

MUSICRACER

Manual

2010-09-28

Description

Musicracer is a free interactive music visualisation/game that generates an unique racing track for any song you choose and allows you to "ride" your favourite music in color and 3D. A beat-detection algorithm places obstacles onto the track which can either be collected or have to be avoided depending on the selected game mode.

Just select any mp3, ogg or wav file from your local harddisk and let Musicracer create the track.

Control the Glider using your mouse(recommended!) or cursor keys.

Installation

Musicracer does not require to be installed using a real installer. Instead it can be played by simply (double-)clicking the Musicracer.exe (Windows) or the MAC executable bundle.

System Requirements

Windows PC not older than 5 years or Apple MAC with Intel x86 CPU (MacBook, MacBook Pro, iMac, MacPro). We recommend at least 2 GB RAM and a recent graphics card for the best experience.

Gamemodes

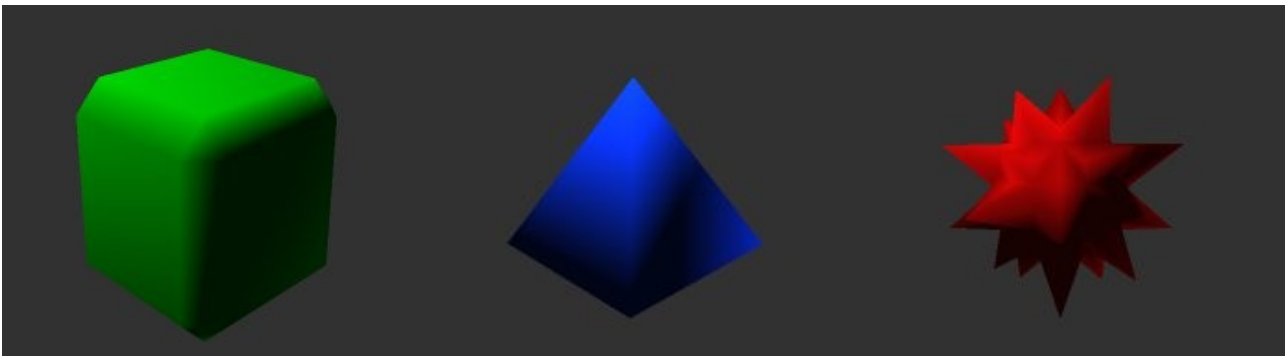
Musicracer has three different gamemodes. In all of them you have to hit or avoid beats that are living on the track.

Catch All : There will be only green and blue beats on the track. You have to collect all of them for the highscore.

Points : There will be green, blue and red beats. Collect the green and blue ones to collect points but avoid the red beats as those will steal your points and temporarily blur your sight, making it harder to collect the good beats.

Hold Speed : This is pretty similar to "Catch All" with the additional challenge that song and game will slow down when you miss too many beats! You can speed up again by collecting beats again, but being too slow will reduce your overall score.

Beats



Green : The most average beat ever. It will give you 5 points.

Blue : A distinct beat. Worth 15 points.

Red : The weak beat. Do not collect these as they will cost you 25 points and cause bad eyesight!

Screens

Main Menu



1. Select your game mode. (see above)
2. This Button will navigate you to the song selection where you can select a music file located on your machine.
3. This Button will navigate you to the settings menu where you can adjust the difficulty und overall quality settings.
4. Quits the game. All settings will be saved.

Settings

This screen allows you to set the difficulty level, select a background image and set the general quality level and screen resolution.



- 1. Difficulty Presets** : You may choose from 4 predefined difficulty settings. Each preset will have different settings for speed, number of blocks, maximum curve and slope, track-width and the number of lanes. Remember one important thing: The difficulty level also affects your overall score! Higher difficulty grants a higher maximum score!

Easy

Speed: Modest
Width: Narrow
Lanes: 3
Slope/Curve: low
Difficulty Modifier : x1

Medium

Speed: Medium
Width: Slightly above narrow
Lanes: 4
Slope/Curve: medium
Difficulty Modifier : x2

Hard:

Speed: Fast
Width: Normal
Lanes: 6
Slope/Curve: more than medium
Difficulty Modifier : x3

Insane

Speed: Really fast
Width: Wide
Lanes: 6
Slope/Curve: a lot!
Difficulty Modifier : x4

2. **Resolution** : The game usually starts in your highest possible display resolution. If you notice performance issues you may try to reduce the game's resolution.
3. **Quality** : Most of the time the game will run fast enough with the best quality settings. If not, the quality level should be reduced to improve performance. Setting quality from "Fantastic" to "Good" will usually boost the framerate significantly. If this is not fast enough set to anything below "Good" to turn off shadows completely. While shadows are a really nice effect they are expensive to calculate and reduce the framerate by ~20%. That's is why you can deactivate shadows in the "Pause Menu" separately from the general quality settings.
4. **Back** : This button will bring you back to the main menu

File Selection

This is where you select the song that you wish to play from your hard drive. There are three areas on the screen that will let you navigate to the folders and files where your .mp3 or .ogg files live. When you click a supported file (.mp3, .ogg, .wav) in the right area, a "Play" button will appear under the file selection pane. Once you click the "Play" button the selected file will be analyzed and converted into the unique track for this particular song.



