

Contents

Welcome to Music Companion

Throughout this text, **MC** means Music Companion.

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Set-up

MC needs the **MIDI driver** for your MIDI interface and the **timer** driver. The timer driver is automatically installed with Windows 3.1. If you have disabled it after installation of Windows, you need to enable it now. Look to the Windows manual how to do this. You also can use your sound card for making music if you have got the suitable MIDI driver for it (distributed with your sound card).

Before you can use MC at first time you have to set-up the following:

MIDI Device

MIDI Channels

Keyboard Split

When you quit Music Companion, this configuration will be saved in the file CONFIG.MC in the same directory as MC.


Main Screen


Music Companion is a realtime MIDI arranger. You can use your synthesizer, expander or sound card like a keyboard with built-in arranger. You also need any keyboard with MIDI output.

On the main screen you can see the following windows:

Style	presentation of the style
Song	song sequencer
Tempo	tempo control
Chord	current chord
Transpose	transpose song

The measures of every arranger part (intro, basic, ...) will be represented in style window as icons:

Insert icon  : this measure can be created (inserted). Move the mouse cursor to this icon and press the left button to create a new empty measure. You will get automatically to style editor after creating a measure.

Measure icon  : This measure was already created and it can be edited or played. You can get to the style editor for this measure using the left mouse button on this icon.

With the right mouse button you can do the following:

[Copying Measures](#)

[Deleting Measures](#)

[Inserting Measures](#)

[Using Arranger](#)

Using Arranger

Controlling Tempo:

In the tempo window you see a number with 2 arrows on the left side of the number. This number indicates the tempo of the style (and song) in beats per minute. You can change the tempo in steps of **10** using the **left** mouse button or in steps of **1** using the **right** one.

If the **SynchClk** button is active, MC will get the clock from MIDI-In. In this case the tempo can be controlled on your keyboard, but not on MC screen. For using SynchClk your keyboard must be able to send synchronous MIDI clock. Use SynchClk if you need to control the tempo on the keyboard or if your MIDI equipment is making errors while playing style (see [Eliminating Problems](#)).

Controlling Arranger:

Synch.Start button will synchronize the start of the style when a chord is pressed on chord section of the keyboard. See [Chord Tables](#).

If **Intro** button is enabled the style will start with the intro part instead of basic part.

If **Hold-Chord** is activated the arranger will continue playing the last chord, which you have played on the keyboard.

Controlling Fill-In and Ending

You can control this by the computer keyboard or by MIDI keyboard.

[Computer Keyboard](#)

[MIDI Keyboard](#)

Chord change:

Select menu **Setup/Chord change** to define times, when MC is changing playing notes to the new chord. When you play a new chord on the keyboard, MC will wait exactly until this moment to change playing notes to the new chord.

[Chord Change](#)

Panic:

Press this button, when notes are still playing after the arranger was stopped or when chords will not be recognized properly. Look also ([Eliminating Problems](#)).

Chord Change

Select menu **Setup/ Chord change** to determine the times, when MC is **changing playing notes** to new chord. When you play a new chord MC will wait until this moment to changing playing notes. 1/4 note means that the chord will be changed exactly at quarters. This means not, that a new chord will be recognized at this moment.

Quantize Chord


Quantize Chords

Can be selected in menu **Song/ Quantize chords**. This function can adjust the timing inaccuracy of chords in song. Times of chord changes will be adjust to exact moments. Before using this function you have to know at which moments you have changed the chord in song.

This function cannot be undone. You should've saved the song before use it.

Creating Measure

Creating a new measure:

Click with the left mouse button on the insert icon  and answer the question. After creating the measure you will get automatically to the style editor.

You can only create a last measure of a part. You can also insert a measure between existing measures:

Inserting a Measure

Inserting Measure

Click with the **right** mouse button on the measure, **before** which you want to insert a new empty measure. While holding the mouse button down, press the **Ins-key** on the computer keyboard.

Deleting Measure

Click with the **right** mouse button on the measure you want to delete. While holding the mouse button down, press the **Del-key** on the computer keyboard.



Copying Measure

Click with the **right** mouse button on the source measure. While holding the mouse button down, move the cursor to the destination measure and then press the '**C**'-key (for copy). You will get a dialog box.

Check the source and the destination measure in the dialog box.

Select the tracks for copy. Press "All" button, if you want to copy all tracks. Following press the "OK" button.

Selected tracks will be deleted in destination measure before they will be copyied.

The destination measure can be an existing measure  or the insert measure . If you want to insert a measure you have first to insert an empty measure [Inserting Measure](#).

