

CUBASE

Score

for Windows

Installation

DEMO version

Steinberg

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Introduction

Welcome!

Welcome to the Cubase Demo Installation on-line documentation!

Please use one of the methods described below to quickly find the desired information:

- **Use the Table of Contents provided by the Adobe Acrobat Reader program.**
- **Use the Adobe Acrobat Reader Search function.**
- **Click on a cross-reference (green text) to jump to the respective topic.**

It is of course possible to print out this document or parts of it.

Additional Information on how to use the Adobe Acrobat Reader program can be found in its on-line Help.

What this document contains

This chapter is an excerpt from the Cubase “Getting Started” book . It will help you determine what you need to use the program and guide you through installation.

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- Since this is an excerpt from a bigger book, some references to other texts and chapters will not be accurate.
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Requirements

About the various versions

Cubase and Cubase Score vs. Cubase Audio XT

Cubase and Cubase Score can record and play back audio using regular PC audio cards, as described in this book. This text describes the demo version of Cubase Score.

Cubase Audio XT, an expanded version of Cubase, can record audio using various other audio recording hardware. Contact your dealer for details.

This is what you need...

For MIDI Recording

The following equipment is minimum requirement for Cubase to work properly:

- **A computer with a 386DX - 33 MHz Processor, hard disk and a monitor with 16 colors, 640x480 pixels.**

However, we *recommend* you to use the following equipment or better:

- **A computer with a 486DX2 - 66 MHz Processor, hard disk and a monitor with 256 colors, 800x600 pixels.**

In addition to this you need the following:

- **Windows installed and ready on the computer.**

For more information on Windows versions, see below.

- **At least one MIDI Interface.**
- **At least one MIDI instrument.**

Sometimes, the MIDI interface and instrument are built into the same card.

- **Any audio equipment necessary to listen to the sound from your MIDI devices.**

- **At least two MIDI cables.**
This is only needed if your MIDI instruments are external – not mounted inside the computer.
- **To print scores, you also need a printer.**

For Audio Recording

Audio puts higher demands on your computer than MIDI sequencing. To be able to work with audio in Cubase, you will need the following equipment in addition to the above:

- **The Computer must be a 486DX, 50MHz or better, with at least 8 MByte of RAM.**
This is the minimum requirements for audio work. For optimum performance and a higher number of audio channels, a Pentium processor and 16 MB RAM is recommended.
- **You need a Windows Multimedia System compatible audio card.**
By audio card we mean a card capable of recording and playing back 16bit digital audio using your hard disk as a storage medium.
- **You need a large and fast hard disk.**

About the Number of audio channels

The number of simultaneous audio channels you will be able to get depends on a number of factors, e.g. processor speed, RAM and, most crucial, the speed of the hard disk. The following examples give you a hint of how many channels you could expect from your computer:

A setup consisting of...

- a Pentium 100 with a 256kB 2nd level cache and 24 MBytes of RAM...
- a VESA or PCI local bus E-IDE or SCSI hard disk interface with a data transfer speed of 10 MBytes/second or more...
- an E-IDE or SCSI hard disk with an average seek time of 9ms or better, 512k onboard cache, 5400/7200 RPM rotation speed, 5MBytes/second minimum sustained data transfer rate (or better)...

...should be able to provide eight *stereo* channels at 44.1KHz sample rate.

A setup consisting of...

- a 486DX 100MHz, CPU with a 256kB 2nd level cache and 16MBytes of RAM...
- a VESA or PCI local bus E-IDE or SCSI hard disk interface with a data transfer speed of 5 MBytes/second or more...
- an E-IDE or SCSI hard disk with an average seek time of 10ms or better, 512k onboard cache, 5400 RPM rotation speed, 3MBytes/second minimum sustained data transfer rate (or better)...

...should be able to provide eight *mono* channels at 44.1KHz sample rate.

About Windows

Cubase requires Windows 3.1 or later!

To run Cubase you must have Windows 3.1 or later installed on your computer.

Windows 95

Cubase runs well under Windows 95, but installation procedures, window handling etc, differs from Windows 3.1. Therefore, if you plan to use Cubase under Windows 95, read the “Using Windows 95” Readme file on one of the program disks, *before* you start installing the program.

Standard Mode

Windows 3.1 can be run in something called “Standard Mode”. Cubase does not support this mode and it has been removed completely from Windows 3.11 (Window for Workgroups) and later versions.

