Sonic Surrealism presents

Gramp Utah Manual

This software is dedicated to my grandfather, Password1234!

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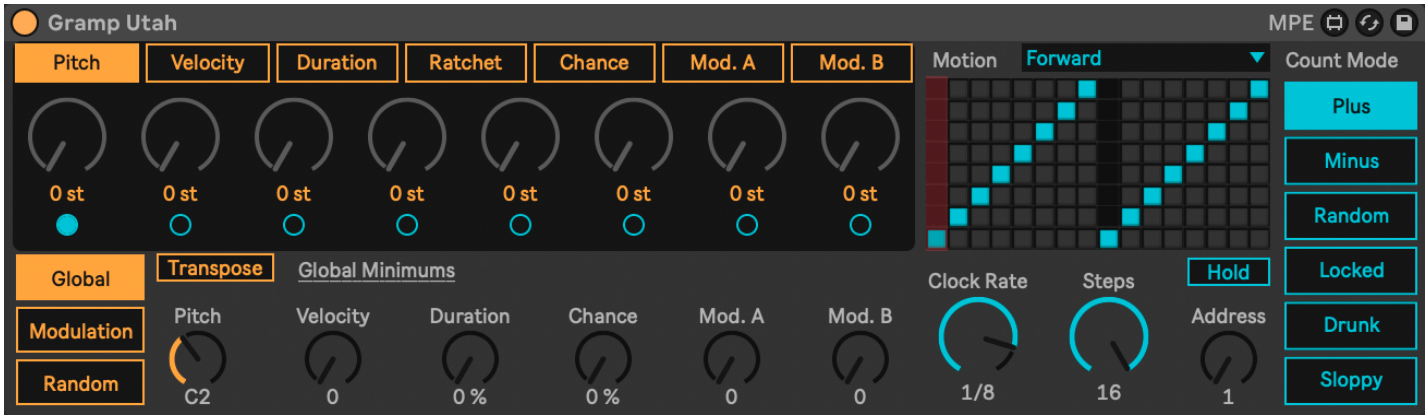
Introduction



Thank you for purchasing Gramp Utah, a step sequencer/programmer designed for live performance especially with Ableton Push.

Installation by Pack (Recommended)

Installing Gramp Utah with the pack will give you a demo set and a few preset examples to show the functionality and flexibility of the device.

1. Download the GrampUtahPack.alp file.
2. Open GrampUtahPack.alp and it will prompt you to install it.

3. Choose a location in your User Library.
4. For full details, refer to Installing Packs in Ableton Live documentation.

Basic Installation (Advanced Users/No Presets)

If you don't want the Ableton Live set or associated presets, you can download only the Max for Live device and use it.

1. Download the GrampUtah.amxd file.
2. Add GrampUtah.amxd to your User Library by opening Ableton Live's Browser and dragging the file to User Library listed under Places.
3. (Optional) You may choose to place GrampUtah.amxd in another folder within your User Library for organization. It is a common practice to have a folder named Devices or 3rd Party M4L for example.

The Demo Project

The demo project features several tracks to illustrate how Gramp Utah can be used. Activate one channel at a time to explore some of the possibilities.

Basic Sequence

The basic sequence is an ascending C major scale. Change the Count Mode to Minus and hear that now the sequence descends. Experiment with the other Count Modes or for full information, read Count Modes.

Classic Pendulum

This demonstrates making the non-repeating pendulum motion that moves up and down without repeating the first and last steps.

Drums

Gramp Utah can be useful programming drum machines, too! This example uses the 808 Kit, but it's even more fun to put an instance of Gramp Utah on each channel of a Drum Rack...

Modulation Clips

Launch any one of the clips. Each of these clips automates Gramp Utah parameters and they will run in a different order each time. This is one of the many ways Gramp Utah can be used as a generative sequencer or for algorithmic composition.

