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Glossary

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activate

Activating a window means to make it the topmost, current window. The window caption changes to show that it is the active window. If an application's main window is active, then one of its "child" windows may be active, too.

event filters

Event filters let you specify criteria that an event must meet in order to be affected by some operation. Each row specifies a kind of event to include or not. If you check including a kind of event, the rest of the row indicates certain values that an event must have to still be included.

velocity

In MIDI, how fast you strike a key is called the velocity. Each note event has a velocity stored with it. Usually the velocity controls how loud and/or "bright" the sound of the note is, just like with a real piano. But this depends on the synthesizer or sound card: velocity can sometimes have no effect (as with an "organ" patch) or set to control other characteristics of the sound.

patch changes

A type of MIDI command that tells an instrument to use a different sound. Numbers from 0 to 127 each select a different sound -- what sound depends on the synthesizer: MIDI doesn't require that certain numbers mean certain kinds of sounds. This flexibility has many benefits. But an optional "General MIDI" specification does assign sounds (like "Grand Piano") to particular numbers, making it easier to distribute MIDI Files that will sound similar on different equipment.

Note that manufacturers use an incredible variety of jargon for "patch", including "program", "voice", "preset", and other terms. We stick with "patch" because it's one of the oldest phrases and one which doesn't have other meanings for electronic music.

synchronizationA mode of playback where Cakewalk follows an external source of timing instead of its internal clock. Available only in <u>Cakewalk Professional for Windows</u>.

From and Thru markers
This pair of times let you tell most Cakewalk editing commands what region of time you want changed.

Now marker

Shows the current time. As you play or record, this will change to reflect the current time. While not playing or recording, as you move through screens you will change the current time. Some editing commands -- like Paste -- also propose using the Now marker for a time.

CAL

Cakewalk Application Language. CAL is an interpreted language for writing custom editing commands. CAL programs can get user input, display messages, and insert, delete, and modify events in tracks.

controller

MIDI uses controller messages for a variety of things. Each controller message has a **number** for what it controls. The MIDI spec assigns many controller numbers to standard functions. For example, controller 1 is the Modulation Wheel, controller 7 is Volume, controller 10 is Pan, and controller 64 is sustain pedal. However, not every synthesizer responds to every assigned controller number. And some synthesizers have special functions assigned to other numbers. You need to check the manual for a synthesizer to see what it responds to. Each controller message also has a **value**. For instance, 0 for Modulation Wheel means no modulation, and 127 means full modulation. The Sustain Pedal is an "on/off" controller, so 0 means no pedal and anything else means the pedal is down.

System Exclusive

MIDI data that is understood only by a particular brand/model of synthesizer and ignored by everyone else. Each manufacturer gets a unique ID code with which to tag their System Exclusive messages. Typically used to save/restore data describing patches (sounds) and/or configuration information for a synthesizer. Cakewalk can receive this data, store it, and transmit it, but cannot understand what it means.

layers (Staff view)

When a staff contains other than chordal harmony -- that is, overlapping notes with different durations -- separate layers must be created. Each layer has its own stem direction, beaming, and rests. Cakewalk has no internal limit to the number of layers, but aesthetics will impose a practical limit. If too many notes, too close in pitch are crammed together; Cakewalk cannot resolve these "aesthetic errors". You can help by moving parts to different tracks, so they can have a staff to themselves.

Contents Welcome to Cakewalk Home Studio!

While using Cakewalk Home Studio, you may get context-sensitive help -- help about what you're currently working on -- at any time. Press the **F1** function key, or, press the **Help** button of any dialog box. This help system will pop up and take you directly to the relevant topic.

Point and click on any of these items for help:

<u>Answers to Common Questions</u> (Save yourself a call to Tech Support!) <u>Keyboard Shortcuts</u> <u>Glossary</u>

Help on Menus:

<u>File Edit View Realtime Mark GoTo Track Window Settings</u>



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Cakewalk Professional for Windows

Cakewalk Home Studio has a "big brother"! **Cakewalk Professional for Windows** offers even more features -- all in the same, easy-to-use style.

Cakewalk Professional for Windows 2.0 adds:

- SMPTE/MTC and MIDI Synchronization
- More Edit menu commands
- Realtime options like Auto Shuttle, punch-in, and layered loop recording
- A built-in programming language ("CAL")
- MIDI System Exclusive generic librarian
- MCI events for multimedia control applications
- Much More!

If your package doesn't include information about trading-up to Cakewalk Professional for Windows, please contact us at Twelve Tone Systems.

Sales: (800) 234-1171 10 AM to 6 PM EST General: (617) 926-2480 10 AM to 6 PM EST Tech Support: (617) 924-6478 1 PM to 6 PM EST

