HELP CONTENTS

Music Centre Pro is a product of DATA BECKER.

Internet Email : sales@databecker.co.uk
Internet Site : http://www.databecker.co.uk

Direct access to a particular Help topic can be performed while Music Centre Pro is running, by pressing Control+F1 keys. This applies to menu's, dialog's and program window's.

SYMBOLS

Symbols used in this help file:

important information on the basic use of the program.

important information on program limitations.

general information, to be noted.

gives a "tip" to save time.

indicates a function only available for MIDI events.

indicates a function only available for AUDIO elements.

and

indicates a function valid for MIDI and AUDIO

HOW TO...

- v **Play a Midifile**
- v **Play a Music Centre Pro Sequence**
- v **Record MIDI**
- v **Record Audio**
- v **Insert Sound Files in an Audio Track**
- v **Edit MIDI Events**
- v **Use the Auxiliary Buses**

How to Play a Midifile ?

Assuming that you have at least one Midifile on your disk :

- Open the "***Options/MIDI Devices***" dialog box and make sure that the MIDI Out Port A is defined.
- Click the "***Files***" menu "***Import Midifile***" command.
- Select the desired file (extension MID or KAR).
- Click the OK button.
- If the Midifile is of type 0, a message box will ask you whether you want to demix the file then click the "AUTOMATIC" button.
- Click the "***Control***" window PLAY button (or press the space-bar) to start the playback.

Related Topics

How to Play a Music Centre Pro Sequence ?

Assuming that you already saved at least one Sequence File :

- Open the "***Options/MIDI Devices***" dialog box and make sure that the MIDI Out Port A is defined.
- Open the "***Options/AUDIO Devices***" dialog box and make sure that the AUDIO Out Port A is defined.
- Click the "***Files***" menu "***Open Sequence***" command.
- Select the desired file.
- Click the OK button.
- Click the "Control" window PLAY button (or press the space-bar) to start the playback.

Related Topics

How to Record MIDI ?

You need your MIDI Input Port to be declared in your system before you can record MIDI.

It is not possible to record AUDIO and MIDI at the same time.

Step by step procedure :

- Open the "***Options/MIDI Devices***" dialog box and make sure that the MIDI Out Port A is defined.
- Open the "***Options/Recording***" dialog box and set the record options as required.
- If a metronome or Pre-Count is required :

Open the " ***Options/Metronome*** " dialog box to set the metronome and Pre-Count options.
Enable the metronome and/or the Pre-Count using the "***Control***" window CLICK and COUNT buttons.
- Bring the "***Mixer***" window on top of the other program windows and open its "***Input***" section.

Use the "***Input Select***" button to turn the track to record ready state.
- If you selected the "Locators" option in the "***Options/Recording***" dialog box "***Duration***" section don't forget to set the Locator time positions on the "**Tracks**" window.
- If needed, enable the MIDI Thru function using the "***Control***" window THRU button in order for the incoming MIDI notes to be echoed to MIDI Output.

See if something is coming in playing your MIDI keyboard and watch the Meters in the Mixer slice corresponding to record ready track.
If nothing happens :
- Check your MIDI cables.
- Make sure the keyboard MIDI Output is connected to the MIDI Input of the hardware corresponding to the selected MIDI In Port.

Make sure your MIDI keyboard sends MIDI messages on the selected Input Channels.

- Finally click the RECORD button in the "***Control***" window to start recording.

Then what's happening ?
If you selected the "***Free***" option in the "***Options/Recording***" dialog box "**Duration**" section, the recording (and playback) stops only when you click the STOP button in the "***Control***" window else the recording stops automatically when the current sequence position reaches the right Locator position (but you still have to click the STOP button to stop the playback).
Finally one MIDI Element will be created on the record selected track covering the time range where the recording occurred.

 Related Topics

How to Record Audio ?

The process of recording digital audio involves the reception of digital audio samples and the writing of these samples to disk (also known as the **D**irect-**T**o-**D**isk process). So before starting an audio recording session make sure that enough space is left on your hard disk to store the audio samples especially for long recordings of many seconds (see Calculating The Size of Digital Audio Files topic for more information).
Make sure that the recording disk is fast enough to handle quick data transfer and that it is optimised for writing (see the About Digital Audio topic for more information).

It is not possible to record AUDIO and MIDI at the same time.

Step by step procedure :

- Open the ***"Options/Audio devices"*** page and make sure the required WAVE In Port is properly defined.
- Open the "***Options/Recording***" page and set the record options as required.

- If a metronome or Pre-Count is required :
Open the " ***Options/Metronome*** " dialog box to set the metronome and Pre-Count options.
Enable the metronome and/or the Pre-Count using the "***Control***" window CLICK and COUNT buttons.
- Bring the "***Mixer***" window on top of the other program windows and open its "***Input***" section.
- For the track on which you want to record :
    Use the "***Input Select***" buttons to turn the track to record ready state.
- If you selected the "Locators" option in the "***Options/Recording***" dialog box "***Duration***" section don't forget to set the Locator time positions in the "**Tracks**" window.
- Check the signal Input levels watching the Meters in the Mixer slices corresponding to the record ready track. If the meter is constantly peeking, adjust the Input Level in the System Mixer using the "***Control***" menu "***System Mixer***" command.
- Finally click the RECORD button in the "Control" window to start recording.

Note: If the program "Auto Record Directory" has not been defined you will be asked for a valid directory before the recording starts.

Then what's happening ?
If you selected the "***Free***" option in the "***Options/Recording***" dialog box "Duration" section, the recording (and playback) stops only when you click the STOP button in the "***Control***" window else the recording stops automatically when the current sequence position reaches the right Locator position (but you still have to click the STOP button to stop the playback).

Finally an Audio Element will be created on the record selected track based on the recorded files.

Advice
Be organised ! Don't fill your entire disk with useless audio files (which could be the case if you often miss your performance for instance).
Don't hesitate to intensely use the "***Navigator***" window during a recording session. It will allow you to quickly remove bad 'takes' from the sequence and especially from your hard disk.
Have all your hard disks carefully defragmented before starting a recording session.
Use good leads to connect your instruments or microphones.

Related Topics

How to Insert Sound Files in an Audio Track ?

There are several ways to insert Sound Files into an Audio Track. Each method has its own advantages.

Inserting a single file using the "Tracks" window
- Bring the "***Tracks***" window on top of the other program windows.
- Select the "***Pen Tool***" in the "***Tracks***" window tool box which can be accessed by right-clicking anywhere in the "***Tracks***" window Mix Grid.
- Click anywhere in an Audio Track row -> this invokes a standard dialog box where you can select a sound file.
- When a file has been selected, click the OK button.

An Audio Element, whose source is the selected file, is then inserted with default settings at the selected position.

Inserting a single file using the "Events" window
- Select an **Audio Track** as the Active Track.
- Bring the "***Events***" window on top of the other program windows.
- Click the "Add" button -> this invokes a standard dialog box where you can select a sound file.
- When a file has been selected, click the OK button.

The "***Modify Audio Element***" dialog box appears on screen allowing you to set the new Audio Element parameters (especially the element position).
- When completed click the OK button.

An Audio Element, whose source is the selected file, is then inserted at the defined position in the Active Track.

Using the "Navigator" window
- Bring the "***Tracks***" window on top of the other program windows.
- Open the "***Navigator***" window using menu "***Windows/Navigator***".
- Select "***Sound File***" as file type.
- Select the sub-directory in which the sound file you want to use is located.
- Click on the file you want to insert, then drag and drop it directly on the "***Tracks***" window at the place you want it to be inserted.

Related Topics

How to Edit MIDI Events ?

Music Centre Pro includes many functions to edit MIDI Events.
As soon as a MIDI Track contains at least one MIDI Event (from recording or loading a Sequence or Midifile) you are able to edit it.

Editing of MIDI Events can be achieved using :

- The "***Events***" window, having first set the Active Track to the track which contains the events. This is the basic window to edit all kind of MIDI Events as it includes a list of all the MIDI Events contained in the Active Track.
- If you specifically need to edit NOTES you can use either the "***Grid***" window which displays notes in a grid very much like a piano-roll.
- If you specifically need to edit CONTROLLERS you can use the "***Controllers***" window which displays Control Change Events in a graphical form.
- Finally, if you need to quickly modify groups of MIDI Events use the "***Tracks***" window.

Related Topics

MENUS

"Files" menu

"New"

The "New" command, after confirmation by the user, resets the program (by deleting all music data) and calls up a dialog box where you can define a basic configuration to start the new sequence.

In this dialog box you can set :

- The main audio and MIDI parameters (see "Options" menu / "General" command topic for further information).
- The basic number of MIDI and audio tracks to be displayed by the program.
  You can select 4, 8 or 16 tracks using the radio buttons or any number of tracks by selecting a number in the drop-down list.
  Please note that you can later add or remove tracks at any time using the "Options" menu / "Track Order" command or by using the "Tracks" window.
- The general Time Format used by the program (see "Options" menu / "General Display" command topic for further information).
- The basic track colour scheme used by the program to draw graphic elements in the "Tracks" window (see also the "Options" menu / "Track Colour" command topic for further information).
- The new sequence text information (see the "Options" menu / "Sequence Information" command topic for further information)..

You can also define :

- A sequence name, base directory and sub-directory for the new sequence.
  To define the **base directory** click the "Define Directory" button. This will call a standard file selector where you'll be able to select a directory.
  To define the **sequence name** just type it in the "Sequence Name" field.
  To allow the program to create a **sub-directory** check the "Create Sub-Directory" box.
  If a sequence name and base directory are defined :
  - First, if the "Create Sub-Directory" box is checked, the program creates a sub-directory in the base directory using the sequence name.
  - Secondly, the program saves the sequence current state in a sequence file, using the sequence name, in the base directory or in the sub-directory if it has previously been created.
  - Thirdly, an audio source directory is created in the sequence file directory based on the sequence name (under the form <seqname>_Sources). This directory is intended for audio file storage (see the "About Sequence Directory Structures" topic for more information).

  If nothing is defined when leaving the dialog box, no directory is created. In this case all of the above will be created when using the "Save Sequence As Initial Version" command.

- If the "More" check box is checked when leaving the dialog box, the "Options" panel is called in order to let you set more configuration parameters before starting work on the new sequence.
- Clicking the "Default" button sets all the dialog box parameters to their default values.
- Clicking the "Model" button lets you save the current dialog box parameter values in a Basic Configuration file (extension QBC) or load a previously saved set of parameters.
  Please note that a Basic Configuration file only contains the values of parameters included in the "New Sequence / Basic Configuration" dialog box. The other global parameters (found, for instance, in the "Options" dialog) are not saved in this type of file

"Revert To Saved..."

This command reloads the current sequence.

All changes that could have occurred since the last time the sequence was saved, are cancelled.

"Open Sequence..."

This command allows you to load a Music Centre Pro music file from disk (extension "SEQ").

A .SEQ file includes all information concerning MIDI and WAVE tracks as well as some information concerning the program display settings.

Selection of the file to load is carried out using a standard File Selector (as in many Windows programs).

Loading a file replaces the file currently in memory. If you have made changes since it was last saved, you will be given a chance to save it before loading the new file.

Dropping files from the File Manager or Explorer:

You can also load a file by dragging it from the Windows File Manager or Explorer and dropping it anywhere on the Music Centre Pro Main window. If Music Centre Pro is playing when you drop the file, playback stops, the new file is loaded, and playback is turned back on again.

"Save Sequence as Initial Version"

This command allows you to write the current music data in Music Centre Pro to disk ("SEQ").
This command is only enabled when the sequence file has never been saved before.
For a copy (clone) or new version of the sequence file (saving under another name) see the related topics.

File naming and selection of the target directory on disk is carried out using a standard File Selector (as in many Windows programs).
The File Selector also allows you to enable sub-directory creation (based on the file name).

An audio source directory is created in the sequence file directory based on the sequence file name (under the form <seqname>_Sources). This directory is intended for audio file storage (see the "About Sequence Directory Structures" topic for more information).

If audio files are already stored in a temporary source directory (for instance if you created a new sequence without giving it a name), it will be automatically transferred to the newly created audio source directory.

Typing the file name extension is not required (the program adds it automatically if you don't type it).

"Save Sequence as New Version"

This command allows you to save the current sequence under a new name (it's then considered as a new version of the sequence).
This command is only enabled when the sequence file has already been saved at least once.

File naming is carried out using a simple dialog box with a field where you can type the new name of the sequence file. No directory selection is required for this operation as the file is saved in the same directory as the original version.

Typing the file name extension is not required (the program adds it automatically if you don't type it).

"Save Sequence as Clone"

This command allows you to save the current sequence under a new name in a different directory to that of the original file (it's then considered as a copy or clone of the sequence).
This command is only enabled when the sequence file has already been saved at least once.

File naming and selection of the target directory is carried out using a standard File Selector (as in many Windows programs).
The File Selector also allows you to enable sub-directory creation (based on the file name).

An audio source directory is created in the sequence file directory based on the sequence file name (under the form <seqname>_Sources). This directory is intended for audio file storage (see the "About Sequence Directory Structures" topic for more information).

Files that may be present in the original sequence's audio source directory are not copied to the new sequence's audio source directory but "shortcuts" are created in the new audio source directory which point to the original files.

Typing the file name extension is not required (the program adds it automatically if you don't type it).

"Save Sequence..."

This command allows you to save the latest changes to the current sequence file.
This command is only enabled when the sequence file has already been saved at least once and at least one of the sequence parameters has been modified since it was last saved.

The file name and the target directory do not need to be re-defined (it's a simple update of a file which already exists).

"Open Pattern..." MIDI

This command allows you to load a MIDI Pattern from disk.

Patterns must be stored in the "PATTERN" sub-directory of the Music Centre Pro program directory so that they will be available for loading.

The "Open Pattern" dialog box allows :

- Selection of the "Pattern" to load ("Files" list).
- Selection of the tracks, included in the selected "Pattern", to load ("Source Tracks" list).

Each item in this list displays a source track (contained it the "Pattern") and a destination track (one of the **Music Centre Pro** tracks in which will be copied the data contained in the source track) under the form : (Source Track) -> (Destination Track).
To change a destination track, simply double-click the corresponding item.
A list box then appears on screen allowing selection of a new destination track.
Click the 'OK' button to close it once the desired track is selected.

STOP WARNING:

"Patterns" only applies to MIDI tracks.
A destination track cannot be selected for more than one source track!
Only the selected tracks in the list are taken into account when loading the "Pattern' in Music Centre Pro.

Other dialog box areas display some additional information :

- "Comments" field shows the comments of the currently selected "Pattern".
- "Selected File" field shows the file name of the currently selected "Pattern".
- "Selected Tracks" field shows the number of tracks selected for loading.
- "Length" field shows the duration (in clock ticks) of the music contained in the currently selected "Pattern".

You must confirm, by clicking the "OK" button, to load the selected "Pattern".

STOP A "Pattern" is always loaded in the Copy memory buffer.
You must use the "Paste" or "Merge" command from the "Edit" menu to paste/merge it in the current music piece.

"Save Pattern as..." MIDI

Lets you save a Pattern to disk.

"Patterns" are always stored in the "PATTERN" sub-directory of the Music Centre Pro program directory.

The saved "Pattern" contains all MIDI events from the selected tracks, within the time range defined by the Locators.

STOP Thus, before using the "Save Pattern" command, **be sure to set the Locators to the appropriate positions**.

The "Save Pattern" dialog box allows :

- Definition of the "Pattern" file name (with the "Files" list if you want to overwrite an existing "Pattern" or with the "Selected File" field if you want to create a new one. In this case, you are not required to type the file name extension, the program adds it automatically if you don't type it).
- Selection of source tracks ("Source Tracks" list).
- Definition of the "Pattern" comments ("Comments" field).

Other dialog box areas display some additional information :

- "Selected Tracks" field shows the number of tracks selected for saving.
- "Length" field shows the duration (in clock ticks) of the music which will be contained in the "Pattern" to save.

You must confirm, by clicking the "OK" button, to save the "Pattern".

STOP WARNING:

"Patterns" only applies to MIDI tracks.

"Import Midifile..."

Lets you open a MIDI. **MID** or a Karaoke .**KAR** file.

File selection is performed through a standard file selector (as in many Windows programs).

Once the file is loaded, the program displays a dialog box allowing selection of the default MIDI Out port which will be used to assign the channels found in the file.

EXPLANATION:
A MIDI File may include MIDI events assigned to several channels.
Of course, the program is able to sort these events, but a MIDI File does not include any MIDI Out port indication (and remember that Music Centre Pro can manage 2 MIDI Out Ports !) thus, the program needs to know which port should be used if it finds, for instance, events on channel 1 (A01 or B01 ?).

This is a default assignment, you are able to modify these channels later, if needed.

On the other hand, if the file is a format 0 MIDI File (i.e. one track but several channels) the program will ask if you want to split detected channels into several tracks (see "Split by Channels").

"Export Midifile..." MIDI

Lets you write current music data in Music Centre Pro to disk (as a MIDI File).

Music Centre Pro can export your composition as a .MID (MidiFile) or .KAR (Karaoke) file. You choose the **type** in the File selector box.

Note 1:
Standard MIDI File format cannot hold all the information that is stored in a Music Centre Pro music file. Save a file in this format only when you want to use the file with another program that reads MIDI Files.

File naming and selection of the target directory is carried out using a standard file selector (as in many Windows programs).

You don't need to type the file name extension (the program adds it automatically if you don't type it).

If the file selector is closed by clicking the "OK" button, which means you do want to save music as a MIDI File, a dialog box appears allowing you to define more details (format and tracks).

- The right box area includes two mutually exclusive buttons which allow selection of the file format (format 0 = 1 track / format 1 = multi-tracks). NOTE: You'll rarely need to save music as a format 0 MIDI File for most of the modern MIDI sequencers are able to read multi-track (format 1) MIDI Files.
- When the music piece has to be saved in .KAR format (Karaoke), only Type 1 is valid.
- The left box area includes a list of non "empty" tracks. Select, from the list, the track(s) you want to be saved with the MIDI File. If format 0 is selected, you can select only one track. If format 1 is selected, you can select as many tracks as required.

Note 2:
If you want to export your music as a Karaoke type 1 file for use by a standard Karaoke player, do not forget to validate the option “No separator” in the Karaoke window configuration box.

"Export Audio"

This command allows you to save selected audio elements of a sequence to a standard WAVE File.

Before invoking this command, make sure to select the desired Audio Elements using "Tracks" Window "Selection Tool".

File naming and selection of the target directory is carried out using a standard file selector (as in many Windows programs).

The file selector also includes controls allowing the selection of :

- The sound processing to apply while exporting (the group of check boxes included in the "Export Using" area).
- The resulting channel format ("Export As a Mono File" check box).

The Auto Audition check box, if enabled, allows you to listen to the sound files selected in the file selector file list.

The length of the audio data saved is equal to the selection total length.

This function can be very useful to Merge several audio tracks in order to lower the demand on the file system.

"Tracking Audio (Mix and Replace)"

This function allows you to mix a **selection** of **audio** elements of a sequence to a unique audio element which will be **positioned on the Active track** (this has to be an audio track). The selected elements will be removed from the grid and any existing audio elements on the active track will be replaced at the position of the resulting mix.

The length of the resulting mix is equal to the total length of the selection.

Before invoking this command, make sure to select the desired Audio Elements using the "Tracks" Window "Selection Tool".

If no elements are selected, an alert box "Nothing selected" will be displayed.

Also make sure the Active track is an audio track.

Attention : always be sure you have enough room on disk to create the sound file whose length is equal to the complete selection length, from the beginning of the first selected element to end of the last selected element. (10 Mb per minute in 44.1 kHz)

A digital audio file is saved as a 16 bit file at the sampling frequency chosen in the sequence parameters ("**Options / General / Output sample rate**").

The processing to include in the Tracking is identical to that of the "Export Audio" function (please see above).

As default, no processing is included in a Tracking.

"Clear Last Audio Recording"

This command cleans all references to the last audio recording by :

- Removing the resulting Audio Elements from the sequence audio part.
- Removing the resulting Audio Files from the disk.
- Optionally restoring the sequence audio part as it was before the last audio recording occurred (this is optional in order to avoid an unwanted modification of the audio part if some actions were performed between the moment the last recording occurred and the moment you decide to use this command).

This allows you to quickly remove a bad "take" from the disk in a single operation.

The command first invokes the "Clear Last Audio Recording" dialog box where you can select the "Clean only" option or the "Clean and Restore" option and confirm the by clicking the OK button.

STOP This operation cannot be undone as the recording files are deleted from disk.

"Quit"

The "Quit" function is used to exit the program.

If changes have been made to the file since the program was started or since the file was opened, you will be given a chance to save it before exiting the program.

Most Recent used Files

The last 8 files (.SEQ or .MID) can be accessed directly by selecting them from this list. However, if you have relocated any of the files since you last saved them, this selection method will not work because the program will not know where the files have been moved.

"Edit" menu

"Undo"

The "**Undo**" command "undoes" your most recent action in the program (action that could have changed the contents of tracks).

"Redo"

The "**Redo**" command "redoes" your most recent "Undo" Command.

"Cut" and

This function allows deleting of MIDI events or non-MIDI events including AUDIO elements on one or several tracks within the time range defined by the Locators.

Events are deleted without changing the position of any other events.

Events deleted are kept in memory until another "Cut" or "Copy" action is performed and can serve as the source to the "Paste" or "Merge" functions

You must define the tracks and conditions for a "Cut" through the "Log" dialog box which appears on screen whenever the "Cut" function is called. (Conditions do not apply to AUDIO elements)

"Cut" may be "undone" using the "Undo" function.

"Copy" and

This function will copy (to memory) MIDI events or non-MIDI events including AUDIO elements from one or several tracks within the time range defined by the Locators.

Events copied are kept in memory until another "Copy" or "Cut" action is performed and can serve as the source to a "Paste" or "Merge" function.

You must define the tracks and conditions to "Copy" through the "Log" dialog box which appears on screen whenever the "Copy" function is called. (Conditions do not apply to AUDIO elements)

"Paste" and

This function allows you to "paste" MIDI events or non-MIDI events including AUDIO elements previously memorised with the "Cut" or "Copy" functions.

The function replaces the data that was selected using the last "Cut" or "Copy" function. The data will be pasted at the Left locator position.

Example: Events have been copied from tracks 1,2 and 3 from bar 1 to bar 5 (4 bars).
If the left Locator is now set to bar 5 and "Paste" is used, all events from tracks 1,2 and 3 between bars 5 and 9 (4 bars) will be replaced by the previously copied events.

"Paste" may be "undone" using the "Undo" function.

"Merge"

This function allows you to merge (mix) MIDI events or non-MIDI events previously memorised with the "Cut" or "Copy" functions, with events anywhere in a music piece.

The function merges the contents of the tracks that were selected during the last "Cut" or "Copy" function, with events starting at the left Locator position.

Example: Events have been copied from tracks 1,2 and 3 from bar 1 to bar 5 (4 bars).
If the left Locator is now set to bar 5 and "Merge" is used, all events from tracks 1,2 and 3 between bars 5 and 9 (4 bars) will be "merged" together with the previously copied events.

"Merge" may be "undone" using "Undo" function.

"Quantize"

This function allows Quantization of MIDI events or non-MIDI events in active track within the time range defined by the Locators

You must define the tracks and conditions for the "Quantize" function through the "Log" dialog box which appears on screen whenever the "Quantize" function is called.

"Quantize" may be "undone" using the "Undo" function.

"Transform"

This function allows for the transformation of MIDI events or non-MIDI events in the active track within the time range defined by the Locators.

You must define the tracks and conditions to "Transform" through the "Log" dialog box which appears on screen whenever the "Transform" function is called.

"Transform" may be "undone" using the "Undo" function.

"Log" (Dialog box)

The purpose of this dialog box (which automatically appears after you have selected one of the "Cut", "Copy", "Quantize" or "Transform" functions) is to allow condition definition for the function.

Conditions do not apply to AUDIO elements.

"Condition" means: position, type, value or duration of events subject to the function action.

If no conditions are defined, **all** events are taken into account.

The dialog box is divided into areas which may or may not be displayed, according to the function type:

- **"Conditions"** area
  (*Always displayed*)

  It is located at the top of the box and includes 6 columns of 2 drop-down lists.

  Each column corresponds to one of the event parameters (those parameters may change according to the type of event):

"Position"	Defines the position of events (within a bar) subject to the function action.
"Event"	Defines events e.g (Notes) subject to function action. The display of other parameters is updated whenever an event type is changed.
"Channel"	Defines the source MIDI channel for the events subject to the function action (or left/right volume if the event type is "WAVE").
"Val 1"	Defines the first value for events subject to the function action (see description of Music Centre Pro events).
"Val 2"	Defines the second value for events subject to the function action (see description of Music Centre Pro events).
"Duration"	Defines the duration of note events subject to the function action.

  For each parameter (and thus each column) the lower drop-down list allows you to define the logical condition which filters the function action (if the list is disabled, it means that the corresponding parameter is not valid for the selected type of event).

  Selectable logical conditions are:

***	No condition	
=	Equal	
<>	Non equal	
<=	Lower or equal	(except "Event" parameter)
>=	Greater or equal	(except "Event" parameter)
<	Strictly lower	(except "Event" parameter)
>	Strictly greater	(except "Event" parameter)

  When "***" (no condition) is selected, it doesn't matter which value is set in the parameter above: This parameter is not taken into account ...

  EXAMPLE:
  Imagine you want to copy only notes greater than "C3" on channel 2, placed on the 2nd beat of the bar with velocities lower than 64 and with duration's different from 24 clock ticks (an 8th note in a 4/4 bar).

  You will have to set:

"Position" parameter to:	"2:0" and "="
"Event" parameter to:	"Note" and "="
"Channel" parameter to:	"2" and "="
"Val 1" parameter to:	"C3" and "="
"Val 2" parameter to:	"64" and "<"
"Duration" parameter to:	"24" and "<>"

- **"Transform to" area**
  (Displayed only when the "Transform" function is called).

  It is identical to the "Conditions" area and allows filtering definition for the event transformation. However, lower drop-down lists only include the following items:

***	To avoid transformation
=	To transform the corresponding parameter value of selected events to a specific value
+	To add a fixed value to the corresponding parameter value of selected events
-	To subtract a fixed value from the corresponding parameter value of selected events
*	To multiply the corresponding parameter value of selected events by a fixed value
/	To divide the corresponding parameter value of selected events by a fixed value

- **"Quantize" area**
  (Displayed only when the "Quantize" function is called)

  This area defines the quantization parameters

"Type"	This button allows you to define what should be "quantized". Choices are: "Position" (only event position), "Duration" (only duration and only for "note" event type) or "Pos+Dur" (both Position and duration).
"Value"	This drop-down list allows you to define the reference position on which events should be quantized. The available value range is from "1" (whole note) to "64" (48th note) including "pointed values (number followed by a ".") and tuplet values (number followed by a "t").
"Range"	This drop-down list allows you to define the maximum distance between the reference position and the event position. The available value range is the same as the "Value" parameter.

- **"Tracks" button**
  (Displayed only when "Cut" or "Copy" functions are called).

  Clicking this button will make a Track list appear on screen in which you can select the tracks subject to the function action.

"Tracks" menu

"Insert Bars" STOP and

STOP

This command allows you to insert "empty" bars in the selected tracks at any desired position.

STOP The function moves all events following the inserted bars towards the end of the music piece.

After having selected the command, a dialog box appears on screen including:

- On the left, an editable field where you can type the number of bars to insert (minimum 1).
- On the right, an editable field where you can type the bar number at which empty bars should be inserted (minimum 1).
- A "Track" button for selection of the tracks on which the operation is applied.
- An "OK" button to confirm.
- A "Cancel" button to cancel.

"Insert Bars" may be "undone" using the "Undo" command.

"Delete Bars" and

This command allows you to delete some bars from the selected tracks at any desired position.

The function moves all events following the deleted bars towards the beginning of the music piece.

After having selected the command, a dialog box appears on screen including:

- On the left, an editable field where you can type the number of bars to delete (minimum 1).
- On the right, an editable field where you can type the bar number from which bars should be deleted (minimum 1).
- A "Track" button for selection of the tracks on which the operation is applied.
- An "OK" button to confirm.
- A "Cancel" button to cancel.

"Delete Bars" may be "undone" using the "Undo" command.

"Mix Down MIDI Tracks"

This command allows you to mix several tracks down to the Active Track within the time range defined by the Locators.

This can be very useful if you need to prepare a music piece to be saved on disk as a format 0 MidiFile (see "Export Midifile...").

Before calling the function, be sure to select the desired destination track as the Active Track

If the Active track is an AUDIO track, this function is not available.

After having selected the menu command, a track list appears on screen in which you can select the tracks that have to be mixed.

"Mix Down" may be "undone" using the "Undo" command.

"Split MIDI Tracks by Channels"

This command allows the Active Track to be split into several tracks based on channel events contained in the track and within the time range defined by the Locators.

This function is automatically called by the program whenever you import a format 0 MIDI FILE (see "Import Midifile...").

Before calling the function, be sure to select the desired source track as the Active Track.

If the Active track is an AUDIO track, this function is not available.

The command invokes a dialog box allowing you to select, for each channel detected in the source track, a destination track and channel.

Example:
The active track contains MIDI events on 3 channels (1,2 and 3).
Events on channel 1 will be sent to track 6 assigned to channel A03.
Events on channel 2 will be sent to track 3 assigned to channel A01.
Events on channel 3 will be sent to track 10 assigned to channel B02.

The dialog box displays from left to right:

- A "**Channel detected**" list :
  Each item in the list represents a detected channel in the source track. Whenever you change the selection in the list, the two other lists, described below, are updated to reflect track and channel assignment.

- A "**Destination Track**" list :
  Each item in the list represents a MIDI track. The selected item corresponds to the destination track assigned to events in the channel currently selected in the "Channel detected" list.
  Selection may be modified.

- A "**Destination Channel**" list :
  Each item in the list represents a MIDI channel. The selected item corresponds to the channel which will be assigned to the track currently selected in the "Destination Track" list.
  Selection may be modified.

- An "**Options**" area including several buttons :
  Each button validates a special option.

"Cut"	Events are deleted from source track.
"Mix"	Events are mixed with events in destination track.
"Change Names"	allows renaming of tracks.
"Change Channels"	allows new channels assignment as defined in the "Destination Channel" list.

"Split by Channels" may be "undone" using the "Undo" function.

"Erase Tracks" and

This command quickly resets one or more tracks.

The command invokes a track list in which you select the tracks that you want to erase.

"Erase Tracks" may be "undone" using the "Undo" command.

"Track Copy" and

This command allows you to copy of one track to another.

The source and destination tracks must be of the same type.

The command invokes a dialog box including :

- On the left, a drop-down list for the source track selection.
- On the right, a drop-down list for the destination track selection.

"Track Copy" may be "undone" using the "Undo" command.

"Track Swap" and

This command allows the contents of two tracks to be exchanged.

The source and destination tracks must be of the same type.

The command invokes a dialog box including :

- On the left, a drop-down list to select the first track.
- On the right, a drop-down list to select the seocnd track.

"Track Swap" may be "undone" using the "Undo" command.

"DirectX"

This function only applies to AUDIO Auxiliary Send Buses.

DirectX effects can be applied in real time to Auxiliary Send Buses.

The *Tracks/DirectX* menu command invokes the DirectX Plug-In Connection Dialog Box**.**

This dialog box can stay open on top of other program windows and can also be minimised.

