notes that will be added is determined by the selected Resolution and Velocity, both of which can be adjusted via the `MATRIX ACCESSORY BUTTONS`.

If a single Button is pressed and a Note is present at the associated position in the Clip, the Note will be removed. Otherwise, a single Note with a Length equal to the selected Resolution will be added. If two Buttons are pressed, a single Note with a Length that is equal to the selected Resolution times the distance between the two Buttons will be added. For example, if the selected Resolution is `1/16`, pressing two Buttons that are 4 Buttons apart will add a `1/4` Note. In this way, you can add Notes with differing Lengths without having to change the Resolution.

Session Snapshots

A Session Snapshot stores the current playing state of all of the Tracks in your Live Set. Specifically, it will store the Clip playing on the Track if there is one. Otherwise, it will store the stopped state of the Track. After a Session Snapshot is stored, it can be recalled. Upon recall, Clips that were playing on Tracks will be launched and Tracks that had no playing Clip will be stopped. In this way, a Session Snapshot is somewhat like a Scene that is not bound to a horizontal row of Clips/Clip Slots.

Simpler Settings Page

The Simpler Settings Page allows you to adjust Simpler settings, which are mostly related to Slicing.
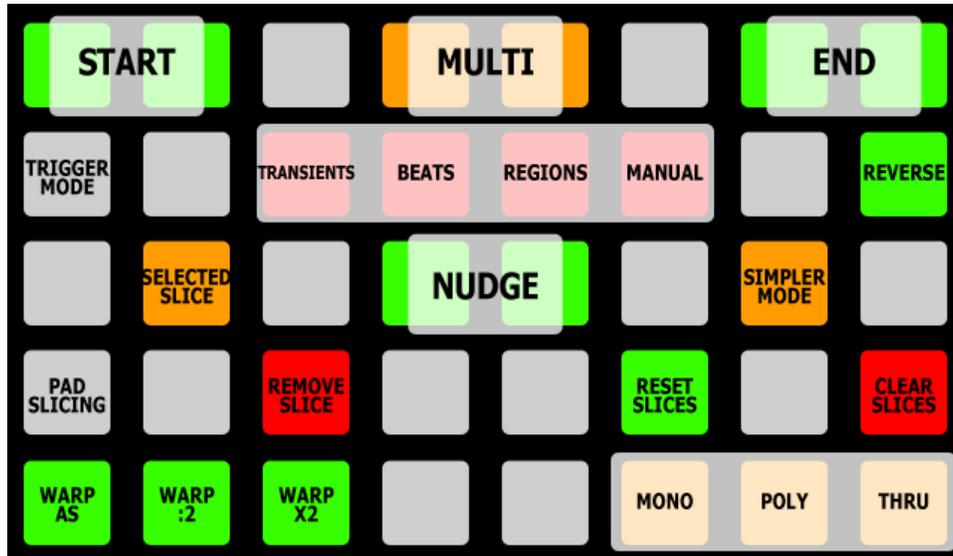
START – These Buttons move the Sample's Start Marker backwards/forwards. Pressing both of these Buttons will reset the Sample's Start Marker causing it to move back to the very beginning of the Sample.

MULTI – These Buttons perform different functions depending on which Slicing Style (**TRANSIENTS**, **BEATS**, **REGIONS** or **MANUAL**) is selected. In all cases, pressing both of these Buttons will reset the associated property back to its default value.

- When **TRANSIENTS** is selected, these Buttons adjust Slicing Sensitivity.
- When **BEATS** is selected, these Buttons adjust the Division setting.
- When **REGIONS** is selected, these Buttons adjust the Regions setting.
- When **MANUAL** is selected, these Buttons perform no function.

END – These Buttons move the Sample's End Marker backwards/forwards. Pressing both of these Buttons will reset the Sample's End Marker causing it to move back to the very end of the Sample.

TRIGGER MODE – Toggles the Trigger Mode between *Trigger* and *Gate*.

TRANSIENTS/BEATS/REGIONS/MANUAL – These Buttons select the Slicing Style to use. **TRANSIENTS** slices based on the Sample's transients. **BEATS** slices based on the Division setting. **REGIONS** evenly distributes Slices across the Sample based on the selected number of Regions. **MANUAL** allows you to manually add Slices as you see fit. The Status Bar will indicate the selected Slicing Style.

REVERSE – Reverses the Sample.

SELECTED SLICE – Triggers the selected Slice so that changes made via other controls can be quickly auditioned.

SIMPLER MODE – Toggles between Simpler's three Playback Modes; *Classic, 1-Shot* and *Slice*.

WARP AS/WARP :2/WARP X2 – Trigger the corresponding functions in Simpler.

MONO/POLY/THRU – These Buttons select the Slice Playback Mode.

The following functions are only accessible when the **TRANSIENTS** or **MANUAL** Slicing Style is selected:

NUDGE – These Buttons nudge the selected Slice's marker backward or forward.

PAD SLICING – Toggles Pad Slicing on/off. The Status Bar will indicate the state. When on, new Slices can be added by playing the Sample and pressing empty Slice Pads.

REMOVE SLICE – Removes the selected Slice.

RESET SLICES – Resets all Slices back to their default positions.

CLEAR SLICES – Clears/removes all Slices.

Chop and Loop Mono

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): `CHOP_AND_LOOP_MONO`

This Mode sets up the `MATRIX` for monophonic Clip Chopping and Loop Control over the playing or selected Clip on the current Track.
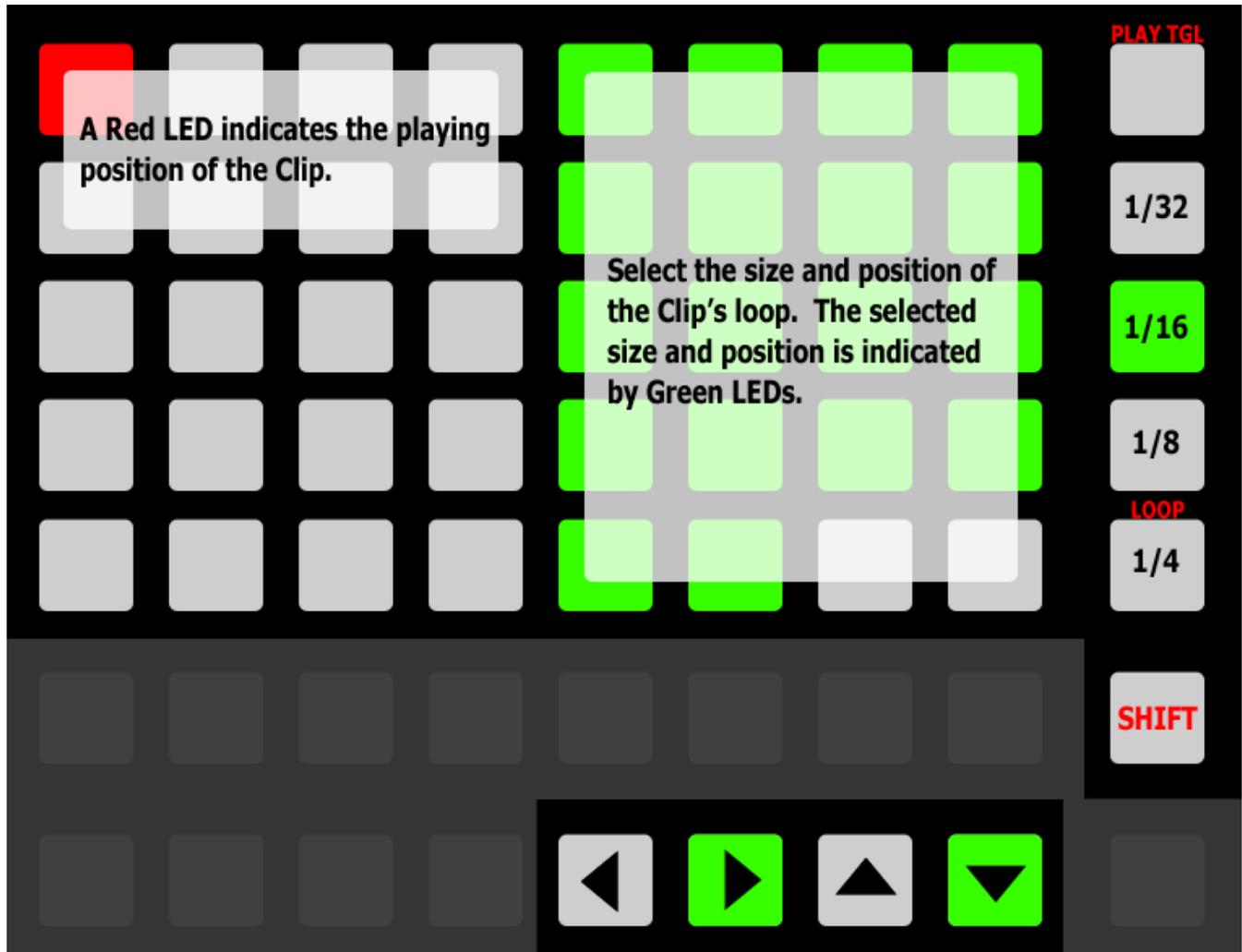
MATRIX:
- **LEFT SIDE** – Assigned to Clip Chopping.

- **RIGHT SIDE** – Assigned to Clip Loop Control.

MATRIX ACCESSORY BUTTONS:
- **1/32 – 1/4** – These select the Quantization to use for Clip Chopping. The Status Bar will indicate the selected Quantization.
  - When `SHIFT` is held down, the topmost Button will toggle the playing state of the Clip while the bottommost Button will toggle the Clip's Loop.

ARROW BUTTONS – In Session View, navigate Scenes and Tracks. In Arrangement View, navigate Tracks and the Insert Marker.

Clip Play Mono

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): `CLIP_PLAY_MONO`

This Mode provides 3 monophonic Sub-Modes for controlling the playing or selected Clip on the current Track: **Chop/Loop** (described in the Chop and Loop Mono section), **Scrub/Loop** (described below) and **Chromatic**. These Sub-Modes can be toggled between via the Button used for selecting this Mode. The Status Bar will indicate the selected Sub-Mode.

[Clip Play Mono] Scrub/Loop Sub-Mode

This Sub-Mode sets up the `MATRIX` for monophonic Clip Scrubbing and Loop Control over the playing or selected Clip on the current Track.
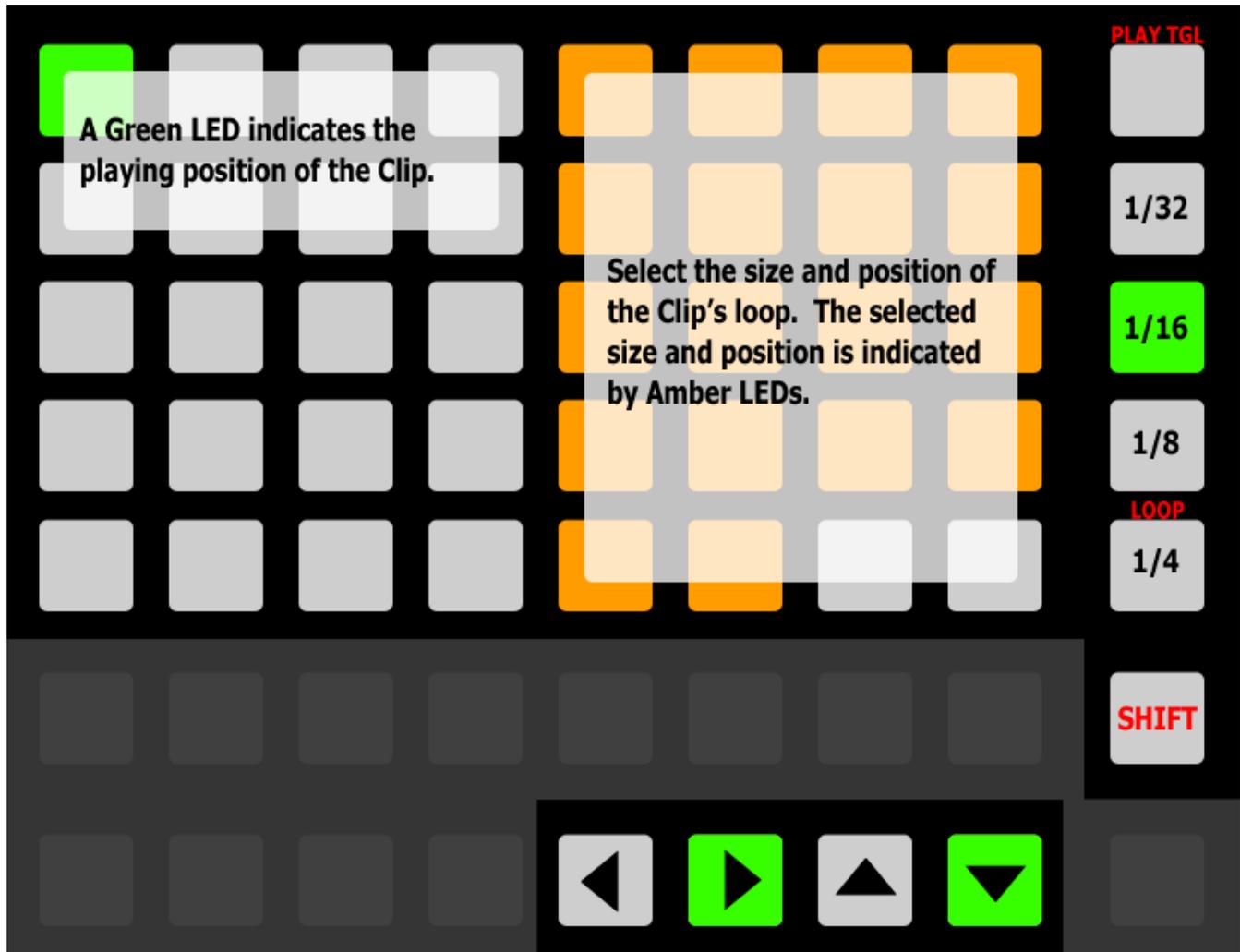
MATRIX:
- **LEFT SIDE** – Assigned to Clip Scrubbing.

- **RIGHT SIDE** – Assigned to Clip Loop Control.

MATRIX ACCESSORY BUTTONS:
- **1/32 – 1/4** – These select the Global Quantization value to use for Clip Scrubbing.
  - When `SHIFT` is held down, the topmost Button will toggle the playing state of the Clip while the bottommost Button will toggle the Clip's Loop.

ARROW BUTTONS – In Session View, navigate Scenes and Tracks. In Arrangement View, navigate Tracks and the Insert Marker.

[Clip Play Mono] Chromatic Sub-Mode

This Sub-Mode sets up the `MATRIX` for Chromatic Clip Play, which allows you to play the playing or selected Clip on the current Track chromatically.

MATRIX:
- When `SHIFT` is held down, pressing a Button in this section will change the pitch without launching the Clip.

  – `UPPER HALF` – Plays ascending pitches.

  – `LOWER HALF` – Plays descending pitches.

MATRIX ACCESSORY BUTTONS:
- `LEGAT` – This Button enables/disables Legato Clip launching. When enabled, the Clip's Launch Mode will be ignored and launching will function as if the Trigger Launch Mode was selected.
  - When `SHIFT` is held down, this will toggle the playing state of the Clip.

  – `1/32 – 1/4` – These select the Quantization to use for re-launching the Clip. The Status Bar will indicate the selected Quantization.
  - When `SHIFT` is held down, the bottommost Button will toggle the Clip's Loop.

`ARROW BUTTONS` – In Session View, navigate Scenes and Tracks. In Arrangement View, navigate Tracks and the Insert Marker.

ⓘ **NOTE:** *Chromatic Clip Play will only work correctly on MIDI Clips if the Track the MIDI Clip is on contains a Pitch MIDI Effect that is **not** inside of a Rack. Chromatic Clip Play will control the Pitch parameter of the first Pitch MIDI Effect on the Track.*

Clip Play Poly

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): `CLIP_PLAY_POLY`

This Mode provides 3 polyphonic Sub-Modes for playing/adjusting Clips across the Tracks within the Grid Selector: **Chop** (described below), **Scrub** and **Loop**. These Sub-Modes can be toggled between via the Button used for selecting this Mode. The Status Bar will indicate the selected Sub-Mode. In all of the Sub-Modes, each Column in the **MATRIX** will control either the Clip that is playing or the Clip that is selected on the corresponding Track.

