

MIDI and MusicTime

You can use MusicTime without a MIDI Instrument or soundcard but you won't hear anything. You must configure the software so that it can communicate properly with your MIDI hardware. The Setup program allows you to test and choose a device to be used for your primary MIDI In and Out ports, but many additional output ports are possible.

About MIDI Drivers

MIDI Interfaces and soundcards require special driver software to communicate with Windows programs. When selecting input and output choices in MusicTime the choices you are presented with will depend on what you have installed. Consult the documentation that came with your MIDI Interface or soundcard for information about installing a Windows 3.1 MIDI driver.

This version of MusicTime is designed to work with all Windows 3.1 compatible MIDI drivers.

Note: MusicQuest 癩 MQX MIDI Interfaces require special driver software for 32 channel use. Consult your MQX documentation or call MusicQuest for more information about obtaining and installing their driver software.

About MIDI Channels and MIDI Ports

MIDI is actually a protocol but it may be easier to think of MIDI as a special language. When your MIDI keyboard and your computer need to "talk" to each other, they use a MIDI channel and Port. Channels allow MusicTime to play several different instruments using only a single soundcard or synthesizer. Ports increase the number of channels MusicTime can use.

For each instrument you need to use a new MIDI channel. For an example, lets imagine you want to hear a piano and bass. The piano may be on staff one and the bass on staff two but, unlike a tape deck, each staff needs to be told what sound to play. To make sure your bass part doesn't sound like another piano, staff 2 will need a different MIDI Channel. Every time you add a new staff and want to use a new instrument, you will need to use a new MIDI channel.

In addition to MIDI Channels, MusicTime uses "Ports" to group MIDI Channels together. Each Port in MusicTime uses a letter to name the Port. MusicTime allows you to use two Ports; "Port A" and "Port B".

Defining MIDI Ports

To use a Port in MusicTime you first need to assign a driver to the Port.

1. Open the MusicTime Program Group in the Windows Program Manager (if it is not already open), and double-click the MusicTime icon to run the program.
2. Pull down the Setup menu and choose "MIDI Setup". The MIDI Setup dialog appears.

There are 4 drop down list boxes in the MIDI Setup dialog that enable you to make port assignments. The 2 list boxes in the top part of the dialog let you designate the MIDI Output devices for output ports A and B. In addition to actual MIDI Out ports, MusicTime's output can also be routed to on-board synthesizers on soundcards like Creative Labs' Sound Blaster and Media Vision's Pro AudioSpectrum.

NOTE : When you click on a port assignment in the MIDI Setup dialog you should see a list of the installed Windows drivers available. If the list has only "MIDI Mapper" and "None" indicated, you probably do not have any drivers installed. Many soundcards will display several driver choices when everything is installed. A typical Sound Blaster card, for instance, may offer selections for "MIDI Out" and "Voyetra Super Sapi FM driver". The MIDI Out selection is for connecting an external MIDI keyboard using MIDI In and Out cables connected to the card in your PC. The Voyetra Super Sapi choice is a synthesizer available on many soundcards that can produce basic sounds for imitating instruments.

Many of the newer soundcards now feature increasingly more sophisticated sound chips in addition to offering MIDI In and Out options. Creative Labs, Kurweil, EMU and Ensonig are only a few of the companies who have created soundcards and drivers for Windows that offer excellent sound quality and realism. With one of these soundcards and a MIDI keyboard, a complete MIDI system for entry and playback can be configured for use with MusicTime.

Record 的 nPort

The list box labeled "Record port" is used to select the MIDI In device your MIDI keyboard or controller is connected to. If you don't have a MIDI Keyboard you can assign the record port to "none". You can still enter music into MusicTime using either the mouse or QWERTY keyboard but eventually you will probably want to look into purchasing a MIDI keyboard for direct recording.

MusicTime can play or record using your computer's own internal clock or using an external source. If you'll be synchronizing your computer to an external signal, you may want to keep the incoming sync signal separate from MIDI data you're recording. The "Receive sync" list box in the bottom right of the MIDI Setup dialog lets you do this. When using external sync, MusicTime will use MIDI song position pointer and MIDI clocks. To use an external sync source select "external" within the sync source section in the MIDI setup dialog.

