PlayerPRO Documentation

Version 5

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Introduction

PlayerPRO is a program which allows you to make music on your Mac. It belongs in the 'soundtrackers' category. Still uncommon on Macintosh, these music utilities originated on the Amiga platform, and have then been developed on the Atari ST, IBM PC, and finally on Macintosh.

These soundtrackers are based on a single file format — the MOD format and its derivatives (XM, IT, S3M, MTM, MAD , etc.). The MOD format was intended to be a compact way of storing music inside games and demos, especially background music. The files consist of "patterns" of musical notes inside "partitions" (pattern lists) which can be played in different order, and more than once. The number of tracks simulates the number of musicians a conductor would have in his orchestra; in the case of a 4 track file, the conductor has only the possibility of having 4 instruments playing simultaneously, even when the players can change their instruments. These files are commonly used and are, for the most part, in the public domain. There are literally thousands of them. If you have a modem, BBS', America Online, Compuserve, Internet, etc. are all gateways to infinite sources of such files.

PlayerPRO offers you a whole range of functions to create these music files:

• Sample editing: several methods of editing are offered.

• Displays: Fourier's analysis, oscilloscope, tubes, piano, digital partition, classic partition, simplified partition, animations, etc.

• Music editing: music editing can be accomplished via the Digital editor, the Classic editor (yes, that's right: enter your music directly on a musical staff!), or via MIDI keyboard. You can also open and edit MIDI files.

Technical Details

PlayerPRO requires a MacOS compatible computer with following specifications:

Operating System   : At least MacOS 8.0 (MacOS 8.5 recommended)

Memory :   Approximately 6 Mb of RAM for the application itself, hence a total of 16 Mb of RAM will allow this program to run with no problems. Note that in case you want to record or use sounds of long duration, you will have to increase the memory allocation of PlayerPRO.

Screen :   All color screens. Any size (800x600 recommended).

Audio Output   :   It is highly recommended that you connect external speakers to your computer to receive a stereo sound and a much better quality. Some Macintoshes are limited in the driver choice, but they can all be used without any exception. The quality ranges from 22 Khz/Mono/8 bits to 44 Khz/Stereo/16 bits.

Basic functions

The following sections are separated according to the way you use PlayerPRO. First the basic functions that any user must know to use this program: sound opening, sound reading and the different windows. Often, windows and buttons will be mentioned; please refer to the appropriate sections.

Opening and reading of a music file

You have several methods to open a music file:

1. Once PlayerPRO is loaded, choose "Open" from the "File" menu. A standard opening file dialog is displayed. Select a music file and click the Open button. At that time the song is loaded into memory. The music title then appears at the bottom of the Tools window. The song will begin to play if the "Automatic 'Play' After Opening" option is selected in the Music List preference; otherwise, click the 'Play' button on the Tools window.

2. "Drag-and-Drop" is fully supported in PlayerPRO; simply drop a song file on to the PlayerPRO icon on the Desktop.

3. You can also drop a folder icon or a disk icon on PlayerPRO icon. PlayerPRO will search this folder for all the music files and load them. They will appear in the Music List window.

PlayerPRO keeps track of each music file in the Music List file in your Preferences folder, in order to reload them easily later. To have access to the Music List, select the Music List sub-menu from the "Views" menu. The Music List window will then appear. To reload a song, simply double-click on its name in the list.
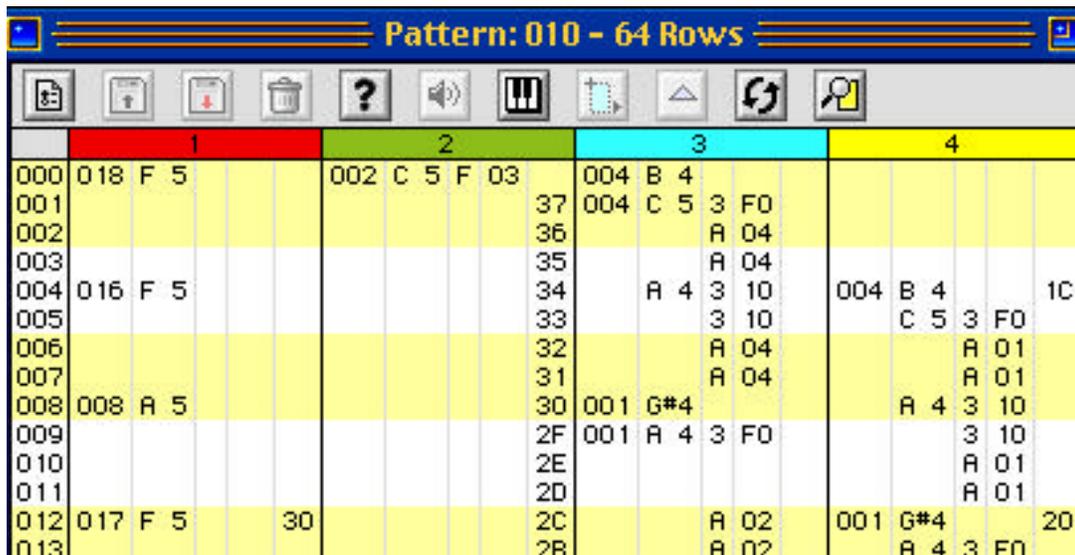
Music Editing

Music editing is mainly done with the help of five windows: Classic Editor, the Digital Editor, Box Editor, Tools and the Piano windows.

Digital Editor Window

For those users familiar with Amiga-ST or Atari soundtrackers, the Digital Editor will feel like home. This editor is a digital representation of soundtrack files. Each note is displayed, with all information about that note (Sample number, Note, Octave, Effect, Effect Value). Double-click on the note to open the Tools window.