[Clip Play Poly] Chop Sub-Mode
This Sub-Mode sets up the **MATRIX** for polyphonic Clip Chopping.
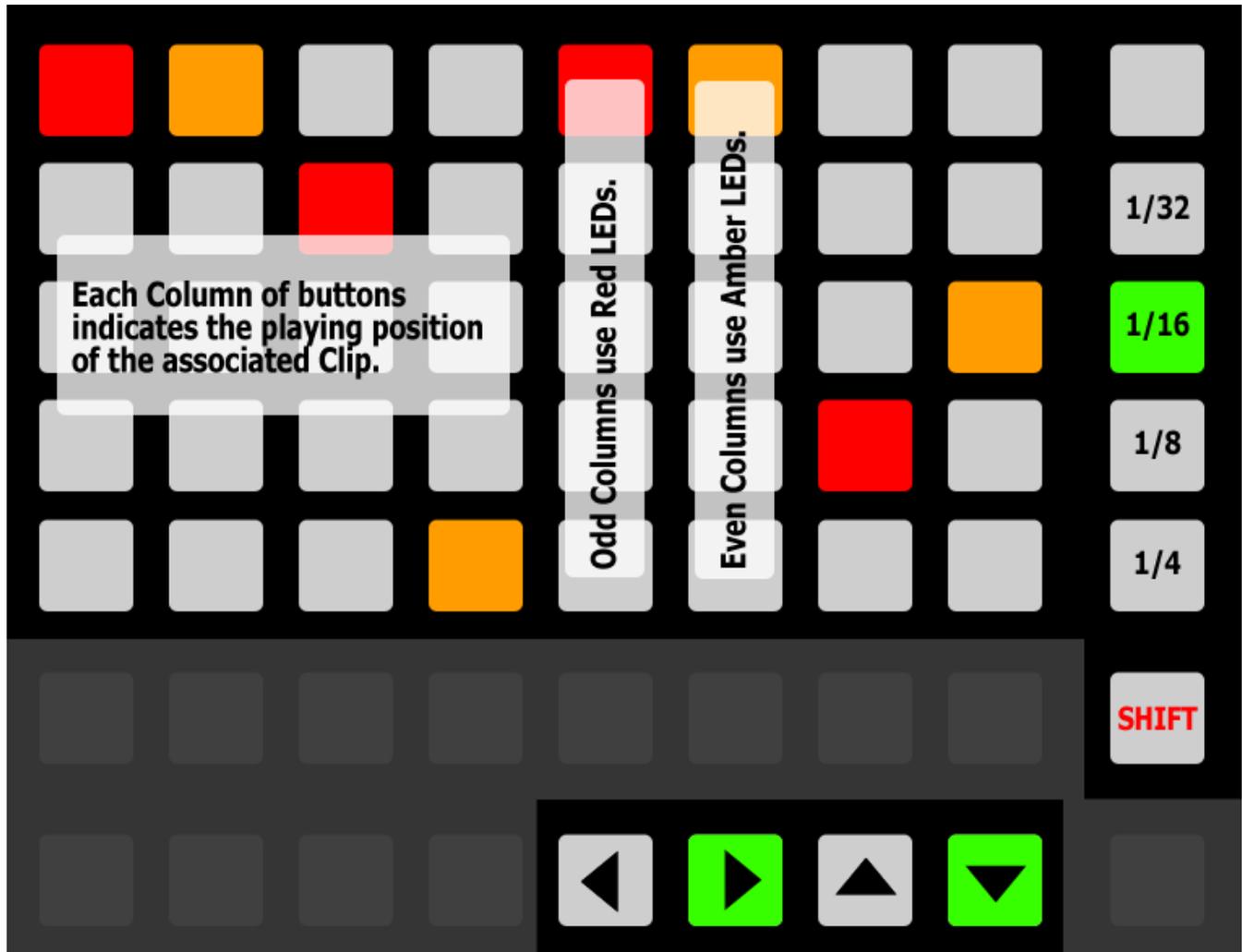
MATRIX – Each Column of Buttons is assigned to Clip Chopping.

MATRIX ACCESSORY BUTTONS:
- **1/32 – 1/4** – These select the Quantization to use for Clip Chopping. The Status Bar will indicate the selected Quantization.

ARROW BUTTONS – Navigate the Grid Selector.

[Clip Play Poly] Scrub Sub-Mode

This Sub-Mode sets up the `MATRIX` for polyphonic Clip Scrubbing.

Each Column of buttons indicates the playing position of the associated Clip.

Odd Columns use Green LEDs.

Even Columns use Red LEDs.
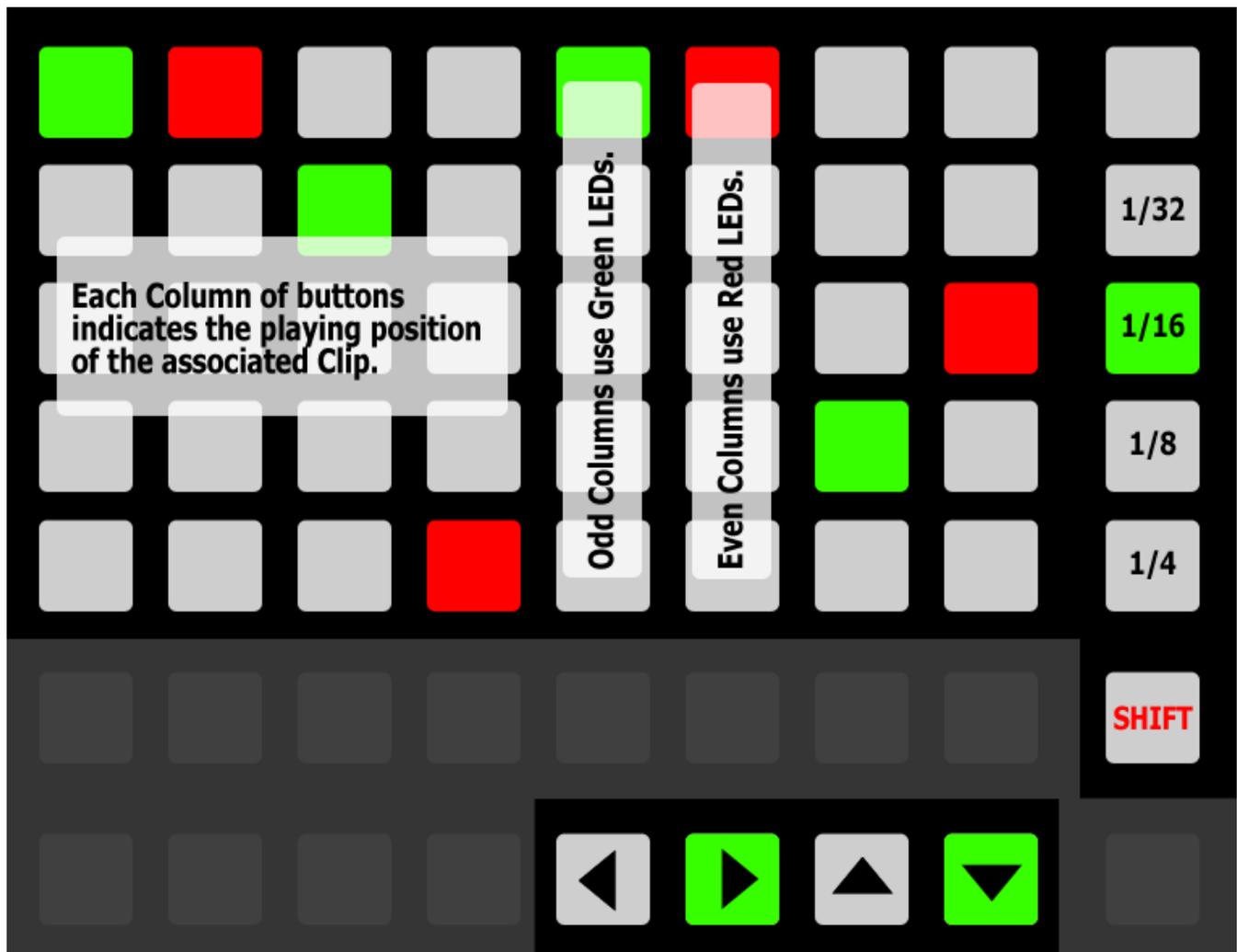
`MATRIX` – Each Column of Buttons is assigned to Clip Scrubbing.

`MATRIX ACCESSORY BUTTONS:`
- `1/32 – 1/4` – These select the Global Quantization value to use for Clip Scrubbing.

`ARROW BUTTONS` – Navigate the Grid Selector.

[Clip Play Poly] Loop Sub-Mode

This Sub-Mode sets up the MATRIX for polyphonic Clip Loop Control.
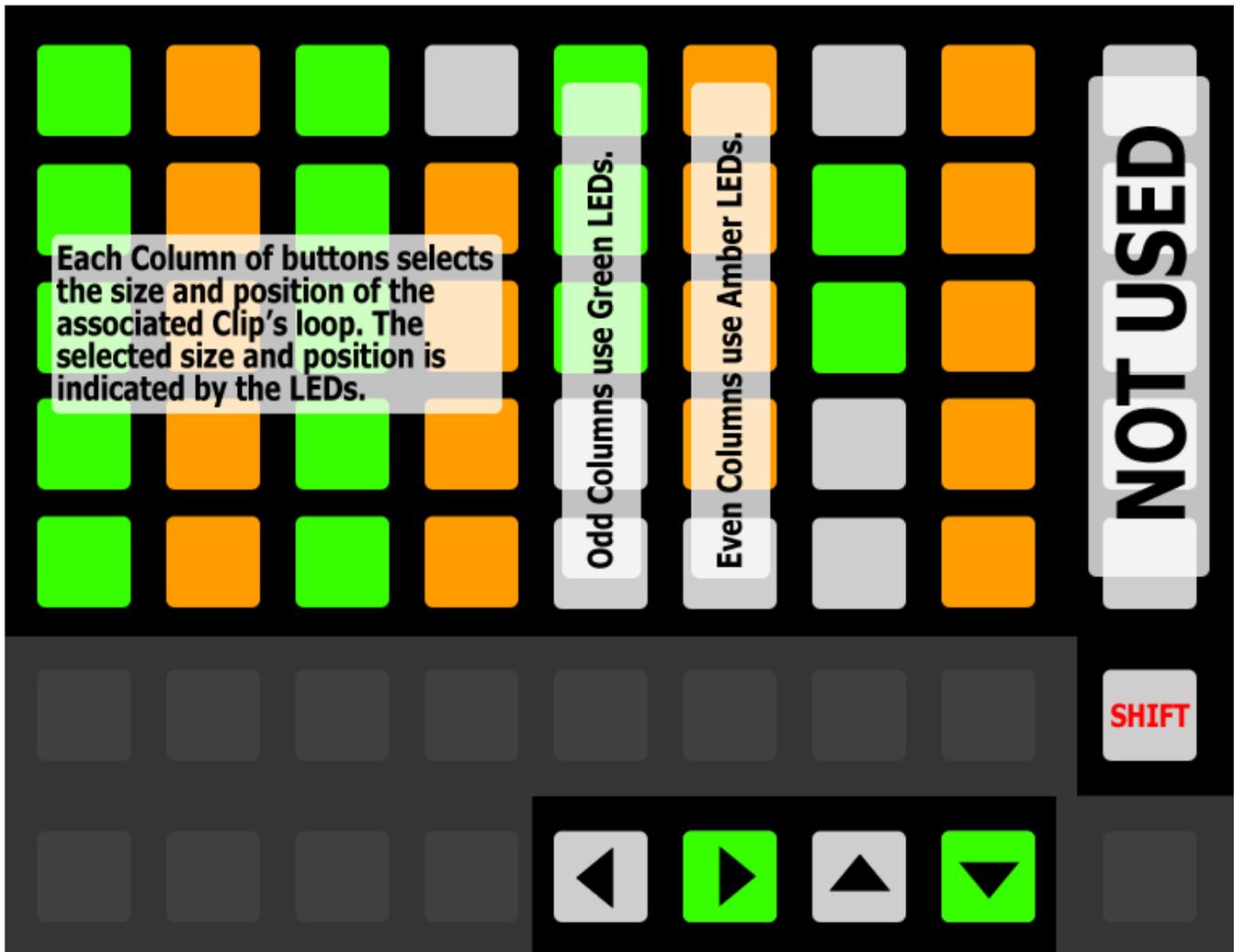
MATRIX – Each Column of Buttons is assigned to Clip Loop Control.

MATRIX ACCESSORY BUTTONS – Not used in this Sub-Mode.

ARROW BUTTONS – Navigate the Grid Selector.

ClyphX

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): **CLYPHX x** (where **x** is the name to use for an instance of the Mode. **CLYPHX TRACK** for example.)

This Mode set up the **MATRIX** for triggering ClyphX actions. The Mode needs to include an instance name (such as **CLYPHX MY ACTIONS**), which you'll specify in *Settings-Matrix Mode List.txt*. This allows each instance of the Mode to trigger different sets of ClyphX actions. The ClyphX actions each instance of the Mode should trigger can be specified in the instance's associated settings file. For example, the ClyphX actions that **CLYPHX MY ACTIONS** will trigger are specified in the file named *Settings-ClyphX My Actions.txt*.

This Mode also set up the **MATRIX ACCESSORY BUTTONS** for storing/recalling ClyphX Snaps. Each instance of the Mode can store/recall its own set of ClyphX Snaps.

MATRIX – The Buttons in this section trigger ClyphX actions.

MATRIX ACCESSORY BUTTONS – The Buttons in this section store/recall ClyphX Snaps. If a Button has an associated ClyphX Snap, its LED will be lit and pressing the Button will recall the ClyphX Snap. Otherwise, pressing the Button will store a ClyphX Snap.
- When **SHIFT** is held down, pressing a Button that has an associated ClyphX Snap will delete the ClyphX Snap.

ARROW BUTTONS – In Session View, navigate Scenes and Tracks. In Arrangement View, navigate Tracks and the Insert Marker.

✔ **TIPS:** *By default, the settings of all Tracks in the Live Set will be snapped and the default ClyphX Snap Action will be used. These behaviors can be changed via the* **TRACKS_TO_SNAP** *and* **SNAP_MODIFIERS** *settings in each instance's associated settings file.*

Cue

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): **CUE**

This Mode sets up the **MATRIX** for launching Cues (aka Arrangement View Locators).
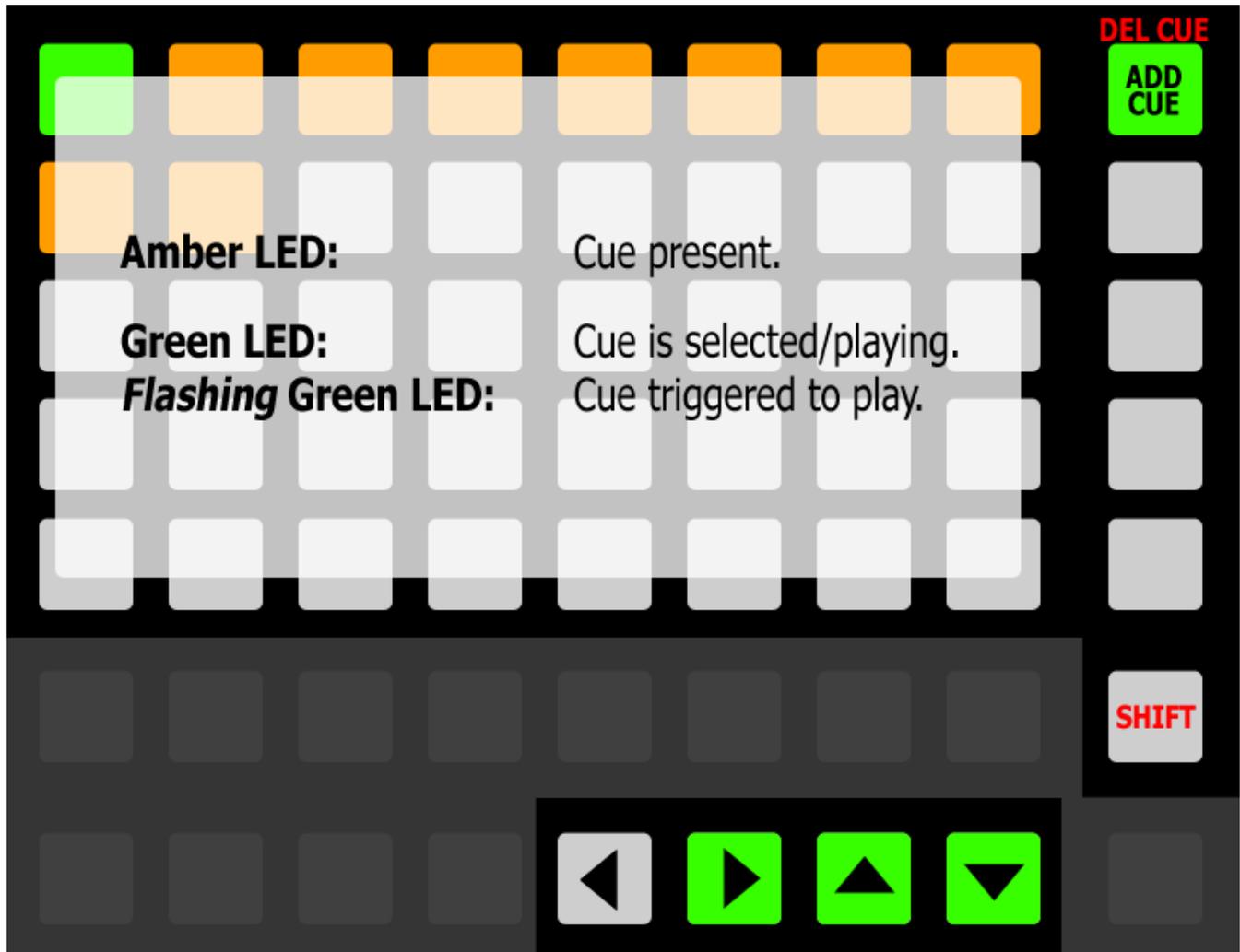
MATRIX – The Buttons in this section launch Cues with quantization that is determined by your Global Quantization setting. The Status Bar will indicate the name and position of the Cue that was launched.

- When **SHIFT** is held down, these Buttons launch Cues immediately (without quantization) regardless of your Global Quantization setting.

