

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.