• the Digital Editor

Classic Editor Window

The Classic Editor window offers the user that prefers the classic musical staff a great sense of familiarity. This mode is easy to use and allows a familiar view of the composed piece. Double-click on the note to open the Tools window to see the information about a given note (as in the Digital Editor).

• the Classic Editor (modified to fit the page)
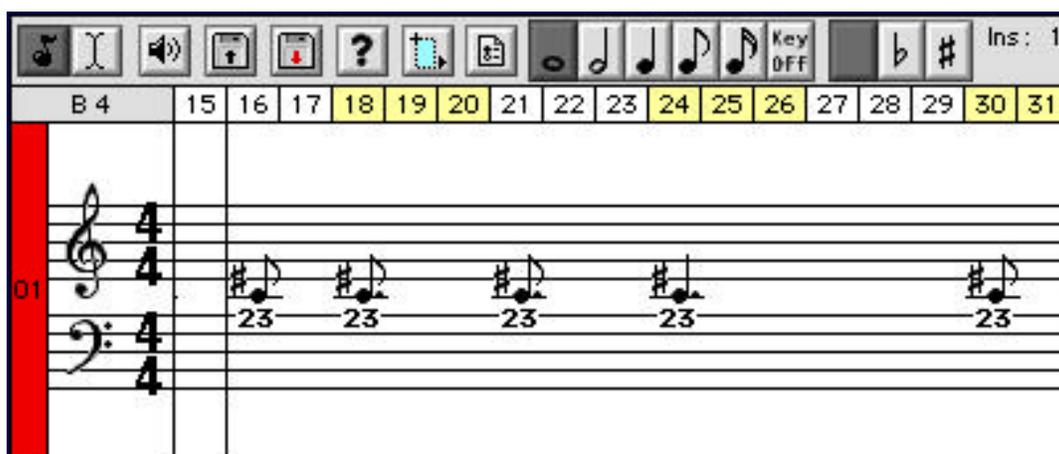
Piano Window

The "Piano" window offers a direct mode of editing: either via your keyboard/mouse, or via a MIDI instrument connected to your Macintosh. In both cases, you can record either "Note after Note" or in real time.

Note After Note

Open the "Piano" window, click the "Preferences" button and adjust the setting. After clicking the "Record" button of the "Tools" window, PlayerPRO is in recording mode: each played note, with the mouse in the "Piano" window, with a keyboard key or with a MIDI instrument, will be recorded in the current position of reading head (see "Pattern View"). When a note has been recorded, PlayerPRO will automatically advance reading head to the next position. In the "Piano Preferences" window, you can configure a special key ('OOO' at the bottom of the keys list) to indicate the lack of note, so you can advance to the next position without recording a note.

Real-time

Similar to "Note after Note" editing. Start the reading of the partition by pressing the Play button of the Tools window. You are strongly advised to prepare new patterns before starting your recording (see Patterns List) and class them one after the other in the Partition window (see Partition). You can set the reading speed by clicking on the Info button in the Patterns List window.

MIDI Hardware Connection

To connect MIDI hardware to your Macintosh, you will need a MIDI connection kit, available at your nearest Apple dealer. You will also need OMS Studio Setup (distributed by Opcode at http://www.opcode.com). Proceed as following:

1. Plug your MIDI instrument into the modem, printer or USB port.
2. Run PlayerPRO
3. Select your MIDI Hardware in OMS Studio Setup and OMS MIDI Setup in File Menu.
4. Configure your MIDI Input in the "Piano Preferences" window.
5. Press the keys on your MIDI Instrument to see if the corresponding keys in the "Piano" window light up.

MIDI functions of PlayerPRO are now limited to the reception of notes and instruments ID. You have the option to activate or deactivate the conversion of key velocity into C effect (see "Piano").

Menus & Windows

The following sections describe in detail the different menus, functions and windows of PlayerPRO. To each menu/window the following identifications will be associated, according to their use:

• EDIT :   used to compose and edit music.

• FILE :   used to write and manipulate music files.

• VIEW :   used to display and analyse the sound output.

PlayerPRO fully supports Drag and Drop; this means you can drag file or selected items inside the window or from another window. Make a selection, click on it AND maintain (hold) the mouse button, then drag the selection to its destination.

View Menu

• Pattern view (VIEW)
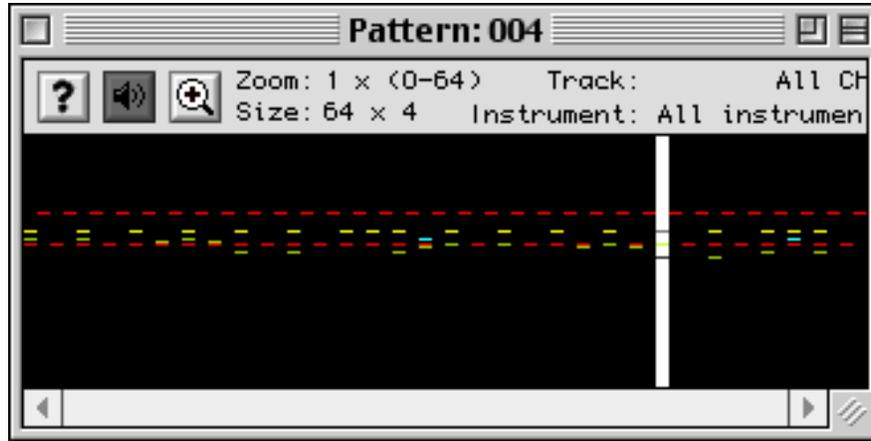
This window shows the current pattern: each color square corresponds to a note. The higher the square in the window, the higher the note, and vice-versa. Colors are related to tracks on which the note is played. The white bar corresponds to the reading head: the squares (the notes) located in this bar are now playing. You can change the position of the reading head by clicking in the window. You can also set up tracks and instruments now showing with the menus at the top of the window. You may also zoom in on one part of the pattern by pressing the Apple key and simultaneously clicking in the window.

