

# **Emulated CPU Clock Speed**

Adjusts the emulated CPU's clock rate if "Override

Emulated CPU Clock Speed" is enabled.

Speed Limit

120%

**Audio Stretching** 

Stretches audio to reduce stuttering. Increases latency.

Change Discs Automatically

**Enable Savestates** 

WARNING: Savestates may not be compatible with future versions of Dolphin and can make it impossible to create normal

Lock screen to landscape

Some touch controls will require additional

tweaking if played in portrait

saves in some cases. Never use savestates

as the only way of saving your progress.

Enable usage statistics reporting



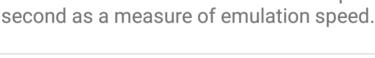
General

# Video Backend

# Vulkan

# Show FPS

# Show the number of frames rendered per



# **Shader Compilation Mode** Specifies when to use Ubershaders. Disabled -

#### Never, Hybrid - Use ubershaders while compiling specialized shaders. Exclusive - Use only ubershaders, largest performance impact. Skip Drawing - Do not draw objects while shaders are

# compiling, will cause broken effects.

Compile Shaders Before Starting

### This causes a delay when launching games, but will reduce stuttering early on.

**Aspect Ratio** Select what aspect ratio to use when rendering

# **Enhancements & Hacks**

# Enhancements





## Scaled EFB Copy

Greatly increases quality of textures generated using render to texture effects. Raising the internal resolution will improve the effect of this setting. Slightly decreases performance and possibly causes issues (although unlikely).

## Per-Pixel Lighting

Calculate lighting of 3D graphics per-pixel rather than per vertex. Decreases emulation speed by some percent (depending on your GPU). This usually is a safe enhancement, but might cause issues sometimes.



# Force Texture Filtering

Force texture filtering even if the emulated game explicitly disabled it. Improves texture quality slightly but causes glitches in some games.



# Force 24-Bit Color

Forces the game to render the RGB color channels in 24-bit, thereby increasing quality by reducing color banding.
It has no impact on performance and causes few graphical issues. If unsure, leave this



# Disable Fog

checked.

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### Disable Fog

Makes distant objects more visible by removing fog, thus increasing the overall detail. Disabling fog will break some games which rely on proper fog emulation.



### Disable Copy Filter

Disables the blending of adjacent rows when copying the EFB. This is known in some games as "deflickering" or "smoothing". Disabling the filter is usually safe, and may result in a sharper image.



### **Arbitrary Mipmap Detection**

Enables detection of arbitrary mipmaps, which some games use for special distance-based effects.

May have false positives that result in blurry textures at increased internal resolution, such as in games that use very low resolution mipmaps. Disabling this can also reduce stutter in games that frequently load new textures.



If unsure, leave this checked.

#### Widescreen Hack

Forces the game to output graphics for any aspect ratio. Use with "Aspect Ratio" set to "Force 16:9" to force 4:3-only games to run at 16:9. Rarely produces good results and often partially breaks graphics and game Uls.

Unnecessary (and detrimental) if using any



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### **Backend Multithreading**

Enables graphics backend multithreading (Vulkan only). May affect performance. If unsure, leave unchecked.



#### Stereoscopy

Stereoscopy allows you to get a better feeling of depth if you have the necessary hardware. Heavily decreases emulation speed and sometimes causes issues



### Stereoscopy Mode

Select the stereoscopic 3D mode.

### Depth

Control the distance between the virtual cameras. A higher value creates a stronger feeling of depth while a lower value is more comfortable.

