

# Using Synclavier® PowerPC™ with OMS



Synclavier® PowerPC™ includes a software driver for Opcode System's Open Music System. This software driver provides "virtual" MIDI ports for MIDI Clock and MIDI Timecode, the Synclavier® keyboard, and the Synclavier® sequencer.

## What is OMS

OMS, or "Open Music System" is a collection of Macintosh utility software that lets you describe your MIDI hardware setup so that hardware and software purchased from different companies can work together. The Synclavier® PowerPC™ OMS Driver creates "virtual" MIDI Ports that can send and receive MIDI data from other Macintosh applications (or hardware devices) without the delays normally associated with MIDI devices.

## What can you do with OMS and Synclavier® PowerPC™

By using Synclavier® PowerPC™ with OMS you can: trigger Synclavier® sounds from any OMS-aware Macintosh sequencer application or MIDI keyboard; record the Synclavier® keyboard or sequencer output into a Macintosh-hosted sequencer application; trigger an external MIDI synthesizer from the Synclavier® keyboard or sequencer; or synchronize the Synclavier® Sequencer to a Macintosh sequencer using MIDI Clock or MIDI Timecode.

## Installing OMS

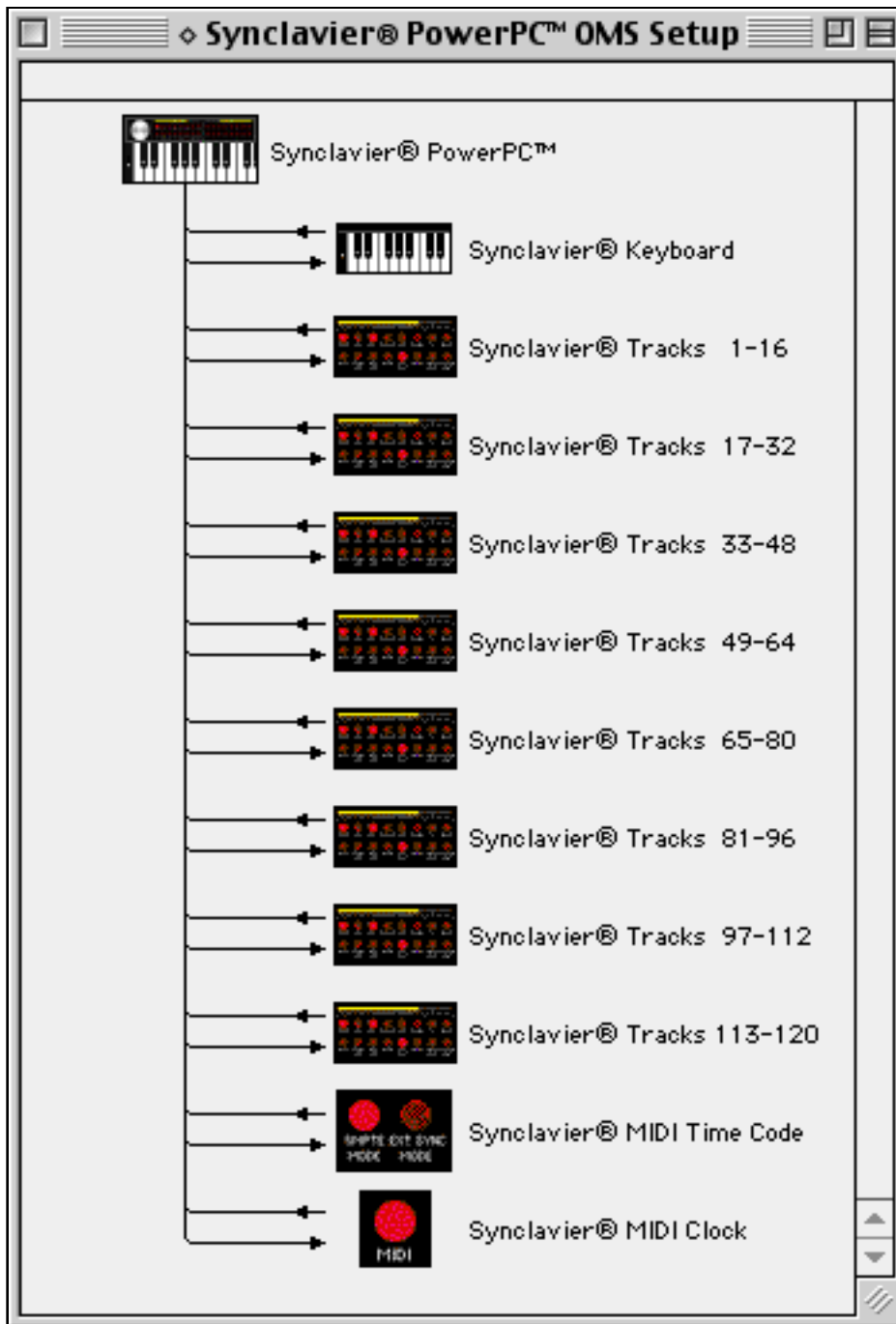
- 1) Download latest version of the OMS software from <http://www.opcode.com/products/oms>.
- 2) Also download the user documentation for OMS from <http://www.opcode.com/dl>. In particular, be sure to download "OMS\_2.3\_Mac.pdf" and "OMS Making a Studio Setup.pdf". These documents provide a wealth of useful information about OMS.
- 3) Install OMS by following the instructions that accompanied the download. You will need to restart your Macintosh after installing OMS.
- 4) Move the file "Synclavier® PowerPC™ OMS" into the "OMS Folder" (in your System Folder) created when you installed OMS.
- 5) Follow the instructions in "OMS\_2.3\_Mac.pdf" and "OMS Making a Studio Setup.pdf" to create your studio setup document.