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Keyboard shortcuts
     Function Keys
              F1 Help (context-sensitive)
         ALT+F1 Undo
              F2 Copy
        CTRL+F2 Cut
       SHIFT+F2 Paste
 CTRL+SHIFT+F2 Paste To One Track
       SHIFT+F3 Step record
        CTRL+F4 Close child window
         ALT+F4 Exit
              F5 (GoTo) Time
         ALT+F5 Search Next
(The F6 keys work only with View/Options/DOS F6 Keys on:)
              F6 Switch to Track pane of Track/Measure view
       SHIFT+F6 Switch to Measure pane of Track/Measure view
        CTRL+F6 Open or switch to Event List view
         ALT+F6 Open or switch to Piano Roll view
              F7 (GoTo) From
              F8 (GoTo) Thru
              F9 From=Now
             F10 Thru=Now
       Other Keys
         CTRL+O Open
         CTRL+S <u>Save</u>
         CTRL+Z Undo
         CTRL+C Copy (Also copies text in notepads/dialogs)
         CTRL+X Cut (Also cuts text in notepads/dialogs)
         CTRL+V Paste (Also pastes text in notepads/dialogs)
  CTRL+SHIFT+V Paste To One Track
      CTRL+TAB Next child window.
```

SHIFT+CTRL+TAB Previous child window.

README.WRI

This file contains important information about changes since the printed documentation went to press. You should read this file.

Cakewalk SETUP installs an icon for README.WRI that you can double-click on.

Or, choose the "Help/View README.WRI file" command.

Save changes?

You are quitting Cakewalk or loading a new file, but your changes to the current file have not been saved.

- To save your changes before quitting or loading a new file, press **Yes**.
- To simply quit or load another file, press **No**. Your changes will be lost.
- To back out of quitting or loading a new file, press **Cancel**.

Cannot Undo later

The action you are about to take cannot be reversed later using the **<u>Undo</u>** command.

- If you are unsure about proceeding and you haven't saved your work, press **Cancel**. Use **Save** to save your workfile now, then take this action again.
- To proceed anyway, press **OK**.

CAKEHS.INI

This file is located in the directory where you installed Cakewalk Home Studio (if you accepted the directory which Cakewalk SETUP proposed, this is C:\CAKEHS). It contains information that Cakewalk needs to store between sessions, for example, your preferences. Many items are stored here from choices you make in Cakewalk's menus and dialog boxes. But some items can be changed only by directly editing this file using the Windows Notepad application, or, for items in the [WINCAKE] section, by using **Initialization Files**.

If you make changes to this file, they will not take effect until the next time you start Cakewalk. Also, when you quit Cakewalk it writes some information about your preferences to this file. So if you need to directly edit CAKEHS.INI, it is best to quit Cakewalk, make your changes, then restart Cakewalk.

CAKEHS.INI is divided into sections. The section beginning with the line

[WINCAKE]

is where you should add information if no particular section is mentioned. For example, if you are advised to, "add the line Foobar=1 to CAKEHS.INI", you should put it on the line under [WINCAKE], like this:

[WINCAKE] Foobar=1

notepad

When you're using a view that has a standard Windows notepad, remember that you can cut, copy, and paste text between Cakewalk and other programs by using the standard shortcut keys:

CTRL+C Copy CTRL+X Cut CTRL+V Paste

These keys work even with small, single-line text boxes in any Windows program.

File menu

The File menu contains mostly commands for relating to files, plus a few others.

New Wipe out the whole work and start fresh.

OpenLoad a work from a disk file
Save
Save a work to a disk file

Save As

Merge
Load a work to a disk file under a new name
Load a work's events into the Scrap buffer
Save the Scrap buffer into a work file
View comments and other information.
Print Preview
Print the current view to the screen

Print Print the current view

Printer Setup Change the current printer and/or printer settings

<u>Exit</u> Exit the program

New (File menu)

If your work has changed since it was last saved to disk, you will be given a chance to save it first. Then this lets you pick from a list of file templates to create a new work.

See Also:

File Menu

"New" in the *User's Guide* for help with templates.

Open (File menu)

The Open command lets you load Cakewalk workfiles or Standard MIDI Files.

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 work.

Dropping files from the File Manager

You can also load files by dragging them from the Windows 3.1 File Manager and dropping them anywhere on Cakewalk's window. If Cakewalk is playing when you drop the file, playback will stop, the new file will be loaded, and playback will be turned back on again.

Save (File menu)

Use Save to save a changed file using the same name.

If you started the work using \underline{New} , it has no name. You're asked for a name by $\underline{Save As}$.

Save As (File menu)

Lets you save the work in memory as a Cakewalk workfile or as a Standard MIDI File.

The ".WRK" or ".MID" file extension will be automatically appended to the name, depending on the type of file you've selected.

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

MIDI File Options

These options are stored inside a Cakewalk file (.WRK). They control how the file is saved when you also save it as a MIDI File (.MID). Ordinarily you will want to save a MIDI File as **Format 1**, and *not* check the **Mark for Microsoft Media Player** option. However, please see the "MIDI Files" appendix in the *User's Guide* for more information about MIDI Files.

Merge (File menu)

File Merge lets you load a Cakewalk workfile into the Scrap buffer. From there, you can Paste the material to the location you want.

Extract (File menu)

Extract saves the current Scrap buffer into a Cakewalk workfile.

Hint: The **Copy** and **Cut** commands move a group of events into the Scrap buffer.

Info (File menu)

Info lets you set and view special text to describe your work.

Title: The title for your work. This text appears in the top of the **<u>Staff view</u>** and **<u>Event List view</u>** print-outs.

Subtitle: Also referred to as the "dedication". This text appears in the Staff view centered below the Title on the first page.

Instructions: These are performance instructions. This text appears in the Staff view print-out left-aligned near the top of the first page.

Author: If you created the work, you probably want to put your name here. If this field is blank in a file, Cakewalk will use whatever name you provided SETUP. This text appears in the Staff view print-out, right-aligned near the top of the first page.

Copyright: A copyright notice. A default Copyright is proposed based on the name you provided SETUP (like the Author field) and using the current year (e.g. 1993): "Copyright 1993 by <username>"). This text appears in the Staff view print-out below the Author.

Key Words: Supply any phrases you wish to describe the work or its style. For example, "RAGTIME JOPLIN". This will assist searching for files based on the Key Words, using a future feature of Cakewalk or other programs. This text does not appear when you print, except for printing this file information using the **Info** dialog **Print** button.

Comments: Free-form comments you can write using a <u>notepad</u>. This text does not appear when you print, except for printing this file information using the **Info** dialog **Print** button.

Pop Up on Open: If this is checked, this **Info** dialog will be displayed when a user loads the file.

Statistics

This button provides some additional informaton, which is calculated each time you save the file. A file that has not yet been saved (or not saved with Cakewalk 2.0) won't have this information. If you use **Save As** to create a new file -- even if you're writing over an existing file -- this information will be reset.

Editing time: The total time that you've had the file open in Cakewalk -- from the time it was created to the last time it was saved. This does not include time spent editing the file since you last saved it; if you want to update this value, save the file.

Revision: Each time you save a file that's been changed, Cakewalk increases this number. If you load a file, do *not* change it, and save it, Cakewalk does *not* increase the revision number. You can tell whether a file has changed by looking for an asterisk "*" after its name in the Cakewalk window caption.

Creation time and date.

Print Preview (File menu)

Some Cakewalk views -- like the $\underline{\textbf{Staff view}}$, and $\underline{\textbf{Event List view}}$ -- can be printed. First, activate the window. Then choose this command.

Print (File menu)

Some Cakewalk views -- like the <u>Staff view</u>, and <u>Event List view</u> -- can be printed. First, <u>activate</u> the window. Then choose this command.

Printer Setup (File menu)

Choose the printer and printer options you want using this command.

See Also: <u>File Menu</u>

Exit (File menu)

If your work has changed since you last saved it, you will be asked if you want to save it now. If you do not save your work, it will be lost.

Edit menu

The Edit menu contains commands relating to moving and changing regions of your work.

Regions are events (a) from selected tracks and in the time range specified by the <u>From and Thru markers</u>

Undo Undo the most recent edit or Undo. Copy Copy a region to the Scrap buffer. Move a region to the Scrap buffer. <u>Cut</u> **Paste** Move scrap buffer back to the work. **Paste To One Track** Move Scrap buffer back to only one track. Round off the starting times of events. **Quantize** Change temporal length of region. Length Slide a region ahead or back in time. <u>Slide</u>

Transpose Transpose pitches of Note and/or KeyAft events.

<u>Controller Fill</u> Insert a series of <u>controller</u> events.

Undo (Edit menu)

Reverses the effect of the most recent command from the Edit menu. If the last Edit menu choice was **Undo**, then this command will be called "Redo", plus the name of the command that was undone.

See Also: Edit Menu

Cakewalk Windows Clipboard Formats

The <u>Cut</u>, <u>Copy</u>, and <u>Paste</u> commands work with music data on the Windows Clipboard in several formats.

Standard MIDI Files

One format is MIDI File format: the data on the Clipboard is a memory image of a Standard MIDI File. Any other application capable of understanding MIDI Files and recognizing this Clipboard format can exchange data with Cakewalk. You can copy and paste data to and from Cakewalk and the other application. This is faster than creating an actual Standard MIDI File on disk, and there is no temporary file for you to delete later if it was a temporary transfer.

Note to programmers: Cakewalk calls **RegisterClipboardFormat()** with the string "Standard MIDI File". The handle that you put on or get from the Clipboard is a block of memory from **GlobalAlloc()** that contains nothing more or less than the exact image of a Format 0 or 1 Standard MIDI File. Please help our mutual customers by supporting this simple protocol for data exchange under Microsoft *Windows*.

Private format

A private format is recognized by Twelve Tone Systems applications. For example, if you are running two copies of Cakewalk for Windows at once, and copy-and-paste music data between them, the recipient will use the private format simply because it is faster.

Copy (Edit menu)