What is DirectX ?
DirectX Audio Plug-Ins are derived from Microsoft's DirectX Media Streaming Services (formally known as ActiveMovie) specification which is a component of Microsoft's ever expanding DirectX technologies. DirectX Media Streaming Services was originally designed as a new media-streaming architecture that would deliver high-quality video playback replacing Video for Windows. However, the underlying technology exposes a flexible and highly extensible set of interfaces that can easily be used as a standard plug-in architecture for video and audio-related applications.

New to Music Centre Pro is the DirectX Audio Plug-Ins connection feature.
If Microsoft ActiveMovie is installed in your system and some Audio Plug-Ins are registered, you are now able to use it in Music Centre Pro (the 'Tracks' Menu 'DirectX' Command is then made available).

The DirectX Dialog Box allows connections of one or more DirectX Audio Plug-Ins to Music Centre Pro Auxiliary Send. When a DirectX Audio Plug-In is connected to an Auxiliary Send, sound streaming through is processed in real time by the Plug-In.

However, keep in mind that some of these Plug-Ins may be very time-consuming. It may happen that trying to use too many modules, results in repeated breaks in the program audio flow while playback is running !

Note also that only DirectX Audio Plug-Ins supporting 16 Bit Stereo audio format are available in the program.

When activating the *Tracks/DirectX* menu, you are presented the *DirectX Effects* Connection dialog box. You can also access this box from DSP button of any mixer's slice in the AUX section.

DirextX plug-ins are available from a lot of development companies and are usable in all programs which support the DirectX hosting procedure, giving you unlimited creation possibilities.

DirectX audio filters were previously known as *Active Movie* plug-ins.

Processors can be applied in real time to *Auxiliary Buses* and their parameters are saved in the mix, these parameters can be modified by the user.
When tracks are Exported as sound files or bounced together (Tracking function), Processors can also be used.

Music Centre Pro can load up to 256 DirectX Processors which can be connected directly from this dialog box.

The DirectX effects need to be installed and registered to Windows prior to be recognised by *Music Centre Pro.*

DirectX Plug-ins are normally registered to Windows at the time of their installation to be usable by all

DirectX host programs.

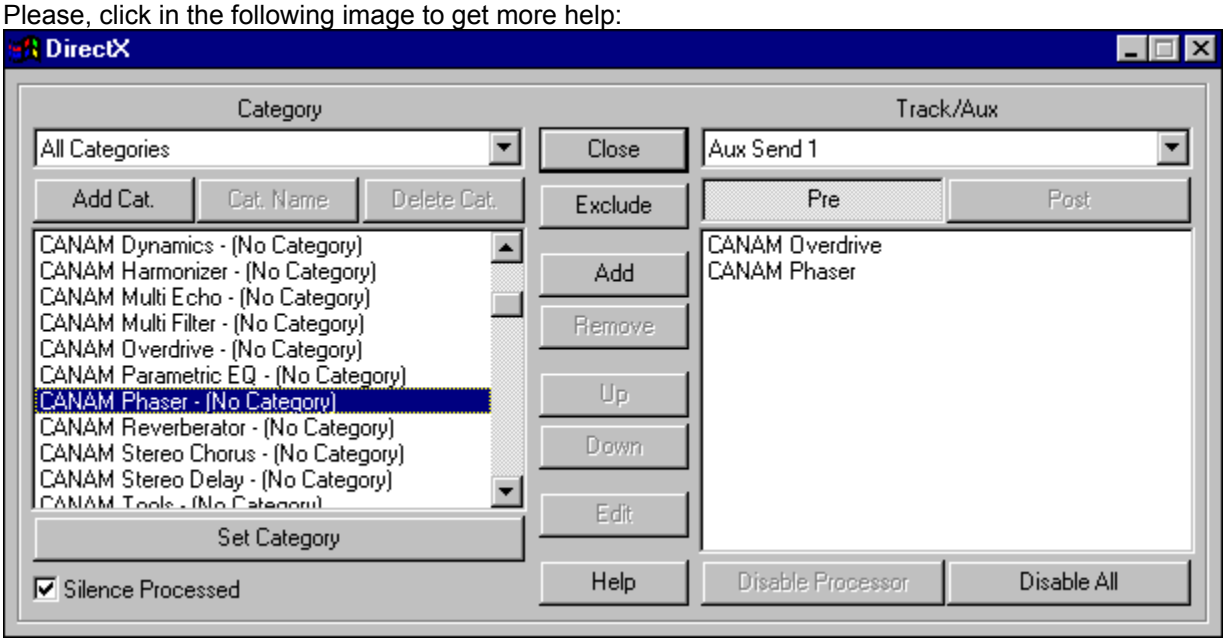
When *Music Centre Pro* is launched, all registered DirectX plug-ins are tested for compatibility with the program and registered in the *Music Centre Pro's* effects list.

To be valid for *Music Centre Pro* a DirectX plug-in needs to accept a 16 bit stereo Input stream.

Invalid DirectX plug-ins are put in an exclude list and will not be tested any more in future sessions.

The number of simultaneous effects processed only depends on your machine's power…and the amount of CPU power required by the individual effects applied.

Please, click in the following image to get more help:



Registered plug-ins and categories

Plug-ins selection :
The list displays all registered DirectX plug-ins installed on your system and not excluded by the user, which are compatible with *Music Centre Pro* : the plug-in needs to accept STEREO streaming to be valid for use with *Music Centre Pro.*
To Add a DirectX effect to the Connected effect list, just select the name of the effect and click on Add button.

Categories :
To allow fast and easy sorting of your DirectX plug-ins, *Music Centre Pro* can manage your plug-ins by categories. After you have assigned your effects in different categories, retrieval of your plug-ins is greatly simplified.

The drop-down list labelled "Category" allows to choose a user-defined category as well as "All categories" and "No Category".

- When "All Categories" is selected, all the loaded DirectX modules are displayed.
- When "No Categories" is selected, only DirectX modules which have not yet been assigned a user-defined category are displayed.
- When a user-defined category is selected, only DirectX modules included in this category are displayed.

The "Add Cat." button allows you to add a new category. It invokes a dialog box where you can type the name of the new category.

The "Cat. Name" button allows you to rename the currently selected category (only if the selected category is a user-defined category).

The "Delete Cat." button allows you to delete the currently selected category (only if the selected category is a user-defined category). DirectX modules which were included in this category are moved to the "No Category".

The "Set Category" button allows you to assign a category to the currently selected DirectX module (in the left list). It invokes a popup menu in which you can choose a category to be assigned to the module.

STOP **A plug-in can be assigned to only ONE category.**

Silence Processed

Some modules need the process to be continued after the original Audio signal has stopped, like Reverberation, Echo ...

There is no possibility in the DirectX interface to know if the process has to be continued.
It's there possible to process all the effects all the time but it involves a non negligible load for the processor even for processes where it is not requested.

Music Centre Pro gives the possibility for the user to define if the silence (after the original signal has stopped) has to be processed or not.
Just select the concerned plug-in from the list and uncheck the "Silence processed" option if the effect needs not to be processed after the end of the original signal (like EQ, Dynamics ...)

Track/Aux Selection

The Track/Aux Selection List Box allows you to select the current Auxiliary Send. Once an Auxiliary Send is selected you can connect DirectX Audio Plug-Ins to it. Selecting an Auxiliary Send updates the List of Connected Plug-Ins located below.

List of Connected Plug-Ins

This list displays all the Plug-Ins connected to the currently selected Auxiliary Send.
By selecting a Plug-In in the list you can :

- Remove it from the list (REMOVE Button).
- Move it up or down (UP or DOWN Buttons). The order the Plug-Ins appear in the list is the order used to process the sound.
- See its properties (EDIT Button). Note that another way to see the Plug-In properties is to double-click on one of the Plug-In names in the list.

PRE Mode

DirectX Audio Plug-Ins are always connected to an Auxiliary Send in PRE Mode.
In PRE Mode the processing generated by a Plug-In occurs before the track Volume and Pan are calculated.

Edit

Whenever a DirectX Audio Plug-In is selected in the List of Connected Plug-Ins, clicking the EDIT Button will give you access to the Plug-In Property Dialog Box.

There you can modify the Processor Parameters, save or load your own Parameter Presets or retrieve the Plug-In static Presets (the number of features available in the property dialog box is totally dependant on the Plug-In type, it can be different from one manufacturer to the other).

Note that another way to see the Plug-In properties is to double-click on one of the Plug-In names in the list of Connected Plug-Ins.

Add

Whenever a DirectX Audio Plug-In is selected in the Processor Selection List Box, clicking the ADD Button connects the selected Processor to the currently selected track or Auxiliary Send in the currently selected mode (PRE or POST - Post only for tracks).

The connected Plug-In then appears in the List of Connected Plug-Ins.
It is always added at the end of the list but you can change its order, if required, using the UP or DOWN buttons.

Note that you can add the same Plug-In as many times as you want.
However, keep in mind that some Plug-Ins can be very time consuming. It may happen that trying to use too many modules results in repeated breaks in the program audio flow while playback is running.

Remove

Whenever a DirectX Audio Plug-In is selected in the List of Connected Plug-Ins, clicking the REMOVE Button will take the Plug-In out of the Process chain.

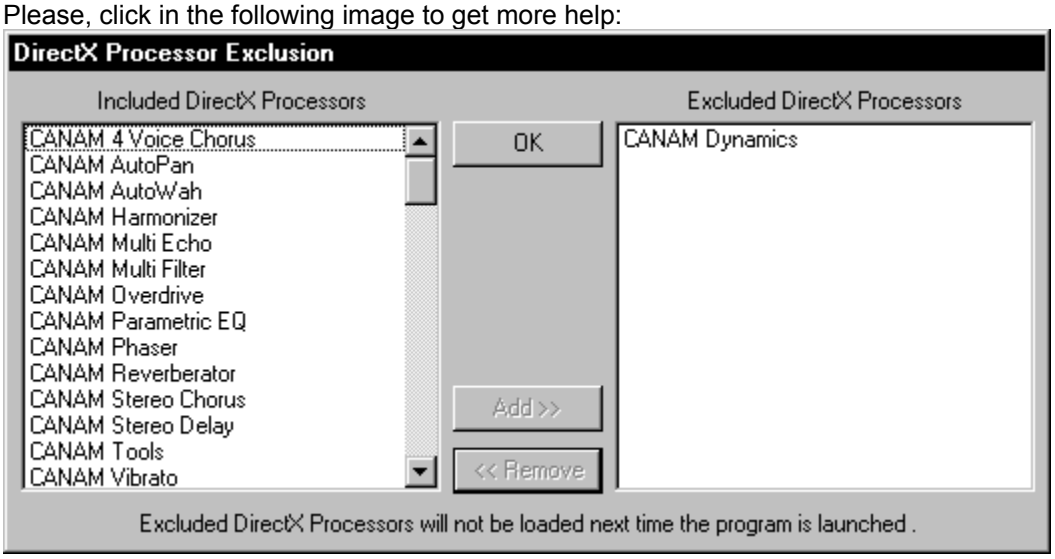
Up / Down

The order the Plug-Ins appear in the List of Connected Plug-Ins is the order used to process the sound. Whenever a DirectX Audio Plug-In is selected in this list, clicking the UP Button will move the selected Plug-In UP in the list thus changing its order, clicking the DOWN Button will move the selected Plug-In DOWN in the list.

Exclude

The DirectX Plug-In Exclude Dialog Box allows selection of the Plug-Ins you want the program to ignore each time it is launched.

Please, click in the following image to get more help:



Included DirectX Processors

This list displays all the DirectX Audio Plug-Ins loaded by the program at launch time.
To prevent one or more DirectX Plug-Ins from being loaded, select the items and use the ADD Button.
This will remove these items from the list and add them to the Excluded DirectX Processors List (on the right).
This setting will be made available next time the program is launched.

Excluded DirectX Processors

This list displays all the DirectX Audio Plug-Ins NOT loaded by the program at launch time.
To re-include one or more DirectX Plug-Ins, select the items and use the REMOVE Button.
This will remove those items from the list and add them to the Included DirectX Processors List (on the left).
This setting will be made available next time the program is launched.

Add

When some items are selected in the Included DirectX Processors List you can use this button to prevent the corresponding Plug-Ins from being loaded by the program.
Clicking the button will remove the selected items from the list and add them to the Excluded DirectX Processors List (on the right).
This setting will be made available next time the program is launched.

Remove

When some items are selected in the Excluded DirectX Processors List you can use this button to allow the program to load the corresponding Plug-Ins again.
Clicking the button will remove the selected items from the list and add them to the Included DirectX Processors List (on the left).
This setting will be made available next time the program is launched.

Disable Processor

Whenever a DirectX Audio Plug-In is selected in the List of Connected Plug-Ins, you can mute it (disable it without removing it from the list) by clicking the DISABLE PROCESSOR Button.
As a result, the Plug-In processing will not occur anymore for the corresponding Auxiliary Send.

Disable ALL

The DISABLE ALL Button, when clicked, allows you to bypass all the Plug-Ins displayed in the List of Connected Plug-Ins at once.
You then get a very convenient way to compare the currently selected Auxiliary Send with or without processing.

"Signal Processing"

The *Tracks/Signal Processing* menu command invokes the Signal Processing Connection Dialog Box**.**

This dialog box can stay open on top of other program windows and can also be minimised.

This function only applies to AUDIO Auxiliary Send Buses.

Signal Processors can be applied in real time to Auxiliary Send Buses.

Music Centre Pro can load up to 64 Processors which can be connected directly from this dialog box.

Processors are modules with the extension ".Q3P".
In order to be loaded when the program is launched, the processor modules must be installed in the program main directory.

Music Centre Pro is delivered with 10 modules :
- AUTO PAN
- BAND PASS FILTER
- STEREO CHORUS
- COMPRESSOR
- STEREO DELAY
- 3 BAND EQ
- NOISE GATE
- VIBRATO
- REVERBERATOR
- MULTI ECHO

Other effects processors, are sold separately or freely downloadable from
Canam Computers ***http://www.canam-comp.fr***.

Click in the following dialog box to get more help:

Destination

Select the AUX on which effects have to be applied.
Once a destination is selected, Processors can be connected to it.

Processor Chain

Displays the chain of Processors applied to the current destination.
The Processor on top processes first, and so on.
You can change the order of a Processor in the chain using the Order combo boxes near Processor Connector.

Processor Connection

Connects or disconnects the corresponding Processor.

Order

These combo boxes allow selection of a Processors rank in the chain.

Status

Processing of effects on Auxiliary buses is performed BEFORE the track volume and pan calculation (PRE fader).

Processor Parameters

Clicking on one of these buttons calls the corresponding Processor Parameter Dialog Box which allows you to load and Save Parameter Presets or modify the module Parameters.

Scroll bar

Allows access to more than 8 effects (maximum 64).

Close

Closes the Processor Connection Dialog Box.

"Echo" STOP

STOP This command allows generation of MIDI echo on one or several tracks within the time range defined by the Locators.

It is achieved by repeating and gradually attenuating notes contained on selected track(s).
The result is an effect very similar to the one obtained with an electronic echo (delay) generator.

The command invokes a dialog box including several controls allowing fine adjustment of the function parameters.

- **Delay**
  Editable field where you can type in the delay value in clock ticks between each repeat (example: "24" generates a 8th note echo).

- **Repeat**
  Drop-down list for repeat number selection (feedback).

- **Attenuation**
  Drop-down list for attenuation factor selection (higher values result in faster repeat volume attenuation).

- **Notes**
  Drop-down list for selection of a particular note on which echo will be generated or "All" (all the notes).

The "Tracks" button allows selection of the tracks to which "Echo" is applied.

"Echo" may be "undone" using the "Undo" command.

STOP This function generates MIDI notes.

"Fading"

This command generates a smooth volume attenuation (fading) on one or several tracks within the time range defined by Locators.

The command invokes a dialog box including two controls allowing fine adjustment of the function parameters.

- **Direction**
  Drop-down list for fading direction selection.
  "Up" = Low level to high level (fade in).
  "Down" = High level to low level (fade out).

- **Intensity**
  Drop-down list for fading intensity factor selection. High factors result in greater difference between low and high volume (dynamic).

The "Tracks" button allows selection of the tracks to which "Fading" is applied.

"Fading" may be "undone" using the "Undo" command.

This function generates MIDI volume controllers (n°7).

"Auto Pan"

This command generates sequences of stereo balance changes on one or several tracks within the time range defined by the Locators.

The result is an effect very similar to that obtained with an electronic "Auto-pan" generator.

The command invokes a dialog box including several controls allowing fine adjustment of the function parameters.

- **Step**
  Drop-down list for selection of the step value between two consecutive generated MIDI balance controllers. High values result in a sound crossing the stereo sound field quickly.

- **Speed**
  Drop-down list for selection of the time delay between two balance changes (in clock ticks).

- **Width**
  Drop-down list for effect stereo width selection. The higher the value, the stronger and more distinct the pan sound.

- **Direction**
  Drop-down list for selection of the direction in which the sound sweeps across the stereo sound field:

L<>R	Left to right and back.
L>R	Left to right.
R>L	Right to left.
L>C	Left to centre.
R>C	Right to centre.

The "Tracks" button allows selection of the tracks to which "Auto Pan" is applied.

"Auto-Pan" may be "undone" using the "Undo" command.

This function generates MIDI balance controllers (n°10).

"Tempo Change"

This command generates Tempo Changes on the MASTER track within the time range defined by the Locators.

The command invokes a dialog box including two controls allowing fine adjustment of the function parameters.

- **From**
  Drop-down list for the start tempo selection.

- **To**
  Drop-down list for the end tempo selection.

"Tempo Change" may be "undone" using the "Undo" command.

This function generates Tempo Change events (non-MIDI events).

"Transpose"

This command allows modification of note pitches on one or several tracks within the time range defined by the Locators.

The command invokes a dialog box including a drop-down list labelled "Add / Subtract" for the transpose value selection (in semi-tones).

The "Tracks" button allows selection of the tracks to which "Transpose" is applied.

"Transpose" may be "undone" using the "Undo" command.

This function modifies the pitch of the notes.

"Time Stretching" STOP

STOP This command allows time compression/expansion on one or several tracks within the time range defined by the Locators.

At equal tempo, it will speed up or slow down the flow of events played by Music Centre Pro.
This can be very useful, for instance, to change the Time Signature of a piece of music.
Example:
A piece of music, originally set to 4/4, may be converted to 12/8 (beat value is 50% longer than in 4/4) by using "Time Stretching" function with a factor of 150%.

The command invokes a dialog box including a drop-down list labelled "Compress/expand" for Time Stretching factor selection (in %).

The "Tracks" button allows selection of the tracks to which "Time Stretching" is applied.

"Time Stretching" may be "undone" using the "Undo" command.

STOP This function modifies event positions and duration's

"Velocity"

This command allows modification of note velocity (individual volume) on one or several tracks within the time range defined by the Locators.

The command invokes a dialog box including a drop-down list labelled "Add / Subtract" for velocity change value selection.

The "Tracks" button allows selection of the tracks to which "Velocity" is applied.

"Velocity" may be "undone" using the "Undo" function.

This function modifies note velocity (individual note volume).

"Options" Menu

"Options/General"

This page includes, in three sections, the program global Audio and MIDI parameters as well as global directory settings.

Settings defined in this page can be saved on disk (in the program Initialisation file) by clicking the "Save Page as Preferences" button or using the "Options/Save Setup" command.

Please, click the image below for further information.

"Output Sample Rate"

32 - 44,1 or 48 kHz

This drop-down list allows selection of the program global audio playback sampling rate (known as the "Work Frequency").

All audio files used by *Music Centre Pro* in a sequence are based on this sampling rate.

As a result, whenever a sound file with a different frequency is added to a sequence, *Music Centre Pro* generates an ALIAS of this file at the "Work Frequency".

Note that it's important to avoid sampling frequency conversions to keep the best sound quality.

"Output Buffer Time"

4 to 30 buffers from 10 to 200 milliseconds.

The Output Buffer Time is the time of pre-processed audio data (actually the time between the moment the sound is processed and sent to an Audio Port and the moment it is heard).

A short time allows fast reaction to real-time actions on sound but increases the risk of audio flow breaks while playing a sequence including a lot of sound files (if your computer is not fast enough).

Thus, this time should be set to get a good trade-off between fast reaction to user actions and your computer capability.

The default value is 1000 ms (20 x 50ms buffers).

You should increase it if there are errors while playing a sequence including a lot of sound files.

In the left drop-down list you can select the time of each buffer.
In the right drop-down list you can select the number of buffers.

Please note that not all audio devices (or their drivers) accept buffers lower than 50 ms (or even 100 ms).
If you encounter problems while using small buffers, increase it until the playback sounds properly.

"File Buffer Size"

The File Buffer Size value (expressed in bytes) determines the size of the buffer allocated for each open audio file while a sequence is running.

The smaller the size the more often data is read from disk (short access to files allows a better program display fluidity but results in a less optimised read process).

The bigger the size the less often data is read from disk (the program display might be less fluid but the read process is better optimised).

The default value is 44100 bytes and should be OK in most of the cases. However, if audio flow breaks often occur while playing a sequence including a lot of audio files, try to increase this value and at the same time try to disable the "Mixer" and/or the "Master Mixer" window Meters using the "***Options / General Display/ Meters"*** in order to avoid useless screen updates.

"File Buffer Size Offset Factor"

0 to 7

A simple technique allows, when reading several sound files simultaneously, to lower the computer processor work by offsetting the read accesses to each file.
To offset the read access, the buffers allocated to each open file need simply to be of different sizes.
The "File Buffer Size Offset Factor" parameter tells the program how much the basic file buffer size must be increased each time a new sound file is open for reading.
A value of 0 means no offset.
Then, the higher the value the larger the buffer size allocated to each open file.
There is no particular advice concerning this feature - This parameter has to be set according to your hard disk capabilities by trying different values and monitoring the program fluidity.

"Audio Source Copy Threshold"

This value, expressed in bytes, is the size under which all the audio files registered in a sequence will be automatically copied to the current sequence "Audio Source Directory" before being used.

Keeping the audio source files used in a sequence, in only one dedicated directory is a simple way to properly structure your work (and ease further backup).
However this can be a waste of disk space if some files are shared by several sequences.
So it's up to you to decide whether or not the audio source files have to be automatically copied in the sequence "Audio Source Directory" as this parameter can be modified at any time before inserting new audio sources in a sequence.

The default threshold is 1048576 bytes which means that all files with a size below 1 Mega Bytes will be copied.

IMPORTANT :
This parameter only applies to files coming from a fixed hard drive. **Files coming from a removable disk such as a CD ROM drive are automatically copied whatever the threshold value**.

Please see the "Sequence Directory Structure" topic for more details about how the program manages audio files.

"Auto Element Tempo update"

This check box allows a choice of how Audio elements are considered when a Tempo Change is carried out by the user.

If the box is unchecked (option is disabled), when a Tempo Change is carried out using the Tempo box in the "Control" Window, the position of all Audio elements might be incorrect.

If the box is checked (option is enabled), when a Tempo Change is carried out using the Tempo box in the "Control" Window, the position of all Audio elements are recomputed to keep them where they were before.

Note : when this option is enabled and the Tempo is modified while playing a sequence, playback is stopped.

"MIDI Resolution"

48 or 96 ticks per quarter-note.

The "MIDI Resolution" buttons allows a choice of 2 resolutions that can be used as timebase by the *Music Centre Pro* internal clock.

A high resolution allows better accuracy in sequence playback but makes the operation more time-consuming.

It is generally better to establish your optimal resolution and stick with it. When moving notes or data around, particularly in the "Events" Window, you quickly become used to the numbers involved; e.g., at 96 ppqn, a quarter note is 96 ticks, an eighth note is 48, a sixteenth note is 24, etc. Having to make mental adjustments by switching back and forth between different clock resolutions is probably an extra challenge you can live without.

"Use System High Resolution Timer"

When the "Use System High Resolution Timer" box is checked (option enabled), the program uses the system high resolution timer to generate its internal clock. This option is enabled by default and should stay enabled.

However, in certain circumstances (if the timer is not available) you will have to disable this option. When disabled, only 48 ppqn MIDI resolution is available.

This option cannot be enabled while the " Use Audio Port A Position as Timer" option is enabled.

"Use Audio Port A Position as Timer"

When the "Use Audio Port A Position as Timer" box is checked (option enabled), the program uses the first audio device (declared as Port A) to generate its internal clock (by regularly checking it's sample position).

This can be very convenient whenever the soundcard you use does not run exactly at the expected sample rate (which often occurs in cheap basic devices) in which case MIDI and Audio could never be in sync for a long time.

When this feature is used, the MIDI is "slaved" to the Audio and sync is more likely to be properly achieved. However, this is true only if the soundcard driver position is accurate and its granularity high enough. On the contrary this feature would be of no help at all.

Only testing will tell you if the feature fits your needs regarding the audio hardware you own.

This option cannot be enabled while the "Use System High Resolution Timer" option is enabled.

"Chase Controllers"

If the "Chase Controllers" option is enabled (box checked), then the program will follow all "Controllers" and "SysEx" events contained in the tracks each time you move from one position to another in the current sequence.

Enabling "Chase Controllers" also causes the program to look backwards over the entire sequence when playback is started at a point other than the beginning, to find any program changes, controller changes, pitch bends, and/or aftertouch commands occurring on each track prior to the play start point.

WARNING: If you play a sequence including a lot of control events, chasing these events may require a noticeable amount of time !
In this case, disable the option...

"Play Temp. Directory"

If defined, this field displays the directory used by *Music Centre Pro* to store the temporary ALIAS files created whenever a sound file used in a sequence has a different sampling rate than the "Working Frequency".

You can use the BROWSE button located at the right of the field to select another directory.

If no directory is defined, *Music Centre Pro* uses the System Temp Directory.

"Record Temp. Directory"

If defined, this field displays the directory used by *Music Centre Pro* to store the temporary files created while recording audio.

You can use the BROWSE button located at the right of the field to select a different directory.

If no directory is defined, *Music Centre Pro* uses the System Temp Directory.

"Auto Record Directory"

If defined, this field displays the directory used by *Music Centre Pro* to automatically store the final audio recording files.

If it is not defined when starting a recording, the program will prompt you for a valid directory.
The "Auto Record Directory" MUST be defined to record audio.

Note that this directory is stored in the sequence files, this way, each time a sequence is loaded you can keep on recording at the same place as the last session with this sequence file.

The program creates the final recording files by adding to the directory name the name of the track(s) on which recording occurs + a number incremented for each take.

You can use the BROWSE button located at the right of the field to select a different directory.

"Sound Editors"

This drop-down list includes all the names of the programs defined as Sound Editors by the user.

Programs defined as Sound Editors can be invoked in the "Edit Element" Window as extensions to the *Music Centre Pro* sound editing capabilities.

You can add a program to the list by using the ADD button.

You can remove a program from the list by selecting it and then using the DELETE button.

"Options/Audio Devices"

This page allows assignment of hardware audio devices to the program audio ports as well as some other options.

Port Assignment

One stereo In Port and One stereo Out Port can be used.
Audio Ports (In or Out) are named with letter A.

NOTE : In order for an audio device to be available in the system, its driver must have been properly installed.

To assign an audio device to the program audio port, first select the port letter in the corresponding list and then select an audio device in the adjacent list.

If "***" is selected, it means that the port is disabled.
Selecting "***" for port A de-assigns all audio devices.

Settings defined in this page can be saved on disk (in the program Initialisation file) by clicking the "Save Page as Preferences" button or using the "Options/Save Setup" command.

"Options/MIDI Devices"

This page allows assignment of hardware MIDI devices to the program MIDI ports and also the definition of MIDI modes.

Port Assignment

1 MIDI In Port (A) and up to 2 MIDI Out Ports (A and B) can be used at the same time.

NOTE : In order for an audio device to be available in the system, its driver must have been properly installed.

To assign a MIDI device to one of the program MIDI ports, first select the port letter in the corresponding list and then select a MIDI device in the adjacent list.

If "***" is selected, it means that the port is disabled.
Selecting "***" for port A de-assigns all MIDI devices.

Mode

The "Mode" drop-down list allows selection of a MIDI mode for the current MIDI Out Port selected in the MIDI Out Port list.

The available modes are "GM-GS", "XG" or "None".

Selection of a mode different from "None" enables the "GM/GS/XG" command and the sending of specific MIDI controllers for the corresponding MIDI Out Port.

Important Note : If the sound generator controlled through one of the MIDI Out Ports is not GS or XG compatible, select the "None" mode in order to avoid unnecessary data from being sent to the device (which it would ignore anyway)...

Settings defined in this page can be saved on disk (in the program Initialisation file) by clicking the "Save Page as Preferences" button or by using the "Options/Save Setup" command.

"Options/Sequence Information"

The "Options/Sequence Information" page includes several text fields where you can type information related to the current sequence.

This information is saved with the sequence files.

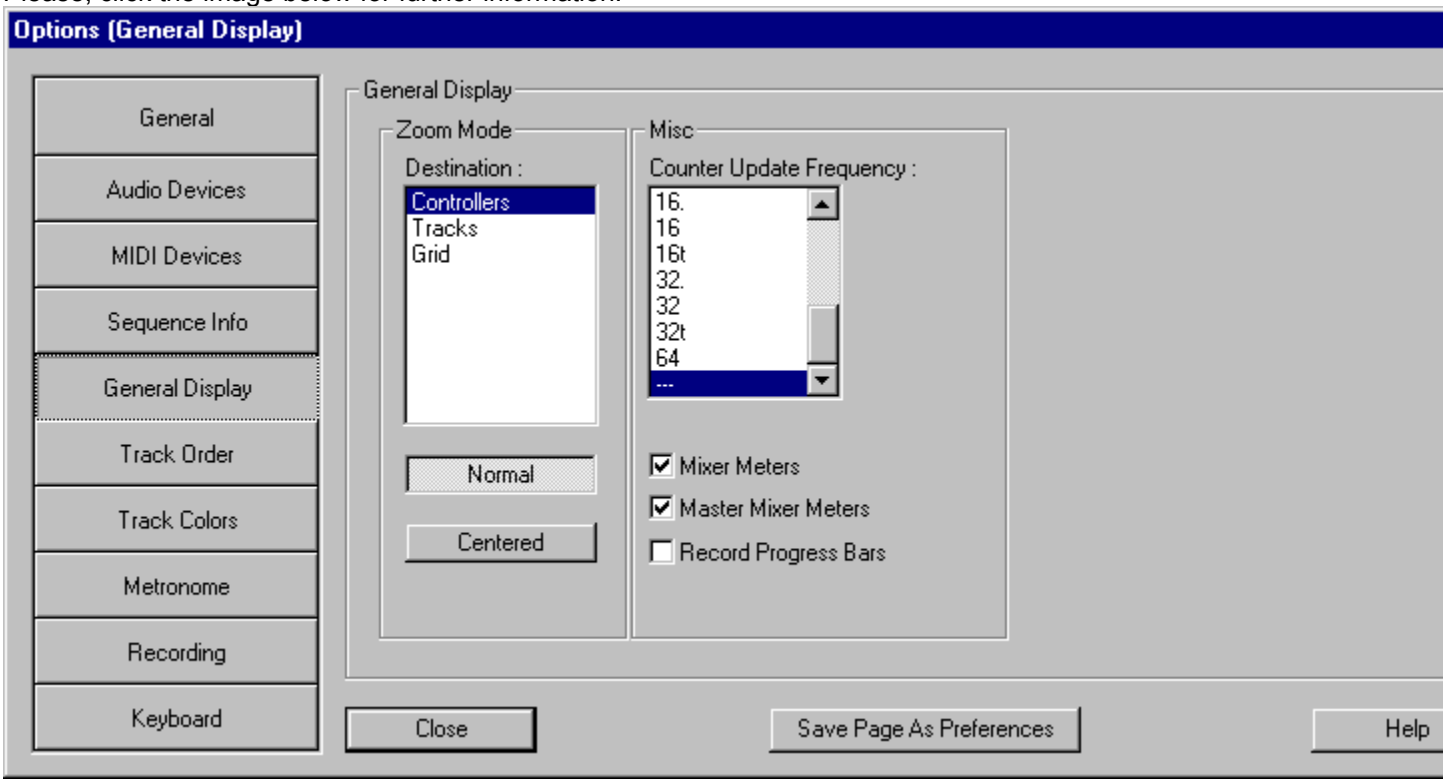
When the File Selector is on screen (for loading a sequence) and a sequence file is selected, the file information (if it exists) is displayed automatically allowing you to easily find a sequence even if it hasn't been used for months.

