Cakewalk Professional for Windows™ 2.01

README.WRI

This file contains information that became available after the printed documentation went to press. If you enlarge the Write window to its maximum size, this document will be easier to read. To do so, click the Maximize button in the top-right corner of the window. Or open the Control menu in the top-left corner of the Write window (press ALT+SPACEBAR), and then choose the Maximize command.

To move through the document, press PAGE UP or PAGE DOWN or click the arrows at the top and bottom of the scroll bar along the right side of the Write window.

To print the document, choose the Print command from the File menu.

Contents

1.   General information

1.1.   Press F1 for context-sensitive help

Remember that you may press the **F1** function key at any time to get help related to what you're doing in Cakewalk Professional.

1.2.   CompuServe

An excellent alternative to technical support via phone or mail is to use CompuServe. Type "GO MIDIAVEN" and switch to our section (number 3). Messages are usually answered within 24 hours during weekdays by Twelve Tone Systems staff and experienced users. A variety of files are available for download. Type "GO MIDI" for questions and discussion about MIDI topics and products not related to Cakewalk.

1.3.   Drivers included with Cakewalk Professional

In general, most drivers you will use are either included with Windows 3.1 or provided by the manufacturer of the MIDI interface or sound card. However, we have included two drivers on the Cakewalk Professional diskette.

➲ **IMPORTANT!** **If you have a SCSI hard drive controller be sure to read thoroughly the section below titled, "WARNING: SCSI Hard Drives"!**

Music Quest
We supply a driver for Music Quest interfaces (PC MIDI Card, MQX-16, MQX-32) on the Cakewalk Professional diskette. Music Quest may have newer, improved versions of this driver available. You may wish to contact them or check their section of the MIDIAVEN forum on CompuServe.

Please see the Cakewalk Professional *Installation Guide* for instructions on adding or removing drivers using the Drivers icon of the Windows Control Panel. Insert the Cakewalk Professional for Windows diskette in the drive when prompted.

Roland MPU-401 and compatibles
Windows 3.1 includes a driver for MPU-401 compatible MIDI interfaces. You may want to use our driver instead. It can be opened for output by more than one program at the same time, so that you don't have to quit one MIDI program before starting another. Important: be sure to Remove the Microsoft driver before you Add ours. If both drivers are installed at once, you will experience problems.

Please see the Cakewalk Professional *Installation Guide* for instructions on adding or removing drivers using the Drivers icon of the Windows Control Panel. Insert the Cakewalk Professional for Windows diskette in the drive when prompted.

1.4.   SPACEBAR, P, R, and W keys

The shortcut keys for starting and stopping playback (SPACEBAR, P) and recording (R), and for rewinding (W), do not work in some circumstances. If the CAL view is active, then these keys need to be used so that you may type spaces and characters. For example, you need to be able to type spaces in your CAL programs, so the SPACEBAR let you do that instead of starting and stopping playback!

Note that if the CAL view is minimized (an icon) and you click on the icon, that becomes the active view. The title beneath the icon is highlighted. Even though you are not displaying the window at its normal size, it is still the active window. Thus the shortcut keys for playback, recording, and rewinding do not work. Make another window active (for example by clicking on it) to regain the use of these keys as shortcuts.

1.5. Dump Request Macros

When you press the Receive button in the Sysx window, you may pick from a list of Dump Request Macros. These are short System Exclusive messages sent to a synthesizer to make it dump (send back) System Exclusive data. DRMs are defined in your WINCAKE.INI file in the [Dump Request Macros] section. You may add your own DRMs or modify the ones that we have provided. Use the Windows Notepad to edit the file.

Please note that many DRMs have been donated by customers who are using the particular equipment. In some cases we have not been able to test those DRMs because we do not have access to that equipment. We are redistributing such DRMs on an as-is basis. Additional user-supplied DRMs may be available on BBSs like CompuServe.

1.6. Saving MIDI Files containing System Exclusive banks

If a Cakewalk file has System Exclusive Auto-Send banks, then these will be saved in a MIDI File as System Exclusive messages at the very beginning of the song (1:1:0). If the song has other MIDI data starting at 1:1:0 -- for example, notes -- it won't get played correctly because the System Exclusive transmission will delay the start. The beginning of the song will sound "garbled".

The solution is to start the song at measure 2, for example, leaving room for the System Exclusive. (A good rule of thumb is to slide everything later by 1 measure, but you could make it longer if need be.) If you have Tempo changes, Meter/Key changes, or Markers in your song, you'll have to use **Cut** and **Paste** to cut the entire song and paste it back a measure later. If you have only notes in your song, you may use the **Slide** command instead, which is a little quicker.