This command copies any combination of track events, tempo changes, and meter changes in the time region From..Thru to the Clipboard.

If you check Track events, then events from selected tracks are copied. You can opt to use an <u>Event Filter</u> to further define what events will be copied.

You cannot cut meter changes unless the <u>From and Thru markers</u> are set to cover a time range that is an exact number of measures long. Since a meter defines how long a measure is, by definition you cannot cut other than in units of whole measures.

See Also:
Cut
Paste
Paste
Paste To One Track
Edit Menu
Cakewalk Windows Clipboard formats

Cut (Edit menu)

Cut moves any combination of track events, tempo changes, and meter changes in the time region From..Thru to the Clipboard.

If you check Events, then events from selected tracks are cut. You can opt to use an <u>Event Filter</u> to further define what events will be cut. But note that the **Delete hole** and **Use Event Filter** options are mutually exclusive: unless you delete *all* the events in the region, there won't be an empty region to delete.

You cannot **Cut** meter changes unless the <u>From and Thru markers</u> are set to cover a time range that is an exact number of measures long. Since a meter defines how long a measure is, by definition you cannot cut other than in units of whole measures.

See Also:
Copy
Paste
Paste To One Track
Edit Menu
Cakewalk Windows Clipboard formats

Paste (Edit menu)

Paste inserts a copy of the Clipboard data in your work at the current position. Events are pasted to the same tracks they were originally from which they were originally **Cut** or **Copied**. The pasted material can be repeated any number of times, with the repetitions inserted one after another. This lets you create repeating themes quickly.

See Also:
Paste To One Track
Edit Menu
Cakewalk Windows Clipboard formats

Paste To One Track (Edit menu)

Works just like **Paste**, but forces all the events to be pasted into a single track.

Use this to $\underline{\textbf{Cut}}$ or $\underline{\textbf{Copy}}$ something from one track, then paste it to an entirely different track.

With respect to tempo and meter/key signature changes, **Paste To One Track** works no differently than regular **Paste**. The tempo map and the meter/key signature map are still treated as separate "tracks".

Hint: To paste multiple tracks to multiple different tracks, try using the Drag and Drop feature of the **Measure pane** in the Track/Measure view.

See Also:
Edit Menu
Cakewalk Windows Clipboard formats

Quantize (Edit menu)

Rounds off the starting times and/or durations of note events to a resolution that you pick.

Durations are given a value of the resolution amount minus one. That way, notes do not run into each other, legato-style, causing problems on some synthesizers. Durations smaller than the resolution amount will be rounded *up* to the resolution minus one -- not down to zero.

Normally operates only on note events in the selected region (selected tracks in the time range From..Thru). If you use an <u>Event Filter</u>, however, it will operate on whatever kinds of events you have specified there.

Length (Edit menu)

Lets you stretch or shrink the starting times and/or the durations of note events by a percentage that you pick. You specify this in a percentage of the original values. For example, 200% would make things twice as long, 50% would make them half as long.

This command does *not* change the tempo map. Instead, it modifies the actual starting times and durations of the events.

Transpose (Edit menu)Transposes the pitches of Note and/or KeyAft events up or down by the amount you specify.

Diatonic math option... The **Amount** to transpose by is...

Checked The number of diatonic steps (based

on the current key signature)

The number of half-steps (chromatic) Not checked

Unless you check the **Use event filter** option to exclude one of the two kinds, both Note and KeyAft events' pitches are affected by **Tranpose**.

Slide (Edit menu)

Moves a region earlier or later. This is similar to the <u>Time+</u> track parameter, but this permanently changes the event times.

Note: You cannot slide a region earlier than 1:1:0. The From time must be at least as big as the amount of time you are sliding. Otherwise you will simply get an error message.

Example: If From is 1:1:30, you cannot give an amount less than -30.

Controller Fill (Edit menu)

Lets you insert a series of MIDI <u>controller</u> or pitch wheel events. The data values can range from one value to another over time.

In the dialog box, you pick a controller type, a MIDI channel, a starting and ending value for the controller, and a starting and ending time (the <u>From and Thru markers</u> are proposed as a default). Cakewalk inserts a series of controller events so that the value changes smoothly over time from the starting to the ending value. **Controller Fill** never inserts more than one event on the same tick. If there are any existing controllers of that type in the time region, they are deleted before the new ones are inserted.

You can also create controller changes by drawing in the <u>Controllers view</u>. Drawing is more flexible: you can draw any shape, whereas **Controller Fill** creates only linear (straight line) changes. However, **Controller Fill** can create an even change over a very long period of time, which might be awkward for you to draw by hand.

View menu

Cakewalk Home Studio has a variety of views.

Track/Measure View of track parameters and measures.

Tempo Graphical view of tempo changes. **Meter/Key** List of meter (time signature) changes.

Faders Graphical faders. **Markers** Markers for times.

View to edit events in tracks:

Piano Roll Graphical view of a track's notes.

Event ListControllers

List of a track's events (all kinds, not just notes).

Graphical view of a track's controller data.

Staff Notes from multiple tracks transcribed on a staff.

View options:

Auto Activate Graphical view of a track's notes.

DOS F6 View Keys Use Cakewalk for DOS F6 shortcut keys

Track/Measure view

The Track/Measure view is your main window in Cakewalk. It is divided into two halves.

On the left is the **Track pane**, which lets you view and change track paramaters.

On the right is the **Measures pane**, which is useful for getting an overview of your work and performing "global" editing operations.

When you move the cursor over the border between the two panes, it changes to a left/right arrow. Click and drag the border left or right.

If you double-click on the border, you can toggle the parameters section size between its maximum and whatever other size you had last set by dragging. (This is similar to maximizing *vs.* restoring a window.)

Track pane

The Track pane lets you view and change track parameters.

To Select Tracks

You may select tracks by clicking on the track number in the leftmost column. A track is selected when its number is displayed in reverse video. Double-clicking selects or unselects all tracks.

To Enter New Values

With the mouse Double-click on a field

Wiht the Use the arrow keys to move the highlight

<u>keyboard</u> to the field, then press ENTER.

This will let you type in new information directly on the screen, or, it may call up the <u>Track</u> <u>parameters dialog</u>.

To Increase/Decrease Values

With the mouse Click on a field and drag the mouse toward

you or away from you.

With the Press + and - to add/subtract by 1. keyboard Press] and [to add/subtract by 10.

To Customize the Layout

You can arrange the position and width of the columns using the mouse. Click in the header row to drag a column to a new position. If you click near the right edge of a column, you can change its width.

To Edit a Track

Click on a track with the right button, and a popup menu will appear listing the different kinds of Cakewalk track editing views. Select the type you want, and the view will open for that track. The menu also contains other common commands.

See Also:

Track parameters
Measures pane
View Menu

Measures pane

The Measures pane lets you see in which measures a track has events. This is useful for getting an overview of your work and performing "global" editing operations.

To Change the Now Marker and/or the Current Track

Click on a cell to set Now (the current position) and the current track (you'll see the highlight in the Parameters pane move, too).

NOTE: If you click in selected measures -- drawn in reverse video -- you should click and release guickly so you don't start Drag and Drop (see below).

To Open a View Window

Click on a track with the right button, and a popup menu will appear listing the different kinds of Cakewalk track editing views. Select the type you want, and the view will open for that track. The menu also contains other common commands.

To Select Measures

Click and drag left and right to set the <u>From and Thru markers</u>. Selected measures will be drawn in reverse video. SHIFT+CLICK to extend any existing selection to the point you click.

NOTE: If you click in selected measures -- drawn in reverse video -- you should click and release quickly so you don't start Drag and Drop. Tapping quickly will clear the existing selection; then you may drag to make a new selection.

To Drag and Drop Selected Measures

You can drag selected measures to a new position. Click in the selected measures and hold the button: after a moment, the cursor changes. Drag to the point where you want the new new upper-left corner to be, and release the mouse button. You can move measures horizontally and/or vertically this way.

To copy instead of moving, hold down the CTRL key while clicking. The original selected measures will remain.

To clear the selection without starting Drag and Drop, quickly click and release the button.

When you drop measures, the <u>Drag and Drop Options</u> determine whether the dropped measure replace, blend with, or slide over the existing measures on which you're dropping them.

Drag and Drop can be undone by **Undo**.

See Also:
Parameters pane
View Menu

Drag and Drop Options dialog

This dialog lets you choose what should happen to existing measures when you Drag and Drop existing material on top of them. The options are similar to those for the **Paste** command.

By default, whenever you Drag and Drop you are presented with this dialog. However, if you always want to drop using the same method, and find this dialog box annoying, simply turn off the **Ask This Every Time** option. From then on, whichever method you've selected will be used, without you being asked. Should you ever want to change these options, press the right mouse button in the Measure pane and choose **Drag and Drop Options** from the menu.

See Also: Measures pane

Track parameters dialog

This dialog box lets you change many related **<u>track parameters</u>**. Double-clicking or pressing ENTER on the Port, Channel, or Patch fields brings up this dialog.

Changes here are effected in realtime. This dialog is handy for "orchestrating" while a song plays back, because you can hear the results while you change the "destination" -- port, channel, patch -- and also parameters like key and <u>velocity</u> offset, pan and volume. You can freely experiment with all of them because pressing Cancel restores all of the original track parameters. Press OK to keep your changes.

Press the **Configure** button (next to the **Patch** item) for the **Patch names** command.

Event List view