|	1	2	3	4	5	6
Instrument	36	37	37	22	22	13
Note	E 5	B 4	D#5	A#3	A#3	D#4
Period	708	843	669	1920	1920	688
Effect	0	0	0	0	0	0
Argument	0	0	0	0	0	0
Volume	30	00	46	00	27	16
Bytes left	7788	3860	2919	0	0	515
Instru Size	10500	8353	8353	10706	10706	3020
Loop Pos	0	0	0	0	0	0
Loop Size	0	8353	8353	0	0	0
In Loop?	■	■	■	■	■	■
In Progress?	■	■	■	■	■	■
Actif?	■	■	■	■	■	■
Color	■	■	■	■	■	■

General Information

Speed 2   Finespeed 114
Pattern 20   Position 2
Tracks Driver 22 racks Music 22

• Digital View (VIEW)

This window displays a whole range of information about the driver's state and the music.

• Instrument View (VIEW)

This window displays the activity of each instrument. The color shows on which track the instrument is used.
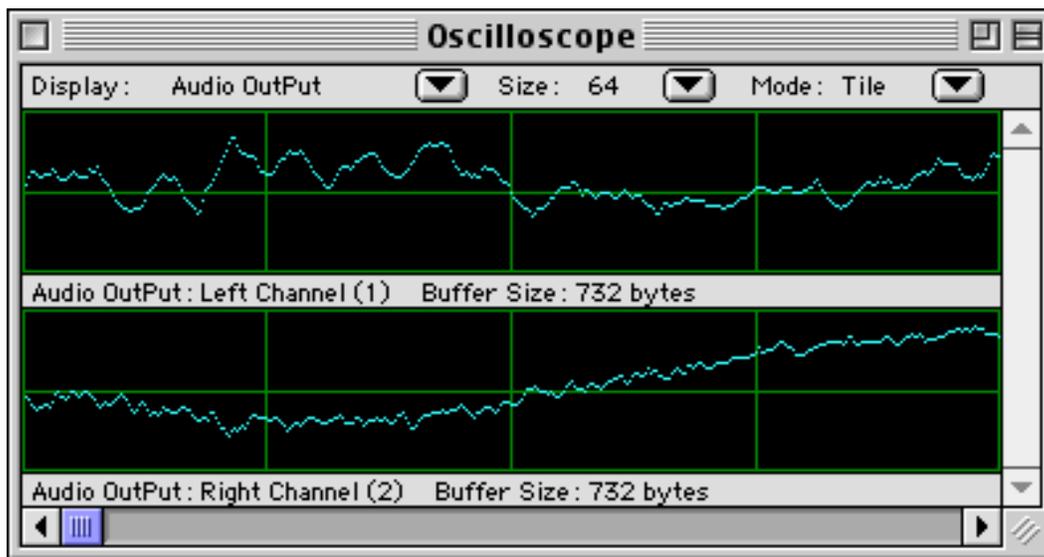
• Oscillo View (VIEW)

This window displays an oscilloscope of the sound output. If you are using a stereo driver, two waves are displayed: one for the left channel, the other for the right. You can select what you want to see by clicking on the pop-up menu: Audio Ouput (sound produced by PlayerPRO; it represents exactly what you hear on your speakers), Driver Tracks (each track of the current music) or Audio Input (sound produced by a source connected to your computer).

• Spectrum View (VIEW)
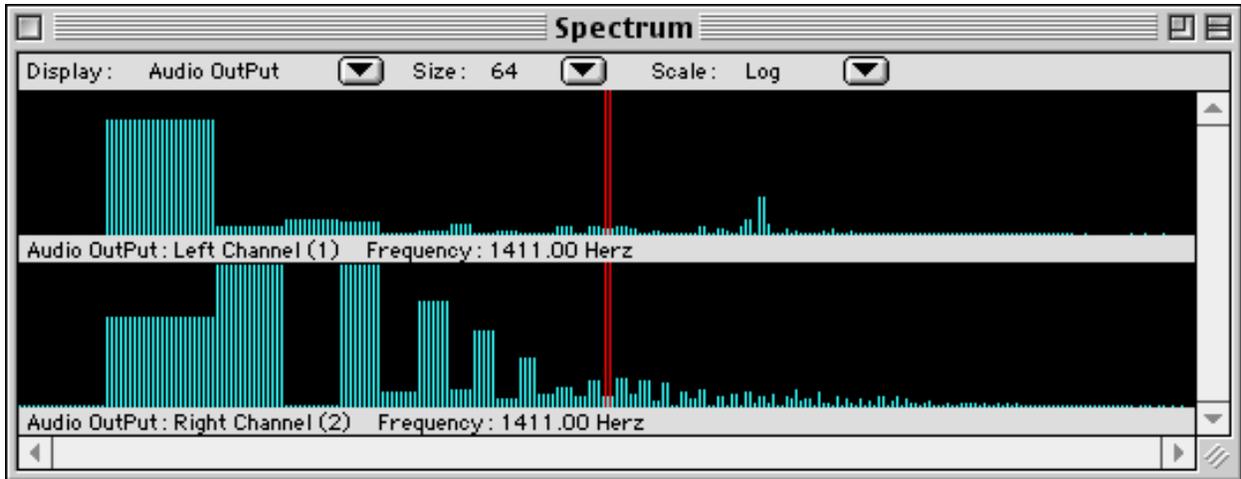
This window displays a Fourier's analysis calculated on the oscilloscope. As in the "Oscilloscope" window, you can change the display.

