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Step-by-step Instructions

Step by Step Instructions

- 1. You must have a <u>SoundBlaster</u> card <u>installed</u>, and you must have the <u>Windows Drivers</u> installed for that card (consult your SoundBlaster Documentation on how to do that, if you haven't done it already.)
- 2. Unzip and copy all the files in MIDICenter.ZIP into a directory, e.g. MIDI. You can install an **icon** in Program Manager, by using **file/new/program**
- 3. Start the program from the File Manager or from the Icon on the Program manager. When you start the program you are shown the piano keyboard.
- 4. Click the mouse inside the keyboard.
- 5. You can now play the keyboard either with the <u>mouse</u> or with your computer keyboard. The <u>MIDI</u> Music Centre allows you to play a melody and chords on your keyboard if without a <u>MIDI</u> Keyboard or synthesizer. You can play chords, but due to the limitations of the IBM keyboard, most but not all notes will sound simultaneously all the time.
- 6. You can choose one of 128 instruments available on your <u>SoundBlaster</u> card from the menu. You can also choose your <u>base Octave</u> (between 1 and 6), your <u>Volume</u>, to adjust your <u>Pitch</u>, <u>Velocity</u> and <u>Channel</u>.
- 7. To use the <u>Drum Machine</u>, switch to DRUM in the Windows Menu. You can switch back to the <u>Piano Keyboard</u> in the Windows Menu.
- N.B. The program uses the US keyboard, so if you use another keyboard you need to change you keyboard driver to US in **Control Panel.**
- a. Start Windows and run the Control Panel.
- b. Run the International application from Control Panel and select US keyboard.

Keyboard

You can use your computer keyboard to play the Piano. To understand how to use The Piano Keyboard click.

To understand how to use the keyboard to issue commands, click on **Keyboard Commands**

Note: Not all the keyboard commands work in Piano.

Mouse

Using the Mouse as a finger on the keyboard

When in the Piano Menu you can use the mouse like a one finger pianist to strike notes on the piano. You cannot play chords with the mouse, as the mouse can only pick one note at a time. The note sounds, when you depress the left mouse button and stops if you release the mouse button.

Using the mouse to give menu commands

The main use for the mouse is to give commands via the menus of both the Piano and the Drum machine.

The use of the Mouse in the Drum machine

In order to use the <u>drum machine</u> you must have a mouse. Clicking the mouse in one of the squares will turn that square on.

Piano Menu

The **File menu** at present only allows you to **exit**.

The **Settings menu** allows you to:

Changing the Volume

Changing the Pitch

Changing the Velocity

Changing the Base Octave

Changing the Channel

The **Instruments Menu** allows you to choose one of **128 Instruments**.

The **Windows Menu** allows you to switch between the **Piano** and the **Drum** Machine

Drum Menu

The **File menu** allows you to

Open a New <u>Drum File</u> (i.e. Start with a clean slate)

Open an existing, saved <u>Drum File</u>

To save a drum pattern as a <u>Drum File</u>

To save a drum pattern as a <u>Midi File</u>

The **Sequence Menu** allows you to **Run a Pattern**, i.e. hear the pattern in your loudspeaker **Stop a Pattern**

The **Windows Menu** allows you to switch between the **Piano** and the **Drum** Machine

You can change the Speed and the Velocity of the pattern with the Slide Bars.

When you computer does something else, i.e. change windows etc., the pattern slows down, how much depends on the computer's resources, memory and speed.

Main Menu

The Main Menu allows you to switch to either the $\underline{\text{Drum Machine}}$ or the $\underline{\text{Piano}}$ and to $\underline{\text{Exit}}$

It also gives you access to this Help File.

How to Quit

When you close the program from the grey minus on the left side of the Top Menu Bar, you only close the current window (either the Piano or Drum Window).

To leave the program you have to go File/Exit in the menu, and select Exit (Alt-F-X). You can also use Ctrl-X or Ctrl-F10.

If you have not properly quit, next time you start the program you will get a strange error message, and the program will not work. The reason for this is that only one programme at a time can access the Soundblaster Drivers.



I have tried to fix this "feature" but so far without success. Anybody who knows what I do wrong, please let me know.

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Installing Sound Boards
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Midi Rhythm Instruments
What is a MIDI File
Other Music File Formats

How to write a Drum File
Windows Drivers
SoundBlaster

Installing Sound Boards

If you have not yet installed your Sound Board or your Windows Drivers:

- 1. The most improtant thing is: Follow the instructions in your manual. Read any README files on your discettes.
- 2. Make a back-up of the disks which come with the sound board.
- 3. Turn off your computer before installing the card.
- 4. With most sound cards you have to adjust the volume. Not doing this may be one of the reasons why there is no sound.
- 5. Test your card with the programme supplied, e.g. **TEST-SBP** for the SoundBlaster.
- 6. In most cases you will not need to change your hardware configuration. But if your card does not work check for conflicts in I/O address, Interrupt Line or DMA Channel.
- 7. Attach speakers or headphones.

