# **PlayerPRO Documentation**

## **Version 5**



Copyright 1999 PlayerPRO Software
Antoine ROSSET
16 BD Tranchées
1206 Geneva
SWITZERLAND

Web: http://www.quadmation.com/pphome.htm

Email: rossetantoine@bluewin.ch Phone: (+41 79) 203 74 62 Fax: (+41 22) 346 11 97

## Introduction

PlayerPRO is a music program. 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 system: the MOD format and its derivatives (XM, IT, MAD, S3M, ...). 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 tracks 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 belong most of the time in the public domain. There are 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 exploit these music files:

- Sound reading: several methods of reading are offered.
- Display of analyses tools: Fourier's analysis, oscilloscope, tubes, piano, digital partition, classic partition, simplified partition, animations, etc.
- Music edition: music editing can be accomplished by writing at the level of classic partition, digital partition, or simply by piano recording, by Midi instruments or else by 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 computer memory of 16 Mb of RAM will allow to run this program without any problem. Please 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: First it is highly recommended to connect loud 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. Many times, windows and buttons will be mentioned, please refer to the corresponding sections.

## Opening and reading of a music file

You have several possibilities to open a music file:

- 1. Once PlayerPRO is loaded, choose from the "Files" menu the "Open" sub-menu. A classical opening file dialog is displayed. You just need to select a music file and click the open button. At that time the music is loaded in memory. The music title appears then at the bottom of the "Tools" window. To listen the music, click on the "Play" button.
  - 2. Another possibility is to drop a music file icon on the PlayerPRO icon at Finder level.
- 3. A third possibility is to drop a folder icon or a disk icon on PlayerPRO icon. PlayerPRO will search in this folder for all the music files and load them. They will appear in the "Music List" window.

PlayerPRO keeps track of each music files, 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 in the memory, double-click on its name.

#### Music Editing

Music editing is mainly done with the help of 5 windows: "Classic Editor", "Digital Editor", "Box Editor", "Tools" and "Piano" the windows.

### Digital Editor Window

For those users familiar with Amiga-ST or Atari soundtrackers: the "Digital Editor" window is based on digital representation of soundtrack files. Commands are represented by all their values. The "Tools" window allows at any moment a precise description of a note: double-click on the note to open this window.

#### Classic Editor Window

For beginners: the "Classic Editor" window offers a classic partition in which the notes can be easily written. This mode is easy to use and allows a fast listening of the composed piece. The "Tools" window allows at any moment a precise description of a note: double-click on the note to open this window.

#### Piano Window

The "Piano" window offers a direct mode of edition: either by your keyboard/mouse, or by 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 on "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 have the possibility to configure a special key ('000' 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

Acts in the same manner as "Note after Note" editing, but after this, start the reading of the partition by pressing on "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 have the possibility of setting 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 need the following files (distributed by Opcode at http://www.opcode.com). Proceed as following:

- 1. Plug your MIDI instrument in 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 MID window light up.	I Instrument to see if the corr	responding keys in the "Piano"
Midi functions of PlayerPRO ar You have the option to activate or de "Piano").		n of notes and instruments ID. ey velocity into C effect (see
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## **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: useful to compose and edit music.

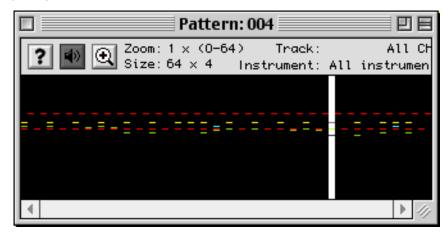
• FILE: useful to write and manipulate music files.

• VIEW: useful to hear and analyse the sound output.

• DRAG: supports the Drag Manager; that means you can drag file or selected items inside the window or from another window. Make a selection, click on it AND maintain 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 on one part of the pattern by pressing simultaneously on the Apple key and clicking in the window.