• Tools (VIEW, DRAG, FILE)

This window displays the Tools window. It is possible to drag-and-drop a music file on this window in the same way as in the Music List window. The music file is loaded, added to the Music List and played. Use the buttons to play, record, or move in the current music. You can also directly press in the Progress Bar to directly go to a position in the song. By clicking in the 'Zoom' box of the window, you can see the "Command Editor".


The "Command" Editor allows you to edit the current selectd note: its instrument, its note and its effect with its argument. This window is used in correlation with the "Digital Editor" window, the "Classic Editor" window or the "BoxEditor".

• Music List (FILE, DRAG)

       This window displays the complete list of songs which have been opened during the use of PlayerPRO. It allows you to load a song much more quickly by double-clicking on the song in the list, without using the "Open" function of the File menu. If the window is displayed in the large format (click on the small arrow on the right of the window), you will be able to look at the information regarding the selected song: name, size, numberof instruments, etc. You can even save this list to use again any time (see "Save Music List" in the File menu). A series of buttons allows you to do the basic functions related to this window: opening, loading, information, etc. This window is also used like a folder window of the Finder: you can take files from this window and also drop files coming from the Finder in this window.

• Mixer (VIEW)
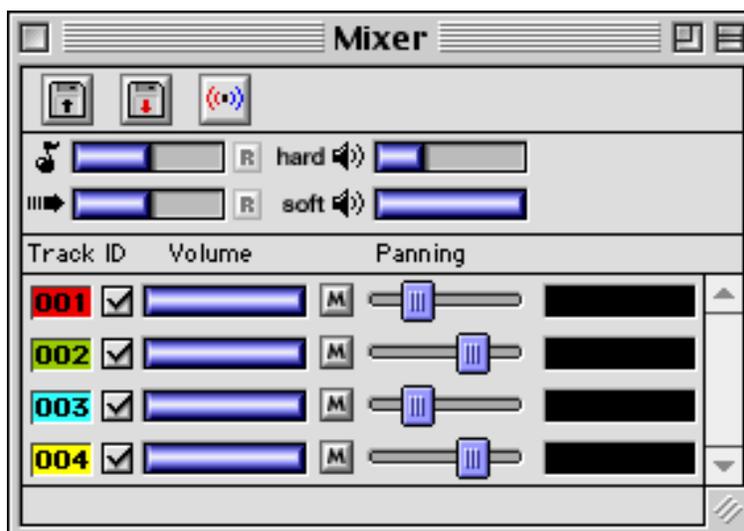
This window displays a series of tools to adjust the sound output: Volume, Panning, Pitch, and Speed. You can change each track individually. You can also change the software and the hardware volume: software volume represents ONLY the sound produced by PlayerPRO, hardware volume represents the sound produced by your computer, including alert sounds, other running programs, etc.

• Piano (VIEW)

This window displays a piano keyboard and shows the notes being used; the color shows the track on which the instrument is being played and the number relates to the instrument being played (see the Instruments List window). The letter on each piano key indicates the corresponding key on your Mac keyboard. To set up these keys, open the "Preferences" window, under the "File" menu or by clicking on the "Preference" button. You can also use this window to test instruments: choose an instrument in the "Instrument List" window by selecting it and press on the piano keys. You can also use your computer's keyboard to test instruments.

• Memory View (VIEW)

This window displays the actual state of memory allocated to PlayerPRO. It is advised to keep at least 30% of free memory to avoid memory problems.

File Menu

• New (FILE)

Creates a new empty music file ('MAD' format) and opens it, ready for writing a new song.

• Open (FILE)

Opens a standard 'Open' dialog window. PlayerPRO loads the file in memory and displays it in the Music List. This function also allows you to load a song written in a foreign format; PlayerPRO converts it to the 'MAD' format. The conversion may be of better or worse quality depending on the original formats' similarity to the 'MAD' format.

• Save (FILE)

Saves the current song by deleting the old one and by writing a new one. The music is saved in the 'MAD' format, even if it was in another format at the time of opening. To save the music in another format, use the 'Export As ...' function (see below).

• Save As ... (FILE)

Identical to the 'Save' function, except for the option to rename the music.

• Close

Close the frontmost window, not the music file!

• Export As ... (FILE)

This option allows you to save a MAD formatted song in a different format. These different formats are supported by other programs (SoundEdit, ProTracker, EkkTracker, etc.). This option is useful if you are sharing your music with someone that has one of these programs (or a program that can open files of these types).

• Save Music List (FILE)

This option allows you to save the Music List in a file. Then you can reload this Music List with the 'Open' menu item. It allows you to make favorite lists of music files.

• Clear Music List (FILE)

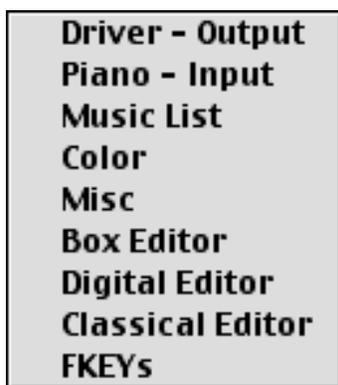To completely erase the current music list. Files on your hard disk will NOT be deleted!

• Page Setup

This option allows you to prepare the page for printing.

• Print

Sends the information of the frontmost window to the printer.