The Event List view lets you see and edit events from one or more tracks in an alphanumeric 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 -- notes, controllers, patch changes, sysx meta-events, MCI commands, wave events, text events, etc.

Multiple tracks

Each Event List includes whatever tracks were selected (including the current track) when you opened the window. To view a different group of tracks, select them, then open a new Event List window.

To Step Play Events

With the Press SHIFT+SPACEBAR to play the highlighted event.

If it's a Note or Wave event, the sound will sustain as <u>keyboard</u> long as you hold down the SPACEBAR. When you

release the SPACEBAR, you are automatically

advanced to the next event.

SHIFT+click on an event. If it's a Note or Wave event, With the mouse

the sound will sustain as long as you hold down the

mouse button.

Patch change dialog

The list of patch names you may pick from depends on the port and MIDI channel of the event. If the track has a forced MIDI channel, the channel stored for the event is ignored.

You can change which patch names are used for various ports and channels by pressing the **Configure** button, which calls up the **Patch names** command.

See Also: Event list View Menu

Event kind dialog

This lets you change an event from one type to another. If you are inserting events in the **Event list** view, typically you press the INSERT key to duplicate an existing event, then change its values.

There are various kinds of events. Cakewalk provides you with standard MIDI events like Notes, Patch changes, and so on. Plus there are special events that aren't part of MIDI.

MIDI events contain only a small amount of data. For example, a Note event has a key number (pitch), <u>velocity</u>, and duration. Cakewalk stores normal MIDI events in such a way that you can cycle among the various kinds without losing data peculiar to a certain kind. In fact, by temporarily changing a Note event into a KeyAft event, you can get a different view of the same data: you can see the raw MIDI key number instead of Cakewalk's pitch name like "C#4". You can do this using the plus or minus keys or dragging with the mouse, and avoid calling up this dialog box.

But the special kinds of events require more data -- Wave events, for example, require very large amounts of memory! Cakewalk cannot preserve this data and must release it when you change to another kind of event. To make sure that's what you intend, Cakewalk makes you press ENTER and use this dialog box if you want to change an event to or from one of these special event types.

Wave edit dialog

Event list View Menu

Wave event data cannot be directly edited in Cakewalk. But you can load and save data in standard .WAV files. Also Windows has a standard "Wave" Clipboard format. You can copy and paste the wave event data between Cakewalk and other programs that understand wave data.

The Sound Recorder applet included with Windows 3.1 can Copy wave data to the Clipboard, but it cannot Paste data. Either save the data to a .WAV file to load in Sound Recorder, or use a more full-featured wave editing application.

Wave events vs. MCI command events

You can play wave data by using a Wave event, or, an MCI command event with the command "PLAY <wavefile>". There are pros and cons to each:

	<u>Advantages</u>	<u>Drawbacks</u>
Wave events	Because the Wave event contains the data itself, wave playback is triggered with virtually no delay. Also, you don't have to keep track of one or more separate .WAV files.	Waveform data can grow very large, even for short samples at a low frequency and resolution, making your work and file very large.
MCI command "PLAY *.WAV"	The size of the Cakewalk workfile will be much smaller, because it is storing only the MCI command text, not the wave data itself. Also, MCI commands can be used to control other media devices.	It takes the MCI interpreter time to parse an MCI command and load the .WAV file. Putting the event early to compensate for the delay may not help if the delay is unpredictable.
See Also:		

Piano Roll view

The Piano Roll window has two main panes (sections): note and velocity. When you first open a Piano Roll window, the note pane may be full size and the velocity pane hidden at the bottom. You can double-click on the the gray border bar to "maximize" the velocity pane or drag the gray border to whatever position you wish.

The Piano Roll view shows you whatever was the current track when you first opened it. To change which track you're viewing, press \blacksquare or the T key.

Working in the note pane

There are two tools, selection and edit.

Selection mode lets you drag to set the <u>From and Thru markers</u>. Press or the **S** key.

Draw mode lets you insert brand-new notes, change existing notes, and "scrub" notes. Press ☑ or the **D** key. The **Snap-to** button lets you pick a round-off amount for when you drag and change note start times and durations.

To change an existing note: Which part of the note you click on -- left, middle, or right -- determines what you can change.

<u>To change...</u> <u>click on...</u>

Starting time

left third

A left-right cursor appears, and you can drag the note left or right to a

new time without affecting the pitch.

Pitch middle third

An up-down cursor appears, and you can drag the note up or down to a new pitch without affecting the starting time. In this mode, the note will sound as you move to each

new pitch step.

Duration right third

A left-right cursor appears, and you can drag left or right to change the length of the note without affecting

the starting time or pitch.

To insert a new note: Hold the CTRL key and click. A note appears. As long as you hold down the mouse button, you may drag the note to the desired position.

If you CTRL+click on... the new note will be...

an existing note a copy of that existing note (same

pitch, duration, and MIDI channel).

empty space a copy of the last note that you

dragged or deleted.

To delete a note: While dragging a note, press the DELETE key.

To "scrub" notes: If you click anywhere a note does not exist, you can drag side-to-side over time to hear notes. This can be handy to find the time where a bad note is, to test how an entire chord sounds after changing the pitch of one of its notes, or to test notes after

adjusting their velocities in the velocity pane (see below).

To change "hidden parameters": Click on a note using the RIGHT mouse button. A dialog box lets you edit all note parameters, including some that the Piano Roll view doesn't display.

Working in the velocity pane:

The velocity pane graphs the <u>velocities</u> of notes appearing above in the note pane. To modify velocities, click and drag the shape you want. Remember that velocities are not a separate type of event, they are an attribute of note events, just like pitch and duration. So in the velocity pane you are shaping the velocities of existing note events, not creating or destroying "velocity events" (there's no such thing).

To draw a straight line: Hold the SHIFT key while clicking, and you can draw a straight line.

Controllers view

The Conrollers view is for kinds of events like <u>Control</u>, Pitch Wheel, and Channel Aftertouch. Usually there are groups of these events that describe a shape, for example, a series of Pitch Wheel events with increasing values that create an upward pitch bend.

The Controllers view shows you whatever was the current track when you first opened it. To change which track you're viewing, press the track button or the **T** key. There are three tools, or modes, you can work with: selection, draw, and erase.

Selection mode lets you drag to set the <u>From and Thru markers</u>. Press or the **S** key.

Draw mode lets you draw new events of the type and MIDI channel you have selected. Any existing events of that type are replaced by what you draw. Press or the **D** key. **To draw a straight line:** Hold the SHIFT key while clicking, and you can draw a straight line.

Erase mode lets you simply erase events you see on the screen. Drag over the events you wish to erase. Press \square or the **E** key.

Staff view

The Staff view is a view of sequencer data as staff notation, with interactive editing capabilities. It's not supposed to be a replacement for full-featured music publishing software that addresses the many possible nuances of conventional music notation. On the other hand, it does an excellent job of converting inexact human performances into notation displaying what you *meant*, rather than the exact timing of what you played.

To insert a new note: Hold the CTRL key and click; while you hold down the mouse button, you may drag the note to the desired position.

If you CTRL+click on... the new note will be...

An existing note A copy of that existing note (same

duration, velocity, and MIDI

channel).

Empty space A note with a duration matching

the size button(s) you've pressed, or, the duration of the last note that you dragged, deleted or changed. (The velocity and MIDI channel will be the same as the last note that you dragged,

deleted, or changed.)

Note: When the **3** button is on to insert triplets, three notes are inserted at once for you -- a complete set of three triplets. Click where you want the first of the three to be located. Drag the two to your desired pitches.

To delete a note: While dragging a note, press the DELETE key.

To change "hidden parameters": Click on a note using the RIGHT mouse button. A dialog box lets you edit all note parameters, including some that the Staff view doesn't display.

Snap-to. The "Snap-to" checkbox determines whether you will be guided to inserting notes of certain durations at starting times that are multiples of that duration. For example, if you've selected the quarter-note button, and Snap-to is checked, your inserted notes will be forced to the nearest quarter-note boundary. This can be handy for entering many notes quickly, but of course you will need to turn this off to enter certain things: for instance, if you want to insert a half-note on the last beat of a measure.

"Simplifying" options.

Several options help you display inexact human performances without making the notation too terribly complex. You may not want to see very small noteheads (like 32nd notes) or separate <u>layers</u>. There are alternatives to using the <u>Quantize</u> command to round-off the actual times and durations of the notes: you can preserve the human feel without getting horribly complicated notation.

Fill. This option rounds up durations to the next beat (if there would otherwise be a rest). This is especially effective with chords, because the notes may be released at different times. However, you may want to turn this off if you are entering notes using the mouse. Otherwise, you may be confused when you insert an eighth-note in 4/4 time and it looks like

a quarter-note, at least until you insert another eighth note immediately following it.

Trim. This cuts off durations if they extend only a little way past the start of the next note. This helps with legato parts. As with Fill, you may wish to turn off Trim if you're entering notes precisely using the mouse.

Resolution. This is similar to **Quantize**, but works on-the-fly without affecting the actual notes' timing for playback. Also, it uses a different approach to rounding-off the timing that is more appropriate for notation.

Staff printing configuration

Engravers have standardized nine sizes of the five-line staff. The vertical distance between the lines of each staff is called its *rastral* measurement. Each rastral size has a number and is used for a specific genre of musical composition by publishers.