MATRIX ACCESSORY BUTTONS:
- **ADD CUE** – Adds a Cue at the current Arrangement position. This will only be accessible if the position doesn't already contain a Cue.
  - When **SHIFT** is held down, this will delete the currently selected Cue. This will only be accessible if a Cue is selected.

ARROW BUTTONS – Up and Down are used for Rewind and Fastforward respectively. Left and Right navigate Tracks in Session View or the Insert Marker in Arrangement View.

Cue Snap

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): CUE_SNAP

This Mode sets up the MATRIX for launching Cues (aka Arrangement View Locators) as well as storing/launching Session Snapshots.
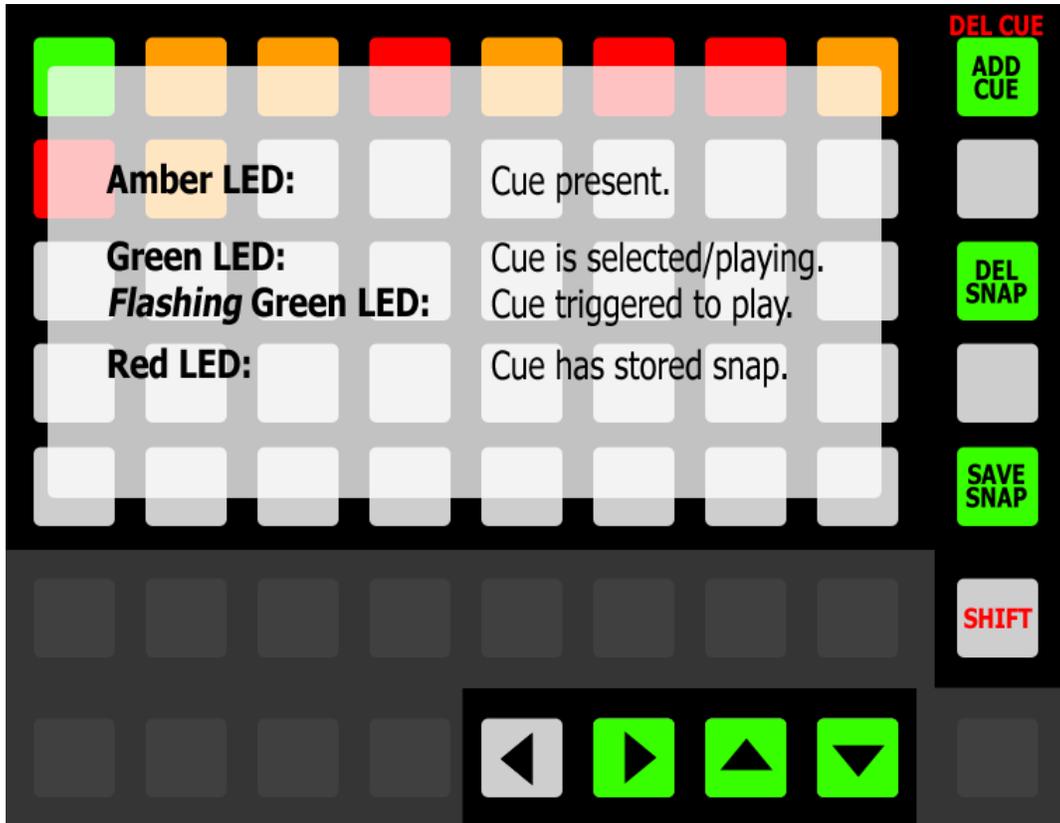
MATRIX – The Buttons in this section launch Cues with quantization that is determined by your Global Quantization setting. Also, if the Cue has an associated Session Snapshot, it will be launched when the Cue is reached. The Status Bar will indicate the name and position of the Cue that was launched.

- When SHIFT is held down, these Buttons launch Cues immediately (without quantization) regardless of your Global Quantization setting.

MATRIX ACCESSORY BUTTONS:
- **ADD CUE** – Adds a Cue at the current Arrangement position. This will only be accessible if the position doesn't already contain a Cue.
  - When SHIFT is held down, this will delete the currently selected Cue. This will only be accessible if a Cue is selected.

- **DEL SNAP** – When this Button is held down, stored Session Snapshots can be deleted by pressing the associated Button in the MATRIX.

- **SAVE SNAP** – When this Button is held down, pressing a Button in the MATRIX that is associated with a Cue will store and associate a Session Snapshot with the Cue.

ARROW BUTTONS – Up and Down are used for Rewind and Fastforward respectively. Left and Right navigate Tracks in Session View or the Insert Marker in Arrangement View.

ⓘ **NOTE:** *Cues that have an associated Session Snapshot will launch the Session Snapshot when the Cue is reached. In this way, Cues can be used to sequence the launching of Clips in Session View.*

Device

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): `DEVICE`

This Mode sets up the `MATRIX` for controlling parameters of the selected Device (indicated by a blue hand icon on the Device's title bar). Also, you can toggle between Device and Clip View by pressing the Button used to select this Mode.
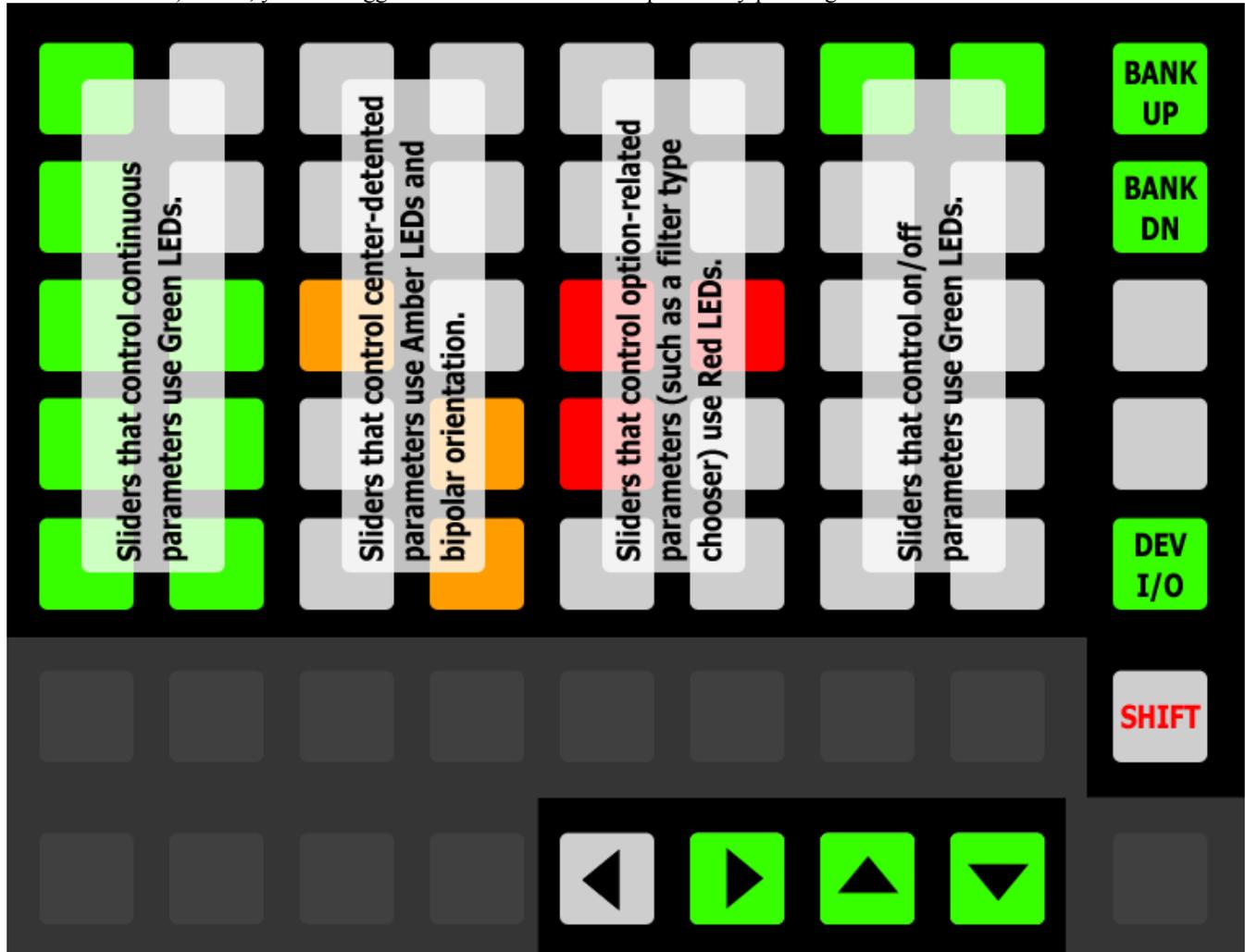
MATRIX – Each Column of Buttons functions as an Intelligent Button Slider for controlling a parameter of the selected Device.

MATRIX ACCESSORY BUTTONS:
- **BANK UP/BANK DN** – If the Device has more than 8 parameters, these will move between Banks of 8 parameters to control. The Status Bar will indicate the name of the selected Bank.

- **DEV I/O** – Toggles the Device on/off. When held down, this will function as a momentary on/off switch.

ARROW BUTTONS – Up and Down are used for navigating left and right between Devices. Left and Right navigate Tracks in Session View or the Insert Marker in Arrangement View.

✔ **TIP:** *This Mode can be locked to the currently selected Device via the Button assigned to Lock. The Status Bar will indicate lock status. However, if the Encoder Device Mode is also in use, this Mode cannot be locked and will not work correctly if the Encoder Device Mode is locked. For that reason, it is recommended that you do not use this Mode while also using the Encoder Device Mode unless you won't be using the lock functionality.*

Drum

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): DRUM

This Mode sets up the MATRIX for playing Drum instruments (other than just the Drum Rack) on the current Track.
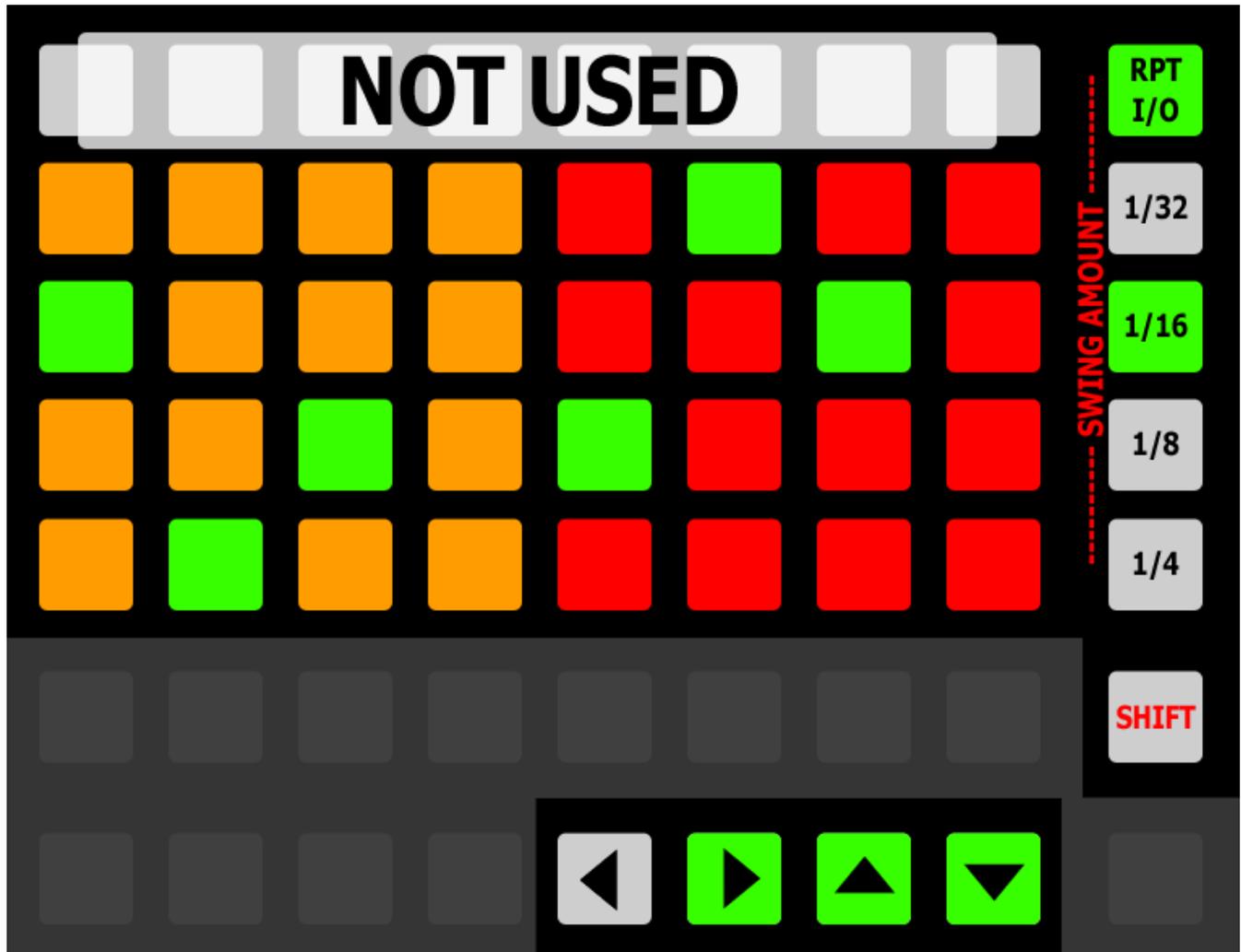
MATRIX – This section is split into 2 quadrants of 4 x 4 Drum Pads. The quadrants use different LED colors to visually differentiate them from each other.

MATRIX ACCESSORY BUTTONS – The Buttons in this section control Note Repeat.

ARROW BUTTONS – Up and Down will shift the Notes assigned to the Drum Pads up or down by 32 semitones. Pressing both Up and Down will revert back to the default Note range. The Status Bar will indicate the current Note range. Left and Right navigate Tracks in Session View or the Insert Marker in Arrangement View.

Global User

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): `GLOBAL_USER`

This Mode sets up the **MATRIX** for controlling user-assignable global parameters and properties as well as triggering ClyphX actions. The parameters/properties and ClyphX actions that the **MATRIX** should control as well as the LED colors that should be used can be specified in *Settings-Global User.txt*.

MATRIX – The Buttons in this section control user-assignable global parameters/properties and trigger ClyphX actions.

MATRIX ACCESSORY BUTTONS – These Buttons function as a Button Slider for controlling Cue Volume.

ARROW BUTTONS – In Session View, navigate Scenes and Tracks. In Arrangement View, navigate Tracks and the Insert Marker.

HazMap Chain

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): **HM_CHAIN x** (where **x** is the name to use for an instance of the Mode. **HM_CHAIN DR** for example.)

This Mode sets up the **MATRIX** for Chain-based HazMapping to parameters of the selected Chain of a Rack on the current Track.

MATRIX – Each Column of Buttons functions as an Intelligent Button Slider for controlling a HazMapped parameter of the selected Chain of a Rack on the current Track.

When **MAP** (described below) is held down, the first Intelligent Button Slider provides access to mapping functionality. The topmost Button will turn HazMap Mapping Mode On or Off. When On, you can create HazMappings for the Intelligent Button Sliders.

The bottommost Button will initiate deletion of the mappings of this Mode. Once initiated, the topmost Button must be pressed to perform the actual deletion.

The Status Bar will display information on all of this to help guide you through the process.

MATRIX ACCESSORY BUTTONS:
- **MAP** – When held down, this will modify the function of the first Intelligent Button Slider.

- **MUTE** – Toggles the Mute state of the selected Chain. When held down, this will function as a momentary Mute switch.

- **SOLO** – Toggles the Solo state of the selected Chain. When held down, this will function as a momentary Solo switch.

- **DEV S/H** – Shows or hides the Devices of the selected Chain.

ARROW BUTTONS – Up and Down will navigate between the Chains of the Rack. The Status Bar will indicate the name of the selected Chain. Left and Right navigate Tracks in Session View or the Insert Marker in Arrangement View.

HazMap Mix

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): `HM_MIX x` (where `x` is the name to use for an instance of the Mode. `HM_MIX EQ` for example.)

This Mode sets up the `MATRIX` for Mix-based HazMapping to parameters across the Tracks within the Grid Selector.

MATRIX – Each Column of Buttons functions as an Intelligent Button Slider for controlling a HazMapped parameter of a Track.

When `MAP` (described below) is held down, the first Intelligent Button Slider provides access to mapping functionality. The topmost Button will turn HazMap Mapping Mode On or Off. When On, you can create HazMappings for the Intelligent Button Sliders. However, unlike other HazMap Modes, this Mode strictly uses the first Intelligent Button Slider for creating HazMappings. Also, this Mode provides multiple Pages of mappings. Each Page allows for one mapping, which you'll create with the first Intelligent Button Slider. You can switch between Pages while in HazMap Mapping Mode.

The bottommost Button will initiate deletion of the mappings of this Mode. Once initiated, the topmost Button must be pressed to perform the actual deletion.

The Status Bar will display information on all of this to help guide you through the process.

MATRIX ACCESSORY BUTTONS:
- **MAP** – When held down, this will modify the function of the first Intelligent Button Slider.

- **PAGE 1 – 4** – These select the Page of mappings to use or, while in HazMap Mapping Mode, the Page to create mappings for. The Status Bar will display the name of the selected Page.

ARROW BUTTONS – Navigate the Grid Selector.

HazMap Track

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): **HM_TRACK x** (where **x** is the name to use for an instance of the Mode. **HM_TRACK SYNTH** for example.)