MIDI Interface/Synthesizer card

Windows Multimedia Driver Required!

Cubase can be used with any MIDI interface that comes with a Windows Multimedia *driver*. There are different types of interfaces: some are installed inside the computer and others are connected via a “serial port”, a “parallel port ” or some other type of “port” on the computer.

The Multimedia driver is the link between the interface and Windows Multimedia System. The driver for example reports the MIDI interface’s capabilities to Windows, how many MIDI inputs and outputs it has, etc. Cubase in its turn, uses its own driver to communicate with Windows Multimedia System, and that way exchange information with the MIDI interface.

The driver for your interface should come on a floppy disk with the interface (or it might be pre-installed on your computer when you buy it). For more information on the driver for your specific interface, see the documentation that came with it.

Multiple Inputs and Outputs

Some MIDI interfaces have more than one MIDI output and/or input:

- Each individual *output* on your MIDI interface can transmit on 16 MIDI Channels. Having several outputs then allows you to expand beyond the basic 16 MIDI Channels. If you have more than one or a couple of MIDI instruments, this is a great advantage.
- Having several *inputs* allows you to connect more than one MIDI output to your computer, which is necessary when building a more complex MIDI system.

See [page 18](#) for some example configurations.

Synchronization

Some MIDI interfaces also contain built in synchronization facilities for using Cubase together with non-MIDI equipment, such as for example audio and video tape recorders. Cubase supports all such synchronization devices that are Windows Multimedia compatible.

MIDI Synthesizer Cards

Some cards have the MIDI synthesizer built in, directly on the card. In this case, the card is all you need, no external synthesizers are required. As far as Cubase is concerned, such a card is equivalent to a regular MIDI interface connected to an external MIDI synthesizer.

Sometimes MIDI synthesizer cards also have MIDI connectors for additional, external MIDI equipment.

Do not confuse MIDI synthesizer cards with “audio cards” which “only” record and play back digital audio, using your hard disk as a storage medium. Such cards can not be used to play back MIDI data from Cubase.

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Installation

Windows 95

If you are installing Cubase under Windows 95, it is very important that you read the “Using Windows 95” Readme file (on one of the program disks) first. This is because the following chapter describes installation under Windows 3.1x, and a number of details are different in Windows 95.

Getting the Computer ready

Before you proceed you should have the computer set up:

- **Install Windows and make sure all basic functionality seems to work as intended.**
- **Study the manuals that come with the computer and familiarise yourself with concepts such as file handling, clicking, double clicking, dragging etc.**

About Printers

If you intend to print scores, install the printer. Use the software included with the printer or some other software you already have installed (such as a word processing application) to verify that the printer works as expected.

Installing the MIDI Interface/Synthesizer card

Installation instructions for the MIDI Interface should come with the interface. However, here's an outline of the necessary steps:

- 1. Install the interface (or MIDI synthesizer card) inside you computer or connect it to a "port" (connector) on the computer.**

Which is right for you depends on which type of interface you have.

- 2. If the interface has a power supply and/or a power switch, turn it on.**

- 3. Install the driver for the interface, as described in the documentation that comes with the interface.**

This is done using either the Window Control Panel or special software that came with the card.

-
- There might be settings you have to make for Base Address and IRQ for the interface/synth card. Make absolutely sure the settings you make in the Windows Control Panel are in accordance with the settings actually made on the card. Also make sure no two cards in your computer use the same Base Address or IRQ settings! This is extremely important; Base Address and IRQ conflicts are the single most common installation problems!
-

Should you have an interface, but no Windows Multimedia System driver, please ask your music or computer dealer for help.

The Timer Driver

When you use Cubase under Windows 3.1x, the Windows Multimedia System *Timer Driver* has to be activated, regardless of what interface you use. This driver is normally automatically activated when you install Windows, but please make sure it is:

- 1. In the Program Manager, locate the Control Panel program. Double click on it to launch it.**
- 2. Double click on the “Drivers” icon. In the list that appears, make sure one of the items is called “Timer”. If not, click on “Add” to install it. For details, see your Windows documentation.**
- 3. Exit the Control Panel.**

Connecting the MIDI Equipment

Now its time to set up your MIDI equipment, if not already done.

