

# Paint Your Microtonal Music

## User Manual

### Introduction

Paint Your Microtonal Music is a programme designed for “painting” microtonal music in a simple and intuitive manner.

Trough very simple operations you can compose music scores using different tone subdivisions (half tones, thirds of a tone, fourths of a tone etc.)

### File Menu



**Open**

When you choose the “Open” command you want PYMMusic to display a previously saved file. PYMMusic files have .sgm extension (Guardiani Music System). Whenever a .sgm score is selected, all previously set values are recalled: BPM (beats per minute), instruments assigned to the different channels, active/inactive channels and tone division. Zoom takes you back to default magnification setting of 5. Drawing mode is reset to “Free hand”. Before opening a file, save the score in use, or all modifications will be lost.



**Save**

Choose “Save” to store the active document with .sgm extension. The score will be saved with the name displayed in the title window ( e.g. “New\_ Project1.smg”). The “Save As” command offers you a chance to create a duplicate of the document you are working on with a different name.



**New**

“New” command offers you the possibility of creating a new score. We suggest saving the active document you are working on, or all modifications will be lost.



**Exit**

Choose “Exit” to exit the programme. PYMMusic will close the document after having asked you if you want to save your changes (if you made any). All the functions listed above are made available through the Menu File.

## Playback



Click “Play” to start score playback. If no particular starting point has been selected, playback starts from the beginning; on the contrary, playback will be resumed from the place indicated on the score by a fuchsia vertical line. Playback Tempo is set in the playback window “Time”. During playback no modifications to the score are allowed.



Click “Pause” to stop playback momentarily.



Click “Restart” to resume playback from the point you stopped.



Click “Stop” to stop playback and all the functions necessary to modify the score are resumed.

## Drawing Mode

Select “Drawing Mode” to paint your music; by moving the cursor on the score and pressing the mouse left control, you can trace points and lines on the page. The colours displayed match the selected channel colour.

Each channel is monophonic, so it can generate only one sound. Therefore it is not possible to overlap two or more lines using the same channel.



Click “Free Hand” to trace on the score the graphic signs performed by mouse free movements.



Click “Straight Line” to trace a horizontal straight line precisely and easily. Click any point on the

score to select the starting point. While keeping the mouse left control pressed, move the mouse rightwards to generate a straight line and leftwards the reduce the same straight line. Release the mouse left control when the desired length has been obtained.



### Oblique Line

Click “Oblique Line” to trace a oblique straight line inclined 45°. Click any point on the score to select the starting point. While keeping the mouse left control pressed, move the mouse rightwards and either upwards or downwards to generate an oblique straight line. Move the mouse leftwards to reduce the line. Release the mouse left control when the desired strength has been obtained.



### Eraser

Click “Eraser” to cancel the drawings on a specific channel. Click a specific point on the score to cancel a note. To cancel more notes press mouse left control and move sideways.

Note: Only the notes related to the selected channel are cancelled.



### Delete All

Press “Delete All” to cancel all the notes of all channels.

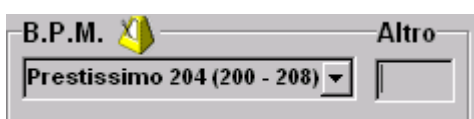


### Starting Point

Select “Starting Point” and click any point on the score with the mouse left control to set playback starting point.

## Playback Mode

Playback Settings:



### B.P.M. – Beats Per Minute

Playback tempo can be modified.

Preset values:

- Largo 50 (40- 60)
- Larghetto 63 (60 - 66)
- Adagio 71 (66 - 76)
- Andante 92 (76 - 108)
- Moderato 114 (108 - 120)
- Allegro 144 (120- 168)
- Presto 184 (168 - 200)
- Prestissimo 204 (200 - 208)

In the window “Other” you can write a different tempo value (in a scale from 0 to 9999). When you save a score, the preset tempo value is saved too.



In the tempered system, the octave is divided in 12 parts (Halftones). PYM Music allows to compose microtonal music by subdividing the octave in halftones, thirds, fourths, sixths, eighths and sixteenths of a tone.

By changing division, as for instance, in “Fourths” of a tone, each halfnote can be subdivided in two microtones, thereby obtaining an octave consisting of 24 microtones. In the same way, by selecting “Sixteenths” of a tone mode, each halfnote is divided in 8 microtones and the octave will consist of 96 microtones. By changing the division mode, also the page format will be changed.