This Mode sets up the **MATRIX** for Track-based HazMapping to parameters on the current Track.
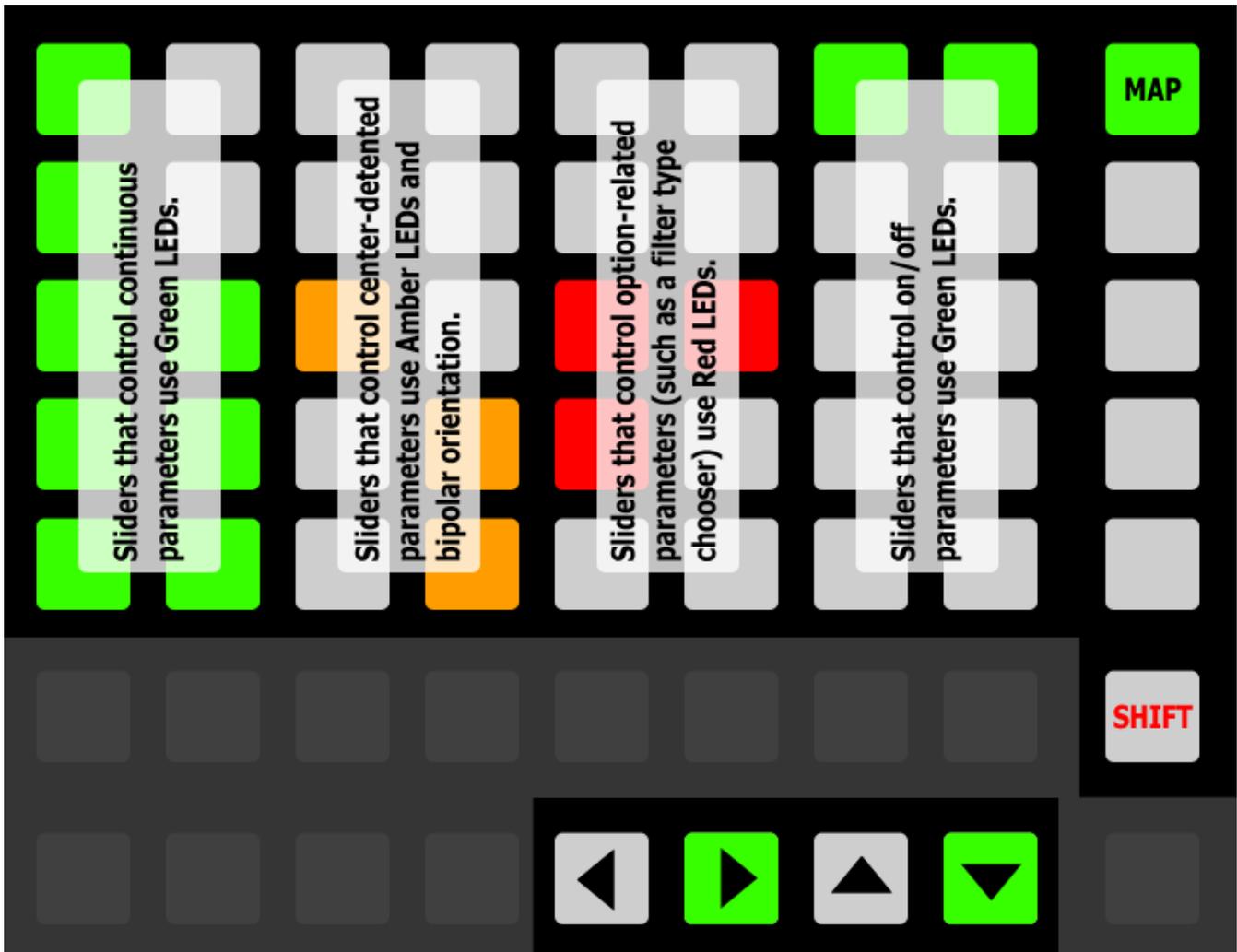
MATRIX – Each Column of Buttons functions as an Intelligent Button Slider for controlling a HazMapped parameter of the current Track.

When **MAP** (described below) is held down, the first Intelligent Button Slider provides access to mapping functionality. The topmost Button will turn HazMap Mapping Mode On or Off.   When On, you can create HazMappings for the Intelligent Button Sliders.

The bottommost Button will initiate deletion of the mappings of this Mode. Once initiated, the topmost Button must be pressed to perform the actual deletion.

The Status Bar will display information on all of this to help guide you through the process.

MATRIX ACCESSORY BUTTONS:
- **MAP** – When held down, this will modify the function of the first Intelligent Button Slider.

ARROW BUTTONS – In Session View, navigate Scenes and Tracks. In Arrangement View, navigate Tracks and the Insert Marker.

Meters

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): METERS

This Mode sets up the MATRIX to display Level Meters and control the Volume of the Tracks within the Grid Selector as well as the Master Track.

Default layout:
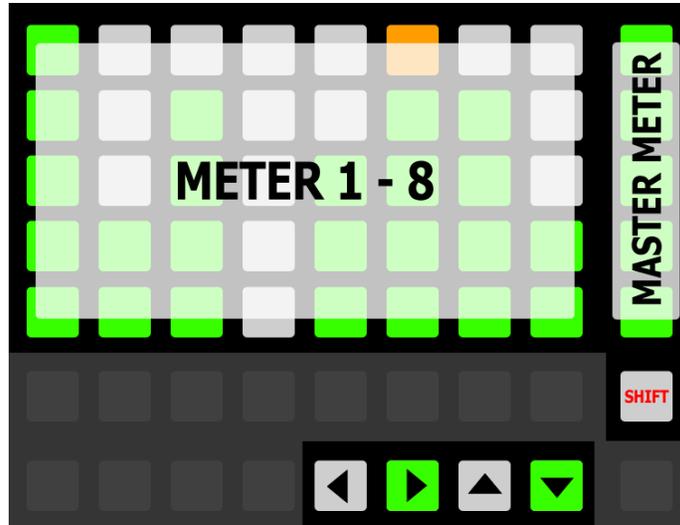
Layout when SHIFT is held down:

MATRIX – Each Column of Buttons functions as a Level Meter for a Track.
- When SHIFT is held down, each Column of Buttons functions as a Button Slider for controlling the Volume of a Track.

MATRIX ACCESSORY BUTTONS – These Buttons function as a Level Meter for the Master Track.
- When SHIFT is held down, these Buttons function as a Button Slider for controlling the Volume of the Master Track.

ARROW BUTTONS – Navigate the Grid Selector.

✔ **TIP:** *By default, the Button Sliders will control the entire Volume range of Tracks. They can optionally be limited to 0db via the* LIMIT_VOLUME_CONTROL_TO_0_DB *setting in* Settings-General.txt.


Mix

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): MIX

This Mode sets up the MATRIX for controlling Mixer-related parameters of the Tracks within the Grid Selector.

MATRIX – Each Column of Buttons functions as an Intelligent Button Slider for controlling the selected parameter of a Track.

MATRIX ACCESSORY BUTTONS – Select the parameter (Volume, Pan or Send A – C respectively) the Intelligent Button Sliders should control. The Status Bar will indicate the selected parameter.

ARROW BUTTONS – Navigate the Grid Selector.

✔ *TIP:* *By default, when assigned to Volume, the Button Sliders will control the entire Volume range of Tracks. They can optionally be limited to 0db via the* LIMIT_VOLUME_CONTROL_TO_0_DB *setting in* *Settings-General.txt.*

Note

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): **NOTE**

This Mode provides 3 Sub-Modes for playing instruments on the current Track: **Scale** (described in the Scale section), **Drum Rack** (described below) and **Simpler**. These Sub-Modes will be automatically selected based on the contents of the Track. If the Track contains a Drum Rack, the Drum Rack Sub-Mode will be selected. If the Track contains a Simpler in Slicing Playback Mode, the Simpler Sub-Mode will be selected. Otherwise, the Scale Sub-Mode will be selected.

[Note] Drum Rack Sub-Mode

This Sub-Mode sets up the **MATRIX** to play Drum Racks.
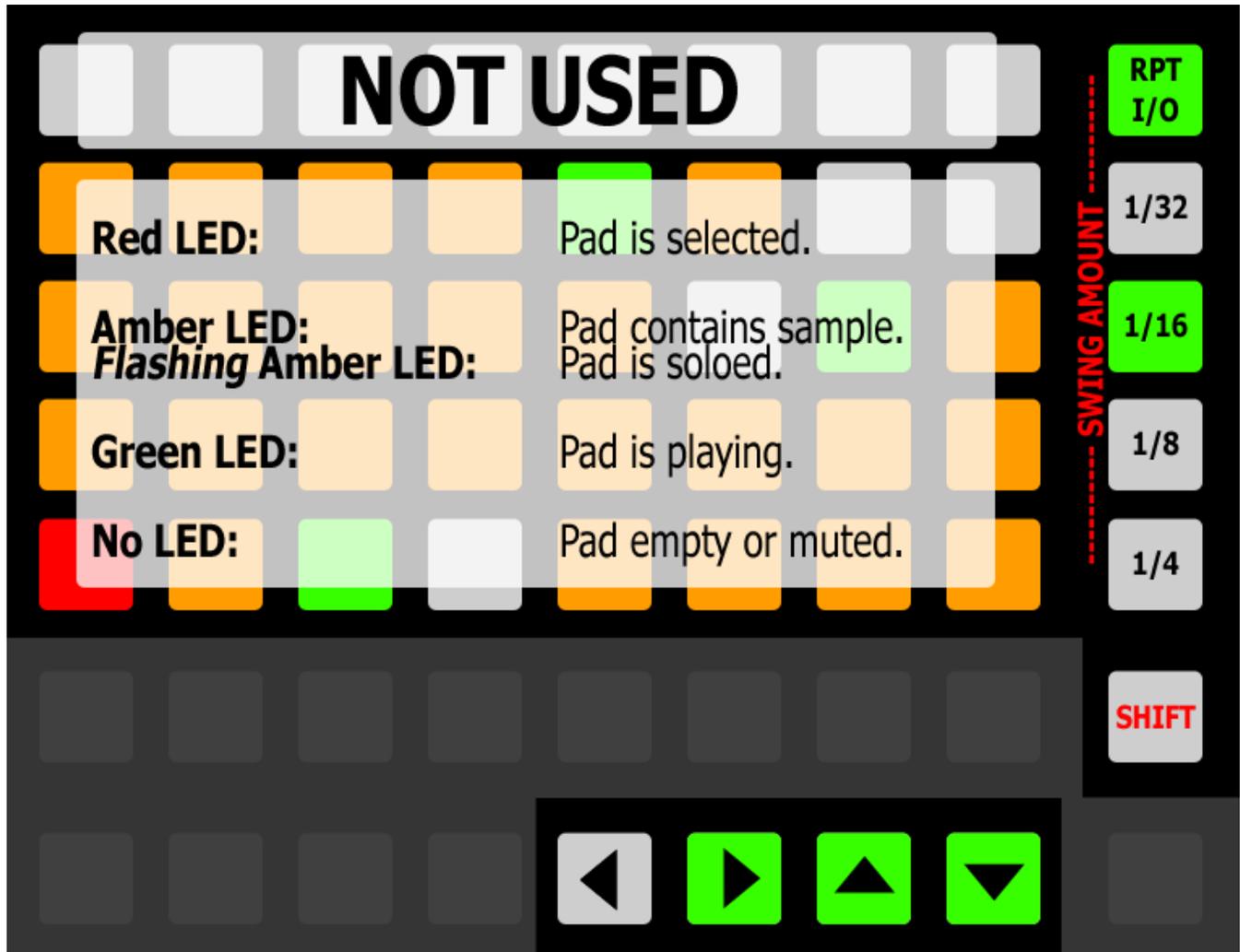
MATRIX – This section is split into 2 quadrants of 4 x 4 Drum Pads. The leftmost quadrant plays the visible Pads in the Drum Rack. The rightmost quadrant plays the Pads directly above the visible Pads in the Drum Rack.

MATRIX ACCESSORY BUTTONS – The Buttons in this section control Note Repeat.

ARROW BUTTONS – Up and Down will move the Drum Rack selector up or down by 4 rows. Pressing both Up and Down will revert back to the default selector position. Left and Right navigate Tracks in Session View or the Insert Marker in Arrangement View.

[Note] Simpler Sub-Mode

This Sub-Mode sets up the `MATRIX` to play Slices in Simpler.
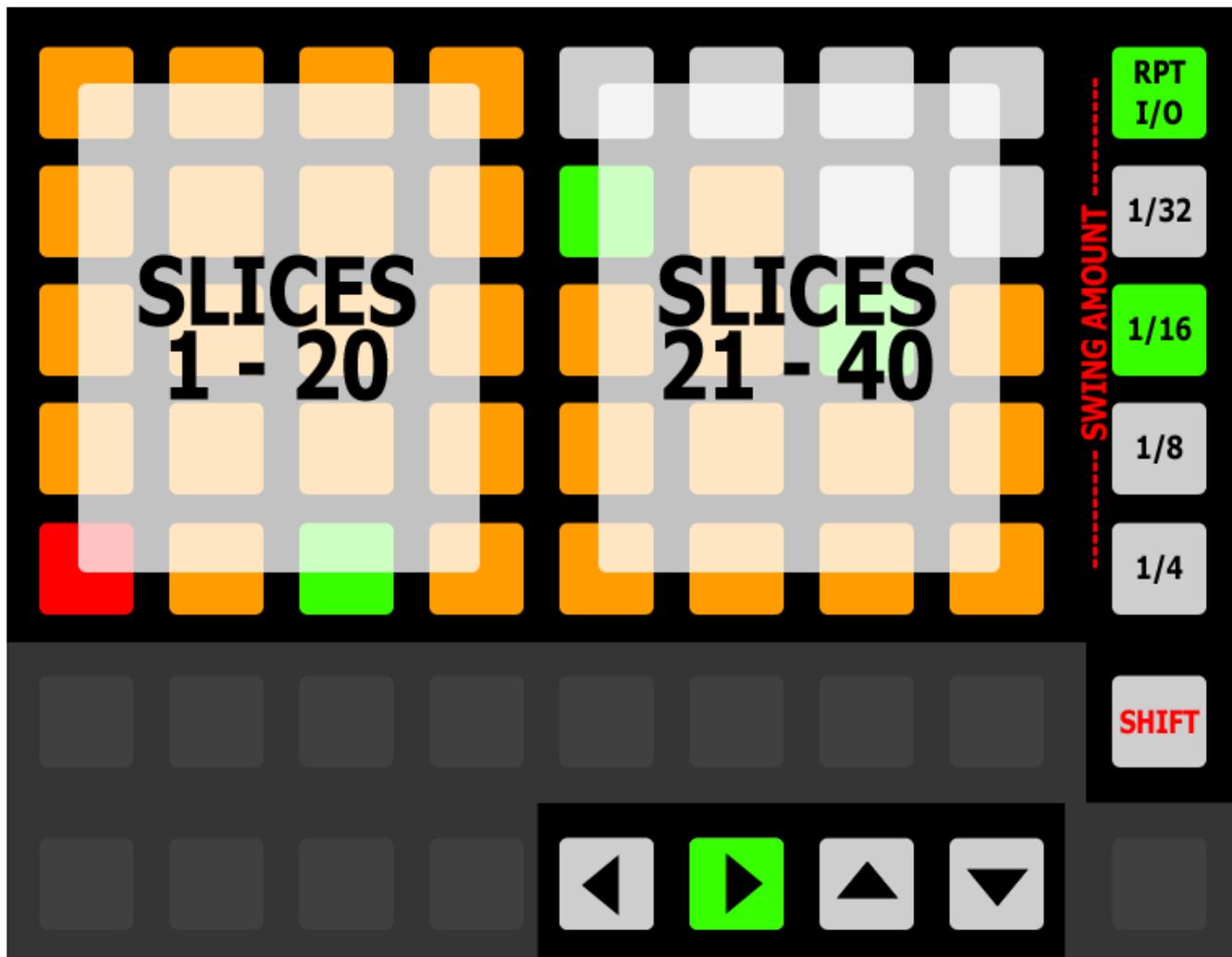
`MATRIX` – This section is split into 2 quadrants of 4 x 5 Slice Pads.
- When `SHIFT` is held down, this section can be used for changing Simpler settings via the Simpler Settings Page.

`MATRIX ACCESSORY BUTTONS` – The Buttons in this section control Note Repeat.

`ARROW BUTTONS` – Up and Down navigate Slices (if more than 40 Slices are present). Left and Right navigate Tracks in Session View or the Insert Marker in Arrangement View.

