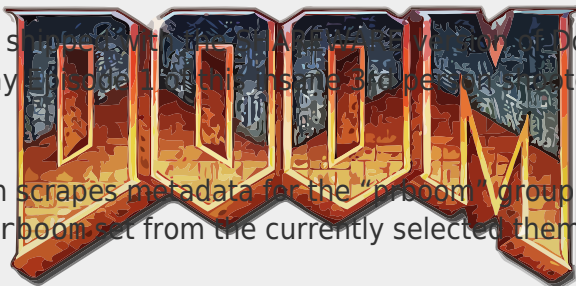


# PrBoom

Batocera is shipped with the PrBoom emulator for the original Doom. So you can play the original Doom on the PrBoom emulator. PrBoom is a port of the original Doom from 1993.

This system scrapes metadata for the "prboom" group(s) and loads the prboom set from the currently selected theme, if available.



Grouped with the "ports" group of systems.

## Quick reference

- **Emulator:** [RetroArch](#)
- **Core:** [libretro: prboom](#)
- **Folder:** /userdata/roms/prboom
- **Accepted ROM formats:** .wad, .iwad, .pwad

## BIOS

No PrBoom emulator in Batocera needs a BIOS file to run.

## Game files

Batocera comes with the shareware version of Doom. It relies on this to run any [other WADs](#) at all. This "base" WAD can be replaced with a commercial copy of the game's WAD.


When adding .wad files, make sure you put the filenames in lowercase. Uppercase .WAD won't work.

## Emulators

### RetroArch

[RetroArch](#) (formerly SSNES), is a ubiquitous frontend that can run multiple "cores", which are essentially the emulators themselves. The most common cores use the [libretro](#) API, so that's why cores run in RetroArch in Batocera are referred to as "libretro: (core name)". RetroArch aims to unify the feature set of all libretro cores and offer a universal, familiar interface independent of platform.

## RetroArch configuration

RetroArch offers a **Quick Menu** accessed by pressing [HOTKEY] +  which can be used to alter various things like [RetroArch and core options](#), and [controller mapping](#). Most RetroArch related settings can be altered from Batocera's EmulationStation.

Standardized features available to all libretro cores: `prboom.videomode`, `prboom.ratio`, `prboom.smooth`, `prboom.shaders`, `prboom.pixel_perfect`, `prboom.decoration`, `prboom.game_translation`

ES setting name batocera.conf_key	Description ⇒ ES option key_value
<b>Settings that apply to all cores of this emulator</b>	
<b>GRAPHICS BACKEND</b> <code>prboom.gfxbackend</code>	Choose your graphics rendering ⇒ OpenGL <code>opengl</code> , Vulkan <code>vulkan</code> .
<b>AUDIO LATENCY</b> <code>prboom.audio_latency</code>	Audio latency in milliseconds, turn it up if you hear crackles ⇒ 256 256, 192 192, 128 128, 64 64, 32 32, 16 16, 8 8.
<b>THREADED VIDEO</b> <code>prboom.video_threaded</code>	Improves performance at the cost of latency and more video stuttering. Use only if full speed cannot be obtained otherwise. ⇒ On <code>true</code> , Off <code>false</code> .

## libretro: PrBoom

### libretro: PrBoom configuration

ES setting name batocera.conf_key	Description ⇒ ES option key_value
<b>Settings that apply to all systems this core supports</b>	
<b>VIDEO RESOLUTION</b> <code>global.prboom-resolution</code>	Smooth out jagged edges on 3D object polygons ⇒ 320×200 320×200, 640×400 640×400, 960×600 960×600, 1280×800 1280×800, 1600×1000 1600×1000, 1920×1200 1920×1200, 2240×1400 2240×1400, 2560×1600 2560×1600.
<b>CONTROLLER TYPE</b> <code>global.prboom_controller1</code>	Select controller type ⇒ Gamepad Classic 1, Gamepad Modern 773, Keyboard + Mouse 3.

Additional configuration `/userdata/saves/prboom/[DOOM-EPISODE]/prboom.cfg`.

