SID DOZZ' IT

2.0 BETA 7

Quick Reference Card 1.0

Overall Keyboard Commands

← ..... Fast forward
F1 ..... Play from mark
F2 ..... Set play mark
F3 ..... Stop/Continue play
F4 ..... Edit/Synth/Record mode
F6 ..... Tracker data on/off
F7/F8 ..... Select note octave
= ..... Play current line
Z ..... Play from current line
RunStop ..... Sequencer/Sound edit
SH+RunStop ..... Enter basic
SH+L ..... Load music
SH+S ..... Save music
CBM+S ..... Dump music
CBM++ ..... Next tune
CBM+- ..... Previous tune

Sequencer Keyboard Commands

F5 ..... Tracker/Sequencer
InstDel ..... Delete a line
SH+InstDel ..... Insert a line
ClrHome ..... Cycle sequence start/middle/end
SH+ClrHome ..... Go to start of tune
RunStop ..... Go to sound editor
Space ..... Delete down
SH+Space ..... Delete up
SH+A ..... Increase cursor jump
CBM+A ..... Decrease cursor jump
SH+D ..... Double sequence length
SH+F ..... Clear sequence (From cursor position)
SH+K ..... Kill sequence/Unused/Make ready for use
M ..... Set start mark
SH+M ..... Set end mark
CBM+M ..... Copy marked area to cursor position
SH+C ..... Copy sequence to buffer
SH+V ..... Copy buffer to sequence
SH+X ..... Sequence line numbers / 2 (From cursor pos)
CBM+X ..... Sequence line numbers * 2 (From cursor pos)
CBM+1234 ..... Tracks on/off
CBM+RTYU ..... Set channel mark
CBM+5678 ..... Go to channel mark
:/[..... Set track transpose
;/] ..... Set sequence number
,/ ..... Jump down/up 16 lines
>/< ..... Increase/Decrease note values (From cursor pos)
/ ..... Press twice for sound/sequencer split screen
? ..... Set speed calls (1-16) - Music must be off to use this
CBM+* ..... Set speed channels
S/L ..... Move left/right between channels

Tracker Keyboard Commands

/ ..... Tracker/Sound editor split screen
F5 ..... To sequencer
> ..... Increase transpose values or sequence values
< ..... Increase transpose values or sequence values
InstDel ..... Delete a track line
SH+InstDel ..... Insert a track line
Return ..... Set loop mark for current channel
SH+Return ..... Set stop mark for current channel
SH+123 ..... Swap tracks (all tunes)
M ..... Set start mark
SH+M ..... Set end mark
CBM+M ..... Copy marked area
S/L ..... Move left/right between tracks

Snd/Inst Editor Keybrd Commands

N ..... Name sound (Instrument)
+/- ..... Select sound
SH+A ..... Arpeggio program table
SH+D ..... Digi setup
SH+F ..... Filter program table
SH+I ..... Initial volume and Filter/Filter speed table.
SH+N ..... NMI frequence table
SH+P ..... Pulse program table
SH+S ..... Sound setup table
SH+T ..... Tempo program table
SH+V ..... Vibrato program table
SH+W ..... Waveform program table
M ..... Mark sound
SH+M ..... Copy marked sound to current sound
Return ..... Put current program line into sound setup
..... Only for waveform, arpeggio, pulse, filter and vibrato
SH+Return ..... Delete program from sound setup
..... Only for waveform, arpeggio, pulse, filter and vibrato
,/ ..... Jump 4 lines up/down
ClrHome ..... Go to current sound's program line
SH+ClrHome ..... Go to start of program line table
InstDel ..... Delete a program line
SH+InstDel ..... Insert a program line

Load Menu Commands

SPACE ..... Read a new directory into memory
SH+SPACE ..... DOS command
* ..... Display files A-Z
SH+* ..... Display files Z-A
A-Z ..... Set display path
CTRL+1-0 ..... Select device 11,12,13,14,15,16,17,8,9,10
Crsr keys ..... Select music
Return ..... Load music
,/. ..... Jump 8 files up/down
ClrHome ..... Top of directory
SH+ClrHome ..... Bottom of directory
RunStop ..... Exit