Creating a New Style

Selecting menu entry **Style / New** you can create a new style.

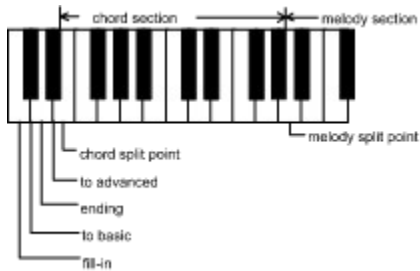
The style name is equal to the DOS-filename (**without** extension .MCS). Max. length is 8 characters.

Don't use special characters as '?' or blank.

Time signature can be **1/4 to 8/4** and **1/8 to 16/8**.

Keyboard Split Points

You have to define two split points to divide the keyboard in three sections. Select menu **Setup / Keyboard split**.



Melody is the melody split point.

Chord is the chord split point.

Keys left of chord section can be used to control fill-in and ending. They can be better reached as keys on computer keyboard.

You can input the split points directly on MIDI keyboard:

Select the split point with the TAB key and then press the appropriate key on the MIDI keyboard.

Key Assignment

F1	Help
F2	Save Style
F3	Load Style
F4	Save Song
F5	Load Song
F6	Record Song
F7	Play Song
F8	Stop Song
F9	Patch
F10	Select Menu
Enter	Start/Stop Style
Blank	Fill-In
Cursor up	To Advanced
Cursor down	To Basic
Page up	Tempo +10
Page down	Tempo -10
Home	Intro
End	Ending
Ins	Insert Measure (must be selected).
Del	Insert Measure (must be selected)
C	Copy Measure
Shift-A,B,C,..B	Switch Chord
Shift-R	Major Chord
Shift-M	Minor Chord
Shift-7	Seventh Chord

Only in Style Editor:

Ctrl:	Set Note
Shift	Delete Note
0..9	Change Velocity (1=10%, 0=100%)

Song Sequencer

The song sequencer can be used for recording and playing songs using arranger. The sequencer is working like a cassette recorder:

Recording song:

Set-up the intro button for song and press the RECORD button. The sequencer is ready for record. Recording begins when you play a chord on keyboard. While recording the song, you can see the time position in the display.

The **Size** display indicates the memory used by song. This memory is big enough for 10 minutes or more. You should end recording the song before the memory is full.

Press the **Stop** button to stop the song.

Playing song:

Press the **Play** button or press the F7-key to play the song.

Save Song:

Select menu **Song/Save** or press the F4-key to save the song. Together with the song MC saves values for patch, volume, tempo and transpose. So they are independent of the style values. You have to save the song in the same directory as the style, which belongs to this song. If you load a song, MC loads automatically the appropriate style when it is in the same directory.

Creating Standard MIDI File

Quantizing notes:

Aligns notes in the song to the nearest specified beat.

This function can also destroy your song. So save it before quantizing if you like it.

Quantizing chords

Delete song:

Recorded song will be deleted in memory, not on hard disk.

Transpose

This feature enables you to change the pitch of a style or song. The display will indicate the transposed pitch. If you save a song, the value of transpose will be saved with the song.

Creating Standard MIDI File

After recording a song you can create a Standard MIDI File type 1, which is compatible with most music programs. Select Menu **Song / Standard MIDI File**.

MIDI Thru


Press the **Thru** button to switch the Keyboard input to MIDI out. You can play then directly on your expander without reconnecting MIDI cables.

MIDI exclusive messages will **not** be sended.

Style Editor

Music Companion contains a graphical editor for creating and changing styles. If you want to create a new style, you have to select menu **Style/New** first to create an empty style.

Starting the Style Editor:

Move the mouse cursor to the measure icon  of the part you want to edit and then press the left mouse button. If you create a new measure, you will also get automatically to the style editor.

Editing style

Editing Style

Editor Screen

You can edit the style while the arranger is playing so you can immediately hear, what you have done. If the visible part on the screen is played, a cursor runs below the display showing the current time position.

The arranger accompaniment consists of 5 tracks: **Drums, Bass** and 3 other instruments **Acc1, Acc2, Acc3**.

Inserting Note:

Select the track and the velocity. You can test your assignment on the graphical keyboard on the left side of the screen. Press a key on this keyboard with the left mouse button to hear a note for the selected track with the selected velocity.

Method 1: Move the mouse pointer to the beginning position of the note. Press the left mouse button and then move the mouse to right side to adjust the length of the note. Then press the CTRL key on the computer keyboard to set the note.

