Wave Index Table

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Preamble

This document provides a table of all of the implemented waveforms for use in the *plebitp* wavetable. Wave names that end in W utilize the wave parameter to change how that wave sounds. Wave names that contain Pulse[TYPE] utilize the pulse parameter to produce a pulse effect of that type. At the end of the Wave Index Table is some information on the pulse and wave parameters and how they affect the waveforms.

Wave Index Table

Basic Waves (00-1F)

00	Silence	*01*	Square	*02*	Triangle	*03*	Saw
04	Sine	*05*	Random	*06*	Square Pulse	*07*	Triangle Pulse
08	Saw Pulse	*09*	Sine Pulse	*0A*	Square NES W	*0B*	Square NES Pulse W
0C	Square VTX	*0D*	Square VTX Pulse	*0E*	Square Pulse2	*0F*	Square PulseH
10		*11*		*12*		*13*	
14	Triangle Pulse2	*15*	Triangle PulseH	*16*	Sine Pulse2	*17*	Sine PulseH
18	Half-Sine	*19*	Half-Sine Pulse	*1A*	N Sine W	*1B*	N Sine Pulse W
1C	N Sine Pulse2 W	*1D*	N Sine PulseH W	*1E*	N Half-Sine W	*1F*	N Half-Sine W

Multiplexed Waves (20-3F)

20	Mux Wave	*21*		*22*		*23*	
24		*25*		*26*		*27*	
28		*29*		*2A*	_	*2B*	_
2C	_	*2D*	_	*2E*	_	*2F*	_
30	_	*31*	_	*32*	_	*33*	_
34	_	*35*	_	*36*	_	*37*	_
38	_	*39*	_	*3A*	_	*3B*	_
3C	_	*3D*	_	*3E*	_	*3F*	_

Untitled Section

40	_	*41*	_	*42*	_	*43*	_
44	_	*45*	_	*46*	_	*47*	_
48	_	*49*	_	*4A*	_	*4B*	_
4C	_	*4D*	_	*4E*	_	*4F*	_
50	_	*51*	_	*52*	_	*53*	_
54	_	*55*	_	*56*	_	*57*	_
58	_	*59*	_	*5A*	_	*5B*	_
5C	_	*5D*	_	*5E*	_	*5F*	_

Percussion and Noise (60-7F)

60	Noise0	*61*	Noise1	*62*	Noise2	*63*	Bongo
64	_	*65*	_	*66*	_	*67*	_
68	_	*69*	_	*6A*	_	*6B*	_
6C	_	*6D*	_	*6E*	_	*6F*	_
70	_	*71*	_	*72*	_	*73*	_
74	_	*75*	_	*76*	_	*77*	_
78	_	*79*	_	*7A*	_	*7B*	_
7C	_	*7D*	_	*7E*	_	*7F*	_

Untitled Section

80	_	*81*	_	*82*	_	*83*	_
84	_	*85*	_	*86*	_	*87*	_
88	_	*89*	_	*8A*	_	*8B*	_
8C	_	*8D*	_	*8E*	_	*8F*	_
90	_	*91*	_	*92*	_	*93*	_
94	_	*95*	_	*96*	_	*97*	_
98	_	*99*	_	*9A*	_	*9B*	_
9C	_	*9D*	_	*9E*	_	*9F*	_

Untitled Section

A0	_	*A1*	_	*A2*	_	*A3*	_
A4	_	*A5*	_	*A6*	_	*A7*	_
A8	_	*A9*	_	*AA*	_	*AB*	_
AC	_	*AD*	_	*AE*	_	*AF*	_
B0	_	*B1*	_	*B2*	_	*B3*	_
B4	_	*B5*	_	*B6*	_	*B7*	_
B8	_	*B9*	_	*BA*	_	*BB*	_
BC	_	*BD*	_	*BE*	_	*BF*	_

Untitled Section

C0	_	*C1*	_	*C2*	_	*C3*	_
C4	_	*C5*	_	*C6*	_	*C7*	_
C8	_	*C9*	_	*CA*	_	*CB*	_
CC	_	*CD*	_	*CE*	_	*CF*	_
D0	_	*D1*	_	*D2*	_	*D3*	_
D4	_	*D5*	_	*D6*	_	*D7*	_
D8	_	*D9*	_	*DA*	_	*DB*	_
DC	_	*DD*	_	*DE*	_	*DF*	_