FX/Note Combinations for Ch. 1-3

`-- ---` Empty line
`06 ---` [00-1F] Set sound number 06 and no note
`10 C-4` [00-1F] Set sound number 10 and hard note C-4
`06 c-4` [00-1F] Add sound number to waveform and tie note c-4
`2E C-4` [21-3F] Set glide value 2E and hard note C-4
`2E c-4` [21-3F] Set glide value 2E and tie note c-4
`22 ---` [21-3F] Set vibrato program 02
`40 ---` [40-6F] Set arpeggio 00 and no note
`44 C-4` [40-6F] Set arpeggio 04 and hard note C-4
`6F c-4` [40-6F] Set arpeggio 2F and tie note c-4
`74 ---` [70-7F] Set release 04 (cannot have a note combination here)
`74 C-4` [70-7F] Set sustain 40 and hard note C-4
`7A c-4` [70-7F] Set attack A0 and tie note c-4
`-- C-4` [C#0-A#7] Hard notes (played with current sustain value - if set)
`-- c-4` [c#0-a#7] Tie notes
`-- FLG` [C-0] Set gate on for current sound
`-- flg` [c-0] Set gate off using current sound release value
`70 C-4` [70] Restore current sound original ADSR values with hard note C-4

FX/Note Combinations for Ch. 4

`-- ---` Empty line
`06 ---` [01-1F] Set tempo to 06 and no transpose
`04 C#0` [01-1F] [C-0 to A#7] Set tempo to 04 and transpose 1
`-- D-0` Set transpose 2
`41 ---` [40-60] Look up tempo program 01
`44 FLG` [40-60] Look up tempo program 04 and transpose 0.
`70 ---` [70] Filter control back to main filter channel
`71 ---` [71-7F] Force filter output
`21 ---` [21-3F] Force filter program 01
`63 ---` [61-67] Forced filter band 03

This channel controls main speed and main transpose for all channels. Keep the transpose between `FLG` and `C-2`. Starting the first sequence line here with `-- FLG` is a very good choice.

The Sequencer

To use the sequence divide or multiply function (SH+X and CBM+X) you have to place the cursor on a uneven line number (01,03,05..etc).
Active speed channels are highlighted with light grey on the top of the screen.

The Tracker

When marking tracks, don't copy within the marked area and don't copy to a position above the marked area within the same track.
When swapping tracks you should be located at the very beginning of the first tune. All track data is swapped, including sub tunes. You can only swap tracks when the music is turned off.

The Sound/Instrument Editor

Instruments $20-$2f are only available through the arpeggio program, you should only use these instruments when you run out of $00-$1f instruments. Last instrument selected is set to default instrument for blue mode (Synth mode).

Sound Setup

Gate timeout/hard restart lets you specify for how long the player shall wait before setting release. For no timeout use values 00, 20, 40, 60, 80, A0, C0 and E0. The longest timeouts are 1F, 3F, 5F, 7F, 9F, BF, DF and FF

01-1F ..... gate timeout and normal hard restart
21-3F ..... gate timeout and hard restart 2
41-5F ..... gate timeout and hard restart 3
61-7F ..... gate timeout and hard restart 4
81-9F ..... gate timeout and soft restart 1
A1-BF ..... gate timeout and soft restart 2
C1-DF ..... gate timeout and soft restart 3
E1-FF ..... gate timeout and soft restart 4

The latter one is like using a tie note.

