

## OPL4 Synth

Use the OPL4 Synth option to configure the operation of your internal MIDI synthesis device.

Choose one of the following options for information about the dialog box:

- Synthesis Mode
- Voice Mode
- PCM Config
- Patches
- Channel Config

See Also

[About OPL4 Synthesis](#)

[Patch Options](#)

[Channel Options](#)

[Voice Modes](#)

## **Synthesis Mode**

- ▶ Choose the PCM, FM, or Both radio button from the Synthesis mode group to select PCM (Wave Table), FM, or both modes of synthesis.

## Patches

► Choose the Patches button to display the Patch Sets dialog. Use the Patch Sets dialog to change a patch set used by the synthesis driver.

**The Patches button is only displayed when extra patch sets are available.**

## **Channel Config**

- ▶ Choose the Channel Config button to display the channel options. Use the Channel options to configure the operation of each MIDI channel.

## PCM Config

- ▶ Choose the PCM Config button to configure options for PCM synthesis.

There are two options which can be configured in the PCM Config dialog box.

**Drum Level** Set's the volume level of the PCM drumkit. The level is from 0 to 128.

**Allow Bank Switch** Allows the MIDI bank switch command to turn on/off the PCM drumkit on channels other than channel 10.

## **FM Voice Mode**

The synthesis driver can be configured to play in one of 8 modes. Each mode selects a different number of voices available to a MIDI application.

- ▶ Change the voice mode by selecting a mode from the drop down list box.

## **About OPL4 Synthesis**

The OPL4 synthesizer is an FM/PCM synthesis module which provides a great amount of flexibility in the synthesis of MIDI music. The synthesizer can operate in a number of modes combining, PCM, 4 Operator FM, 2 Operator FM, and FM Drum synthesis.

## **Patch Options**

The Patch Options dialog allows you to select a new FM patch set for one of the three types of FM patches. Choosing Default for a patch set, will reset the patches for that set to the default FM patches stored in the OPL4 synthesis driver.

### **To change a patch set:**

- 1) Select a new patch set from one of the drop down list boxes.
- 2) Press the OK button to allow your changes to take effect.

**The Patches options are displayed only when extra patch sets are available.**



## Channel Options

The Channel Options allow you to specify how each MIDI channel will produce sound when running in **dual mode**.

The MIDI channel options are:

**PCM:**

Specifies whether notes on the specified MIDI channel will be played using PCM voices.

**FM:**

Specifies whether notes on the specified MIDI channel will be played using FM voices.

**2 Operator Enable:**

Specifies whether 2 operator FM voices will be used on the specified channel.

**4 Operator Enable:**

Specifies whether 4 operator FM voices will be used on the specified channel.

**To change a MIDI channel option:**

- 1) Select the channel to configure from the Channel drop down list box.
- 2) Change the option either via a radio button or a check box.

## Voice Modes

The OPL4 synthesizer allows you to configure the synthesizer in 8 different FM modes. Each mode has a different number of voices consisting of 2 operator, 4 operator, and drum sounds. Typically 4 operator sounds will sound "fuller" than 2 operator sounds, however each 4 operator note takes up two 2 operator notes.

There are two FM drum generation methods for the voice modes, **Standard Drums** and **Melodic Drums**. Standard drums allows for 5 simultaneous drum sounds using only 3 2operator voices. This allows for a large drum polyphony but also leads to a "thinner" drum sound. Melodic drums uses 1 2 operator voice for each drum sound allowing less polyphony but a more realist sounding drum kit.

Typically the two best modes for FM synthesis are the **6-4Op 6-2Op Melodic Drums** mode and the **18-2Op Melodic Drums** mode.

The FM voice modes are as follows:

### **9-2Op Melodic Drums**

9 2 operator voices are available for melodic notes. Drum kit sounds are generated using 2 op melodic voices.

### **6-2Op Standard Drums**

6 2 operator voices are available for melodic notes. Drum kits sounds are generated using 1 op percussive voices.

### **18-2Op Melodic Drums**

18 2 operator voices are available for melodic notes. Drum kit sounds are generated using 2 op melodic voices. This mode allows the greatest polyphony along with the more realistic drum sounds.

### **15-2Op Standard Drums**

15 2 operator voices are available for melodic notes. Drum kits sounds are generated using 1 op percussive voices. This mode offers the most notes on at one time (15 melodic notes + 5 percussive notes)..

### **3-4Op 12-2Op Melodic Drums**

3 4 operator voices and 12 2 operator voices are available for melodic notes. Drum kit sounds are generated using 2 op melodic voices.

### **3-4Op 9-2Op Standard Drums**

3 4 operator voices and 9 2 operator voices are available for melodic notes. Drum kits sounds are generated using 1 op percussive voices.

### **6-4Op 3-2Op Standard Drums**

6 4 operator voices and 3 2 operator voices are available for melodic notes. Drum kits sounds are generated using 1 op percussive voices.

### **6-4Op 6-2Op Melodic Drums**

6 4 operator voices and 6 2 operator voices are available for melodic notes. Drum kit sounds are generated using 2 op melodic voices. This mode offers the most notes while also providing the richness of 4 operator sound and realistic drum generation.