1.7. Mail support

Cakewalk Professional allows sending files via Microsoft Mail or any other mail system that offers the MAPI Simple Mail Interface. If you have installed such a mail system, Cakewalk Professional will automatically add a **Send** command to its **File** menu. Choosing **Send** will call up the standard MAPI dialog box with the current Cakewalk Professional song file attached to the message.

1.8. File compatibility with earlier versions

Earlier versions of Cakewalk can load a file created by Cakewalk Professional for Windows 2.0, but will ignore information in the file related to features which are new in 2.0. For example, information in a file about the 32 new knobs in the Faders view will be ignored by Cakewalk Professional for Windows 1.0 when it loads the file.

Another example concerns the fields besides Comments in the **Info** dialog. Earlier versions of Cakewalk support Comments, but do not read and display the new 2.0 fields: Title, Subtitle, Instructions, Author, Copyright, and so on. If you are distributing Cakewalk files to people who may be using earlier versions of Cakewalk, you should consider duplicating the Author and Copyright information in the Comments section, so that they see it, too.

1.9. "Problem creating Staff view musical symbol font"

You may experience this problem if you have disabled True Type fonts in Windows.

The problem: When you start Cakewalk, a message appears saying "Problem creating Staff view musical symbol font." Press OK, and Cakewalk's window appears. Now open the Staff view. The notes and staff are gigantic, and all the noteheads and clef symbols are characters from some other font, like Greek symbols or Latin letters. **Print Preview** displays the notes and staff as very small, all on top of each other, and uses characters from other fonts.

The solution: Go to Windows Control Panel, double-click the **Fonts** icon and press the **True Type** button. Make sure that **Enable True Type Fonts** is checked. If you don't have this checked, then Windows won't access any True Type font, which includes ours.

2.   Hardware-specific information

2.1.   WARNING: SCSI hard drives

As part of Windows MIDI driver installation, a virtual device driver (VxD) file is usually installed. For the two drivers we provide, this file is named VMPUD.386 for MPU.DRV (MPU-401) and VMQX.386 for MQX.DRV (Music Quest). This VxD file is only used when you run Windows in 386 Enhanced mode.

The purpose of the VxD

The Twelve Tone Systems VxD reads the card's base address from SYSTEM.INI (which you set using Control Panel Driver Setup) and traps accesses from that address to that address plus 10h (10 hex or 16 decimal). The goal of this VxD is simply to prevent DOS programs from accessing the card and interfering with the Windows driver's handling of the card while Windows is running. If an access is detected, the VxD displays an error message and simulates a dead card to the "offending" DOS program. The Twelve Tone Systems VxD is based on the original Microsoft VxD sample code and works the same way over the same address range.

Why are addresses trapped from the base address to the base address plus 10h, when supposedly the MPU-compatible cards only use addresses from the base address to the base address plus 1? Many MPU-compatible cards, such as the original Roland MPU-401 and Music Quest cards, actually respond to other addresses within that 10h range. When set at base address 330h, the Music Quest PC MIDI card has been reported to respond to 332h-337h as well, and the MPU-401 has been reported to respond to 338h-339h. Apparently, these cards do not decode all the address lines. Thus the safest, most-complete approach when dealing with MPU-compatible cards is for the VxD trap the whole range of 10h addresses.

The potential problem with SCSI cards

Unfortunately, it has also been reported that if the access comes from a SCSI card trying to access a SCSI hard drive within DOS, the error message never appears and DOS hangs. **Hard drive data loss is a possibility. SCSI card owners should beware of setting their SCSI card address anywhere within this range.** If it doesn't conflict with the card directly, then it will conflict with the VxD like this in enhanced mode if it's installed. If you're sure you aren't conflicting with your card, you can decide to forego the VxD protection by removing the VxD.

Removing a VxD .386 file

If you decide it's safe to remove the VxD, here's how to do it. Although Control Panel's driver installation knows how to install the VxD file associated with a driver, its driver removal does not know how to remove it. Therefore, an installed VxD will remain forever installed, unless you remove it manually. To do this, edit SYSTEM.INI with a text editor like the Windows Notepad. Find the line DEVICE=VMPUD.386 or DEVICE=VMQXD.386 under the section [386Enh] and delete it. Save the file and restart Windows. If you ever re-install the driver using Control Panel, you'll have to do this again.

2.2.   Wave events and MIDI input using 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 MCIcmd 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.