Method 2: Press the CTRL key. In the third field of the status appears the length of the last editing note. While you are still pressing the CTRL key, click with the left mouse button on the beginning position of the note.

Remarks:

- 1. You can only hear the note, when a chord was played (except drums).**
- 2. All notes will be displayed and edited on key c-dur. MC is playing the note depending on the chord you have played.**
- 3. When you are editing the basic part and start the arranger, the arranger will play first of all the intro part, when the intro button on main screen is active.**

Depending on the velocity, notes will be coded by colour:

10% bis 40%:	gray
50% bis 60%:	green
70% bis 80%	magenta
90% bis 100%:	red

To get the exact velocity move the mouse cursor to the note and press the left or right button. The velocity will appear in the fourth status field: Left mouse button: in percent, right mouse button: as a number between 1 and 127.

Deleting Note :

Method 1: Move the mouse cursor to the note and press the left mouse button to select the note for deleting. Then press the **shift key** on computer keyboard.

Method 2: Hold down the shift key on the computer keyboard and then move the mouse to the note and press the left mouse button.

Changing velocity:

Select a note with the left mouse button and then press a number key on the keyboard. Number 1 means that the velocity will be changed to 10%, zero means 100%.

Adjusting velocity:

Select the note with the right mouse cursor and then move the cursor up or down to adjust velocity. While

you do that, the current velocity will be displayed in the fourth status field.



With this button you can change the voices and volume for every track.

Setup patch / volume



With this button you can determine the panning position of each track.

Stereo Position



Transpose Direction



With this button you will get to the Event Editor.

Event Editor



This buttons are making loops about a **measure (short loop)** or a **part (long loop)**. This function is usefull while editing:

If you press one of this buttons, MC will repeat the currently playing measure or part. By the long loop you can repeat parts, which will not be automatically repeated like intro or fill-in.

When you leave style editor, the loop function will be automatically disabled.



Transposes a track up or down (+/- 1 octave). Drums track cannot be transposed.

You can copy, delete and insert whole measures. For that you have to leave the style editor:

Copying measure

Deleting measure

Inserting measure

Editor Screen

In the editor screen you can see a piano roll representation of the accompaniment of the selected part (the selected part is displayed in the capture of editor window).

The measures are separated by thick coloured lines. The measures are described on the top of the screen; not existing measures are described with less intensity.

You can move the visible Windows through the measures using the horizontal scroll bar. If you want to edit an another part (fill-in, advanced,...) of the style, you have to leave the editor and select this new part on the main screen.

In the upper side of the screen is the status line. Status line fields from left to right:

1. Field: the note of cursor position
2. Field: time position of cursor
3. Field: length of note
4. Field: Velocity (% or 1-127)
5. Field: Message
6. Field: free memory for style MIDI-Events in percent

Below the status line are the button for selecting **velocity**. The selected value is marked by "»"-character. With this velocity notes will be inserted.

On the right side are several buttons for controlling editing. You can select the **track** (Drums, ..., Acc3), **magnitude of time** (magnifier symbols).

The rest of buttons are explained under [Editing style](#).

Event Editor

The event editor is used for editing MIDI events except notes. Notes will neither be displayed nor they can be edited. You can use the event editor for example for inserting program change events to change the instrument in a track. For one time tick it is possible to insert 4 events. The event editor can only be started from style editor.

Moving Cursor:

Use the cursor keys on the computer keyboard or the mouse.

Inserting a event:

Move the cursor to the editing position and press the enter key or double click with the mouse on the position. It appears a dialog box. The bytes of the event must be separated by periods. Each byte can be entered as a decimal or hexadecimal number: use 2 characters for hexadecimal numbers or 3 characters for decimal numbers. For example this entries are equal: C0.0E, C0.014, 192.014, 192.0E.

You have to entry each MIDI message with the channel number 0. The MC completes this message while playing the style with channel number, you have determined in menu Setup / MIDI-Channels.

Delete event:

Set the Cursor to the event you want to delete and press the Del key.

Key assignment in event editor:

Esc	quit editor
F1	get help
F2	set cursor to next quarter of note
F3	find next event
F3	set cursor to the beginning of next measure

Often used MIDI events:

C0.pp	Program change (patch), pp=program number
E0.ll.mm	Pitch bend change, ll,mm=value, E0.00.40 = middle position
B0.07.vv	Volume change for this track, vv = volume
B0.0A.pp	Stereo position, pp=position
B0.7B.00	All Notes Off

Trouble Shooting

Use this advices, when MC doesn't work correct:

1. Arranger will not start

a. Arranger will not start, when MC could not open the MIDI driver while starting the program. Select menu Setup / MIDI device and check the selected drivers.

b. Timer driver is not installed. This driver is automatically installed with Windows 3.1. If you should uninstalled it after installing Windows, please install it now.

