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What is OMS?

Opcode's Open Music System (OMS) is a code library that bridges the gap between MIDI applications and MIDI hardware. It has many functions and features:

- **OMS acts as a central MIDI driver**

OMS-compatible applications use OMS to communicate with all of your MIDI hardware (such as synthesizers, drum machines, PC sound cards, effects devices, or MIDI controllers).

- **OMS provides a central location for defining and storing a detailed description of your MIDI studio.**

Use the OMS Setup application to create a Studio Setup document, in which you store a detailed description of the MIDI devices in your studio-including their names, their MIDI channels, and how they're all physically connected. All OMS-compatible applications reference this Studio Setup document. So, if you change your studio in any way, simply modify your Studio Setup document and all compatible applications are immediately aware of the change.

- **OMS provides a patch name management tool**

Use this tool, appropriately called the Name Manager, to store the names of all the patches in your MIDI devices and provide those names to your OMS-compatible applications.

- **OMS handles all your computer's internal MIDI timing**

This allows you to run multiple OMS-compatible applications simultaneously and in perfect synchronization.

- **OMS gives you access to hundreds of MIDI channels**

The actual number of MIDI channels that OMS can access depends on which MIDI interface(s) you use. Standard MIDI interfaces (such as a SoundBlaster or Opcode's Note/1) access 16 total MIDI

channels. Multiport MIDI Interfaces (such as Opcode's Music Quest 8Port/SE) access 16 MIDI channels on each pair of MIDI In/Out jacks. So, for example, since an 8Port/SE has 8 pairs of MIDI In/Out jacks, it can access 128 total MIDI channels. See your MIDI interface manual to learn how many MIDI channels it supports.

What is a Studio Setup Document?

A Studio Setup document is an exact model of your MIDI Studio. A fully configured Studio Setup document contains information about:

- MIDI interfaces connected either externally (such as an Opcode Music Quest 2Port/SE) or internally (such as an MQX-32M).
- MIDI cards installed inside your computer (such as a SoundBlaster).
- Software-based synthesizers and other [Virtual Devices](#) (such as Creative's FM or AWE synths).
- MIDI devices connected to MIDI interfaces (such as synthesizers, drum machines, effects devices, and MIDI controllers).
- How all this hardware is physically connected.

You can create and store any number of Studio Setup documents to describe any number of studios or studio configurations, but OMS can reference only one Studio Setup document at a time. This is called the [current Studio Setup document](#).

Once you've defined a current Studio Setup document, OMS knows each instrument's name, port, MIDI reception channel(s), Device ID and many other details. This information is provided to all OMS-compatible applications. Within these applications, you simply select and work with devices by name-OMS handles the rest. Any time you change your current Studio Setup document, OMS automatically provides the updated information to all your OMS-compatible applications.

Related Topics

- [Learn how to create a Studio Setup document](#)

Creating a Studio Setup Document

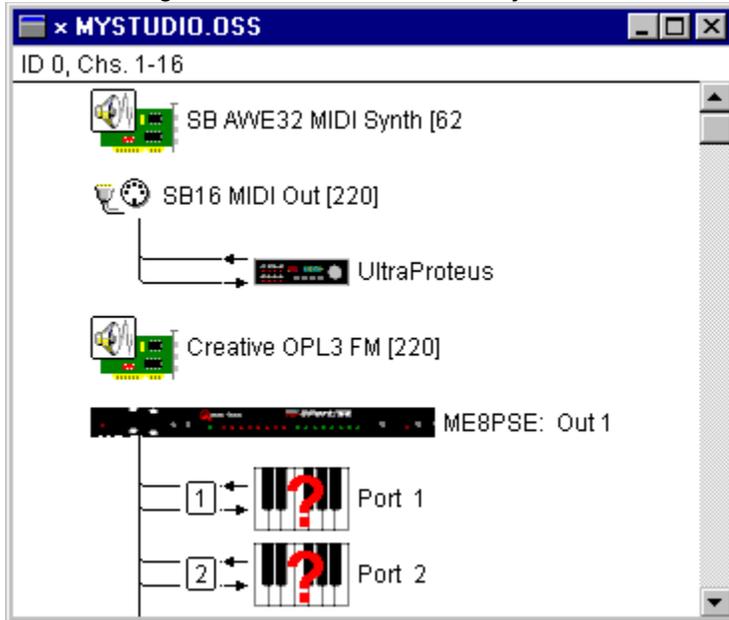
1. Install your MIDI cards and interfaces, and connect your MIDI devices to your MIDI interface and turn them on.
2. Run the OMS Setup application.
3. Choose **File>New Studio Setup**. The New Studio Setup dialog box appears.
4. Decide whether or not you want OMS Setup to attempt to [Auto-detect MIDI devices](#).
5. Click **OK**. Once OMS scans all your installed Windows device drivers, you'll see a dialog box asking you to name your new Studio Setup document.
6. Save your Studio Setup document with whatever name you like. OMS Setup saves the Studio Setup document and displays it on the screen.

Related Topics

- [What is a Studio Setup document?](#)
- [Anatomy of a typical Studio Setup document](#)

Anatomy of a Studio Setup Document

The following illustration shows a typical Studio Setup document and some of the elements it can contain. To get more information about any element in this illustration, click on it.