## Installing the Synclavier® PowerPC™ OMS MIDI Driver

Drag the file named "Synclavier® PowerPC™ OMS" from the folder called "OMS Software" into the folder called "OMS Folder" which is inside your System Folder.

## Creating an OMS Studio Setup for Synclavier® PowerPC™

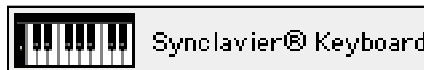
A new Studio Setup is created by selecting the 'New Studio Setup' option from the OMS Setup application. The Studio Setup created Synclavier® PowerPC™ is shown on the next page.



Synclavier® PowerPC™ OMS Setup

The Studio Setup created for Synclavier® PowerPC™ contains 11 "virtual" MIDI ports that can send and receive MIDI data to and from other Macintosh applications. Since these are "virtual" MIDI ports, data can be exchanged at an extremely high speed without incurring the delays normally associated with real hardware MIDI ports.

## The "Synclavier® Keyboard" virtual MIDI Port



The Synclavier® Keyboard virtual MIDI port can send MIDI data in response to notes played on the Synclavier® keyboard or in response to controller movements from the mod wheel, pitch wheel, breath controller, pedal 1, pedal 2 or the sustain foot switch. Additionally, MIDI data sent to the Synclavier® Keyboard virtual MIDI port can trigger Synclavier® sounds as if they were played live.

### Sending MIDI Data from the Synclavier® Keyboard

To use the Synclavier® keyboard to send MIDI data to a Macintosh application, you must route the keyboard MIDI data to the Synclavier® Keyboard virtual MIDI output. This is done either using the MIDI button on the VK button panel:



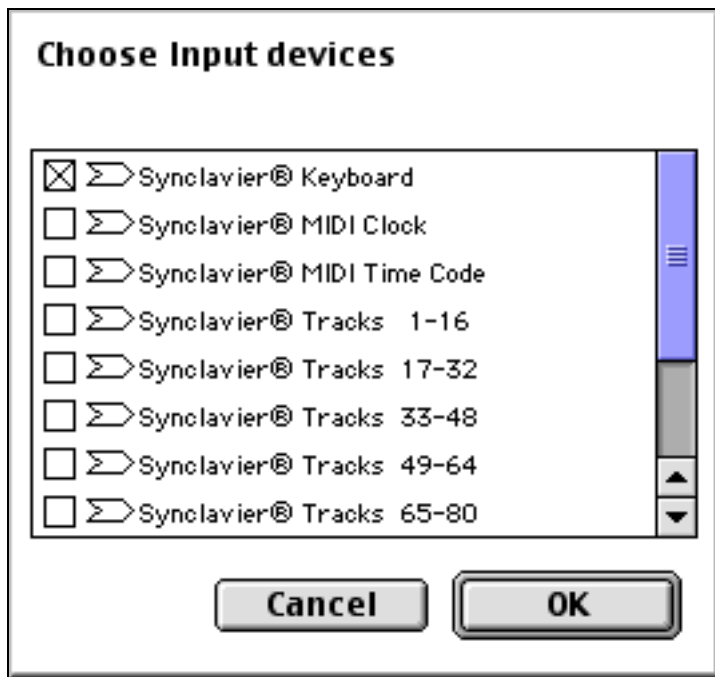
or from the MIDI Display (J) screen:

	Instrument Name	Out	Chan	Pres
KBD	*Unnamed Timbre*	OMS	1	

Note: the Synclavier® Keyboard virtual MIDI port always sends and receives data using MIDI Channel 1. MIDI Input addressed to other MIDI channels is not processed by the Synclavier® Keyboard virtual MIDI port.

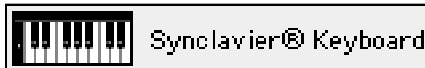
The receiving Macintosh application also must be set up to receive MIDI data from the Synclavier® Keyboard virtual MIDI port. How this is done will depend on which Macintosh application you are using.

CuBase and CuBase/VST (published by Steinberg) use an input selection dialog box to enable specific MIDI Inputs. You will see the Synclavier® Keyboard virtual MIDI port appear in the input device list within your Macintosh application if OMS is installed and set up correctly.



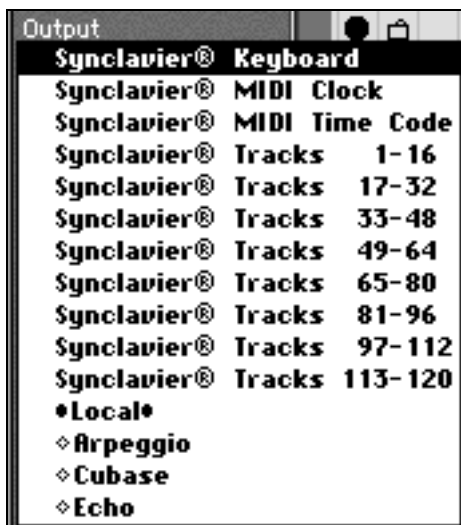
CuBase and CuBase/VST MIDI Input Device Selection

## Sending MIDI Data to the Synclavier® Keyboard



The sound that is currently active on the Synclavier® keyboard can be triggered from any OMS-aware Macintosh application by sending MIDI data to the Synclavier® Keyboard virtual MIDI port. How this is accomplished will depend on which Macintosh application you are using.

CuBase and CuBase/VST use an output selection button to direct MIDI data to a particular MIDI port:



CuBase and CuBase/VST MIDI Output Device Selection









In order for MIDI data sent to the Synclavier® Keyboard virtual MIDI port to be recognized by Synclavier® PowerPC™, you must enable OMS MIDI input using the Synchronization panel of the Audio Event Editor:



## Virtual MIDI Ports for the Synclavier® Sequencer



Tracks 1 through 120 of the Synclavier® Sequencer can send and receive MIDI data through a corresponding Synclavier® Tracks virtual MIDI port. 16 sequencer tracks are each hard-wired to a particular virtual MIDI port. Each track uses an assigned MIDI Channel number, as follows:

 Synclavier® Tracks 1-16	Track:        1    2    3    4    5    6    7    8 MIDI Channel: 1    2    3    4    5    6    7    8 Track:        9   10   11   12   13   14   15   16 MIDI Channel: 9   10   11   12   13   14   15   16
 Synclavier® Tracks 17-32	Track:        17   18   19   20   21   22   23   24 MIDI Channel: 1    2    3    4    5    6    7    8 Track:        25   26   27   28   29   30   31   32 MIDI Channel: 9   10   11   12   13   14   15   16
 Synclavier® Tracks 33-48	Track:        33   34   35   36   37   38   39   40 MIDI Channel: 1    2    3    4    5    6    7    8 Track:        41   42   43   44   45   46   47   48 MIDI Channel: 9   10   11   12   13   14   15   16
 Synclavier® Tracks 49-64	Track:        49   50   51   52   53   54   55   56 MIDI Channel: 1    2    3    4    5    6    7    8 Track:        57   58   59   60   61   62   63   64 MIDI Channel: 9   10   11   12   13   14   15   16
 Synclavier® Tracks 65-80	Track:        65   66   67   68   69   70   71   72 MIDI Channel: 1    2    3    4    5    6    7    8 Track:        73   74   75   76   77   78   79   80 MIDI Channel: 9   10   11   12   13   14   15   16
 Synclavier® Tracks 81-96	Track:        81   82   83   84   85   86   87   88 MIDI Channel: 1    2    3    4    5    6    7    8 Track:        89   90   91   92   93   94   95   96 MIDI Channel: 9   10   11   12   13   14   15   16
 Synclavier® Tracks 97-112	Track:        97   98   99 100 101 102 103 104 MIDI Channel: 1    2    3    4    5    6    7    8 Track:        105 106 107 108 109 110 111 112 MIDI Channel: 9   10   11   12   13   14   15   16
 Synclavier® Tracks 113-120	Track:        113 114 115 116 117 118 119 120 MIDI Channel: 1    2    3    4    5    6    7    8 Track: MIDI Channel:

## Sending MIDI Data from the Synclavier® Sequencer

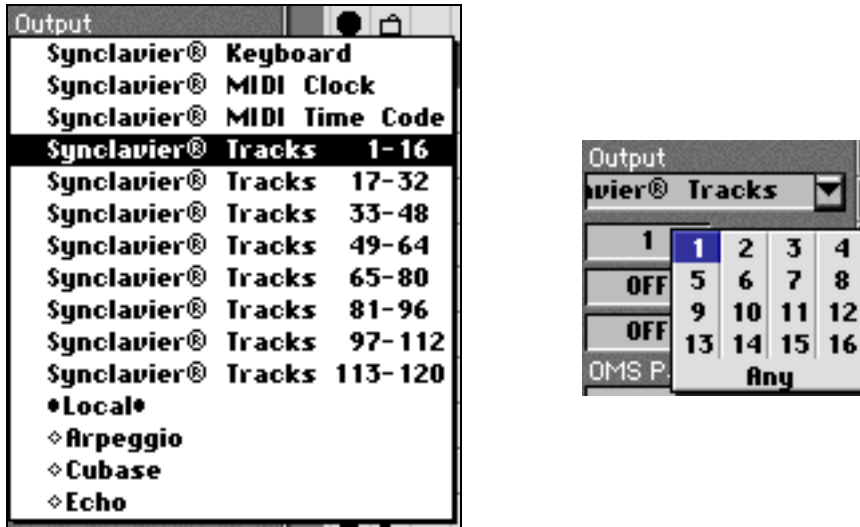
Use the MIDI Display (J) screen to send MIDI data from a Synclavier® track to its virtual MIDI port:

	Instrument Name	Out	Chan	Pres
KBD	*Unnamed Timbre*			
1	Hi Strings	OMS	1	INDU
2	Low Strings	OMS	2	CHAN
3	Solo Guitar	OMS	3	
4				
5				
6				
7				
8				