2. MIDI errors

MIDI errors can be caused by following reasons:

- MIDI cable are too long / magnetic interferences
- defective MIDI driver / MIDI hardware

If you get a MIDI error you can remove it by pressing the panic button. If the errors appears too often, try the following:

- Use Windows in standard mode instead of extened mode (use the command **WIN /S** to start Windows). Many drivers are working better in the standard mode of windows.

- Use the **MIDI clock** instead of internal clock. The MIDI clock can be activated by the SynchClk button in Tempo window of MC. MC will get the the clock through MIDI-In. This function can only be used, when your keyboard can send the MIDI clock. You have then to change tempo on your keyboard instead of the tempo window in MC.

We have tested the following MIDI interfaces as working well: Soundblaster Pro 3, Roland MPU in standard windows mode.

Setting Patch / Volume

Select menu **Setup / patch / volume** to change the sound and volume for each track. A sound is selected by selecting a bank and a program. Every bank can contain up to 128 programs (sounds).

The selecting sounds and volumes will be saved with a style or with a song. A song can use different sounds as the appropriate style.

You can farther determine a stereo position for each track

[Stereo position](#)

You can adapt the file with sound names to reach all sounds of your sound module

[Edit patch file](#)

Edit Patch File

The editor can be reached from the dialog *Patch / volume* by the **edit** button. Use this editor to adapt the sound names to your sound module.

In the field **File name** you can see the current file with sound names. In the list you can select an another file. This files are alwas stored in the same directory as MC, so you need not to enter the directory name.

To create a new file press the button **Create new file**. If you want to use loaded data to add banks to it, answer *yes* to *Take over loaded data ?*

To switch a bank MC uses the MIDI messages entered in the **MIDI** field. It can contain up to 3 messages (the max. length of one message is 4 bytes). Look to the *MIDI implementation manual* of your sound module. Use always MIDI channel 0. MC will add the appropriate channel number while sending the message.

You can limit the number of programs for a bank in the **Max.Prg** field. The program names can be edited in the program box. Program number 0 means unchanged, MC will not send any MIDI message when selecting this program. Program 1 to 128 cause program change messages 0-127.

When a bank is marked as **Drums**, only programs with names will be used. For example if the program 1 is named * dry set *, the program 9 * room set * and programs 2-8 has no names, MC will switch from program 1 direct to program 9.

MIDI Channels

Menu command **Setup/MIDI channel** lets you set MIDI channels for every arranger track and the melody channel.

Channel numbers can be between 1 and 16.

MIDI-OUT (from computer point of view):

- **Melody**: Output channel for the melody playing with the right hand.
- **Drums,...,Acc3**: Arranger output channels.

MIDI-IN (your keyboard sends on this channels MIDI messages):

- **Upper** : right hand, melody keyboard section
- **Lower**: left hand: chords, fill-in and ending

In most cases you will play on one keyboard. In this case set upper and lower to the same MIDI channel. You will use 2 different channels if have got an organ with 2 manuals.

All channel numbers will be saved in the file CONFIG.MC placed in the same directory as MC.

MIDI Device

Menu command **Setup / MIDI device** lets you select MIDI drivers for input and output. Windows allows to install several MIDI drivers at the same time. So you can select one of them.

The MIDI mapper can be used for MIDI output if your sound creator is not General MIDI (GM or GS) compatible. In this case you can define keymaps and patchmaps for your keyboard.

This set-up will be saved in the file CONFIG.MC in the same directory as MC.

Stereo Position

You can reach this dialog box by the stereo button in style editor.

This function allows you to determine the stereo position if each track. If a track is not active, the stereo position will not be changed. For Acc2 you can also use the algorithmic stereo panning.

Algorithmic Stereo Panning (ASP)

Your setting will be saved in the style file (*.MCS).

Algorithmic Stereo Panning

Using this function you can make interesting stereo effects. It can only be activated for the track Acc2. The stereo position will be continuously changed while playing the style. There are four algorithms:

1. **Switching:** between left and right.
2. **Running left -> right** and
3. **Running right -> left:**

The position in running thru 5 points in the appropriate direction and then switching to beginning position.

4. **Walk:** The position walks thru 5 points alternating in each direction.

With: This determines the distance between the points.

Velocity: This determines, how often it will be switched.

|

If this function is not activated, the static setting is active. If the static setting is also not active, the stereo position will not be changed.