The bigger the rastral number, the smaller the size.

	<u>Trade names</u>	Genre usage
0	Commercial or Public	Wire-bound manuscript
1	Giant or English	Elementary band and orchestra books; instruction booklets
2	Regular, Common, or Ordinary	Sheet music, concertos, classics
3	Same as rastral 2	Used for works which contain a greater density of symbols
4	Peter	Folios, works for organ, etc.
5	Large middle	Band/wind ensemble music; sheet music
6	Small middle	Chorals; condensed sheet music
7	Cadenza	Pocket editions; cues in piano parts; military marches
8	Pearl	Thematic advertisement; ossia clarification
See Also: Staff view View Menu		

Markers view

Markers are a way of associating text with a time. The time can be a normal musical time, or locked to an absolute real-world time so that if the tempo changes, they will still refer to the same real-world time. Locked times are useful for indicating cue points when creating music to accompany visuals (film scores, ad jingles, multimedia presentations, etc.)

Anyplace that you can enter a time in a Cakewalk dialog box, you may also select from the list of markers by pressing F5. The predefined Now, From, and Thru markers are in this list along with any markers that you've defined. Pick a marker and press OK. The marker time will be supplied.

Faders view

The Faders view provides graphical faders (sliders and knobs) that generate MIDI <u>controller</u> events as you move them.

Faders and tracks

Each fader is associated with a particular track, which you can select. This association has several roles:

- (1) The fader will transmit controller events to the **Port** and **Channel** of the track. (**Tip:** a track can be set to no particular MIDI Channel; if so the fader will not work: it has to transmit to *some* MIDI channel.) If you record fader movements into a track -- see below -- then you should associate the fader with that track.
- (2) If the track contains controller events of the fader's type (for example, Volume), then the faders will update as the current time changes: either during playback or when you manually move to a new time. The fader shows the value for the most recent controller value in the fader's track.
- (3) You may create controller events in the fader's track in two ways: by taking a "snapshot" of all the faders or by interactively recording your fader movements (see below).

Moving the fader and generating controller events.

You can drag the fader thumb and slide it to a new position. Appropriate MIDI Controller events are generated as you change the value.

Faders also have a "preview" feature. Move the cursor directly over the slider's black slot or inside a knob. The value will temporarily change to show you what value would take effect if you clicked. This is handy for making instant jumps without generating lots of events with values in between the old and new positions.

Taking a "snapshot" of fader positions

If you have arranged your faders to your liking, you may take a "snapshot" of their positions by pressing . This inserts a controller event capturing the fader position into each fader's track, at the current time. (If the current time is the beginning, 1:1:0, then faders set to Volume or Pan will change their track's corresponding Volume or Pan parameter instead.)

Recording fader-generated controller events.

You can record your fader movements into a track. To do so, check **Record fader movements**. Start playback. Now, when you click on a fader, recording starts. As you drag the fader, each position is recorded into the track as a controller event. When you release the fader, recording stops. (Playback continues, so that you may record another fader movement.)

This recording works in a special "punch-in" mode: controllers of that kind will be muted in the fader's track, and replaced by the new controllers you record. (Other kinds of events in the track are not muted or replaced, so it's safe to mix controller events and notes in the same track.) You can click on as many faders as you want; each one will be a separate recording segment for each fader's destination track.

Tempo view

There are three tools, or modes, you can work with: selection, draw, and erase.

Selection mode lets you drag to set the <u>From and Thru markers</u>. Press or the **S** key. If you do this to prepare for using the <u>Edit Copy</u> or <u>Edit Cut</u> commands, remember to check Tempo changes in the dialog box, and possibly un-check Track events and Meter changes. These commands can work on any or all of these.

Draw mode lets you draw new events of the type and MIDI channel you have selected. Any existing events of that type are replaced by what you draw. Press \square or the **D** key. **To draw a straight line:** Hold the SHIFT key while clicking, and you can draw a straight line.

Erase mode lets you simply erase events you see on the screen. Drag over the events you wish to erase. Press \square or the **E** key.

Tempo dialog

You may either modify the most recent tempo change, or, insert a brand new tempo at a specified time.

To modify the most recent tempo change

- (1) Specify the tempo you want. Either:
 - (a) Type a value in the **Tempo** field
 - or -
 - (b) Click the **Click here to tap tempo** item at the desired rate.
- (2) Choose Change the Most Recent Tempo.
- (3) Press **OK**.

To insert a brand new tempo change

- (1) Specify the tempo you want. Either:
 - (a) Type a value in the **Tempo** field
 - or -
 - (b) Click the **Click here to tap tempo** item at the desired rate.
- (2) Choose Insert a New Tempo.
- (3) Type a time for it to occur in the **Starting at Time** item.
- (4) Press **OK**.

See Also:

You may also draw and erase tempos using the **Tempo view**

Meter/Key view

Meter and key signature changes can occur only on measure boundaries. You can insert, delete, or change any entry in the meter/key map. The map always has at least one entry, for measure 1, because there must always be some meter and key signature.

Meters

The meter describes how to divide time. You pick the number of beats per measure, and the value of each beat.

Key signatures

The key signature controls how Cakewalk displays notes.

In the **Event List view** and some dialog boxes, Cakewalk converts the MIDI pitch number to labels like "C#2", or the C-sharp in the 2nd octave. (Octave 0 corresponds to MIDI pitch number 0, Octave 1 to pitch number 12, and so on. You can change this through the BaseOctave variable in the Cakewalk **initialization file**).

And of course the **Staff view** needs to know the key signature.

Changing the key signature only changes how Cakewalk displays notes. To actually transpose pitches, use the **Transpose** command.

Auto Activate (View/Options menu)

Normally you <u>activate</u> windows by clicking on them. With this option enabled, you don't have to click: merely moving the mouse cursor over any window activates it.

You may want to turn off **Auto Activate** if you don't like this behavior, or if your machine is too slow redrawing the windows as they're activated. If you are using Windows utility software that already provides auto activation ("floating windows") you will also want to add the line WinEat1stClick=0 to the Cakewalk **initialization file**. You may want to put it below the line "WinAutoActivate=<0 or 1>", which is how Cakewalk stores your preference for **Auto Activate** being off or on.

DOS F6 View Keys (View/Options menu)

This option is intended for people familiar with Cakewalk for DOS. It makes the F6 keystrokes act like they do in Cakewalk in DOS. (This emulation isn't perfect because Cakewalk for Windows has more kinds of "views" and many of them can be visible at once.)

Action
If the active window is an Event list or Piano Roll window, it is closed. Activates the parameters pane ("Track View") of the Track/Measure view (the "Track View" and "Measure View" are combined in Cakewalk for Windows).
If the active window is an Event list or Piano Roll window, it is closed. Activates the measures pane ("Measure View") of the Track/Measure view (the "Track View" and "Measure View" are combined in Cakewalk for Windows).
Opens an Event list window ("Event View"), or, if one is already open, activates it.
Opens a Piano Roll window ("Note View"), or, if one is already open, activates it.

^{*} Normally in Windows programs, CTRL+F6 takes you to the next window in an application. That standard meaning is ignored when this option is enabled.

Remember Layout (View/Options menu)

While this option is on, whenever you exit Cakewalk it saves the size and position of your windows. They are restored the next time you start Cakewalk. (Windows associated with particular tracks for editing -- the Staff, Piano Roll, Event List, and Controller views, are not saved. These change each time you load a different file.)

When you turn this option off, Cakewalk asks if you want to restore the "factory default" layout. If you answer *Yes*, then the "factory default" window positions will be used the next time you start Cakewalk. If you answer *No*, Cakewalk use whatever layout was last saved.

To set up a layout and protect it from changing:

- 1. Turn on Remember Layout.
- 2. Arrange your windows as desired.
- 3. Use **Exit** to quit Cakewalk.
- 4. Turn off **Remember Layout**, and answer *No* to the "Restore 'factory default' layout?" question.

Colors (View/Options menu)

You may choose what colors Cakewalk will use for various kinds of screen elements in many of its views.

The dialog box presents two lists. The **Screen Elements** are categories of things that Cakewalk displays on the screen. Select an element. Then use the list on the right, **Colors**, to select which color you want used for that element.

You may restore all of the screen elements to their factory default settings by pressing the **Default** button.

There are two kinds of colors: direct colors like Black, Blue, and Red, and system colors, like "Sys Color: Window text" and "Sys Color: Button Face". The system colors correspond to some of the colors you set using Windows Control Panel's "Colors" icon. For example, Cakewalk comes set up for the screen element "Window Text" to use the system color "Sys Color: Window text". That way, Cakewalk uses the same color as all of your Windows programs.

Explanation of Screen Elements

Except where noted below, the views which follow this color scheme are the Track/Measure, Piano Roll, Controllers, Event List and Tempo views. Dialog boxes and other views use their own, hardwired colors, although these usually follow the colors you've set for those kinds of screen elements as defined by Windows in Control Panel.

Screen element "Window Background"	Explanation Background color
"Window Text"	Text color
"Rules"	Rules (lines used to mark values or time)
"Major Rules"	Major lines (lines used to mark larger intervals of values or time)
"Values"	Color of notes and velocities in Piano Roll view, controllers in Controllers view, and tempo changes in Tempo view.
"Drawing"	Color used to show your drawing in Piano Roll, Controllers, and Tempo views.
"Erasing"	Color used to show your erasing in Piano Roll, Controllers, and Tempo views.
"Event List Note"	Color of Note events in Event List view
"Event List KeyAft"	Color of KeyAft events in Event List view
"Event List Control"	Color of Control events in Event List view
"Event List Patch"	Color of Patch events in Event List view
"Event List ChanAft"	Color of ChanAft events in Event List view
"Event List Wheel"	Color of Wheel events in Event List view