## Sending MIDI Data to the Synclavier® Sequencer

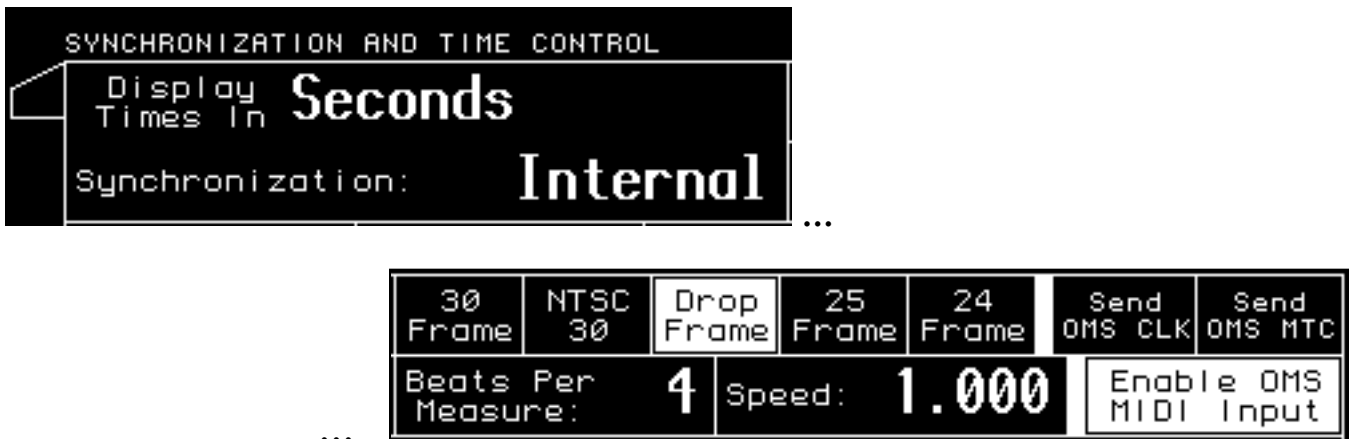
The timbre that is stored on each of the first 120 Synclavier® tracks can be triggered from any OMS-aware Macintosh application by sending MIDI data to the corresponding Synclavier® Tracks virtual MIDI port. How this is accomplished will depend on which Macintosh application you are using.

CuBase and CuBase/VST use an output selection button to direct MIDI data to a particular MIDI port and an intelligent data entry field to specify the MIDI channel number that is used.



CuBase and CuBase/VST MIDI Output Device and Channel Selection

In order for MIDI data sent to the Synclavier® Sequencer virtual MIDI ports to be recognized by Synclavier® PowerPC™, you must enable OMS MIDI input using the Synchronization panel of the Audio Event Editor:





## The MIDI Clock and Timecode virtual MIDI Ports



Synclavier® PowerPC™ can send and receive MIDI Clock data through the Synclavier® MIDI Clock virtual port. Additionally, Synclavier® PowerPC™ can send MIDI Timecode data through the Synclavier® MIDI Time Code virtual port.

As of Release 4.4 Synclavier® PowerPC™ cannot recognize incoming MIDI Timecode; it can only generate MIDI Timecode output. Additionally, Synclavier® PowerPC™ cannot send both MIDI Clock and MIDI Timecode information at the same time. These limitations may be addressed in a later software release.