Untitled Section

E0	_	*E1*	_	*E2*	_	*E3*	_
E4	_	*E5*	_	*E6*	_	*E7*	_
E8	_	*E9*	_	*EA*	_	*EB*	_
EC	_	*ED*	_	*EE*	_	*EF*	_

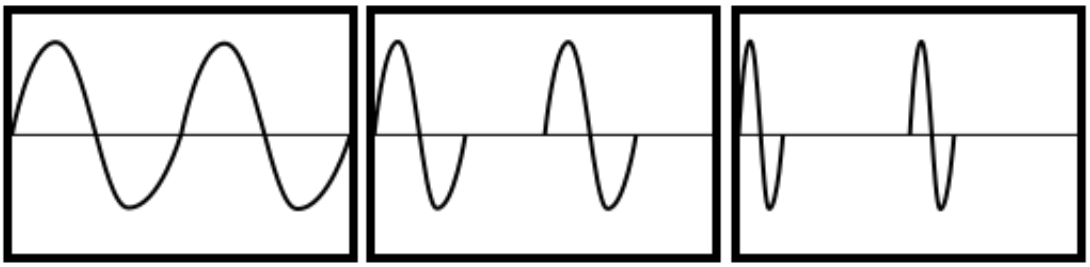
Wave Functions

F0	_	*F1*	_	*F2*	Set Wave1	*F3*	Set Wave2
F4	Set Mux Gen 1	*F5*	Set Mux Gen 2	*F6*	Note Fine Tune	*F7*	_
F8	_	*F9*	_	*FA*	_	*FB*	Set Loop Coun
FC	Dec Loop Counter, Jump if not 0	*FD*	Set Custom Jump	*FE*	LJump to Custom Jump	*FF*	Jump to Inde

The Pulse Table

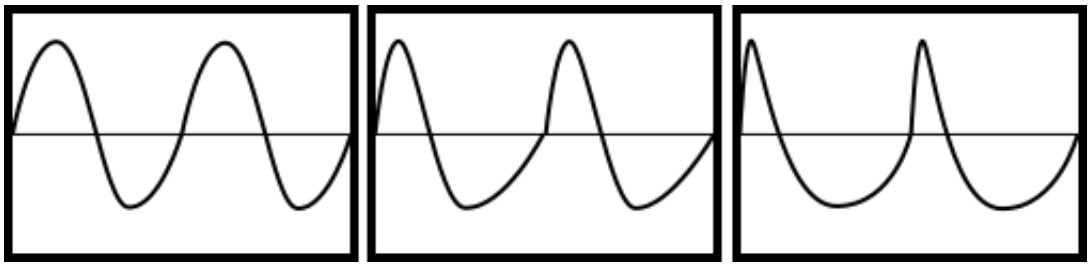
Pulse1 waveforms modulate by contracting their frequencies toward the beginning of pulses, leaving the rest of what the pulse would be (had it not been modulated), as silence. Imagine the example pictures are of actual sine waves.

Sine Pulse 1 [00..80..E0]



Pulse2 is the same idea, but instead of leaving the end for silence, it stretches the "down-valley" (or trough, whatever you want to call it) of the sound to be longer or shorter. This pulse effect pulls off a similar sound to Pulse1, but I speculate has additional lower frequencies.

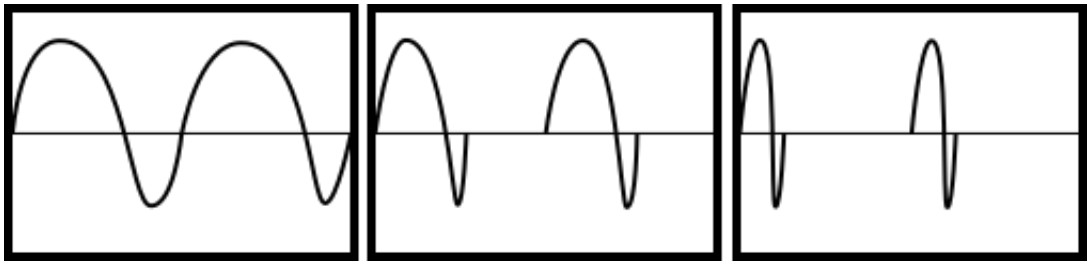
Sine Pulse 2 [80..C0..F0]



Pulse 2 is only implemented by certain waveforms that have troughs. For example: Square, Sine, and Triangle.

PulseH, Pulse Hybrid, Combines these effects. It applies Pulse1, then Pulse2 inside of the range of the already modulated waveform.

Sine Pulse Hybrid 2[20..20..20] 1[FF..80..10]



Each track has the two pulse parameters and the Pulse Table is how your song interacts with the pulse parameters.

Entries 0000 to 6FFF add pulse to pulse parameter 1.

Entries DFFF to 7000 subtract pulse (DFFF is -1.)

EXXX Sets the pulse parameter to XXX0.

Entries that begin with F are functions.

F0	Set Pulse 2	F8	
F1	Add Pulse 2	F9	
F2		FA	
F3		FB	Set Loop Counter
F4		FC	Dec Loop Counter, Jump if not 0
F5		FD	Set Custom Jump
F6		FE	Jump to Custom Jump
F7		FF	Jump to index

The Wave Parameter

Some waveforms utilize the wave parameter, but the effect that the wave parameter has on a waveform is dependant on that waveform.

Index	Wave name	Description
0A-0B	Square NES W	Changes how strong the effect of making the square wave similar to a gameboy/
0C-0D	Square VTX W	Innefectually changes how strong the effect of making the square wave similar to
1A-1D	N Sine W	N Sine duplicates a number of sine waves and shrinks them into the space of 1 r
1E-1F	N Half-Sine W	Does the same as N Sine W, but with only the top half of a sine wave in a sort
20	Multiplexed Waves	The wave parameter defines a ratio of phase between the two waves. This funct
00	_	
00	_	
00	_	
00	_	