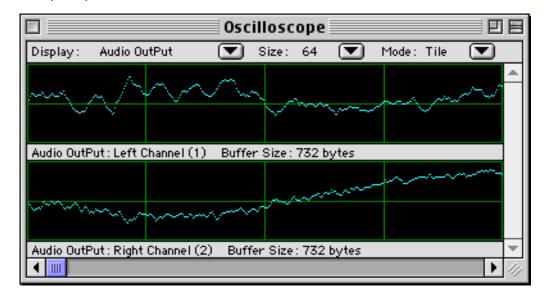
• Digital View (VIEW)

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

• Instrument View (VIEW)

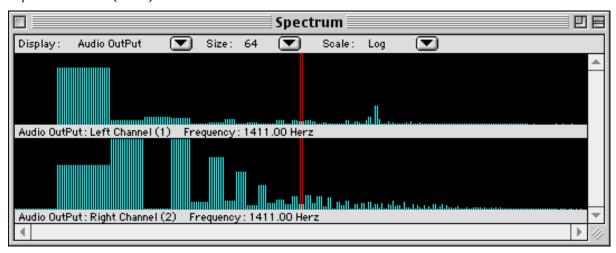
This window displays the activity of each instrument. The color shows on which track the instrument is used.

#### • Oscillo View (VIEW)



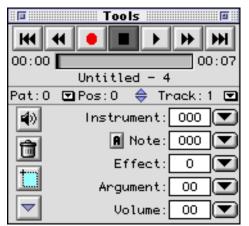
This window displays the oscilloscope of the sound output. In the case you use a stereo driver, two waves are displayed: one for the left loud speaker, the other for the right. You can change what you want to see, by clicking on the pop-up menu: Audio Ouput (sound produced by PlayerPRO, it represents exactly what you ear 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)



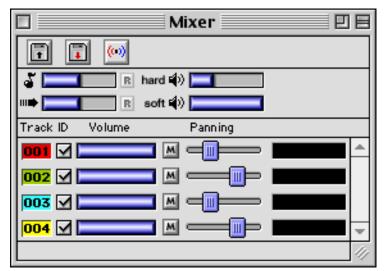
This window displays the basic tools. It is possible to do a drag and drop a music file on this window in the same way as in the "Music List" window. The music file is loaded, added to the "Music List" and played. Use the buttons to play, record or move in the current music. You can also directly press in the progress bar to directly go to a position in the music. By clicking in the "Zoom" box of the window, you can see the "Command" editor. The "Command" editor allows you to edit the current selected 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 "Box Editor".

• 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 more rapidly a song by double-clicking on it, 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, instrument number, etc. You can even save this list to use again anytime (see "Save Music List" in the "File" menu). A series of buttons allow 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 software, etc.

• Piano (VIEW, EDITION)



This window displays a piano picture 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 "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.

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 open function allows you also to load a song written in a foreign format; PlayerPRO converts it magically to the 'MAD' format. The conversion will be of better or worse quality depending on the original format's resemblance to the 'MAD' format.

### • Save (FILE)

Saves the current music by deleting the old one and by writing the 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 previous 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 only useful if you have one of these programs.

#### • 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. 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 printing.

#### Print

Sends the information of the frontmost window to the printer.

#### • Preferences

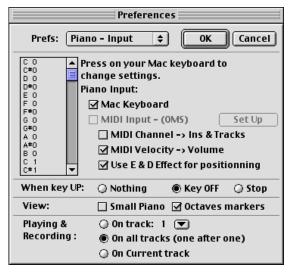
Driver - Output
Piano - Input
Music List
Color
Misc
Box Editor
Digital Editor
Classical Editor
FKEYs

This option displays the different internal set up of PlayerPRO: drivers, piano, music list, color, misc, box editor, digital editor, classic editor and FKeys.

Drivers - Output

The drivers are the "motors" responsible for reading your partition 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 loud speakers! This will give you a much better sound quality. Choose the most powerful drivers possible for your Mac: 16 bits, 44 Khz, stereo in the best event, and 8 bits, 22 Khz, mono, for the weaker Macintosh (LC, Mac plus, etc.).



Piano - Input

This dialog allows you to set up the input of 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: '000', 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).