Windows Drivers

I have checked this program with a Soundblaster CT1600 installed. As the program does not address the sound card directly, but uses the Windows drivers, most other sound cards with a MIDI capability should work. Let me know if you can run this program on other sound cards.

SoundBlaster

Windows Drivers

- 1. Start Windows and run the Control Panel.
- 2. Run the **Drivers** application from **Control Panel.**
- 3. Select **Unlisted or Updated Driver** from the List of Drivers Box.
- 4. Give the drive (and path) of your windows drivers, e.g. C:\SBPRO\WIN31
- 5. Select the **driver to be added**, e.g. **Creative Sound Blaster Pro MIDI Synthesizer**, **Creative Sound Blaster Pro Auxiliary**, **Creative Sound Blaster Pro Wave and MIDI Audio**.
- 6. Once you have installed all drivers, restart Windows.

Soundblaster

I have checked this program with a Soundblaster CT1600 installed. As the program does not address the sound card directly, but uses the Windows drivers, most other sound cards with a MIDI capability should work. Let me know if you can run this program on other sound cards.

The program supports the **Sound Blaster Mixer** to adjust the output volume. But the volume can also be controlled directly from the program for Non-SoundBlaster cards.

Changing the Volume

You can change the volume of the sound either from the menu or from the Sound Blaster SBPro Mixer.

Changing the Pitch

When singing with your piano, you sometimes find the key of the accompaniment to high or too low. To compensate for this without transposing into another key, you can change the pitch of the notes played by up to twelve semitones.

Changing the Velocity

Velocity has nothing to do with the speed with which you play.

It designates the speed (attack) with which your fingers hit the keys, and thus the loudness and harshness of the tone.

Changing the Base Octave

As the computer keyboard is rather limited in its possibilities and allows only Octaves of sounds, not the full spectrum which the <u>SoundBlaster</u> allows, I have made a provision to change the range of Octaves available at any moment. You can move the base Octave (the lowest you can play on the keyboard) from 1 ro 6.

Key Commands

Function Keys:

F1 Help on Midi Music SHIFT-F1 Help Index ALT-F1 Help on Piano CTRL-F1 Quick Overview CTRL-SHIFT-F1 Help on Drum

F3 Switch to Piano F6, Open Drum File F8, Save as MIDI File F5 Switch to Drum F7, Save as Drum File CTRL-F10 Exit from Program

Control Keys:

"^A" Save As
"^O" Open File
"^S" Save File

"^V" Adjust Volume

"^C" Adjust Octave
"^R" Drum Run
"^T" Drum Stop
"^X" Exit from Program

Light Gray commands are not yet available.

Changing the Channel

The <u>SoundBlaster MIDI</u> setup supports 16 Channels of which the 10th (channel 9, starting at 0) is the Channel for <u>Rhythm instruments</u>. Changing the Channel, except to Channel 9 will not do anything at the moment, but I intend to add recording of sounds and multichannel playback later, so I included this possibility right from the start.

Quickly: What can the Midi Music Centre do?

The <u>MIDI</u> Music Centre allows you to play a melody and chords on your keyboard if you have a <u>SoundBlaster</u> card without a <u>MIDI</u> Keyboard or synthesizer.

The <u>MIDI</u> Music Centre <u>Piano</u> allows you to choose one of 128 instruments available on your <u>SoundBlaster</u> card, to choose your <u>base Octave</u> (between 1 and 6), your <u>Volume</u>, to adjust your <u>Pitch</u>, <u>Velocity</u> and <u>Channel</u>.

For information on the Piano click on:

The Piano

The program also features

The MIDI Drum

which allows you to play complicated drum and rhythm patterns over and over again. You can start such a sequence, switch over to the piano and play a melody over the rhythm. You can save these drum patterns either as a .DRM or as a .MIDI file.

2 How does MIDI Keyboard Piano Work?

The <u>MIDI</u> Keyboard Piano allows you to play a melody and chords on your keyboard if you have a <u>SoundBlaster</u> card without a <u>MIDI</u> Keyboard or synthesizer. You can strike a note with the mouse pointer or on the keyboard of your computer.

This is how to use

The Keyboard

The <u>MIDI</u> Keyboard Piano Menu allows you to choose one of 128 instruments available on your <u>SoundBlaster</u> card, to choose your <u>base Octave</u> (between 1 and 6), your <u>Volume</u>, to adjust your <u>Pitch</u>, <u>Velocity</u> and <u>Channel</u>.