## Wiggle Fix

On some ARM platforms, floor and ceilings got some disruptive graphics output. Disabling it



completely gets rid of the effect. This screenshot illustrates the problem at full effect! This is due to some fix for texture "vibrations" (not exactly the same issue as the wiggle but triggered with the same option) the fix was backported from prboom-plus but it seems it's causing trouble in some platforms.

**So how to fix?** Start PRBOOM → Options → General → 3rd page Whiggle fix → No

**Another method?** Yes, navigate to /userdata/saves/prboom/[DOOM-EPISODE]/prboom.cfg and search Video Section for *r\_wiggle\_fix* and disable it.

```
## Video settings
#screenblocks          0
#usegamma              0
#uncapped_framerate   3
#filter_wall          1
#filter_floor         1
#filter_sprite        1
#filter_z              1
#filter_patch         1
#filter_threshold     49152
#sprite_edges         0
#patch_edges          0
#render_stretchsky    1
r_wiggle_fix          0
```

## Add Additional WADs (PWADs)

General: IWAD = Internal Where's All the Data and PWAD = Patch Where's All the Data.

So in general IWADs are standalone files and can be started by themselves. They MUST NOT be renamed.

Known IWADs so far:

GAME NAME	WAD NAME	md5
Doom v1.9	doom.wad	cd63c5ddff1bf8ce844237f580e9cf3
Doom - TNT Evolution v1.9	tnt.wad	4e158d9953c79ccf97bd0663244cc6b6
Doom 2 Hell on Earth v1.9	doom2.wad	25e1459ca71d321525f84628f45ca8cd
Doom 2 - Plutonia Experiment	plutonia.wad	75c8cf89566741fa9d22447604053bd7
Ultimate Doom	doomu.wad	c4fe9fd920207691a9f493668e0a2083
FreeDoom Part1 (Doom Ultimate free plot)	freedom1.wad	91DE79621A393A08C39A9AB2C034B766
FreeDoom Part2 (Doom2 free plot)	freedom2.wad	DD9C9E73F5F50D3778C85573CD08D9A4

PWADs can be renamed. Some example of known PWADs:

GAME NAME	(P)WAD NAME	IWAD ASSOCIATED	MD5
Doom 1 Episode 5 - SIGIL free on <a href="https://romero.com/">https://romero.com/</a>	SIGIL_v1_21.WAD	doom1.wad	743d6323cb2b9be24c258ff0fc350883
Doom 2 - No Rest for the Living	nerve.wad	doom2.wad	967D5AE23DAF45196212AE1B605DA3B0
Goldeneye 007	goldeneye.wad	doom2.wad	EF1E338364A1196533635698AF997A94

## File Management

I suggest creating multiple folders for each IWAD like :

```

roms\prboom\Doom
roms\prboom\Doom 2
roms\prboom\Doom Ultimate
...

```

In each of these folder, just put the IWAD associated in it.

```

roms\prboom\Doom\doom.wad
roms\prboom\Doom 2\doom2.wad
roms\prboom\Doom Ultimate\doomu.wad
...

```

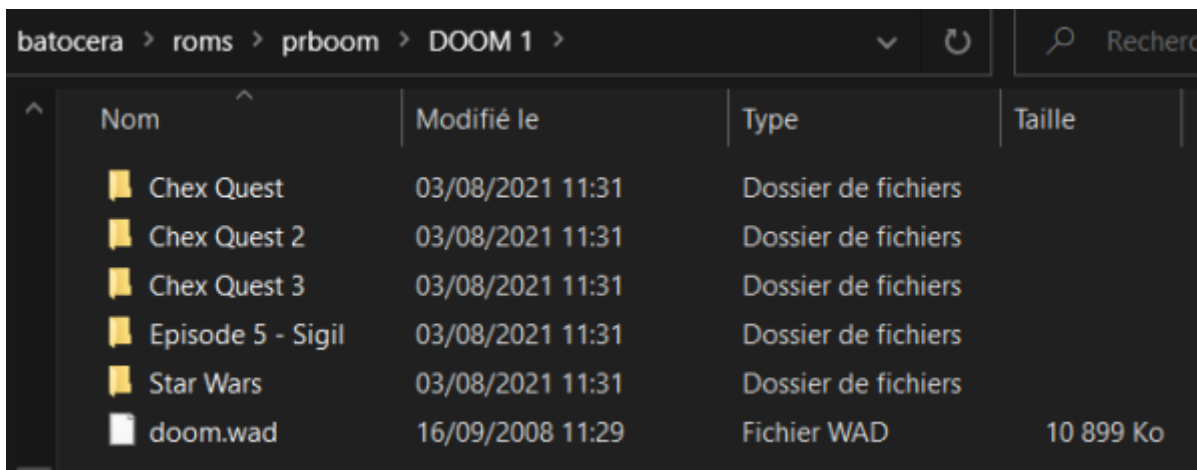
Now if you are going to use some mods and PWAD, just do a folder in the associated IWAD. For example:

```

roms\prboom\Doom\doom.wad
roms\prboom\Doom\Chex Quest\CHEX.wad
roms\prboom\Doom\Episode 5 - Sigil\SIGIL_v1_21.wad
...

