Centripidity

Pagan's Code



1 Version 1.31

Introduction

Pagan's Code is a simple idea for a rhythm generator which, although not in any way random, gives you a novel opportunity to think outside the box in terms of generating new rhythms. Basically, it takes text as input and outputs a gate signal that is the Morse Code equivalent of that text. Often a new, useful rhythm can be generated by entering a single word or short phrase and having it, and hence the rhythm it produces, repeat in a loop.

It can be used to simply insert some Morse Code into a piece or to generate complex, irregular, but repeatable, rhythms. It is also possible to group several instances of the module to a common timing base so that changing the timing on one instance will automatically change the timing al all other instances in the group.

It supports all of the characters specified in the International Telecommunications Union's *International Morse Code Recommendation*

The timing of the output can be either internally controlled, via Tempo and note-length controls, or from an external clock and, when using the internal clock, it is possible to modify the traditional 1:3 timing ratio between dots and dashes.

Playback can be stopped, started, reset and looped and has trigger inputs and outputs so it can act as a master or slave with other modules.

2 Version 1.31

The Interface

The figure below explains all of the controls and displays available on Pagan's Code.

Polyphonic Output

This jack provides all of the harmonised pitch evs from a single poly-jack.

The adjacent switch determines whether the quantised original (unison) note is included.

Current Character Display

Shows the character that is currently being output in Morse.

Run/Stop Button

Pressing this button will alternately start and stop the module's Morse Code output.

Run/Stop Trigger Out

Whenever the Morse output is started or stopped a trigger signal will appear here.

Run/Stop Trigger In

A trigger signal applied here will start and stop the Morse output.

Clock Source Button

Selects between using an in vernal or external timing clock.

External Clock Input

If an external clock is to be used then the clock signal should be applied to this jack.

Clock Note Value

In internal clock mode the BPM knob determines timing as how many crotchets (quarter notes) will play per minute but the clock ticks can occur more frequently. Click and drag on this control to change the basic clock tick to some value shorter than a crotchet (quarter note).

The value selected here will not change the BPM display but it will alter the millisecond length of each clock tick.

Text Entry Area

Clicking on this box will put it into Edit mode allowing the entry of whatever text message is desired.

PAGAN'S CODE

Endeavour

Version 1.31

Progress Bar

Graphical depiction of how much of the message has been played so

Text Centring Button

This switch is purely aesthetic. It determines whether the message text, in the Text Entry Area, will be top-left or centre justified.

Reset on Play

In the On position, restarting playback will reset to the beginning of the message.

Reset Trigger In and Out

A trigger signal applied will reset to the start of the message. Resets will also generate a trigger signal.

Repeat Button

Determines whether the message will stop at the end or repeat in a loop.

Reset Button

Returns Morse playback to the beginning of the message.

Swing Control

In normal Morse Code each dash is three times longer than each dot. In the vertical position this knob reproduces normal morse but higher or lower values introduce some swing by altering this 3:1 ratio.

Morse LED

This LED flashes in accordance with the Morse Code output.

Morse Gate Out

The text, translated into Morse Code, appears here as a series of 5V gate signals.

Version 1.31

Selected Group

Click and drag up or down to change the group. Groups are explained below.

Internal Clock Readout

3

This display shows the clock rate for the internal clock. The upper line will show the tempo, in BPM, set with the Tempo knob and the lower line shows the length, in milliseconds, of one tick of the clock.

Internal Clock Tempo

When an

internal clock is being used this knob step the tempo in BPM at which the clock will be affected by other members

of the group.

Group Exclude When engaged (Red) the *Note* Value parameter will not affect or

Groups

The groups control allows each instance of Pagan's Code to be assigned to any one of five separate groups. Instances with a common group number will always be locked to the same timing parameters.

Group 0

This is, in fact, not a group but an indication that the instance has timing independent of all other instances, including other instances assigned to Group 0.

Groups 1-4

These four groups tie all instances within the same group to the same timing. This means that adjusting the *Tempo*, *Note Value* or *Swing* controls on any grouped instance will set all other instances within the group to the same value.

Group Exclude

When this button is engaged it turns red and excludes the *Note Value* parameter from the list of parameters controlled within the group. Hence, any instance with this button engaged can have a *Note Value* independent of the other instances within the group. Changing the value will not affect other group members and changing *Note Value* on other instances in the group will not affect this instance.

4 Version 1.31