2.3.   Striping a tape with "Smart FSK" or CLS

If you are striping a tape with a form of "Smart FSK" (for example, Music Quest's Chase Lock Sync), you need to check that an option in **MIDI Out** is turned on while you are striping the tape. This option is **Transmit Start/Continue/Stop/Clock**, which is off by default. If this option isn't checked, striping won't be successful. Why? These forms of sync basically encode MIDI Sync information in a special code on tape. Therefore to create the code you must have Cakewalk emit MIDI Sync by checking the **Transmit Start/Continue/Stop/Clock** option. And once the tape is striped, remember that in order to have Cakewalk play in sync to Smart FSK or CLS, you need to use the **Clock** command and choose **MIDI Sync**" (or press the Control bar clock button until it reads "MIDI").

2.4.   MIDI Time Piece Tips and Tricks

These comments are to help you use the MIDI Time Piece (MTP) made by Mark of the Unicorn (MOTU).

1. In Windows, input ports are separate. This means that the System Exclusive receive buffers Cakewalk uses are distributed among all the input ports. Using Cakewalk's **MIDI Devices** command (on the **Settings** menu), you may need to de-select all input ports except for the one receiving the System Exclusive. This ensures that there are enough buffers for the desired port. After the System Exclusive dump, you can return to **MIDI Devices** to switch the input port back to receive your MIDI controller's data.

2. "FAST 1X" mode of the MTP may exhibit strange behavior with System Exclusive send. This is a result of the MTP's "middle-man" processing techniques. The MTP Windows driver is not allowed to send System Exclusive through the MTP byte by byte. The MTP stores System Exclusive in a buffer to be sent out in larger, faster packets. This causes checksum errors on a Sound Canvas, for example. We are able to send System Exclusive to the Sound Canvas in FAST 1X mode by lowering the TTSSEQ.INI's `SendSysxPacketSize` parameter to 344. This number will differ for individual computer systems. Use FAST 1X mode with System Exclusive "at your own risk".

3. MOTU's MTP setup software is a DOS program and doesn't currently run together with the Windows driver in Windows 386 Enhanced or Standard modes. To use the MOTU setup program, exit Windows altogether.

4. MOTU provides a starting template for their setup software called WINDOWS.MTP. This should be loaded (hint: see item 3) before using the MTP as an interface in Cakewalk Professional for Windows. The MTP driver will access the MTP's current state as configured by WINDOWS.MTP rather than reinitializing it. This will allow you to customize the provided template using MOTU's MTP software, and then access this setup in the Windows driver.

5. When connecting two MTP's together for 16 input/output ports, put the unit assigned to ports 1-8 first in the chain. Then, connect the network cable from the back of this unit to the network

input on the second unit (ports 9-16).

6. Since the MTP has a 17th port for sync input, you will see this in the Cakewalk Professional **MIDI Devices** list as a separate input port option. Cakewalk Professional supports a maximum of 16 input ports. If you have two MTP's using all 16 input ports and are using SMPTE sync, one input port should be deactivated in **MIDI Devices** in favor of using that 16th available input port as your sync port. Also, sync audio input should be read on the first MTP. This configuration is based on the routings of the provided WINDOWS.MTP template.

2.5.   Patch Names

Cakewalk Professional for Windows lets you refer to patches using names instead of numbers. Names are provided for the factory preset patches of various kinds of synthesizers. With some synthesizers, you may need to configure the synthesizer in a certain way before the patches corresponding to the names are available. You'll find some tips to get you started below.

You may add or change patch lists by editing the PATCHES.INI file. The next time you start Cakewalk, the changes will take effect. You will see the message "Compiling PATCHES.INI" while your changes are being converted by Cakewalk into a PATCHES.BIN file. (Subsequently, Cakewalk uses PATCHES.BIN because it can be read much more quickly than PATCHES.INI.) Once Cakewalk starts, use the **Patch Names** command from the **Settings** menu to choose your newly-created list.

Please note that the Windows Notepad application cannot handle text files larger than 32K, and PATCHES.INI exceeds that limit. Instead of Notepad, use the EDIT command found in MS-DOS 5.0 or higher, or, some other text editing application capable of handling larger text files. Do *not* edit the file using a word processing program like Windows Write, because it does not store plain text files.

CT-470 Upper Tone Bank
These are the default patches, numbers 0..109.

CT-470 Lower Tone Bank
You must press the SELECT button on the CT-470 to change it to the lower position before the patches with these names will be available on the CT-470.

CT-470 Beat Bank
The CT-470's Channel 4 button must be assigned to the Beat Bank and its sync mode set to external clock. Please see the Casio manual for more information about the Beat Bank. In Cakewalk, choose the **MIDI Out** command from the **Settings** menu and check the option, **Use Start, Never Continue**.

D110 Preset Tones
Uses the default Timbre Bank.