"Options/General Display"

This page gathers all parameters related to the appearance of the program windows.

Settings defined in this page can be saved on disk (in the program Initialisation file) by clicking the "Save Page as Preferences" button or by using the "Options/Save Setup" command.

Please, click the image below for further information.



"Zoom Mode "

This section includes controls which allow definition of the Zoom behaviour in several program windows.

For each window listed in the "Destination" list you can choose :

Normal
The horizontal zoom takes the left display limit as reference when expanding;

Centred
The current cursor position is always centred when zoom is expanded.

"Counter Update Frequency"

This list allows you to select the rate at which counters and position lines are updated when the sequencer is running. The interval between two updates is expressed as a division of a bar.

If you select "---", updates occur at every clock Tick, but this can be critical when the current sequence contains a lot of data requiring a maximum of the CPU time (keep in mind that even with the best video card, graphics can still be time-consuming).
However you may need this accuracy to allow transparent "Text Event" chasing in the Karaoke Window.

"Mixer Meters"

When this box is checked (option enabled), meters in the "Mixer" window display the track activity while a sequence is running, this is the default. When the option is disabled, the meters will not show any track activity.

Disabling the meters can be useful in critical situations (when a sequence includes a lot of sound data for instance) as the meter movements may require a non-negligible CPU time, especially if your video card is not very fast. This could make the difference between a just-possible mix and an impossible mix !

Note that the meter of a track in solo mode or record-ready mode is always displaying track activity.

"Master Mixer Meters"

When this box is checked (option enabled), meters in the "Master Mixer" window display the Port and Aux activity while a sequence is running, this is the default. When the option is disabled, all the meters are inactive.

Disabling the meters can be useful in critical situations (when a sequence includes a lot of sound data for instance) as the meter movements may require a non-negligible CPU time, especially if your video card is not very fast. This could make the difference between a just-possible mix and an impossible mix !

Note that the meter of a track in solo mode or record-ready mode is always displaying track activity.

"Record Progress Bars"

This option allows, when checked, "Progress Bars" to be displayed on the record-ready tracks whenever a recording is taking place.

These bars show the progression of the recording.

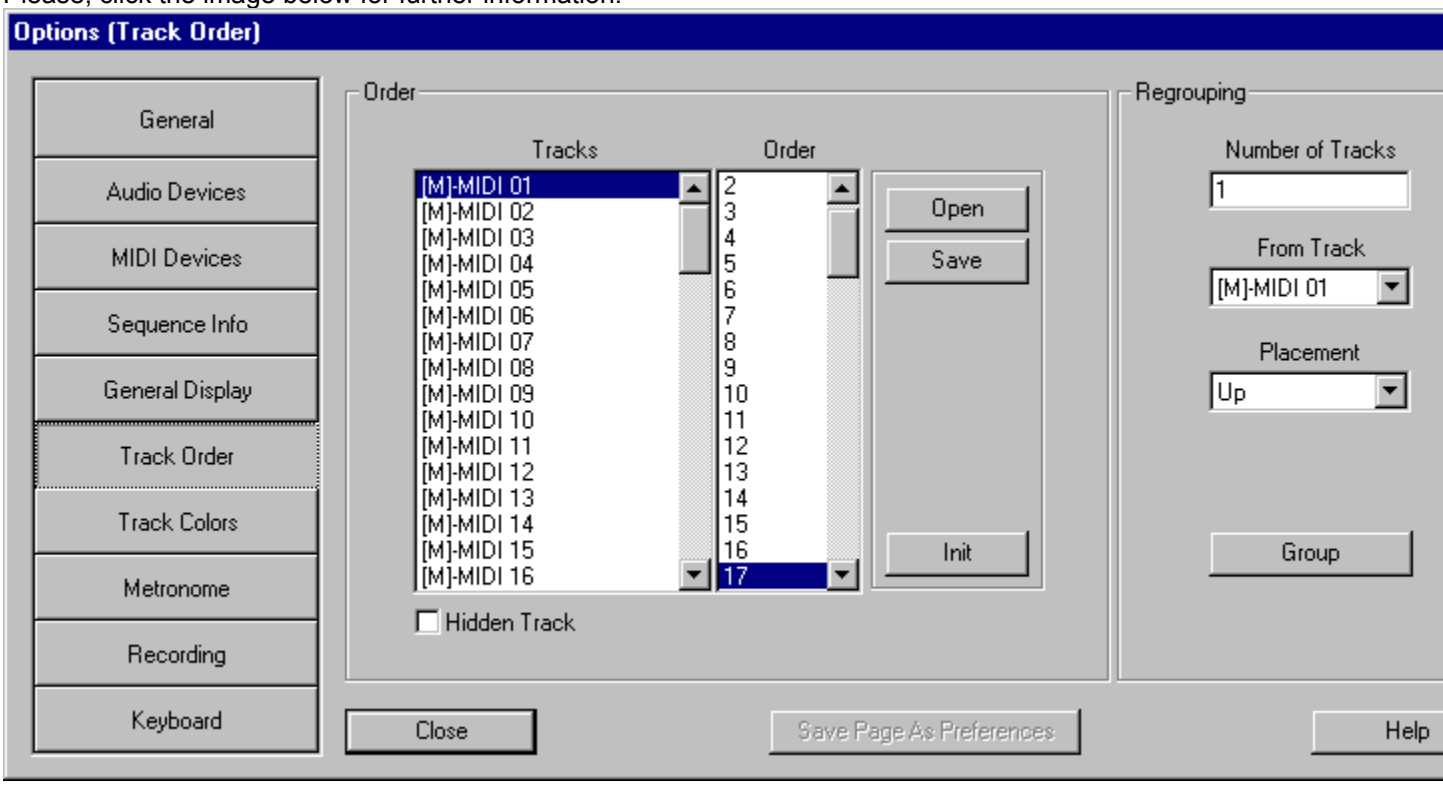
To try it, just enable the option, select a track for recording and have a look at the track row in the "Tracks" window.

"Options/Track Order"

The "Track Order" page lets you modify the track order (i.e the way tracks are grouped in the "Tracks" window and also in the "Mixer" window).
The default order is : 64 MIDI tracks followed by the 16 Audio Tracks.
But it can be very useful to group tracks which are effectively used avoiding boring scrolling in the windows that display tracks.

Settings defined in this page are saved with the sequence files.

Please, click the image below for further information.



"Track List"

This list includes all Music Centre Pro tracks in the default order.

Selecting a track in the list automatically selects its rank in the adjacent "Order list".
Once a track is selected, you can check the "Hidden Track" box in order to prevent this track being displayed both in the "Tracks" and "Mixer " window.

Please note that to "unhide" a hidden track you don't need to open the "Options/Track Order" page. Just CTRL-clicking in one of the "Tracks" window track "header" will allow you to insert a previously hidden track.

"Order List "

This list includes all the possible ranks a track can have and displays the rank number corresponding to the currently selected track in the adjacent Track list.

To modify the rank of the currently selected track, simply click the desired rank number (scrolling the list if necessary).

This will instantaneously update the "Tracks" window and the "Mixer" window if opened.

"Commands"

INIT

This resets track order to default (64 MIDI tracks followed by the 16 Audio Tracks).

SAVE

This lets you save to disk the current Track Order.
Track order is stored in a file with the "QTO" extension (Music Centre Pro Track Order).
A standard File Selector is used allowing you to select a directory and give a name to the file.

LOAD

This lets you load a Track Order file previously saved using the SAVE command.
When the file is loaded, the "Tracks" and "Mixer" window, if opened, are instantaneously updated.

"Regrouping"

This section of the "Track Order" page allows you to quickly group some tracks together.

When you want to group tracks :

Type the number of tracks you want to group in the "Number of Tracks" edit field.
Select the first track of the group in the "From Track" drop-down list.
Select where you want the group to be placed using the "Placement" drop-down list (Up means in front of all the other tracks - Down means after all the other tracks).
Then click the GROUP button.

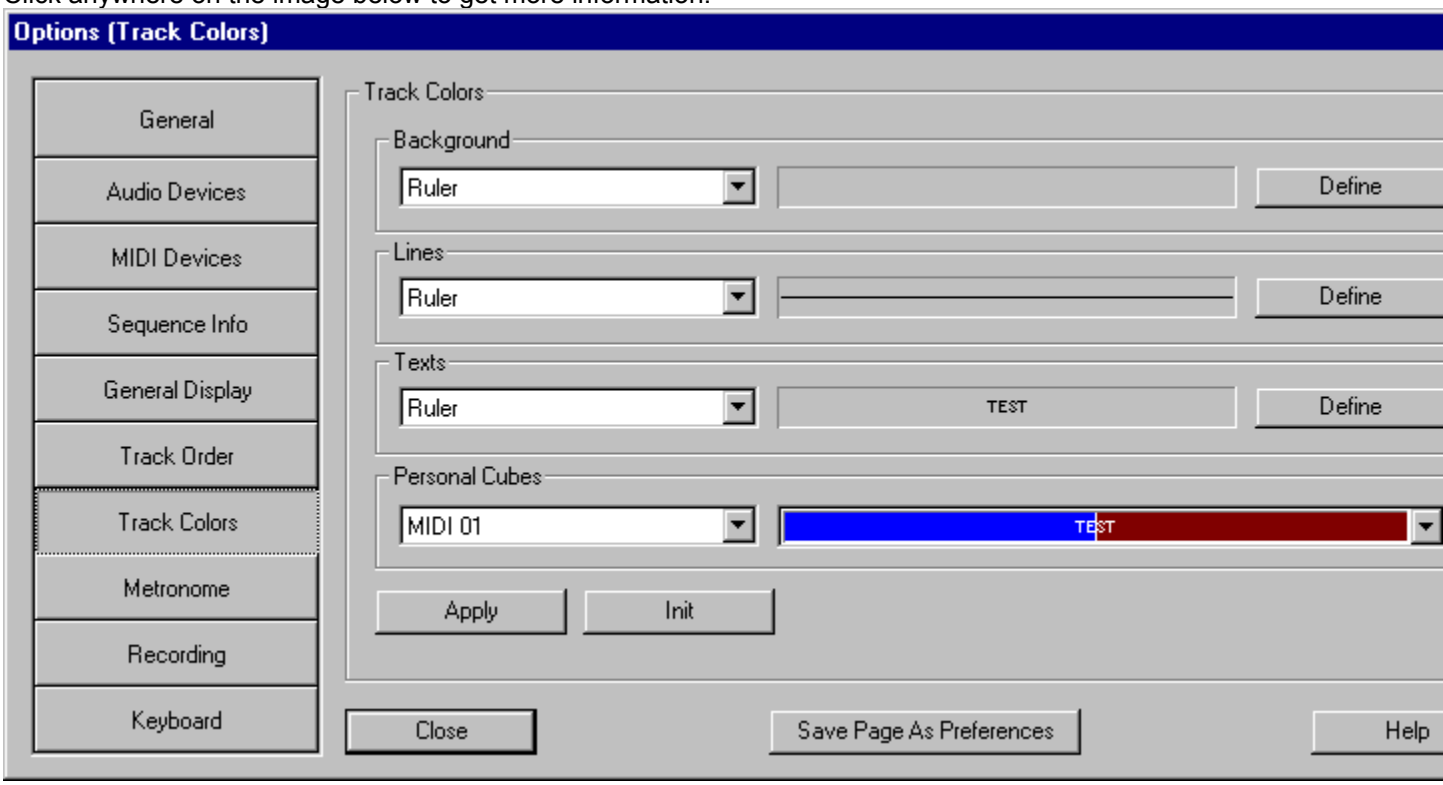
This will instantaneously update the "Tracks" window and the "Mixer" window if opened.

"Options/Track Colour"

This page allows you to customise the "Tracks" window by defining colours for all the graphic components making up the window.

Settings defined in this page (excluding the "Personal cubes" settings which are saved in sequence files) can be saved on disk (in the program Initialisation file) by clicking the "Save Page as Preferences" button or by using the "Options/Save Setup" command.

Click anywhere on the image below to get more information.



The INIT button resets all colours to the default settings.

The APPLY button lets you apply modifications without leaving the dialog box.

"Background"

The "Background" drop-down list lets you select one of the following background types.

Ruler
: The background of the "Tracks" window Time Ruler.

Grid (Colour)
: The background of "Tracks " window Mix Grid

Cube (non selected)
: The background of non selected Element rectangles.

Cube (selected)
: The background of selected Element rectangles.

Grid (Bitmap)
: The background of "Tracks " window Mix Grid to be filled with a user-defined bitmap.

For the 4 first items clicking the DEFINE button invokes a standard Colour Dialog Box where you can choose a custom colour to be applied to the selected background type.

For the last item clicking the DEFINE button invokes a standard File Selector where you can select a bitmap of your choice. If a bitmap is selected, this selection overrides the Grid (Colour) selection. The selected bitmap will then fill the Mix Grid (tiled).

The area adjacent to the "Background" drop-down list displays an example of your selection.

"Lines"

The "Lines" drop-down list lets you select one of the following line types.

Ruler
: The division lines in the "Tracks" window Time Ruler.

Grid
: The horizontal and vertical dividing lines in the "Tracks " window Mix Grid.

Position
: The "current position" line in the "Tracks " window Mix Grid.

Left Locator
: The Left Locator position line in the "Tracks " window Mix Grid.

Right Locator
: The Right Locator position line in the "Tracks " window Mix Grid.

Waveform and Envelope
: The lines which make up the Waveform and the Envelope inside Element rectangles.

Clicking the DEFINE button invokes a standard Colour Dialog Box where you can choose a custom colour to be applied to the selected line type.

The area adjacent to the "Lines" drop-down list displays an example of your selection.

"Texts"

The "Texts" drop-down list lets you select one of the following text types.

Ruler
: Colour of the text in the "Tracks" window Time Ruler.

Cube
: Colour of the text in the Element rectangles.

Clicking the DEFINE button invokes a standard Colour Dialog Box where you can choose a custom colour to be applied to the selected text type.

The area adjacent to the "Texts" drop-down list displays an example of your selection.

"Custom Cubes"

You can apply custom colours to each track (this concerns only Element rectangles) from a choice of 12 colour schemes.

If a custom colour is applied to the Element rectangles of a particular track, this overrides the selection of the Cube default background (selected and non-selected).

Selection of the track can be achieved using the left drop-down list.

Selection of the colour scheme can be achieved using the right drop-down list (please note that the first scheme is always the default Cube selection thus, selecting it, resets the Cube background to default).

"Options/Metronome"

The "Click/Count" page is where you define "Click" and "Count" general settings.

Settings defined in this page can be saved on disk (in the program Initialisation file) by clicking the "Save Page as Preferences" button or by using the "Options/Save Setup" command.

- **Click Type**

  The "PC" and "MIDI" buttons allow selection of the Click type used by Music Centre Pro.

  - If "PC" is selected, Music Centre Pro will use the internal speaker of your computer.
  - Else, Music Centre Pro will generate a MIDI Click by sending note events to a MIDI device.

- **MIDI Click**

  Drop-down lists in the "MIDI Click" area allow definition of the Click note pitches, volumes and channel.

  - The "Beat" drop-down list in the "Note" row is where you select a note pitch for the beat click.
  - The "Bar" drop-down list in the "Note" row is where you select a note pitch for the bar click.
  - The "Beat" drop-down list in the "Velocity" row is where you select a MIDI velocity (volume) for the beat click.
  - The "Bar" drop-down list in the "Velocity" row is where you select a MIDI velocity (volume) for the bar click.
  - The "Channel" drop-down list is where you select a MIDI channel on which the MIDI Click will be transmitted.

- **Count**

  - The "1 Bar" and "2 Bars." buttons allow selection of the "Count" duration (1 or 2 bars).
  - The "Record" and "Play" Check boxes are used to validate the "Count" whenever Music Centre Pro is started for playing or for recording or both.

"Options/Recording" et

This page allows for Recording parameter selection and adjustment.

Settings defined in this page can be saved on disk (in the program Initialisation file) by clicking the "Save Page as Preferences" button or by using the "Options/Save Setup" command.

MIDI Section - Mode

The "Normal" mode corresponds to a Tape Recorder-like recording (i.e. Music Centre Pro is running and you record music while eventually listening to the previously recorded music).

The "Step" mode lets you record music one rhythmic step at a time.

Music Centre Pro advances one step only when all "notes on" are "off" (i.e. when there are as many keys released as keys pressed), allowing you to record chords.

The rhythmic step used while recording in "Step" mode (i.e. the duration of notes you record) may be selected in the drop-down list in the Quantization area. The Value range is from "1" (whole note) through "64" (64th note). Pointed values (followed by a ".") and tuplet values (followed by a "t") are also available.

MIDI Section - Quantization

The "Quantize" check box validates real-time Quantization while recording, which means that the position of all MIDI events received while recording will be automatically rounded off to the closest user-defined position value.

The Quantization value may be selected in the same drop-down list as the one used to select the "Step" recording value (see above).

MIDI Section - Buffer Size

The "Buffer Size" edit field lets you define the size of the record midi buffer. The larger the buffer the more MIDI events can be recorded in one "take".

Warning: If the Buffer Size is to big you might have Memory error when trying to record MIDI.
The Buffer Size is expressed in bytes.

MIDI Filter Section

The check boxes in the "MIDI Filter" section enable/disable reception of corresponding MIDI events.

Filtering events avoids useless MIDI event recording.
You'll save memory space and gain timing precision.
Common example: If you're using a keyboard which transmits "After Touch" messages that none of your tone generators is able to receive, invalidate the "After Touch" check box !

AUDIO Section - Format

This list allows selection of the resolution used for AUDIO recording.
The available resolutions are 8 and 16 bits per sample.

Please note :
You can not change the recording resolution while recording.

AUDIO Section - Buffer

The time (length) of the buffers used to record audio data can be selected here. The purpose of this is to allow you to adjust the Music Centre Pro recording features to your sound card recording capabilities.

The shorter the time the better the response of the "Mixer" Window meters and software monitoring feature.

If your recordings are bad, try to increase this time. Some sound cards, unfortunately, cannot properly handle short buffers. The default value is 100 ms.

AUDIO Section - Mode

This drop-down list allows selection of the audio recording mode.
if "File" is selected, the audio samples received are stored in a file on disk ("direct-to-disk" method).

If "Memory" is selected, the audio samples received are stored in memory (it can be very convenient if your computer has enough memory in order to avoid time consuming accesses to disk drives).

Please note that "Memory" mode is only available when recording between the Locators (Punch-In/Out mode) is selected.

AUDIO Section - Take Confirmation

When this box is checked (option enabled), the program, at the end of each "take", will ask you whether you want to keep the last recording in order to avoid useless file transfer when you already know that the recording is not usable (bad "take").

AUDIO Section - Offset

This field allows you to type a possible value (expressed in milliseconds) by which the audio recordings must be moved in order to be right in sync with the already existing sequence audio material. The value can be positive to delay the recording or negative to advance the recording.

Explanation :
Some audio devices do not respond accurately to record request. This can bring an offset between what you hear (the playback) and what you record. If you often hear an offset between the audio playback and newly recorded sound, try to set the offset value in order to compensate the possible delay caused by your audio hardware.

Common Section - Result and

This allows you to choose the result of a recording.

Replace :
Data on the tracks on which a recording occurs is deleted and replaced by the newly recorded data.

Mix :
Newly recorded data is mixed with the existing data.

Common Section - Pre-Roll and

The "Pre-Roll" drop-down list allows you to define the Recording Pre-Roll time.

The Pre-Roll time is expressed in bars. If a value of one bar is selected as Pre-Roll Time, the sequence playback will automatically start 1 bar ahead of where it is supposed to start in "Punch-In/Out" mode (normally the Left locator position). Up to 9 bars can be selected as the Pre-Roll time.

The "Always Start At Left Locator" option when enabled (button checked), tells the program to automatically start the playback at the left locator position when the recording starts. Thus, the Pre-Roll option is automatically disabled when enabling this option.

Common Section - Duration and

This allows you to choose the length of a recording.

Locators :
The recording always takes place within the time range defined by the Locators. If the current position is outside this time range, it is set to the Left Locator position before the recording starts.

Free :
Recording starts at the current position and ends only when the user stops the sequencer.
If this method is selected, the "Always Start At Left Locator" option described above is automatically disabled.

"Options/Keyboard"

This page allows you to define :

The user-definable Keyboard Notes which allows you to use your computer keyboard as a musical tool as well as the remapping of MIDI notes received from an external MIDI keyboard.

Settings defined in this page can be saved on disk (in the program Initialisation file) by clicking the "Save Page as Preferences" button or by using the "Options/Save Setup" command.

"Keyboard Notes"

The "Keyboard Notes" section is where you define the musical use of your computer keyboard. Thanks to this feature, you can transform your computer keyboard into a MIDI keyboard.

- **Key Order**

  The "Key Order" editable field displays a string of characters. Each character in this string represents a keyboard key which plays a specific semitone when pressed.

  To enter a new series of characters, or to modify the current series, enter the new characters which should be taken into account by the program (max 48 characters, any more will be ignored).

  ADVICE:
  The order of the characters is very important as it defines the note pitch. (The closer to the beginning of the line, the lower the note). Select the chromatic scale (see below) before beginning to enter the series of characters, otherwise the current scale might modify the way the notes are played. It is preferable to use CAPITAL letters, (using the "SHIFT" key) for the alphabetic characters (a-z).

- **Base Pitch**

  The "Base Pitch" drop-down list allows selection of the base octave used to play notes from your computer keyboard. The higher the value the higher the notes played from your computer keyboard.

- **Volume**

  The "Volume" drop-down list allows selection of the volume (MIDI velocity) of the notes played from your computer keyboard. The higher the value the louder the notes played from your computer keyboard.

- **Key**

  The "Key" drop-down list allows selection of the base note used to play notes from your computer keyboard. It defines the key of the scale (see below) used to play notes from your computer keyboard.

- **Scale**

  The "Scale" drop-down list allows selection of a special scale (a mode) used to play notes from your computer keyboard. The available scales are those most often found in so-called "classical" music.

Thanks to scale selection (other than the chromatic scale) you can easily play and record melodies or improvisations, even without knowing the notes which "fit" the music you are creating !

- **Apply to MIDI keyboard**

  The "Apply to MIDI keyboard" check box enables application of the above settings (Key and Scale) to your MIDI keyboard.

When this option is enabled and you have a MIDI keyboard connected at the MIDI IN connector of your computer, the MIDI keyboard will benefit from the scales and the key defined above (on the obvious condition that you use the "MIDI THRU" function of Music Centre Pro to play a sound from your MIDI keyboard; only by going through Music Centre Pro will the notes transmitted from your keyboard be

transformed !) MIDI THRU has to be active.

"Sound Names"

PURPOSE

The "Sound Names" dialog box is where you can modify a Sound Name list and/or assign a Sound Name list to each MIDI channel.

DESCRIPTION

In Music Centre Pro a Sound Name list is called a "Sound Name Set".

Each one of the 64 Music Centre Pro (A01 to D16) MIDI channels can have its own "Sound Name Set".

From these Sets, Music Centre Pro will be able to display sound names instead of simple numbers in the "Mixer" and "Tracks" Windows.

Set Files (which are simple text files) must be stored in the "SETS" sub-directory located within the program main directory in order for Music Centre Pro to find them.

As the MIDI standard allows 16384 "Bank Change" values and 128 "Program Changes" values for each of these banks, each Set may include up to 16384 sections of 128 names.

USE

- **Creating a new "SET"**

  Run a simple text editor (as the "NotePad" program) and load the "DEFAULT.SET" file which you will find located in the "SETS" sub-directory.

  The text editor will then display a text as follows:

  [0] which is the Bank section.
  1=1 first sound
  2=2 second sound
  3=3 third sound
  4=4 fourth sound
  and so on...

  Then, simply replace numbers to the right of the "=" sign with the appropriate sound names (i.e. 1=Piano) and save the list on disk with a name of your choice. Make sure the file name has the "SET" extension and that you save it within the "SETS" directory.

  If you want a SET to include sound names for more than one bank, just create a new section for each bank by typing the number of the bank between 2 brackets (i.e. [10]) and then type the sound names below (Open the "GS.SET" file as an example).

  Then, the only thing left, is to assign the new set to one or more channels next time you run the program.

- **Assigning a "SET"**

  To assign a "SET" to a MIDI channel :

  - Select the desired channel in the "Channel" drop-down list (Note that the window title always displays the bank number currently selected for this channel).

- Select the "SET" you wish to assign the selected channel to, in the "Set" drop-down list.

If you've just created a new Set and it does not appear in the "Set" drop-down list, then you may have either placed the new file in the wrong directory or else you forgot to add the .set extention.

Ø Modifying a "SET"

To modify a Sound Name Set from within Music Centre Pro (if you want to change some names, for instance) :

- Select a channel which is currently using this Set in the "Channel" drop-down list so the list can be displayed in the dialog box.
- Then, to change a name, double-click on its item. A box, containing an editable field, will appear on screen in which you can type the new name.

When a Set has been modified, you can update its file by clicking the "Save" button.

"GM/GS/XG"

The "GM/GS/XG" Control Editor Dialog Box allows control of GM/GS or XG MIDI sound generators. The parameters included in this dialog box are not part of a MIDI Track but are relative to a Channel on a specific MIDI Port.

The MIDI Port and Channel concerned are always displayed in the dialog box title bar.

This dialog box is non modal and can stay open on top of the other program windows as well as minimised. You can open as many dialog boxes as required at the same time (one per MIDI Port and Channel).

The "GM/GS/XG" command is only available when the active track is assigned to a Channel on a MIDI Port which is defined as GS or XG (See "Options/MIDI Devices").

If the tone generator is not fully compatible with GM/GS or XG specifications, then modifying the parameters will have absolutely no effect on the sound.

The values of the parameters included in this box are global to a whole sequence (i.e. values at time zero).

They can be saved :

- In the program initialisation file using the "Options/Save Setup" command in order to define a basic configuration each time the program is launched.
- In each sequence file along with song data in order to retrieve these parameters when a sequence file is loaded.

The parameter values, included in this dialog box, are not absolute. They are relative to a corresponding parameter value, in the sound generator, which cannot be modified by standard GM/GS or XG controllers. So, it may happen that in some cases, that modifying a value a certain way does not have any effect on the sound, but it is absolutely normal.

Example : The CUT parameter is supposed to control the 'cutoff' frequency of the sound but if the sound already has its internal 'cutoff' parameter value set to its maximum, then increasing the CUT parameter value will do nothing.

Please, click on the image below to get further information on GM/GS Control Editor.

Please, click on the image below to get further information on XG Control Editor.

Initialisation (GM/GS/XG)

This button resets all the parameters included in the dialog box to their default values.

EG (GM/GS/XG)

The EG (sound envelope) parameters are displayed as an envelope curve (lines linked together represent the envelope of the sound) under which are written the current values of the parameters corresponding to the envelope.

To modify the parameter values, simply click in one of the small squares where the lines meet, and without releasing the mouse button, move the mouse towards the left to decrease the value, or towards the right to increase the value.

When one of the squares has got the "focus" (red border), you can also modify the value of the corresponding parameter using LEFT and RIGHT arrows on the computer keyboard.

Channel=Drum Kit (GM/GS)

Enable this button to notify the program that the current channel is a Drum Kit (not a single instrument). When enabled, it is then possible to adjust per-note parameters through the Drum Kit Setup Dialog Box.

Channel=Drum Kit (XG)

Enable this button to notify the program that the current channel is a Drum Kit (not a single instrument). When enabled, it is then possible to adjust per-note parameters through the Drum Kit Setup Dialog Box.

Bank Select (GM/GS)

These two buttons (LSB and MSB) allow selection of a bank on the current channel in the sound generator connected to the current MIDI Port.

Clicking one of these buttons invokes a dialog box including a list in which you can select the desired value.

Two values are needed to define a complete Bank Number :

- The **MSB** parameter defines the main bank group (also known as 'Variation').
  In a standard GS sound generator Variation #0 is called 'Capital' and Variation #127 is called 'MT32' (See the MIDI implementation chart of your sound generator for more information).
- The **LSB** parameter defines the sub bank group.

Bank Select (XG)

These two buttons (LSB and MSB) allow selection of a bank on the current channel in the sound generator connected to the current MIDI Port. Clicking one of these buttons invokes a dialog box including a list in which you can select the desired value.

Two values are needed to define a complete Bank Number :

- The **MSB** parameter defines the main bank group.
  In a standard XG sound generator MSB #0 is called 'Melody Voice', MSB #64 is called 'SFX Voice', MSB #126 is called 'SFX Kit' and , MSB #127 is called 'Rhythm Kit'. (See the MIDI implementation chart of your sound generator for more information).
- The **LSB** parameter defines the sub bank group.

Basic Parameters (GM/GS)

These knobs allow adjustment of the standard GS parameters.

- **Filter**
  - CUT corresponds to the *Cutoff Frequency* Parameter (NRPN 0120H).
  - RESON corresponds to the *Resonance* Parameter (NRPN 0121H).
- **Vibrato**
  - RATE corresponds to the *Vibrato Speed* Parameter (NRPN 0108H).
  - DEPTH corresponds to the *Vibrato Depth* Parameter (NRPN 0109H).
  - DELAY corresponds to the *Vibrato Delay* Parameter (NRPN 010AH).
- **Portamento**
  - TIME corresponds to the *Portamento Time* Parameter (Controller #5).
  - SW corresponds to the *Portamento Switch* Parameter (Controller #65).
- **Effects**
  - REV corresponds to the *Reverb Send Level* Parameter (Controller #91).
  - CHO corresponds to the *Chorus Send Level* Parameter (Controller #93).

Basic Parameters (XG)

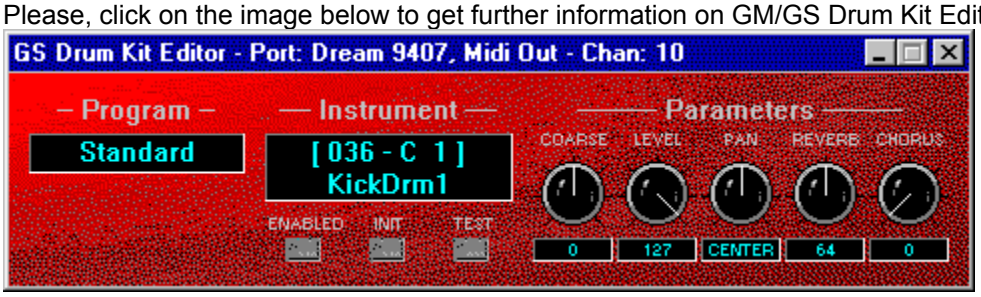
These knobs allow adjustment of the main standard XG parameter.