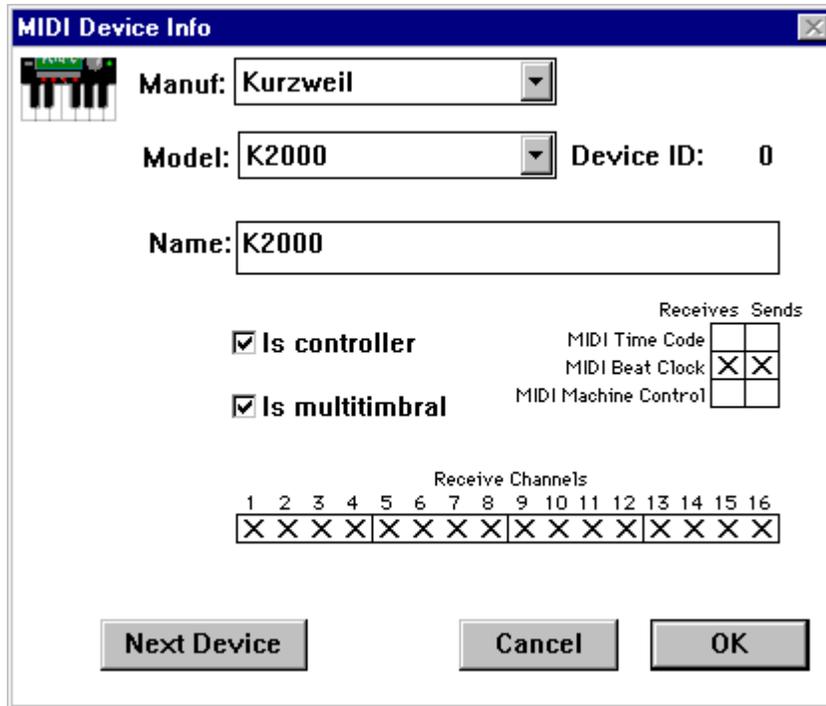


Use the Studio Setup document to perform the following tasks:

- [Define MIDI Devices](#)
- [Connect MIDI Devices](#)
- [Add MIDI Devices](#)
- [Delete MIDI Devices](#)

Defining MIDI Devices

1. Click an undefined MIDI device to select it (highlighting it).
2. Choose **Studio>MIDI Device Info** (or double-click on the device). OMS Setup opens a MIDI Device Info dialog box for the selected MIDI device.



3. Use this dialog box to tell OMS about your MIDI device (click any element in the above illustration to learn about its function).
 4. Click **OK**.
 5. Repeat the previous steps to define other MIDI devices in your Studio Setup document.
- Next. Learn how to [connect MIDI devices](#) together in a Studio Setup document.

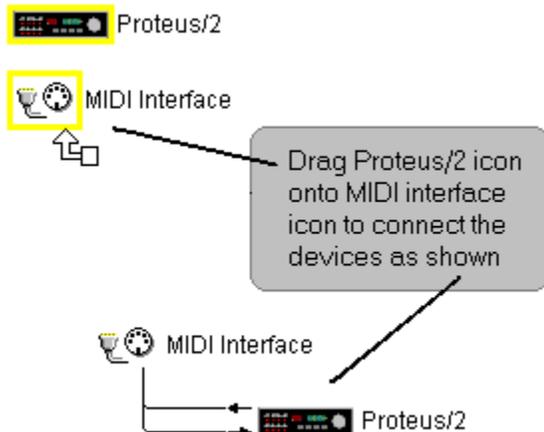
Connecting Devices in the Studio Setup Document

You need to "connect" all the MIDI devices in your Studio Setup document to mirror the way the actual hardware is connected in your studio. When you finish connecting device icons, your Studio Setup document will function as a graphic representation of the MIDI components in your studio.

IMPORTANT: The Studio Setup document should reflect, as accurately as possible, the actual connection of MIDI devices in your studio. OMS-compatible applications derive their knowledge of the devices in your studio from the Studio Setup document.

Connecting MIDI Devices Together

1. To connect MIDI devices together in a Studio Setup document, simply drag one device icon onto another.



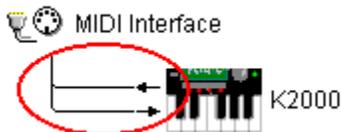
Using this basic technique, you can create connections between MIDI devices and:

- [Standard MIDI interfaces](#)
- [Multiport MIDI interfaces](#)
- [MIDI Thru ports](#)
- [MIDI mergers](#)
- [MIDI patchbays](#)

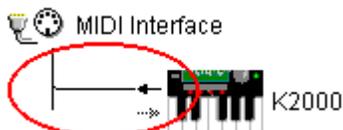
Connecting and Disconnecting "MIDI Cables"

The final step in defining your MIDI connections is to connect or disconnect MIDI cables to reflect the actual cabling in your real MIDI studio.

The Studio Setup document represents each connected MIDI device with a pair of lines running in and out of its left side. These lines represent MIDI cables and the arrows indicate the direction of MIDI data flow.



1. To "disconnect" a cable in a Studio Setup document, simply click its directional arrow.

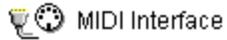


2. To reconnect a cable, click it again.

Disconnecting a MIDI Device

If you disconnect a device in your actual studio, you should also disconnect it in your Studio Setup document. To do so:

1. Click both directional arrows to completely disconnect a MIDI device



OMS Setup disconnects the MIDI device and moves it to the top of the Studio Setup document.

NOTE: This is better than deleting the device because it remains in your Studio Setup document. Then, if you reconnect the device at a later date, you need only re-connect it in the Studio Setup document, as well.