### Sending MIDI Clock or MIDI Timecode Data from Synclavier® PowerPC™

Sending MIDI Clock or MIDI Timecode data can be activated from the VK button panel by holding the MIDI button and pressing the SMPTE button. While holding the MIDI button, press the SMPTE button once for MIDI Clock data, or twice for MIDI Timecode data. Continue to hold the MIDI button and press the External Sync button to select the timecode frame rate (drop, non-drop, NTSC 30, 25 or 24).



or



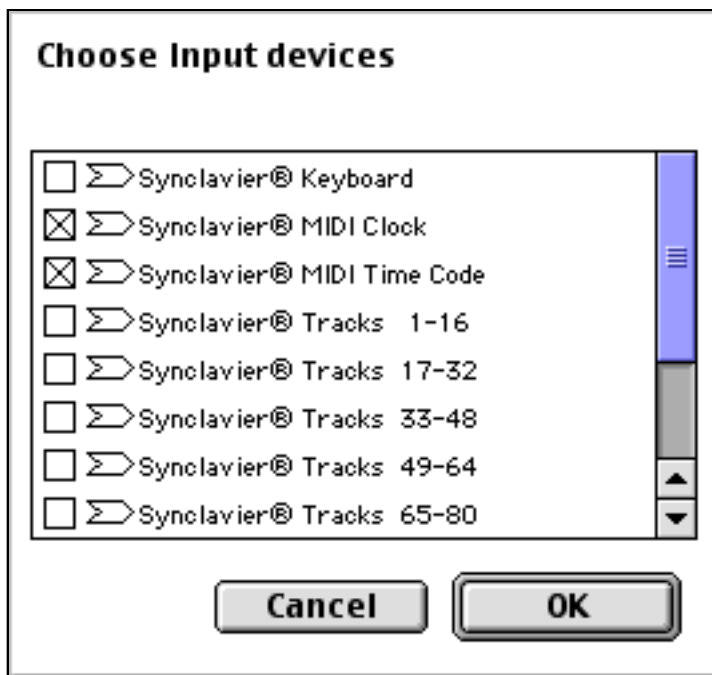
After holding the MIDI button and pressing the SMPTE button, use the knob to select which MIDI output is used to send the MIDI Clock or MIDI Timecode data.

You can also use the Synchronization panel of the Audio Event Editor to turn on or off MIDI Clock or MIDI Timecode output:



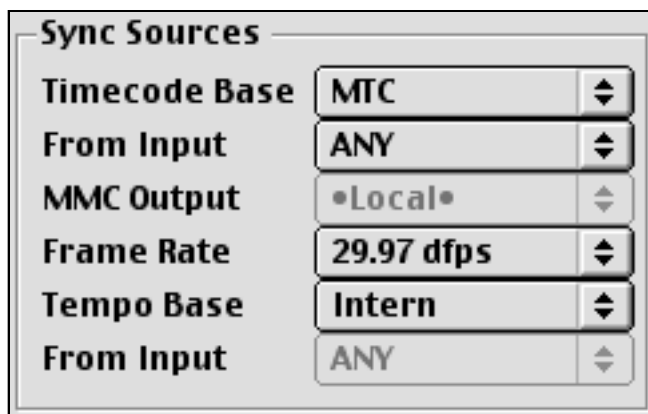
The receiving Macintosh application also must be set up to receive MIDI Clock or MIDI Timecode data from the Synclavier® MIDI Clock or MIDI Timecode virtual port. How this is done will depend on which Macintosh application you are using.

CuBase and CuBase/VST (published by Steinberg) use an input selection dialog box to enable specific MIDI Inputs. You will see the Synclavier® MIDI Clock and the Synclavier® MIDI Time Code virtual MIDI port appear in the input device list within your Macintosh application if OMS is installed and set up correctly.



CuBase and CuBase/VST MIDI Input Device Selection

Once the MIDI Clock or MIDI Timecode data is being sent to your Macintosh application, you typically will have to enable that application to follow an external synchronization source;



CuBase and CuBase/VST Synchronization Source Selection

## Sending MIDI Clock Data to the Synclavier® PowerPC™

Synclavier® PowerPC™ can chase MIDI Clock data being sent to the Synclavier® MIDI Clock virtual port. As of Release 4.4 it cannot chase MIDI Timecode data.

Use the Synchronization panel of the Audio Event Editor to enable external synchronization to OMS MIDI:



Or you may activate external synchronization to OMS MIDI from the VK button panel by holding the MIDI button and pressing the External Sync Mode button:

