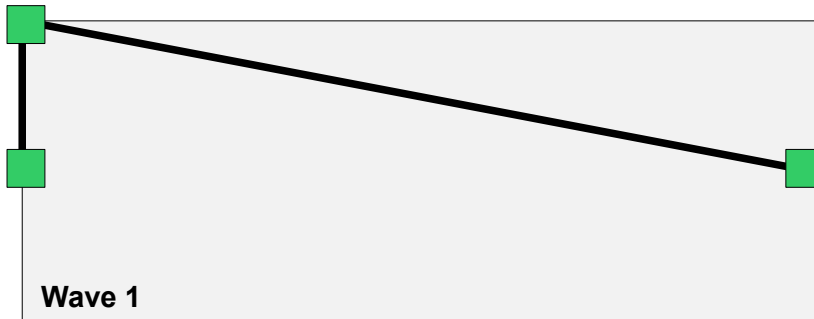# Phase distortion in zebra / zebralette

-Make sure that the phase distortion parameter is set to
full effect, and oscillator resolution at max for fast modulation !
We will automate the wavescanning index by an env.

Wave 1

In phase distortion mode, we only use the
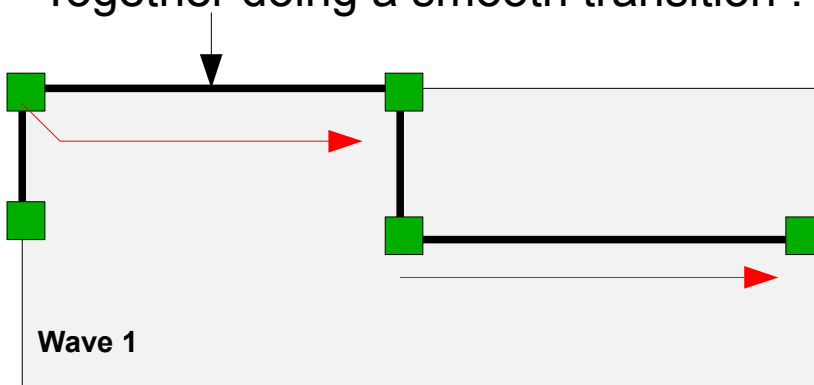Upper half of the window .
Here a saw wave is exactly a saw in pd
mode

Interpolate these 2 waveforms from 1 (saw) to 16 (triangle) and we have a smooth transition
In phase distortion mode from saw to sine

Wave 16
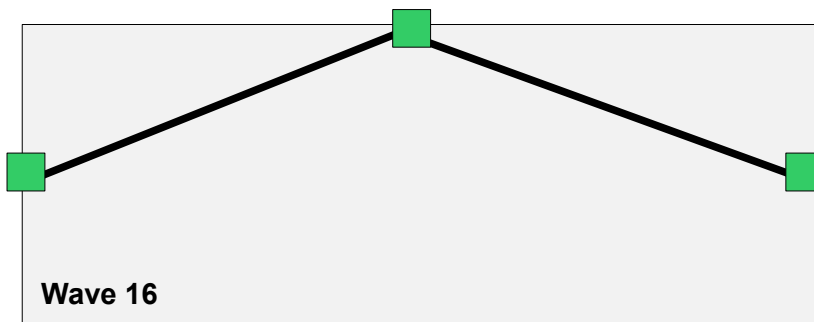
Moving the upper left vertex , to the
Middle position gives us a triangle wave.
But , in phase distortion mode a triangle
is a sine wave
Remember to only use the upper half of
the window .
You can of course use both sides of the
Window, but then a triangle (upper and
Lower half) would gives you 2 sine wa-
ves.

