DAEMON

version 1.0 - written by Anders Ekman 2009
Several bits of patching borrowed from and inspired by tehn, dovemouse and enjoi. Thank you!

Daemon is a five part step sequencer with tools for harmonic control.
Below is a description of its windows and features as well as the layout of buttons on an 8x8 grid.

Prefix in monomeserial is /daemon.
Click "DAEMON" in the main window to set prefix.

Main Window

Master Controls

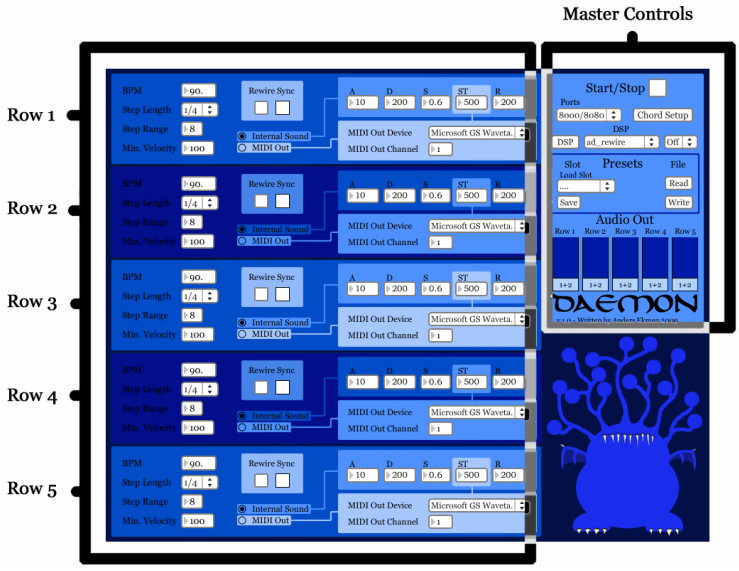
Start/Stop
Starts and stops the step sequencers for all rows. When starting the sequencers all rows are reset and will start with the first step.

If ANY row is synced via Rewire (see below) then starting and stopping the program running as Rewire host will check and uncheck the Start/Stop toggle box, which in turn will start and stop the step sequencers for ALL rows. Clicking the toggle box will still start and stop rows not synced to a Rewire host.

Ports
Chooses ports for communication with monomeserial.

Chord Setup
Opens the Chord Setup Window (see below).

DSP
Selects the audio driver and turns DSP on or off. Clicking on the DSP button opens the MAX/MSP DSP setup window.



- The Main Window -

Presets
If you want to save your settings in the Main Window you can do so by saving it in a preset slot. Click "Save Slot" to open the Save Window, choose a destination slot, name it and click "Save". ALL settings in the Main Window are saved.

Once you have saved one or more slots you need to write the preset data to a file. Click "Write" under File to save your file.

To load a preset, make sure a file with valid preset data is loaded. If not, press "Read" under File and choose a preset file to be loaded. Then simply choose the preset slot you wish to load in the menu under "Load Slot".

Audio Out
If a row is using the internal sound engine you can control that row's volume by adjusting the corresponding slider. You can also control the output of each row in the menus below the sliders.

Row Controls

BPM
Controls the tempo in beats (quarter notes) per minute.

Step Length
Controls the length of each step. Choose between quarter note, eighth note or sixteenth note.

Step Range
Controls the number of steps in the sequence.

Min. Velocity
Controls the minimum velocity for a note. Daemon randomizes a number between this and 127 and uses this as the velocity value.

Rewire Sync
If the toggle box to the left is checked then the row is synced to the Rewire host. For this to function you need to run a program (Ableton Live, Cubase, Logic or similar) as Rewire host and have the audio driver set to ad_rewire. Make sure you open your Rewire host before you open MAX.

The box to the right shows the Rewire beat with the downbeat represented by a red blink and the other beats by a yellow.

Internal Sound
Daemon has a simple built in sine wave sound engine that is controlled by a A D S ST R envelope (see below). If you choose this option then any notes generated on this row are sent to the internal engine. Audio out is sent according to the DSP settings.

The envelope for the notes sent to the internal sound engine is controlled by the following parameters.
A - Attack
D - Decay
S - Sustain
ST - Sustain Time
R - Release

ST is the amount of time in milliseconds between the end of the Decay phase and the beginning of the Release phase.

MIDI Out
Daemon also has the ability to send MIDI information. If you choose this option the notes generated on this row are sent as MIDI notes rather than to the internal sound engine. Choose the device and channel to send the MIDI information to.

If a row is set to “MIDI out” the ST value represents the total time in milliseconds between the start of the Attack phase (note on) and the start of the Release phase (note off). The rest of the envelope is controlled by the receiving MIDI instrument.

To route MIDI to another program you may need to install additional software or drivers such as MIDI Yoke for Windows.

Chord Setup Window

The Chord Setup Window lets you customize what notes are generated on what rows as different chords are played.

Notes
The small keyboards represent the notes each row can generate at a certain chord. Click on a note to activate it or click on an activated note to deactivate it. If more than one note is set then Daemon randomizes which one of those notes is to be generated.

Offset
Every keyboard has an Offset menu where you can choose to offset the notes by one, two or three octaves in any direction. The Row Offset menus to the left affect the entire row.

Presets
If you want to save your settings in the Chord Setup Window you can do so by saving it in a preset slot. Click "Save Slot" to open the Save Window, choose a destination slot, name it and click "Save". ALL settings in the Chord Setup Window are saved.

- The Chord Setup Window -

Once you have saved one or more slots you need to write the preset data to a file. Click “Write” under File to save your file.

To load a preset, make sure a file with valid preset data is loaded. If not, press “Read” under File and choose a preset file to be loaded. Then simply choose the preset slot you wish to load in the menu under "Load Slot".

Modes & Key Centers
If you don't want to customize your chord settings you can use the existing selection of modes and key centers to change your chord setup. Settings for Top Chord Row and Bottom Chord Row are independent.

Monome Button Layout

The Monome is divided into three parts. The top row is the Page Row. Rows 1-5 shows Daemon Rows 1-5. The last two rows are the Chord Rows.

Top Row/Daemon Rows
The top row changes which page is shown on the monome. The Page Row and the Chord Rows are represented on each page. Rows 1-5 change to show different aspects of the Daemon Rows.

Page 1 controls and displays the step sequencer.
Page 2 controls and displays Sustain Time (ST).
Page 3 controls and displays Step Range.
Page 4 controls and displays Minimum Velocity.

Chord Rows
The first seven buttons on the two Chord Rows each represent a chord as defined in the Chord Setup Window. Press a button to activate the corresponding chord. Press another button to switch to another chord.

The rightmost button in each Chord Row is a mute button. The Mute 1 button disables chord playback as long as it is held. Release it and the last selected chord is activated again.
The Mute 2 button also disables chord playback but to unmute it you have to press a chord button again.