Note Capture

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): `NOTE_CAPTURE`

This Mode sets up the **MATRIX** for playing Notes that be captured from the selected Clip on the current Track. This Mode will capture the first 40 unique Notes from the Clip and assign them to the **MATRIX** in Note order. You can perform the capture by pressing the Button used to select this Mode.
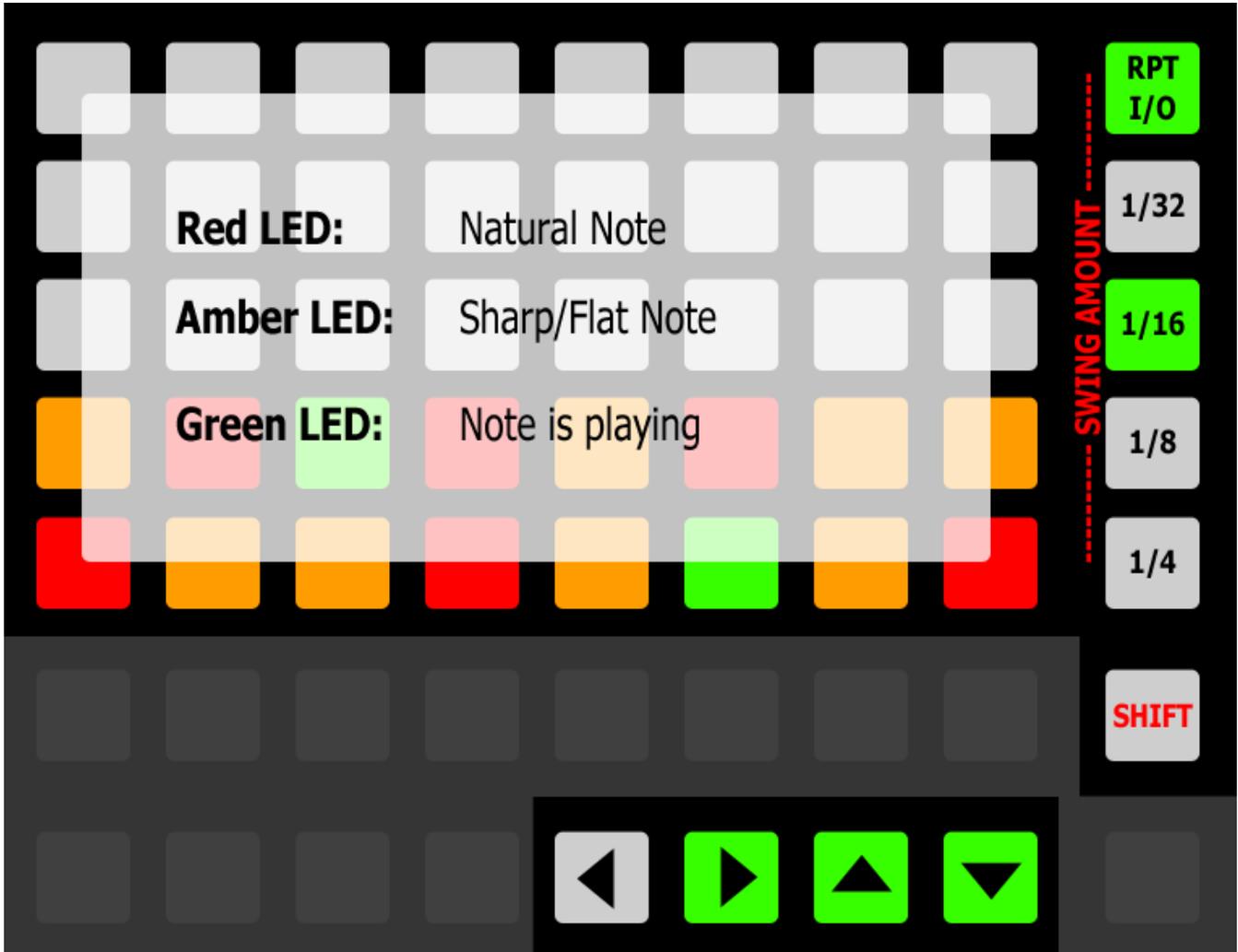
MATRIX – Plays the Notes that have been captured.

MATRIX ACCESSORY BUTTONS – The Buttons in this section control Note Repeat.

ARROW BUTTONS – Up and Down will shift the captured Notes up or down by 1 octave (12 semitones). Pressing both Up and Down will revert back to the default Note range. The Status Bar will indicate the current Note range. Left and Right navigate Tracks in Session View or the Insert Marker in Arrangement View.

ⓘ **NOTE:** *A Clip must contain at least 2 unique Notes in order for Notes to be captured from it.*

Note Plus

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): **NOTE_PLUS**

This Mode provides 3 Sub-Modes for playing instruments on the current Track: **Scale** (described in the Scale section), **Drum Rack** (described below) and **Simpler**. The Drum Rack and Simpler Sub-Modes also include Step-Sequencing and 16 Levels functionality. These Sub-Modes will be automatically selected based on the contents of the Track. If the Track contains a Drum Rack, the Drum Rack Sub-Mode will be selected. If the Track contains a Simpler in Slicing Playback Mode, the Simpler Sub-Mode will be selected. Otherwise, the Scale Sub-Mode will be selected.

[Note Plus] Drum Rack Sub-Mode

This Sub-Mode sets up the **MATRIX** to play and Step-Sequence Drum Racks. This Sub-Mode includes three Layouts: **Default** (described below), **16 Levels** and **32 Pad** (described in the [Note] Drum Rack Sub-Mode section), which can be toggled between by pressing the Button used to select Note Plus Mode. The Status Bar will indicate the selected Layout.

MATRIX – The **MATRIX** is split into three sections; the lower 4 Rows on the left is the **DRUM PAD SECTION**, the lower 4 Rows on the right is the **STEP-SEQUENCE SECTION** and the uppermost Row is the **LOOP/EDIT POSITION SECTION**.
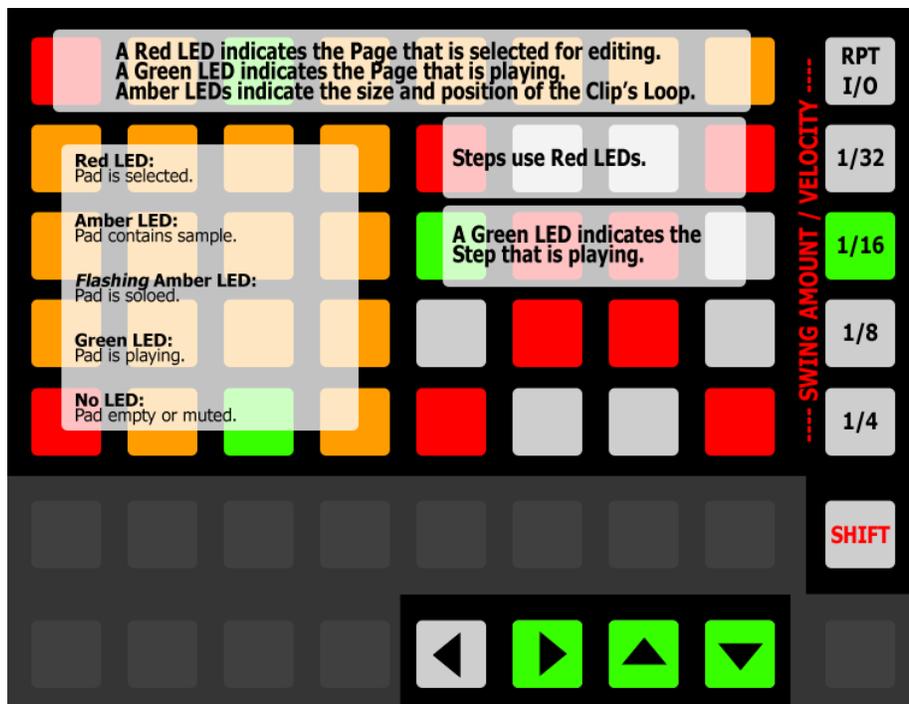
- **DRUM PAD SECTION** – This section of Buttons plays the visible Pads in the Drum Rack and also selects the Pad to sequence from the **STEP-SEQUENCE SECTION**.
  - When **SHIFT** is held down, these Buttons can be used for selecting the Pad to sequence without playing the Pad.

- **LOOP/EDIT POSITION SECTION** – The Buttons in this section are used for Sequence Page Selection.

- **STEP-SEQUENCE SECTION** – The Buttons in this section are used for Step-Sequencing.

MATRIX ACCESSORY BUTTONS – When Note Repeat is on, the Buttons in this section control Note Repeat. Otherwise:

- **1/32 – 1/4** – Select the Resolution to use for Step-Sequencing. The Status Bar will indicate the selected Resolution.
  - When **SHIFT** is held down, these Buttons can be used for selecting the Velocity to use for Step-Sequencing. The Status Bar will indicate the selected Velocity.

ARROW BUTTONS – Up and Down will move the Drum Rack selector up or down by 4 rows. Pressing both Up and Down will revert back to the default selector position. Left and Right navigate Tracks in Session View or the Insert Marker in Arrangement View.

[Note Plus] Drum Rack Sub-Mode - 16 Levels Layout
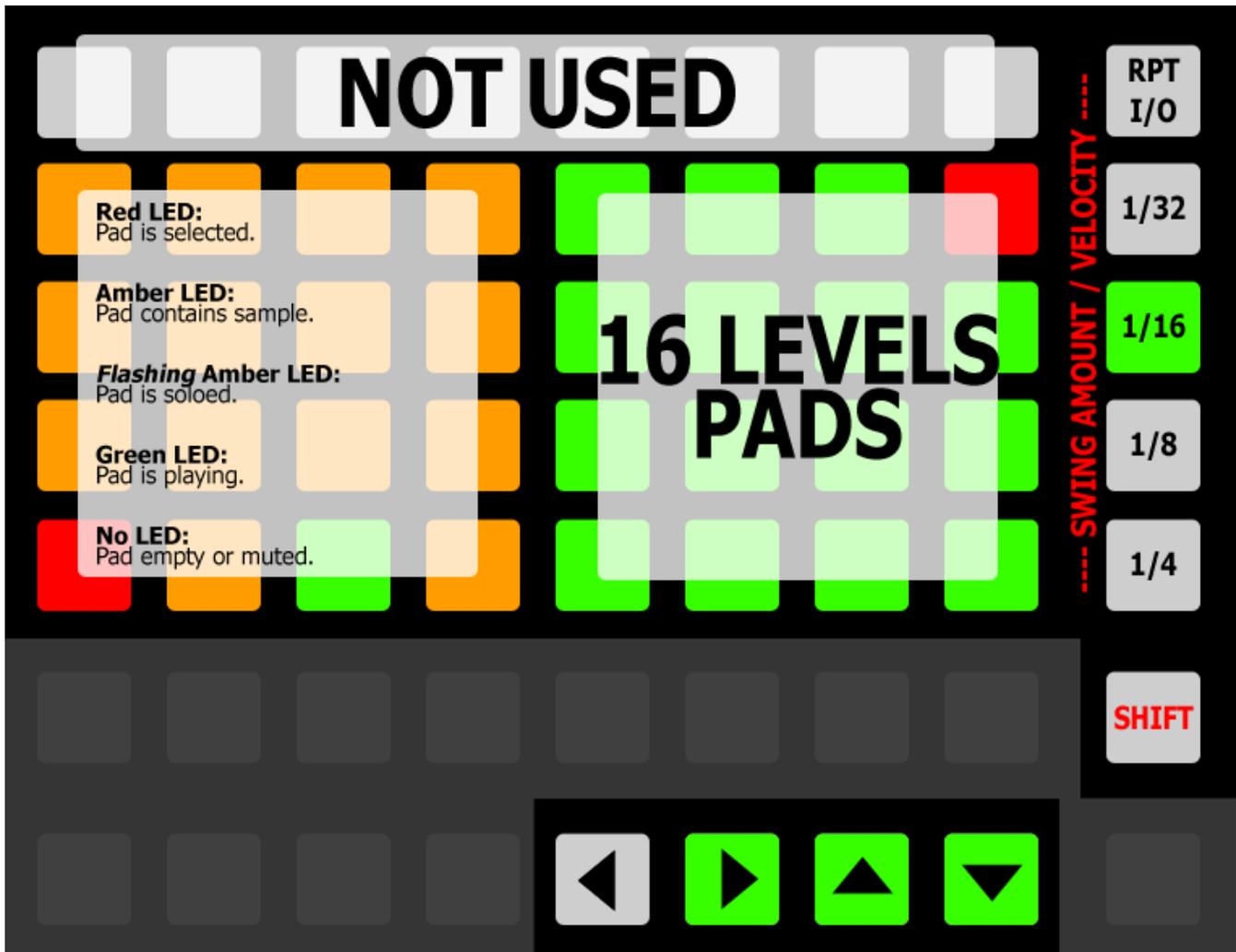
MATRIX – The `MATRIX` is split into two sections; the lower 4 Rows on the left is the **DRUM PAD SECTION** and the lower 4 Rows on the right is the **16 LEVELS PAD SECTION**.

- – **DRUM PAD SECTION** – This section of Buttons plays the visible Pads in the Drum Rack and also selects the Pad to play from the **16 LEVELS PAD SECTION**.
  - ▪ When `SHIFT` is held down, these Buttons can be used for selecting the Pad to play without playing the Pad.

- – **16 LEVELS PAD SECTION** – This section of Buttons plays the selected Drum Rack Pad with ascending Velocities.

MATRIX ACCESSORY BUTTONS – When Note Repeat is on, the Buttons in this section control Note Repeat.

ARROW BUTTONS – Up and Down will move the Drum Rack selector up or down by 4 rows. Pressing both Up and Down will revert back to the default selector position. Left and Right navigate Tracks in Session View or the Insert Marker in Arrangement View.

[Note Plus] Simpler Sub-Mode

This Sub-Mode sets up the `MATRIX` to play and Step-Sequence Slices in Simpler. This Sub-Mode includes three Layouts: **Default** (described below), **16 Levels** and **40 Pad** (described in the [Note] Simpler Sub-Mode section), which can be toggled between by pressing the Button used to select Note Plus Mode. The Status Bar will indicate the selected Layout.
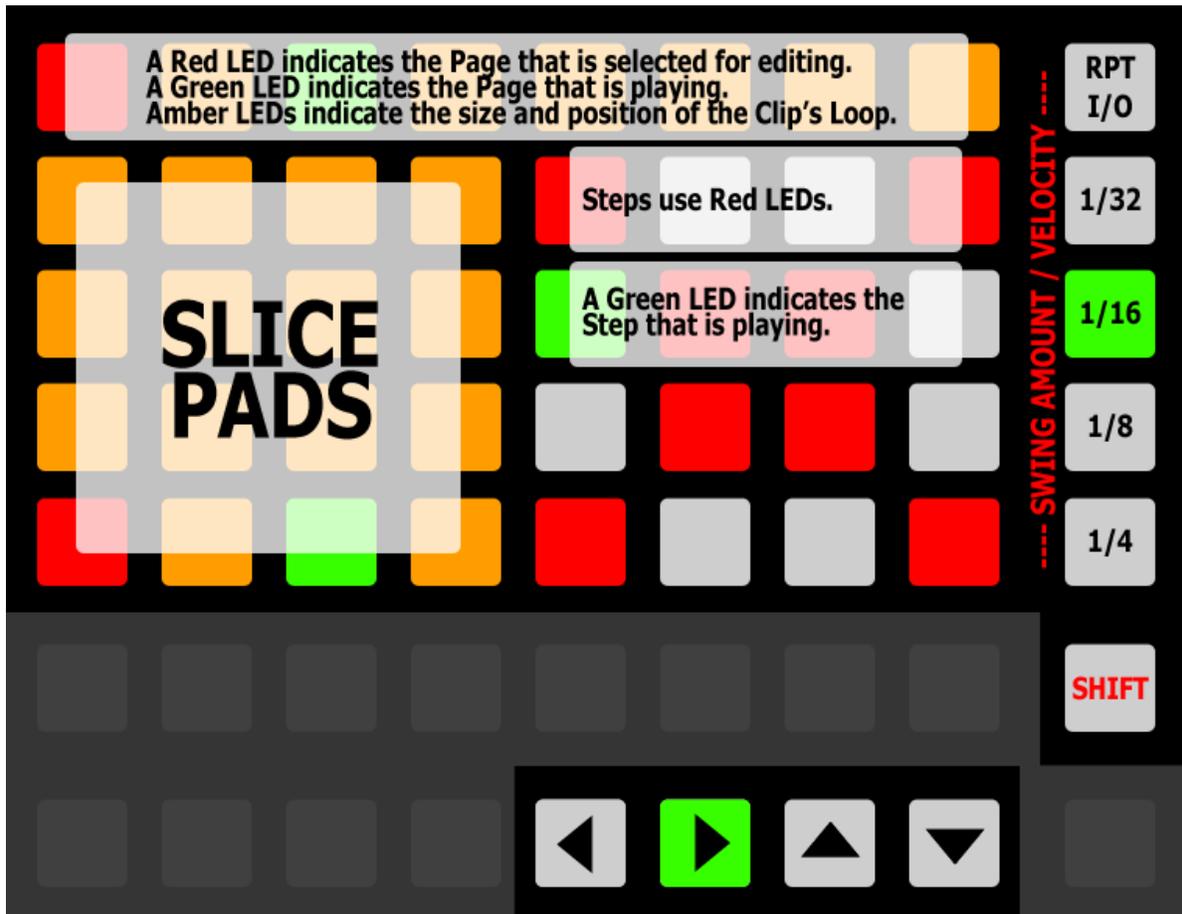
MATRIX – The `MATRIX` is split into three sections; the lower 4 Rows on the left is the `SLICE PAD SECTION`, the lower 4 Rows on the right is the `STEP-SEQUENCE SECTION` and the uppermost Row is the `LOOP/EDIT POSITION SECTION`.

- When `SHIFT` is held down, the `MATRIX` can be used for changing Simpler settings via the Simpler Settings Page.

    - **SLICE PAD SECTION** – This section of Buttons plays Slices in Simpler and also selects the Slice to sequence from the `STEP-SEQUENCE SECTION`.

    - **LOOP/EDIT POSITION SECTION** – The Buttons in this section are used for Sequence Page Selection.