Adding MIDI Devices to a Studio Setup Document

1. Choose **Studio>New Device**. OMS Setup opens the MIDI Device Info dialog box.
2. [Configure the dialog box](#). OMS Setup creates a new device and automatically adds it to the top of your Studio Setup document.

NOTE: If an interface or MIDI device is selected (highlighted) when you choose the **Studio>New Device** command, OMS Setup automatically attaches the new device to the selected device, rather than adding it to the top of the Studio Setup document.

Deleting MIDI Devices from a Studio Setup Document

1. Click a MIDI device to select it.
2. Choose **Edit>Delete**. OMS Setup removes the MIDI Device from your Studio Setup document.

This is particularly useful for:

- removing undefined devices created by the OMS Setup application, or
- removing devices no longer contained in your MIDI studio.

Testing your Studio Setup Document

1. Select **Studio>Test Studio**.

The Test Studio command toggles test mode on and off.

When test mode is active, the Test Studio option will have a check next to it. Also, the cursor in the Studio Setup document will change to an eighth note when it's over a MIDI device or interface icon.

Testing PC-to-MIDI Device Connections

To test the flow of MIDI data from the PC into each of your MIDI devices:

1. Click a MIDI device icon with the note cursor.

This sends random notes to the device on the MIDI channels on which the device receives. To make sure the notes are audible, a MIDI volume message sets every channel's volume to 127. Listen for a cacophony of notes (or watch your device's MIDI indicator LED).

Testing MIDI Device-to-PC Connections

To test MIDI data flow from MIDI devices into the PC, each device must be able to generate MIDI data.

For instruments with a built-in MIDI controller:

1. Strike a key, pluck a string or hit a pad.

When the PC receives the MIDI data, the line connecting the two devices blinks.

NOTE: If your Studio Setup contains MIDI merging (multiple sources into one port), the wrong arrow may flash when testing MIDI connections from devices connected to the merger. When MIDI arrives from a merged source, only one of them is going to flash, and it won't necessarily be the one that really sent the data.

For devices that have no keyboard:

1. Initiate a bulk dump from that MIDI device to send data to the PC.

When the PC receives the MIDI data, the line connecting the two devices blinks.

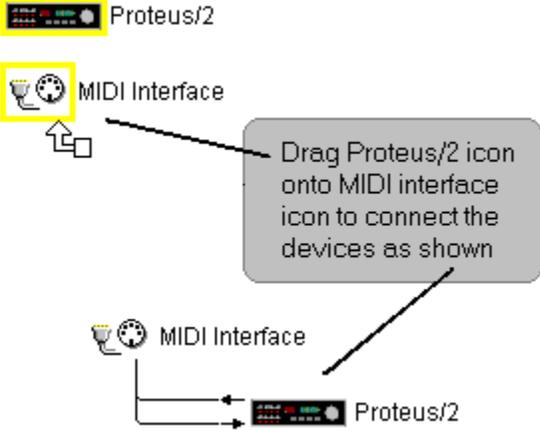
Exiting Test Mode

1. Choose **Studio>Test Studio** to un-check it.

This turns off OMS Setup's test mode.

Connecting Devices to a Standard MIDI Interface

1. Drag a MIDI device icon onto the MIDI interface icon to connect them.

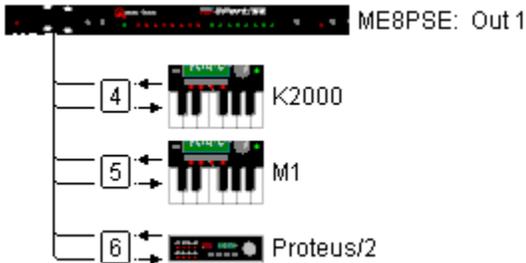


Using Multiport MIDI Interfaces

A multiport MIDI interface is basically a MIDI interface and MIDI patchbay in a single box. A classic example is the Opcode Music Quest 8Port/SE.

1. Drag MIDI devices onto the multiport interface to connect them.
2. Set the port numbers (in the square boxes) to indicate the actual port numbers to which the MIDI devices are connected.

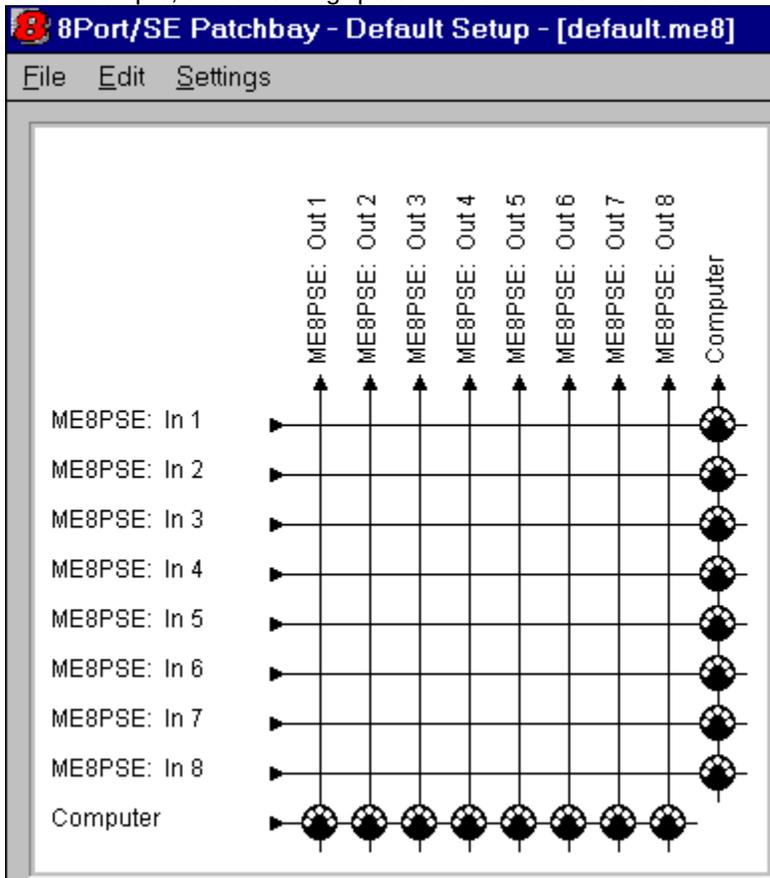
For example, if your M1 is connected to Port 5 on the 8Port/SE, set the M1's MIDI Port numerical to "5" in the Studio Setup document.



Creating a "Do Nothing" Patch

If you use a programmable multiport MIDI interface, it's important to program a "do nothing" patch into its internal memory. Since MIDI sequencing programs perform their own MIDI routing and thruing operations, your multiport interface needs a program that does NO internal MIDI routing of its own-this is called the "do nothing" patch.

For example, a "do nothing" patch in the 8Port/SE would look like this:



Notice that only the computer is used to transfer MIDI data between devices-there are no internal MIDI routings defined.

Using MIDI Thru Ports

Most MIDI devices have a MIDI Thru port, which passes along any MIDI data received on the device's MIDI In port. MIDI Thru ports let you "daisy-chain" MIDI devices. In a Studio Setup document, you represent Thru port connections by connecting one MIDI device to another.

To connect MIDI Devices together (representing a Thru port connection):

1. Drag a MIDI device icon onto another MIDI device icon.

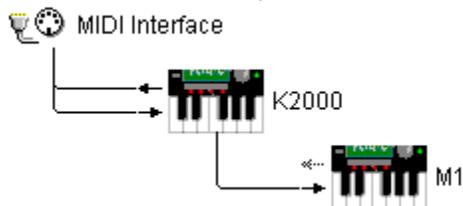
MIDI Thru Example 1 (Straight Thru)

Assume you have a Kurzweil K2000 connected to a MIDI interface and a Korg M1 connected to the K2000's Thru jack..

To create this connection in a Studio Setup document:

1. Drag the M1 icon on top of the K2000.
OMS Setup connects the M1 to the K2000 indicating a "Thru" connection.
2. Click the M1 MIDI Out arrow to disconnect it.

Your Studio Setup document now accurately reflects the cabling in your actual MIDI studio.

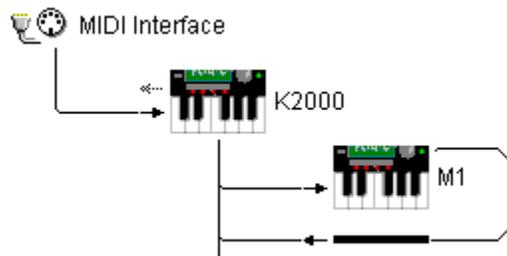


MIDI Thru Example 2 (Looped Thru)

Assume you have a looped MIDI Thru connection, such that a K2000's MIDI In is connected to the MIDI interface. The K2000's MIDI Thru is connected to the M1, and the M1's MIDI Out is connected back to the MIDI interface.

To create this connection in a Studio Setup document:

1. Drag the M1 icon on top of the K2000 icon, then disconnect the K2000's MIDI output. Your Studio Setup document looks like this:
2. Click the M1 icon to select it (highlighting it).
3. Choose **Studio>Different In/Out Ports**. OMS Setup creates a MIDI loop with a MIDI plug.
4. Drag the MIDI plug onto the MIDI interface icon. Your Studio Setup document now accurately reflects the cabling in your actual MIDI studio.



Using MIDI Mergers

Definition of a MIDI Merger

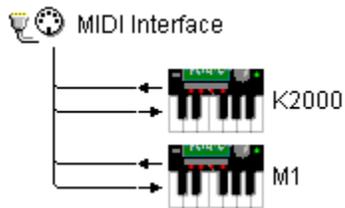
A MIDI merger is a piece of MIDI hardware that combines the MIDI outputs of two different MIDI devices into a single MIDI output. For example, assume your studio has:

- a 1-in x 2-out MIDI interface
- two MIDI keyboard synthesizers

Without a MIDI merger, you can connect only one of your keyboard's MIDI outputs to your computer. But, by using a MIDI merger, you can combine the outputs of both keyboards, so that either can be used as a MIDI controller.

Indicating MIDI Mergers in a Studio Setup Document

To indicate the use of an external MIDI merger in the Studio Setup document, simply connect the MIDI outputs from both merged devices to the MIDI interface as shown below.



Notice that both the K2000 and the M1 can send MIDI data to the interface. The MIDI merger does not appear in the Studio Setup document, but its function is represented by the two MIDI cables coming from the two MIDI devices.

Using MIDI Patchbays

Definition of a MIDI Patchbay

A MIDI patchbay (sometimes called a "patcher," "switcher," or "thru box") is an external hardware box that contains numerous MIDI In/Out jacks. The patcher allows you to connect many MIDI devices to a single MIDI interface.