As you can realize, by moving from a higher tone division mode to a lower one a loss of information occurs. For instance, when you move from “Fourths” of a tone to “Halftones”, each microtone will be approximated to the closed halfnote (as a rule, to the higher one). At this point, all information related to the previous microtone will no more be retrieved. The same approximations will occur when moving from “Thirds” of a tone mode to any other subdivisions (except for the “Sixths” of a tone mode, multiple of the “Thirds” of a tone mode).

When a score is saved, the active tone subdivision is saved too.



Two selection modes are available:

- “Single Note” mode
- “Continuous Note” mode

The “single note” mode is the most used.

You can stop in advance the playback of a single note by clicking “Anticipa” (anticipate). More information is reported on “Options”.

The “Continuous Note” mode is particularly useful when wind instruments, strings or instruments capable of maintaining a prolonged sound are used. Its operation depends on the hardware configuration, on the operating system and on the “Options” selected device.

Any modifications performed with the “Note Selection Mode” take effect on playback only and relate to all active channels.



**Zoom**

Write in the text window a magnification value ranging from 2 to 20. Default value is 5. A higher or lower value written in the window updates the score by clicking button \_\_\_\_ . You can also move left or right, up or down through your score by using the horizontal or vertical scroll bars.



**Hide / Show**

These buttons are used to hide or show some controls. When you hide some function groups the window display increases.



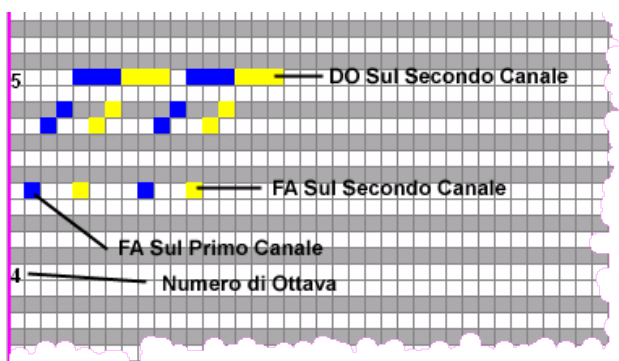
**Channel List**

With PYMMusic you have 16 channels available. Each channel is identified on the score by a colour corresponding to the colour number of the channel itself. Each channel can be matched with any of the 128 instruments selectable from the list.

More channels can be assigned to a single instrument. Click the tick off button next to the channel to activate/deactivate the channel.

When you deactivate a channel, this will disappear and the sound of the associated instrument will not be played. No information, however, will be lost; information will be resumed by reactivating the channel in question. Any modifications to the channel (associated instrument, active/dead channel) will be saved with the score.

## The Score



**The Score**  
**DO on second channel**

**FA on second channel**

**FA on first channel**

**Octave number**

The score is the area where you can paint microtonal music. It is divided in 7 octaves, where the 0 is the louder and the 7 the higher. Page format recalls a piano keyboards, white lines correspond to the white keys, dark grey lines correspond to the black keys and light grey lines correspond to the fractions of a halftone (should a subdivision other than “Halftones” is selected).

Select a channel and “paint” your notes on the score by clicling and keeping down mouse left control.

Important: Not all the instruments have a 7 octave extension. Some sound better in the high range, other in the louder one. Most MIDI instruments have optimum performance with octaves 2, 3, 4 and 5.

Press “Control” key of your PC to play the note associated to the cursor position before painting it.

A moving fucshia vertical line indicates the score part being played. Each little square on the display (horizontally) indicates the tempo minimum unit.

Move accross the score using vertical and horizontal scroll bars, PageDown and PageUp keys or arrow keys. Score vertical size depends on the tone division mode selected. In any case, 7 octaves are always available for “painting”.

## Options

Options are available through the menu “Preferences”, “Options”.

## Hardware

The list draws up all MIDI output devices installed in yout PC. Click a device and technical specification will come up to help you select the best device present in your PC. If no devices appear in the list, it means that your PC is not fitted with any MIDI player; in any case you can paint microtonal music and not play it back.

## Instruments

A list of all instruments PYMMusic can select is reported. You can assign a value ranging from 0 to 50 to each instrument; this value indicates the sound breaking time anticipation with respect to the standard tempo. 0 value means no anticipation whereas a value of 50 makes the sounds produced by the instruments shorter than before. This option is particularly useful with the strings instruments.

## OK / Cancel

Click “OK” to confirm the modifications or “Cancel” to discard any changes you have made.