    - **STEP-SEQUENCE SECTION** – The Buttons in this section are used for Step-Sequencing.

MATRIX ACCESSORY BUTTONS – When Note Repeat is on, the Buttons in this section control Note Repeat. Otherwise:

    - **1/32 - 1/4** – Select the Resolution to use for Step-Sequencing. The Status Bar will indicate the selected Resolution.
        - When `SHIFT` is held down, these Buttons can be used for selecting the Velocity to use for Step-Sequencing. The Status Bar will indicate the selected Velocity.

ARROW BUTTONS – Up and Down navigate Slices (if more than 16 Slices are present). Pressing both Up and Down will revert back to the first 16 Slices. The Status Bar will indicate the current range of Slices. Left and Right navigate Tracks in Session View or the Insert Marker in Arrangement View.

[Note Plus] Simpler Sub-Mode - 16 Levels Layout
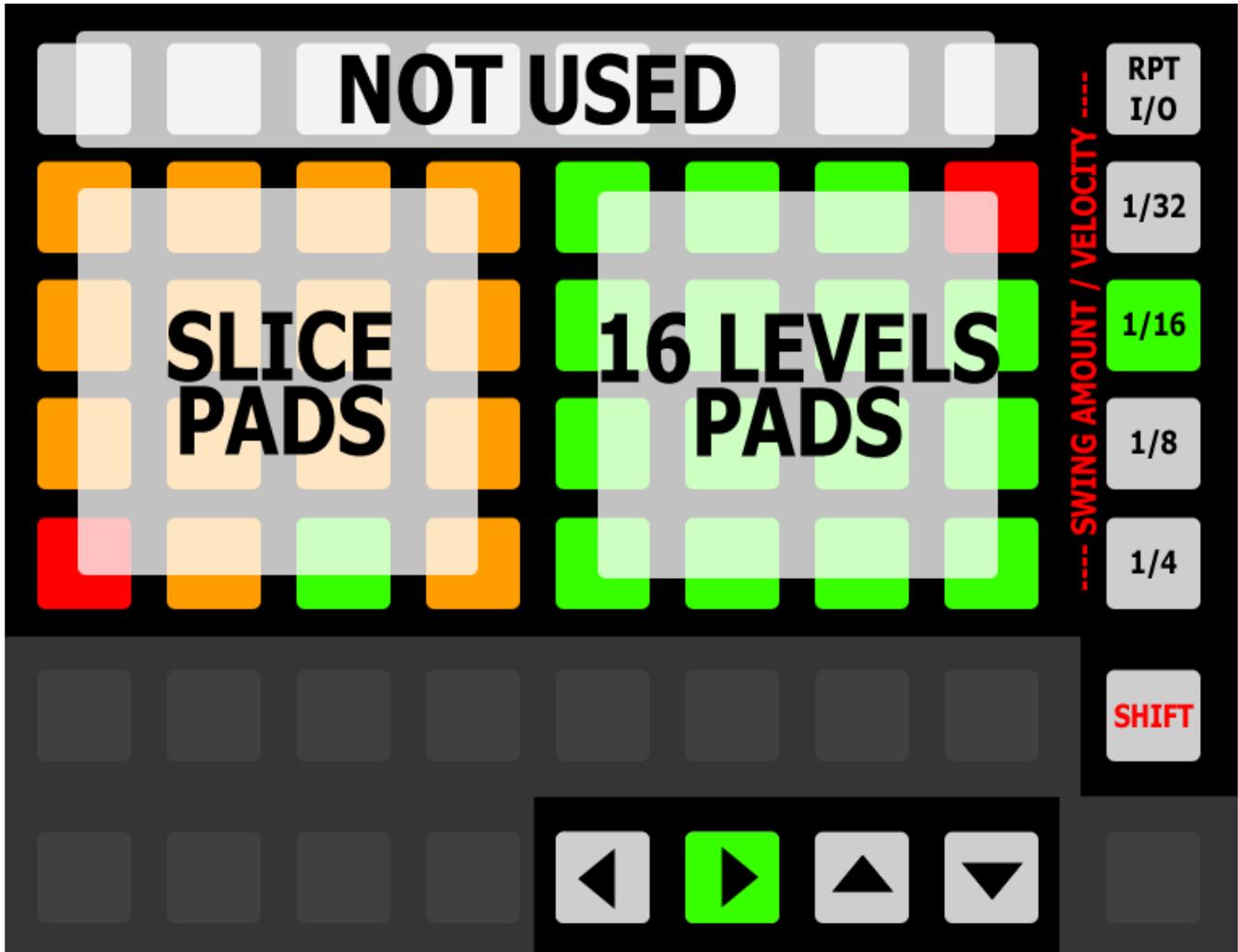
MATRIX – The MATRIX is split into two sections; the lower 4 Rows on the left is the **SLICE PAD SECTION** and the lower 4 Rows on the right is the **16 LEVELS PAD SECTION**.

- When SHIFT is held down, the MATRIX can be used for changing Simpler settings via the Simpler Settings Page.

  – **SLICE PAD SECTION** – This section of Buttons plays Slices in Simpler and also selects the Slice to play from the 16 LEVELS PAD SECTION.

  – **16 LEVELS PAD SECTION** – This section of Buttons plays the selected Slice with ascending Velocities.

MATRIX ACCESSORY BUTTONS – When Note Repeat is on, the Buttons in this section control Note Repeat.

ARROW BUTTONS – Up and Down navigate Slices (if more than 16 Slices are present). Pressing both Up and Down will revert back to the first 16 Slices. The Status Bar will indicate the current range of Slices. Left and Right navigate Tracks in Session View or the Insert Marker in Arrangement View.

Pan

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): **PAN**

This Mode sets up the **MATRIX** for controlling the Panning of the Tracks within the Grid Selector.

MATRIX – Each Column of Buttons functions as an Intelligent Button Slider for controlling the Panning of a Track.

**MATRIX ACCESSORY BUTTONS** – Not used in this Mode.

ARROW BUTTONS – Navigate the Grid Selector.

Plugin

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): **PLUGIN**

This Mode sets up the **MATRIX** for Plugin preset selection on the current Track.
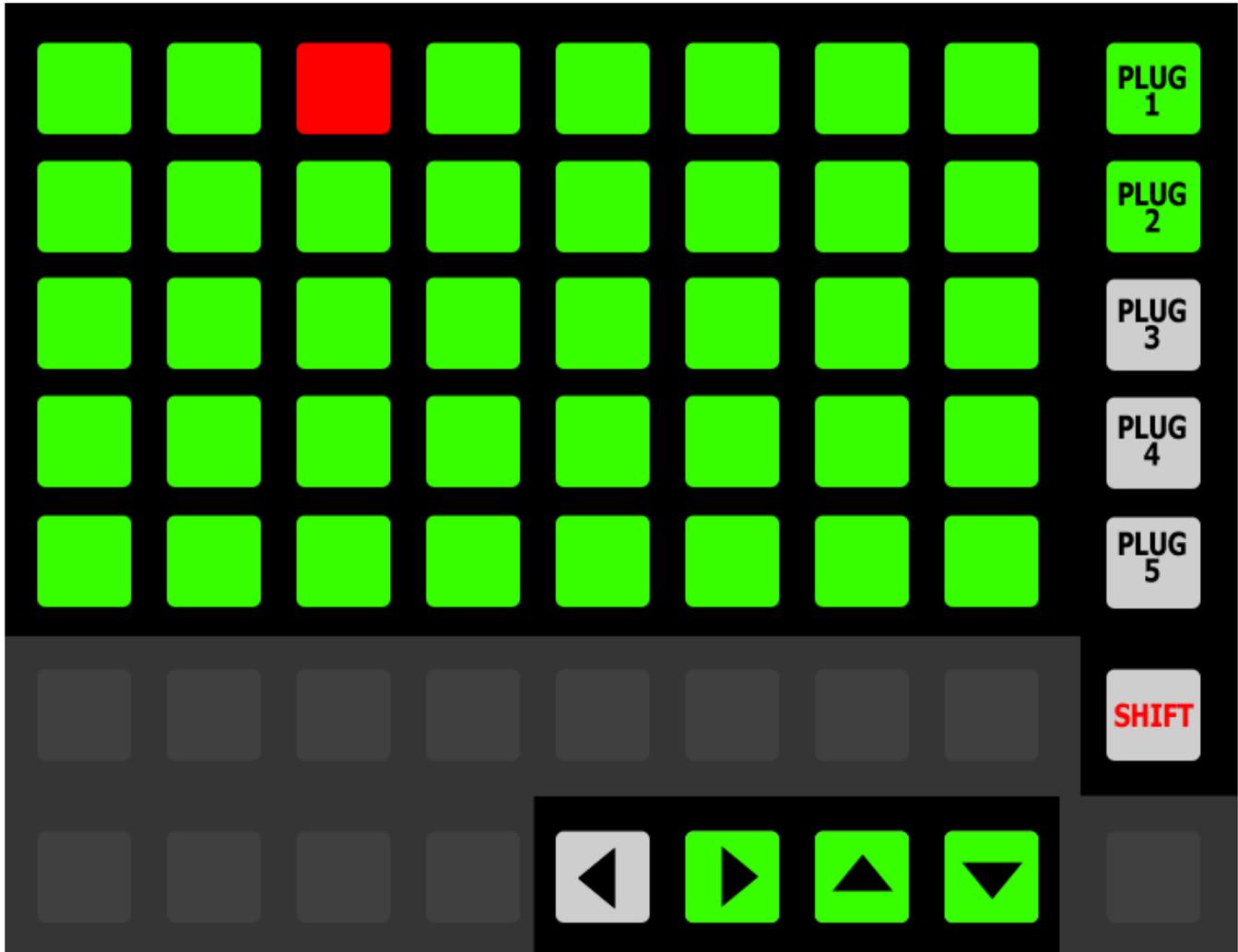
MATRIX – The Buttons in this section directly select the Plugin's presets. The Status Bar will indicate the name of the selected preset.

MATRIX ACCESSORY BUTTONS – The Buttons in this section can load Plugins onto the selected Track. You can specify the Plugins to load in *Settings-Plugins To Load.txt*. The Status Bar will indicate the name of the Plugin being loaded.

ARROW BUTTONS – Up and Down navigate between Banks of 40 presets (if the Plugin has more than 40 presets) that can be selected from the **MATRIX**. Pressing both Up and Down will revert to the first Bank of presets. The Status Bar will indicate the Bank of presets that is selected. Left and Right navigate Tracks in Session View or the Insert Marker in Arrangement View.

① **NOTE:** *Plugin presets can only be selected/navigated if the Plugin's preset list is exposed (visible in the Plugin's container in Live).*

Scale

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): **SCALE**

This Mode sets up the **MATRIX** to play Scales and is useful for playing virtually any instrument on the current Track.
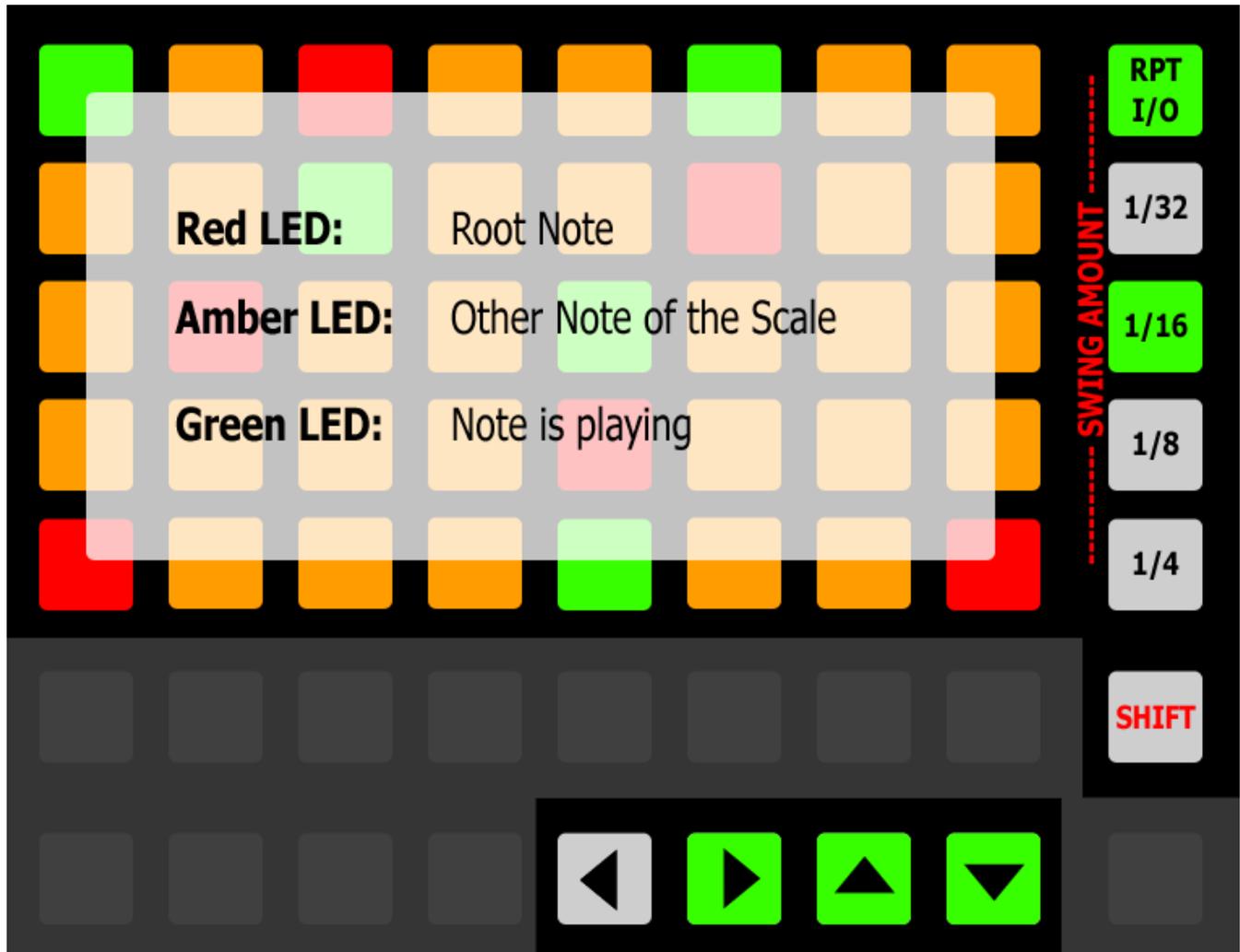
MATRIX – Plays the Notes of the assigned Scale. By default, the Notes that are accessible are all within the selected Scale and oriented by 4ths. This means that, when moving upwards, each Row is a 4th higher than the Row below it.
- When **SHIFT** is held down, this section can be used for changing Scale settings via the Scale Settings Page.

MATRIX ACCESSORY BUTTONS – The Buttons in this section control Note Repeat.

ARROW BUTTONS – Up and Down will shift the Scale up or down by 1 octave (12 semitones). Pressing both Up and Down will revert back to the default Note range. The Status Bar will indicate the current Note range. Left and Right navigate Tracks in Session View or the Insert Marker in Arrangement View.

Scale Sequence

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): `SCALE_SEQ`

This Mode sets up the `MATRIX` for Scale-based polyphonic Step-Sequencing on the current Track.
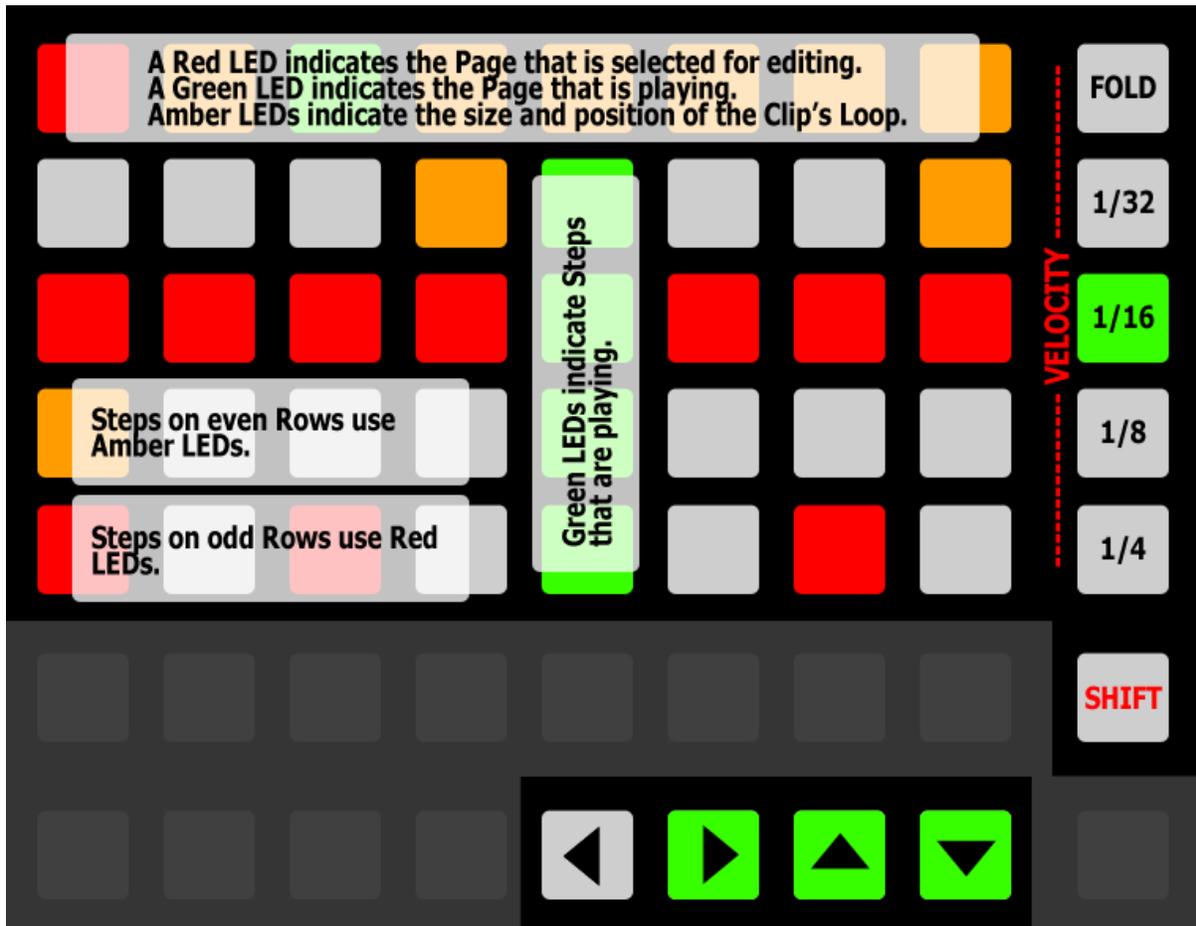
MATRIX – The `MATRIX` is split into two sections; the uppermost Row is the **LOOP/EDIT POSITION SECTION** and the other Rows are the **STEP-SEQUENCE SECTION**.
- When `SHIFT` is held down, the `MATRIX` can be used for changing Scale settings via the Scale Settings Page.