- **Filter**
  - CUT corresponds to the *Cutoff Frequency* Parameter (NRPN 0120H).
  - RESON corresponds to the *Resonance* Parameter (NRPN 0121H).
- **Vibrato**
  - RATE corresponds to the *Vibrato Speed* Parameter (NRPN 0108H).
  - DEPTH corresponds to the *Vibrato Depth* Parameter (NRPN 0109H).
  - DELAY corresponds to the *Vibrato Delay* Parameter (NRPN 010AH).
- **Portamento**
  - TIME corresponds to the *Portamento Time* Parameter (Controller #5).
  - SW corresponds to the *Portamento Switch* Parameter (Controller #65).
- **Effects**
  - REV corresponds to the *Reverb Send Level* Parameter (Controller #91).
  - CHO corresponds to the *Chorus Send Level* Parameter (Controller #93).
  - VAR corresponds to the *Variation Effect Send Level* Parameter (Controller #94).

Drum Kit Setup (GM/GS)

The parameters included in this dialog box are relative to a Channel on a specific MIDI Port. The MIDI Port and Channel concerned are always displayed in the dialog box title bar.

Please, click on the image below to get further information on GM/GS Drum Kit Editor.



Drum Kit Program (GM/GS)

This area shows the current Drum Kit Program.
The channel Program cannot be modified from within this dialog. You need to use the Mixer or Tracks Windows. It is given here as simple information.

Drum Kit Instrument (GM/GS)

This area displays the currently selected instrument (note).
Clicking it invokes a popup menu in which you can select another instrument (instruments are gathered by octaves).
Parameter changes carried out in the dialog box apply to this instrument within the Drum Kit.

Drum Kit Options (GM/GS)

- **INIT**
  Clicking this button resets the currently selected instrument parameters to their default values.

- **ENABLED**
  By switching this button on, you enable the current instrument (you notify the program that the parameters must be taken into account when saving).
  It is automatically switched on whenever you modify one of the instrument parameters.

- **TEST**
  Clicking this button plays the current instrument so that you can hear changes in the sound while editing the instrument parameters (a short note MIDI message is sent on the current MIDI Port and channel).

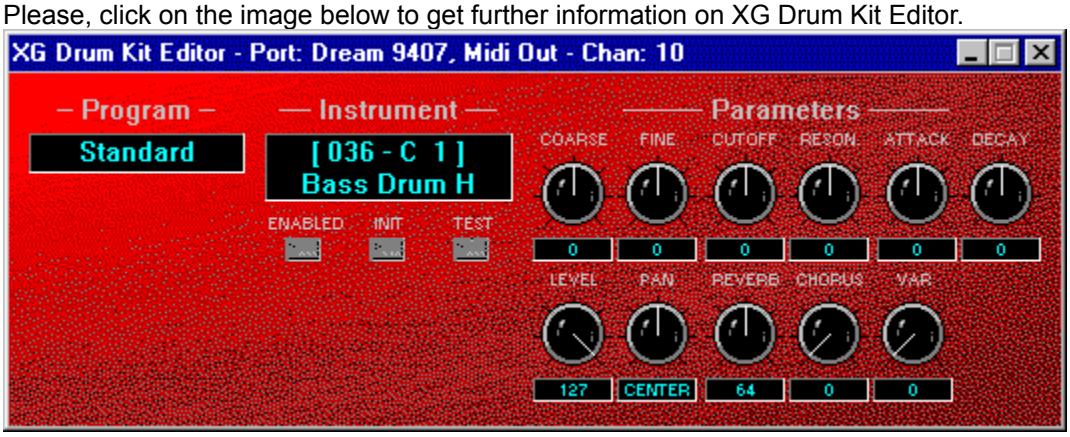
Drum Kit Parameters (GM/GS)

These knobs allow fine adjustment of the currently selected instrument Parameter Values.

Drum Kit Setup (XG)

The parameters included in this dialog box are relative to a Channel on a specific MIDI Port. The MIDI Port and Channel concerned are always displayed in the dialog box title bar.

Please, click on the image below to get further information on XG Drum Kit Editor.



Drum Kit Program (XG)

This area shows the current Drum Kit Program.
The channel Program cannot be modified from within this dialog but you can change it in the Mixer or Tracks Windows. It is given here as simple information.

Drum Kit Instrument (XG)

This area displays the currently selected instrument (note).
Clicking it invokes a popup menu in which you can select another instrument (instruments are gathered by octaves). Parameter changes carried out in the dialog box apply to this instrument within the Drum Kit.

Drum Kit Options (XG)

- **INIT**
  Clicking this button resets the currently selected instrument parameters to their default values.

- **ENABLED**
  By switching this button on, you enable the current instrument (you notify the program that the parameters must be taken into account when saving).
  It is automatically switched on whenever you modify one of the instrument parameters.

- **TEST**
  Clicking this button plays the current instrument so that you can hear changes in the sound while editing the instrument parameters (a short note MIDI message is sent on the current MIDI Port and channel).

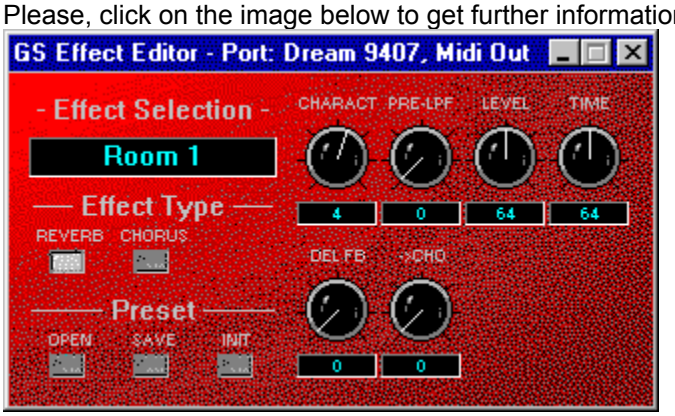
Drum Kit Parameters (XG)

These knobs allow fine adjustment of the currently selected instrument Parameter Values.

Effect Editor (GM/GS)

The parameters included in this dialog box are relative to a whole MIDI Port.
The MIDI Port concerned is always displayed in the dialog box title bar.

Please, click on the image below to get further information on GM/GS Effect Editor.



Effect Selection (GM/GS)

This area displays the selected effect for the currently selected effect type.
Clicking it invokes a popup menu from which you can select another effect.
The list of available effects depends on the currently selected effect type in accordance with the GM/GS standard.

Effect Type (GM/GS)

These buttons allow selection of the type of effect displayed in the dialog box.
Standard GM/GS Effect Types are : REVERB and CHORUS.

Effect Presets (GM/GS)

- **INIT**
  Clicking this button resets the Effect parameters to their default values.

- **SAVE**
  Clicking this button allows you to store the current Effect parameter values to disk by invoking a standard file selector dialog box in which you must enter a file name.
  Effect Parameter Files have the "GSF" extension.

- **OPEN**
  Clicking this button allows you to load Effect parameter values from disk by invoking a standard file selector dialog box in which you must select an Effect Parameter file.

Effect Parameters (GM/GS)

These knobs allow fine adjustment of the Effect Parameter Values.
The number of knobs (and thus the number of parameters) may vary depending on the type and effect.

Effect Editor (XG)

The parameters included in this dialog box are relative to a whole MIDI Port.
The MIDI Port concerned is always displayed in the dialog box title bar.

Please, click on the image below to get further information on XG Effect Editor.

Effect Selection (XG)

This area displays the selected effect for the currently selected effect type.
Clicking it invokes a popup menu in which you can select another effect.
The list of available effects depends on the currently selected effect type in accordance with the XG standard.

Effect Type (XG)

These buttons allow selection of the type of effect displayed in the dialog box.
Standard XG Effect Types are : REVERB and CHORUS and VARIATION.

Effect Presets (XG)

- **INIT**
  Clicking this button resets the Effect parameters to their default values.

- **SAVE**
  Clicking this button allows you to store the current Effect parameter values to disk by invoking a standard file selector dialog box in which you must enter a file name.
  Effect Parameter Files have the "XGF" extension.

- **OPEN**
  Clicking this button allows you to load Effect parameter values from disk by invoking a standard file selector dialog box from which you must select an Effect Parameter file.

Effect Parameters (XG)

These knobs allow fine adjustment of the Effect Parameter Values.
The number of knobs (and thus the number of parameters) may vary depending on the type and effect.

"Save Setup"

Lets you write default program configuration (preferences) to disk.
This configuration is always written to the "QAM32.INI" file located in the program directory.

Before writing to disk, the program displays a dialog box which allows selection of types of data to be saved. Turn on the button(s) corresponding to the data type(s) you wish to save.

There are 4 possible types:

- MIXER parameters :
  The current MIXER window settings (balance, volume, channels, transposition, etc ...).

- Global parameters :
  General program settings defined within: "MIDI Devices", "AUDIO Devices", "Recording", "Metronome" and "GM/GS/XG" dialog boxes.

- Sound Name assignment 

  :
  Sound Name list assignment to MIDI channels which is defined within the "Sound Names" dialog box.

- Windows parameters :
  Current program window positions and sizes.

"Control" Menu

"Auto Return"

If the "Auto Return" option is enabled (menu entry is checked), each time you stop the sequence playback, time position is reset to the left Locator position.

"Auto Stop"

If the "Auto Stop" option is enabled (menu entry is checked), Music Centre Pro automatically stops the playback whenever right Locator position is reached.

"Active track"

Invokes a Track List from which you can select the "Active track".

Selection of the Active track can be achieved by :
Clicking the 'Control' Menu 'Active Track' command.
Clicking the Active Track area in the "Control" Window.
Clicking one of the track NUMBERS in the "Mixer" Window.
Clicking one of the track names in the "Tracks" Window.

"Set Left Locator"

Invokes the "Time Input" Dialog Box which lets you change the Left Locator position.

"Set Right Locator"

Invokes the "Time Input" Dialog Box which lets you change the Right Locator position.

"Set Position"

Invokes the "Time Input" Dialog Box which lets you change the current sequence position.

"Go to Zero"

Resets the current position to the beginning of the sequence.

"Fast Rewind"

Sets the current music position to the left Locator position.

"Fast Forward"

Sets the current position to the right Locator position.

"Stop"

Stops Playback.

"Play"

Starts sequence playback.

"Record"

Starts recording.

Record settings can be defined using the "Options/Recording" dialog box.

"Click"

Enables/disables the "Click" feature.

"Click" settings can be defined using the "Options/Metronome" dialog box.

"Count"

Enables/disables the Count feature.

"Count" settings can be defined using the "Options/Metronome" dialog box.

"Loop"

Enables/disables a playback loop between Left and Right Locators.

"Midi Thru"

Enables/disables the MIDI THRU feature.

"System Mixer"

Invokes the System Mixer (SNDVOL32.EXE).

"Big Counter"

Open or Close the "Big Counter" window.

The "Big Counter" window displays the Sequence Current Position with big numbers allowing correct view even when the user is far from the computer display monitor.

Right-clicking the "Big Counter" invokes a popup menu where you can select a time type.

- MUSIC displays the time in BAR/BEAT/TICK format, the same as the "Control" window UPPER counter (it is the default).
- TIME displays the time in the same format as the one selected for the "Control" window LOWER counter.

"Functions" Menu

"Grid"

"Video"
"File"
"Clear"
"Offset"
"Playback"

"Karaoke"
Cut
Copy
Paste
Delete
Delete All

Select Between Locators
Join Start and End of Selection
Select All

Add
Modify Last Selection
Transform Notes from Active Track to 'Text' Events

Last Selection -> Current Position
Start of Selection -> Left Locator
End of Selection -> Right Locator

"Configuration"
"Follow"

q "Windows"

"Windows" Menu

- "Files"
- "Edit"
- "Tracks"
- "Options"
- "Control"
- "Functions"
- **"Windows"**

This menu lets you open or close the **"Mixer"**, **"Events"**, **"Keyboard"**, **"Juke Box"**, **"Score"**, **"Grid"** ,**"Controllers"** , **"Master Mixer"** , "**Tracks"** , "**Video"** , "**Karaoke"** , "**Spatialisation"** and **"Navigator"** Windows.

Any open window, "Control" window excepted, can be closed using CTRL+F4 on the keyboard, to activate the previously opened windows one after the other, use CTRL+F6 on the keyboard.

The **"Control"** Window can be hidden and shown using the Hide/Show "Control" Window command.

Opened windows are displayed at the bottom of the "Windows" menu.

The "Placement" sub-menu lets you easily control window positions and sizes.

- The "**Move To Left Of**" command moves the active window to the horizontal position of another window (aligning the left sides). The command invokes a Window Selection Dialog Box where you select the reference window.
- The "**Move To Top Of**" command moves the active window to the vertical position of another window (aligning the top sides). The command invokes a Window Selection Dialog Box where you select the reference window.
- The "**Move To Right Of**" command moves the active window to the horizontal position of another window (aligning the right sides). The command invokes a Window Selection Dialog Box where you select the reference window.
- The "**Move To Bottom Of**" command moves the active window to the vertical position of another window (aligning the bottom sides). The command invokes a Window Selection Dialog Box where you select the reference window.
- The "**Same Size As**" command resizes the active window to the same size as another window. The command invokes a Window Selection Dialog Box where you select the reference window.
- The "**Ideal Size**" command resizes the active window so that its contents is completely visible (if possible).

About...

Gives information concerning program version and copyrights.

WINDOWS

- "Control"
- "Mixer"
- "Events"
- "Keyboard"
- "Juke Box"
- "Score"
- "Grid"
- "Controllers"
- "Master Mixer"
- "Tracks"
- "Video"
- "Karaoke"
- "Spatialisation"
- "Navigator"

"Control" Window

The "Control" Window allows visualisation and access to Music Centre Pro transport commands as well as the settings for some general program parameters.

Please, click the image below to get further information.

You access to the "*Small Control window*" from the "*Windows/Small Control window*" menu or by double-clicking in the background of the standard Control window.

This small control window takes a minimum space on your screen and gives you access to basic transport and position display functions.

Please refer to the description of the standard control window above for details.

You get back the standard control window by unchecking the menu "*Windows/Small Control window*" or by double-clicking in the background of the small Control window.

"Tempo" (Control)

Displays the Tempo for the Sequence.

Clicking this area lets you modify the Base Tempo (Tempo at the beginning of the sequence). To modify the Tempo at any other position than the beginning of the sequence, use either the "Events" Window or the "Tracks" Menu/"Tempo Change" command.

"Measure" (Control)

Displays the Sequence Current Time Signature.

The left area corresponds to the Time Signature Numerator (Number of beats in a Bar).
The right area corresponds to the Time Signature Denominator (Beat value). Clicking one of these two areas lets you modify the Sequence Base Time Signature (Time Signature at the beginning of the sequence).

To modify the Time Signature at any other position than the beginning of the sequence, use the "Events" Window.

"Locators" (Control)

These two counters display the Left and Right Locator Positions.
By clicking the upper field you can Set the Left Locator Time.
By clicking the lower field you can Set the Right Locator Time.
By right-clicking any of these two counters you set the relative time to the current sequence position.

"Positions" (Control)

These two counters display the Current Sequence Position.

- The upper counter displays the current position in bars/beat/Clock Ticks. Clicking the counter lets you modify the current position through a series of editable fields.

- The lower counter displays the current position in Hour/Minute/Seconds/100th of second or Hour/Minute/Seconds/Images (Frames). Clicking the counter invokes a popup menu which lets you modify either the current position or the time format used to display time in the counter.

  The current position can be modified through a series of editable fields. The Time format can be selected from HSMC (Hour/Minute/Seconds/100th of second) or 25/25/30/30df frames per second MTC.

"Position Slide Bar" (Control)

The 'thumb' of this Slide Bar indicates the sequence current position (the whole Slide Bar represents the whole sequence). Dragging the thumb allows a rapid change of position.

"Record L.E.D" (Control)

The "Record L.E.D" displays the record status.

As soon as a track is in a record-ready state the button flashes, indicating that the program is ready to record. When the program enters a recording state the L.E.D stays steady red indicating that the program is recording.

"Rewind" (Control)

While this button is depressed, the current position of the sequence is decreased (by beat units).

"Forward" (Control)

While this button is depressed, the current position of the sequence is increased (by beat units).

"Panic" (Control)

In case of emergency, this button reinitialises the whole MIDI system by sending a NOTE OFF command on each channel.

"Shuttle/Jog" (Control)

The "Shuttle" Knob and the "Jog" Buttons let you play the AUDIO Part of the current sequence between 1/6 and twice the nominal speed, forward or reversed.

It lets you find a position in the mix by ear, just like using a "reel to reel" recorder.

The "Shuttle" Knob sets the playback speed and direction.

Turning it to the right, will increase the forward playback speed.
Turning it to the left, will increase the reversed playback speed.

As long as you keep the mouse button down while the mouse cursor is over the Knob, playback runs and you can modify its speed an direction.

The "Jog" Buttons, when depressed, start the playback at the last speed set using the "Shuttle" Knob.
Use the Left "Jog" Button to play backwards and the right "Jog" Button to play forwards.

Keyboard Shortcuts are associated to the "Shuttle/Jog" features.

Example : As default settings, the keys "/ " and "*" on the numeric pad activate the playback reverse and forward respectively and the keys "-" and "+" decrease or increase the playing speed. It is then easy to set the play position using one hand on keyboard.

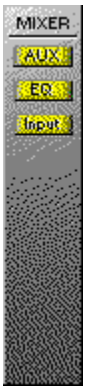
You need a significantly more powerful computer to playback in reverse than in forward.

"Mixer" Window

The "Mixer" window is a virtual "mixing desk" that lets you control various settings of each AUDIO or MIDI track in Music Centre Pro.

Each track has got its own "slice" in which you can modify many real-time parameter values.
AUDIO track slices are quite different from MIDI track slices.

A Track Slice will display at least the **BASIC Section**.



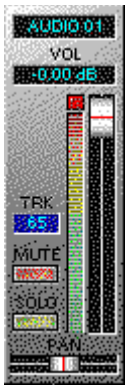
By default, track slices show a basic set of controls but can be expanded to show more controls by using the MIXER Section Buttons.

You can switch the INPUT, EQ, and AUX Sections on and off by clicking the corresponding buttons in the MIXER Section.

Please note that each mixer parameter whose control is associated with a value display can be modified directly using a value list invoked whenever the value display is clicked. This can be very convenient to set a parameter to a specific value without using the knobs or faders.

"Basic" Section (Mixer)

The 'BASIC' section of a track's mixer slice is where you can control the basic real-time parameters for that track.



AUDIO

MIDI

Click in these images to get more help.

"Track Name" (Mixer) MIDI and MIDI

Displays the Track Name.

When clicked, invokes a dialog box including an edit field in which you can type a new name for the track (max 16 char.).

MIDI For MIDI Tracks, the Track Name should not be confused with the sound names assigned to a track which reflects the sound played on that channel.

"Sound" (Mixer) MIDI

Displays the name of the Program Change currently used on the track channel.

When clicked, allows sound change in the MIDI device which receives MIDI messages on the track channel (the device must be able to receive Program Change messages).

The sound is selected using a dialog box displaying the Sound Name Set associated with the track channel.

"Mute" (Mixer) MIDI and MIDI

Switches the track ON or OFF (depending on the previous state).
When MUTE is ON, the track doesn't play and the button is highlighted.

"Solo" (Mixer) MIDI and MIDI

Will mute all other tracks so that only one track is played.

- If SOLO is OFF :
  Mutes all tracks except this track.
- If SOLO is ON :
  Returns to the track state as it was before SOLO was turned on.

"Xpose" (Mixer) MIDI

Displays the amount of transposition applied to the track.

When clicked, allows you to change the transposition value using a list of amounts ranging from -24 to +24 semi-tones.

This is a real-time transposition that does not change the key number that is actually stored for each note event, thus by changing the Xpose value you will not actually alter any of your MIDI data. If you do want to change the actual MIDI data, use the "Transpose" function in the "Track" menu.

"Channel" (Mixer) MIDI

Displays the MIDI Channel assigned to the track.
When clicked, invokes a Channel List from which you can select another channel.

MIDI A channel can be used only if the corresponding MIDI Port is defined (See Options/MIDI Devices).

"Volume" (Mixer) MIDI and MIDI

Allows adjustment of the Track Volume.

AUDIO Track Volume ranges from 0 to 128.

MIDI Track Volume ranges from 0 to 127.

On a MIDI track, changing the value sends Volume Control messages on the track channel (Controller #7).

"Pan" (Mixer) MIDI and MIDI

Allows adjustment of the Track Pan (Stereo Balance).

On a MIDI track, changing the value sends Balance Control messages on the track channel (Controller #10).

When the slider is centred, the thumb colour is a RED line, when not centred, it changes to a blue line.

"Meter" (Mixer) MIDI and MIDI

When playback is running :
For an audio track, displays the average level of the audio signal.
For a MIDI track, displays the peak velocity of the MIDI note messages included in the track.

However if a track is "record-ready", the meter displays :
The incoming audio signal (AUDIO Track)
The incoming MIDI note messages (MIDI Track).

"Track" (Mixer) MIDI and MIDI

Displays the Track Number.

It is highlighted whenever the track is the Active Track.
When clicked, this track becomes the Active Track.

"Input" Section (Mixer)

The 'INPUT' Section of a track slice is where you can control the track recording.

 It is not possible to record AUDIO and MIDI at the same time.

AUDIO 

MIDI

Click in these images to get more help.

"Input Select" (Mixer) MIDI

Switch the audio track to record-ready state.

If only 'L' or 'R' is selected, the recording will be MONO.
If 'L' and 'R' are both selected on the same track, the recording is STEREO.

If, for the same Input Port, 'L' is selected on one track and 'R' on another, once the recording is completed two MONO files are generated; one for the first track and one for the second.

At least one track must be in a record-ready state before you can start recording using the "Record" command.

MIDI It is not possible to record AUDIO and MIDI at the same time.

"Input Select" (Mixer) MIDI

Switch the MIDI track to record-ready state.

Recording will only begin when a track has been put into a record-ready state.

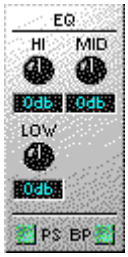
MIDI It is not possible to record AUDIO and MIDI at the same time.

"EQ/Controllers" Section (Mixer)

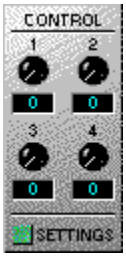
The 'EQ/Controllers' Section of a track slice is where you can :

Apply equalisation to a track.

adjust up to 4 pre-defined MIDI Controller values.



AUDIO



MIDI

Click in the images above to get more help.

"EQ Hi" (Mixer) MIDI

Allows modification of one of the EQ High Band parameter values depending on the current EQ parameter type selection.

Frequency :
Value fixed 8 kHz.
Type:
Low Shelf
Gain :
Value ranges from -15 to +15 dB.

"EQ Mid" (Mixer) MIDI

Allows modification of one of the EQ Medium Band parameter values depending on the current EQ parameter type selection.

Frequency :
Value fixed 1 kHz.
Type:
Peeking
Q (Slope) :
Value fixed 1.0 (soft slope).
Gain :
Value ranges from -15 to +15 dB.

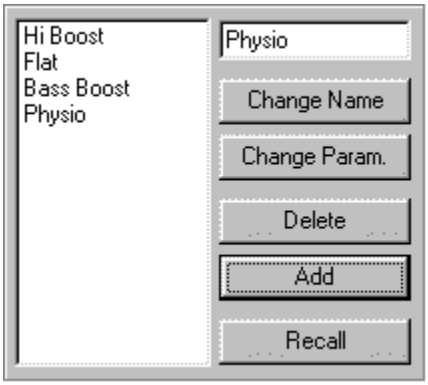
"EQ Low" (Mixer) MIDI

Allows modification of one of the EQ Low Band parameter values depending on the current EQ parameter type selection.

Frequency :
Value fixed 100 Hz.
Type:
High Shelf
Gain :
Value ranges from -15 to +15 dB.

"EQ Presets" (Mixer) MIDI

Clicking the "EQ Presets" button invokes the EQ Preset Dialog Box and the Graphic EQ parameter adjustments.



Click in the image above to get more help.

"EQ Preset List" (Mixer)

Displays all the user EQ Presets (stored in the Music Centre Pro EQ Preset Data Base - "QAMEQPST.QFP").

When a Preset is selected from the list you can :

- Change its name using the "Change Name" button.
- Change its parameters using the "Change Parameters" button.
- Remove it from the list using the "Delete" button.
- Load its parameter values using the "Recall" button.

"EQ Preset Name" (Mixer)

Displays the currently selected Preset name.

Here you can type a new name before adding a new Preset or renaming an existing one (max. 16 char.).

"EQ Preset Change Name" (Mixer)

Clicking this button allows you to change the currently selected Preset name.
You must first type a new name in the Preset Name edit field.

"EQ Preset Change Parameters" (Mixer)

Clicking this button allows you to replace the currently selected Preset parameter values with the current parameter values (the values set in the EQ section).

"EQ Preset Delete" (Mixer)

Clicking this button allows you to remove the currently selected Preset from the list of EQ Presets.

"EQ Preset Add" (Mixer)

Clicking this button allows you to add (create) a new Preset to the list of EQ Presets.
You must first give a name to the new preset by typing it in the Preset Name edit field.
Parameter values stored in the new preset are the current EQ parameter values (the values set in the EQ section).

"EQ Preset Recall" (Mixer)

Clicking this button allows you to replace the current EQ Parameter values with the currently selected Preset parameter values (load the Preset).

"EQ Bypass" (Mixer) MIDI

Lets you bypass the EQ.
When the button is ON the EQ is bypassed.

"Controller Values" (Mixer) MIDI

Moving these knobs results in sending a specific MIDI Control Change message on the track MIDI channel.

4 Controllers are defined for each track (using the "Settings" button).
This allows real-time control of parameters in the connected MIDI device (see your device implementation chart to know what type of control change messages are received and what their use is).

MIDI You cannot use a Controller knob unless the corresponding Controller type has been validated.

"Controller Settings" (Mixer)

Clicking this button invokes the "Real-time MIDI Controllers" definition dialog box.

In this dialog box you can define up to 4 Controller types using the corresponding drop-down lists.
If the selection is "***", it means that the corresponding controller type is not defined.

Controller 1 can be assigned to the MIDI controller **Tremolo** (92)
Controller 2 can be assigned to the MIDI controller **Chorus** (93)
Controller 3 can be assigned to the MIDI controller **Celeste** (94)
Controller 4 can be assigned to the MIDI controller **Phaser** (95)

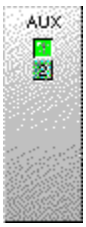
"AUX" Section (Mixer AUDIO Track only)

The 'AUX' Section of a track slice is where you can send the track audio signal to the Auxiliary Buses (sub-mixes) and apply effects to the AUDIO track.

See Examples of use of Auxiliary Buses for further information on how to connect internal software sound processors to Auxiliary Buses.

There is no correspondence for a MIDI track.

Click in the images above to get more help.



You can select the current Auxiliary Bus on the whole using the AUX buttons located in the "Mixer" window area at the left of the AUX row. Choosing an AUX using these buttons selects it for all the tracks at once.

"AUX Select" (Mixer) MIDI

Displays the currently selected Auxiliary Bus.

You can select the other AUX bus by clicking the second button. The currently selected Auxiliary Bus is the one to which other AUX Section controls apply. You can select the current AUDIO Auxiliary Bus globally using the AUX buttons located in the "Mixer" window area to the left of the AUX row. Choosing an AUX using these buttons will select it for all the tracks at once.

"AUX Volume" (Mixer)

Adjusts the amount of the track audio signal sent to the currently selected Auxiliary Bus.

This volume ranges from 0 to 128.

"AUX Pan" (Mixer) MIDI

Adjusts the position in the stereo field of the track audio signal sent to the currently selected Auxiliary Bus (all auxiliary buses are stereo).

This Pan ranges from -64 (full left) to 64 (full right).

"AUX DSP" (Mixer) MIDI

Invokes a popup menu including commands for :
Calling the Signal Processing Connection Dialog Box.
Calling the DirectX Plug-In Connection Dialog Box.

If at least one CANAM Processor is connected to the currently selected Auxiliary Bus, an additional command allowing direct access to the Processor Parameter Dialog Box will be present following the "Signal Processing" Command.

If at least one DirectX Plug-In is connected to the currently selected Auxiliary Bus, an additional command allowing direct access to the Plug-In Properties will be present following the "DirectX" Command.

See Examples of use of Auxiliary Buses for further information on how to connect internal software sound processors to the Auxiliary Buses.

"AUX Pre/Post" (Mixer) MIDI

Displays the mode used to send the track audio signal in the currently selected Auxiliary Bus.

Mode is always :
POST (PO1) : The signal is sent after the track level and pan are applied.

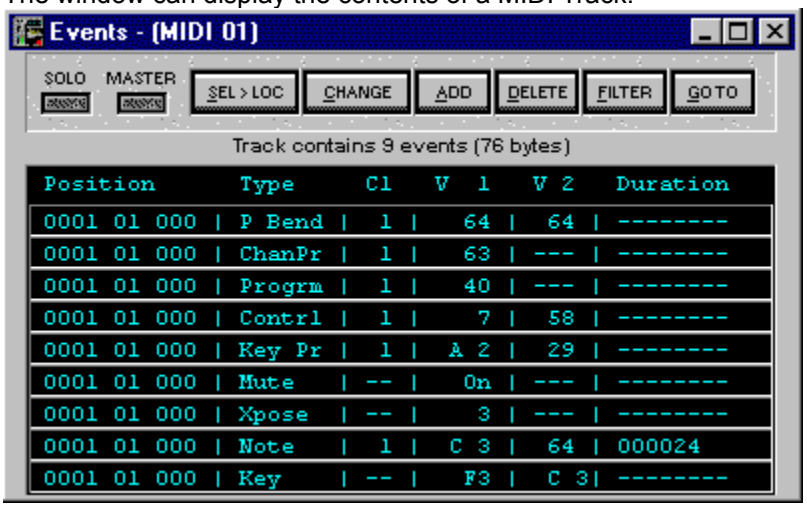
"Events" Window"

The "Events" Window allows you to view and edit MIDI events, non-MIDI events or Audio Elements in an alpha-numeric list format.

It is not graphical, but it packs a lot of information into a small space and is the only view that lets you see all types of events.

Depending on the current Active Track.

The window can display the contents of a MIDI Track.

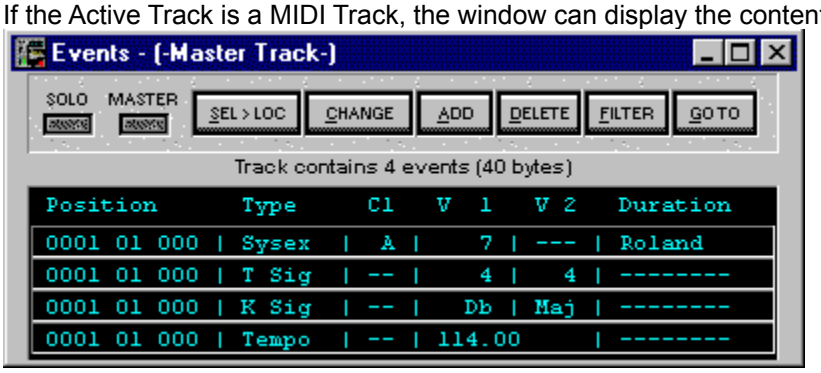


Click the image to get more information.