Pulse program points to the Pulse table.
00 ..... indicates NO pulse
01-40 ..... Pulse program
41-80 ..... Pulse program with infinite sweep
81-8F ..... Store value 1-F directly in SID reg for Pulse High
90-FF ..... for future expansion

Filter program points to the Filter table.
00 ..... indicates NO filter
01-40 ..... Filter program
41-80 ..... Filter sweep mode 1
81-C0 ..... Filter sweep infinite mode 2
C1-FF ..... Filter sweep mode 3

WAVEFORM PROGRAM

WAVES:

```
c1 c2 c3
00:41 00
01:41 03
02:41 07
03:FF 00
```

c1 .....Program line position
c2 .....Waveforms and Waveform Commands
c3 .....Note values/Waveform Command values

Standard Waveforms - c2:
03..... Sync Bit: Synchronize Oscillator with Oscillator 3
05.....Ring Modulation: Ring modulate Oscillators 1 and 3
11.....Triangle waveform
21.....Sawtooth waveform
31.....Pulse waveform that works best on new SIDs
41.....Pulse waveform
51. Pulse waveform that works with both old and new SIDs
61..... Pulse waveform that works on old SIDs
71.....Dont know how this sounds on new SIDs
81.....Noise waveform

Arpeggio Waveforms - c2:
91.....Triangle waveform
A1 .....Sawtooth waveform
B1 .....Pulse waveform that works best on new SIDs
C1 .....Pulse waveform
D1 Pulse waveform that works with both old and new SIDs
E1 ..... Pulse waveform that works on old SIDs
F1 .....Dont know how this sounds on new SIDs

Possible note values – c3:
00-5E..... Soft notes, added to note+track transpose
60-7F .....Soft notes, subtraced from note+track transpose
80-DE .....Hard notes, overrides note+track tranpose

Waveform Commands – c2:

Jump Command:
FF XX Jumps to program line position XX

Delay Command:
FE XX Delay the next waveform for XX frames

ADSR Command:
FD XX XX tells the player how many frames to wait before setting gate off. This value is anded with #$7f, so 00 no gate off and 80 no gate off
AD SR AD = Attack/Decay value
SR = Sustain/Release value

MultiPulse Command:
FB P2 Switches between two pulse programs. The instrument must have a pointer to a pulse program from the sound setup.
P2 = Second pulse program pointer
0X YY X = 0 start with P2 pointer
X = 1 start with sound setup pulse pointer
YY = switch speed

Waveform Repeat Command:
FA XX Tells the player to repeat the following FF jump XX times. When the last FF jump is executed the player automatically jumps to the line below the FF command.
XX = 01-7F

Press Return to put program line into sound setup.

VIBRATO PROGRAM

VIBRATO:

```
c1 c2 c3 c4
01:10 00 00
02:FF 03 32
```

c1 .....Table Position
c2 .....Delay/Detune/Loop
c3 .....Vibrato Width/Detune Low
c4 ..... Vibrato Speed/Detune High

Delay / Detune / Loop – c2:
00 Detune and continue
01-FD Delay value
FE Detune and hold
FF Infinite loop on vibrato

Vibrato Width – c3:
00-7F Going up, then down
80-FF Going down, then up

Detune High (**c4**) values from 00-7F will finetune upwards and values from FF-80 will finetune downwards.
You can call a vibrato program from the FX column in the sequencer with $21-$3f.
Using values greater than $80 for Vibrato Speed (**c4**) will produce Crazy Comet loop.

Press Return to put program line into sound setup.

ARPEGGIO PROGRAM

ARPEGGIO:

```
c1 c2 c3 c4
00:00 00 15 ..... 037CF - sound 15 - speed 1
01:03 00 55 ..... 037CF - sound 15 - speed 2
02:07 00 95 ..... 037CF - sound 15 - speed 3
03:0C 00 D5 ..... 037CF - sound 15 - speed 4
04:8F 05 15 ..... 0484  - sound 15 - speed 1
05:00 00 00 .....x
06:04 00 00 .....x
07:08 00 00 .....x
08 84 00 00 .....x
```

c1 ..... Arpeggio Number
c2 ..... Arpeggio data
c3 .....Arpeggio program line pointer
c4 .....Arpeggio speed & sound number

c2 uses Values greater than $80 to set loop.
In **c4**, if you want to play an arpeggio with instrument number $15, using speed 4 you must enter $d5. If you want to use speed 1, you must enter $15.