Detailed information about using MIDI Patchbays with OMS is contained in a Technical Publication in the support section of Opcode's Web Site at <http://www.opcode.com/support/>

Adding a MIDI Patchbay to your Studio Setup Document

1. Choose **Studio>New Patcher**. The Patcher Info dialog box appears.
2. Configure the Patcher Info dialog (click any element in the following illustration to learn about it).

MIDI Device Info

Manuf: Cooper **Ports:** 20

Model: MSB 16/20

Name: MSB 16/20

Receive Channels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
												X			

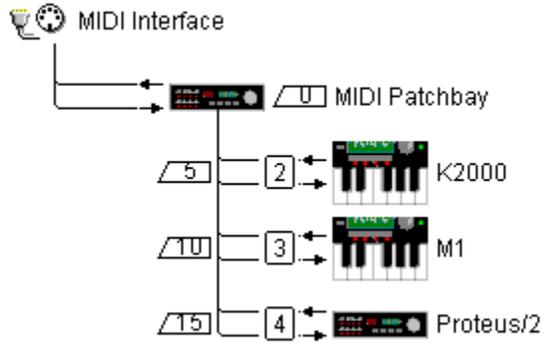
Cancel OK

3. Click **OK**. OMS Setup adds the MIDI patchbay to your Studio Setup document.
4. [Connect MIDI Devices to your MIDI patchbay.](#)

Connecting and Configuring a MIDI Patchbay

1. Drag the patchbay icon onto the MIDI interface icon to connect it.
2. Drag MIDI devices onto the patchbay icon to connect them.
3. Set the ports and program numbers to mirror your MIDI patchbay's actual operation.

Click any element in the following illustration to learn about it:



Current Studio Setup Document

The Studio Setup document referenced by OMS and all your OMS-compatible applications. You can create and store any number of Studio Setup documents to describe any number of studios or studio configurations, but OMS can reference only one Studio Setup document at a time (the "current" Studio Setup document).

Virtual Devices

A software or card-based synthesizer that the computer accesses directly, rather than through a MIDI Interface.

Auto-Detect MIDI Devices

Check the Auto-detect MIDI devices option if you want OMS Setup to try to identify any connected MIDI devices automatically. When OMS Setup auto-detects a MIDI device, it automatically fills in the MIDI Device Info dialog box with that device's factory default parameters.

NOTE: Only a handful of current devices are capable of supplying this information

NOTE: To auto-detect a device, it must have both its MIDI In and MIDI Out jacks connected to the interface.

MIDI interfaces, cards, and software-based synthesizers

In this illustration, the "ME8PSE" is an 8Port/SE multiport MIDI interface. The "SB16" is the SoundBlaster's built-in MIDI Interface. The "AWE 32" and the "OPL3 FM" are both software-based synthesizers (known as "[virtual devices](#)") that come with the SoundBlaster.

NOTE: Notice that a single Creative AWE32 SoundBlaster card appears as three distinct devices:

- SB AWE32 MIDI Synth (a virtual device specifically, a sample playback synthesizer)
- Creative OPL3 FM Synth (a virtual device specifically, an FM synthesizer)
- SB16 MIDI Out (a true MIDI interface)

Defined MIDI devices

A defined MIDI device shows the device's name and an icon to represent it. OMS Setup can automatically detect some (but not all) MIDI devices if the [Auto-detect MIDI devices](#) option is checked in the "New Studio Setup" dialog box.

Double-click the MIDI device's icon to open a dialog box in which you can further define (or re-define) its MIDI parameters, as discussed in "[Defining MIDI Devices](#)."

Undefined MIDI devices

You'll see undefined MIDI devices in any of the following instances:

- You turned off the [Auto-detect MIDI devices](#) option in the "New Studio Setup" dialog box.
- OMS Setup was unable to recognize your MIDI device.
- If you have a multiport interface, OMS Setup places an undefined MIDI device on each MIDI port for which it doesn't auto-detect a device.

You can define any undefined MIDI devices as discussed in "[Defining MIDI Devices](#)."

MIDI cables (signal flow)

The connecting lines indicate MIDI cables and the arrows indicate the signal flow direction.

By default, OMS Setup assumes you have a pair of MIDI cables connected to each undefined MIDI device.

You can modify these connections to mirror your actual MIDI studio as described in "[Connecting Devices in the Studio Setup Document](#)."

MIDI Ports on a Multiport MIDI Interface

The numbered boxes beneath the MIDI Engine 8 Port SE indicate MIDI ports.

Multiport MIDI interfaces display each of their MIDI ports in the Studio Setup document. If you have only a standard MIDI interface, then the Studio Setup document won't contain any port numbers for that interface.

By default, if OMS Setup can't auto-detect a specific MIDI device, it creates an undefined MIDI device on each port.

Setting up a Multiport MIDI interface is discussed in "[Using Multiport MIDI Interfaces](#)."

Title Bar

The title bar contains the name of the Studio Setup and an indicator of whether or not it's the current Studio Setup document (as indicated by a small "x" to the left of its name).

Current → 

Not Current → 

The area below the title bar shows detailed information about the selected (highlighted) MIDI device.

Defining the Manufacturer, Model, and Name

1. Click the **Manuf** arrow button to open its drop-down list box, then select the manufacturer of the MIDI device.
2. Click the **Model** arrow button to open its drop-down list box, then select the model of the MIDI device.
OMS Setup automatically fills in the **Name** field with the model's name. You can type in a different name if you desire.

If your MIDI Device isn't in the list

1. Select "Other" from either the **Manuf** or **Model** drop-down list boxes.
2. In the **Name** field, type the name of your MIDI device.

