multiwave _travelers guide _for conducting the octet

8 channels	2 oscillators each	64 wavetables

› then noon = 12 o'clock tags = the panel drawing

eight channels × two wavetable oscillators · one set of controls · spread and modulation dissemination make every channel different

01 what it is

mw_01

eight channels	each with two wavetable oscillators, osc A and osc B · one set of controls
activate	a channel takes new pitch and cv values only when it is activated
the system	channel index out › span in of polimaths · outs › two qxg = 8-voice synth

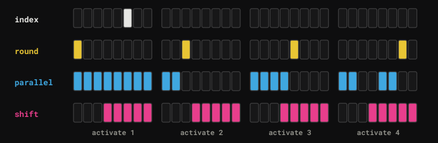
02 span modes

mw_02 · mode button · fig.01

white · index	span picks one channel (noon = none) and activates it · or only on `activate` if patched
yellow · round	each `activate` moves span steps along · `reset` = back to channel 1
blue · parallel	each channel activates on a clock division set by span
magenta · shift	all activate together · values pass one channel along from span
`accumulate`	patched: activations wait (orange) until a gate here, then fire together

__fig.01 : span modes

channels 1 – 8 per activation



03 spread

mw_03 · + dissemination · fig.02

the gold four	A wave · A pitch · B wave · mod time
cv unpatched	`spread` offsets channels by position: left of noon = left channels most
cv patched	dissemination: each channel grabs the cv value when activated
depth	that knob's attenuverter sets spread or dissemination amount
pitch spread	B pitch is disseminated, not spread · use `detune`

__fig.02 : spread · dissemination

gold knobs



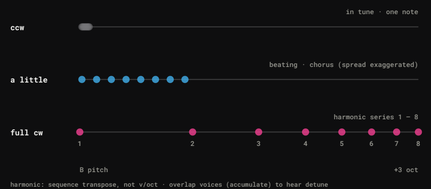
04 osc B

mw_04 · the lead

`pitch` + fine	start pitch · `v/oct` is disseminated · `trps` moves all eight live
`glide`	only on a new activation with a new pitch
`detune`	ccw in tune · up = chorus · full cw = harmonic series
`blend`	A ↔ B per channel (cv is live)

__fig.07 : detune

osc B · eight voices



harmonic: sequence transpose, not v/oct · overlap voices (accumulate) to hear detune

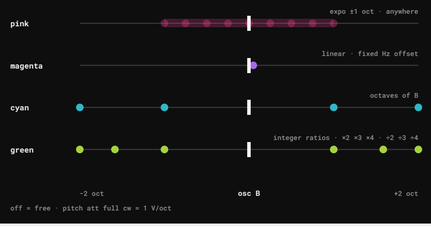
05 osc A · follow

mw_05 · hold follow = off

off	free · pitch att full cw = 1 V/oct
pink	expo detune ±1 octave from B
magenta	linear detune: fixed Hz from B
cyan · green	octaves of B · integer ratios of B

__fig.05 : follow

osc A · hold follow = off



off = free · pitch att full cw = 1 V/oct

06 mod shapes

mw_06 · long press = off

red · green — ramp · saw
read forward · backward from wave position to the end

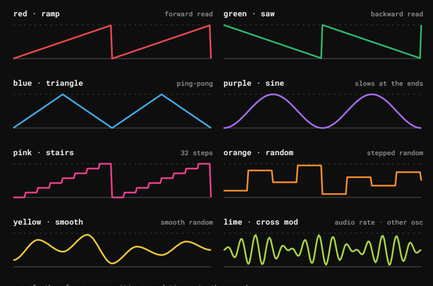
blue · purple — tri · sine
ping-pong · sine slows at the ends

pink · orange · yellow — stairs · random
32 steps · stepped random · smooth random

lime — cross mod
audio-rate wave modulation from the other osc · time does nothing

__fig.04 : multimod shapes

mod shape button · colour



up = further from wave position · mod time sets the speed

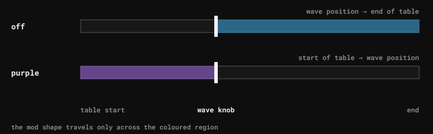
07 page 2

mw_07 · page 2 button lit

`wave` + att	table + bank (colour) · loads 2 s after leaving page 2
`[ mode ]`	output mixing: green on · outs 5 = all A, 6 = all B, 7 odd, 8 even
`[ follow ]`	quantize: yellow 12-tet · peach = scala (A pitch picks 1 of 8 scales)
`[ mod shape A ]`	mod region: off = wave → end · purple = start → wave
`[ mod shape B ]`	activation: off free · magenta reset · cyan one-shot

__fig.09 : mod region

page 2 · mod shape A



the mod shape travels only across the coloured region

08 banks

mw_08 · page 2 colours

red · blue	classic shapes · make noise
green · purple	warp and fold · additive
pink · orange	sync · organs
yellow · cyan	vocal · fm

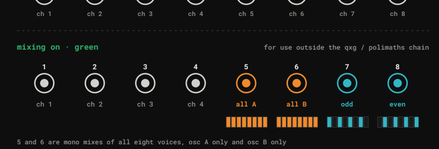
10 first flight

mw_10 · first chord

1. page 2 · `[ mode ]` green (mixing on)
2. listen to `5` (all A) or `6` (all B)
3. `[ mode ]` to yellow (round), span to 1
4. clock into `activate` · sequence into `v/oct`
5. turn `detune` up a little
6. raise `spread` and move a gold knob

__fig.08 : output mixing

page 2 · mode button



5 and 6 are mono mixes of all eight voices, osc A only and osc B only

__fig.06 : activation

page 2 · mod shape B



one-shot: yellow = time sets slew · orange = time does nothing

__fig.03 : the panel

numbers match the legend



`out`	**outs 1 – 8** · per channel · or mixes on page 2
`act`	**activate** · **accumulate** · **reset** · gates
`span`	**span** · **mode** · which channels · how
`spr`	**spread** · per-channel offsets
`a`	**osc A** · mod shape · follow · wave · pitch
`b`	**osc B** · pitch · glide · trps · wave · mod shape
`pg2`	**page 2** · **mod time** · global settings · scan rate
`mix`	**blend** · **detune** · A ↔ B · chorus → harmonics

09 specs · usb

mw_09

size	26 hp
tables	usb-c: power on holding `[ mode ]` = drive · WaveEdit wavs · files start 1 – 8
midi	fw 4.1.6+ with the midi inlet or skiff · ch 1 span, 2 – 9 per channel, 10 transpose
`[ mode ]`	midi panic · page 2 + long press = mpe