The window can display the contents of an AUDIO Track.

Click the image to get more information.

If the Active Track is a MIDI Track, the window can display the contents of the MASTER Track.



Click the image to get more information.

"LOCS" (Events)

Displays only those events included between the left and right locators.

"Master" (Events)

Switches the window to the Master Track View.

MIDI Only if "Active Track" is a MIDI track.

"Sel > Loc" (Events)

Sets the left and right Locators to the time range defined by the selected events in the list.

You must first select a group of events in the list, then click the "Sel > Loc" button.

The first selected event position gives a new value to the left Locator. The last selected event position gives a new value to the Right Locator.

You need to select at least 2 events.

"Change" (Events)

Invokes a dialog box where you can modify (edit) the last selected event in the event list.

The type of Dialog Box displayed depends upon the type of the selected item.

- **MIDI Event**
  The "MIDI Event" Dialog Box is displayed.

- **Audio Element**
  The "Modify Audio Element" Dialog Box is displayed.

- **Master Track Event**
  The "MIDI Event" Dialog Box or
  The "Change Sysex" Dialog Box is displayed.

You can get to the same result by double-clicking an event list item.

"Add" (Events)

Lets you add an event to the event list.

Depending on the type of track displayed, you will be presented a specific type of dialog box allowing definition of the event to add.

- **MIDI Track**

  The "MIDI Event" Dialog Box is displayed.

- **Audio Track**

  - If adding an Element :

    The "Modify Audio Element" Dialog Box is displayed after selection of a Source Wave File in a standard File Selector.

- **Master Track**

  - If adding a Sysex Event :

    The "Change Sysex" Dialog Box is displayed.
  - If adding an other type of event :

    The "MIDI Event" Dialog Box is displayed.

"Delete" (Events)

Deletes all events selected in the event list.

"Filter" (Events) MIDI

Lets you select the event types displayed in the event list.

The "Filter" dialog box includes as many check boxes as there are available types of event.

Check the boxes corresponding to the event types you wish to view.

The "Controller Filter" button, when clicked, invokes a dialog box where you can select/deselect specific controller types. The deselected controller types will not be displayed in the event list even if the "Controllers" check box is checked.

"Go To" (Events)

Allows you to scroll the Event List in order to see the event whose position is the closest to a reference position. Clicking the button invokes a time dialog box where you can type the value of the reference position.

"Key" (Events)

A "Key" non-MIDI Event is displayed from left to right by :

- Its **Position**
  Expressed in Bars/Beats/Clock Ticks (ex: 0001|01|00).
- Its **Type**
- Its **First Value**
  Which corresponds to the Key Type.
- Its **Second Value**
  Which corresponds to Key Split Point (only for Split Key Type).

"Note" (Events)

A "Note" MIDI Event is displayed from left to right by :

- Its **Position**
  Expressed in Bars/Beats/Clock Ticks (ex: 0001|01|00).
- Its **Type**
- Its **Channel**
  Which corresponds to the original channel on which the event was recorded.
- Its **First Value**
  Which corresponds to the note Pitch.
- Its **Second Value**
  Which corresponds to the note Velocity.
- Its **Duration**
  Which is the length of the note expressed in Clock Ticks.

By clicking a Note Event item with the right mouse button, it is played.

"XPose" (Events)

An "XPose" non-MIDI Event is displayed from left to right by :

- Its **Position**
  Expressed in Bars/Beats/Clock Ticks (ex: 0001|01|00).
- Its **Type**
- Its **First Value**
  Which corresponds to the Transposition Value.

"Mute" (Events)

A "Mute" non-MIDI Event is displayed from left to right by :

- Its **Position**
  Expressed in Bars/Beats/Clock Ticks (ex: 0001|01|00).
- Its **Type**
- Its **First Value**
  Which corresponds to the Mute Status (Off/On).

"Key Pressure" (Events)

A "Key Pressure" MIDI Event is displayed from left to right by :

- Its **Position**
  Expressed in Bars/Beats/Clock Ticks (ex: 0001|01|00).
- Its **Type**
- Its **Channel**
  Which corresponds to the original channel on which the event was recorded.
- Its **First Value**
  Which corresponds to a Pitch.
- Its **Second Value**
  Which corresponds to the Pressure strength.

"Control Change" (Events)

A "Control Change" MIDI Event is displayed from left to right by :

- Its **Position**
  Expressed in Bars/Beats/Clock Ticks (ex: 0001|01|00).
- Its **Type**
- Its **Channel**
  Which corresponds to the original channel on which the event was recorded.
- Its **First Value**
  Which corresponds to the Controller Type.
- Its **Second Value**
  Which corresponds to the Controller Value.

"Program Change" (Events)

A "Program Change" MIDI Event is displayed from left to right by :

- Its **Position**
  Expressed in Bars/Beats/Clock Ticks (ex: 0001|01|00).
- Its **Type**
- Its **Channel**
  Which corresponds to the original channel on which the event was recorded.
- Its **First Value**
  Which corresponds to the Program Number.

"Channel Pressure" (Events)

A "Channel Pressure" MIDI Event is displayed from left to right by :

- Its **Position**
  Expressed in Bars/Beats/Clock Ticks (ex: 0001|01|00).
- Its **Type**
- Its **Channel**
  Which corresponds to the original channel on which the event was recorded.
- Its **First Value**
  Which corresponds to the Pressure strength.

"Pitch Bend" (Events)

A "Pitch Bend" MIDI Event is displayed from left to right by :

- Its **Position**
  Expressed in Bars/Beats/Clock Ticks (ex: 0001|01|00).
- Its **Type**
- Its **Channel**
  Which corresponds to the original channel on which the event was recorded.
- Its **First Value**
  Which corresponds to the Pitch Bend Fine Value.
- Its **Second Value**
  Which corresponds to the Pitch Bend Coarse Value.

"Sysex" (Events)

A "Sysex" MIDI Event is displayed from left to right by :

- Its **Position**
  Expressed in Bars/Beats/Clock Ticks (ex: 0001|01|00).
- Its **Type**
- Its **Channel**
  Which corresponds to the MIDI Out Port on which the event is sent.
- Its **First Value**
  Which corresponds to the size of the body of the sysex message.

"Time Signature" (Events)

A "Time Signature" Event is displayed from left to right by :

- Its **Position**
  Expressed in Bars/Beats/Clock Ticks (ex: 0001|01|00).
- Its **Type**
- Its **First Value**
  Which corresponds to the Time Signature Numerator (Number of Beats).
- Its **Second Value**
  Which corresponds to the Time Signature Denominator (Beat Value).

"Key Signature" (Events)

A "Key Signature" Event is displayed from left to right by :

- Its **Position**
  Expressed in Bars/Beats/Clock Ticks (ex: 0001|01|00).
- Its **Type**
- Its **First Value**
  Which corresponds to the Key Signature Key.
- Its **Second Value**
  Which corresponds to the Key Signature Mode.

"Tempo Change" (Events)

A "Tempo Change" Event is displayed from left to right by :

- Its **Position**
  Expressed in Bars/Beats/Clock Ticks (ex: 0001|01|00).
- Its **Type**
- Its **First Value**
  Which corresponds to the Tempo Value (Number of **B**eats **P**er **M**inute).

"Audio Element" (Events)

An "Audio Element" Event is displayed from left to right by :

- Its **Position**
  Expressed in Bars/Beats/Clock Ticks (ex: 0001|01|00).
- Its **Source**
  The Sound File which is the Data Source of the Element.
- Its **Name**
  The Name of the Element.
- Its **End Position**
  Expressed in Bars/Beats/Clock Ticks (ex: 0001|01|00).

"Keyboard" Window MIDI

The "Keyboard" Window provides you with a virtual piano which can be used to :

- **Play MIDI notes** (on the Active Track MIDI Channel).
- **Record MIDI notes** (if the Active Track is in the record-ready state).
- **Display MIDI notes** contained in the Active Track while the sequence is running.

MIDI If the active track is an **AUDIO** track the virtual piano doesn't display anything.

You can play and record notes by clicking on the virtual keyboard keys with the left mouse button.

The "Mouse Range" drop-down list allows adjustment of:

- pitch of notes played when the virtual piano is clicked.
- The pitch of notes recorded using the virtual piano while Music Centre Pro is recording.
- The pitch of notes displayed while the sequence is playing.

If you wish to have the "keyboard" displaying notes and numbers, validate the "Notes" check box.

"Mouse Range" (Keyboard)

Includes a list of various note ranges covering the whole MIDI note range.

Selecting a range changes the way :

- Notes are played when the virtual piano is clicked.
- Notes are recorded when the virtual piano is clicked while Music Centre Pro is recording.
- Notes are displayed when sequence is playing.

"Notes" (Keyboard)

If checked, note values and numbers are displayed on the virtual piano keys.

"Juke Box" Window

The "Juke Box" Window displays the list of Sequence Files which makes up the current Juke Box configuration.

A Juke Box configuration is a set of up to 32 Sequence Files which are played in sequence (it's a sequence of sequences).

For each Sequence File, some options can be defined.

MIDI Midifiles cannot be used in a Juke Box configuration.

Each line (item) in the list represents a Music Centre Pro Sequence File.

A Sequence File is displayed, from left to right, by :

- Its **index (ID),** i.e. its position in the list.
- Its **file name**.
- Its **Count-In**, allowing a "Count" to be generate before the sequence starts.
- Its **delay,** allowing a wait time before the sequence starts.
- Its **mode,** "Normal" or "Arrange"

By clicking an item with the right mouse button, the corresponding Sequence File is loaded from disk and started.

By clicking an item with the left mouse button you notify the program that the corresponding Sequence File must be the first to be played.

By double-clicking an item or selecting it and then clicking the "Change" Button, you can modify the corresponding Sequence File and its associated options.

A group of selected items can be deleted using the "Delete" Button.

You can add a Sequence File to the list by clicking the "Add" button.

You can save to disk or load from disk a Juke Box configuration by clicking the "Save" or "Load" button.

You can start the "Juke Box" configuration playback using the "Play" Button and stop it using the "Stop" Button.

"Load" (Juke Box)

Lets you load a "Juke Box" configuration previously saved using the "Save" command.

A "Juke Box" configuration is a list of Sequence Files.
"Juke Box" configuration file names have the ".JKB" extension.

Selection of the Sequence File is achieved using a standard File Selector.

"Save" (Juke Box)

Lets you save the current "Juke Box" configuration to disk.

A "Juke Box" configuration is a list of Sequence Files.
"Juke Box" configuration file names have the ".JKB" extension.

File naming and selection of target directory on disk is achieved using a standard File Selector.

"Change" (Juke Box)

Lets you modify, through a dialog box, the last selected Sequence File in the "Juke Box" window list.

The "Change" dialog box includes all the required parameters.

-> See "Juke Box" for a description of those parameters.

"Add" (Juke Box)

Lets you add a Sequence File to the "Juke Box" window list by selecting a Music Centre Pro Sequence File from a standard file selector.

This does not load the Sequence File into memory but only its File path.

The new Sequence File is inserted at the end of the list with the default options.

To change it, afterwards, use the "Change" command.

"Delete" (Juke Box)

Lets you delete all selected items in the "Juke Box" window list.

"Play" (Juke Box)

Starts playback of the list of Sequence Files defined in the "Juke Box" window list.
Playback of a "Juke Box" configuration cannot be started by clicking the normal "Play" button in the "Control" Window.

"Stop" (Juke Box)

Stops playback of the list of Sequence Files defined in the "Juke Box" window list.
You can also stop the playback by clicking the normal "Stop" button in the "Control" Window.

"Score" Window

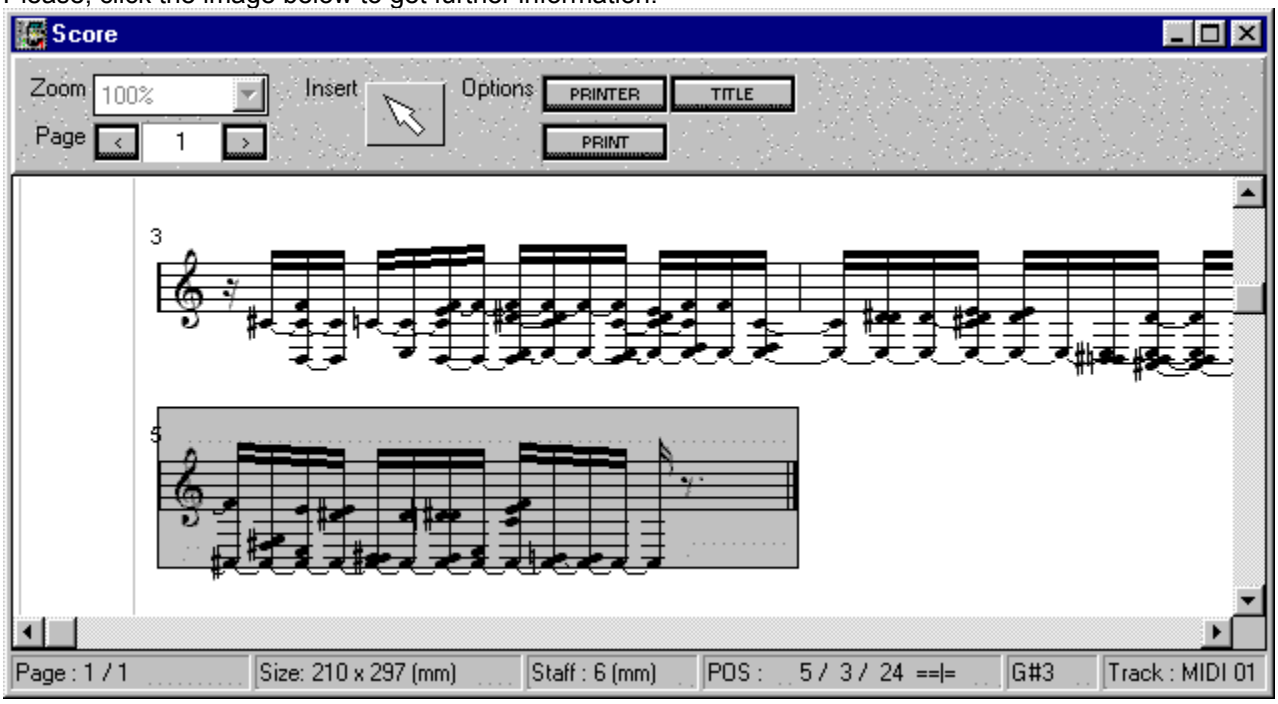
The "Score" Window allows you to view notes from one or several tracks in the form of musical notation. The "score" can be printed on a standard Windows compatible Printer.

The window is automatically updated when the sequence is played back or when you manually modify the current sequence position. This way, you can easily access a music part at any time. While music is running, notes played are displayed in real-time on staves across which a cursor moves.

The "Score" Window includes 3 areas :

A Control bar in the upper part, the staves in the main display, and a Status bar in the lower part. The Control bar allows you to choose the display and print parameters as well as the selection and insertion tools. The Status bar gives all information regarding current page and mouse cursor position.

Please, click the image below to get further information.



"Zoom" (Score)

This function has been removed from the final version of the program.

"Page" (Score)

The central area shows the current page number.

The "<" and ">" Buttons allows you to go to the next or previous page.

It's an easy way of moving inside the score without using the "Control" Window TRANSPORT commands.

"Insert Tool" (Score)

Clicking the "Insert" button invokes a popup menu which includes:

- **One Selection tool (the arrow):**

  When this tool is active, the mouse cursor has an arrow shape. Clicking or dragging the mouse selects a note, a group of notes, a Bar or several bars. When something is selected in the "Staves" area, several Edit operations are possible by activating the "Score" Window Edit Menu using right mouse button.

- **Several Insert tools (the notes):**

  When one of the Insert Tools is active, the mouse cursor has a pen shape. Clicking on a staff inserts a note of the selected length, at the position where the click occurs. (to know the exact mouse position, look at the status bar before clicking).

"Printer" (Score)

Invokes the standard Windows Printer configuration dialog where you can choose on which printer you want to print the score (if several are installed), the paper size and orientation.

"Title & Copyright" (Score)

Invokes a dialog box where you can type a TITLE and a COPYRIGHT which will be displayed on the top of the first page.

The "On First Page" button must be checked to have the TITLE displayed, the COPYRIGHT, however, once typed is always displayed.

Check the "Page Numbering" button to have page numbers displayed on each page. These options apply to both screen and printer.

"Print" (Score)

Prints the score, using the Windows Print manager.

"Score View" (Score)

The central area of the "Score" Window display the Score view.

Here you can :

- Insert notes on staves using one of the Insert Tools.
- Move notes on staves.
- Select a single note or a group of notes.
- Select a single bar or a group of bars.
- Move the score position cursor.

Clicking the right mouse button while the mouse cursor is anywhere in the score view invokes the "Score Edit Menu".

"Edit Menu" (Score)

The Score Edit Menu appears whenever you click the right mouse button while the mouse cursor is anywhere in the score view.

This menu includes 2 parts:

Actions on One or Several selected notes :

- **Cut**

  Deletes selected notes and keeps them available in the Music Centre Pro Score Clipboard.
- **Copy**

  Copies selected notes to the Music Centre Pro Score Clipboard.
- **Delete Note**

  Deletes selected notes for ever.
- **Transpose/Velocity**

  Transposes and/or changes the velocity of selected notes
- **Paste**

  Pastes one or several notes previously Cut or Copied to the Music Centre Pro Score Clipboard, at the score view current position.

Menu commands, except Paste, are only valid if at least one note is selected. The Paste command is only valid if data exists in the Music Centre Pro Score Clipboard.

Actions on Pages and position cursor :

- **Go to Page**

  Lets you type a page number to go to.
- **Go to page with cursor**

  Displays the page corresponding to the current score position.
- **Change position of cursor**

  Lets you type a time in Bar/Beat/Clock ticks for current score position.
- **Retrieve cursor in current page**

  Sets the current score position to the first bar of the current page.

Though the current score position can be moved independently of the current sequence position, it always follows the current sequence position whenever it changes.

Current page (Score Status Bar)

Gives the current page number and the total number of pages.

Page size (Score Status Bar)

Gives the size of the page (width x height) as defined in the printing parameters (depending on paper size and orientation: portrait or landscape).

Height of the staves (Score Status Bar)

Gives the height of the staves as defined in the Score Display Dialog Box (6 mm).

Position (Score Status Bar)

Gives the time position, in Bar/Beat/Clock ticks, corresponding to the horizontal mouse cursor co-ordinate.

Pitch (Score Status Bar)

Gives the pitch corresponding to the vertical mouse cursor co-ordinate.

MIDI Track (Score Status Bar)

Gives the name of the Track on which the mouse cursor is located.

"Grid" Window MIDI

The "Grid" Window displays the MIDI notes from the Active Track in a graphical form.

The vertical axis represents pitch and the horizontal axis displays time in bars. The pitches are mapped out by the keyboard on the left side and the bars are labelled at the top of the window.

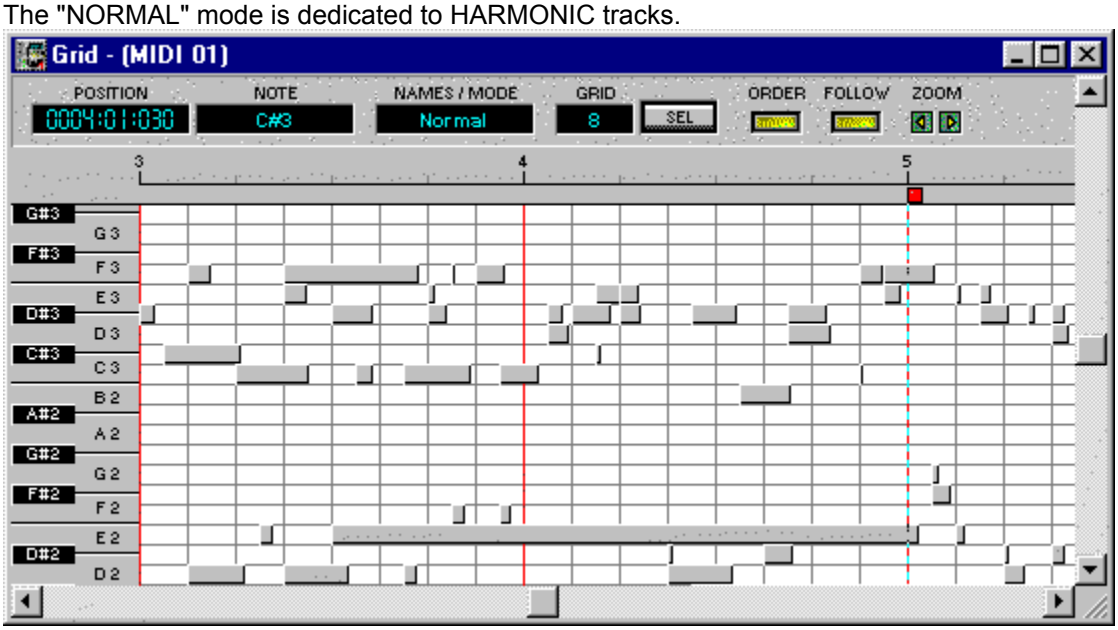
MIDI If the Active Track is not a MIDI track nothing is displayed.

Right-clicking in the "Grid" window Main View brings up a Tool Box.

Click on this image to learn about the tool functions.

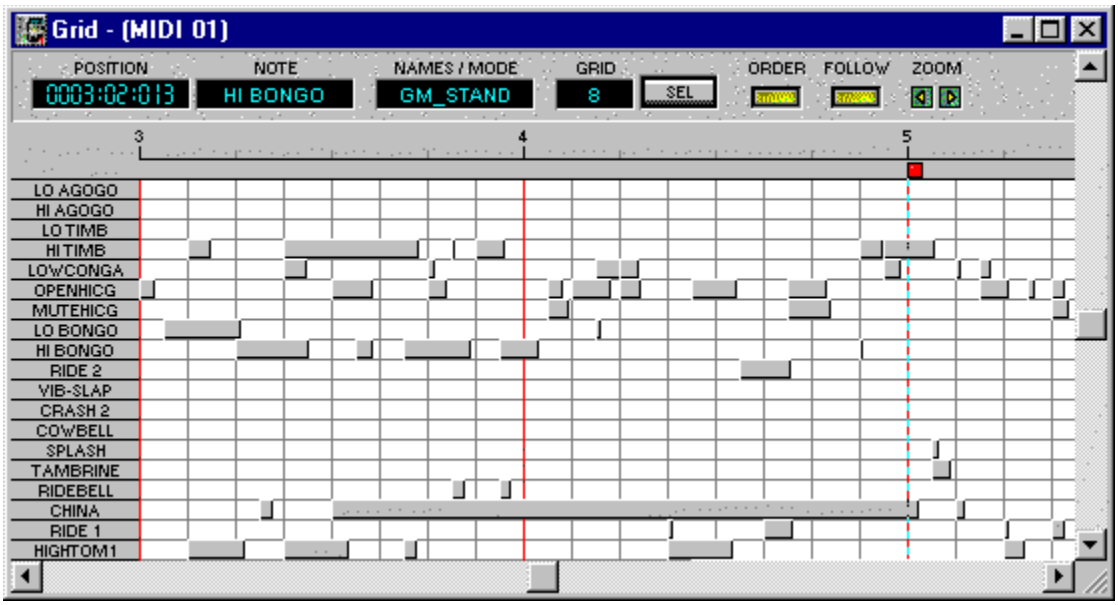
Two display modes can be used in the window.

The "NORMAL" mode is dedicated to HARMONIC tracks.



Click on any image area to learn about its function.

The "DRUM EDIT" mode is dedicated to PERCUSSION tracks.



Click on any image area to learn about its function.

"Position" (Grid)

This area displays the TIME POSITION corresponding to the current mouse cursor horizontal co-ordinate in the "Grid" Window.

"Pitch" (Grid)

This area displays the PITCH corresponding to the current mouse cursor vertical co-ordinate in the "Grid" Window.

"Names/Mode" (Grid)

Two display modes can be used in the "Grid" Window.

The "NORMAL" mode dedicated to HARMONIC tracks and The "DRUM EDIT" mode dedicated to PERCUSSION tracks.

In "NORMAL" mode, pitches are mapped out by a pseudo keyboard on the left side of the window.

In "DRUM EDIT" mode, the keyboard is replaced by a list of names, each one corresponding to a percussion instrument (remember that a MIDI Drum Kit includes one instrument per note).

Names are taken from a Note Name List file which is a simple text file that can be easily created by the user.

Note Name List files have the "DRM" extension and MUST be located is the "SET" sub-directory of the main program directory in order to be found by the program.

Two Note Name List files are initially present in this directory :
"DEFAULT.DRM" in which names are simple numbers.
"GM_STAND.DRM" in which names correspond to a standard GM/GS Drum Kit configuration.

Steps to create your own Note Name List files :

- Open the "DEFAULT.DRM" file using the Windows Notepad program (or any raw text editor).
- You'll then see a series of lines in the form NUMBER=NUMBER. The number on the left of the equal sign is the MIDI note number; and the number on the right is the name assigned to this note.
- Replace all the numbers on the right with appropriate names (have a look at the Drum Kit tables in your sound generator user manual). If in your sound generator, a MIDI note is not assigned to any percussion instrument, just delete the line corresponding to this MIDI Note (it will then be displayed as "-------" by the program).
- When finished, save your file with an original name and place it in the "SET" sub-directory.

You can create as many Note Name List files as desired and place them in the "SET" sub-directory; they will then be selectable from the "Grid" window.

Clicking the "Names/Mode" area invokes a list box where you can select either the "PIANO_ROLL" mode (represented by the NORMAL item) or a the "DRUM EDIT" mode (represented by the Note Name List files).

If you have created a new Note Name List file and it is not displayed in the list box, it is probably not present in the "SET" sub-directory or it doesn't have the "DRM" extension. If a Note Name List file is selected and the names displayed by the program do not correspond to the sounds in your sound generator, that means that you made mistakes while creating the file. In this case just reopen the file and correct it.

"Grid Value" (Grid)

Displays the currently selected musical division applied to the "Grid" window (grid value).

When clicked, this invokes a list box including a series of musical divisions ranging from "---" (1 tick) to "1" (whole bar), where you can make your selection.

The grid value has the effect :

On the "Grid" window display (vertical lines are spaced according to the division).

On the position and length of the notes when inserted, moved, sized, and so on (snap function).

On the length of notes whenever the Grid Select function is used.

"Grid Select" (Grid)

Lets you set the length of all currently selected notes to the current grid value. At least one note must have been selected using the Select Tool.

"Order" (Grid)

Allows you to choose the "Grid" window Pitch Order.

When the button is selected (highlighted), high notes are on top and low notes are at the bottom of the "Grid" window (better when viewing the contents of a harmonic track).

When the button is not selected, low notes are on top and high notes are at the bottom of the "Grid" window.

"Follow" (Grid)

When this button is selected (highlighted), the "Grid" window position cursor will follow the current sequence position while music is playing and thus display will be updated according to the current position.

When this button is not selected, the "Grid" window cursor position never moves and the display is not updated.

"Ruler" (Grid)

The "Grid" window Time Ruler displays the bar and beat divisions in its upper part and Locator "flags" in its lower part.

- Clicking anywhere in the upper part of the ruler :

  With the LEFT mouse button, sets the current sequence position to the time position corresponding to the current mouse cursor horizontal co-ordinate.

  With the RIGHT mouse button, invokes a popup menu including commands which let you set the current sequence position to particular time positions (Start, End, Left Locator and Right Locator) and to choose the behaviour of the horizontal zoom :

  Normal : Horizontal zoom takes the left display limit as reference when expanding;

  Centred on current position : Current position cursor is always centred when zoom is expanded.

- Clicking anywhere in the lower part of the ruler :

  With the LEFT mouse button sets the Left Locator position to the time position corresponding to the current mouse cursor horizontal co-ordinate.

  With the RIGHT mouse button sets the Right Locator position to the time position corresponding to the current mouse cursor horizontal co-ordinate.

"Keyboard" (Grid)

When the NORMAL display mode is selected, this area shows a pseudo keyboard. Clicking on one of the keyboard keys plays the corresponding note.

"Name List" (Grid)

When the DRUM EDIT display mode is selected, this area shows a list of names, each one is supposed to correspond to an instrument.

Clicking on one of the names plays the corresponding instrument.

"Main View" (Grid)

The "Grid" window Main View is where notes from the Active Track are displayed as small grey rectangles making this view look like a piano roll.

Here you can do whatever you want concerning notes (add notes, delete notes, move notes, etc..) using the computer mouse and the various tools provided.

"Arrow Tool" (Grid)

A simple click in the "Grid" window Main View while this tool is selected results in this :

- **If the Mouse cursor lies over a note rectangle**, the note is selected. If you keep the mouse button pressed you can move the selected note to another position and/or pitch.
- **If the Mouse cursor does not lie over a note rectangle**, all previously selected notes are deselected. If you keep the mouse button pressed and move the mouse cursor you can define an area in which all notes will be selected after the mouse button is released (this can also be achieved using the Selection Tool).

A double click in the "Grid" window Main View while this tool is selected results in that :

- **If the Mouse cursor lies over a note rectangle**, the note is selected and a dialog box is invoked in which you can modify the selected note attributes (position, pitch and velocity). Note this can also be achieved using the Edit Tool.

"Pen Tool" (Grid)

Clicking in the "Grid" window Main View while this tool is selected results in this :

- A single note is placed on the grid at the position of the mouse cursor.
- Positions and length are snapped to the nearest musical division defined by the grid value.

"Eraser Tool" (Grid)

Clicking in the "Grid" window Main View while this tool is selected results in this :

- **If the Mouse cursor lies over a note rectangle**, the note is deleted.
- **If the ALT key is depressed**, all currently selected notes are deleted even if no note is lying under the mouse cursor. Note that you can get the same result pressing the computer DEL key.

"Move Tool" (Grid)

Clicking in the "Grid" window Main View while this tool is selected results in this :

- **If the ALT key is depressed and a group of notes is selected**, keeping the mouse button down and moving the mouse cursor allows you to move the whole group at once. Note that you can achieve the same result using the left and right computer keyboard arrow keys.
- **Else if the mouse cursor is over a note rectangle**, keeping the mouse button down and moving the mouse cursor allows you to move this note.

If the CONTROL key is kept pressed while performing this operation Elements are not moved but **copied** (duplicated).

Positions are snapped to the nearest musical division defined by the grid value.

"Size Tool" (Grid)

Clicking in the "Grid" window Main View while this tool is selected results in this :

- **If the Mouse cursor lies over a note rectangle**, keeping the mouse button down and moving the mouse cursor allows you to size the note rectangle and thus change the note length.

Lengths are snapped to the nearest musical division defined by the grid value.

"Selection Tool" (Grid)

Clicking in the "Grid" window Main View while this tool is selected results in this :

- **If the Mouse cursor lies over a note rectangle**, the note is selected and all other previously selected notes are deselected <u>if the CONTROL key is not depressed</u> in which case only this note is selected or deselected depending on its previous state.
- **If the Mouse cursor does not lie over a note rectangle**, all previously selected notes are deselected. If you keep the mouse button pressed and move the mouse cursor around, you can define an area in which all notes will be selected after the mouse button is released.