Is controller

Check this box if your MIDI device is a MIDI controller (such as a keyboard, MIDI guitar, MIDI drum pads, and so on).

This check box is automatically set when you select a known Manufacturer and Model, but you can override the default setting.

Is multitimbral

Check this box if your MIDI device is multitimbral.

Multitimbral means that the device is capable of receiving MIDI data on more than one channel. Most modern synthesizers are multitimbral, but many early MIDI synthesizers are not.

This check box is automatically set when you select a known Manufacturer and Model, but you can override the default setting.

Receive Channels

Check all the MIDI channels on which you want your MIDI device to receive MIDI data.

For example, if your synthesizer is set up to receive only on MIDI channels 1 through 6, check only the boxes numbered 1 through 6.

If the **Is multitimbral** check box is not checked, your device can receive on only one MIDI channel so, in that case, you can check only one box at a time.

Device ID

Set the Device ID numerical to match the Device ID setting on your MIDI device.

If the **Is multitimbral** check box is not checked, the Device ID is automatically set to match the MIDI Receive Channel. You can enter a different Device ID number if you wish.

Most devices have a Device ID that identifies it for system exclusive MIDI messages. In the same way that note information is communicated on a specific MIDI channel, system exclusive messages (generally patch information) contain a device ID specifying the device to which the data is directed. On some devices (usually older ones), the basic MIDI channel also functions as the device ID. Instead of Device ID, some manufacturers use the terms "MIDI ID," "Unit ID," "Unit Number," "Global Channel," "Device Number," or "System Exclusive ID." The Device ID is used by librarian and editing software, to identify the device with which it communicates.

See your MIDI device manual to learn how to view (or change) its Device ID.

MIDI Synchronization Options

Check the **MIDI Time Code** check boxes only if: 1) your MIDI device sends or receives [MIDI Time Code](#), and 2) you intend to use it to synchronize that MIDI device to your OMS-compatible MIDI sequencer.

Check the **MIDI Beat Clock** check boxes only if: 1) your MIDI device sends or receives [MIDI Beat Clock](#), and 2) you intend to use it to synchronize that MIDI device to your OMS-compatible MIDI sequencer. Many drum machines and synthesizers with built-in sequencers are able to send and receive MIDI Beat Clock.

Check the **MIDI Machine Control** check boxes only if: 1) your MIDI device sends or receives [MIDI Machine Control](#), and 2) you intend to use it to synchronize that MIDI device to your OMS-compatible MIDI sequencer.

See your MIDI device manuals to learn whether or not they support any of these synchronization methods.

MIDI Device Icon

When you select a Manufacturer and Model, OMS Setup automatically assigns an icon to that MIDI device. To select a different icon:

1. Click the icon in the upper left corner of the MIDI Device Info dialog box. The Device Icon dialog box appears.
2. Click a different icon in this dialog box, then click **OK**.

NOTE: You can open the Device Icon dialog box directly from the Studio Setup Window. To do so, simply click the device's icon to select it, then choose **Studio>Device Icon**.

Next Device

Click this button to open the MIDI Info dialog box for the next MIDI Device in your Studio Setup document. This is a shortcut that keeps you from returning to the Studio Setup Window each time you want to edit a different MIDI device.

Patchbay Model

1. From the **Manuf** drop-down list box, select the manufacturer of your MIDI patchbay.
2. From the **Model** drop-down list box, select the model of your MIDI patchbay.
OMS Setup automatically fills in the **Name** field with the model's name. You can type in a different name if you desire.

If your MIDI Patchbay isn't in the list

1. Select "Other" from either the **Manuf** or **Model** drop-down list boxes.
2. In the **Name** field, type the name of your MIDI device.

Number of Patchbay Ports

Use the Ports numerical to enter the number of MIDI ports (In/Out MIDI jack pairs) on your MIDI patchbay. OMS Setup enters the number automatically when you select a known patchbay from the **Manuf** and **Model** drop-down lists.

Patchbay Receive Channels

Using the Receive Channels check boxes, select the MIDI channel on which your patchbay receives MIDI program change information.

Patchbay Icon

When you select a Manufacturer and Model, OMS Setup automatically assigns an icon to the patchbay. To select a different icon:

1. Click the icon in the upper left corner of the Patcher Info dialog box. The Device Icon dialog box appears.
2. Click a different icon in this dialog box, then click **OK**.

Port Numbers

These numerals correspond to the numbered ports on your MIDI patchbay. For example, if your Korg M1 is connected to port 3 of your MIDI patchbay, set the numerical next to the M1 to "3".

Default Program

Every MIDI patchbay needs one internal program that's designed to

- transfer MIDI data from any MIDI controller to your PC, AND
- transfer MIDI data from the PC to every MIDI device.

This internal program is called the "default" program. Set the Default Program numerical to match the MIDI program number of the patchbay's internal "default" program.

Program Numbers

You should program your MIDI patchbay such that each MIDI device has its own patchbay program that sends MIDI data only to that device and receives MIDI data only from that device. Set each Program Number numerical to match the MIDI program number that does this in the patchbay's internal memory.

File Menu

New Studio Setup

Open

Open Current Studio Setup

Close

Save

Save As

Save And Make Current

Exit

New Studio Setup ([File Menu](#))

Choose this command to open a new, untitled Studio Setup document.

Learn to create a new Studio Setup document by reading "[Creating a Studio Setup Document](#)."