The descriptions below describe a few setup examples for small MIDI systems. You might need or want to hook things up differently!

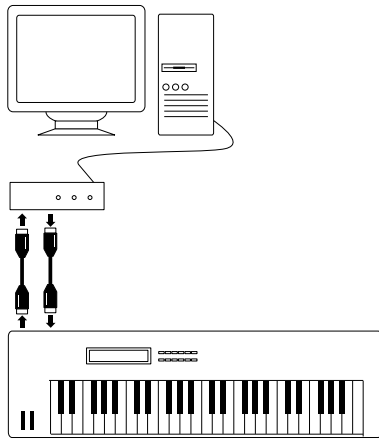
Example 1 – Using the same Keyboard for recording and playback

1. Connect the MIDI Out of the instrument to a MIDI In on the MIDI interface.

For basic use it doesn't matter which MIDI In you use, if you have several. Cubase can record from all inputs on a multi-port interface.

2. Connect a MIDI Out on the interface to a MIDI In on the instrument.

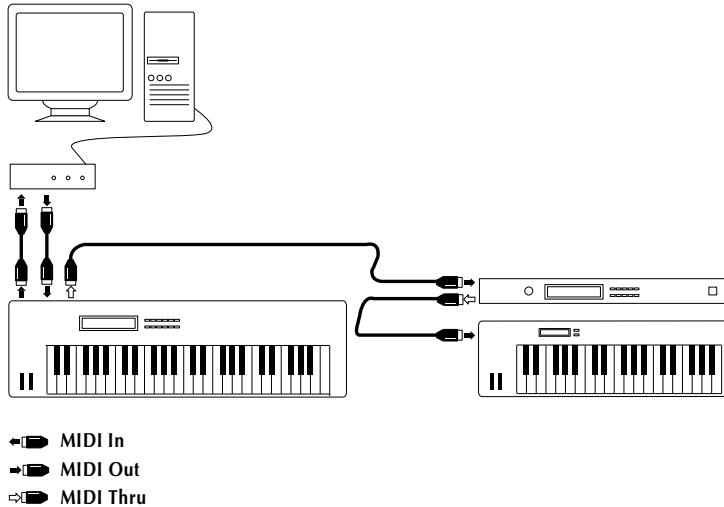
Your MIDI Interface may have more than one MIDI Out. On some simpler MIDI interfaces, the Outputs all carry the same information, so it doesn't matter which you use. If the Outputs on your MIDI interface are all separate (that is, they carry *different* information), it still doesn't matter that much which you use at this point, as long as you keep track of what is connected where.



- ← MIDI In
- MIDI Out

The connection above allows you to feed the computer with the signals from the keyboard, during recording. It also allows you to send MIDI signals from the computer to the instrument during playback.

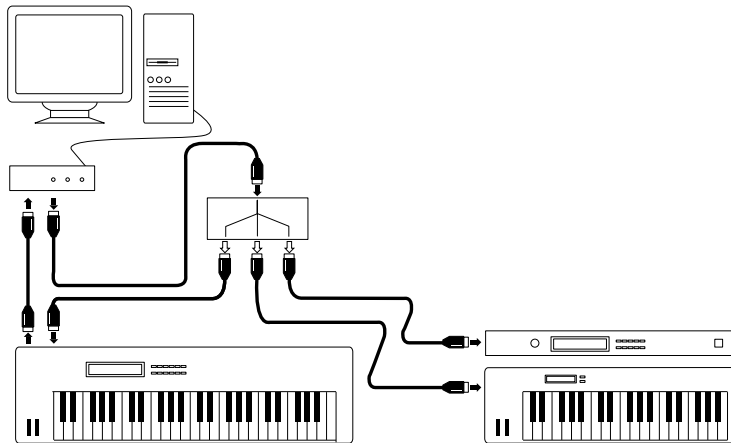
Example 2 – Adding more devices using the MIDI Thru connectors on the Instruments



You might want to use more instruments for playback. These can then be connected to the MIDI Thru of each instrument. In this hook-up, you will always play the first keyboard when recording. But, thanks to the Thru connection, you can still use all your devices for providing sounds.

Example 3 – Adding more devices using a Thru box

If you have more than three instruments we recommend you to always use a Thru box instead of the Thru connectors on the MIDI instruments, if possible. If you do, you will need to connect as indicated in the picture below. In functionality, this hook-up is identical to the previous. The difference is that it ensures that the MIDI signal is not degraded in any way by passing a “daisy-chain” of MIDI Thru connectors.