1															16
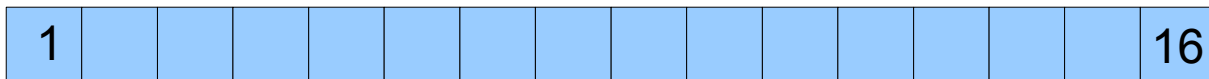
Important to always make sure that the vertex points are joined
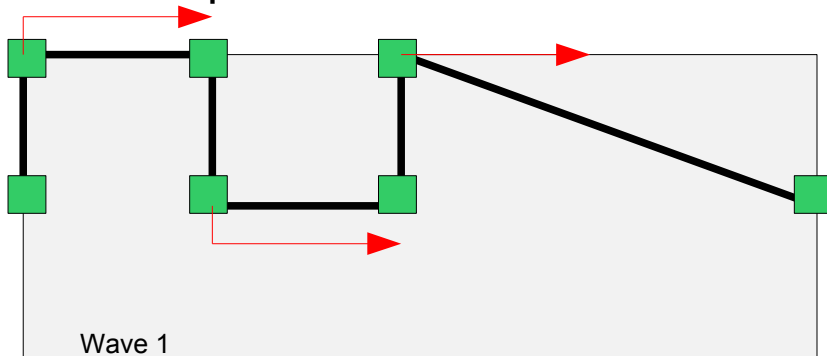Together doing a smooth transition .

Wave 1

Square wave (once again only the
Upper half of the window is used)

Let's now move it to a sine wave
In the midlle position and
At the end, there are now two
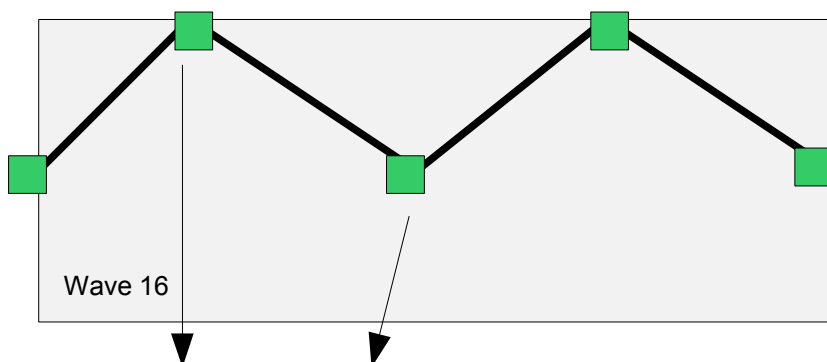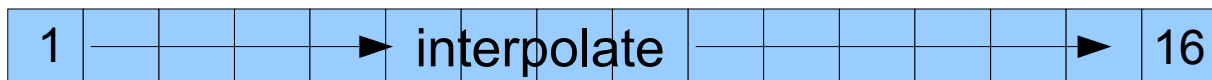overlapping vertices , which doesn't
matter