```

That way, PWADs will use the main IWAD file in their parent folder.



## Tweaking options

PrBoom allows to use a `prboom.cfg` file to apply to games recursively.

So if you put a `prboom.cfg` in `\roms\prboom\prboom.cfg`, it will apply to every game in `roms\prboom\` and subfolders.

For example, I noticed that most WAD mods have a too low brightness. In order to fix that, you can create a `prboom.cfg` file with `Video→usegamma 0/1/2/3/4`.

Click to open

```
# Doom config file
#
# Format:
# variable value
#
# Lines starting with '#' are comments
# When saved, default values are commented out

## Misc settings
#default_compatibility_level -1
#menu_background 1
#max_player_corpse 32
#flashing_hom 0
#demo_insurance 2
#level_precache 0
#demo_smoothturns 0
#demo_smoothturnsfactor 6

## Files
#wadfile_1 ""
#wadfile_2 ""
#wadfile_3 ""
#wadfile_4 ""
#wadfile_5 ""
#wadfile_6 ""
#wadfile_7 ""
#wadfile_8 ""
#dehfile_1 ""
#dehfile_2 ""

## Game settings
#default_skill 3
#weapon_recoil 0
#doom_weapon_toggles 1
#player_bobbing 1
#monsters_remember 1
#monster_infighting 1
#monster_backing 0
```

```
#monster_avoid_hazards      1
#monkeys                    0
#monster_friction           1
#help_friends               1
#allow_pushers              1
#variable_friction          1
#sts_always_red             1
#sts_pct_always_gray        0
#sts_traditional_keys       0
#show_messages              1
#autorun                    0

## Compatibility settings
#comp_zombie                 0
#comp_infcheat               0
#comp_stairs                 0
#comp_telefrag               0
#comp_dropoff                0
#comp_falloff                0
#comp_staylift               0
#comp_doorstuck              0
#comp_pursuit                 0
#comp_vile                    0
#comp_pain                   0
#comp_skull                   0
#comp_blazing                 0
#comp_doorlight              0
#comp_god                     0
#comp_skymap                 0
#comp_floors                  0
#comp_model                   0
#comp_zerotags                0
#comp_moveblock              0
#comp_sound                   0
#comp_666                     0
#comp_soul                    0
#comp_maskedanim             0

## Sound settings
#pitched_sounds              0
#samplerate                   11025
#sfx_volume                   8
#music_volume                 8
#mus_pause_opt                2
#mus_load_external            2
#snd_channels                  8

## Video settings
#screenblocks                 0
usegamma                      3
#uncapped_framerate           3
```

```
#filter_wall 1
#filter_floor 1
#filter_sprite 1
#filter_z 1
#filter_patch 1
#filter_threshold 49152
#sprite_edges 0
#patch_edges 0
#render_stretchsky 1
#r_wiggle_fix 1

## Mouse settings
#mouse_sensitivity_horiz 40
#mouse_sensitivity_vert 40
#mouseb_fire 0
#mouseb_strafe 1
#mouseb_forward 2
#mouseb_backward -1
#movement_mouselook 0
#movement_mouseinvert 0
#movement_maxviewpitch 32

## Key bindings
#key_right 0xae
#key_left 0xac
#key_up 0xad
#key_down 0xaf
#key_menu_right 0xae
#key_menu_left 0xac
#key_menu_up 0xad
