

Chapter 23 Sound Tool Set

We have added 4 new calls to the sound toolset that allow greater flexibility when playing back freeform sounds. First we have added `FFSetUpSound` and `FFStartPlaying`, these allow a programmer to load the sound information once for a specific sound and start it playing at a later time. This will reduce the overhead for starting sounds that you might want to play more than once. We have also added `SetDOCRam` and `GetDOCRam`, these calls allow you low level access to the DOC registers in a simple easy to use call.

New Calls

FFSetUpSound **Call \$1508**

Inputs (same as `StartSound`).
 ChannelGen WORD Channel generator type word
 ParamBlockPtr LONG Pointer to param block

Outputs
 none

This is identical to the `FFStartSound` call with the exception that it doesn't actually start playing the sound. To start playing the sound make a `FFStartPlaying` call.

FFStartPlaying **call \$1608**

Inputs
 GenWord WORD Bits to indicate which gen to start

Outputs
 none

This will take a one word parameter and will start each generator going, as specified by the corresponding bit.

The information for each generator should be set up in the `FFSetUpSound` call. Bits 0-15 correspond to generators 0-15.

example:

```
FFStartPlaying($4071);
```

This call will start 5 generators. Generators: 0, 4, 5, 6, and 14.

SetDocReg **call \$1708**

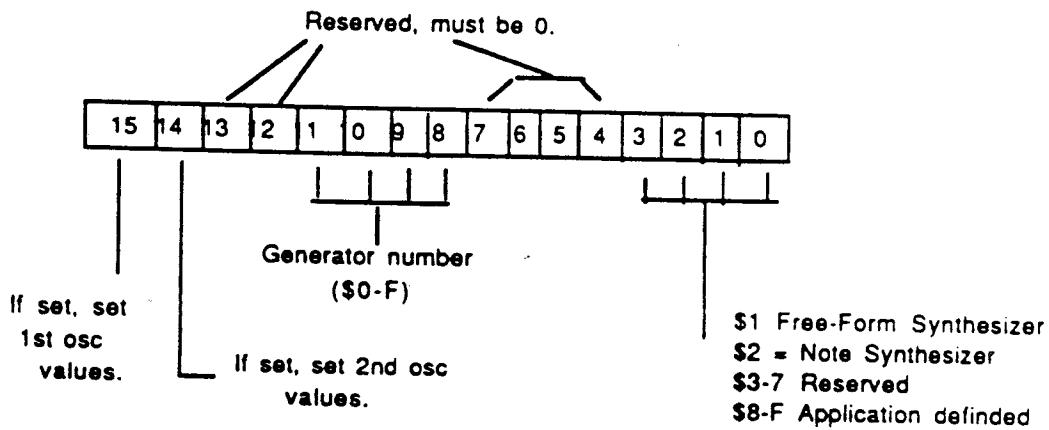
Inputs
 DocRegParamBlkPtr Long Pointer to DocRegParamBlk

Outputs
 undefined

This call will set the following registers: Frequency, volume, waveform table pointer. Control, and the TableSizeResolution registers. These registers in the DOC are set directly from the DocRegParamBlk, with no error checking. This call also sets the first word of the GCB from the OscGenType parameter. The Mode nibble goes to the first byte, while the Generator number nibble goes to the second byte.

Warning: This is a very low level call and should not be use unless there is a thorough understanding of the DOC and sound architecture.

OscGenType:



Oscillator-generator-type word

DocRegParamBlkPtr: pointer to

DocRegParamBlk

OscGenType	word	
Freq low	byte	; first oscillators paramaters.
Freq High	byte	
Vol	byte	
TablePtr	byte	
Control	byte	
TableSize	byte	
Freq low	byte	; second oscillators paramaters.
Freq High	byte	
Vol	byte	
TablePtr	byte	
Control	byte	
TableSize	byte	

ReadDocReg

call \$1808

Inputs
 undefined

Outputs
 undefined

This call is the complement of the SetDocRam call. It will read the Doc Register values and store them in the DocRegParamBlk for the specified oscillator (Only the oscillator data for the specified oscillators)

are returned). The Oscillator-generator-type word is returned with the generator mode value set by the GCB Mode byte. The Oscillator-generator-type word is still used to specify the Generator number and which osc on input, these values will remain unchanged on output.