VFX 2.1 ROM Programs
Be sure to select the ROM bank on the VFX or VFX-SD.

MIDIVERB III
These names are for the preset effects 0..99. Customized internal effects will respond to program changes 100..127. (If you have internal effects with MIDIVERB III program numbers 128 and

higher, you can use its mapping feature to bring those down into the 0..127 range, perhaps substituting presets that you don't use.)

2.6.   Hewlett-Packard LaserJet 4

Printing from within the Staff view may lead to General Protection Faults in the LaserJet 4 Windows driver. Obtaining the latest version of the driver may solve this problem.

As this is written, the latest version of the driver is 31.V1.26. (To see the version number of the driver from within Cakewalk, choose **Print Setup**, select the LaserJet 4, press the **Options** button, and then press the **About** button.)

To obtain the latest version of the driver, please call HP Driver Distribution at 303-353-7650.

2.7.   Gravis UltraSound

Cakewalk Professional for Windows 2.0 adds support for sound cards which use "patch caching", like the popular Gravis UltraSound. These cards load sounds from your hard drive as needed. If you are using this kind of sound card, the **Update Patch Cache** command on the **Realtime** menu will be enabled. When you choose this command, Cakewalk examines your song to see which Patch numbers you have used. It gives this list to the sound card, which loads the required sounds. This process can take some time, so Cakewalk lets you control when to "recalculate" the patches used, by you issuing the **Update Patch Cache** command. (Cakewalk also performs the "recalculation" when you use **Open** or **New** to open or clear a song file.)

If you are using the Play List view, please be aware that you may experience a delay between songs due to the need to load the sounds required for the next song. This does not reflect any potential problem with Cakewalk, it is simply the way such a sound card must work.

3.   Changes in this release

Following is a list and brief description of some problems that were fixed in this maintenance update, version 2.01. Although the primary goal of a maintenance release is to fix problems, we have added a few new features, which are also described here.

Record Mode (The return of "Auto Punch")
The **Overwrite Mode** menu option has been renamed **Record Mode**. It presents three options. Two were available in 2.00: **Sound on Sound** and **Overwrite Mode**. The third option, **Auto Punch**, is "new" -- it had been removed going from version 1.0 to 2.0. **Auto Punch** lets you specify exact punch in and out times before you begin recording.

Please press the dialog's **Help** button for more information.

Tempo dialog
When you click on the Tempo in the Control bar, a dialog box appears. In version 2.00, this let you type in a new value to for the most recent tempo change in the Tempo Map.

In version 2.01, this dialog also lets you insert a brand new tempo change at a time you specify. This can be a useful alternative to drawing tempos in the graphical Tempo view, especially when you want to enter a series of tempos with precise numeric values and precise times.

Finally, you may supply the tempo value either by typing it (as before), or, by clicking the mouse to tap the rate you desire.

Please press the dialog's **Help** button for more information.

Bank Select CAL programs
This release includes a new CAL program called BANKSEL.CAL. It helps you insert the MIDI events to choose a bank and patch number. When you run it, it asks you for the time of the bank/patch change. Next you are asked for two controller numbers and a patch number.

The official MIDI Bank Select method is to use two controller messages immediately followed by a patch change. The first controller is number 0, and the second is number 32. The combination allows bank numbers ranging from 0 to over 14,000. Most synthesizers, however, pay attention to only one of these two controllers (either 0 or 32).

Please consult your owner's manual for more information about which controller it uses. Simply type in the number "0" for whichever controller your synthesizer does *not* use, since your synthesizer will ignore it. If you are unsure which controller your synthesizer uses, try supplying your desired bank number for *both* controller values.

Remember that bank numbers start with 0, not 1, in a MIDI controller event. You may need to subtract one from the bank number as it appears on your synthesizer's front panel or in its documentation. The same is true for the patch change number you supply using this CAL program.

An additional CAL program helps you with synthesizers which pre-date the Bank Select message and use a pair of patch changes to choose a bank and patch. This program is BANKSELP.CAL. The "P" stands for *patch*. You are asked for the two patch changes numbers.

Both CAL programs delete any existing bank- and patch-related events at the specified time, then insert the new ones you want.

Note: Be sure to select just *one* track before running the CAL program. This should be the track in which you want the bank/patch events to be inserted. You may find it helpful to open an Event List view for that track, so you can see the events which the CAL program inserts for you.

Spin buttons
When using spin buttons -- the up and down arrow buttons which let you increment and decrement numbers -- sometimes the right mouse button could become "stuck". This was fixed.