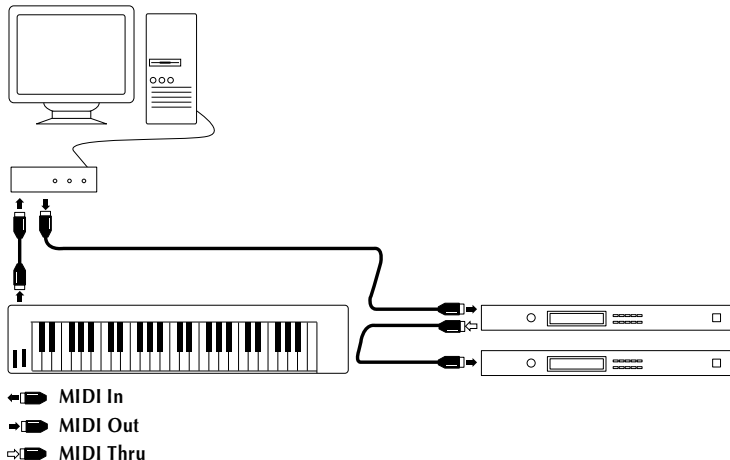


-  MIDI In
-  MIDI Out
-  MIDI Thru

Example 4 – Using a separate Keyboard and Sound Module(s)

If you have a separate MIDI keyboard, that produces no sound, and sound modules without keyboards, you should hook things up more or less like in example 1 or 2. Using Cubase’s MIDI Thru feature (described later) you will still be able to hear the sound from the sounds modules while recording.

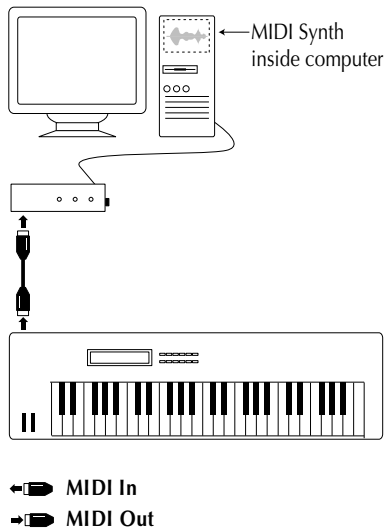
This hook-up is also the one you should use if you use other types of “MIDI Controllers” for feeding MIDI to the computer – like a MIDI guitar, MIDI drum pads or a MIDI wind instrument – that don’t produce any sound of their own.



Example 5– Using a MIDI Synthesizer Card

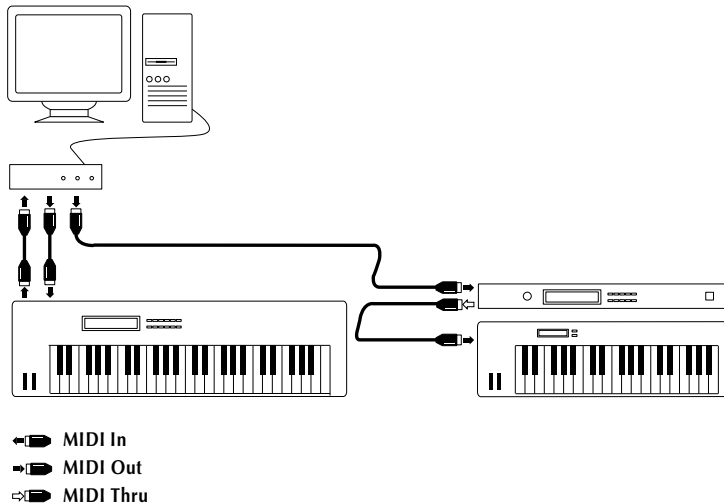
In the previous hook-up, the external sound module could very well be replaced by a MIDI synthesizer card inside the computer. In this case all you need to add is a MIDI keyboard that produces no sound, so that you have something to record your music with. This keyboard is then connected to a MIDI In connector on the card. All sound is produced directly by the MIDI synthesizer card.

As far as Cubase is concerned, this configuration is identical to having a separate MIDI interface and an external sound module.