#key_menu_down 0xaf
#key_menu_backspace 0x7f
#key_menu_escape 0x1b
#key_menu_enter 0xd
#key_setup 0xc7
#key_strafeleft 0x2c
#key_straferight 0x2e
#key_fire 0x9d
#key_use 0x20
#key_strafe 0xb8
#key_speed 0xb6
#key_savegame 0xbc
#key_loadgame 0xbd
#key_soundvolume 0xbe
#key_hud 0xbf
#key_quicksave 0xc0
#key_endgame 0xc1
#key_messages 0xc2
#key_quickload 0xc3
#key_quit 0xc4
#key_gamma 0xd7
```

```
#key_spy                0xd8
#key_pause              0xff
#key_autorun           0xba
#key_chat              0x74
#key_backspace         0x7f
#key_enter             0xd
#key_map               0x9
#key_map_right         0xae
#key_map_left          0xac
#key_map_up            0xad
#key_map_down          0xaf
#key_map_zoomin        0x3d
#key_map_zoomout       0x2d
#key_map_gobig         0x30
#key_map_follow        0x66
#key_map_mark          0x6d
#key_map_clear         0x63
#key_map_grid          0x67
#key_map_rotate        0x72
#key_map_overlay       0x6f
#key_reverse           0x2f
#key_zoomin            0x3d
#key_zoomout           0x2d
#key_chatplayer1       0x67
#key_chatplayer2       0x69
#key_chatplayer3       0x62
#key_chatplayer4       0x72
#key_weapontoggle      0x30
#key_weaponcycleup     0x6d
#key_weaponcycledown  0x6e
#key_weapon1           0x31
#key_weapon2           0x32
#key_weapon3           0x33
#key_weapon4           0x34
#key_weapon5           0x35
#key_weapon6           0x36
#key_weapon7           0x37
#key_weapon8           0x38
#key_weapon9           0x39
#key_screenshot        0x2a

## Chat macros
#chatmacro0            "No"
#chatmacro1            "I'm ready to kick butt!"
#chatmacro2            "I'm OK."
#chatmacro3            "I'm not looking too good!"
#chatmacro4            "Help!"
#chatmacro5            "You suck!"
#chatmacro6            "Next time, scumbag..."
#chatmacro7            "Come here!"
#chatmacro8            "I'll take care of it."
```

```
#chatmacro9                "Yes"

## Automap settings
#mapcolor_back              0xf7
#mapcolor_grid              0x68
#mapcolor_wall              0x17
#mapcolor_fchg              0x37
#mapcolor_cchg              0xd7
#mapcolor_clsd              0xd0
#mapcolor_rkey              0xaf
#mapcolor_bkey              0xcc
#mapcolor_ykey              0xe7
#mapcolor_rdor              0xaf
#mapcolor_bdor              0xcc
#mapcolor_ydor              0xe7
#mapcolor_tele              0x77
#mapcolor_secr              0xfc
#mapcolor_exit              0x0
#mapcolor_unsn              0x68
#mapcolor_flat              0x58
#mapcolor_sprt              0x70
#mapcolor_item              0xe7
#mapcolor_hair              0xd0
#mapcolor_sngl              0xd0
#mapcolor_me                 0x70
#mapcolor_enemy             0xb1
#mapcolor_frnd              0x70
#map_secret_after           0
#map_point_coord            0
#automapmode                 0x0

## Heads-up display settings
#hudcolor_titl              5
#hudcolor_xyco              3
#hudcolor_mesg              6
#hudcolor_chat              5
#hudcolor_list              5
#hud_msg_lines              1
#hud_list_bgon              0
#health_red                  25