Remember that the instrument you set in **c4** need to use the waveforms $91,$a1,$b1,$c1 or $d1 in order to access the arpeggio table. You call the arpeggios with $40-$6f from the sequencer.
Pressing Return jumps to the start of a arpeggio (using the jump pointer in column **c3**) - the cursor will be placed at the beginning of the arpeggio data in **c2**. Pressing SH+Return jumps back to the position you last jumped from and the cursor will be placed in **c3**.

PULSE PROGRAM

PULSE SWEEP:

```
c1 c2 c3 c4 c5
01:F7 88 08 82 ..... jump and cut to line 2
02:01 2e 30 42 .continuous sweep on line 2
```

c1 ..... Table position
c2 ..... Pulse Low/Pulse High starting value
c3 ..... Pulse Low/Pulse High sweeping value
c4 .....Sweep speed
c5 .....Sweep mode or sweep jump

Sweep Mode / Sweep Jump – c5:
00/40/ 80/C0 Will sweep until reaching end value, then the sweep will stop. No jumping to other pulse program line will occur. The result of the pulse sweep all depends on the values used in **c1** and **c2**.
0X-3F Sweep to end value then cut to the **c2** value. X indicates which program line to cut to when reaching end
4X-7F If X points to the same program line then the sweep will be continuous between the two values in **c3**. If X points to a different program line the sweep will first go all the way between the two values in **c3**, then it will sweep to the new program line value in **c3**
8X-BF Sweep to end value then cut to the **c2** value. Behaves the same way as 0X-3F but the sweep is reverse
CX-FF Continuous sweep between the 2 values in **c3**. Behaves the same way as 4X-7F but the sweep is reverse

PULSE HOLD:

```
c1 c2 c3 c4 c5
01:08 00 18 82
02:01 00 18 81
```

Pulse hold is another special case for creating peculiar pulse sweeps. **c2** is the init pulse value. If **c3** is equal zero, **c4** will be used as a delay value, the player will decrease this value down to zero, then perform the jump value in **c5**.

FILTER PROGRAM

This program works just like the pulse program, with one exception: The low/high byte starting values in **c2** have switched places to high/low.

TEMPO PROGRAM:

TEMPO:

```
c1 c2 c3
00:02 00
01:83 00
```

c1 .....Program line position & tempo program number
c2 .....Tempo values 01-7F and 81-FF for loops
c3 ..... Program line lookup pointer

To set default tempo program press RETURN on the lookup pointer you want to use.
You can also call these tempo programs with $40-$6f from track 4 in the sequencer.

INITIAL VOLUME

VOLUME:

```
c1 c2 c3
00:14 00 ..... Volume for song 00, FS = 00
01:0F 00 ..... Volume for song 01, FS = 00
02:F4 00 ..... Volume for song 02, FS = 00
```

c1 .....Song number
c2 ..... Volume for the song
c3 .....Filter channel and filter speed

The high nibble of **c2** is used to set fade-in, valid numbers are 1-F where 1 is the fastest fade-in (0 = no fade-in). The low nibble of **c2** is the starting volume of the song, valid numbers are 0-F (0 = no volume and F = max volume). Using max volume together with a fade-in value will not produce any fade-in. The fade-in routine will always fade up to max volume.

Filter settings:
You do not need to type anything in **c3** to make use of filter in the sound editor. The high nibble of **c3** is used to force filter on a channel when a tune is played from the beginning. To make use of this function you need a filter instrument in one of the other channels.

0.....Filter force off
8-F .....Future expansion
1.....Force channel 1
2.....Force channel 2
3.....Force channel 1+2
4.....Force channel 3
5.....Force channel 1+3
6.....Force channel 2+3
7.....Force all channels 1+2+3

The low nibble of **c3** controls filter speed delay. The default value here is 0, which is the fastest speed delay. This value is printed to screen next to "filter" and it is used to delay the filter speed inside filter program. Each song can have its own filter speed delay. Valid numbers are 0 to F.

Press ClrHome to go to current song's volume number.