  - **LOOP/EDIT POSITION SECTION** – The Buttons in this section are used for Sequence Page Selection.

  - **STEP-SEQUENCE SECTION** – The Buttons in this section are used for Step-Sequencing.

MATRIX ACCESSORY BUTTONS:
  - **FOLD** – Restricts the Notes accessible from the `STEP-SEQUENCE SECTION` to the Notes present in the selected Clip (similar to the Fold function within Live). This requires that the selected Clip contains at least two Notes. Pressing this Button again will remove this restriction so that all the Notes of the Scale are accessible.

  - **1/32 – 1/4** – Select the Resolution to use for Step-Sequencing. The Status Bar will indicate the selected Resolution.
    - When `SHIFT` is held down, these Buttons can be used for selecting the Velocity to use for Step-Sequencing. The Status Bar will indicate the selected Velocity.

ARROW BUTTONS – Up and Down will shift the Scale (or Folded Notes) up or down by 1 semitone. Pressing both Up and Down will revert back to the default Note range. The Status Bar will indicate the current Note range. Left and Right navigate Tracks in Session View or the Insert Marker in Arrangement View.

Sends

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): `SENDS`

This Mode sets up the `MATRIX` for controlling Send Levels of the Tracks within the Grid Selector.
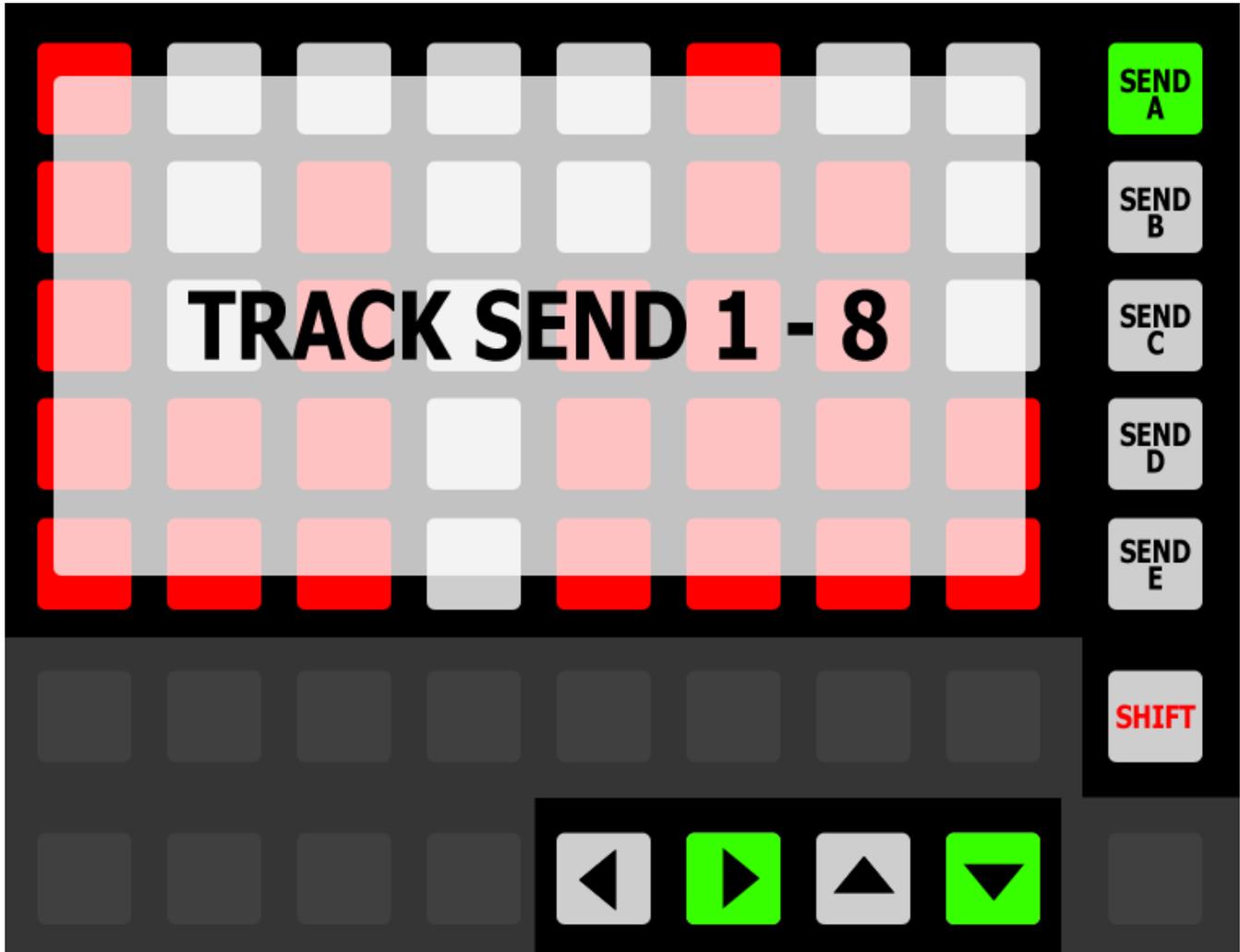
MATRIX – Each Column of Buttons functions as an Intelligent Button Slider for controlling the level of the selected Send.

MATRIX ACCESSORY BUTTONS – Select the Send (Send A – E respectively) the Intelligent Button Sliders should control. The Status Bar will indicate the name of the selected Send.

ARROW BUTTONS – Navigate the Grid Selector.

Session

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): `SESSION`

This Mode sets up the `MATRIX` for launching Session View Clips on the Tracks and Scenes within the Grid Selector as well as navigating in Session View.

Default layout:
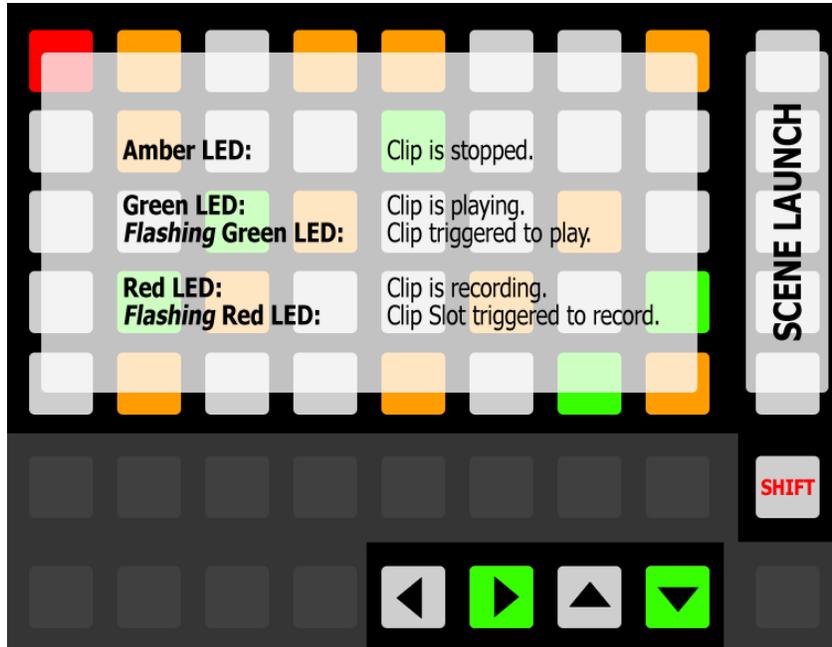
Layout when `SHIFT` *is held down:*
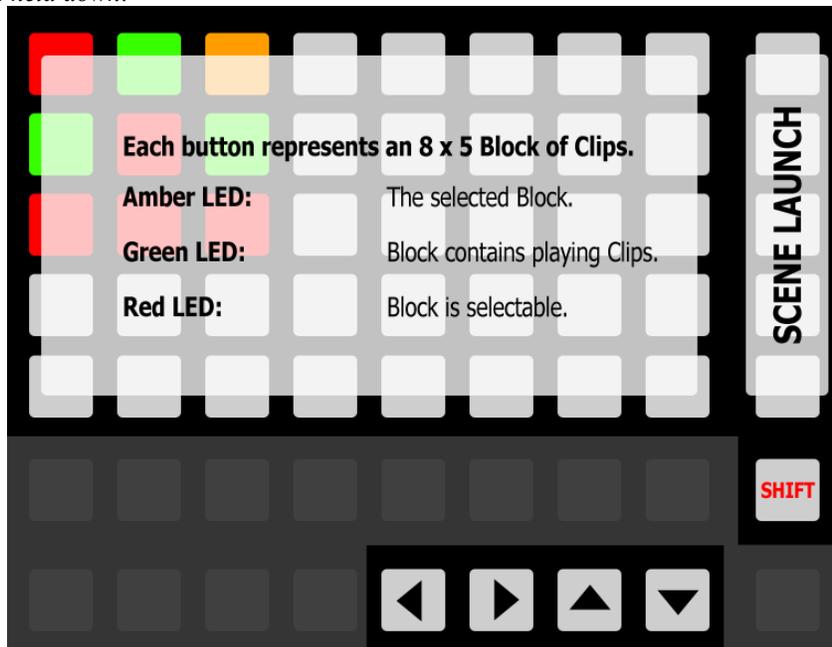
MATRIX – Launch Session View Clips.
- When `SHIFT` is held down, the Buttons in this section select the 8 x 5 Block of Clips to control.

MATRIX ACCESSORY BUTTONS – Launch Scenes.

ARROW BUTTONS – Navigate the Grid Selector.

Session Delete

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): SESSION_DELETE

This Mode sets up the MATRIX for deleting Session View Clips and Scenes within the Grid Selector as well as navigating in Session View.

This Mode is functionally identical to Session except that, instead of launching Clips and Scenes, the MATRIX and MATRIX ACCESSORY BUTTONS delete Clips and Scenes.

Session Duplicate

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): SESSION_DUPE

This Mode sets up the MATRIX for duplicating Session View Clips and Scenes within the Grid Selector as well as navigating in Session View.

This Mode is functionally identical to Session except that, instead of launching Clips and Scenes, the MATRIX and MATRIX ACCESSORY BUTTONS duplicate Clips and Scenes.

Session Record

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): SESSION_RECORD

This Mode sets up the MATRIX for recording/overdubbing Session View Clips within the Grid Selector as well as navigating in Session View.

This Mode is functionally identical to Session except for the default function of the MATRIX (when SHIFT is not held down). Pressing a Button in the MATRIX associated with an empty Clip Slot, will Arm the Track the Clip Slot is on and commence recording a new Clip. If the Clip Slot is not empty, pressing the associated Button will Arm the Track and turn on Session Record to allow for overdubbing into the Clip within the Clip Slot.

Session Record can be turned off by pressing the Button used to select this Mode.

Session Select

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): SESSION_SELECT

This Mode sets up the MATRIX for selecting Session View Clips and Scenes within the Grid Selector as well as navigating in Session View.

This Mode is functionally identical to Session except that, instead of launching Clips and Scenes, the MATRIX and MATRIX ACCESSORY BUTTONS selecting Clips and Scenes.

Session Snap

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): `SESSION_SNAP`

This Mode sets up the `MATRIX` for storing/launching Session Snapshots.
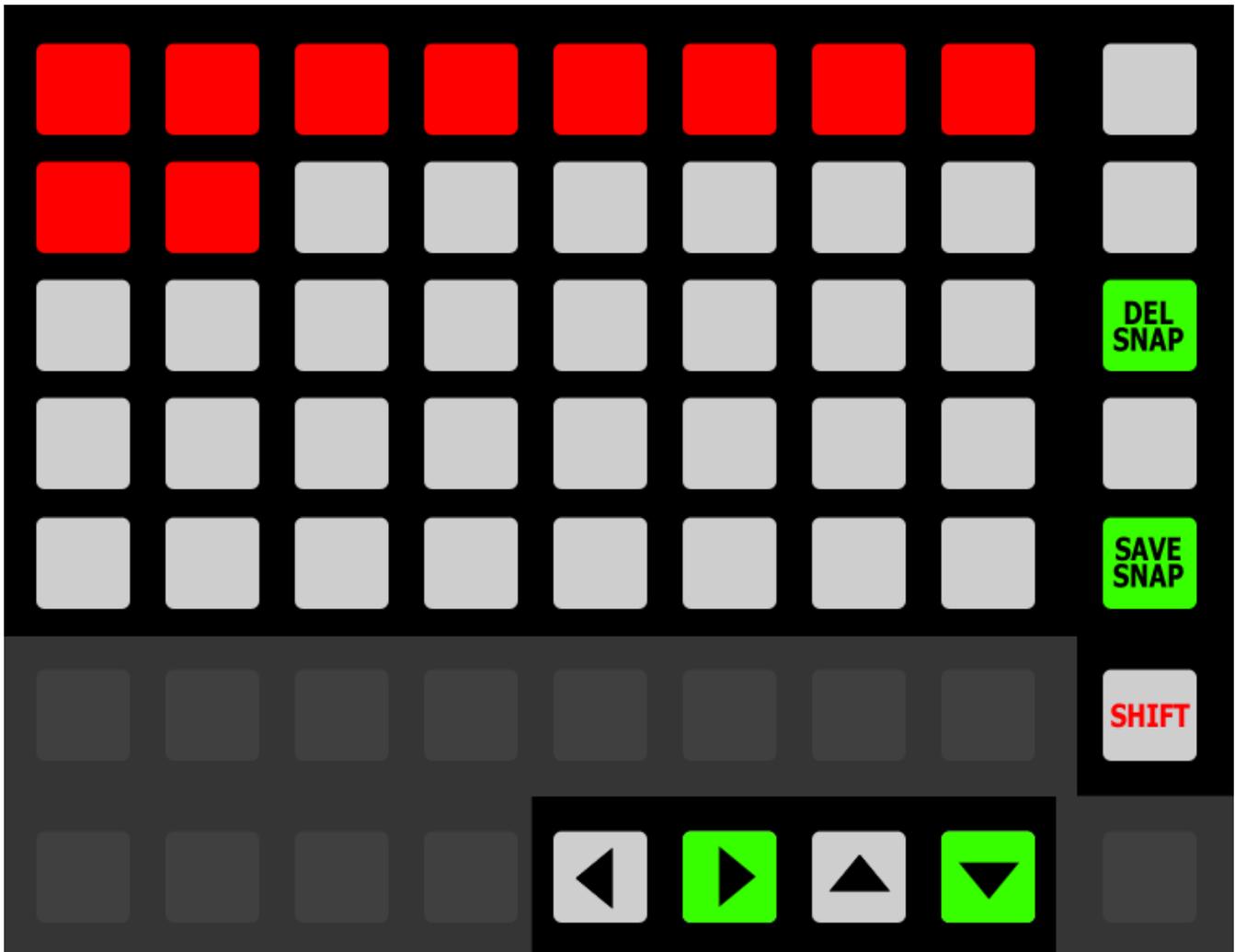
MATRIX – The Buttons in this section launch Session Snapshots.
- When `SHIFT` is held down, these Buttons launch Session Snapshots immediately (without quantization) regardless of your Global/Launch Quantization settings.

MATRIX ACCESSORY BUTTONS:
- **DEL SNAP** – When this Button is held down, stored Session Snapshots can be deleted by pressing the associated Button in the `MATRIX`.

- **SAVE SNAP** – When this Button is held down, pressing a Button in the `MATRIX` will store a Session Snapshot.

ARROW BUTTONS – Navigate the Grid Selector.