• Preferences

```
Driver - Output
Piano - Input
Music List
Color
Misc
Box Editor
Digital Editor
Classical Editor
FKEYs
```

This option displays the different internal set-up of PlayerPRO: Drivers, Piano, Music List, Color, Misc (sas in "Miscellaneous"), Box Editor, Digital Editor, Classic Editor and FKeys. Access via the 'Preferences' sub-menu under the 'File' menu

Drivers - Output

The drivers are the "motors" responsible for reading your song and for sending it to the computer speaker. Actually you can choose 2 drivers: SoundManager driver if you want to send the sound to your computer sound processor, or a OMS Midi driver, if you want to send Midi data to an external Midi device.

If you can, use external speakers! A set of external speakers with a sub-woofer will give you much better sound quality. Choose the best driver possible for your Mac: 16 bits, 44 Khz

stereo in the best event, and 8 bits, 22 Khz, mono for the weaker Macintosh (though if your Mac runs MacOS 8.x, it's probably powerful enough to run at the 16 bit, 44 KHz setting).
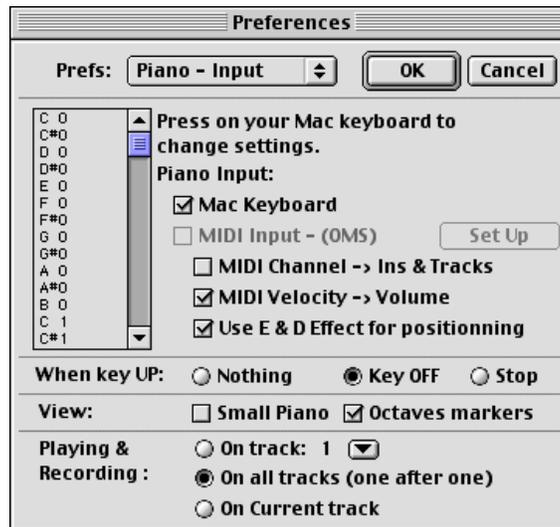
Piano - Input

This dialog allows you to set up the input devices you can use with PlayerPRO: your computer keyboard, a MIDI device and your mouse.

Allows the setup of the corresponding keys between your Mac keyboard and the piano (see Piano window). The last line contains a special value: 'OOO', this line represents a key to indicate the lack of a note. This key can be useful for editing "Note after Note" (see "Music Editing", or the "Digital Editor" window).
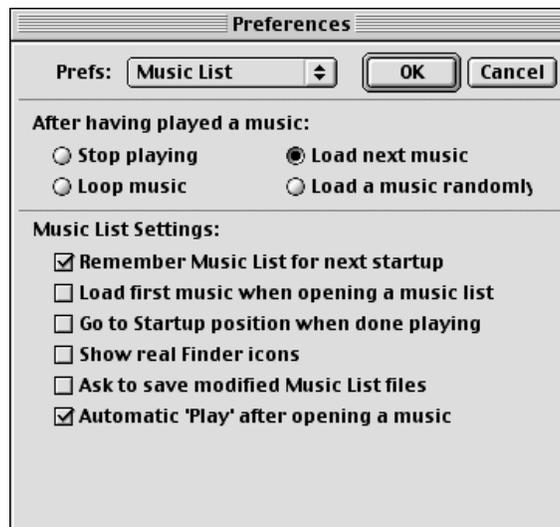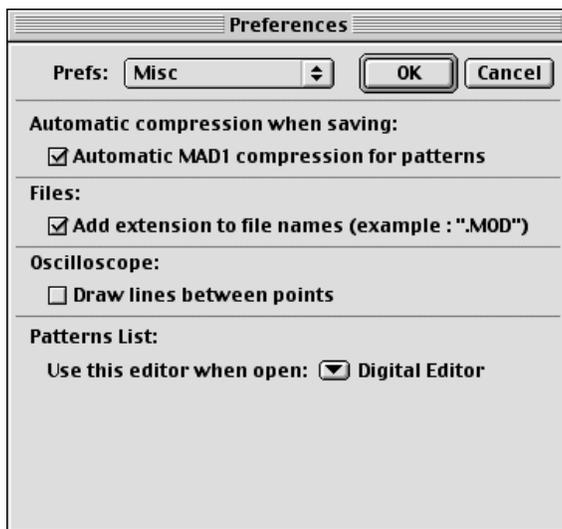

Music List

You can choose between four options for the setup of music repetition: 'Stop Playing', 'Loop Music', 'Load Next Music', or 'Loop a Music Randomly'. Other options are also available to turn on or off.

Color

Allows the setup of the colors attributed to each track in the PlayerPRO windows.

Misc

Allows the setup of some miscellaneous functions of PlayerPRO, including pattern compression, name extension, oscilloscope and patterns list.

The 'Compression' check box allows you to activate the 'MAD1' compression for the patterns during file saving. It is a very simple structure compression, hence very fast. It is advisable to keep this option checked, to save space on your hard disk.

