-- overtones manual --


overtones is a script based on additive synthesis. it's easy to program and made for atmospheric, slowly evolving digital soundscapes but other types of sounds can also be created of course. there are 8 partials and 4 snapshots. each snapshot contains a complete waveform, and they are morphed into each other using 3 different methods. the user interface has 5 sections of parameters. use **k2** and **k3** to step through them.

a midi keyboard is required for this script. a monome grid and/or midi controller is optional. midi in device and channel can be set in PARAMETERS>EDIT.

-- section 1:
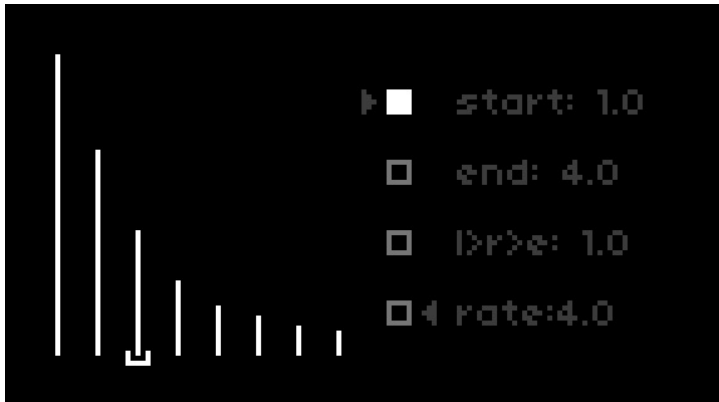
this is where waveforms are created. use **e1** to select 1 of 4
snapshots which are represented by the outlined boxes in the middle
of the screen. the selected snapshot is highlighted. use **e2** to move
the cursor at the bottom which selects 1 of the 8 partials to edit.
use **e3** to adjust the volume of the selected partial.

k1 + **k2** will copy the currently selected snapshot. **k1** + **k3** will
paste it into another selected snapshot. the clipboard will be
overwritten if another snapshot is copied and deleted if the script
has been reloaded.

tip:

the snapshot remains in memory even after another PSET has been
loaded. this makes it possible to transfer a waveform from one PSET
to another.

-- section 2:
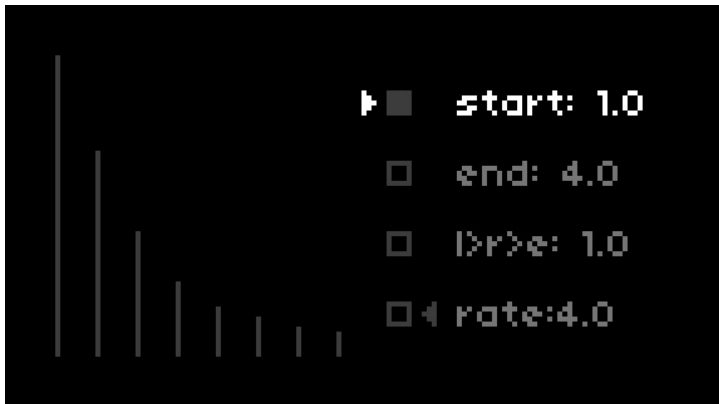
these are the morph parameters. the arrows show the start (left) and
end (right) point while the dimly lit boxes represent the snapshots.
use **e2** to select a parameter to edit and **e3** to adjust it. **start** sets
the beginning of the morph. **end** sets either the turning point of the
morph or the end of it depending on the next parameter. **l>r>e** stands
for (**l**)fo to (**r**)andom to (**e**)nvelope. the lfo morphs from the start
to the end point and then back again in reversed order continuously,
random morphs randomly within the set range and the envelope morphs
from the start to the end point where it stays for as long as a note
is sustained. **rate** sets the speed of the morph. use **e1** to adjust the
main volume (a pop-up screen will show the value).

tip 1:

setting the start and end point in the opposite direction will
reverse the morph.

tip 2:

setting the start and end parameters to the same point will freeze
the morph. this is perfect for drones.

-- section 3:

```
att: 0.01          width: 0.0

dec: 0.3           rate: 8.0

sus: 0.7           w&f: 0.0

rel: 3.0           rate: 4.0
```

the adsr envelope controls the overall volume. use **e2** to select a
parameter and **e3** to adjust it. use **e1** to adjust the main volume.

-- section 4:

```
att: 0.01          width: 0.0

dec: 0.3           rate: 8.0

sus: 0.7           w&f: 0.0

rel: 3.0           rate: 4.0
```

width spreads out the partials in the stereo field. they are
constantly panned randomly, and **rate** sets the speed. **w&f** adds random
pitch fluctuations and sets the modulation depth. **rate** sets the
speed. use **e2** to select a parameter and **e3** to adjust it. use **e1** to
adjust the main volume.