1. Drive : Windows users may select the logical drive. They can be named "A:", "B:", ... "Z:". You should find out in advance on which partition on your harddisk your music files are located. MAC Users will only find a "/" here.

Clicking on of these buttons will bring you to the root folder of the selected partition.

2. UP : Notice the small "UP" button in the top left corner of the folder pane. This allows you to make a step up to go to the parent folder again. This button will only be visible if your below the current drive's root.

3. Path : This simply shows the path you are currently viewing.

4. Folder Pane : After having selected the correct partition you can navigate through the folders to go to the directory where the music lives.

5. Files Pane : Once you reach a folder that contains supported music files they will be shown here. Selecting one of the files will spawn THE "Play" button!

Until now you have to select your song by the filename. Yes, showing id3 tags would be really cool.

Notice: Only supported files will be shown here. And only selecting one of the files will spawn the PLAY button.

6. Back : This button will bring you back to the main menu.

7. PLAY button : Once you click this button the selected file will be analyzed and your track will be generated. This button will only appear after having selected a supported audio file in the file pane.

Keyboard folder navigation: There is a shortcut to navigate through folders with lots of sub folders by simply typing the first few characters of the desired folder or artist name. The folder view will automatically jump to the first occurrence of this name to prevent you from having to scroll down long ways. To navigate to your „Slayer“ folder you can simply type „slay“.

To clear your input you can press „DEL“, „Return“ or „BackSpace“. Additionally the input will be reset after 3 seconds without any input.

Ingame

As soon as the track has been generated successfully your ride will begin. This is where you play the actual game.

Controls:

Move the vehicle to the left and right with the mouse or the cursor keys to collect the beats. You can use your mouse wheel to adjust the camera position.

Pressing the ESC key during the game will pause the game and allow you to adjust some additional parameters.



- 1. Multiplier** : Collecting beats will grant you points. The points for each block will be multiplied with this factor. If you collect 10 beats in a row without missing one or hitting a red beat this factor will increase by 1. It will go up to 5. If you miss a beat or hit a red one it will go back to 1. Remember: Hitting a red beat with a factor of 5 will reduce your points by 125!
- 2. Points** : The orange value shows how many points you have already earned. The green and blue number will tell you how many beats you have collected in total.
- 3. Song Progress** : This bar shows you how much of the song you have played. The song will end when the bar is filled to the end.

Pause Screen

You will experience this screen when you have pressed the "ESC" key while playing a song. Besides the game being paused you can adjust the music and effect volume, turn off shadows and glow, adjust the mouse sensitivity resume the game.

You can even quit the game. Just in case that you had selected the wrong song.



1. **Volume Slider** : Increase/Decrease the song volume.
2. **Effect Volume Slider** : Increase/Decrease the effect volume (when the sound effects are too loud to hear the song itself).
3. **Mouse Sensitivity** : Adjust this if mouse control is responding too fast or too lazy.
4. **Shadows** : Turn shadows On/Off (turning shadows off will increase the framerate by ~20%).
5. **Glow** : Turn obstacle glow On/Off.
6. **Continue** : Resumes the game.
7. **Stop** : Cancel the current song. You will be forwarded to the "Stats" screen without further question!

Stats Screen

This screen shows the statistics for the song you have just finished (or cancelled..).

There will be a large pane showing your detailed score, including how many good and bad beats you have collected. It will even tell you in % how good you have played.



1. **Result Frame** : Shows statistically information on your success
2. **Repeat** : This repeats the just finished song immediately without analyzing the song again.
3. **Select Song** : This is a shortcut to the song selection menu.

FAQ

1. Q. What audio formats are supported?

A. Currently only .wav, .ogg and .mp3 are supported. Right now there are no plans to support any other formats. There is and will not be any support for WMA, AAC and MP4 due to DRM restrictions.

2. Q. How can I improve the game performance?

A. First of all try to reduce the overall quality level in the "Settings" menu to "Good" or "Simple". If this does not help try to turn off shadows and glow in the "Pause" menu.

3. Q. Can I play a recording of a violin solo?

A. Yes, but there won't probably be any beats on the track. The audio analysis is pretty dependent on the drums being present, i.e. the lack of any beats/drums will not produce a nice track, in fact it will be pretty uphill, maybe with a few curves. Music with distinct beats will work best, i.e. Rock, Funk, Reggae, etc.

4. Q. What is the maximum allowed length of a song?

A. We have tested the game with songs up to 15 minutes length. Although it actually worked, there was a noticable impact on performance, as the amount of geometry directly depends on the length of the song and more geometry will slow the game down. This is not a bug but results from the basic concept of generating geometry from variable length input data. Additionally playing long songs will require a lot of RAM on your machine. A song that is 15 minutes long can easily use up to 1GB RAM.

Remarks / Hints

- Controlling the car with a mouse instead of a touchpad (in laptops) or the cursor keys is much easier! If it's too fast or too slow you can adjust the control sensitivity in the Pause Menu.
- The speed of the audio analysis and track generation depends on the speed of your machine!
- Turning off shadows will increase the performance massively!
- After updating the game binaries (due to bug-fixes or new features) the resolution is set to the lowest possible choice. This will happen after every update! But you can set the resolution back to your choice in the Settings Menu.