"Edit Tool" (Grid)

Clicking in the "Grid" window Main View while this tool is selected results in this :

- **If the Mouse cursor lies over a note rectangle**, the note is selected and a dialog box is invoked in which you can modify the selected note attributes (position, pitch and velocity).

"Locator Tool" (Grid)

Clicking anywhere in the "Grid" window Main View while this tool is selected results in this :

- **If the ALT key is depressed**, sets the RIGHT Locator position to the time position corresponding to the current mouse cursor horizontal co-ordinate.
- **Else**, sets the LEFT Locator position to the time position corresponding to the current mouse cursor horizontal co-ordinate.

Positions are snapped to the nearest musical division defined by the grid value.

"Controllers" Window

The "Controllers" Window allows graphic visualisation and editing of "Controller", "Pitch Bend" and "After Touch" events from the Active Track (if it is a MIDI track).

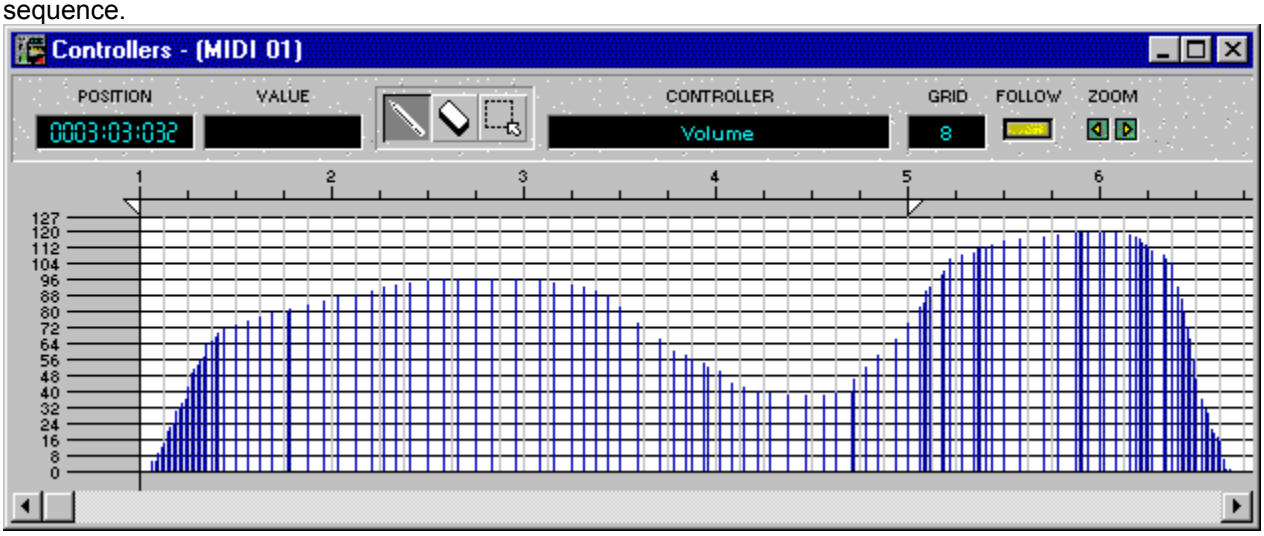
In the "Controllers" window, events are displayed as thin vertical lines.
The line height corresponds to the value of the "Controller", "Pitch Bend" or "After Touch" while its horizontal position corresponds to its time position.

The Left part of the window displays numeric markers :

- 0 thru 127 for "Controller" and "After Touch" event type.
- -128 thru +127 for "Pitch Bend" event type.

Bar numbers as well as Beat divisions are displayed in the ruler on top of the window.

The window is automatically updated when the sequence is running or when you manually modify the current sequence position. This way, you can easily access a music part located anywhere in the sequence.



Click on any image area to learn about its function.

"Position" (Controllers)

This area displays the TIME POSITION corresponding to the current mouse cursor horizontal co-ordinate in the "Controller" Window.

"Value" (Controllers)

This area displays two values :

- On the Left :

  The value corresponding to the last event of the type currently being displayed.
- On the Right :

  The value corresponding to the current mouse cursor vertical co-ordinate in the "Controller" Window main view.

"Insert Tool" (Controllers)

Clicking in the "Controllers" window Main View while this tool is selected results in this :

- **If the CONTROL key is depressed**, keeping the mouse button down and moving the mouse cursor allows you to draw a line whose purpose is to define an "envelope segment".
  When the mouse button is released, the program uses this line to insert multiple events between the time positions corresponding to the start and the end of the line with values following the line slope.
  The space between each of the inserted events is equal to the "Controllers" window current Grid value.
- **If the ALT key is depressed**, and some events are selected, a rectangle surrounding all the selected events is drawn.
  Keeping the mouse button down and moving the mouse cursor resizes the rectangle.
  When the mouse button is released, the difference between the initial rectangle height and the current rectangle height is used by the program to modify all the selected event values proportionally.
- **Else**, keeping the mouse button down and moving the mouse cursor allows you to draw a Controller Curve (i.e. each time the mouse cursor is moved an event is inserted at the position corresponding to the mouse cursor horizontal co-ordinate and with a value corresponding to the mouse cursor vertical co-ordinate).
  However, note that the space between inserted events cannot be lower than the "Controllers" window current Grid value.

While using the Insert Tool, you can always watch the Position and Value areas. This will help you to get more accurate results.

"Eraser Tool" (Controllers)

When this tool is selected, left-clicking, while the mouse cursor is anywhere above the window main view and keeping the mouse button down allows you to draw a rectangle which is resized each time the mouse cursor is moved. When the mouse button is finally released, any event lying inside the rectangle will be deleted.

Note that you can also delete at any time some events by :

- Selecting a series of events with the "Selection" Tool.
- Pressing the computer keyboard DELETE key.

"Selection Tool" (Controllers)

When this tool is selected, dragging a zone anywhere above the window main view, selects (highlights) the events lying inside the zone.
Left-clicking, without moving the mouse cursor, deselects all previously selected events.
Double-left-clicking, without moving the mouse cursor, selects all track events at once.

"Controller Type" (Controllers)

Displays the currently selected event type.

When clicked, invokes a list box where you can select another type of event to be displayed in the "Controllers" window.

- When the Active Track is a MIDI Track, all standard "Controllers" are available as well as "Pitch Bend" and "After Touch" event types

"Grid" (Controllers)

Displays the "Controllers" window current Grid Value.
When clicked, invokes a list box where you can select another Grid value.

The Grid Value is used by the program :

- To draw equidistant division lines in the window main view
- To "snap" the mouse cursor when clicking in the lower part of the Ruler (Locator position change).
- When inserting events using the "Insert" Tool.

"Follow" (Controllers)

When this button is selected (highlighted), the "Controllers" window follows the current sequence position while a sequence is playing.

When this button is not selected, the "Grid" window position cursor never moves and its display is not updated according to the current sequence position.

"Zoom" (Controllers)

These two buttons allow you to zoom the "Controllers" window main view horizontally.

"Ruler" (Controllers)

The "Controllers" window Time Ruler displays the bar and beat divisions in its upper part and the Locator "flags" in its lower part.

- Clicking anywhere in the upper part of the ruler :

  With the left mouse button, sets the current sequence position to the time position corresponding to the current mouse cursor horizontal co-ordinate.

  With the right mouse button, invokes a popup menu including commands which let you set the current sequence position to particular time positions (Start, End, Left Locator and Right Locator) and to choose the behaviour of the horizontal zoom :

  Zoom mode :

  Normal : Horizontal zoom takes the left display limit as reference when expanding;

  Centred on current position : Current position cursor is always centred when zoom is expanded.

- Clicking anywhere in the lower part of the ruler :

  With the left mouse button sets the Left Locator position to the time position corresponding to the current mouse cursor horizontal co-ordinate.

  With the right mouse button sets the Right Locator position to the time position corresponding to the current mouse cursor horizontal co-ordinate.

"Scroll Bar" (Controllers)

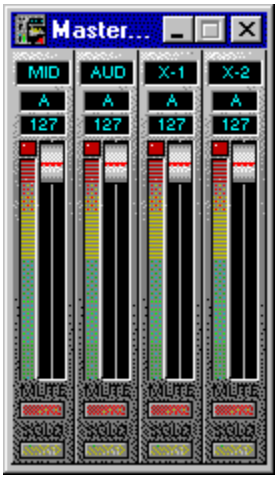
The "Controllers" window Horizontal scroll bar allows you to scroll through the track in order to see other time slices regardless the current sequence position.

"Master Mixer" Window

The "Master Mixer" window is a graphical "mixing desk" that lets you control various settings relating to the Output Ports and the Auxiliary Buses.

Each Port or AUX has its own "slice" in which you can modify some real-time parameter values.

The window contents can be dynamically sized using the "Functions" menu "Master Mixer" sub-menu (slices can be added and removed to gain space).



Click on any image area to learn about its function.

"Title" (Master Mixer)

Displays the type of Output managed by the slice (MIDI, AUDIO or AUX). If it is an AUX, an index is displayed which indicates the AUX number 1 or 2.

Clicking the area, removes the slice from the "Master Mixer" window.

"Port Selection" (Master Mixer)

Displays the letter of the destination Port managed by the slice.

- **MIDI**

  Clicking the area invokes a popup menu where you can select a physical MIDI Port among all those available in the system.

- **AUDIO**

  Clicking the area invokes a popup menu where you can select a physical AUDIO Port among all those available in the system.

- **AUX**

  This Port will be used to output the sound flowing through the Auxiliary Bus. Note that you will not be able to select a port unless it is defined in the AUDIO Devices Dialog Box.

"Meter" (Master Mixer)

Displays the Port or AUX activity in real-time .

"Volume" (Master Mixer)

This slider allows adjustment of the corresponding output volume (0 to 127).

"Mute" (Master Mixer)

This button lets you alternately switch the corresponding output on and off.

The output is muted when the button is highlighted.

"Solo" (Master Mixer)

This button lets you mute all the outputs except the one corresponding to this slice.
Solo is on when the button is highlighted.

"Master Mixer" Sub-Menu"

This sub-menu includes all possible commands allowing adjustment of the "Master Mixer" Window display.

There are :

2 commands for the MIDI group (each one corresponding to a MIDI Output Port).

1 command for the AUDIO group (corresponding to the AUDIO Output Port).

2 commands for the AUX group (each one corresponding to an Auxiliary Bus).

If a command in the MIDI or AUDIO group is greyed, it means that the corresponding port has not yet been defined in the MIDI or AUDIO Devices Dialog Box.

Clicking one of these commands alternately switches the corresponding MIDI Port, Audio Port or AUX Bus "slice" in the "Master Mixer" Window ON or OFF.

"Tracks" Window

The "Tracks" window is the heart of Music Centre Pro, where, like a jigsaw puzzle, all the components come together to create a complete piece of music, and like a puzzle, different pieces (Audio Elements, MIDI Elements) can be inserted, taken out, moved, and tried in other places until you find the perfect fit (or a perfect HIT).

The window includes 5 areas, each dedicated to specific functions :

- **The Command Bar.**

  Includes buttons allowing adjustment of the "Track" window display parameters

- **The Information Area.**

  Displays information about the mouse cursor position in the window.

- **The Time Ruler.**

  Displays Bar and Beat divisions and allows modification of the sequence position and the Locators.

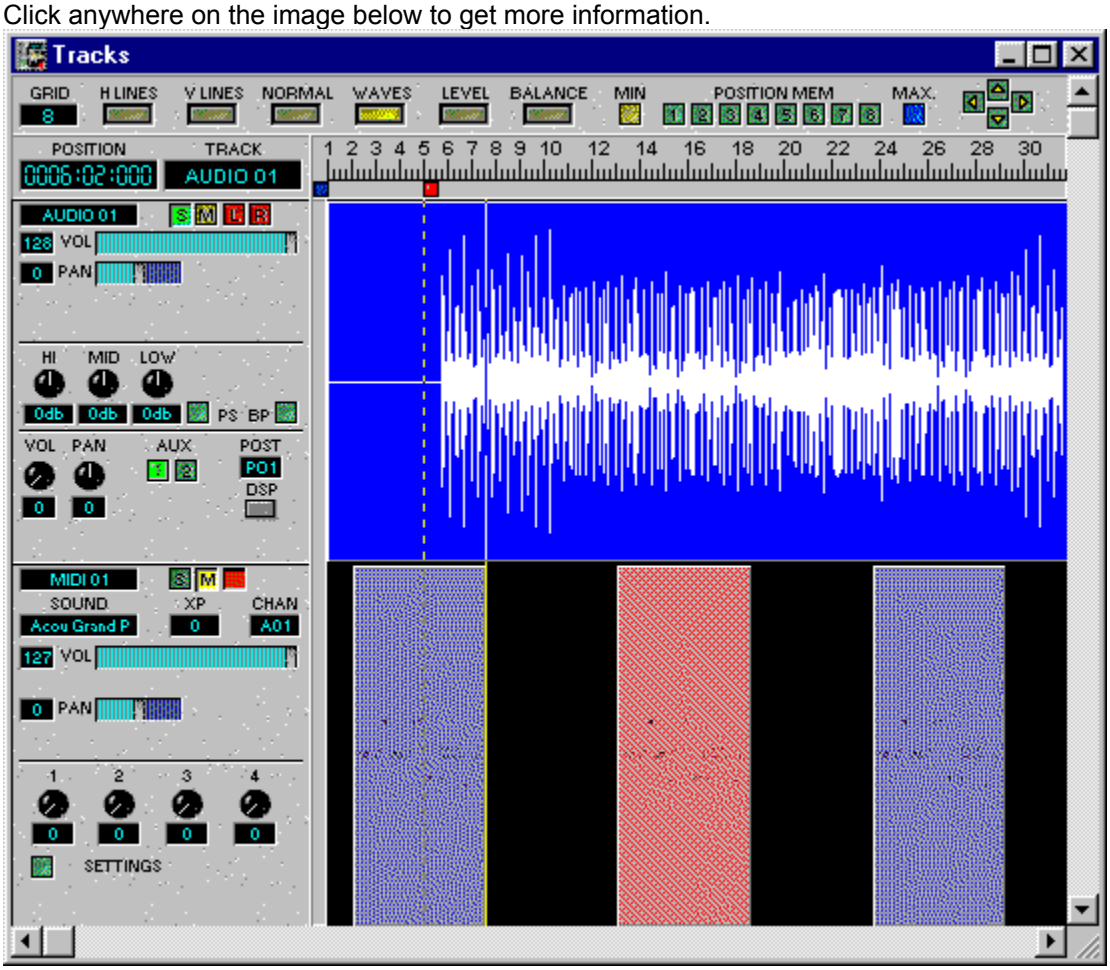
- **The Track Parameter Area.**

  Lets you control various real-time parameters applied to AUDIO and MIDI tracks (almost all that can be done in the "Mixer" window)

- **The Mix Grid.**

  In NORMAL mode, this area displays the Audio Elements and MIDI Elements contained in the sequence and allows editing operations that can be achieved graphically using the computer mouse.

Click anywhere on the image below to get more information.



"Grid Value" (Tracks)

Displays the currently selected musical division applied to the "Tracks" window (grid value).

When clicked, invokes a list box including a series of musical divisions ranging from "---" (1 tick) to "1" (whole bar), where you can select another division.

The grid value has the effect :

- On the "Tracks" window display (vertical lines, when enabled using the V LINES button, are spaced according to the division).
- On the position and length of the Audio Elements and MIDI Elements when inserted, moved, sized, and so on (snap function).

"Horizontal Lines" (Tracks)

Enables or disables track separators in the "Track" window Mix Grid.

"Vertical Lines" (Tracks)

Enables or disables time the visible divisions in the "Track" window Mix Grid according to the current grid value.

MIDI Even if this option is enabled, lines may not appear in the Mix Grid if the horizontal zoom factor is to small (in which case lines would be so close that it would become rather confusing).

"Mix Grid View Mode" (Tracks)

The 4 mutually exclusive buttons NORMAL / WAVES / LEVEL / BALANCE allow selection of the Mix Grid View Mode. The Mix Grid View Mode defines what what you will see displayed in the Audio Element and MIDI Element rectangle.

- **NORMAL**
  - Audio Elements
    The source sound file and element name is displayed.
  - Midi Elements
    The element name is displayed.
- **WAVES**
  - Audio Elements
    The Waveform of the source sound file is displayed (if the sound file is stereo only the left channel is displayed).
  - Midi Elements
    Notes included in the element are displayed as horizontal lines more or less wide according to their lengths and with a vertical position depending on their pitch.
- **LEVEL**
  - Audio Elements
    The element Level envelope is displayed.
  - Midi Elements
    Notes included in the element are displayed as vertical lines depending on their positions and with a height depending on their velocity value.
- **BALANCE**
  - Audio Elements
    The element Balance envelope is displayed (this is a horizontal line through the middle of the element, it's height depends on the stereo position of the wave sound).
  - Midi Elements
    As in NORMAL mode

"Zoom" (Tracks)

"Grid" window horizontal and vertical Zoom factors can be easily adjusted.

- **HORIZONTAL Zoom**

  The default horizontal zoom factor of the Mix Grid is one pixel per clock tick.

  The horizontal zoom factor can be increased to get more pixels per clock tick in which case the time range displayed in the Mix Grid is shorter (and element rectangles are wider).

  Use the and
buttons to increase or decrease the horizontal factor.

- **VERTICAL Zoom**

  With the default vertical zoom factor, track rows are 16 pixels high.

  The vertical zoom factor can be adjusted using three different methods :

  - You can use the and
buttons to increase or decrease the vertical factor in which case all the track row heights are increased or decreased by steps of 16 pixels.
- You can use the MIN and MAX
buttons to set all track rows at once to their minimum or maximum height.
- You can individually set the height of each track row by dragging the bottom line of the Track Parameter area and optionally store the resulting configuration using the buttons which correspond to 8 memories of track height configuration (you store a configuration by clicking one of these buttons while keeping the CONTROL key depressed and you recall a configuration by a simple click on the same button). Note that the memorised configurations are part of a sequence file and thus can be reused only when loading a previously saved sequence.

"Position" (Tracks)

This area displays the TIME POSITION corresponding to the current mouse cursor horizontal co-ordinate in the "Tracks" window Mix Grid.

"Track" (Tracks)

This area displays the TRACK corresponding to the current mouse cursor vertical co-ordinate in the "Tracks" window Mix Grid.

"Time Ruler" (Tracks)

The "Tracks" window Time Ruler displays the bar and beat divisions in its upper part and the Locator "flags" in its lower part.

- Clicking anywhere in the upper part of the ruler :

  With the left mouse button, sets the sequence current position to the time position corresponding to the current mouse cursor horizontal co-ordinate.

  With the right mouse button, invokes a popup menu including commands which let you set the sequence current position to particular time positions (Start, End, Left Locator and Right Locator) and to choose the behaviour of the horizontal zoom :

  Zoom mode :

  Normal : Horizontal zoom takes the left display limit as reference when expanding;

  Centred on current position : Current position cursor is always centred when zoom is expanded.

- Clicking anywhere in the lower part of the ruler :

  With the left mouse button sets the Left Locator position to the time position corresponding to the current mouse cursor horizontal co-ordinate.

  With the right mouse button sets the Right Locator position to the time position corresponding to the current mouse cursor horizontal co-ordinate.

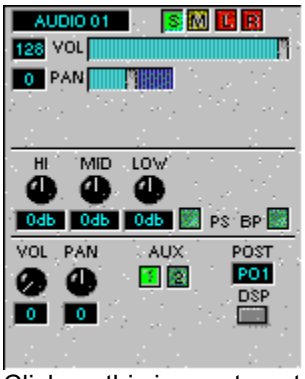
"Audio Track Parameters" (Tracks)

There is one Parameter Area per track row and it is located on the left of the "Grid" window.

An Audio Track Parameter Area includes more or less the same controls as an Audio Track "slice" in the "Mixer" window. The visibility of controls depends on the track row height so if you cannot see all of them modify the height of the track.

To modify the track row height, simply click the bottom line of the Track Parameter Area and, while keeping the mouse button down, move the mouse cursor up or down to modify the frame representing the area. Then, when the mouse button is released, the track row height is set to the height of the frame.

See also "Zoom" for other methods on how to change the track row height.



Click on this image to get more information.

"Midi Track Parameters" (Tracks)

There is one Parameter Area per track row and it is located on the left of the "Grid" window.

A Midi Track Parameter Area includes more or less the same controls as a Midi Track "slice" in the "Mixer" window. The visibility of controls depends on the track row height so if you cannot see all of them modify the height of the track.

To modify the track row height, simply click the bottom line of the Track Parameter Area and, while keeping the mouse button down, move the mouse cursor up or down to modify the frame representing the area. Then, when the mouse button is released, the track row height will be set to the height of the frame.

See also "Zoom" for other methods on how to change the track row height.

Click on this image to get more information.

"Mix Grid" (Tracks)

This is the main part of the "Tracks" window. It is divided in rows, each one corresponding to a track.

It displays the Audio Elements and MIDI Elements contained in the sequence and allows editing operations that can be achieved graphically using the computer mouse and the provided tools.

Right-clicking anywhere in the Mix Grid brings up the "Tracks" window Tool Box.

Click on this image to learn about the tool functions.

"Arrow Tool" (Tracks)

A simple click in the "Tracks" window Mix Grid while this tool is selected results in this :

- **If the Mouse cursor lies over an Element rectangle**, the Element is selected. If you keep the mouse button pressed you can move the selected Element to another position.
- **If the Mouse cursor does not lie over an Element rectangle**, all previously selected Elements are deselected. If you keep the mouse button pressed and move the mouse cursor you can define an area in which all Elements will be selected after the mouse button is released (this can also be achieved using the Selection Tool).

A double click in the "Tracks" window Mix Grid while this tool is selected results in :

- **If the Mouse cursor lies over a Element rectangle**, the Element is selected and a dialog box is invoked in which you can modify the selected Element attributes (Modify Audio Element for an Audio Element or Modify MIDI Element for a MIDI Element). Note this can also be achieved using the Edit Tool.

"Pen Tool" (Tracks)

Clicking in the "Tracks" window Mix Grid while this tool is selected results in :

- **On an AUDIO Track**, a standard File Selector is invoked where you must select a source sound file then an Audio Element with default settings is inserted at the position where you clicked. To later modify the Element settings use the Arrow Tool or the Edit Tool.
- **On a MIDI Track**, an empty MIDI Element (MIDI Cube) is inserted at the position where you clicked with a length equal to the time range defined by the Left and Right Locators. To later modify the Element settings use the Arrow Tool or the Edit Tool.

MIDI Positions are snapped to the nearest musical division defined by the grid value.

"Eraser Tool" (Tracks)

Clicking in the "Tracks" window Mix Grid while this tool is selected results in this :

- **If the Mouse cursor lies over an Element rectangle**, the Element is deleted.
- **If the ALT key is depressed**, all currently selected Elements are deleted even if no Element is lying under the mouse cursor. Note that you can get the same result by pressing the computer DEL key.

"Move Tool" (Tracks)

Clicking in the "Tracks" window Mix Grid while this tool is selected results in this :

- **If the ALT key is depressed and a group of Elements are selected**, keeping the mouse button down and moving the mouse cursor will allow you to move the whole group at once. Note that you can achieve the same result using the left and right computer keyboard arrow keys.
- **Else if the mouse cursor is over an Element rectangle**, keeping the mouse button down and moving the mouse cursor will allow you to move this Element.

Moreover, if the CONTROL key is kept pressed while performing this operation Elements are not moved but copied (duplicated).

Positions are snapped to the nearest musical division defined by the grid value.

"Size Tool" (Tracks)

Clicking in the "Tracks" window Mix Grid while this tool is selected results in :

- **If the ALT key is depressed and a group of Elements are selected**, keeping the mouse button down and moving the mouse cursor allows you to size the whole group at once.
- **Else If the Mouse cursor lies over an Element rectangle**, keeping the mouse button down and moving the mouse cursor allows you to size the Element rectangle and thus change the Element length.

Lengths are snapped to the nearest musical division defined by the grid value moreover, the lengths of Audio Elements cannot be longer than the length of its source file or any shorter than 30 milliseconds.

"Selection Tool" (Tracks)

Clicking in the "Tracks" window Mix Grid while this tool is selected results in :

- **If the Mouse cursor lies over an Element rectangle**, the Element is selected and all other previously selected Elements are deselected. If the CONTROL key is depressed, only this Element is selected or deselected depending on its previous state.
- **If the Mouse cursor does not lie over an Element rectangle**, all previously selected Elements are deselected. If you keep the mouse button pressed and move the mouse cursor around, you'll define an area in which all Elements will be selected after the mouse button is released.

"Edit Tool" (Tracks)

Clicking in the "Tracks" window Mix Grid while this tool is selected results in :

- **If the Mouse cursor lies over an Element rectangle**, the Element is selected and a dialog box is invoked in which you can modify the selected Element attributes (Modify Audio Element for an Audio Element or Modify MIDI Element for a MIDI Element).

"Scissors Tool" (Tracks)

Clicking in the "Tracks" window Mix Grid while this tool is selected results in :

- **If the Mouse cursor lies over an Element rectangle**, this Element is cut at the mouse position.
- **Using the "Alt" key** it is possible to cut all elements which lye across the position of the mouse.

MIDI The mouse position is snapped to the nearest musical division defined by the grid value. Also if the SHIFT key is pressed while clicking, elements are cut at the current sequence position.

"Glue Tool" (Tracks)

Clicking in the "Tracks" window Mix Grid while this tool is selected results in :

- **If the Mouse cursor lies over the first half of a MIDI Element rectangle**, the Element is glued to the previous Element. The result is one Element instead of two.
- **If the Mouse cursor lies over the second half of a MIDI Element rectangle**, the Element is glued to the following Element. The result is one Element instead of two.
- **If the mouse cursor lies over an Audio Track and two overlapping Audio Elements are selected** (i.e. the position of one of the elements is overlapping the end of the other one), a Level Crossfade is performed between the two elements. Note that only element envelope levels are affected.

"Locator Tool" (Tracks)

Clicking anywhere in the "Tracks" window Mix Grid while this tool is selected results in :

- Sets the LEFT Locator position to the time position corresponding to the current mouse cursor horizontal co-ordinate.
- **If the ALT key is depressed**, sets the RIGHT Locator position to the time position corresponding to the current mouse cursor horizontal co-ordinate.

MIDI Positions are snapped to the nearest musical division defined by the grid value.

"Vertical Scroll Bar" (Tracks)

The "Tracks" Window Vertical Scroll Bar allows you to scroll through the tracks (1 Track Steps).

"Horizontal Scroll Bar" (Tracks)

The "Tracks" Window Vertical Scroll Bar allows you to scroll through time (1 Bar Steps).

"Video" Window

The "Video" window can display a video or animation file in sync with the current sequence.

This allows easy creation of video sound tracks while watching a video sequence without having to use several applications.

This feature is only available with a screen colour resolution of, at least, 65536 colours (16 bits).

The file types accepted are :

- FLI or FLC files
  If Autodesk™ driver is installed in your system.
- AVI files
  If Microsoft "Video for Windows™" is installed in your system (Windows 3.1 only).
- MOV files
  If Apple™ Computers "Quick Time for Windows" is installed in your system.
- MPG files
  If Microsoft ActiveMovie is installed in your system.

Click anywhere on the image below to get more information.

"File" (Video)

Displays the name of the currently selected Video or Animation file or "***" if nothing yet selected.
Clicking this area lets you choose a file using a standard File Selector.

"Clear" (video)

When clicked, clears the Video or Animation file selection and thus disables the Video features.

"Offset" (Video)

Displays the offset (in milliseconds) between music and video.

Clicking this area invokes a dialog box in where you can type a new offset value.

Example: When entering 1000 ms in this box, the video file will be launched 1 second after the measure 01:01:00 of the sequencer, 2000 ms corresponds to 2 seconds etc...

"Playback" (Video)

Enables or disables the playback of the video file in sync with the sequence.

"Display" (Video)

This area displays the video images.

It can be expanded by resizing the whole "Video" window.

Right clicking the video display brings up a popup menu including several commands related to the image size.

- ***Best Size***

  Let's you size the video display to its natural size (as the video image was recorded).

- ***Zoom - / Zoom +***

  Let's you proportionally decrease/increase the video display by a certain amount.

- ***Zoom Factor***

  Let's you define the amount by which the video display is proportionally decreased/increased when using the Zoom-/Zoom+ commands.
  This invokes a list box where you can select a new factor. The factor is expressed in percentage.

- ***Command Buttons***

  When this command is checked the "Video" window buttons are displayed.
  When unchecked, the buttons are hidden.

"Karaoke" Window

The "Karaoke" Window's purpose is to display Text Events in sync with the current sequence as well as allowing you to edit and create text events.

The "Karaoke" window has been basically designed to display and edit song lyrics but Text Events can be used in many situations where textual information needs to be linked to time.

You can use text events to create :

- Lyrics for a song.
- A "Prompter".
- Comments about music parts.

Music Centre Pro is able to recognise Text events embedded in Midifiles. Midifiles including Lyrics can be easily recognised as they often (but not always) have the "KAR" file extension.

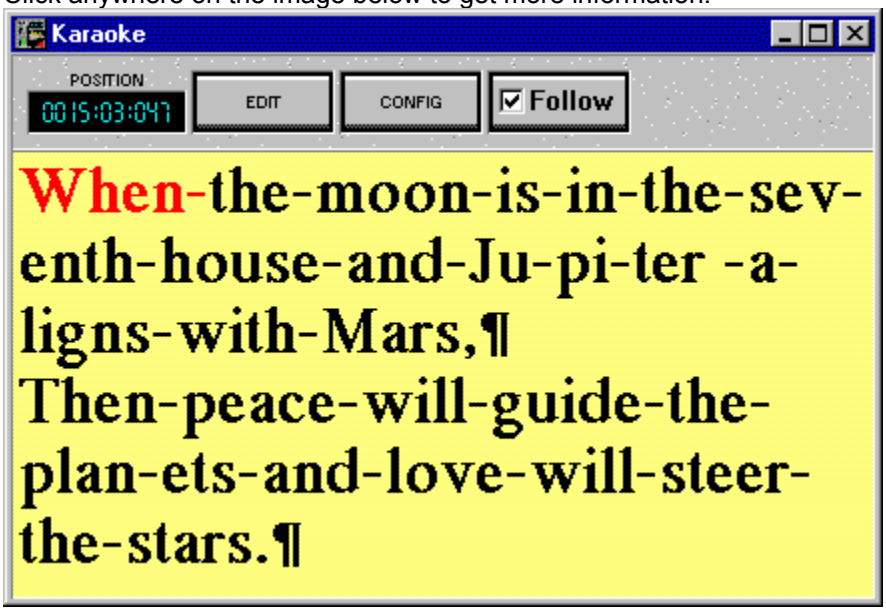
Masses of KAR files are downloadable, for instance, from the Internet.

Lyrics extracted from a KAR file, as well as user-defined text events, are saved in Music Centre Pro sequence files.

If you want the Text events displayed in the "Karaoke" window to follow the music exactly, you must set the "Update Counter Frequency" parameter ("Options" Menu / "General Display") to its highest value ("---").

The window includes a Command Bar and a Text Display Area.

Click anywhere on the image below to get more information.



"Position" (Karaoke)

This area displays the TIME POSITION of the text event lying under the mouse cursor in the "Karaoke" window.