Stereo position

Transpose Direction

In this dialog (to reach by a button in the style editor) you can determine in which direction the arranger will transpose the track while playing a chord. Normally the chords from C to G will be transposed up and the chords from G# to B down. With a scroll bar you can set-up for each track (not drums) the last chord that will be transposed up.

Playing Chords

Music Companion can recognize 17 types of chords as listed below on example of C-Chord.

C	C-E-G
Cm	C-Eb-G
C7	C-E-G-Bb
Cm7	C-Eb-G-Bb
CM7	C-E-G-B
CmM7	C-Eb-G-B
C6	C-E-G-A
Cm6	C-Eb-G-A
C9	C-E-G-D
Cm9	C-Eb-G-D
Caug	C-E-G#
C5b	C-E-Gb
Cm5b	C-Eb-Gb
Cdim	C-Eb-Gb-A
C0	C-Eb-Gb-Bb
Csus	C-F-G
Csus7	C-F-G-Bb

One Finger Chords:

If you prefer to play chords with one or two fingers, you have to enable this function with *Setup / One Finger Chords*. MC saves this value to the config.mc file.

When enabled, you can play the major chords with one finger and the following chords with two fingers:

Cm	C-Eb
C7	C-Bb
CM7	C-B
Cm5b	C-Gb

The order of keys is not absolute. For example if you press Bb-C, MC will also recognize the C7 Chord.

Revolving Bass:

When revolving bass is enabled (button in chord window), MC will play the bass inversion depending on the lowest note of the chord you play on keyboard. For example the bass is playing C-E-G (programed with style editor). If you play the C-Major chord with C-E-G the bass will play C-E-G. Now press the keys G-E-C (also C-Major). The bass will play now G-E-C.

Lead Sheet Editor

In lead sheet editor you can program chords, fill-in and ending (events) for a song. While playing or recording the song, MC will play this events automatically. Your left hand will stay free for the pitch bend or modulation wheel. Fast chord changes or difficult chords are not a problem while using lead sheet.

The lead sheet is activated, when the lead sheet window is open. When the window is closed, the events in the editor will not be played.

The first 4 lines of buttons in the lead sheet editor are used to insert a chord. With the point-button (last button in the 3. line) a chord can be deleted. In the 4. line you can determine the bass note independent of the chord. Independent bass is only played, when the revolving bass in the chord window was activated.

Below the chord buttons is the working area of the editor. It contains up to 349 measures (11 min. 38 sec at 4/4 beat and 120 bpm).

On the right side of the working area are buttons for insert a fill-in or ending or for deleting such an event (point button). With *Insert* or *Delete* you can insert an empty measure or delete a measure in the editor.

With the *Song* button you can immediatly create a song from lead sheet (without melody).

Style Pick List

Style Pick List can contain up to 9 styles, that can be fast accessed by pressing a number key or the appropriate button in the list.

To load an another list from disk press the zero button. All lists will always be stored in the same directory as the MC, so it's not necessary to define the direktory while loading or saving the list.

To create a new style pick list or to change a list, call the list editor by pressing the button with the dialog symbol.

[Edit Style Pick List](#)

Edit Style Pick List

On the top of the dialog the editor shows the current directory with music companion styles. The list on the left side contains all styles in this directory, all subdirectorys and logical drives on your system. To change the directory or the drive even double click on it in this list.

With a double click on the style the style will be inserted to the style pick list.

While saving the list to the disk it's not necessary to enter the directory because all list will always be saved in the MC-directory. The file name extension is always *.PLS.

Play Part

Use this function (menu **Style / Play part**) to play exactly one part of the style to record it on a keyboard with build-in arranger. In this way you can create and test styles on MC and then use this styles on an another keyboard.

You should activate the MIDI Time Code to synchronize the record.

Send MIDI Time Code

In menu **Setup / Send MIDI time code** you can set-up MC to send the MIDI time clock. This clock is necessary, when you want to record the MIDI output of the MC with an another sequencer (maybe a keyboard with built-in arranger, to transfer the MC-style to this keyboard).

Special Functions

Second Drums Channel

You can define a second drums MIDI channel to repeat all playing drum notes on this channel. This function can be used, when your synthesizer needs two channels for a complete GM drums set (e.g. Ensoniq KS32).

Activating: Press Ctrl-S, Ctrl-D (don't release the Ctrl-Key inbetween). Enter the MIDI channel 1-16 in dialog. Enter MIDI channel 0 to deactivate the second MIDI channel.

If you change volume for the first drums channel, the value will also be send to the second channel. All other set-up's you have to make directly on your keyboard.