Example 6– Using one Interface with two Outputs or two MIDI Interfaces with one Output each

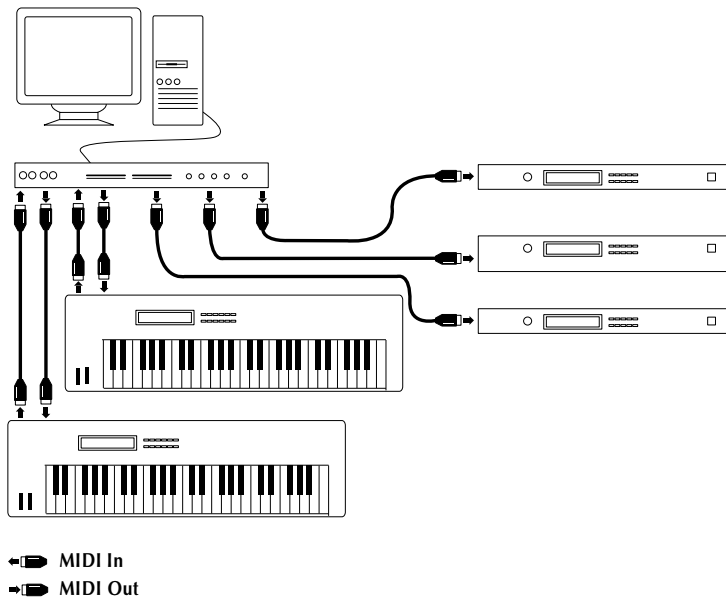
If you have an interface with two separate outputs or two interfaces with one output each you can connect as in the picture below (which shows one interface with two outputs). The main keyboard is used for all recording, since it is the only device which has its MIDI Out connected to a MIDI In on the interface. However, two different Outputs are connected to MIDI Inputs on the devices providing sounds (including the keyboard used for recording).



All the previous hook-ups have been limited to 16 MIDI Channels (16 different sounds in your MIDI recordings). This setup however, allows you to play back on 32 MIDI Channels – 16 from each Output/MIDI Interface.

Example 7 – Using a Multi-port Interface

If you have a multi-port interface, there are many ways you can connect your equipment. In the example below, two keyboards can be used for providing MIDI signals to be recorded, but they can also be used to play back sounds. In addition, three sound modules are used for providing sounds.



In this hook-up each instrument uses its own MIDI port on the interface. This lets each device use its own set of 16 MIDI Channels. In the example above, 80 separate MIDI Channels can be transmitted from Cubase (if your MIDI instruments can handle 16 MIDI Channels each!).

Audio Preparations

If you plan to make audio recordings, perform the following steps:

Installing the Audio Card

- 1. Install the audio card as described in the documentation that comes with the card.**
- 2. Install the driver for the card, as described in the documentation that comes with it.**

-
- There might be settings you have to make for Base Address and IRQ for the card. Make absolutely sure the settings you make are in accordance with the settings actually made on the card. Make sure no two cards in your computer use the same Base Address or IRQ settings!
-

Should you have an audio card, but no Windows Multimedia System driver, please ask your music or computer dealer for help.

Testing the Card

To make sure the audio card will work as expected, perform the following two tests:

- **Use the software included with the audio card to make sure you can record and play back audio without problems.**
- **Use the MediaPlayer application (included with Windows and described in the Windows documentation) to play back audio.**

Make Settings for the card

1. **If your audio card comes with a small setup application (“applet”) used to adjust levels and to make other settings for the card, launch it.**
2. **Set up the Input levels so that they match the equipment you intend to record. Set the Output levels so that they match the equipment you use for playing back (mixer or similar).**
Please check the details in the documentation for the card.
3. **If your card has a setting that allows it to route the audio input to the audio output for monitoring, you might want to activate this, since it will make it easier to set recording levels.**

Defragmenting the Hard Disk

If you plan to record audio on a hard disk where you have already stored other files, now is the time to *defragment* it. Defragmentation reorganizes the physical allocation of space on the hard disk in order to optimize its performance. It is done with a special defragmentation program. Defragmentation utilities are included with later versions of DOS and with Windows 95.

-
- It is crucial to the audio recording performance that your hard disk is defragmented.
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Installing the Software

Now is the time to install the actual program.