Open (File Menu)

Choose this command to open an existing Studio Setup document. You'll see a standard dialog box giving you access to the Studio Setup documents on any available drive.

Open Current Studio Setup (File Menu)

Choose this command to automatically open the Studio Setup document that was most recently made current. If a Studio Setup document was never created and made current, this command will be grayed out and inaccessible.

Close (File Menu)

Choose this command to close the currently selected Studio Setup document. It will close immediately if you didn't make any changes since you last saved the document. If you made changes, you'll be prompted to save them.

Save (File Menu)

Choose this command to save the currently selected Studio Setup document to disk. If the document does not have a file name, you will be asked to create one.

The **Save** command is disabled if you have not modified the Studio Setup document in any way.

Save As (File Menu)

This command performs the same operation as **Save** except that it opens the standard Save As dialog box, enabling you to rename the document.

Save And Make Current (File Menu)

Choose this command to save the currently selected Studio Setup document to disk and make it the current Studio Setup document. If the document does not have a file name, you'll be asked to name the file.

If you open a Studio Setup document and make no changes to it, this command becomes the **Make Current** command.

Exit (File Menu)

Choose this command to close all windows and quit the OMS Setup application. If you have any unsaved documents, they will be brought to the front, and you will be asked if you want to save the changes.

Edit Menu

Undo/Redo

Cut

Copy

Paste

Delete

Move Up

Move Down

Preferences

All Notes Off (Panic)

Undo/Redo (Edit Menu)

Choose this command to undo your most recent action. The word "Undo" is usually followed by the name of the reversible action (such as "Undo Cut"). The **Undo** command allows you to examine the results of an action without committing to it.

If you choose to undo an action, the **Undo** command becomes a **Redo** command. Choose the **Redo** command to make the document appear as it did before you chose **Undo**. Use the **Undo** and **Redo** commands to toggle between the before and after versions of your most recent action.

Cut (Edit Menu)

This command copies the selected items to the Clipboard and then removes them from the window. Choosing **Cut** is the same as choosing **Copy** followed by **Delete**.

Copy (Edit Menu)

Choose this command to copy the selected items to the Clipboard. The window remains unchanged.

Paste (Edit Menu)

Choose this command to paste the contents of the Clipboard to the currently active window.

You can copy MIDI devices or patchbays and paste them between Studio Setup documents. A pasted device is connected to whatever device is selected in the Studio Setup document. If no device is selected, then it's pasted to the top of the Studio Setup document, where it's not connected to anything. You can not copy and paste interface icons.

Delete (Edit Menu)

This command deletes the selected item but does not affect the Clipboard. Typing the Delete or Backspace key is the same as choosing **Delete**.

Move Up (Edit Menu)

If you have a MIDI patchbay or a multiport interfaces (such as Opcode's Music Quest 8Port/SE), choose this command to rearrange the order that MIDI devices are displayed. Specifically:

1. Select a MIDI Device connected to a multiport interface or MIDI patcher.
2. Choose **Edit>Move Up**.

OMS Setup moves the selected MIDI Device above the device immediately preceding it.

Move Down (Edit Menu)

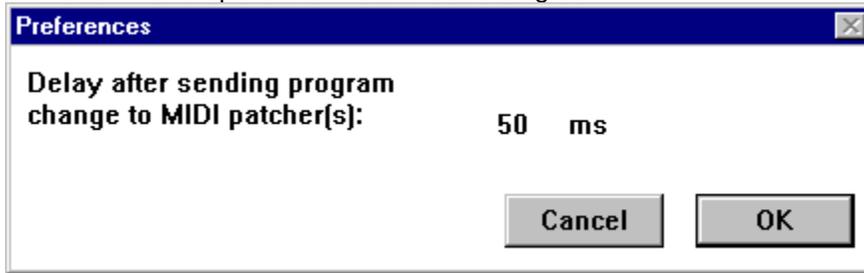
If you have a MIDI patchbay or a multiport interfaces (such as Opcode's Music Quest 8Port/SE), choose this command to rearrange the order that MIDI devices are displayed. Specifically:

1. Select a MIDI Device connected to a multiport interface or MIDI patcher.
2. Choose **Edit>Move Down**.

OMS Setup moves the selected MIDI Device below the device immediately following it.

Preferences (Edit Menu)

This command opens the Preferences dialog box.



Use the dialog box to select how many milliseconds you want to delay the transfer of MIDI data after sending a program change to a MIDI patcher. This is necessary because MIDI patchers take a small amount of time to rearrange their internal connections after receiving a program change message. OMS needs to wait before transmitting so that MIDI data following a program change is properly routed and transmitted through a patcher. If you are using a MIDI patcher and things don't seem to be working properly, try increasing the delay time. A good starting place is 50 milliseconds.

NOTE: You do not need to worry with this setting if you don't use a MIDI patchbay.

All Notes Off (Panic) ([Edit Menu](#))

This command sends note off commands to all MIDI channels. Use **All Notes Off** to silence stuck notes. It generally takes two or more seconds to complete the task (longer if you have a multi-port interface such as the Opcode's Music Quest 8Port/SE

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New Device ([Studio Menu](#))

This command opens a dialog box with which you define a new MIDI device in your Studio Setup document. MIDI devices may be MIDI synthesizers, drum machines, effect processor, and so on.

Learn how to define MIDI devices by reading "[Defining MIDI Devices](#)."

New Patcher ([Studio Menu](#))

This command opens a dialog box with which you define a MIDI patchbay in your Studio Setup document.