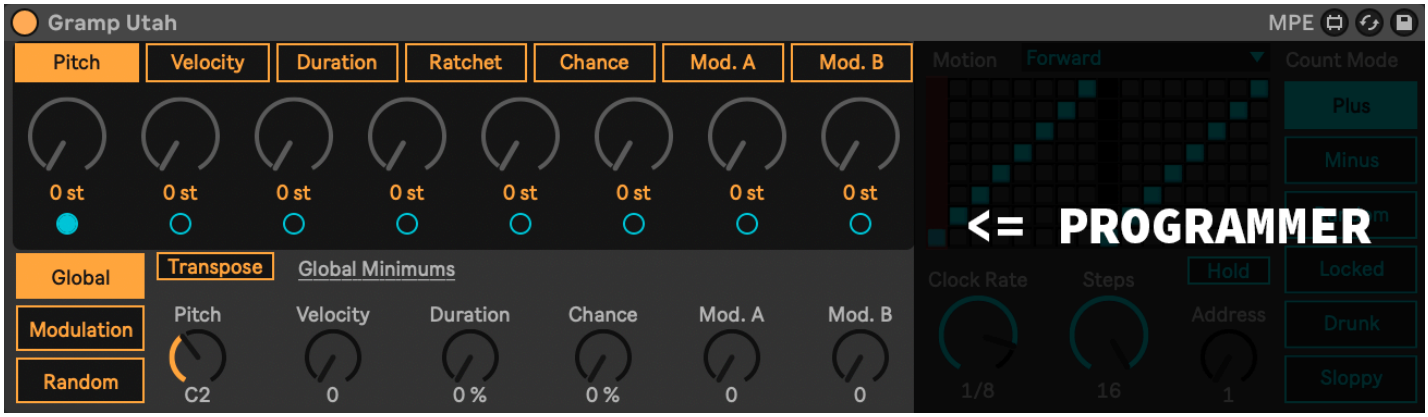
Chained Sequences

Multiple instances of Gramp Utah can be used on a single track. In this example, Chain Left runs at a 1/16th note clock rate and modulates modwheel movement governed by chance. It will phase against the other instances because it is limited to 15 steps. Chain Middle runs at a clock rate of 1 bar and it transposes the final Chain Right instance of Gramp Utah. Note that Chain Right has Transpose enabled and runs at 1/8th note clock rate. Chain Right contains its own sequence. Using techniques illustrated here, complex patterns can be performed live.

Quick Start

Drag Gramp Utah onto a MIDI track and start the transport. Make sure to add an instrument to the MIDI track. Turn knobs on Gramp Utah or select the Random tab to generate a random pattern until something inspiring happens.

Programmer Overview



The programmer is the section responsible for setting values per step. All programmer controls are the same color. The following is an overview of each programmer control. Each step of the programmer can set up to 7 values:

1. Pitch
2. Velocity
3. Duration
4. Ratchet
5. Chance
6. Modulation A
7. Modulation B

Pitch

The pitch controls are quantized to semitone intervals. The pitch is relative to the Pitch knob, so if Pitch is C2 and a step is programmed to 7 st, the pitch of that step is G2. The maximum range of this interval is 36 st (3 octaves).

Velocity

Controls how loud each note will play and may also have a timbral control depending on the synthesizer you're sequencing. Ranges from 0-127 in MIDI velocity units. The default value is 100. Velocity 0 means a note will not play. The global minimum velocity is added to this which means the global velocity minimum parameter can be used as a real time performance control. **Note: not all synthesizers understand velocity.**

Duration

Duration is relative to the length of 2 clock pulses. The default value is 25% (half the duration of the clock). A value of 100% will tie notes together in mono modes. **Note: exact behavior of overlapping notes will vary from synthesizer to synthesizer depending on patch settings.**

Ratchet

Ratchets are clock multiple re-triggers. It defaults to 1 (no ratcheting) and may repeat as many as 4 times in a single step. Duration values for ratcheted steps may mask the effect of retriggering notes (which can be used artistically).