-
- Read the Software Licensing Contract included in this package, before proceeding. By opening the sealed pack of disks or sending back the registration card, you are declaring yourself to be in agreement with the conditions in the contract.
-
- Once again, if you are installing Cubase under Windows 95, follow the instructions in the “Using Windows 95” Readme file.
-

A special installation procedure unpacks all the files and puts them in the right places, automatically.

- 1. Start the computer.**
- 2. Make sure the original Cubase disk is *not* Write Protected.**
- 3. Start Windows, if it is not yet running.**
- 4. Open the Program Manager.**
- 5. Select “Run” from the File menu**

6. Insert the Cubase Program disk in your disk drive, type `a:\install` and press [Return]. (If the computer complains, try `b:\install` instead, the drive that holds the Cubase floppy is probably the “b:” drive then.)
7. A text window appears with installation information and a hint that there will be additional written information in your Program Group.
8. After a while, the following dialog box appears:



- 9. Check the command line. It currently says `c:\cubase` (or similar, depending on which version you install). This means that Cubase will be installed on your “C:” hard drive, in a directory called “cubase” (this directory will be created if it doesn’t exist).**
If you wish, you may specify another path name or another drive. However, in the rest of this manual, we assume you followed our recommendations and put the files in the suggested directory on the “c:” drive.
- 10. Click on the Continue button to start the installation procedure, or click on Exit Install if you have changed your mind.**
- 11. During installation you will be asked if you want to change your Windows colour settings to the “official Steinberg colour scheme”, that is, change the color of borders and backgrounds etc. in all programs to a design that we think suits Cubase very well. You will also be asked if you want to install a Steinberg screen saver.**
- 12. When the actual installation is done (it will take a while and require you to insert more disks), a new dialog appears, informing you that a Program Group will be created. Follow the on-screen instructions.**
- 13. Finally, a dialog box informs you that the installation was successful. You then return to the Program Manager.**
- 14. Locate your new Program Group in the window.**

The Program Group contains one item for program itself and possibly one or more icons for Write files which contain additional information. (To read any of these files, double click on it.)

The Program Group also contains an item called “Additional Setup” used for activating *tape drivers* , for use with Tape Tracks and multitrack recorders.



15. Remove the disk, Write Protect it and store it in a safe place.

This completes the installation of your Cubase program! But, you're not really done yet...

Custom Installation

In the Installation dialog you had the option to specify a Custom installation. This brings up a dialog box that allows you to specify to install only some of the files in this package.

We recommend that you only use this option if you are sure what all the different files are for.

Start Cubase!

- 1. Locate the Cubase program icon in your Program Group.**
- 2. Double click on the icon to launch the program.**
A startup dialog appears. Cubase starts, and displays an Arrange window.

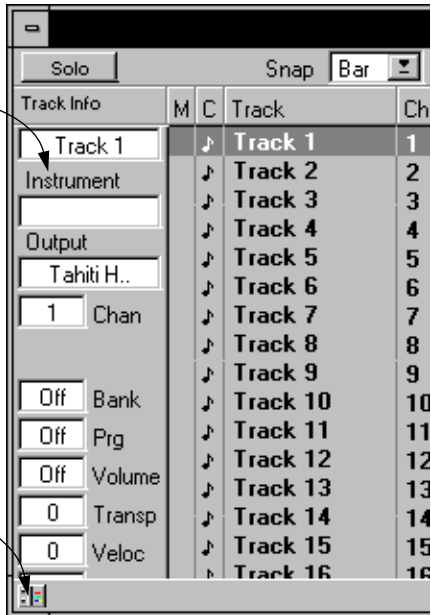
Checking MIDI Interface Installation

Before you go on we recommend that you check that Cubase has proper contact with your MIDI interface/synthesizer card.

- 1. In the Arrange window, make sure the Inspector is visible.**
The Inspector is an area with settings for the Tracks, located on the left side of the Arrange window.

2. If the Inspector isn't visible, click on the Inspector icon in the lower left corner of the window:

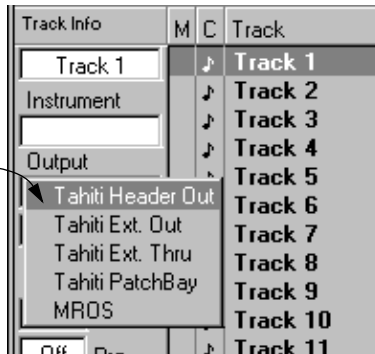
The Inspector should be visible...



if it isn't, click this icon.