Remember Layout
The documentation for **Remember Layout** (on the **Options** submenu of the **View** menu) has the following instructions:

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. Restart Cakewalk. Turn *off* **Remember Layout**, and answer *No* to the question, **Restore 'factory default' layout?**

Following these instructions did not work in 2.00. This procedure now works in 2.01. Cakewalk will use the last-saved window layout, and will not overwrite it when you exit the program.

Control bar position
If the main Cakewalk window was not maximized and you'd tacked the Control bar on the right or bottom edge, it might not be drawn correctly when you first started Cakewalk.

Play List view
DEL A crash could occur if the **On** check box were turned off during playback.

DEL A crash could occur if a song were deleted from the list during playback.

Staff view
At certain PPQ and meter combinations, notes dragged near the end of a measure might jump to the start of the measure.

MIDI Files

🖹 There were problems reading some kinds of Text meta-events from MIDI Files.

🖹 MIDI File meta-events at times other than 1:1:0, and referring to System Exclusive banks containing multiple System Exclusive messages, would result in meta-events written to the MIDI File with the individual messages spread out in time rather than immediately following each other.

File Info

🖹 The total editing time showed in the **Stats** dialog would sometimes show an incorrect value for the Minutes. This was "merely" an error converting the time for display in Hours, Minutes, Seconds format. The internal time was stored correctly and will be displayed correctly when you view the file using this latest release.

🖹 You may now resize the **File Info** dialog box so that you can view more of the **Comments** notepad. (You may even press the Maximize button in the upper-right corner of the dialog box window to make it occupy the entire screen.) If you are using the **Remember Layout** option (located on the **Options** submenu of the **View** menu), the **File Info** dialog size and position will be remembered just like your other windows.

Patch Caching, Gravis UltraSound

🖹 The error message, "Not enough memory on your sound card to hold all the patches used in this song", could appear when you selected the **New** command from the **File** menu or under other circumstances when it was unlikely that there is insufficient memory on the sound card.

🖹 The key for the MIDI Metronome in the **Metronome** dialog sometimes wasn't cached (that is, you wouldn't hear any sound).

CAL

If your CAL program depends on any of the following changes or fixes, you may use this test:
```
(>= VERSION 21)
```
The CAL VERSION was 20 in Cakewalk version 2.00. It is 21 in Cakewalk version 2.01.

🖹 The **sendMIDI** function was not transmitting WHEEL events.

🖹 When sending the **sendMIDI** command to Cakewalk via DDE Execute transaction, it worked, but there was a spurious CAL error message displayed, "Types do not match".

🖹 When issuing the following CAL commands via DDE, there was a spurious "Types do not match" error: **FileNew**, **FileOpen**, **FileSave**, **FileSaveAs**, **FileMerge**, **GotoSearch**, **EditCut**, **EditCopy**, **EditPaste**, **EditPasteToOneTrack**

🖹 Using **(FileSaveAs *<filename>*)**, the form where a specific filename argument is supplied, did not work. The argument was ignored and the user prompted for the filename anyway.

🔲 The **(GotoSearch [<dummy>])** and **(GotoSearchNext)** functions were not documented, but were recorded into CAL programs.  They did not work when run -- you got a "wrong number of arguments" error.  Both commands now work and are fully documented in online help.

🔲 The following commands were recorded into CAL programs, but resulted in an "unknown function" error when the program was run: **(SettingsMidiIn)**, **(SettingsRecordFilter)**, and **(SettingsChannelTable)**.

## New TTSSEQ.INI settings for System Exclusive

Some MIDI equipment has special timing requirements when receiving System Exclusive transmissions.  If your equipment has problems receiving System Exclusive from Cakewalk, you might need to introduce some small delays to allow the equipment to digest the information it is receiving.

Two new TTSSEQ.INI settings were added to control the timing of  System Exclusive transmissions.

> **SysxDelayAfterF7** = *<0 or 1>*　　　　　Default: **0**
> **SysxSendDelayMsecs** = *<milliseconds>*　　Default: **60**

There already was a **SysxSendPacketSize** (default = 1024 bytes) setting, which is the number of bytes sent before a delay is introduced.  The delay was previously hardwired at 60 milliseconds.  The new setting **SysxSendDelayMsecs** (default = 60 milliseconds), adjusts the length of the delay.

The new setting **SysxDelayAfterF7** (default = 0), causes Cakewalk to delay if it encounters an F7 in a System Exclusive bank.  This delay amount is also controlled by the new setting **SysxSendDelayMsecs**.

Some devices (such as the Roland GR-50 and GR-1) have a problem receiving System Exclusive sent from Cakewalk until you add this single line:

> SysxDelayAfterF7 = 1

This gives the device extra time to process each System Exclusive message.

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There is no additional information at this time for README.WRI.