Chance

Chance determines how likely the entire set of step programming is to occur (even the modulation is tied to the step happening or not). The default value is 100% (the note will always happen). A step with 0% chance will never happen. The global minimum chance value is added to each step's chance. This is useful as a real time performance control and is fun to automate.

Modulation A and Modulation B (Mod. A/Mod. B)

The modulation channels can be programmed to send MIDI CC values from 0-127. The modulation outputs are disabled by default because the modulation values are 0 by default and this will change parameters of synthesizers that respond to CC messages unexpectedly. **To enable Modulation, click the Modulation tab and enable Modulation A and/or Modulation B.** Be sure to set the CC numbers appropriately, consulting user manuals as necessary.

Secondary Control Tabs

The secondary control tabs display Progammer details appropriate to different tasks. The following is an overview of the functionality in each tab.

Global

The global tab is visible by default. It contains performance controls that apply to each step of the programmer.

Transpose

The Transpose button makes it so the pitch intervals in the programmer are relative to the incoming MIDI note. This allows real time performance and composition effects ranging from playing a MIDI instrument on the current track to chaining multiple instances of Gramp Utah to build elaborate sequences.

Pitch

Pitch determines the starting value of the programmer. It defaults to C2 and all the per-step programming is relative to this value. If Transpose is enabled, Pitch is disabled and has no effect.

Global Minimums

The global minimums add to the values of each programmer step. These make useful and dynamic performance controls and are interesting to automate.

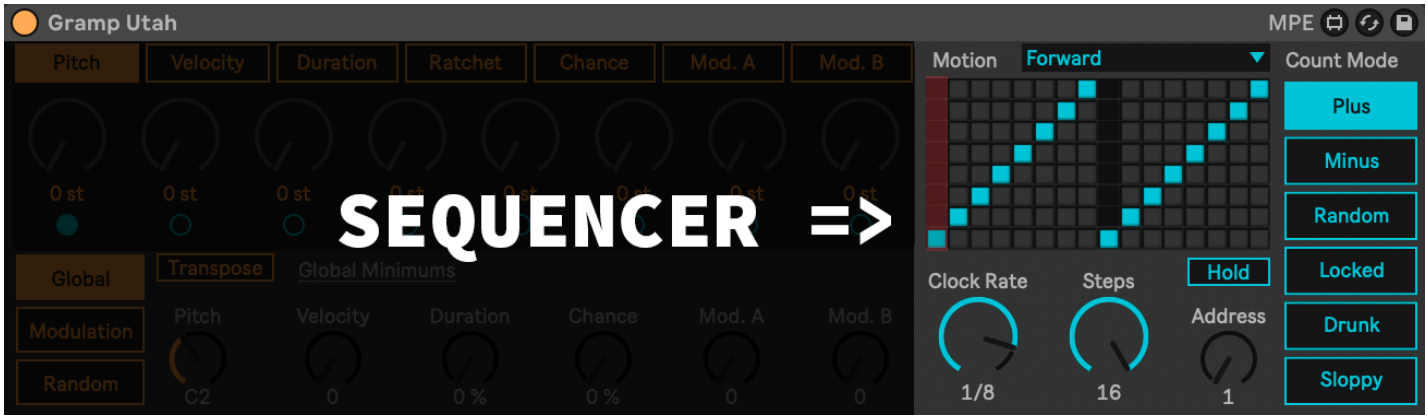
Modulation

The modulation tab controls what the Mod. A and Mod. B steps can modulate. By default, each modulation channel is disabled. When enabled, MIDI CC can be sent from the channel.

Random

The random tab can be used to generate random settings for the sequencer/programmer. Enable the desired parameters and set the Pitch Range in semitones then click the Randomize button for a new set of sequencing/programming possibilities. This is intended to quickly generate jumping off points. You may want to save randomly generated sequences as presets or fine tune the settings after randomizing.