Oscilloscope line drawing is nicer, but it requires more computation, hence slower.
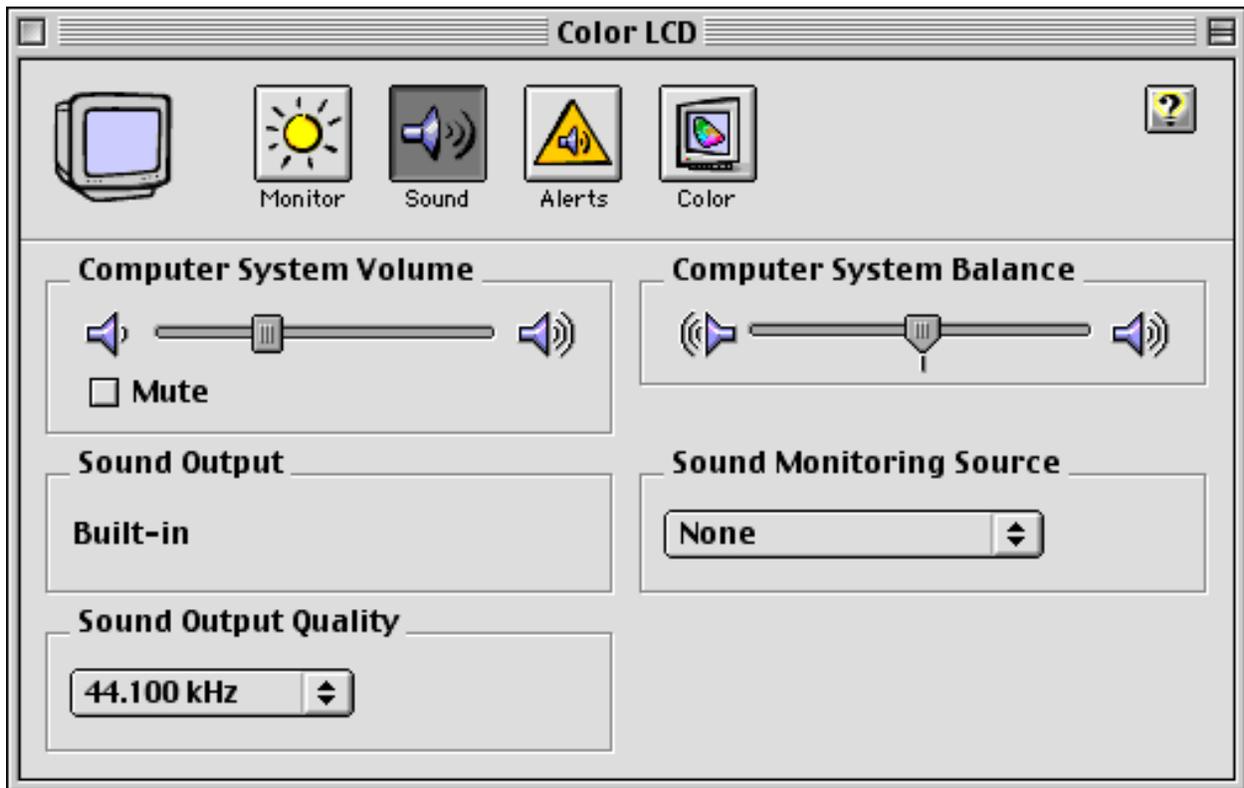

Box Editor, Digital Editor and Classic Editor

All these Preferences dialogs allow you to change the appearance of editors, like markers, octaves, note duration, etc.

FKeys

This option allows you to assign functions to your F keys of your computer keyboard. For example, pressing 'F1' key to load a music file.

• Sound Control Panel

This opens the MacOS Monitors and Sound Control Panel. See Finder Help for more information.

• OMS Studio Set up and OMS MIDI Set up

It opens OMS preferences dialog. See the OMS documentation for more information about these.

• Quit

Quits PlayerPRO.

Apple Menu

• About PlayerPRO

> Displays PlayerPRO's splash screen.

• Help

> Displays this help text in a window (full version).

• General Information

> Displays a dialog window with general information.

Editor Menu

Pattern: 000 – 64 Rows

	1	2	3	4
019	10		A 0A	
020	004 E 4 3 F0	009 B 4	002 E 5 3 F0	003 E 4
021	10		A 0A	
022	004 E 3 3 F0	009 B 4 20	002 B 4 3 F0	003 E 4 20
023	10		A 0A	
024	004 E 3 3 F0	007 A 4	002 E 4 3 F0	003 E 4
025	10		A 0A	
026	004 E 4 3 F0	009 B 4 20	002 E 5 3 F0	003 E 4 20
027	10		A 0A	

• Digital Editor (EDIT, DRAG)

This window displays the current songs' partition. The partition is in its digital form: for a song with four tracks and with a partition length of 64, the window will have 64 cells in height and 4 in width. The pattern number is displayed in the window title. To edit partition notes, you have several options:

1. Choose an instrument in the "Instruments List" window, choose a cell in the "Digital Editor" window and press a key of your Mac keyboard. The cell will contain the chosen instrument number, the note corresponding to the pressed key and the commands Effects & Arguments with zero value. (See "Piano-Input" preferences to set up your computer keyboard and input settings.)

2. Double-click on a cell, and the 'Command Editor' part of the 'Tools' window opens. See the Tools window for more information.

3. With the recording function of the Tools window. See "Piano-Input" Preferences and "Music Editing" section of this document.

Each cell contains the four standard commands of a music file: number of instruments (see "Instrument List"), Note - Effect (no effect = 0), and Effect Argument.

• Box Editor (EDIT, DRAG)

This window allows precise editing of the song, track by track. Notes are represented the same way as in the "Pattern View" window, but are also moveable and editable. Two modes are at your disposal: "Note" mode, for Note-by-Note editing and "Selection" mode to displace, copy, or delete a note selection. The "Note" mode is represented by a button displaying a note, the "Selection" mode is represented by a button displaying a cross cursor. To go from one mode to another, press one of the two buttons.

Note Mode

To create a new note, choose a track, an instrument, an effect and its argument. The note icon is displayed on the right side of the menus. This icon contains all the information previously chosen. You only need to drag it and drop it on your partition where you want it. You can also click directly on the partition (your cursor is displayed as a small note).

Pattern notes can be displaced in the same way. To delete them, drop them in the trash (or click on the shift key and click on the note (your cursor is displayed as a small trashcan)).

To play notes, press on the "Apple" key and click on the appropriate note. You can also play part of the pattern or the entire pattern by clicking up right in the reduced view. When pressing continuously on the mouse button, the pattern is played in loop.