Once you have your MIDI ports configured the way you want them, press the OK button to exit the MIDI Setup dialog. Now you should choose "Save Preferences" from the file menu to ensure that these settings are retained for future sessions.

Configuring Your MIDI Setup

It would be impossible to describe each possible combination of MIDI Instruments and interfaces here. But there are a few general assumptions that can be made. Three very basic MIDI systems are described in this section.

System One

The most basic setup you could have would include a Windows-compatible soundcard with your computer running MusicTime. There are also several sound modules available that can connect directly to your computer's ports, without the need for a separate MIDI Interface. You can also use any MIDI sound module and any Windows-compatible MIDI Interface.

With this setup you could use the mouse to step-enter notes. You can also use the built-in QWERTY keyboard in MusicTime but it would, of course, be much easier and more convenient if you used a MIDI keyboard to enter notes.

System Two

System two consists of a single MIDI Instrument with its own sound generating capabilities, a MIDI Interface, and your computer running MusicTime. The MIDI Out of the instrument is connected to the MIDI In of your computer's interface; the MIDI Out of the interface is connected to the MIDI In of the instrument.

There is also a slight variation of this setup. If you are using a multi-timbral instrument with the ability to receive MIDI data on several channels simultaneously, you may want to turn the instrument's local control Off. An instrument's local control is normally On. What this means is that it 癩 keyboard is controlling it 癩 internal (local) sound-generating hardware. When local control is Off, the performance data from the instrument (notes, pitch bend, sustain pedal, etc.) is transmitted via the MIDI Out port, but it does not control the local synthesizer hardware. In other words, you play the keyboard and the only thing that comes out is MIDI data, no sound. If you connected the instrument's MIDI Out to its own MIDI In, you would generate sound. Turning local control Off essentially splits an instrument into a master controller and a separate sound module.

So, why would this be useful? If you are working on a song with multiple

tracks on multiple MIDI channels, you can turn on MusicTime's MIDI Thru option and use MusicTime to determine which channel (and therefore which of your synth sounds) is currently being played by the keyboard. That's generally much easier than changing the channel on your synth every time you want to work on a different staff.

System Three

A slightly more sophisticated setup uses a MIDI master controller (a keyboard or some alternate controller) and one or more sound modules. This requires you to use MusicTime's "Thru" feature.

MIDI Thru

If you have a MIDI Instrument or sound module, chances are pretty good that it has MIDI In, Out and Thru ports. Generally speaking, the Thru port transmits MIDI data as it's received by the MIDI In port (the data goes through the instrument and is immediately re-transmitted). How is this useful? It allows you to chain several MIDI devices together and control them all with one stream of MIDI data.

MusicTime's MIDI Thru feature is slightly different. When MIDI Thru is turned on in MusicTime, MIDI data received at the MIDI In port of your computer's MIDI Interface is immediately transmitted from the interface's MIDI Out port. This enables you to play into MusicTime with a MIDI Instrument and have that MIDI data control a separate MIDI Instrument or sound module at the same time.

If you connect MIDI Out on a MIDI Keyboard to your MIDI Interface connection for MIDI In and connect the MIDI Out connection on the MIDI Interface to a DIFFERENT synthesizer's MIDI In connection, you will need to turn Thru "On" to hear the second MIDI Synthesizer

MIDI Thru is turned On by clicking the Thru button on the top of the Score window. The Thru button also indicates the MIDI channel that the MIDI Thru data will be transmitted on. When no channel assignment is made (-), the data is transmitted on the same channel on which it was received.

There are two ways to set the MIDI Thru channel. The MIDI Setup dialog has a section for MIDI Thru with two choices. You can elect to have MusicTime "Follow Current Staff", in which case MusicTime will use the Staff Sheet selections to select a channel and port for MIDI Thru. When you click on a staff, the channel and port used for that staff will also be used for Thru.

If you select "Always Send Out..." for MIDI Thru in the MIDI Setup dialog, you can use a fixed MIDI channel and port for Thru. When MIDI Setup is

set for this mode you can change the MIDI Channel and port at any time by double-clicking on the Thru button. A double-click will open a "Choose Channel/Port" dialog for the Thru function.

For information about how to select MIDI Channels and Ports, choose different instruments and record and play back tracks refer to the Quick Tutorial file.