-- section 5:

this section shows all 4 snapshots on the same screen. all tools
that are available in section 1 are here as well, including the
possibility to copy and paste snapshots. the first number in the top
right corner shows the selected snapshot (the corresponding number
that begins each row of partials is highlighted), the second the
partial and the third below the others the volume. the circle marks
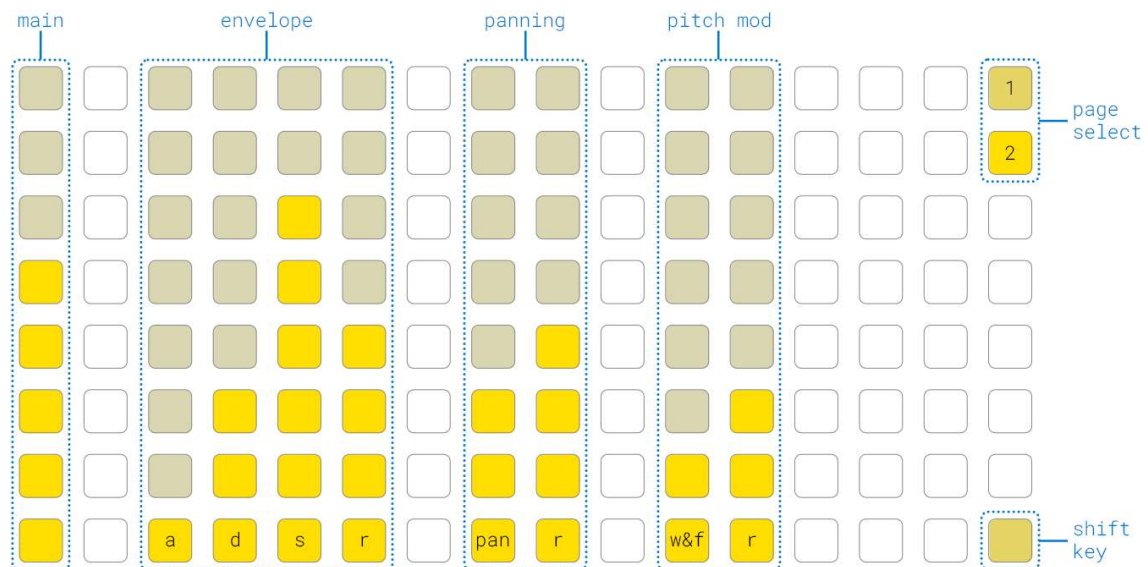the selected partial.

-- monome grid --

all parameters are mapped on an 8x16 grid on 2 pages. the leds are
updated whenever a parameter has been changed on the norns and vice
versa.

-- page 1:
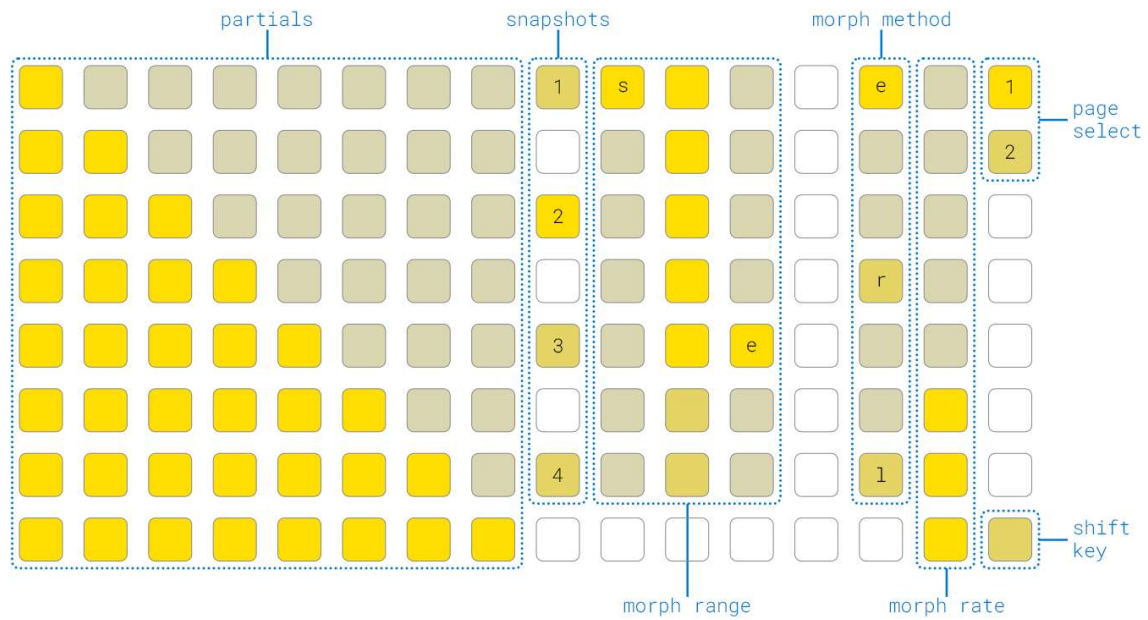
-- page 2:

-- fine tuning:

the 128 grid has a limited resolution with its 8 keys/column. the step size on a slider is therefor quite large. however, fine tuning is possible by holding down the shift key and pressing keys on a slider. the 4 upper keys increments, and the 4 lower keys decrements the value. pressing keys further away from the vertical centre increases the step size. a popup window on the norns screen will show which parameter that has been changed in conjunction with the value.