1															16

Two overlapping points

Two overlapping points

Wave 16
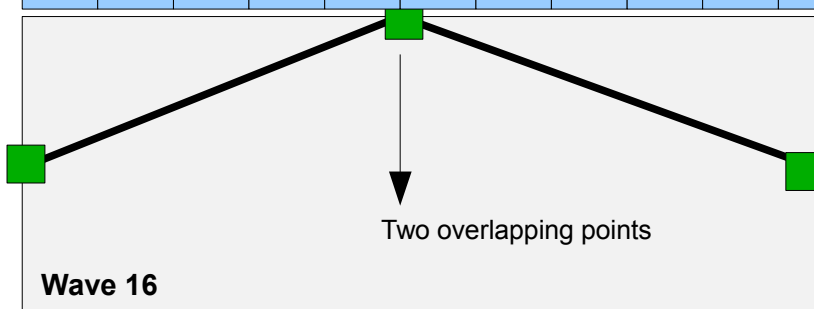
From square + saw to sine

Wave 1

Here we have a square+saw
Let's move it to (two) sine waves

1 → interpolate → 16

Wave 16

In the final wave, our square and saw
Have both transitioned to a sine wave.
The only way to do a smooth transition
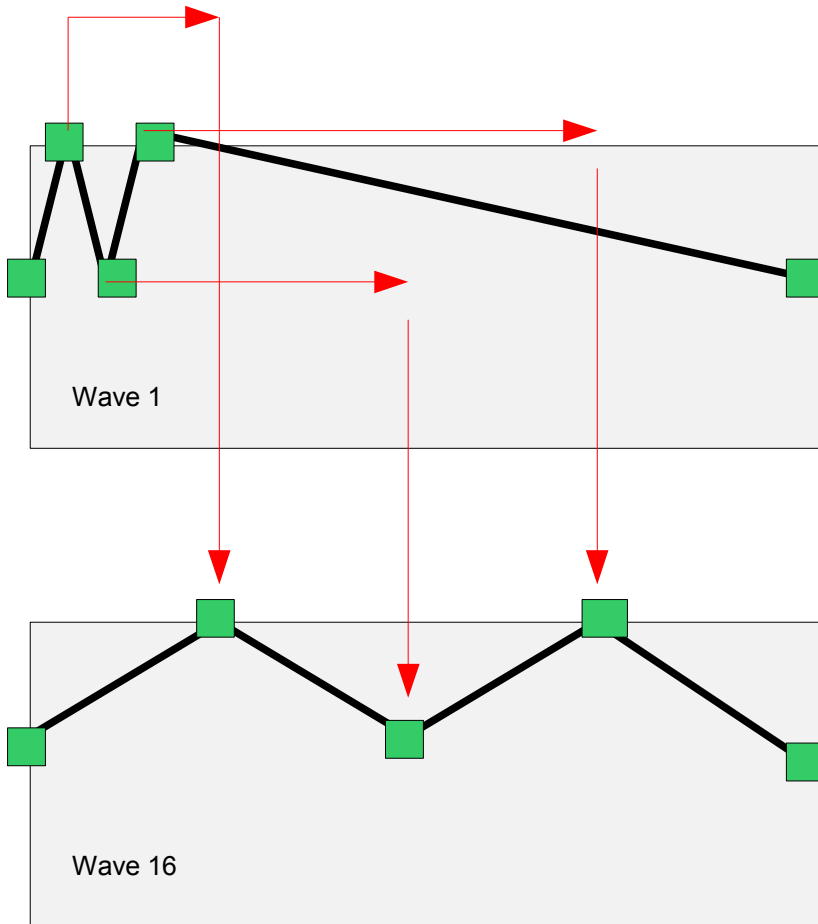was to overlap,join two vertices of the
square wave

Two overlapping points

The famous double sine

Wave 1

Wave 16
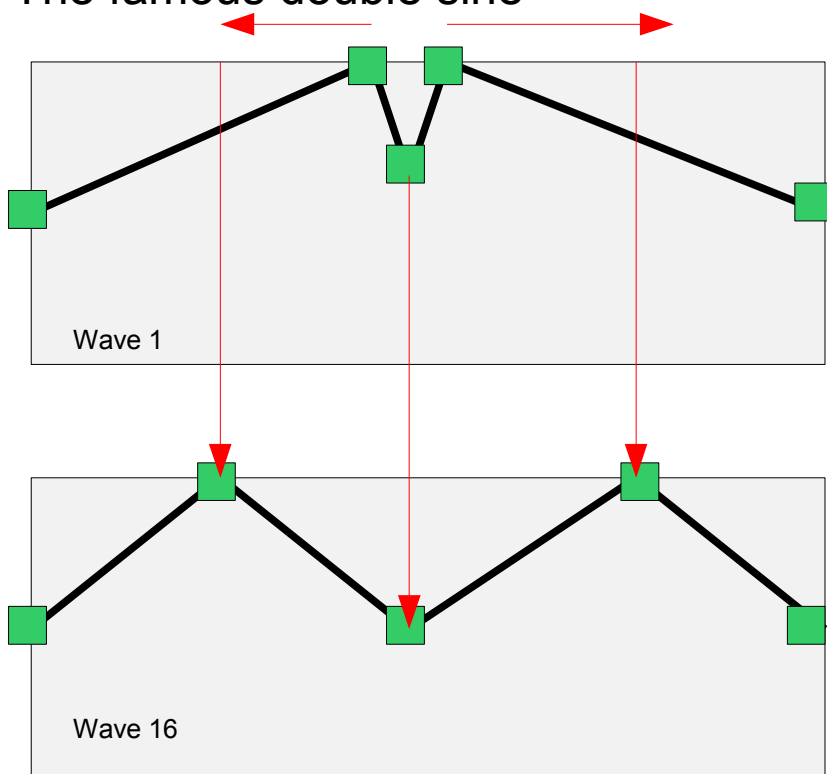
Which gives us 2 sine
waves

Pulsaw to sine (*2)

Wave 1

Wave 16

Almost the same but different
Pulse +saw to sine

Wave 1

2 overlapping points

Wave 16