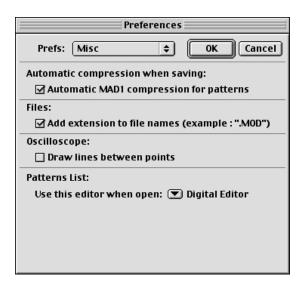


Music List

You can choose between 4 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.

Compression check box allows you to automatic activation of the 'MAD1' compression for the patterns during the file saving. It is a very simple structure compression, hence very fast. It is advised to leave it always activated, to save space on your hard disk.

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

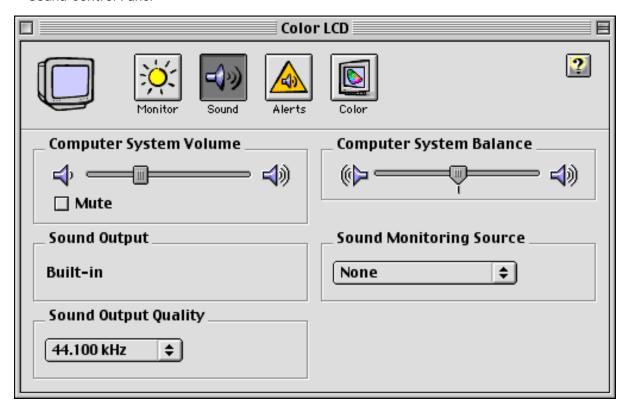
Box Editor, Digital Editor and Classic Editor

All these preferences dialog allow you to change presentation of editors, like markers, octaves, note duration, ...

#### **FKeys**

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

#### • Sound Control Panel



It opens the MacOS sound control panel. See Finder Help for more information about it.

• OMS Studio Set up and OMS MIDI Set up

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

• Quit

Quits PlayerPRO.

## Apple Menu

About PlayerPRO

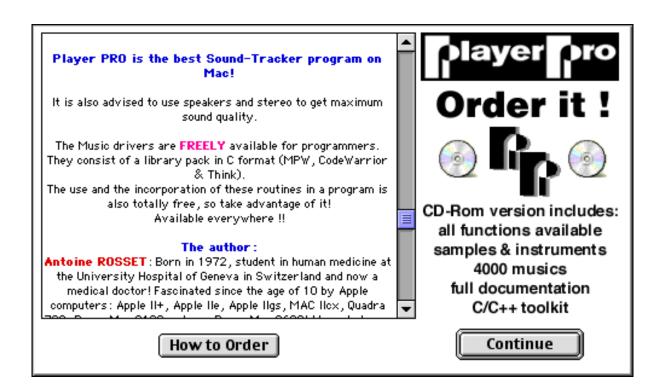
Displays the startup screen.

• Help

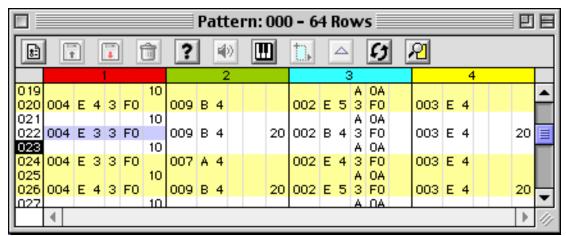
Displays this help text in a window.

General Information

Displays a dialog window with general information



## • Digital Editor (EDIT, DRAG)



This window displays the current music partition. The partition is in its digital form: for example, for a music with 4 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 ways:

- 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 setup your computer keyboard and input settings.)
- 2. Double-click on a cell, and the "Command Editor" part of the "Tools" window opens. See "Tools" window for more information.
- 3. With the recording function of the "Tools" window. See "Piano-Input" preferences and "Music Editing" section of this documentation.

Each cell contains the 4 standard commands of a music soundtrack: instrument number (see "Instrument List") - note - effect (no effect = 0) - effect argument.

## • Box Editor (EDIT, DRAG)

This window allows precise editing of the partition, 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)).