By double-clicking on a note, you can open the "Command Editor" part of the "Tools" window for a precise setup of the note.

Selection Mode

With this mode you can select a part of the partition by clicking in a place and by moving the mouse while pressing the mouse button. You can then: copy-paste the selection by using the Edit menu, delete the selection by moving it to the trash, or move the selection.


• Classic Editor (EDIT, DRAG)

This window represents current pattern in a "classic" way with notes on a white sheet. Two modes are also available in this window, like in the "Box Editor" window, they work in the same way.

• Wave Preview (VIEW)

This window displays the wave of each tracks of current pattern. It allows you to make a visual preview of a pattern and the use of each tracks.

• Find (EDIT)
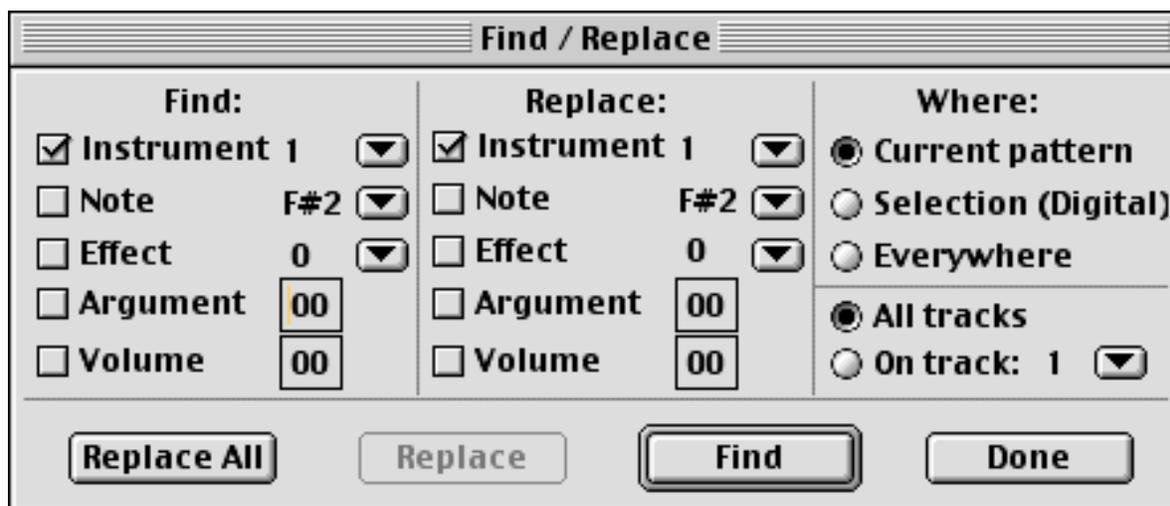
This function opens a standard "Find" dialog, allowing you to search and replace notes, instruments, effects or arguments. It works best with the "Digital Editor".

• Find current selection (EDIT)

Only works when the "Digital Editor" is open. It takes the current selection in the window and opens the "Find" dialog with the selection settings in the "Find" part.

• Minimize (EDIT)

This function is useful when you have finished your song: it will scan all your music data and remove all data that is not useed to play the song. For example, unused instrument, unused pattern, etc.

• Convert All Patterns to 64 Rows (EDIT)

This function converts all patterns that does not have 64 rows in one or more 64 patterns. It is useful when exporting a music file to the "MOD" format.

• General Information (EDIT)

This option opens a dialog window, and allows you to edit the 'General Information' of the current song: Name, Copyright information, Number of Tracks, Startup Speed and Tempo, etc

. Instruments Menu
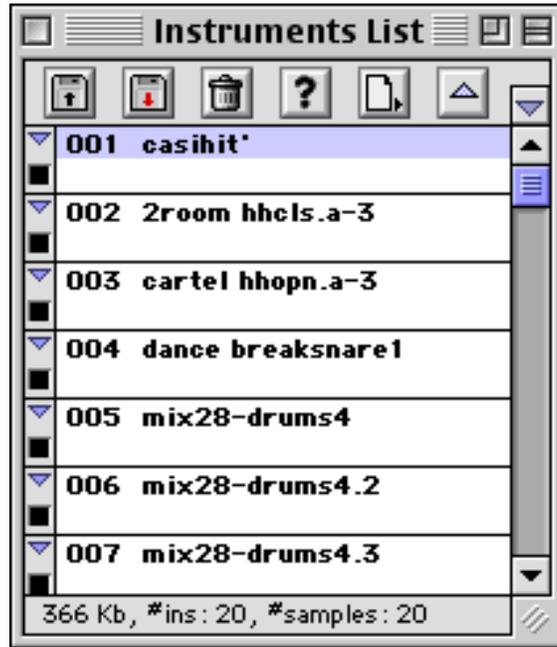
• Instruments List (VIEW, EDIT, DRAG)

This window displays the instruments of the current song. This list can contain a maximum of 255 instruments. To display the amplitude/time graphic of an instrument, double-click on it. To test an instrument, select it and open the "Piano" window. The copy/paste options work in this menu: Move, Duplicate, Delete, Export in Clipboard, etc. Many buttons are available: Load, Save, Delete, Record, Open. The buttons' equivalent is in the "Instruments" menu (see below).

PlayerPRO opens many types of files: AIFF, snd, WAV -- including MAC3 and MAC6 compression. You can also simply do a "drag and drop" of a file on a cell of the list.

• New (EDIT, DRAG)

In this sub-menu you have 4 ways to create a new sound:
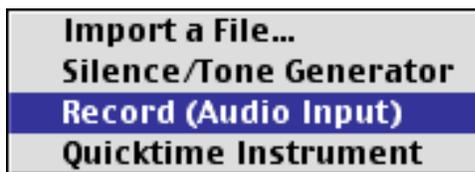
1. Importing a file ... for example, an AIFF sound file.