"Edit" (Karaoke)

Invokes a popup menu including several editing commands related to the Text Events :

Cut
Copy
Paste
Delete
Delete All

Select Between Locators
Join Start and End of Selection
Select All

Add
Modify Last Selection
Transform Notes from Active Track to 'Text' Events

Last Selection -> Current Position
Start of Selection -> Left Locator
End of Selection -> Right Locator

Command Buttons

Cut (Karaoke)

Selected text events are copied on to the internal Karaoke clipboard and then deleted.

Copy (Karaoke)

Selected text events are copied on to the internal Karaoke clipboard.

Paste (Karaoke)

If there are text events in the Karaoke internal clipboard, they are pasted, starting from the current sequence position.

MIDI Existing text events, whose position is equal to the position of some of the pasted text events, will be deleted.

Delete (Karaoke)

Deletes all the selected Text Events.

Delete All (Karaoke)

Deletes all Text Events (selected or not).

Select Between Locators (Karaoke)

Selects all text events with a position between the Left and Right Locators.

Join Start and End of Selection (Karaoke)

Selects all text events located between the first and last selected text events.

Select All (Karaoke)

Selects all text events.

Add (Karaoke)

Adds a new text event at any desired position.

The command invokes a dialog box where you define :

- The Text Event position (bars/beats/Clock Tick).
- Its contents (character string).
- If the event ends with a "Line Feed" or not.

Please note that clicking the OK button validates the new event but does not close the dialog box. This is to allow you to add a series of events. To close the dialog you must use the CANCEL button.

Modify Last Selection (Karaoke)

Allows modification of the Last Selected Event parameters.

The command invokes a dialog box where you can change :

- The Text Event position (bars/beats/Clock Tick).
- Its contents (character string).
- If the event ends with a "Line Feed" or not.

Please note :

- Clicking the OK button validates the changes and closes the dialog box.
- Clicking the CANCEL button only closes the dialog box.
- Clicking the NEXT button validates the changes and updates the dialog box with the values of the next event which in turn can be modified.
- Clicking the PREVIOUS button validates the changes and updates the dialog box with the values of the previous event which in turn can be modified.

Transform Notes... (Karaoke)

This function is very useful when you first begin to add Lyrics to a sequence.

It will transform a series of notes contained in a selected track into a series of empty text events placed at the same position as the original notes...

The only thing left to do then, is to edit the text contents of each event.

Example:

- Your song has no Lyrics yet.
- Select an empty track as the active track.
- Record the song voice melody with your MIDI Keyboard on this track.
- When the recording is OK, Select the "Transform Notes from Active Track to 'Text' Events" command from the "Karaoke" window Edit Menu.
- Then select each resulting text event and edit the contents to form lyrics.

Don't forget to save your song once the Text Events are defined !

Last Selection -> Current Position (Karaoke)

Set the Current Sequence Position to the Last Selected Text Event Position.

Start of Selection -> Left Locator (Karaoke)

Set the Left Locator Position to the First Selected Text Event Position.

End of Selection -> Right Locator (Karaoke)

Set the Right Locator Position to the Last Selected Text Event Position.

Command Buttons (Karaoke)

When this command is checked the "Karaoke" window Command Buttons are displayed. When unchecked, the buttons are hidden.

"Configuration" (Karaoke)

The Karaoke Configuration Dialog Box is where you can modify the "Karaoke" window display options.

- **BACKGROUND**

  This button lets you choose a custom colour for the "Karaoke" window Text Display Area background using a standard Colour Selection Dialog Box (the default colour is WHITE).

- **NORMAL TEXT**

  This button lets you choose a custom colour for the non-selected Text Events displayed in the "Karaoke" window Text Display Area using a standard Colour Selection Dialog Box (the default colour is BLACK).

- **HIGHLIGHTED TEXT**

  This button lets you choose a custom colour for the Text Event whose position corresponds to the current sequence position using a standard Colour Selection Dialog Box (the default colour is RED).

- **SELECTED TEXT**

  This button lets you choose a custom colour for the selected Text Events displayed in the "Karaoke" window Text Display Area using a standard Colour Selection Dialog Box (the default colour is LIGHT BLUE).

- **FONT**

  This button lets you choose a custom font for displaying Text Events using a standard Font Selection Dialog Box (the default colour is LIGHT BLUE).

- **NO SEPARATOR**

  When checked, disables separators between text events.

- **TEXT TYPE**

  "DOS TEXT" Button, when enabled, notifies the program to interpret the text event character strings as DOS format text (may be useful if, when loading a Midifile, the text appears with weird or missing characters).

  "ANSI TEXT" Button, when enabled, notifies the program to interpret the text event character strings as ANSI format text (Windows).

The "Close" Button, when clicked, closes the dialog box, and the "Karaoke" window Text Display Area is updated according to the modified options.

The "Cancel" Button, when clicked, closes the dialog box. Any previous options are retained.

The "Apply" Button, when clicked, updates the "Karaoke" window Text Display Area according to the modified options without closing the dialog box.

"Follow" (Karaoke)

When this option is enabled, the "Karaoke" window Text Display Area "follows" the current sequence position while music is playing and thus is updated accordingly.

When disabled, the "Karaoke" window is never updated (which can be very convenient when editing a particular part of the text).

"Text Display Area" (Karaoke)

This area displays the contents of the Sequence Text Events.

It can be expanded by resizing the whole "Karaoke" window.

- Selection of a Text Event can be easily performed by clicking the left mouse button while the mouse cursor is over that text event.
- Each time you select a text event the last selected one is deselected unless you keep the computer CONTROL key down.

- Clicking anywhere with the right mouse button invokes the "Karaoke" window Edit Menu.

- You can add a "Line Feed" to a text event by selecting it and then pressing the computer ENTER key.
- You can remove a "Line Feed" from a text event by selecting it and then pressing the computer BACKSPACE key.

- You can delete single or multiple text events by selecting the events and then pressing the computer DEL key.
- Double-clicking a text event automatically sets the current sequence position to the position of this text event.

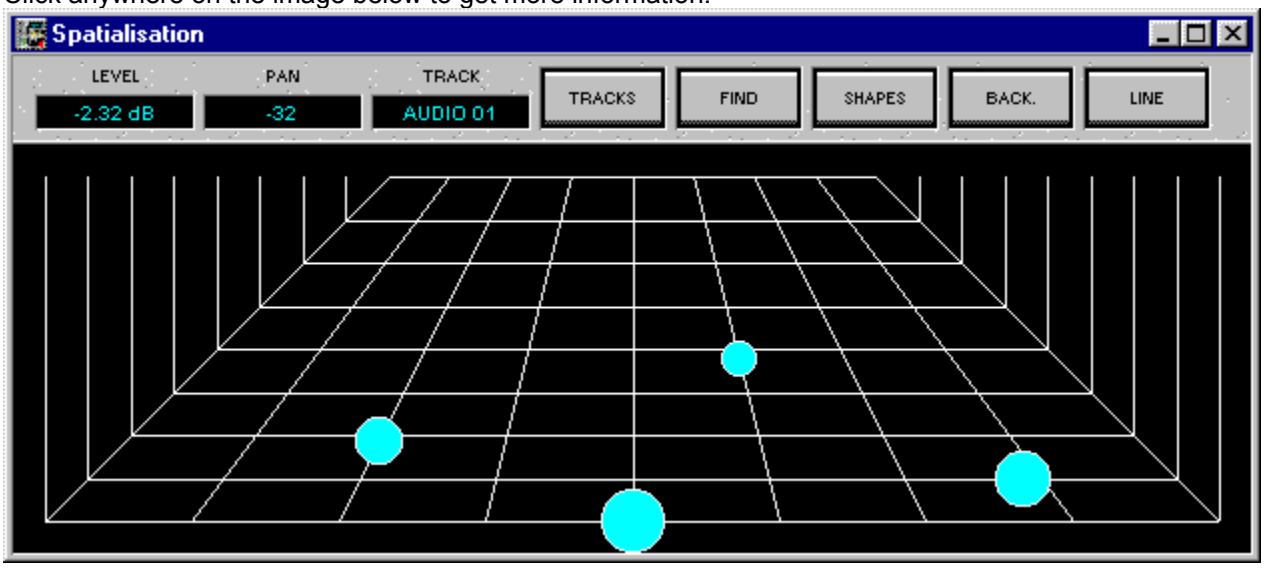
"Spatialisation" Window

Music Centre Pro includes a window called "*Spatialisation*" where you can manage in a simple way and with one click of your mouse, the individual volumes and balance of your MIDI and AUDIO tracks.

Each track is represented by an icon (by default a blue ball), moving the icon in the window adjusts in a single operation, both volume and balance for the relevant track, this way it is easy to set the position and level of an instrument in the stereo field.

It can be vertically resized to give more display area or, on the contrary to take minimum room on the screen.

Click anywhere on the image below to get more information.



Spatialisation grid

The spatialisation grid represents a scene, viewed from the listener's perspective, where tracks can be placed and moved about both horizontally and vertically.
At the back of the scene attenuation is at its maximum level, thus volume at its lowest.
At the front of the scene attenuation is at its minimum, thus volume is at maximum level.

The size of the track image varies according to the applied volume.

When you move the mouse cursor on the grid and it meets a track icon, this cursor changes to a hand and the indicators in the control bar show the present co-ordinates of the icon. You can move the icon with the help of these indicators to set a specific position.

Spatialisation indicators

When the mouse cursor is over one of the icons, the indicators give respectively :

The **Level**,
The **Pan** position
The **Name** of the track

LEVEL
For a MIDI Tracks : Varies from 128 (front of the scene) to 0 (back of the scene)
For an AUDIO track : Varies from 0 dB (front of the scene) to - ~ dB (back of the scene)

PAN
All at left : - 64; all at right : 64; centred : 0

Spatialisation Tracks

This dialog box allows you to choose which track will be displayed on the "*Spatialisation*" grid.
Select the desired tracks in the "Invisible Tracks" field and click the "Add" button.
All these tracks will be transferred to the "Visible Tracks" field .

In the same way, if you want to hide one or several tracks, select them in the "Visible Tracks" field and click the "Remove" button.

Spatialisation Find

By default, all tracks are represented by a blue ball icon.
You can use the "FIND" button to quickly access to a particular track icon.

The dialog box lists the "Visible Tracks".
Select a track name, press the "Find" button and the mouse cursor will be placed automatically on the corresponding icon.

Spatialisation Shapes

To differentiate the tracks used in the "*Spatialisation*" window, you can assign different icons to each of the tracks.

The "SHAPES" button calls a dialog box in which you can choose the different representation for each track.

You can also load your own icons (standard Windows icon 32x32) by using the "Load Icon" button.

This button is only valid when the "i" icon is selected in the "Shapes" field.

Spatialisation Colours

These buttons give access to a standard Colour selection dialog box in which you can choose the BACKGROUND colour of the "*Spatialisation*" grid as well as the colour for the grid LINES.

You can assign a basic colour from the Windows palette or define your own.

"Navigator" Window

The "*Navigator*" window is a Windows-explorer-type window dedicated to *Music Centre Pro* files.
In this window, you can navigate through your various directorys, drag files to the program window or double-click a file to load it in the program.

The upper first drop-down list allows file type selection.

The upper second drop-down list allows you to recall previously stored directories from the directory memory corresponding to the currently selected file type.

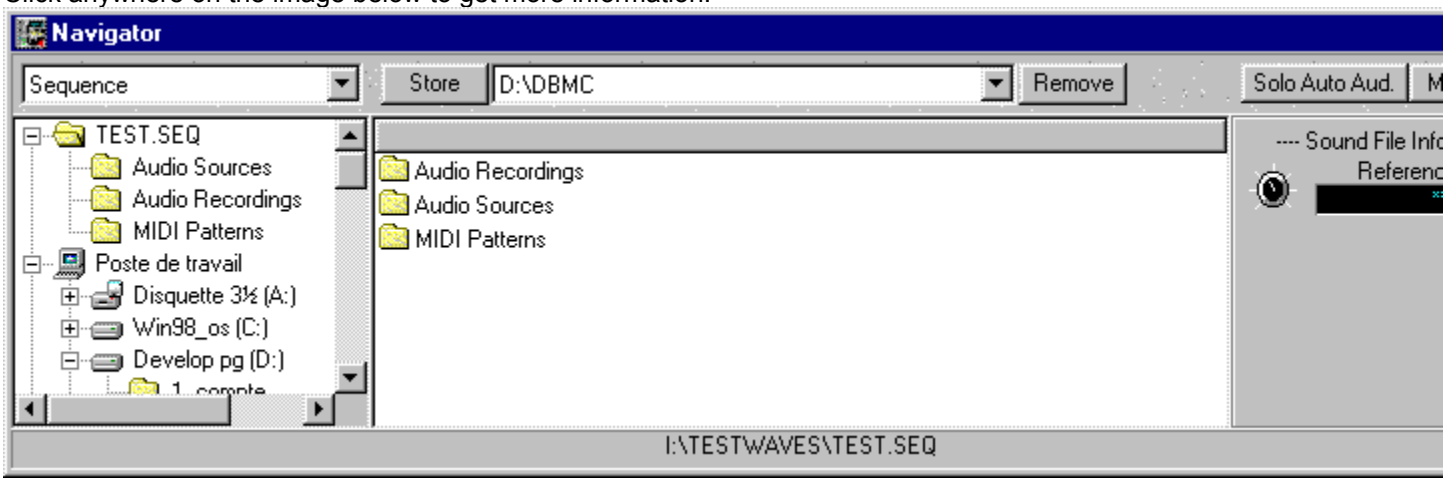
The "Store" button allows you to store the currently selected directory in the currently selected type directory memory.

The "Remove" button allows to delete the currently selected directory from the currently selected type directory memory.

Each type directory memory can include up to 8 directories. A newly stored directory is placed at the top of the list.

Currently selected type and type directory memories can be saved in the program INI file (option "*Windows*" Parameters).

Click anywhere on the image below to get more information.



Navigator Tree view

This includes a standard view of your system disks, directories and connected network resources. These are the Physical directories of the system.

One virtual folder and three virtual sub-folders has been added to the "*Navigator*" window tree view above the desktop tree. These folders are "virtual" as they don't correspond to real folders on a disk. They are just logical file groups in the current sequence.

The top level folder corresponds to the sequence itself and is labelled with the name of the current sequence.

The three sub-folders are :

Audio Sources
This includes all the current sequence audio source files.
Audio Recordings
This includes all the current sequence latest recordings.
MIDI Patterns
This includes all the "Pattern" files currently available to the program

Navigator List view

The central List View has been made "multi-column" in order to display the file details.
The number of columns depends on the type of files displayed.

For Sound Files included in the virtual "Audio Sources" or "Audio Recordings" folders the list is split into 8 columns (Name / Use in Sequence / Size / Date / Directory / Channels / Sample Rate / Resolution).

For "Pattern" Files included in the virtual "MIDI Patterns" folder the list is split into 4 columns (Name / Length in Ticks / Size / Date).

For All other Files the list is split into 4 columns (Name / Type / Size / Date).

You can easily sort the list as desired by clicking one of the column labels (buttons on top).

Navigator Physical directories

Drag and Drop files from the Navigator to other windows of the program.

Sequence Files
This type of file can be dragged to the "*Tracks*" window (in which case the file is loaded)
Midifiles
This type of file can be dragged to the " *Tracks* " window (the file is loaded).
Sound Files
This type of file can be dragged to the " *Tracks* " window on an audio track at any position.
QTO Files (Track Order Presets)
This type of file can be dragged to the " *Tracks* " window (the file is loaded and the track order is changed).
Bitmaps
This type of file can be dragged to the " *Tracks* " window (the file is loaded and the "Tracks" window background is changed).
EXE Files
This type of file can be dragged anywhere (the file is added to the list of EXE files linked with the Audio Editor).

Double-click a File in the Navigator.

Sequence Files
The file is loaded.
Midifiles
The file is loaded.
Sound Files
The file is registered in the sequence and the "*Modify Audio Element*" window is opened. Then it is inserted on to the active track (if it's an audio track) at the current position when you press the INSERT button (and after having set the limits if necessary).
QTO Files (Track Order Presets)
The file is loaded and the order is changed.
Bitmaps
The file is loaded and the "Tracks" window is updated.
EXE Files
The file is added to the list of EXE files linked with the Audio Editor.

Note that, whenever a regular folder's contents is displayed in the List View, you can also access a contextual popup menu by right-clicking in the List View.

Explore : Opens the Windows file Explorer for the selected directory.
Open : Loads the selected file in the program; equivalent to a double-click on the selected file.
Register : Only for Sound files : Registers the file in the sequence for further use

Navigator Virtual directories

When one of these sub-folders is opened and the corresponding files are displayed in the List View, RIGHT-clicking in the List View, on a file, a group of files or outside the file list brings up a popup menu where you can select various commands in order to perform operations.

Actions on Audio Sources:

New Audio source : Registers a new Wave file for further use in your sequence.

Unregister Audio source : Removes the selected source file from the sequence.

Copy/Move Audio source : Copies or Moves the selected source file to another directory.

Replace Audio source : Replaces the source file of the currently selected element in the *Tracks* window with the selected source file in the list view.

Actions on MIDI Patterns:

New : Equivalent to "*Save Pattern as...*" Please refer to the *Files* menu.

Load : Equivalent to "*Open Pattern*" Please refer to the *Files* menu.

A "Pattern" is always loaded in the Copy memory buffer.
You must use the "Paste" or "Merge" command from the "Edit" menu to paste/merge it in the current music piece.

Navigator Auto audition

Whenever the "Solo Auto Aud." mode is active, selecting a sound file in the List View results in the audition of this sound file ALONE.

Whenever the "Mix Auto Aud." mode is active, selecting a sound file in the List View results in the audition of this sound file in the mixing context.

"Modify Audio Element"

The "*Modify Audio Element*" Dialog Box is where you can modify Audio Element parameters as well as edit its source sound file through an external Wave Editor (if dfined).

An Audio Element is a piece of data describing how to play digital sound stored in a Sound File (such as Wave Files).

The Waveform associated with the source file is always displayed.

An Audio Element is the association of a source sound file and a group of parameters defining the way the sound file is played.

Three groups of parameters make up an Audio Element :

Limits
Defining the portion of the source sound file which is to be played.
Level Envelope
Defining the evolution of the sound level when it is played.
Balance Envelope
Defining the evolution of the sound position in the stereo field when it is played.

Each of these groups corresponds to a particular view in the "***Modify Audio Element***" Dialog Box which can be accessed using the LEVEL and BAL (Balance) buttons.

Several buttons and areas allow Audio Element parameter adjustment as well as the display option selection (especially in the Wave View).

The "Modify Audio Element" Dialog Box can remain opened on top of the other program windows when invoked from the "Tracks" or "Events" windows to edit a selected Audio Element.

"Modify Audio Element" (Wave)

The "Modify Audio Element" Dialog Box displays the waveform of the source sound file associated to an Audio Element.

While this view is selected, you can modify the element limits (using the vertical limit lines displayed in the waveform view) as well as element name and position in the sequence.

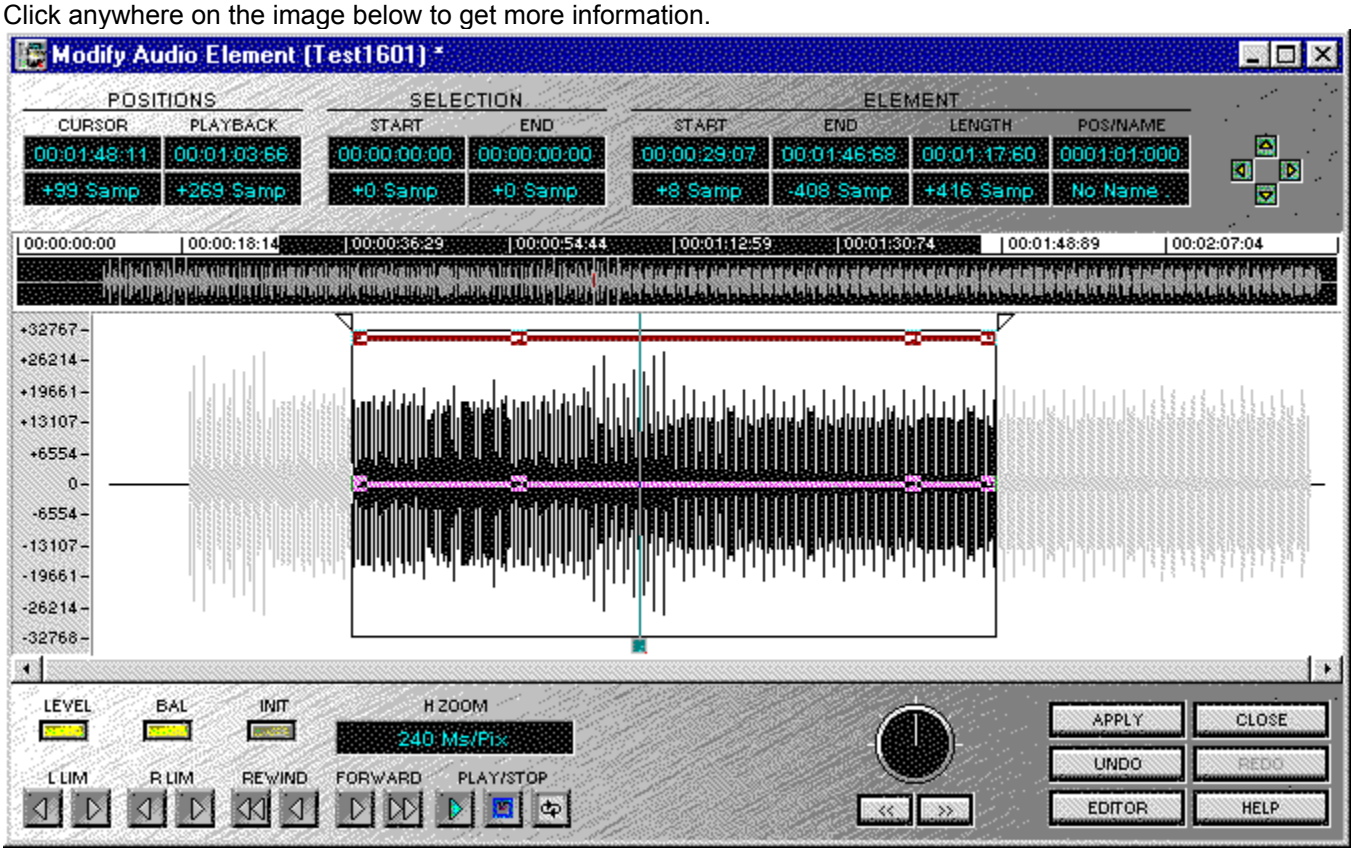
An element has 2 limits : The left limit is the beginning of the element, and the right limit is the ending of the element.

The Black part of the waveform represents the element, the Grey part represents the complete wave source.

When the mouse cursor is set on an element limit, it takes a double-arrow shape, you can then drag the limit in the wave source. You can also use the flags at the top of the border to move the limit. You can also move the limits, for accurate positioning, by using the buttons L LIM and R LIM.

If SHIFT key is pressed on keyboard, adjustment is done at the Sample accuracy (the value depends on the sampling frequency : 22 microseconds for 44.1 kHz for example).

Click anywhere on the image below to get more information.



"Cursor" (Positions)

These two areas display :

- *Upper Part*

  The time position (expressed in Hour-Minutes-Seconds-Cents) corresponding to the horizontal co-ordinate of the mouse cursor in the Waveform, Level or Balance view.

- *Lower Part*

  The offset part, if any, (expressed in samples) of this time position.

"Playback" (Positions)

These two areas display :

- *Upper Part*

  The source sound file current playback position (expressed in Hour-Minutes-Seconds-Cents).

- *Lower Part*

  The offset part, if any, (expressed in samples) of this position.

When the Audio Element is played back, these areas are regularly updated to reflect the position in the sound. The playback position can be manually modified using the playback cursor in the waveform view.

Selection

Not used in Music Centre Pro

"Start" (Element)

These two areas display :

- *Upper Part*

  The time position (expressed in Hour-Minutes-Seconds-Cents) corresponding to the LEFT LIMIT of the Audio Element (i.e. the position from which the source sound file is played in the sequence).

- *Lower Part*

  The offset part, if any, (expressed in samples) of this time position.

"End" (Element)

These two areas display :

- *Upper Part*

  The time position (expressed in Hour-Minutes-Seconds-Cents) corresponding to the RIGHT LIMIT of the Audio Element (i.e. the position to which the source sound file is played in the sequence).

- *Lower Part*

  The offset part, if any, (expressed in samples) of this time position.

"Length" (Element)

These two areas display :

- *Upper Part*

  The length (expressed in Hour-Minutes-Seconds-Cents) of the portion of the source sound file located between the LEFT and RIGHT LIMITS of the Audio Element.

- *Lower Part*

  The offset part, if any, (expressed in samples) of this time position.

These areas are automatically updated whenever the LEFT or RIGHT limits are modified.

"Position" (Element)

This counter displays the position of the Audio Element in the sequence.

Clicking it, invokes a popup menu which lets you modify either the position or the time format used to display time in the counter.

The current position can be modified through a series of editable fields

The Time format can be selected from bars/beat/Clock Ticks or HSMC (Hour/Minute/Seconds/100th of second).

"Name" (Element)

This area displays the optional name of the Audio Element.

Clicking it, invokes a Dialog Box where you can change the Audio Element name.

"Ruler & Global View "

This area displays a global view of the waveform:

- *Upper Part*

  Shows time divisions as well as the portion of the sound file (in black) located between the LEFT and RIGHT LIMITS of the Audio Element. This allows easy visualisation of the portion of sound selected for playing in the sequence.

- *Lower Part*

  Shows a compressed version of the sound waveform as well as the portion of the sound file (in black) displayed in the waveform view.

Clicking anywhere in the Ruler or Global View moves the waveform view so that it includes the corresponding position.

Clicking anywhere in the Global View and keeping the mouse button down allows selection of an area which will be used when the mouse button is released.

"Waveform"

This area displays a portion of the source sound file waveform. The length of the portion (and thus the accuracy of the waveform displayed) depends on the current horizontal zoom.

When you activate one of the buttons LEVEL or BAL (Balance), the corresponding envelope is displayed above the waveform.

The Level Envelope is a 3 segment envelope which allows level changes while the element is played.

The Balance Envelope is a 3 segment envelope which allows stereo Pan changes while the element is played.

To modify any of the envelopes you can move 4 points represented by 4 squares.

Beginning and Ending points (squares 1 and 4) can only be modified for level adjustment. Click in the square and move it vertically with your mouse.

The inflection points (Time 1 and Time 2 of the envelope) can be moved in level and time position. Click in the square and move it vertically and horizontally with your mouse.

The working is identical for the Balance, but in this case the stereo Pan is adjusted.

When the envelope is at the top of the display, balance is full LEFT, when the envelope is at the bottom of the display, balance is full RIGHT. A centred balance is displayed as a horizontal line in the centre of the waveform.

"Scroll Bar"

Lets you scroll through the waveform.

"Zoom Control"

Lets you Horizontally and Vertically Zoom the waveform.

"View Type"

Lets you select the view type.

When you activate one of the buttons LEVEL or BAL (Balance), the corresponding envelope is displayed above the waveform.

"Init"

Lets you reset the Audio Element parameters to it default values :

- The limits are positioned to beginning and end of the wave source.
- The envelope of the Volume is set to flat maximum level.
- The envelope of the Balance is set to flat centred.

"H Zoom Info"

This area displays information about the current horizontal zoom.
The information is displayed at a ratio of : Pixel/Time or Sample/Time.
The shorter the time the greater the zoom.

"Left Limit"

These two buttons let you precisely modify the Audio Element LEFT LIMIT position.

Clicking the button decreases the LEFT LIMIT position as long as the mouse button is kept down. Clicking the button increases the LEFT LIMIT position as long as the mouse button is kept down.

"Right Limit"

These two buttons let you precisely modify the Audio Element RIGHT LIMIT position.

Clicking the button decreases the RIGHT LIMIT position as long as the mouse button is kept down.

Clicking the button increases the RIGHT LIMIT position as long as the mouse button is kept down.

"Rewind"

These two buttons let you precisely modify the current playback position.

Clicking the button fast rewinds the current playback position (as long as the mouse button is kept down).

Clicking the button slowly rewinds the current playback position (as long as the mouse button is kept down).

"Forward"

These two buttons let you precisely modify the current playback position.

Clicking the button slowly advances the current playback position (as long as the mouse button is kept down).

Clicking the button fast advances the current playback position (as long as the mouse button is kept down).

"Transport"

This group of buttons allows you to playback the Audio Element.
 starts the Audio Element playback (it is heard on its own - the sequence doesn't play).
 stops the Audio Element playback.
 Starts the audio element playback in LOOP mode.

Playback is done between LEFT and RIGHT limits.
If the cursor is set between limits, the loop is done between this position and RIGHT limit.
If the cursor is set outside the limits, the playback is NOT looped.

"Shuttle/Jog"

The "Shuttle" Knob and the "Jog" Buttons let you play the Audio Element at various speeds, forward or reversed.

The "Shuttle" Knob sets the playback speed and direction.

Turning it to the right, will increase the forward playback speed.

Turning it to the left, will increase the reversed playback speed.

As long as you keep the mouse button down while the mouse cursor is over the Knob, playback runs and you can modify its speed an direction.

The "Jog" Buttons, when kept down, start the playback at the last speed set using the "Shuttle" Knob.

Use Left "Jog" Button to play backward and right "Jog" Button to play forward.

"Commands"

- **CLOSE**

  This button closes the dialog box and cancels all previous parameter changes.

- **APPLY**

  Clicking this button, applies all the previous parameter changes to the Audio Element being edited.

  If editing of the original sound file has been performed, the program asks whether you want to apply changes to the original sound file or create a new version of it.

- **EDITOR**

  Clicking this button invokes a popup menu including all the Sound Editors defined in the Options/Audio Devices Dialog Box.

  Selecting one of the programs, executes it with the current source sound file path on the program command line allowing you to edit this file in your favourite sound editor.

- **UNDO/REDO**

  The "Modify Audio Element" Dialog Box has got its own undo list.

  The "Undo" command "undoes" your most recent action performed in the "Modify Audio Element" Dialog Box.

  The "Redo" command "redoes" your most recent Undo Command in the "Modify Audio Element" Dialog Box .

"Modify MIDI Element" MIDI

The "Modify MIDI Element" Dialog Box is where you can modify MIDI Element parameters.

A MIDI Element or MIDI Cube is a piece of data describing a group of MIDI Events.

It has a name, a start position and an end position.

MIDI Elements are a very convenient way to perform actions on a group of MIDI Events (such as Cut, Copy, etc…).

The "Modify MIDI Element" Dialog Box includes the following controls :

- Track

  Lets you modify the track where the element is located.
- Position

  Lets you type a new beginning position for the element.
- End

  Lets you type a new end position for the element.
- Name

  Lets you give an optional name to the MIDI element.

  A default name is taken from the track name on which the element was originally created.

OVERVIEWS

About Digital Audio

It's important to remember that MIDI and digital audio are two very different ways of creating and recording sound.

When you record MIDI, you are actually recording a series of commands (the keystrokes that you made), the instruments you selected and so on. Each time you play back the file, your sound card or MIDI synth re-creates the music by replaying these commands. You change a song by changing its commands.