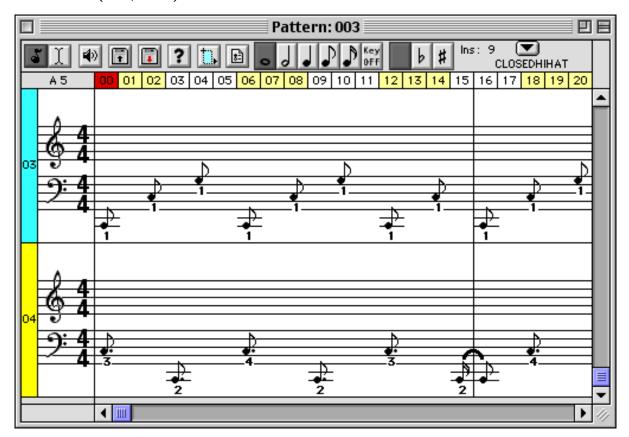
To play notes, press on the "Apple" key and click on the appropriate note. You can also play part of the pattern or the entire pattern by clicking up right in the reduced view. When pressing continuously on the mouse button, the pattern is played in loop.

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)

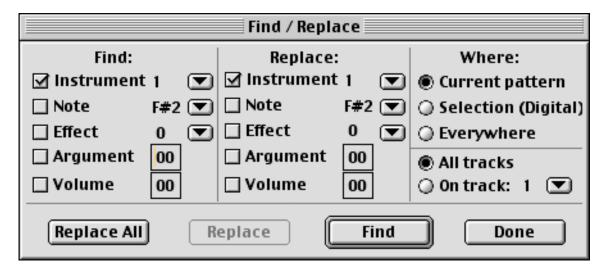


This window represents current pattern in a "classic" way with notes on a white sheet. Two modes are also available in this window, like in the "Box Editor" window, they work in the same way.

## • 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 finished your music: it will scan all your music data and removed all data that is not useful to play the music. By example, unused instrument, unused pattern, ...

Convert all patterns to 64 rows (EDIT)

This function converts all patterns that have not 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 allow you to edit general information of the current music: name, copyright information, number of tracks, startup speed and tempo, ...

#### Instruments Menu



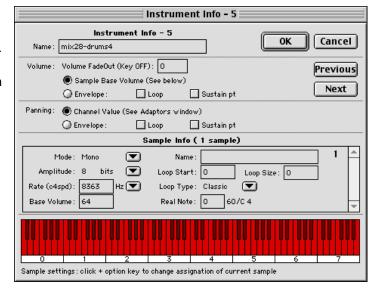
• Instruments List (VIEW, EDIT, DRAG)

This window displays the instruments of the current music. This list can contain a maximum number 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.

To edit sound rate, sound amplitude, sound assignation, ... Select an instrument and press on the '?' button.

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



• New (EDIT, DRAG)

In this sub-menu you have 4 ways to create a new sound:

- 1. Importing a file, by 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 instrument.

Import a File... Silence/Tone Generator Record (Audio Input) Quicktime Instrument

• Export as (EDIT, DRAG)

This function allows you to save in a file an instrument or a sample of the current music. 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 not loose information when saving.

• Delete (EDIT, DRAG)

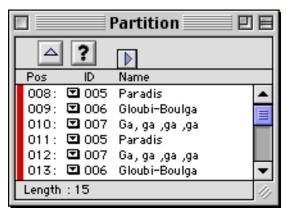
Deletes current selected instrument.

• Save Instruments List (EDIT, DRAG)

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

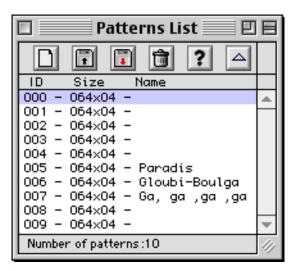
#### Patterns Menu

• Partition list (EDIT)



This window displays the partition list of the current window. The partition list is composed of 256 values (ID). An ID is related to a pattern of the music (see "Patterns List" window below). PlayerPRO will play each patterns 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 on 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 current selected pattern in a file. Useful if you want to import it in 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 current pattern.

## **TIPS**

- To load every music of a folder, "drag and drop" the folder icon on 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 of charge!
- Arrange your windows (size, position) as you please! PlayerPRO will remember your selections.

## **History**