2. Generating a sound, with the FM generator.

3. Recording a sound with a device connected to your computer.

4. Importing a QuickTime Musical Instrument.

Instrument Info – 5

Name: mix28-drums4

OK   Cancel

Volume: Volume FadeOut (Key OFF): 0
- ● Sample Base Volume (See below)
- ○ Envelope: □ Loop   □ Sustain pt

Previous

Next

Panning: ● Channel Value (See Adaptors window)
- ○ Envelope: □ Loop   □ Sustain pt

Sample Info (1 sample)

Mode: Mono ▼   Name: 1
Amplitude: 8 bits ▼   Loop Start: 0   Loop Size: 0
Rate (c4spd): 8363 Hz ▼   Loop Type: Classic ▼
Base Volume: 64   Real Note: 0   60/C 4

0   1   2   3   4   5   6   7

Sample settings: click + option key to change assignation of current sample

To edit the Sound Rate, Sound Amplitude, Sound Asignment, etc., double-click on an instrument in the Instruments List and press on the '?' button.

To edit a sound wave, double-click on a sample name.

• Export as (EDIT, DRAG)

This function allows you to save as a file an instrument or a sample of the current song. Select an instrument in the "Instruments List" window and choose this function. PlayerPRO will ask you which format do you want. We recommend "AIFF" or "PP Instrument" formats to avoid the loss of formatting information when saving.
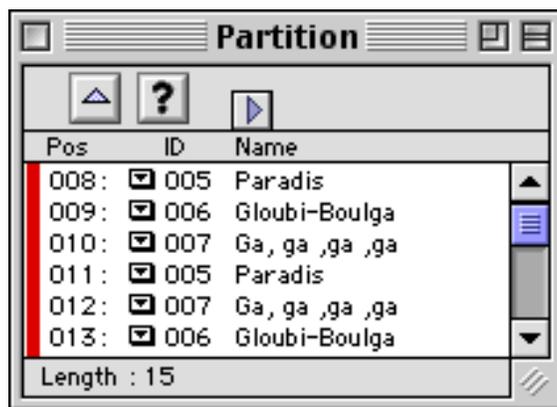
• Delete (EDIT, DRAG)

Deletes current selected instrument.

• Save Instruments List (EDIT, DRAG)

This function will save the entire instruments list of the current song in a single file. This will allow you to export all instruments to import them in another music.

Patterns Menu

• Partition list (EDIT)

This window displays the partition list of the current window. The partition list is composed of 256 values (as indicated by 'ID'). An ID is related to a pattern of the music (see "Patterns List" window below). PlayerPRO will play each pattern of this list in the order displayed. To change an ID, click on the small pop-up menu on the left of each ID. You can also change partition length with this window, by clicking on the red line on the left.

• Patterns list (EDIT, DRAG)
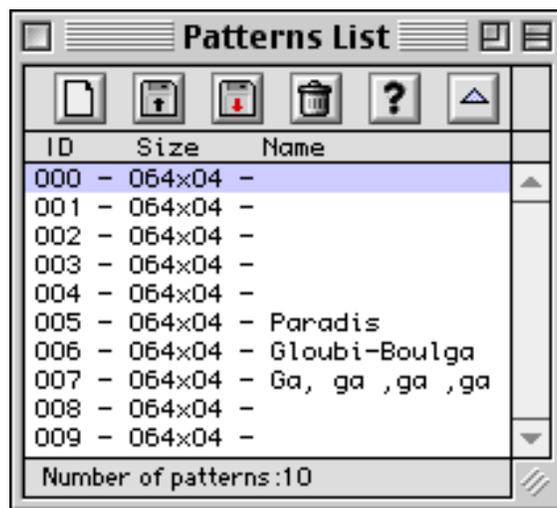
     This option displays the patterns list of the current music. The selected pattern is related to the current played pattern. If you want to listen to any particular pattern, double-click it. To edit the pattern information (Name, Length, Compression), click on the '?' button. To create an empty pattern, click on the "white page" button. The buttons Save, Read, Open and Delete are also available; they will react with the selected pattern. The buttons equivalent is in the "Patterns" menu.

• Create (EDIT)

     This function creates a new empty pattern.

• Open (EDIT)

     This function creates a new empty pattern.

• Save As ... (EDIT)

     This function saves the current selected pattern in a file. Useful if you want to import it into another music.

• Purge (EDIT)

     This function will delete all data of the current selected pattern: notes, instruments, effects, arguments and volumes.

• Delete (EDIT)

     This function deletes the current pattern.

TIPS

• To load every music in a folder, "drag and drop" the folder icon on to the PlayerPRO icon. You can do the same with the "Music List" window or the "Tools" window.

• Increase memory size to 16000 Kb or more if you want to write songs or manipulate instruments.

• To speed up the display of the "Oscilloscope" window, move this window in front position, displayed in its full size. Turn OFF virtual memory in the memory control panel. Use 256 colors (8 bits) video mode in the monitors control panel.

• If you wish to include songs in your programs, download MADLibrary source. They're free!

• Arrange your windows (size, position) any way you like! PlayerPRO will remember your settings!

History

Translated in August 1994 in Ireland. (Antoine ROSSET)

Edited in September 1994 in America. (Glen Warner)

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Finished in January 1999 in Bossey, France. (Antoine ROSSET)

Edited in January 1999 in America (Glen Warner)

This documentation have been written with Microsoft Word 98, if you want the Word file to edit, update or correct it, don't hesitate to email me!

Thanks again for your interest in PlayerPRO!