Learn how to define MIDI patchbays by reading "[Using MIDI Patchbays](#)."

MIDI Cards & Interfaces ([Studio Menu](#))

Choose this command to update your Studio Setup document if you change the hardware connected directly to your PC (MIDI interfaces, sound cards).

A dialog opens asking if you want to update your Studio Setup document. Click **Update Setup** to do so. Any new cards or interfaces are added to your Studio Setup document. Cards or interfaces that are no longer connected disappear and the devices connected to those interfaces become unconnected.

Add Device Per Port (Studio Menu)

Choose this command to add an undefined MIDI device to each MIDI port in your Studio Setup document.

Auto-Detect Devices (Studio Menu)

Choose this command if you want OMS Setup to attempt to auto-detect any MIDI devices connected to your MIDI interface. When OMS Setup auto-detects a MIDI device, it automatically fills in the MIDI Device Info dialog box with that device's factory default parameters.

NOTE: Only a handful of current devices are capable of supplying this information to OMS Setup.

NOTE: To auto-detect a device, it must have both its MIDI In and MIDI Out jacks connected to the interface.

MIDI Device Info ([Studio Menu](#))

This command opens the [Device Info dialog box](#) for the currently selected MIDI device. If a MIDI patchbay is selected, this command opens [Patcher Info dialog box](#). Use this command if you need to edit a MIDI device or patcher definition. This performs the same function as double-clicking the device icon in the Studio Setup document.

Device Icon (Studio Menu)

This command opens a dialog box from which you select an icon for the currently selected device in the Studio Setup document.

Different In/Out Ports ([Studio Menu](#))

Choose this command if you wish to create a MIDI loop connection using MIDI Thru ports. For more information, see [Using MIDI Thru Ports](#).

Test Studio (Studio Menu)

Use this menu item to toggle the [OMS Setup test mode](#) on and off. If **Test Studio** is checked, then OMS Setup is in test mode. If **Test Studio** is not checked, OMS Setup is not in test mode.

When OMS Setup is in test mode, you can test the accuracy of device definitions in the current Studio Setup document and determine if MIDI is getting to and coming from your MIDI devices.

Sort by Port/Name (Studio Menu)

Choose this command to rearrange the devices and patchers in your Studio Setup document numerically according to their port number and alphabetically according to their name.

Technical Support Options

Opcode provides a variety of support options for its customers.

Obviously the first place to look for assistance is in the manual. For last minute changes, check the Read Me file installed into each application's folder. Detailed and up-to-date installation info can be found in the INSTALL.TXT file on your master disk.

If, after consulting these sources, you are still having problems, Opcode is available to assist you with your technical support needs. Before calling the Technical Support line, please be seated near your computer with the program running, and your serial number (located on the original master disk) handy.

You may also contact us by fax or email. To inquire about updates, upgrades and disk replacements, call our customer service number.

Customer Support Hours

- Monday thru Friday, 9:00 AM to 5:00 PM
- Saturdays, 11:00 AM to 5:00 PM with limited staff support
Times are Pacific Standard and are subject to change without notice.

Phone Numbers

- Customer service: 415-856-3333
- Technical support: 415-856-3331
- Fax: 415-856-0777

Internet Access

- World Wide Web: <http://www.opcode.com>
- FTP site: ftp.opcode.com

NOTE: This Help file contains links to Opcode's Web site. To follow these links, you must use either Navigator, Internet Explorer, or Mosaic. To use the E-Mail links, Netscape requires that your internet provider has Internet e-mail activated. Internet Explorer requires that your Microsoft Exchange program is Internet e-mail enabled.

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Controller

A MIDI device that transmits MIDI note information. MIDI keyboard instruments, MIDI wind controllers, MIDI guitars, and MIDI drum pads are all examples of controllers. Rack mount sound modules and effects devices are usually not MIDI controllers.

MIDI Device

Any device (stand-alone or virtual) that communicates MIDI information.

MIDI Interface

A device that connects your PC to the MIDI devices in your studio. It allows MIDI software to communicate with your MIDI devices.

MIDI Merger

A device that lets you control one MIDI channel with two or more different MIDI sources.

MIDI Patchbay

A device that allows you to control and change the routing of MIDI data between MIDI devices without re-routing cables every time your MIDI communication needs change. This is similar in concept to an audio patchbay.

Multitimbral

A multitimbral device can receive on more than one MIDI channel and play different sounds on each of the different channels. Most modern synthesizers are multitimbral. Many early-MIDI synthesizers are not.

OMS Setup

The application used to interface with OMS and to design Studio Setup documents.

8Port/SE

A professional multiport MIDI interface from Opcode and Music Quest This device lets your PC access 128 separate MIDI channels.

MIDI Time Code

A standard format for sending SMPTE timecode information (i.e., hours, minutes, seconds, and frames) over a MIDI cable. MTC is useful for synchronizing a computer sequencer to a tape recorded with SMPTE timecode.

MIDI Machine Control

A standard set of System Exclusive messages used to control tape decks, timecode generators, and other devices from a variety of manufacturers.

MIDI Beat Clock

The original MIDI synchronization format (and the format used by most synthesizer-integrated sequencers). This format synchronizes MIDI playback to actual beats (24 beats/quarter note). Therefore, MIDI Beat Clock speed changes as tempo changes. This format is often used for synchronizing playback of one or more MIDI-based devices.

Musicshop

Opcode's entry-level MIDI sequencing program.

Vision

Opcode's professional-level MIDI sequencing program.