- 3. Locate the item called Output. Just below this you will find a white field. Click on this field to pull down a small menu.**

This menu should list your MIDI Outputs



- 4. This menu should list all your MIDI Outputs. Check it thoroughly.**

If your MIDI interface does not appear on this menu or if it appears but is greyed out, this might have several reasons:

- The interface is not properly connected to the computer.
- The interface is not turned on or is not receiving power.
- The Windows Multimedia driver for the interface has not been installed properly (check the setting in the Control Panel program).
- The interface base address or IRQ settings are wrong or in conflict with other hardware in your computer.
- There is something wrong with the interface.

5. Play your MIDI keyboard (or other device) connected to the MIDI In of your computer.

Check the “IN” indicator on the Transport Bar. It should flicker to indicate Cubase is receiving MIDI data. The “OUT” indicator might also light up, but that is of no importance at this point.



This lights up to indicate that Cubase is receiving MIDI data.

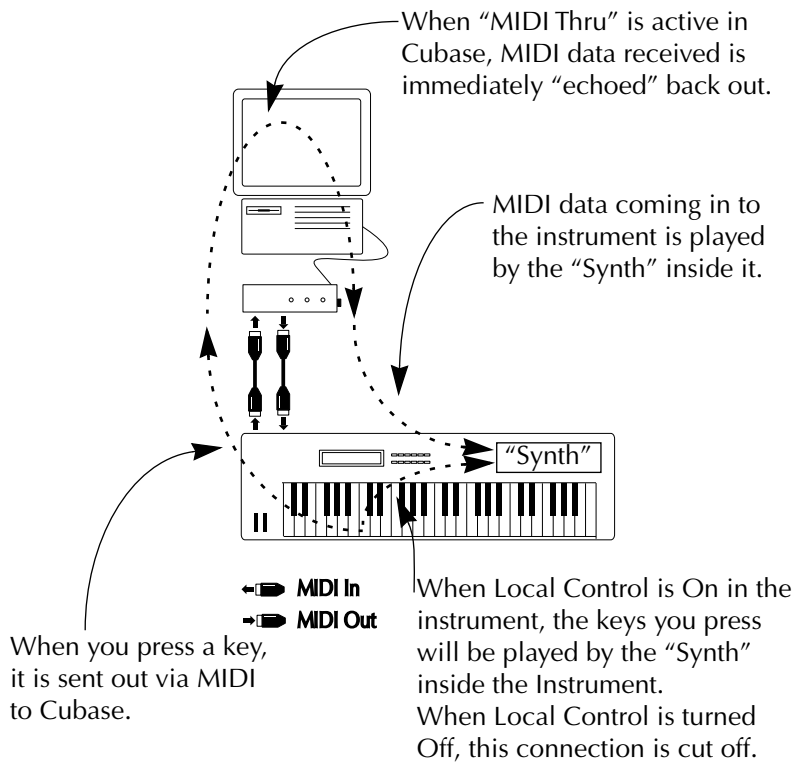
If the Output menu lists the interface, as described above, but the “IN” button does not flicker, although you are sure you are transmitting MIDI data to the computer, this is a clear indication that something is wrong with your IRQ settings for the interface. Either the settings on the interface and in the Control Panel do not match, or you have an IRQ “conflict” in your computer.

- **To solve this problem, first make absolutely sure that the settings for the interface in the Control Panel are identical with the hardware settings on the actual interface. Then check the settings for the other cards, etc that your computer uses, and make sure that no two cards have the same IRQ settings.**

Setting MIDI Thru and Local On/Off

In the MIDI Setup dialog box, you will find a setting called MIDI Thru which can be enabled or not. This is related to a setting in your synthesizer called something like “Local On/Off” or “Local Control On/Off”.

- If you use the same instrument for recording into Cubase and for playing back one or more sounds (as in all hook-up Examples except number 3, illustrated earlier in this chapter), MIDI Thru should be activated and that instrument should be set to Local *Off* (sometimes called Local Control On/Off – see the instrument’s operation manual for details). This will let the MIDI signal from the keyboard get recorded into Cubase and at the same time re-routed back to the instrument so that you hear what you are playing, without the keyboard “triggering” its own sounds.