#health_yellow               50
#health_green                100
#armor_red                   25
#armor_yellow                 50
#armor_green                  100
#ammo_red                    25
#ammo_yellow                  50
#hud_mode                     0
#hud_showstats               1
#hud_showkeys                1
#hud_showweapons             1
```

```
## Weapon preferences
#weapon_choice_1      6
#weapon_choice_2      9
#weapon_choice_3      4
#weapon_choice_4      3
#weapon_choice_5      2
#weapon_choice_6      8
#weapon_choice_7      5
#weapon_choice_8      7
#weapon_choice_9      1

## Music
#mus_bunny            "bunny.mp3"
#mus_e1m1             "e1m1.mp3"
#mus_e1m2             "e1m2.mp3"
#mus_e1m3             "e1m3.mp3"
#mus_e1m4             "e1m4.mp3"
#mus_e1m5             "e1m5.mp3"
#mus_e1m6             "e1m6.mp3"
#mus_e1m7             "e1m7.mp3"
#mus_e1m8             "e1m8.mp3"
#mus_e1m9             "e1m9.mp3"
#mus_e2m1             "e2m1.mp3"
#mus_e2m2             "e2m2.mp3"
#mus_e2m3             "e2m3.mp3"
#mus_e2m4             "e2m4.mp3"
#mus_e2m5             "e2m5.mp3"
#mus_e2m6             "e2m6.mp3"
#mus_e2m7             "e2m7.mp3"
#mus_e2m8             "e2m8.mp3"
#mus_e2m9             "e2m9.mp3"
#mus_e3m1             "e3m1.mp3"
#mus_e3m2             "e3m2.mp3"
#mus_e3m3             "e3m3.mp3"
#mus_e3m4             "e3m4.mp3"
#mus_e3m5             "e3m5.mp3"
#mus_e3m6             "e3m6.mp3"
#mus_e3m7             "e3m7.mp3"
#mus_e3m8             "e3m8.mp3"
#mus_e3m9             "e3m9.mp3"
#mus_e4m1             "e3m4.mp3"
#mus_e4m2             "e3m2.mp3"
#mus_e4m3             "e3m3.mp3"
#mus_e4m4             "e1m5.mp3"
#mus_e4m5             "e2m7.mp3"
#mus_e4m6             "e2m4.mp3"
#mus_e4m7             "e2m6.mp3"
#mus_e4m8             "e2m5.mp3"
#mus_e4m9             "e1m9.mp3"
#mus_e5m1             "e5m1.mp3"
#mus_e5m2             "e5m2.mp3"
```

```
#mus_e5m3 "e5m3.mp3"  
#mus_e5m4 "e5m4.mp3"  
#mus_e5m5 "e5m5.mp3"  
#mus_e5m6 "e5m6.mp3"  
#mus_e5m7 "e5m7.mp3"  
#mus_e5m8 "e5m8.mp3"  
#mus_e5m9 "e5m9.mp3"  
#mus_inter "inter.mp3"  
#mus_introa "intro.mp3"  
#mus_intro "intro.mp3"  
#mus_victor "victor.mp3"  
#mus_adrian "adrian.mp3"  
#mus_ampie "ampie.mp3"  
#mus_betwee "betwee.mp3"  
#mus_count2 "count2.mp3"  
#mus_countd "countd.mp3"  
#mus_ddtbl2 "ddtbl2.mp3"  
#mus_ddtbl3 "ddtbl3.mp3"  
#mus_ddtblu "ddtblu.mp3"  
#mus_dead2 "dead2.mp3"  
#mus_dead "dead.mp3"  
#mus_dm2int "dm2int.mp3"  
#mus_dm2ttl "dm2ttl.mp3"  
#mus_doom2 "doom2.mp3"  
#mus_doom "doom.mp3"  
#mus_evil "evil.mp3"  
#mus_in_cit "in_cit.mp3"  
#mus_messag "messag.mp3"  
#mus_messg2 "messg2.mp3"  
#mus_openin "openin.mp3"  
#mus_read_m "read_m.mp3"  
#mus_romer2 "romer2.mp3"  
#mus_romero "romero.mp3"  
#mus_runni2 "runni2.mp3"  
#mus_runnin "runnin.mp3"  
#mus_shawn2 "shawn2.mp3"  
#mus_shawn3 "shawn3.mp3"  
#mus_shawn "shawn.mp3"  
#mus_stalks "stalks.mp3"  
#mus_stlks2 "stlks2.mp3"  
#mus_stlks3 "stlks3.mp3"  
#mus_tense "tense.mp3"  
#mus_theda2 "theda2.mp3"  
#mus_theda3 "theda3.mp3"  
#mus_the_da "the_da.mp3"  
#mus_ultima "ultima.mp3"
```