Digital audio is more like recording with a tape deck. You record actual sounds, not commands, and store them on your computer's hard disk (instead of on audio tape). The advantage of digital audio is that you aren't limited to the sounds that your sound card or synthesiser can create. You can record anything that a microphone can pick up, from your voice to an electric guitar.

There is a trade-off between sound quality and file size. Depending on your computer's processor and hard disk drive, you may find that you cannot successfully record long digital audio tracks at high resolutions, or that sound breaks up on playback or the program stops due to breaks in the audio flow. These problems are caused by the limitations of your computer system.

Music Centre Pro is a real-time application, it is necessary to let it manage the system resources without interference with any other application.

Here are some tips to configure your system for optimal working with Music Centre Pro :

First of all, check if recording/playing problems are specific to Music Centre Pro. If the other software packages (e.g., applications that came with your sound card) do not work either, your computer may be simply too slow for audio applications.

Ensure that you have a Windows 95/98 version of your sound card driver. Many systems that have been upgraded from Windows 3.1 to Windows 95 are still using the Windows 3.1 sound card drivers. Check the version of your sound card driver or ask the manufacturer to verify that the driver was written for Windows 95.

Update your sound and video drivers. You should be using the latest drivers that are available for your sound and video cards. Many problems can be resolved by updating the drivers. Drivers are usually available from the manufacturer via a Bulletin Board Service (BBS), CompuServe, America On-Line, or the World Wide Web. Contact the manufacturer for details.

have all your hard disks carefully defragmented and do not use hard disk compression or a memory doubler. run only the absolute necessary applications while using Music Centre Pro.
disable background programs that can take up the system resources such as the following :
disable anti-virus software
disable power management software
disable screen saver software
disable CD-ROM auto-insert notification

Prevent Windows from writing files to disk in the background by disabling "Write-behind caching for all drives" in Control Panel/System/Performance/File System/Troubleshooting

Prevent Windows from resizing the swap file on the disk by setting a fixed value for virtual memory. In Control Panel/System/Performance/Virtual memory, choose : Let me specify my own virtual memory settings and set the Minimum and Maximum values to between 1 and 2 times your amount of RAM (32 is a good value if you have 16 or 32 Mbytes RAM memory; 64 if you have more RAM installed)

If you've tried all of these measures and you're still unhappy with performance, consider upgrading your

system.

About MIDI

MIDI (Musical Instrument Digital Interface) is a world-wide standard that provides a way for electronic musical instruments to communicate. Instruments that have MIDI connectors can be connected to any other MIDI device, regardless of the manufacturer or model, and exchange musical data as "MIDI messages".

How MIDI messages are transmitted and received

- MIDI connectors

  Three types of connectors are used to transmit and receive MIDI messages.
  Depending on your setup, you can use MIDI cables to connect your equipment in various ways.

  MIDI IN : This connector receives messages from another MIDI device.
  MIDI OUT : This connector transmits messages to another MIDI device.
  MIDI THRU : This connector re-transmits the messages from MIDI IN, to the MIDI out.

  MIDI THRU connectors can be used to "daisy-chain" any number of MIDI devices.
  However in practice, four or five units is the limit.
  When the MIDI signal is passed through to many THRU connectors, it may become unreadable.

- MIDI Channels

  MIDI uses "channels" to independently control many devices through a single cable.
  You may think of MIDI channels as being similar to television channels.
  Electrical signals come into a television set from the antenna on many different channels at once, but only the channel to which the TV is tuned will be received.

  MIDI provides sixteen channels (1-16) on which messages can be sent.
  Messages will be received only by instruments which are set to receive the matching channel.

MIDI messages used by MIDI devices

The various types of data transmitted and received via MIDI are called MIDI messages.
MIDI messages can be broadly divided into two types; messages that are transmitted on a specific channel (Channel messages), and messages that carry information which applies to an entire MIDI system (System messages).

- Channel messages

  Channel messages are used to convey musical actions, such as notes you play and controllers you move. Most MIDI messages fall into this category.
  The settings of the sound source will determine how it will produce sound in response to these messages.

  - Note messages

    Note messages are transmitted when you play the keyboard.
    Each message contains information indicating which key was pressed (the note number) and how strongly it was pressed (the velocity).
    When your release a key, a similar message is sent, indicating which key was released.

    Note number : A number indicating the note (key) that was pressed or released
    Note on : A message indicating that a note (key) was pressed
    Note off : A message indicating that a note (key) was released

Velocity : A number indicating how strongly the note (key) was pressed

Notes are numbered from 0-127, with middle C (C4) as 60.
A different note number is assigned to each percussion sound in the drum part. Each note number will play a different percussion sound.

- Pitch Bend messages

  Pitch Bend messages are transmitted when you move the pitch bend lever (wheel) found on most synthesisers.

- Aftertouch messages

  Aftertouch messages are transmitted when you press down on the keyboard (of a synthesiser that is able to transmit aftertouch messages) after playing a note. There are two types of aftertouch ; Channel aftertouch and Polyphonic aftertouch.

  Channel aftertouch is transmitted as a single value for the entire keyboard, and applies to an entire MIDI channel. All notes receiving that MIDI channel will respond in the same way regardless of which key you apply pressure to.

  Polyphonic aftertouch is transmitted independently for each key (note). Even for the same MIDI channel, only the note to which you apply pressure will be affected.

- Program Change messages

  Program change messages are used to change instrument sounds.
  Genreal MIDI contains 128 different instrument sounds.

- Control Change messages (Controllers)

  Control Change messages control musical expressions such as vibrato, hold, volume, and pan. Each function is designated by a control number (0-127), and controllable functions will be different depending on the MIDI device.

- System messages

  This category of message includes Exclusive messages, various types of messages used in synchronisation, and messages to keep the MIDI system running properly.
  System messages are used regardless of the MIDI channel number.

- Exclusive messages

  Exclusive messages contain data that is unique to a specific family of devices made by a manufacturer, and are used to transfer sound data, etc.

About MIDI implementation charts

MIDI allows a wide variety of devices to exchange information, but it is not necessarily the case that all types of messages can be transmitted or received by every device.

For example if a keyboard that is able to transmit Aftertouch messages is connected to a sound module that is not able to receive Aftertouch messages, the Aftertouch messages transmitted by the keyboard will have no effect.

For MIDI messages to be meaningful, they must be transmitted by one device and received by the other.

For this reason, a "MIDI Implementation Chart" is included with every MIDI device, usually in the operating manual. By comparing the charts of two devices, you can determine how messages will be exchanged between the two devices. Since the charts are a standard size, you can fold the charts of the two devices together.

About GM/GS

GM/GS was created in an attempt to standardise the way in which sound modules are controlled by MIDI.

- What is GM/GS

  Until now, concerning the correspondence of instruments, how the sound was produced and various controller operations were different, depending on the MIDI sound module devices.
  Therefore, the user had to have a clear understanding of the operation of each device and how they corresponded when connected.

  Sometimes, song data that was created by using one particular MIDI sound module could not be reproduced as expected on another MIDI sound module.

  The transmission and reception of MIDI messages has been standardised by "MIDI Standard" but operations that affect the way sound is heard were not always compatible between units.

  To solve this problem, manufacturers introduced GS/GM format which was created to standardise the way in which sound modules are controlled by MIDI.

  If a device contains a sound module that conforms to GS format, it is possible to reproduce the performance that was created on another GS format device.

  GS format was designed with careful consideration of future development, and GS format will be incorporated into many devices in the future. Devices that contain sound modules that conform to GS format will have the GS mark on their panel.

- The main features of GS

  - 16 part multi-timbral sound module

    GS format devices contain a 16-part multi-timbral sound module that utilises full MIDI channel support. You can assign a different instrument to each part and therefore enjoy ensemble performance by using different instruments for each part.

  - An abundance of internally stored instrument sounds and instrument specification exchangeability

    GS format contains standard instruments (Capital) that can be used to reproduce many various styles of music, such as: classical, jazz, rock, popular, and ethnic, as well as instrument variations that make use of device features and future expansion.

    There is exchangeability to specify instruments even to the device that has a different correspondence of variation. GS format also contains many drum set types that incorporate various percussion sounds thus making it possible to choose the drum set that is most suitable for a particular song.

  - 24 guaranteed simultaneous notes

    GS format does not prescribe to any one specified sound module method so there is no limit to the maximum number of simultaneous notes that can be played.
    However, GS Standard does guarantee that at least 24 notes can be played simultaneously.
    Also, most acoustic sounds consist of only one partial and were created with careful consideration as to how they can be used with each part most effectively, thus surpassing earlier sound module methods.

  - Completion of MIDI control functions

GS format corresponds to various MIDI messages that are indispensable for playing expression such as Mono mode and Portamento.
It is also possible to control most MIDI messages that are necessary for performance without using exclusive messages.

- General functions of GS

Number of parts : 16
Maximum polyphony : 24 (partials) and up
Instrument specification : GS format makes the specification of instruments possible by combining previously developed program change messages with control change messages (bank select) thus increasing the type of instruments that can be changed by an external device. This instrument specification exchangeability is possible even if there is a difference in the variation of other devices.

Drum Set : The drum set can be changed with the program change message.
Effects : GS format contains adjustable Reverb and Chorus effects.

About XG

Basic Concepts

The XG format maintains the universality and compatibility of the MIDI and GM standards while significantly increasing the range of expressiveness. It is designed to ensure data continuity, and to provide equipment manufacturers with considerable flexibility in designing machines that satisfy its requirements.

Specifically, the XG format does the following.

- Enables production of extremely expressive sound data
- Significantly expands available voice types and variations
- Supports future compatibility of sound data among musical instruments, computers,
- and other devices
- Ensures that data will remain fully usable well into the future
- Supports standardised handling of new types of effects-inclusive data (such as karaoke data)

The XG format is founded on the following three principles:

- Compatibility
- Scalability
- Expandability

◆ Compatibility

Any XG machine, regardless of model or manufacturer, will provide faithful reproduction of any XG sound data.
Because the XG format maintains upward compatibility with the GM format, XG machines will also provide correct reproduction of GM sound data.

◆ Scalability

Although the XG format provides detailed and extensive specification of voice sets and voice changes, it does not require XG machines to support the full range of functions. Designers are free to develop a wide range of products to meet various cost and performance objectives. Each XG machine will replay XG data in accordance with the machine's level of sophistication. If a model does not support a variation voice, it will automatically play the corresponding basic voice instead. If a model includes a graphic equaliser, it can take full advantage of graphic equaliser functions so as to control frequency characteristics to best suit the musical genre being played — from lively rock to soothing classical.

◆ Expandability

The XG format remains open to enhancements and extensions that will allow it to remain in step with future product developments.

Additions to the GM format

The XG offers the following extensions to the GM format.

◆ Voices

The GM format supports 128 voices. The XG format provides for Bank Select messages that significantly expand the number of voices supported.

Ø Voice Extension by Bank-Select LSB
Variations of basic GM voices are stored in banks. To select a variation, specify the desired bank

by sending the appropriate Bank-Select LSB value. Each bank is associated with a specific type of variation, so that voices are easy to locate.

- Bank-Select MSB adds an SFX bank
  The Bank-Select LSB method is not useful for extension of distinctive SFX voices that have no meaningful variation. For this reason the XG format supports a full SFX bank of extension effects, which you can select by sending a Bank-Select MSB value of 40H. Bank-Select MSB 7Eh or 7Fh, in contrast, can be used to set any channel to rhythm-part play.

- Voice Modification

  The XG format allows creation of extremely expressive control data that can darken or lighten voices, delay or accelerate sound start-up, or implement many other types of control. Most controls are issued by Control Change commands, although System Exclusive messages are also used.

- Effects

  The XG format offers high-level effects support, enabling control of effects types, circuit operation, and internal parameter settings for both basic and elaborate effects. Devices equipped with graphic equalisers will be able to modify ambience and sound to suit the specific type of music being played.

- External Input

  Whereas existing tone generators create sound in response to internal data only, the XG format provides for real-time participation by adding support for input of external audio signals. External signals can be processed by the mixer in the same way as internal tone-generator data. A model that supports this function would allow you, for example, to create karaoke data that can automatically set the microphone echo used for playback.

Example of use of the Auxiliary Buses

Using auxiliary buses to send audio data to an internal software sound processor.

If many tracks must share the same kind of sound processor with the same settings it's better to use auxiliary buses than individual track processing. On one hand, when you change the processor settings, all the tracks are updated accordingly at once, on the other hand, and this is the most important, it takes less time to mix several tracks to an auxiliary bus than processing these tracks individually thru a software sound processor !
When you connect an auxiliary bus to a internal software sound processor, sound processing is performed once for the whole bus.

STEPS TO FOLLOW (have a try with the Stereo Delay Processor) :

- Open the Signal Processing Dialog Box and select one of the Auxiliary Send bus in the Track/Aux/Wave In Port drop-down list.
- Connect the desired sound processor to the auxiliary send bus.
- In the sound processor parameter dialog box, make sure the direct signal level is set to zero (otherwise you will get more dry sound when increasing a track aux send level to the aux bus).
- Bring the "Mixer" window on top of the other program windows and open its "AUX" section
- Select the Auxiliary Send Bus connected at step 2.
- Increase its Aux Send Level (Volume).
- You should now hear the track processed by the sound processor connected at step 2.

Note that you can do the same using DirectX Plug-Ins.

Calculating The Size of Digital Audio Files

The formula below will help you predict the approximate amount of disk storage space a Digital Audio file will require.

You must know four things about the file :

Bits	The length of a single sample
Number of Channels	1 for mono, 2 for stereo
Time	The length of recording, in seconds
Sample rate in Hertz	which corresponds to the Music Centre Pro Work Frequency.

Then the following equation will predict Digital Audio file size.
(**Bits**/8) x **Channels** x **Time** x **Rate** = File size, in bytes

For example, consider a 16-bit stereo recording, 14 seconds long, made at a sample rate of 44.1 KHz.
In this example, you must multiply 44.1 Kilohertz by 1,000 to arrive at 44100 Hertz.
Place the following values into the formula:
Bits = 16 (bits)
Channels = 2 (stereo)
Time = 14 (seconds)
Rate = 44100 (samples per second)
Solve the equation :
(16/8) x 2 x 14 x 44100 = 2469600 bytes

Quick Reference Charts for Disk Space Consumption
The charts below show approximate file sizes (in megabytes) generated when recording 16-bit Digital Audio at different sample rates (Music Centre Pro Work Frequencies).

File Size at **32.0 KHz** Sample Rate

Channels	Length in Minutes				
	1min	2min	3min	4min	5 min
Mono	3.7	7.5	11.2	15.0	18.7
Stereo	7.5	15.0	22.5	30.0	37.5

File Size at **44.1 KHz** Sample Rate

Channels	Length in Minutes				
	1min	2min	3min	4min	5 min
Mono	5.1	10.1	15.2	20.2	25.3
Stereo	10.1	20.2	30.3	40.4	50.5

File Size at **48.0 KHz** Sample Rate

Channels	Length in Minutes				
	1min	2min	3min	4min	5 min
Mono	5.6	11.2	16.8	22.5	28.1
Stereo	11.2	22.5	33.7	45.0	56.2

Managing the Source Files

Basic Concept

Music Centre Pro lets you manage your work easily by creating a directory structure on your hard disk, automatically, each time you make a new sequence.

This structure includes :
The source files which are used in the sequence (Wave files)
The recordings done during the session
The different copies of source files that the program may need during a working session.

The purpose of the *Music Centre Pro*'s directory structure is to have all wave files used by the program, in a unique place.

Description of the structure and source files

Each time you make a new sequence, *Music Centre Pro* creates a new directory on your hard disk in which you find :

A sub-directory named : "name of the sequence"_Sources

Within this directory you will find :

The audio recordings done during the session
The copies of source files when destructive modifications have been performed
The automatic copies done by the program (please refer to *Options/General/Audio Sources copy Threshold*)
One or several files "name of the sequence".SEQ which correspond to the different backup files of your sequence.

All the information described above is valid if you gave a name to your sequence when beginning your work. If you didn't give your sequence a name, it remains valid but *Music Centre Pro* will create the directory structure in your Windows Temp directory.

The Audio recording files

When you make a recording (a take) on one or several tracks of *Music Centre Pro*, files are directly written to the hard disk of your machine ("direct-to-disk" process). The files are written in the directory defined in *Options/General/Record Temp.* Directory, then when you stop recording, you are asked if you want keep this (take).

If you answer NO, the recorded files are automatically deleted.
If you answer YES, they are copied in the directory "name of the sequence"_Sources and are named : "name of the track"xxx.Wav. The different takes are named and numbered automatically each time you make a new recording.

To organise your work it is important to give your tracks non ambiguous names before you begin to record audio files.

Ex : If your track is named Leadvoice, recordings on this track will be named “ Leadvoice001.wav ”, “ Leadvoice002.wav ” etc..

Copies of source files

When you make destructive modifications to the Wave source by using the built-in Wave editor and want to keep the original file, this file will be put in the directory "name of the sequence"_Sources and named : "source filexxx.wav".

Automatic copies of wave sources

When you insert an audio element in your mix, the wave source file becomes part of the sequence. This source file can come from one of your disk drives, a removable media (CD ROM…) or a network drive. If it come from a removable or a network drive, the source file is copied in the directory "name of the sequence"_Sources, this makes it possible to import files from different CD-ROMs while working on your sequence.

If it comes from one of your fixed disk drives and its size exceeds the value that you set in *Options/General/Audio Sources copy Threshold*, it is copied to the directory "name of the sequence"_Sources.

If its size does not exceed the value defined in *Options/General/Audio Sources copy Threshold*, a link will be done to the location of the source file, but it will NOT be copied to the directory.
This allows you to set the maximum size you consider files have to be, in order to be duplicated in the sequence workspace.

If you don't want to use this function, just set the *Options/General/Audio Sources copy Threshold* to "0" and source files will never be duplicated in the sequence workspace (excepted for removable or network disks).

GLOSSARY

A B C D E F G H I
J K L M N O P Q R
S T U V W X Y Z

A

B

C

D

E

F

G

H

I

J

K

L

M

ACTIVE TRACK

It is the track on which you operate many Music Centre Pro functions (such as: Quantize, Transform, etc...) and which is displayed in "Events", "Keyboard", "Grid" and "Controllers" Windows.

See "Active Track" for how to change the active track from one track to another.

MASTER TRACK

It is a special track (known sometimes as the CONDUCTOR Track) which can only contain MIDI channel independent events (MCIE) such as: Tempo change, Time Signature, Key Signature and Sysex events.

MIDI EVENT

A MIDI Event refers to a piece of MIDI data such as a note, pitch bend, program change or any other MIDI controller message. An event usually includes various parameter values which make up the characteristics of that event. For example, a note event's parameters would include the pitch, length, start time and key on and off velocity values.

WAVE

Standard audio sound file in PCM format that can be played back and recorded by a sound card.

NON-MIDI EVENT

Refers to a piece of data telling the program to perform a specific action (Tempo change, Time Signature, Key Signature, Track transposition, Track Mute) at some point in a sequence.

CLOCK TICK

Smallest time unit used by a sequencer.

LOCATORS

Time positions in bars/beats/clock ticks fixing the limits of a time range for almost all Music Centre Pro functions (Record, Edit, etc ...).

Both left and right Locator positions are displayed in the "Control" window.

MARKER

Markers (Cues) are a way of associating text with a time.
They are defined by a starting position, a title and optionally a textual description (comments).
Markers are created by the user in the "Cues" window.

PART
A section of music defined by a starting position, an ending position and optionally a textual description (comments).

A sequence of parts makes an arrangement.

QUANTIZATION

Quantization refers to a transform function that is performed on an event or group of events where the position and/or duration of the event(s) is modified.

When an event is quantized its position is pulled onto the closest predetermined division of the bar or beat.

When applied on notes, this process is typically used to "clean up" the rhythm part of a recorded track by pulling the notes to the exact beat.

This function also tends to make rhythms sound mechanical.

SYSEX
Abbreviation for "System Exclusive".
MIDI data that is understood only by a particular model of MIDI device and ignored by others.
Each manufacturer gets a unique code with which to tag his System Exclusive messages.
Typically used to save/restore sounds and/or configuration information for a MIDI device.
Those messages may be huge in size and then need a particular transfer process.
Small SYSEX messages (max 1 Kb) may be stored as events in the Master Track.

MIDI THRU

When the MIDI THRU function is active, all incoming MIDI data is instantaneously processed and sent to the MIDI Out Port. This allows several MIDI devices to be linked in series.

COUNT

Empty bars before a sequence starts.

VU-METER
Usually, on an audio mixing desk, it's a level indicator scaled in dB.
The "Mixer" window includes a pseudo "VU-METER" for each track showing its activity.

AREA SELECTION
Action consisting in a time range selection, used to set the left and right Locator positions, with the mouse cursor. It can only be done in "Score" and "Grid" windows.

TO SELECT AN AREA:
1. Select the "Frame" tool.
2. Click with the left mouse button while mouse cursor is in the appropriate window.
3. Without releasing the mouse button, move the cursor across the window until the dotted frame completely encloses the desired area.
4. Then, release the mouse button. The selected area will be shown in reverse and the Locators will be set to the positions corresponding to the left and right co-ordinates of the selected area.

CONTROLLER CURVE

Graphical illustration, in the "Controllers" window, of an event series corresponding to the currently selected event type.

PROGRAM CHANGE

MIDI message allowing a sound (program) change on a MIDI device.
This message includes only a program number (0 - 127).

CONTROLLER or CONTROL CHANGE
A type of MIDI event which provides control over various parameters on a synthesiser. These include; Volume Level, Pan Setting, Modulation, Pitch Bend and more.

Each control has a number value to identify it, for example, Volume is controller #7 and Pan is controller #10.

Note: Not all synthesisers and sound cards support all of these features. You should check the synthesisers documentation for a list of MIDI controllers it supports.

PITCH BEND

A "Pitch Bend" wheel (or joystick) is a wheel on the left side of a MIDI keyboard allowing sound pitch change (like bending a string on a guitar). The message sent by the MIDI keyboard whenever you move the wheel is called "Pitch Bend".

If a MIDI device receives such a message, it will react in exactly the same way as if you moved a "Pitch Bend" wheel. "Pitch Bend" messages are independent from the notes and are able to vary the pitch of a group of notes.

"Pitch Bend" message contents corresponds to wheel position and not to sound pitch.

This means that MIDI transmits a number which indicates only a variation from the wheel mid point. Make sure to properly set the receiving device if you want to obtain the desired result, MIDI is only sending a movement !

AFTER TOUCH (Channel Pressure) et KEY PRESSURE (Polyphonic After Touch):

Some keyboards are able to "feel" the pressure on a key once the key is down. This may allow you to add vibrato, filter change, volume or whatever. If this pressure is common to all keys (i.e. the pressure on one key adds vibrato to all keys being played, for instance), this is called "After Touch" or "Channel Pressure".

This MIDI message is a simple number corresponding to the pressure intensity (0 - 127).

"Key Pressure" message (or "Polyphonic After Touch") is strictly identical to "After Touch" but for each note.

Then the message includes:

1. Note number (0-127)
2. Pressure value (0-127)

PATTERN

A "Pattern" is a file ("PTN" extension) containing a short sequence of music.

It can be loaded in memory and then pasted or merged anywhere you want in a sequence.

The file contains events from one or several tracks within a time range defined when it was created. It may also include comments about the "Pattern" (max. 255 char.)

Patterns can be very useful (especially Rhythm Patterns) to start a new sequence or add music to an existing sequence.

SEQUENCE / SEQUENCE FILE (.SEQ)

In Music Centre Pro, a sequence file is a complete music piece made of MIDI Events, Audio Elements, etc…

A "Sequence File" is a file created using the Music Centre Pro specific format (extension "SEQ")

Such a file includes all information concerning musical events as well as some program configuration parameters.

MIDI

MIDI (**M**usical **I**nstrument **D**igital **I**nterface) is a world-wide standard that provides a way for electronic musical instruments to communicate. Instruments that have MIDI connectors can be connected to any other MIDI device, regardless of the manufacturer or model, and exchange musical data as "MIDI messages".

MIDI CHANNELS

MIDI uses "channels" to independently control many devices through a single cable.

You may think of MIDI channels as being similar to television channels.

Electrical signals come into a television set from the antenna on many different channels at once, but only the channel to which the TV is tuned will be received.

MIDI provides sixteen channels (1-16) on which messages can be sent.

Messages will be received only by instruments which are set to receive the matching channel.

MIDI IMPLEMENTATION

MIDI allows a wide variety of devices to exchange information, but it is not necessarily the case that all types of messages can be transmitted or received by every device.

For example if a keyboard that is able to transmit Aftertouch messages is connected to a sound module that is not able to receive Aftertouch messages, the Aftertouch messages transmitted by the keyboard will have no effect.

For MIDI messages to be meaningful, they must be transmitted by one device and received by the other.

For this reason, a "MIDI Implementation Chart" is included with every MIDI device, usually in the operating manual. By comparing the charts of two devices, you can determine how messages will be exchanged between the two devices.

MIDIFILE

A music file, with a .MID extension which includes data compatible with MIDI standard.

There are two formats of MIDI files:

Type 0: has one unique track in which all channels are included; this kind of file needs to be de-mixed (split channels) to be read in Music Centre Pro.

Type 1: multi-track format, there is one track per channel.

SETUP

Preferences or default values of program parameters which are stored in the program initialisation file.

FADING

Smooth volume attenuation (fading) on one or several tracks within the time range defined by the Locators.

AUTO-PAN

Sequences of Pan changes on one or several tracks within the time range defined by the Locators.

TRANSPOSITION

Note pitch change applied to one or several tracks within the time range defined by the Locators.

STRETCHING

Time compression/expansion on one or several tracks within the time range defined by the Locators.

VELOCITY

In terms of MIDI, the force with which a note is struck (Key On) -- or released (Key Off).

Velocity is given a value between 0-127 and usually effects the volume and the brightness of the sound being played.

ECHO

It is done by repeating and gradually attenuating MIDI notes contained on one or several tracks within the time range defined by the Locators.

The result is an effect very similar to the one obtained with an electronic echo (delay) generator.

AUDIO ELEMENT

An Audio Element is a piece of data describing how to play digital sound stored in an Audio File (such as Wave Files).

In Music Centre Pro, Audio Tracks include Audio Elements in the same way that MIDI Tracks includes MIDI Events and MIDI Elements.

MIDI ELEMENT

A MIDI Element or MIDI Cube is a piece of data describing a group of MIDI Events.

It has a name, a start position and an end position.

MIDI Elements are a very convenient way to perform actions on a group of MIDI Events (such as Cut, Copy, etc…).

PCM

"Pulse Code Modulation": is a format of WAVE type Sound Files.

At each step, determined by the sampling frequency, the amplitude values are converted to binary code.

In 8bit, the value can be between -128 and +127, in 16 bit the value can be between -32768 and +32767.

ADPCM

"Adaptive Pulse Code Modulation": is a compression algorithm adapted for sound files; an ADPCM format file takes up about 4 times less disk space than a PCM format file.

SMPTE

"Society of Motion Picture and Television Engineers", designates an image-based time synchronisation code made up of Hours-Minutes-Seconds-Images(frames).

XG

An extension to the MIDI standard created by YAMAHA™ providing access to numerous MIDI effects controls such as reverberation, chorus and variations.

GM/GS

An extension to the MIDI standard created by ROLAND™ providing access to numerous effects controls such as reverberation and chorus.

XPOSE

See Transposition

AUXILIARY SEND

An Auxiliary Send (or Auxiliary Bus) is basically, a parallel mix of a main mix which can be useful in many circumstances.

See Some Examples of use of Auxiliary Buses.

NRPN

NRPN (Non Registered Parameter Number) messages are an extension to standard MIDI Controllers. Each NRPN message action in a sound generator is determined by its manufacturer.

NRPN messages uses 6 bytes of data (instead of 3 for a standard controller).

TIME SIGNATURE

In standard music notation, the time signature (or Meter) denotes the number of beats and the value of the beat in a piece of music. For example, a 4/4 time signature means that there are four beats in a bar and the quarter note gets the beat.

A key signature can be inserted and saved as part of a sequence and is done by editing the Master Track in the "Events" Window or the "Score" Window.

MEP

Abbreviation for MIDI EVENT PROCESSOR.

An MEP generates notes in real-time on a specific MIDI Channel to create a sort of MIDI Echo or MIDI Pitched Echo.

FM SYNTHESIS

A form of electronic synthesis which generates complex wave forms through the use of **F**requency **M**odulation.

WAVETABLE SYNTHESIS

An alternative to FM and analogue synthesis whereby waveforms which make up the sound consist of recorded samples of real instruments.

Wavetable synthesis is also known as sample playback synthesis.

MULTITIMBRAL

Multitimbral refers to the capability of a synthesiser to play multiple parts or instruments at the same time.

PORT

A port defines a designated output to a piece of hardware such as a MIDI interface or sound card.

KEY SIGNATURE

In standard music notation, the key signature denotes the key of the song and displays the number of sharps or flats in the key.

A key signature can be inserted and saved as part of a Sequence and is done by editing a MIDI Track in the "Events" Window or the "Score" Window.

TEMPO CHANGE

A non-MIDI event whose purpose is to notify a speed change at some point in a sequence.

TEXT EVENT

A TEXT event refers to a piece of data including a time position and a character string of any length.

Keyboard Shortcuts

KEY	MENU	COMMAND
Ctrl+N	File	New
Ctrl+O	File	Open Sequence...
Ctrl+S	File	Save Sequence...
Shift+O	File	Open Pattern
Shift+S	File	Save Pattern
Alt+I	File	Import Midifile...
Alt+E	File	Export Midifile...
Shift+X	File	Export Audio
Alt+F4 or Ctrl+Q	File	Quit
Ctrl+Z	Edit	Undo / Redo
Ctrl+X	Edit	Cut
Ctrl+C	Edit	Copy
Ctrl+V	Edit	Paste
Ctrl+I	Edit	Merge
Alt+Q	Edit	Quantize MIDI
Alt+T	Edit	Transform MIDI
Alt+D	Tracks	Signal processing
Alt+U	Options	Sound Names
Alt+Z	Options	GM/ GS/ XG
Shift+P	Options	Save Setup
F8	Control	Active Track
Shift+L	Control	Set Left locator
Shift+R	Control	Set Right locator
Alt+P	Control	Set Position
0 (Num)	Control	Return to zero (measure 01:01:00)
F1	Control	Fast Rewind
F4	Control	Fast Forward
Space Bar	Control	Stop (Toggle with Play)
Space Bar	Control	Play (Toggle with Stop)
F7	Control	Record
F9	Control	Metronome
F10	Control	Count
F11	Control	Loop
F12	Control	Midi Thru
1 (Num.)	Windows	Open/Close Mixer window
2 (Num.)	Windows	Open/Close Events window
8 (Num.)	Windows	Open/Close Grid window
9 (Num.)	Windows	Open/Close Controllers window
ALT+1 (Num.)	Windows	Open/Close Master Mixer window
ALT+2 (Num.)	Windows	Open/Close Tracks window
F2	None	Decrease Position
F3	None	Increase Position
Ctrl+F4	None	Close a window
Ctrl+F6	None	Activate next window
Ctrl+F1	None	Help

+ (Num.)	Jog/Shuttle	Increase speed
- (Num.)	Jog/Shuttle	Decrease speed
/ (Num.)	Jog/Shuttle	Play Reverse
* (Num.)	Jog/Shuttle	Play Forward