"Event List Sysx"	Color of Sysx events in Event List view
"Event List 'Special'"	Color of other, 'Special' events in Event List

Tip: Don't set any other screen element to the same color as that used by "Window Background", or you'll make the screen element invisible!

view

Realtime menu

The Realtime menu contains commands relating to recording and playback.

<u>Play</u> Record Rewind

Record notes one step at a time

Step RecordRecord notes one step at a timeUpdate Patch CacheUpdate patches on sound cards which require "caching".

Play (Realtime menu)

▶ You can also start/stop playback by pressing play button in the control bar, or by pressing the SPACEBAR.

The "panic" button on the control bar also stops playback -- plus it turns all notes off and zeroes all continuous <u>controllers</u>.

See Also:

Realtime Menu

Record (Realtime menu)

• Starts/stops recording. You can also start/stop recording by pressing the record button in the control bar or pressing the R key.

When you stop recording, if anything was recorded it is automatically kept. You can reject it by using **Undo**. (If nothing was recorded, then Undo won't say "Undo Recording".)

See Also:

Realtime Menu

Rewind (Realtime menu)

Rewinds to the beginning. You can also rewind by pressing the rewind button on the control bar or pressing the W key.

See Also:

Realtime Menu

Step Record (Realtime menu)

Lets you record music one rhythmic step at a time.

Note that you step-record while inside the step-record dialog box. Once you leave that window, you are no longer in step-record mode.

See Also:

Realtime Menu
"Step Record" in the User's Guide for details.

Update Patch Cache (Realtime menu)This command is enabled only if you're using one or more sound cards which require "patch caching". After making changes to your song which result in patch change events being added, changed, or deleted, you may need to choose Update Patch Cache to force the sound card to load the required sounds from disk storage.

See Also: **Realtime Menu**

Panic (Realtime menu)

This turns off all notes, lifts the sustain pedal, and centers pitch bend and modulation wheels.

See Also: Realtime Menu

Mark menu

The Mark menu contains commands relating to setting the values of the <u>From and Thrumarkers</u>.

From Value	Enter a specific value for the From marker
<u>Thru Value</u>	Enter a specific value for the Thru marker
From = Now	Set the From marker equal to Now (the current time).
<u>Thru = Now</u>	Set the Thru marker equal to Now (the current time).
<u>From = Start</u>	Set the From marker to 1:1:0 (the beginning).
Thru = End	Set the Thru marker to the end of the work.

From Value (Mark menu)

Lets you enter in a specific value for the From marker.

From and Thru markers.

Thru Value (Mark menu)

Lets you enter in a specific value for the Thru marker.

The Thru marker is used by many commands, especially editing commands, to indicate the end time of a region. The From marker indicates the start of the region. You mark the region *before* choosing the editing command.

From = Now (Mark menu)

Sets the From marker to be equal to the Now marker. Now always shows the current time. So, this is useful for setting the From marker, "live," while the work plays back -- especially if you use the F9 shortcut key.

Note: If the current window is the Track/Measure view, then the From time is rounded down to the first tick of the current measure.

From and Thru markers.

Thru = Now (Mark menu)

Sets the Thru marker to be equal to the Now marker. Now always shows the current time. So, this is useful for setting the Thru marker, "live," while the work plays back -- especially if you use the F10 shortcut key.

Note: If the current window is the Track/Measure view, then the Thru time is rounded up to the last tick of the current measure.

From and Thru markers.

From = Start (Mark menu)

Resets the From marker to the start of the work (1:1:0). Useful when you want the whole work to be included in an edit operation, assuming you also set Thru to the end.

From and Thru markers.

Thru = End (Mark menu)

Resets the Thru marker to the end of the work (the time of the last event from all tracks). Useful when you want the whole work to be included in an edit operation, assuming you also set From to the beginning.

From and Thru markers.

GoTo menu

The **GoTo** menu contains commands relating to going to a different time in the work.

TimeEnter a specific time to go toFromGo to the time in the From markerThruGo to the time in the Thru markerBeginningGo to the start of the work (1:1:0)

End Go to the end of the work

Previous Measure
Next Measure
Go to start of this or previous measure
Go to end of this or next measure

Search Go to the next event that meets criteria you supply

Search Next Find the next event that meets the criteria you specified in the

last Search.

Time (GoTo menu)

Lets you enter in a specific time to go to. The Now marker reflects the change.

From (GoTo menu)

Takes you to the time indicated by the From marker. In effect, sets Now equal to From.

From and Thru markers.

Thru (GoTo menu)

Takes you to the time indicated by the Thru marker. In effect, sets Now equal to Thru.

From and Thru markers.

Beginning (GoTo menu)

Takes you to the beginning of the work (1:1:0).

End (GoTo menu)

Takes you to the end of the work (the time of the last event from all tracks).

Previous Measure (GoTo menu)

If you are in the middle of a measure, this takes you to the start of that measure.

If you are already at the start of the measure, takes you to the start of the previous measure.

Next Measure (GoTo menu)

If you are in the middle of a measure, this takes you to the end of that measure.

If you are already at the end of the measure, takes you to the end of the next measure.

Search (GoTo menu)

Finds an event at or later than the current time which meets certain criteria that you specify in an <u>Event Filter</u>.

Search Next (GoTo menu)

Finds the next event that matches your previous **GoTo Search** command.

Track menu

Most of the Track commands correspond to parameters in the <u>Track pane</u> of the Track/Measure view. The advantage of these command equivalents is that they let you change a parameter on many tracks at once. These topics explain what the track parameters are:

Name
Status
Loop
Key+
Vel+
Time+
Port
Channel
Patch
Pan
Volume

The following commands do not correspond to track parameters. They are commands that operate on tracks:

SoloMute all tracks except the current track. **Un-solo**Restore the muted settings of tracks.

<u>Clone</u> Back up a track, putting a clone of it on another track.

Wipe Delete all events; don't reset track parameters.

Kill Delete all events and reset all parameters to defaults.

Sort Sort tracks.

Name (Track menu)

Each track has a name, which you may use for any purpose you wish.

The **Name** command lets you change the name of all the selected tracks at once.

Status (Track menu)

Muted tracks are silent, but may be un-muted instantly during playback.

The **Status** command lets you toggle the muted status of all selected tracks at once. "Toggles" means that non-muted tracks become muted, and vice versa.

See Also: Archive Track Menu

Archive (Track menu)

Archived tracks are "super-muted": they can't be un-muted during playback.

Why would you want to do this? If you have a large number of muted tracks (for instance, with different versions of solos, or bits of thematic material), you may encounter timing problems. Cakewalk still processes muted tracks during playback so that it can be ready to un-mute them instantly at your command. Archiving them means you "promise" not to unmute those tracks during playback. Thus they can be ignored, possibly improving performance.

The **Archive** command toggles the archived status of all selected tracks at once. "Toggles" means that non-Archived tracks become Archived, and vice versa.

See Also: Status (muting tracks) Track Menu

Loop (Track menu)

Tracks may play from 1 to 9998 times.

9999 has a special meaning: keep looping as long as other, non-looping tracks are still playing -- that is, keep repeating the track along with non-repetitive tracks.

The **Loop** command lets you change the Loop parameter for all selected tracks at once.

Key+ (Track menu)

The **Key+** parameter is an amount added to the MIDI key number (pitch) of all note events in the track. It is an on-the-fly transposition that does *not* change the key number that is actually stored for each note event. **Transpose** lets you do the latter.

The **Key+** command lets you change the Key+ parameter for all selected tracks at once.

Vel+ (Track menu)

The **Vel+** parameter is an amount added to the <u>velocity</u> of all note events in the track. This parameter is an on-the-fly transposition that does *not* change the velocity that is actually stored for each note event.

The **Vel+** command lets you change the Vel+ parameter for all selected tracks at once.

Time+ (Track menu)

The **Time+** parameter is an amount added to the starting time of all the events in the track. This parameter is an on-the-fly transposition that does *not* change the time actually stored for each event. (The **Slide** command lets you do the latter.)

The **Time+** command lets you change the Time+ parameter for all selected tracks at once.

Port (Track menu)

The **Port** parameter controls which port tracks will be routed to. Ports correspond to one or more MIDI Out devices that you've set up using **MIDI Devices**.

The **Port** command lets you change the Port parameter of all selected tracks at once.

Channel (Track menu)

The **Channel** parameter forces all events in a track to be transmitted to a particular MIDI channel. Each event has a MIDI channel stored actually stored with it, so the Channel parameter can also be "--" or "none", letting a track contain events for more than one MIDI channel.

The **Channel** command lets you change the Channel parameter of all selected track(s) at once.

Patch (Track menu)

The **Patch** parameter is for transmitting a <u>patch change</u> before playback starts. Tracks may contain actual patch change events, for example to change patches midway through a track. For that, use the <u>Event List view</u>. But using the Patch parameter is easier when a track needs only a single patch for its whole length.

If you want to use the Patch parameter, you must also give the track a forced MIDI channel using the **Channel** parameter. Otherwise Cakewalk won't know what MIDI channel to use for the patch change.

The **Patch** command lets you change the Patch parameter of all selected tracks at once.

Pan (Track menu)

The **Pan** parameter is for transmitting a MIDI Pan (10) <u>controller</u> event before playback starts. Tracks may contain actual pan events, for example to change panning midway through a track. For that, use the <u>Controllers view</u>. But using the Pan parameter is easier when a track needs only a single pan setting for its whole length.

If you want to use the Pan parameter, you must also give the track a forced MIDI channel using the **Channel** parameter. Otherwise Cakewalk won't know what MIDI channel to use for the pan event.

The **Pan** command lets you change the Pan parameter of all selected tracks at once.

Volume (Track menu)

The **Volume** parameter is for transmitting a MIDI Volume (7) <u>controller</u> event before playback starts. Tracks may contain actual volume events, for example to change volume midway through a track. For that, use the <u>Controllers view</u>. But using the Volume parameter is easier when a track needs only a single volume setting for its whole length.