Session Split

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): SESSION_SPLIT

This Mode sets up the MATRIX for launching Session View Clips on the Tracks and Scenes within the Grid Selector as well as Stopping, Muting, Soloing and Arming Tracks.
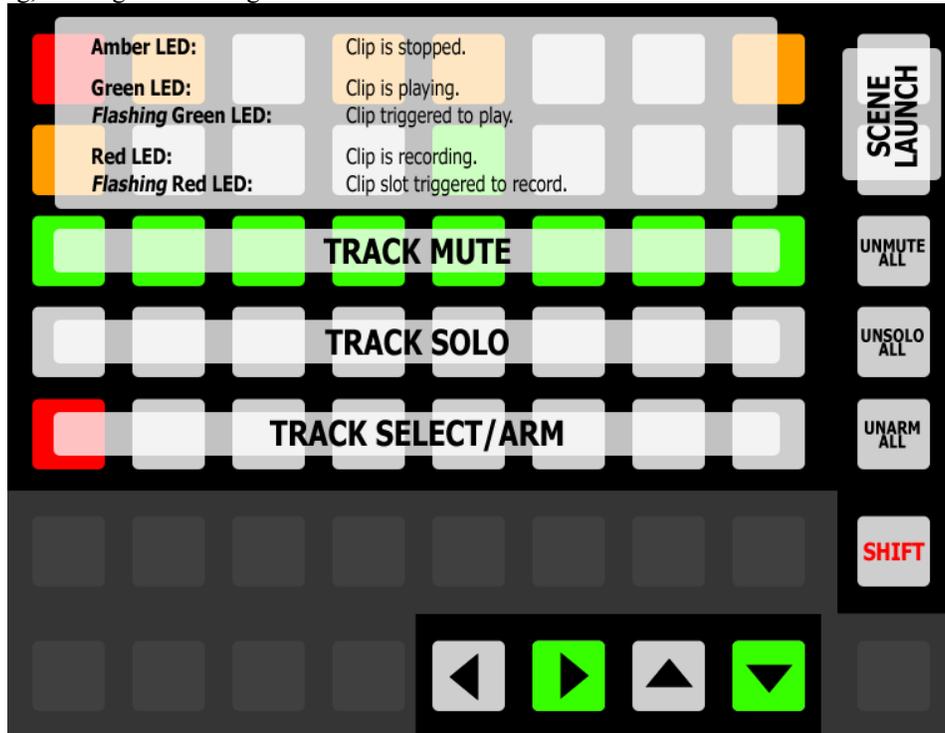
MATRIX:
- **UPPER TWO ROWS** – This section functions the same as the MATRIX described in the Session section.

- **TRACK STOP** – Stop the Clips playing on Tracks.

- **TRACK MUTE** – Toggle the Mute state of Tracks. When held down, these will function as momentary Mute switches.

- **TRACK SOLO** – Toggle the Solo state of Tracks according to your Exclusive Solo setting in Live's Preferences. When held down, these will function as momentary Solo switches.
  - When SHIFT is held down, the Buttons do the opposite of your Exclusive Solo setting.

- **TRACK SELECT/ARM** – Select Tracks. If the Track is already selected, pressing the associated Button again will toggle the Arm state of the Track. If the Track is a Group Track, holding down the associated Button will fold/unfold the Group Track.
  - When SHIFT is held down, these Buttons select the Track as well as the playing Clip on the Track if there is one.

MATRIX ACCESSORY BUTTONS:
- **UPPER TWO** – Launch Scenes.

- **STOP ALL** – Stop all Clips.

- **UNMUTE ALL** – Unmute all Tracks.

- **UNSOLO ALL** – Unsolo all Tracks.

- **UNARM ALL** – Unarm all Tracks.

ARROW BUTTONS – Navigate the Grid Selector.

Song Navigation

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): **SONG_NAV**

This Mode sets up the **MATRIX** for quickly navigating the timeline of songs and displaying where you are along the timeline.
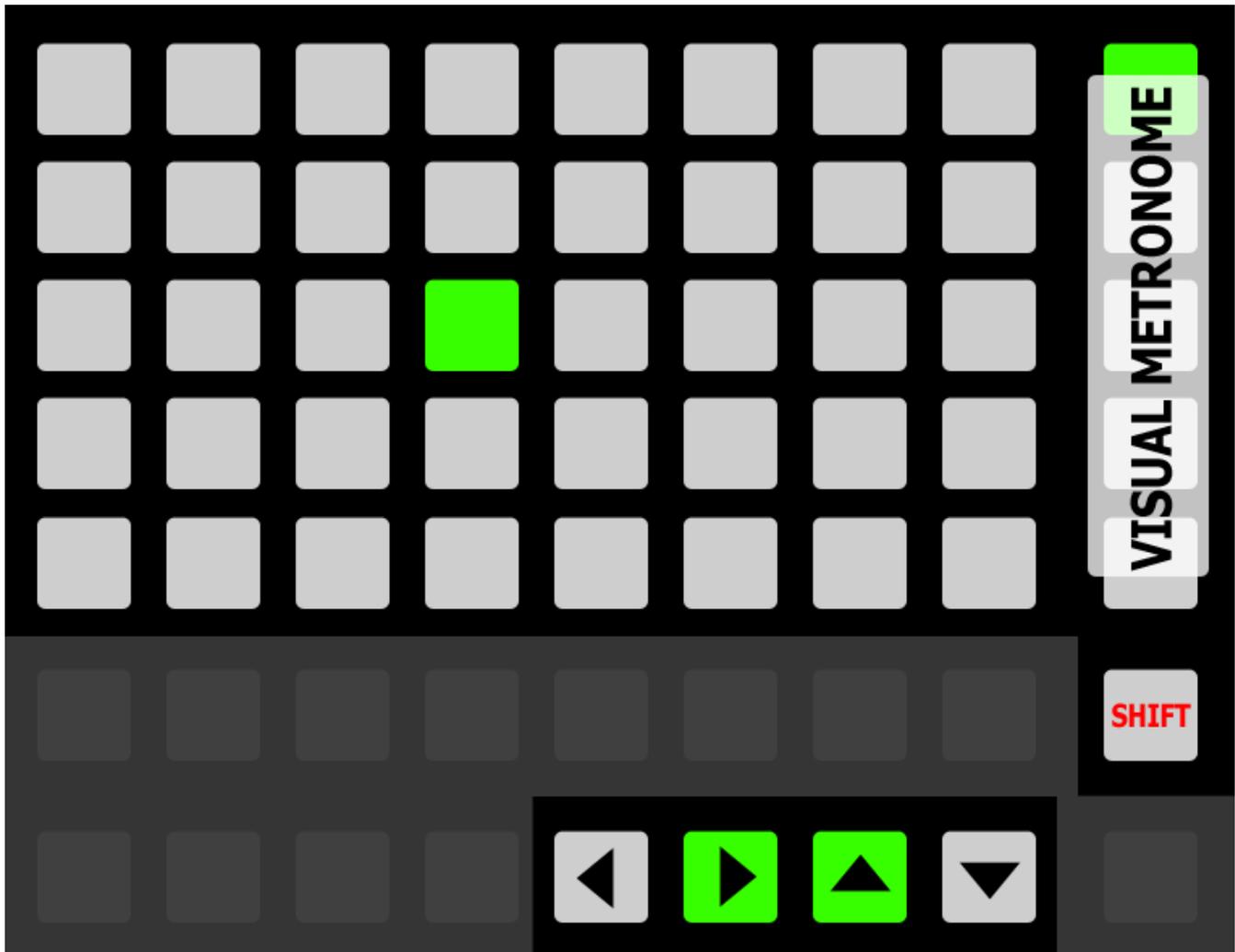
MATRIX – The Buttons in this section jump to specific bars in the timeline and display the bar that is currently playing.

MATRIX ACCESSORY BUTTONS – The Buttons in this section function as a visual metronome. Also, the topmost Button will toggle playback.

ARROW BUTTONS – Up and Down navigate between Banks of 40 bars that can be selected from the **MATRIX**. Pressing both Up and Down will revert to the first Bank of bars. The Status Bar will indicate the Bank of bars that is selected. Left and Right navigate Tracks in Session View or the Insert Marker in Arrangement View.

Track

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): **TRACK**

This Mode sets up the **MATRIX** for controlling Mixer-related parameters of the current Track.
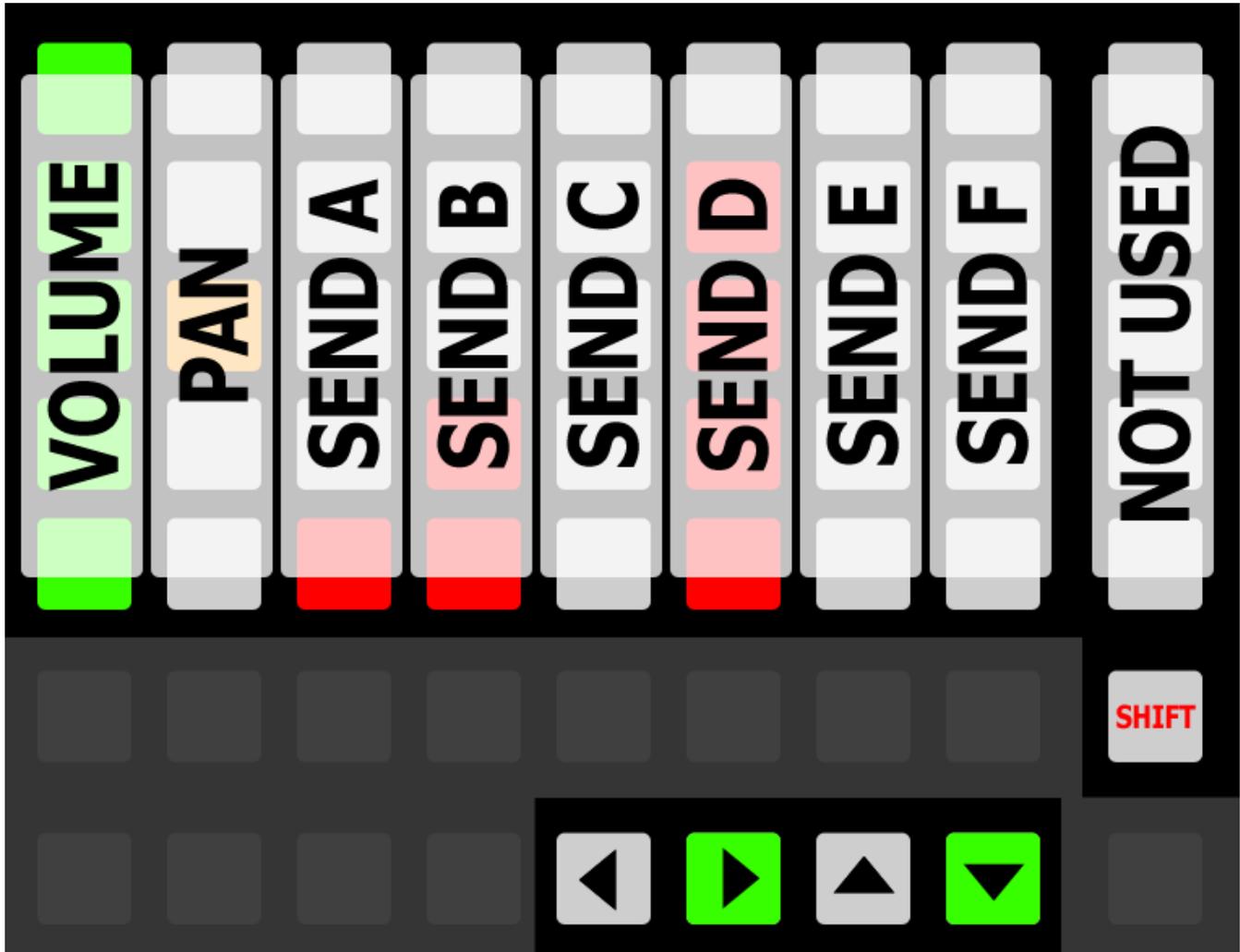
MATRIX – Each Column of Buttons functions as an Intelligent Button Slider for controlling a Mixer-related parameter (Volume, Panning and Send A – F respectively) of the current Track.

MATRIX ACCESSORY BUTTONS – Not used in this Mode.

ARROW BUTTONS – In Session View, navigate Scenes and Tracks. In Arrangement View, navigate Tracks and the Insert Marker.

✔ **TIP:** *By default, the first Intelligent Button Slider will control the entire Volume range of the Track. This can optionally be limited to 0db via the* **LIMIT_VOLUME_CONTROL_TO_0_DB** *setting in Settings-General.txt.*

User

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): **USER**

This Mode sets up the **MATRIX** for use with Max for Live and/or MIDI mapping on MIDI channel 6.

MATRIX – The Buttons in this section can be used with Max for Live and/or MIDI mapping.

MATRIX ACCESSORY BUTTONS – The Buttons in this section can be used with Max for Live and/or MIDI mapping.

ARROW BUTTONS – In Session View, navigate Scenes and Tracks. In Arrangement View, navigate Tracks and the Insert Marker.

User Note

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): **USER_NOTE x** (where **x** is the name to use for an instance of the Mode. **USER_NOTE POLY** for example.)

This Mode sets up the **MATRIX** for playing user-assignable Notes. The Mode needs to include an instance name (such as **USER_NOTE MY NOTES**), which you'll specify in *Settings-Matrix Mode List.txt*. This allows each instance of the Mode to play different sets of Notes. The Notes that each instance of the Mode should play can be specified in the instance's associated settings file. For example, the Notes that **USER_NOTE MY NOTES** will play are specified in the file named *Settings-User Note My Notes.txt*.

MATRIX – Plays the assigned Notes.

MATRIX ACCESSORY BUTTONS – The Buttons in this section control Note Repeat.

ARROW BUTTONS – In Session View, navigate Scenes and Tracks. In Arrangement View, navigate Tracks and the Insert Marker.

Volume

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): `VOLUME`

This Mode sets up the `MATRIX` for controlling the Volume of the Tracks within the Grid Selector.

MATRIX – Each Column of Buttons functions as an Intelligent Button Slider for controlling the Volume of a Track.

MATRIX ACCESSORY BUTTONS – Not used in this Mode.

ARROW BUTTONS – Navigate the Grid Selector.

✔ **TIP:** *By default, the Intelligent Button Sliders will control the entire Volume range of Tracks. They can optionally be limited to 0db via the* `LIMIT_VOLUME_CONTROL_TO_0_DB` *setting in Settings-General.txt.*

X/Y

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): **X_Y**

This Mode sets up the **MATRIX** to function as an X/Y Pad that can control two parameters anywhere within a Live Set.

MATRIX – The Buttons in this section function as an X/Y Pad for controlling the assigned parameters.

MATRIX ACCESSORY BUTTONS – The Buttons in this section are used for activating/deactivating learning for the X and Y Axis. In both cases, the Status Bar will indicate learning status. When learning is activated, you can select the parameter to assign to an Axis by clicking on it with your mouse. Upon clicking on a parameter, the Status Bar will indicate the name of the parameter (if it can be controlled by this Mode) as well as which Button to press to assign it to an Axis.

- **X ASGN** – Activates/deactivates learning for the parameter that the X Axis should control.

- **Y ASGN** – Activates/deactivates learning for the parameter that the Y Axis should control.

ARROW BUTTONS – In Session View, navigate Scenes and Tracks. In Arrangement View, navigate Tracks and the Insert Marker.

✔ **TIP:** *You can specify the smoothing speed to use via the* **SMOOTHING_SPEED** *setting in Settings-General.txt.*

① **NOTES:** *Although any parameter can be clicked on in Live, not all parameters are considered by Live to be 'selected'. Parameters of that sort (such as the Crossfader) will not be controllable from this Mode. Additionally, this Mode stores the parameters assigned to it within your Live set. If the names of objects related to the assignments (such as the name of a device) are changed after the assignments are created, the assignments will not work upon the Live set being reloaded. For that reason, it is recommended that you re-assign parameters in this Mode after making changes to names related to the assignments.*

X/Y Track

MODE NAME (to specify in *Settings-Matrix Mode List.txt*): **X_Y_TRACK x** (where **x** is the name to use for an instance of the Mode. **X_Y_TRACK FILTER** for example.)

This Mode sets up the **MATRIX** to function as an X/Y Pad that can control two parameters on the current Track.

This Mode is essentially identical to X/Y except that it utilizes Track-based HazMapping to control parameters on the current Track. Also, unlike X/Y, this Mode does not store parameter assignments within your Live set and so changes to the names of objects do not affect it.

7   TROUBLESHOOTING

This section provides resolutions to common problems that you may run into when installing or using Arsenal_AP2. If you do not find a resolution to your problem here, please contact Support.

Windows Troubleshooting

I ran the provided Setup executable, but don't find any Arsenal_AP2 scripts listed under Control Surfaces.
If Live was running at the time you ran the Setup executable, you will need to restart Live. If this doesn't resolve the problem, then it's likely that you've installed Live in a protected location (such as Program Files). In this case, you will need to elevate the permissions on your Live installation directory so that you can write to it. Once this is done, re-run the Setup executable.

OS X Troubleshooting

I ran the provided Setup package, but don't find any Arsenal_AP2 scripts listed under Control Surfaces.
If Live was running at the time you ran the Setup package, you will need to restart Live.

When trying to run the Setup package, I receive a message stating "Setup can't be opened because it is from an unidentified developer".
Control-click or right click on the Setup package and select *Open* from the menu that appears.

General Troubleshooting

I reinstalled Live and Arsenal_AP2, but other Modes I purchased are not working/available.
Modes/Mode Packs are installed via their own installers (separate from the Arsenal_AP2 installer). You'll need to run each Mode/Mode Pack installer in order to restore access to the Mode(s) it installs.

8 SUPPORT

Email:
support@nativekontrol.com

Forum:
[Beatwise Network](#)

Feature Requests:
[User Voice Forum](#)