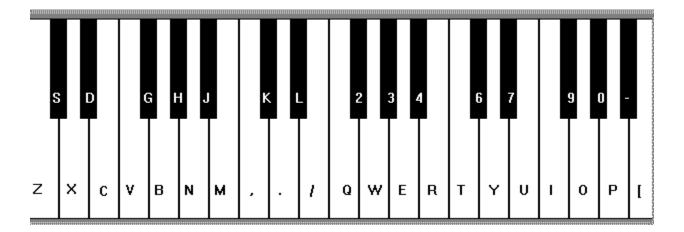
Click here to find out how to use

The Menu

Above the keys you will find the following

Information

The Piano Keyboard



The letters shown on the above piano keyboard correspond to the letters on your computer keyboard: i.e. a Z corresponds to a C, an S to a C sharp, an X to a D, a D to a D sharp etc. You can strike a key on the keyboard or use the mouse to create a sound, by clicking on a key. Some keys are silent: There are only five sharps as against seven normal keys, so the following keys are silent: A F K " and $1\,5\,8$

The Piano Menu

Acoustic Grand Piano	Key Velocity (Loudness) = 64	Volume =	224	Octave = 3	
Channel = 1					

Go to Piano Menu

Information

Acoustic Grand Piano	Key Velocity (Loudness) = 64	Volume =	224	Octave = 3	
Channel = 1					

Below the menu the program gives you the following information:

The Instrument you are currently using

The loudness (velocity) with which you strike the keyboard

The volume at the output of the Soundblaster card
The octave of the lowest key on the keyboard

The MIDI Drum

allows you to play complicated drum and rhythm patterns over and over again. You can start such a sequence, switch over to the piano and play a melody over the rhythm. You can save these drum patterns either as a .DRM or as a .MIDI file. For more information click on the following topics:

How to compose a Drumfile
What is a drum file?
Midi Rhythm Instruments
What is a MIDI File
Other Music File Formats

How to write a Drum File

How to Compose a Drum File

- 1. Start of with a simple pattern, using only one or two instruments (e.g. Base Drum)
- 2. Save that pattern, and then add one more instrument. If tht does not work, you can revert to your saved pattern and start over with another instrument or pattern,
- 3. Once you are satisfied, save again.
- 4. Don't overdo it: too much unstructured noise is not what you want to achieve. Keep it straight and simple.

What is a drum file

When Petzold developed the MIDI Drum Player he used the RIFF Format for its file structure.

Microsoft Windows uses a similar file format for many of its multi-media files.

The RIFF format is derived from the IFF (Interchange File Format) of Electronic Arts. RIFF stands for Resource Interchange File Format.

A RIFF file is composed of pieces called chuncks. All chuncks have the same logical structure, but can contain a variety of data.

The Drum file is recognized by starting off with the identifier "RIFF" and contains another identifying word "DRUM".

Unfortunately the RIFF files produded by DRUM in its original version could not be read by programs which could read $\underline{\text{MIDI Files}}$

This rewrite of the Program therefore allows you to save your files both as drum and MIDI Files

.What is a Midi File?

MIDI Files are a special file format which has become a de facto standard for computer music programs. It is also extensively used by synthesizers and other electronic musical instruments.

The **MIDI format** is derived from the IFF (Interchange File Format) of **Electronic** Arts..

A MIDI file is composed of pieces called chuncks. All chuncks have the same logical structure, but can contain a variety of data. The Header Chunck has information for the entire file, and the Track Chuncks contain the data for each of the 16 tracks of the soundblaster

The **MIDI file** is recognized by starting off with the identifier "MThd" and a track chunck contains another identifying word "MTrk".

Other music file formats

Other music file formats used often are:

MOD-Files: **Mostly in Amiga Programs.**

WAV-Files: **Used by Windows to record actual Sounds**

VOC Files: Soundblaster recorded sound files.

These file formats are all incompatible with either MIDI or DRUM. You can play them, however, if you have the correct software.

How to write a Drum File

You use the mouse to point to a square on the screen.

When you click the left mouse button, you record a rhythm sound and a black square appears at that spot.

Going down you can use the various instruments given on the left, which correspond to the standard <u>MIDI Rhythm instruments</u>. (The instruments grayed do not produce a sound on my Soundblaster Pro Card).

When you click on the right mouse button, a grey square appears at that spot. You will hear a melodic sound.

MIDI Rhythm Instruments

Acoustic Bass Drum, Acoustic Snare, Low Floor Tom. Pedal High Hat, Low-Mid Tom, High Tom, Ride Bell, Cowbell, Ride Cymbal 2, Mute High Conga, High Timbale, Low Agogo, Short Whistle, Long Guiro, Low Wood Block, Mute Triangle,

Bass Drum 1, Hand Clap, Closed High-Hat, Low Tom, High-Mid Tom, Ride Cymbal 1, Tambourine, Crash Cymbal 2, High Bongo, Open High Conga, Low Conga, Low Timbale, Cabasa, Long Whistle, Claves, Mute Cuica, Open Triangle,

Side Stick, Electric Snare, High Floor Tom, Open High Hat, Crash Cymbal 1, Chinese Cymbal, Splash Cymbal, Vibraslap, Low Bongo, High Agogo, Maracas, Short Guiro, High Wood Block, Open Cuica,