If you want to use the Volume parameter, you must also give the track a forced MIDI channel using the **Channel** parameter. Otherwise Cakewalk won't know what MIDI channel to use for the volume event.

The **Volume** command lets you change the Volume parameter of all selected tracks at once.

Solo (Track menu)

Mutes all tracks except the current track.

The original track muted settings are restored when you select **<u>Un-solo</u>**.

Un-solo (Track menu)

Restores the track muted settings that were in effect before you used **Solo**.

Wipe (Track menu)

Deletes all events from all selected tracks.

Unlike **Kill**, **Wipe** preserves the track parameters like the name.

Like **Kill**, the events are not Cut to the scrap buffer, they are simply deleted, so *there is no way to get them back*. The From and Thru markers are ignored -- *all* events in the selected track(s) are wiped out.

Kill (Track menu)

Kills all events from all selected tracks and resets the track parameters to their default values. The events are not Cut to the scrap buffer, they are simply deleted, so *there is no way to get them back*. The From and Thru markers are ignored -- *all* events in the selected track(s) are killed.

Clone (Track menu)

Makes a copy of the selected track's events and/or all its parameters.

Useful for quickly making a back-up copy of a track before embarking on some major editing operation, or to double a part on a different MIDI channel.

Sort (Track menu)

Sorts tracks based on the key value you pick.

<u>Example 1:</u> Pick *Name* for the key to **Sort By** and *Ascending* for the sort **Order**. Tracks will be sorted alphabetically by name.

<u>Example 2:</u> Pick *Size* for the key to **Sort By** and *Descending* for the sort **Order**. Tracks will be sorted in order from those with the most to those with the fewest events.

Sort uses a "stable" sort method, which means that it tends to preserve the ordering from the last time it was used. For instance, if you performed the two example sorts listed above, tracks would be sorted by decreasing Size, but any two tracks with the same Size would be sorted alphatbetically by Name. That's because the sort by Size tends to preserve the earlier sort by Name.

Blank tracks -- those with no parameters or events -- are moved to the end when sorting.

Window menu

Tile in Rows
Tile in Columns
Cascade
Arrange Icons
Close All
Minimize All

Tile In Rows (Window menu)

Arranges all of the windows so that they're side-by-side (tiled) in rows. This way, windows tend to be wider than they are higher.

Tile In Columns (Window menu)

Arranges all of the windows so that they're side-by-side (tiled) in columns. This way, windows tend to be higher than they are higher.

Cascade (Window menu)

Arrange windows stacked on top of each other with at least the caption bar of each window visible.

Arrange Icons (Window menu)

Arrange icons (minimized windows) so that they're in a neat row starting at the bottom left corner.

Close All (Window menu)

Close all windows except the Track/Measure view.

Minimize All (Window menu)

Minimize (make into an icon) all windows except the Track/Measure view.

Settings menuThe Settings menu contains commands for setting various parameters and options.

<u>Metronome</u> **MIDI Devices Patch Names** MIDI In MIDI Out MIDI Thru **Initialization Files**

Metronome (Settings menu)

The left column of items lets you pick various options about when you want to hear the metronome. (Even if **Recording** is not checked, the metronome will be heard during the **Count-in**, if any, then will stop once recording actually begins.)

The right column lets you specify a MIDI note that will be played as a metronome "tick". The default key number is that used by most drum machines for a closed hi-hat. MIDI channel 10 is a popular convention for drum machines, so that is also provided as a default. To disable the MIDI metronome note entirely, specify 0 for the **Velocity** item.

See Also: Settings Menu

MIDI Devices (Settings menu)

Input and Output devices

You may pick any number of available MIDI input and output devices. However:

- For playback to work, you must select at least one **Output** device.
- For recording to work, you must select at least one Input device.

The lists of devices show drivers which you have already installed using the "Drivers" icon of the Windows Control Panel. Cakewalk lists only MIDI input and output devices, not other kinds of devices.

MIDI Out devices are assigned to Cakewalk port numbers in the order they are listed. For example, if "MPU-401" is above "Sound Blaster" in the list and you select both, port 1 in Cakewalk is the MPU-401 and port 2 is the Sound Blaster. To rearrange the order, select one or more items, then press the **Move Selected to Top** button.

Sync Output Port

This is the port to which Cakewalk sends MIDI Sync, so that another device (for example, a drum machine) may slave to Cakewalk. If you are using such a device and want to sync it to Cakewalk, be sure to set this item to the number of the port to which the device is connected.

Timing Precision

If you have a 16 MHz 80386, this option will be set to **Medium** by default and you should change it to **Low**. For any other type of computer, you should probably accept Cakewalk's default choice matching the class of your computer. Choosing a faster option will probably backfire, because it will make your computer work too hard and make the timing worse rather than better. Avoid the **Custom** option unless Twelve Tone Systems technical support has recommended specific values to you.

See Also:

Settings Menu

README.WRI file -- which you may view using **Help/View README.WRI** -- may contain specific instructions and tips for the kind of devices you're using.

Patch Names (Settings menu)

Cakewalk lets you assign names to <u>patches</u>. The default set of "names" are numbers from 0 to 127. You may also select numbers from 1 to 128, or lists of names that correspond to the factory presets of a number of popular synthesizers. If you don't see your instrument on the list, you may be able to use the "General MIDI" list, which is a standard layout that many newer instruments use.

Because you may have different kinds of instruments connected to various ports and channels, Cakewalk lets you specify which patch names to use for each port and channel. Once you set this up, the correct list will be used automatically for each port/channel.

Using the dialog box

You can select more than one item at a time in the **Port / Channel** list on the left. If they share the same patch list, that list will be selected (highlighted) in the **Patch Name List**, otherwise nothing will be selected. To change the assignments, first select one or more items from the **Port / Channel** list on the left, then click on the desired **Patch Name List** on the right.

If you want your changes to be remembered the next time you run Cakewalk, make sure the **Save Changes For Next Session** option is checked before pressing **OK**. Otherwise, to make only temporary changes, be sure to remove the check from that option.

See Also:
Creating your own patch names
Settings Menu

MIDI In (Settings menu)

To ignore input on a particular MIDI channel, un-check the corresponding item. When input is ignored, it won't be **recorded** or echoed by **MIDI Thru**.

See Also: Settings Menu

MIDI Out (Settings menu)

This dialog lets you control various options related to information that Cakewalk sends to the MIDI Out port(s).

Send MIDI Start/Continue/Stop/Clock controls whether Cakewalk will transmit MIDI Sync. If you are not <u>synchronizng</u> another device like a drum machine to Cakewalk, leave this disabled.

Use Start, Never Continue lets you force Cakewalk to send a MIDI Start even when playback begins from other than the start (1:1:0).

Send MIDI SPP enables sending MIDI Song Position Pointer. This message lets devices synchronizing to Cakewalk jump to the correct spot.

Locate Delay for SPP Recipient can be set higher than zero to give slow devices more time to jump to the correct spot.

Zero Continuous Controllers sends messages every time playback stops to lift up the sustain pedal, center pitch bend wheels, and zero modulation wheels. It also sends a "reset all continuous controllers" message. Because this is sent for every MIDI channel of every port, it can take awhile.

Patch/Controller Searchback makes Cakewalk do some extra work before playback starts. It searches for the most recent patch change, pitch bend wheel, modulation wheel, and sustain pedal events on each MIDI channel of each MIDI port and sends them. This ensures that even if you jump to an arbitrary point in your song, any intervening patch, wheel, and pedal settings will be acted on. This option could take a long time if your song is very long.

See Also: Settings Menu

MIDI Thru (Settings menu)

These options control how MIDI input is transformed and echoed to the MIDI output. Auto mode, the default, is the most convenient. It routes things based on the Port, Channel, Key+ and Vel+ parameters of the track you currently have the cursor on in the **Track/Measure view**.

See Also:

<u>Settings Menu</u>
"MIDI Thru" in the *User's Guide* for a description of all Thru modes and options.

Initialization Files (Settings menu)

This command lets you view and change certain options in Cakewalk <u>intialization files</u>. You may also change initialization files by opening and editing them in Windows Notepad, but you may find using **Initialization Files** easier.

To set or delete an option:

- 1. Pick the initialization file containing the option you wish to set or delete, by clicking one of the radio buttons in the **File** section of the dialog box.
- 2. Type the name of the option in the **Option** field.

If the option already exists, you may pick it in the list of **Current Settings**, and that will fill in the **Option** and **Value** fields for you.

If you want to delete the option, press the **Delete** button.
 or
 If you want to set the option, type in the value for it in the **Value** field, then press the **Set** button.

4. When you are done viewing or changing options, press the **Close** button.

<u>IMPORTANT:</u> For most of these settings, Cakewalk looks at the initialization files only when it starts up. Therefore, to ensure that all of your changes take effect, you must exit Cakewalk and restart it.

See Also: Settings Menu

Answers to common questions

Here are answers to some of the most common questions about Cakewalk for Windows. Checking this list may save you a phone call to technical support!

Setup

- Why can't I hear anything on my synthesizer (no MIDI output)? Answer
- Why can't I record anything (no MIDI input)? Answer

Printing

• Why do I get a "General Protection Fault" when I try to print? Answer

Customization

- How do I create my own set of patch names? <u>Answer</u>
- How and why should I use the Microsoft MIDI Mapper? Answer

Wave Audio

- How do I play back wave audio (.WAV files) files in my song? Answer
- Why can't I play wave audio with my Sound Blaster? Answer

Miscellaneous

- Why do I get the error "Cannot open timer" when I start Cakewalk? Answer
- What is the meaning of life? Answer

"Cannot open timer"