## Other examples for specific WADs

### Sigil (5th Episode)

SIGIL is the 5th Episode for ULTIMATE DOOM. It was created by the creator of DOOM - John Romero and can be [downloaded for free right here](#).

#### How to use?

Place the downloaded WAD to your prboom directory in roms. Now edit `/userdata/saves/prboom/[DOOM1-EPISODE]/prboom.cfg` and set the WAD next to be loaded to the main WAD in *Files Section*. I've only tested for ULTIMATE DOOM and it worked like a charme.

```
## Files
wadfile_1          "SIGIL_v1_2.wad"
#wadfile_2         ""
#wadfile_3         ""
#wadfile_4         ""
#wadfile_5         ""
#wadfile_6         ""
#wadfile_7         ""
#wadfile_8         ""
#dehfile_1         ""
#dehfile_2         ""
```

### Lost Episodes of Doom

The Lost Episodes of Doom is a collection of three eight-level episodes for Doom by Christen Klie and Bob Carter. It takes place on the Jovian moons Callisto and Io, and on Jupiter itself. It was a commercial product.

Extract the two WAD files and then edit `/userdata/saves/prboom/[DOOM1-EPISODE]/prboom.cfg` and set the WAD next to be loaded to the main WAD in *Files Section*.

```
## Files
wadfile_1          "JPTR_V40.WAD"
wadfile_2          "Jptr_fix.wad"
#wadfile_3         ""
#wadfile_4         ""
#wadfile_5         ""
#wadfile_6         ""
#wadfile_7         ""
#wadfile_8         ""
#dehfile_1         ""
#dehfile_2         ""
```

## Doom 2 - No Rest for the Living

No Rest for the Living was developed by Nerve Software for the release of Doom 2 on the XBLA. The episode consists of nine levels in all, eight standard levels and a single secret level, as a homage to the similarly structured nine-map episodes in the original Doom, particularly Knee-Deep in the Dead.

Extract the WAD file and then edit /userdata/saves/prboom/[D00M2-EPISODE]/prboom.cfg and set the WAD next to be loaded to the main WAD in *Files Section*.

```
## Files
wadfile_1          "NERVE.WAD"
#wadfile_2         ""
#wadfile_3         ""
#wadfile_4         ""
#wadfile_5         ""
#wadfile_6         ""
#wadfile_7         ""
#wadfile_8         ""
#dehfile_1         ""
#dehfile_2         ""
```

## Additional tricks

The above methods got the disadvantage that you “lose” your original gameset. That means for DOOM-Sigil that you will the new launching screen ever and ever again. To get rid of this you can copy the main WAD and rename one to DOOM - Ultimate DOOM.wad and the other to DOOM - Sigil of Baphomet.wad now you edit /userdata/saves/prboom/DOOM - Sigil of Baphomet.wad/prboom.cfg and set it up like written above.

Now you edit gamedata and hide the added PWAD files (Sigil.wad), you now have a clean list.

## Enhanced music

PrBoom can let you add enhanced music, like back in the 90s when using a SC-55 synthesizer to render the music tracks. Some of these tunes have been recorded and can be found on the Internet (Google is your friend).

Once you downloaded the tracks that you want to add, you need to update the config file from the Doom game you want to change musics for. Its location follows always the same pattern, for example /userdata/saves/prboom/[D00M1-EPISODE]/prboom.cfg/prboom.cfg for DOOM1. You need to add/modify the section:

```
## Music
#mus_bunny         "bunny.mp3"
#mus_e1m1          "e1m1.mp3"
#mus_e1m2          "e1m2.mp3"
#mus_e1m3          "e1m3.mp3"
```

...

## Controls

Here are the default PrBoom's controls shown on a [Batocera Retropad](#):



## Troubleshooting

### Further troubleshooting

For further troubleshooting, refer to the [generic support pages](#).

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