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- You should not have Local Control turned on in your instrument if you have MIDI Thru activated in Cubase, since this will make every key you press play twice – once directly in the instrument and once via MIDI. This will lead to reduced polyphony and a “thinner” or “flanged” sound while recording.
-
- If you use a separate MIDI keyboard, not producing any sounds in itself, as in Example 4 on [page 23](#), MIDI Thru in Cubase should also be activated, but you don’t need to look for any Local On/Off setting in your instruments.
 - The only situation where MIDI Thru should be *deactivated* is if you use Cubase with only one keyboard instrument and that instrument can’t be set to Local Off mode.

Checking your Setup

1. Close the MIDI setup dialog box, by clicking OK.
2. Play your MIDI keyboard or other device.
3. Check the “In” box on the Transport Bar so that you are sure that Cubase receives MIDI data.
4. If you have Thru activated, the “Out” box just below it should indicate Output of data.

When this lights up, Cubase is transmitting MIDI data.



When this lights up, Cubase is receiving MIDI data.

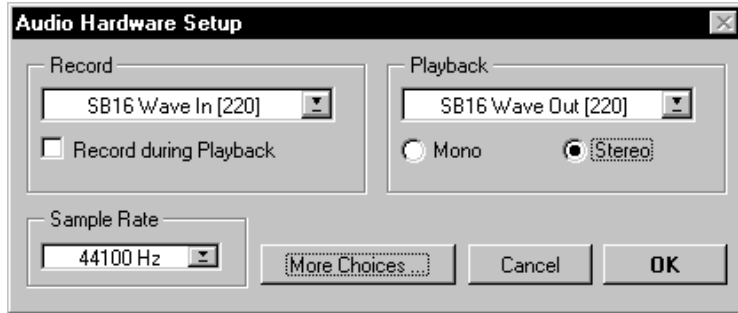
5. **Make sure you hear the instrument that you are playing.**
If not, check your MIDI connections and Cubase’s MIDI Thru setting. Also check the audio equipment and audio connections.

6. If you listen to the sound of the same instrument as you are playing, make sure the sound from the instrument doesn't sound "thin" or "flanged".

If it does, you have probably not set the instrument to Local Off. This means that every key you press is played twice, once directly on the instrument and once via MIDI.

Making Audio Settings

1. In Cubase, select “Hardware Setup” from the Audio menu.



2. **Select your card from the Record and Playback pop-up menus.**
If you have several cards, this allows you to select one of them. We recommend you to use the same card for recording and playback.
3. **If your card has the ability to record and play back at the same time, activate the “Playback during Recording” switch.**
If you are unsure about your specific card’s ability, see the documentation for the card. The ability to record and play back at the same time is often referred to as “Full Duplex”.

4. Decide if you want *playback* to be in mono or stereo, by clicking the relevant button in the Playback section.

In mono mode, all audio will come out of the Left channel on your audio card. Normally you will want stereo playback, but if you have a card that can only use “Playback during Recording”, if set to Mono, you might want to activate this switch.

5. Close the dialog by clicking OK.

Disable Screen Savers

We strongly recommend you to disable any screen saver utilities you have installed in your computer. This is because when the screen saver is activated, audio recording and playback is disrupted and the system will display a “System too slow...” message.

Installation done! Where do I go next?

There are basically two things we suggest you do:

- **Check the other documents and try out the different possibilities as you go along.**
- **Examine your Cubase directory and possibly other disks included in this package for files that might be useful (or even essential) to you.**

Other files included with the Program

Included with the program you will find a number of useful additional files:

Modules

- **MIDI Processor**
Create delays and harmonies within Cubase!
- **SMPTE Display**
For those moments when a large read-out of time and bar position is necessary.
- **AVI Monitor**
Lets you view Video for Windows movies from within Cubase.

Expanded versions of Cubase may contain other modules.

Drum Maps

Included with the program you will find ready-made drum maps that allow you to refer to the drum sounds in your equipment directly by name, in Cubase's Drum editor.

Mixer Maps

These allow you to control basic MIDI functions like volume and panning, graphically, from within Cubase. They also allow you to access special functions in various MIDI equipment, from the computer screen instead of from the instrument's front panel. The Mixer even allows you to automate all such changes.

Tape Transport Driver Files

Included with the program are driver files for various tape recorders, for use with Tape Tracks.

Other Example Files

Included with the program are various example files for different sections of the program, simply to give you something to get started with.