If you start Windows from a directory containing Cakewalk 4.0 (for DOS), then Windows will mistake Cakewalk 4.0's TIMER.DRV file for its own TIMER.DRV file located in the Windows system directory. Windows silently fails to load its timer driver, and you discover the failure only when trying to use a program that needs the timing services, like Cakewalk for Windows.

To work around this problem with Windows, simply start Windows from another directory (for example, from the root directory or the Windows directory).

This message may also be caused if you are using the OS/2 operating system. Contact IBM for a maintenance update. (You may also try replacing the TIMER.DRV file supplied with older revisions of OS/2 with the original TIMER.DRV file supplied with Windows.)

"General Protection Fault" (GPF) while printing

Solution: Contact the manufacturer of your printer and make sure you have the *most recent* version of their driver for Windows. If not, obtain and install it.

Explanation: When Cakewalk prints, it uses the printer driver that you've installed in Windows. Many printer drivers have problems ("bugs") which appear only when certain applications use them, even when the application is using them correctly. Unfortunately, Cakewalk's intensive use of TrueType fonts may flush out a problem with a printer driver which is not apparent when you're using other programs. The printer driver may crash. You can tell this because the error message identifies the printer driver as the program which crashed, not Cakewalk.

We have investigated this problem thoroughly. In all cases so far, we have not found any way in which to modify Cakewalk to avoid a printer driver problem. The only solution, unfortunately, is to obtain a fixed version of the driver. The good news is that many printer manufacturers update their drivers frequently, and newer versions of many will work fine with Cakewalk.

Hint: Sometimes a driver for a similar printer will work and will not cause a GPF.

Example: A manufacturer makes similar ink jet printers. One printer is black & white only, the other is color. The color printer is "backward compatible" with the B&W one, so the driver for the B&W one will also print correctly with the color printer. The B&W driver does not cause a GPF crash. Solution: Use the B&W driver to print from Cakewalk to the color printer. Music notation is all black & white anyway!

This does *not* mean you lose the ability to print in color from other programs when you need to. Windows lets you install more than one printer driver for the same printer port. You may choose among drivers from each Windows program's **Print Setup** dialog. Install *both* the B&W and color drivers. Choose the B&W driver when printing from Cakewalk and choose the color driver when you need to print in color from other programs.

Example: If you have a printer "model number 4", the driver for "model number 3" may work with model 4 and may not cause a GPF. As described in the previous example, you may install both drivers and select either as needed.

Please see README.WRI. There may be additional information about specific printer models and driver version numbers.

Wave events and Sound Blaster

Certain older models of the Sound Blaster cannot do both MIDI input and wave output at the same time. (However, the latest Sound Blaster cards, such as the Sound Blaster 16, are fully capable of performing MIDI input and wave output simultaneously.) Thus, if you've selected "Creative Labs" as a MIDI In device in Cakewalk's **Settings/MIDI Devices** dialog, wave audio won't work. This includes Cakewalk's special Wave and MClcmd events as well as wave audio attempted by any other Windows application running while the "Creative Labs" MIDI In device is open. This is not a limitation of Cakewalk: while *any* program is using the older "Creative Labs" MIDI In device, wave audio will not work.

Note that MIDI *output* will work fine along with wave audio: you can select "Creative Labs" from the list of MIDI Out devices. The problem occurs only when you've selected the "Creative Labs" MIDI *In* device.

No MIDI output

If you aren't getting any MIDI output, please run through this checklist:

- 1. Make sure you've connected your cables properly. See the instructions in the Cakewalk *Installation Guide*.
- 2. Make sure you install a MIDI driver for your interface using Windows Control Panel. See the instructions in the Cakewalk *Installation Guide*. Make sure you specify the correct configuration information -- like IRQ and base port address -- in the driver's setup dialog box.
- 3. Now the driver is available for Windows programs to use. Next, you need to tell Cakewalk to use it. Choose the <u>MIDI Devices</u> command on the **Settings** menu and make sure the device is selected (highlighted) in the MIDI Out list. Click on the device name to be sure it is selected; if the name only has a dotted box around it but isn't drawn in reverse video, then it is not selected!
- 4. Try loading and playing a sample workfile included with Cakewalk. Make sure that each track is set to a **Port** and **Channel** to which you've connected a synthesizer. Because you can change the Port and Channel during playback, you can experiment with different settings easily until you hear a sound.

No MIDI input

If you aren't getting any MIDI input, please run through this checklist:

- 1. Make sure you've connected your cables properly. See the instructions in the Cakewalk *Installation Guide*.
- 2. Make sure you install a MIDI driver for your interface using Windows Control Panel. See the instructions in the Cakewalk *Installation Guide*. Make sure you specify the correct configuration information -- like IRQ and base port address -- in the driver's setup dialog box.
- 3. Now the driver is available for Windows programs to use. Next, you need to tell Cakewalk to use it. Choose the <u>MIDI Devices</u> command on the **Settings** menu and make sure the device is selected (highlighted) in the MIDI In list. Click on the device name to be sure it is selected; if the name only has a dotted box around it but isn't drawn in reverse video, then it is not selected!

Microsoft MIDI Mapper

The Microsoft MIDI Mapper is intended to help make MIDI song files be "portable" from one system to the next by mapping patch numbers, key numbers, and so on from a standard General MIDI layout to whatever synthesizer a particular user has. If you are not preparing or using MIDI song files for multimedia distribution purposes, you may not need to use the MIDI Mapper at all: it may be solving a problem that you don't have and needlessly complicating your setup.

If you *do* need the Microsoft MIDI Mapper, be sure to read Microsoft's documentation for it. Also, feel free to call Microsoft Windows Technical Support for assistance using their product.

To get you started, however: One key point is that you have Cakewalk use the MIDI Mapper instead of directly using the device. The whole idea is for the MIDI Mapper to sit between Cakewalk and the device and map data on the way. For example, in Cakewalk's MIDI Devices list you would select "Microsoft MIDI Mapper" but not select "Sound Blaster". Instead, select "Sound Blaster" in the MIDI Mapper, using the Windows Control Panel. So you set up a chain: Cakewalk sends data to the MIDI Mapper, the MIDI Mapper transforms the data and sends it to the Sound Blaster.

Creating your own Patch Names list

Cakewalk lets you associate a list of patch names with each port/channel. You make this association using the <u>Patch Names</u> command. A number of lists for some popular synthesizers are provided.

If you wish to create your own list, you need to edit the PATCHES.INI file supplied with Cakewalk.

- 1. You may want to make a backup copy of this file before changing it.
- 2. Load the PATCHES.INI file into a text editing program. (*Note:* The Windows Notepad cannot handle text files as large as PATCHES.INI. Instead, use the EDIT command in MS-DOS 5.0 or higher, or, some other text editing application.)
- 3. Follow the instructions at the beginning of the file.
- 4. After adding your patch names to the file, save it and restart Cakewalk. Cakewalk will notice the PATCHES.INI file is newer, and it will "compile" the file into a PATCHES.BIN file that can be read much more quickly. As long as PATCHES.BIN exists and is newer than PATCHES.INI, Cakewalk will use PATCHES.BIN.
- 5. Choose **Patch Names**. You should see your new patch name list among the others. Associate your list with each port/channel that you desire.

Using wave audio (.WAV files)

Cakewalk lets you trigger playback of digital audio at various times in your song. You must have installed a digital audio sound card like a Sound Blaster, *and* installed a wave driver for it using the Windows Control Panel "Drivers" icon.

You trigger digital audio playback by inserting a special kind of event in a track at the time you want. There are two kinds of events you may use, Wave or MClcmd. There are <u>prosand cons</u> for each.

You may find it easiest to keep these special events on a track all by themselves. Here are step-by-step instructions:

- 1. Open an **Event List view** for the track in which you want to insert the event.
- 2. Press INSERT to add a new event.
- 3. Move the cursor to the **Kind** column and press ENTER (or, double-click on the **Kind** cell with the mouse.)
- 4. In the **Event Kind dialog**, choose **Wave Audio** or **MCI Command**, and press OK.
 - If you selected **Wave audio**, then you see the Wave edit dialog. Choose **Load Wave from File** and then pick a .WAV file.

-or-

• If you selected **MCI Command**, then you must type the text for the MCI command in the Event-list view. Move the highlight one cell to the right -- press the RIGHT key once -- and press ENTER. Enter the MCI command, "PLAY <filename>", where <filename> is a .WAV file. For example, you could use the command, "PLAY C:\ WINDOWS\CHIMES.WAV", to play the CHIMES.WAV file included with Windows 3.1 and located in the C:\WINDOWS directory.

Tip: To test your new event, you may step-play it, as explained in the help topic for the **Event List view**.

Tip: During playback, only events from checked (non-muted) tracks are played. Make sure you change the track **Status** in the **Track/Measure view** to hear your Wave or MClcmd event. If the track has an "m", it's muted, so double-click on the "m" to change it to a checkmark.

Slaving drum machines to Cakewalk's MIDI Sync

Cakewalk can either slave to MIDI Sync, or be the master providing MIDI Sync for something else to sync to. For the latter -- for example, if you are using a drum machine which you want to follow Cakewalk -- go through the following checklist:

- 1. On most models of drum machines, you can select whether or not it should slave to MIDI Sync. If this can be switched off, make sure it's switched <u>ON</u>.
- 2. Double-check the connection from your computer's MIDI OUT jack to the drum machine's MIDI IN.
- 3. If you are using more than one MIDI output port on your computer, you need to tell Cakewalk which of these ports to send MIDI Sync info to. Do this in the MIDI Devices dialog's **Sync Output Port** item: specify the port to which you've connected the drum machine.
- 4. Go into the <u>MIDI Out dialog</u>, and make sure the Transmit MIDI Start/Continue/Stop/Clock option is <u>ON</u>. This must be turned on for each new workfile you create: it is off by default.

What is the Meaning of Life?

Just seeing if you're paying attention.

This is indeed a very common question, but the answer is not available with this version of Cakewalk. We hope to include it in a future version. Please return your registration card today so we will be able to contact you.