Sequencer Overview



The sequencer is the section responsible for putting the steps in order. All sequencer controls are the same color. The following is an overview of each sequencer control.

Motion

The Motion parameter determines a plan for how the sequencer will move by plotting the X axis (count) and the Y axis (corresponding step). There are 16 steps in the sequencer but only 8 steps in the programmer. This is designed to promote ease of use and encourage creativity.

Forward

Maps the first count to the first step, the second count to the second step and so on. It repeats after 8 steps.

Pendulum

Maps 1-8 to steps 1-8. Maps 9-16 to steps 8-1. Steps 1 and 8 "double up" so if you want the other kind of pendulum, you can achieve this with a combination of Steps and User Motions.

Odd

Maps to odd numbered steps, thus is limited to 4 values.

Even

Maps to even numbered steps, thus is limited to 4 values.

Rhombus

Alternates symmetrically and repeats after 16 steps.

Split

Maps 1-4 to steps 1-4. Maps 5-8 to steps 8-5.

Hill

Repeats steps as it ascends. Steps 1 and 8 repeat 4 times each. Steps 2 and 7 repeat 2 times each. Steps 3-6 do not repeat. This is a useful pattern with per-step Chance parameters that are low because the repetitions increase the odds of the corresponding steps happening.

Dosido

Dosido is similar to Hill motion that it includes patterns of repetitions suitable for use with Chance parameters per step.

Face Off

Splits and staggers the mapping and alternates between steps of 1 distance and steps of 2 distance.

User Modes (User A-User H)

Each of these modes can be changed and stored with the preset. These modes are useful for defining arbitrary patterns and can be fun for experimentation. The predefined shapes compensate for the inability to make new patterns when running Gramp Utah from Push.

Count Mode

The count mode determines how the running count of the sequencer increments on each clock pulse. The count is always in the range of 1-16. It may also be limited and offset by the Steps and Address controls. For example, if Steps is 3 and Address is 6, the Count will be in the range of 6-8. This is a dramatic control that allows easy creation of new and related patterns from pre-programmed steps. The specifics are detailed below.

Plus

Counts upward.

Minus

Counts downward.

Random

Chooses a random number on each clock pulse. The random pattern does not repeat.

Locked

Chooses a random number on each clock pulse, but the random pattern does repeat according to the length of the Steps control. For example, it may make a pattern that repeats every 16 steps at its maximum setting. **The locked pattern is not preserved when changing count modes or when saving presets.** This makes it an inspiring and fun performance tool.

Drunk

Chooses a random number that repeats the current step or moves one step away in a positive or negative direction. This is sometimes called Brownian motion.

Sloppy

Like drunk mode, but it ignores repeated steps, so duplicate stages emit only one event. This means the clock is irregular and this is fun for accents and surprising incidental effects. Combined with Chance or chaining multiple instances of Gramp Utah, this can be an expressive and strange sequencer trick-- it is similar to certain popular generative sequencing techniques.

Clock Rate

The clock rate determines when Gramp Utah will receive new note information from the transport and the base unit of Duration. The clock rate varies from 1 Bar to 1/16th note. **The sequencer**

clock is running when the transport is running. If you want to stop Gramp Utah independently of the transport, disable the device.

Steps

The steps control determines the maximum length of the sequence. There must be at least 2 steps, though you could work around this limitation with Chance or Velocity settings or by programming User Modes to be 2 steps or to use the Hold function.

Address

The address control determines which is the starting position of the counter. For example, with Address set to 5 the sequencer will start counting with 5. This means the X access depicted on the motion controls will begin on 5, but the corresponding number is determined by the value of Y when X = 5.

Hold

Hold stops counting. This is useful especially if you want to create patterns of arbitrary complexity decoupled from the Steps control by automating the Address parameter.

Changelog

v1.0.0

- Initial release