PreferencesSystem(bpy_struct)

base class — bpy_struct

class bpy.types.**PreferencesSystem(bpy_struct)**

Graphics driver and operating system settings

anisotropic_filter

Quality of anisotropic filtering

TYPE:

enum in [‘FILTER_0’, ‘FILTER_2’, ‘FILTER_4’, ‘FILTER_8’, ‘FILTER_16’], default ‘FILTER_2’

audio_channels

Audio channel count

- MONO Mono – Set audio channels to mono.
- STEREO Stereo – Set audio channels to stereo.
- SURROUND4 4 Channels – Set audio channels to 4 channels.
- SURROUND51 5.1 Surround – Set audio channels to 5.1 surround sound.
- SURROUND71 7.1 Surround – Set audio channels to 7.1 surround sound.

TYPE:

enum in [‘MONO’, ‘STEREO’, ‘SURROUND4’, ‘SURROUND51’, ‘SURROUND71’], default ‘STEREO’

audio_device

Audio output device

- None None – No device - there will be no audio output.

TYPE:

enum in [‘None’], default ‘None’

audio_mixing_buffer

Number of samples used by the audio mixing buffer

- SAMPLES_256 256 Samples – Set audio mixing buffer size to 256 samples.
- SAMPLES_512 512 Samples – Set audio mixing buffer size to 512 samples.
- SAMPLES_1024 1024 Samples – Set audio mixing buffer size to 1024 samples.
- SAMPLES_2048 2048 Samples – Set audio mixing buffer size to 2048 samples.
- SAMPLES_4096 4096 Samples – Set audio mixing buffer size to 4096 samples.
- SAMPLES_8192 8192 Samples – Set audio mixing buffer size to 8192 samples.
- SAMPLES_16384 16384 Samples – Set audio mixing buffer size to 16384 samples.
- SAMPLES_32768 32768 Samples – Set audio mixing buffer size to 32768 samples.

TYPE:

enum in [‘SAMPLES_256’, ‘SAMPLES_512’, ‘SAMPLES_1024’, ‘SAMPLES_2048’, ‘SAMPLES_4096’, ‘SAMPLES_8192’, ‘SAMPLES_16384’, ‘SAMPLES_32768’], default ‘SAMPLES_2048’

audio_sample_format

Audio sample format

- U8 8-bit Unsigned – Set audio sample format to 8-bit unsigned integer.
- S16 16-bit Signed – Set audio sample format to 16-bit signed integer.
- S24 24-bit Signed – Set audio sample format to 24-bit signed integer.

- S24 24-bit Signed – Set audio sample format to 24-bit signed integer.
- S32 32-bit Signed – Set audio sample format to 32-bit signed integer.
- FLOAT 32-bit Float – Set audio sample format to 32-bit float.
- DOUBLE 64-bit Float – Set audio sample format to 64-bit float.

TYPE:

enum in ['U8', 'S16', 'S24', 'S32', 'FLOAT', 'DOUBLE'], default 'FLOAT'

audio_sample_rate

Audio sample rate

- RATE_44100 44.1 kHz – Set audio sampling rate to 44100 samples per second.
- RATE_48000 48 kHz – Set audio sampling rate to 48000 samples per second.
- RATE_96000 96 kHz – Set audio sampling rate to 96000 samples per second.
- RATE_192000 192 kHz – Set audio sampling rate to 192000 samples per second.

TYPE:

enum in ['RATE_44100', 'RATE_48000', 'RATE_96000', 'RATE_192000'], default 'RATE_48000'

dpi

TYPE:

int in [-inf, inf], default 0, (readonly)

gl_clip_alpha

Clip alpha below this threshold in the 3D textured view

TYPE:

float in [0, 1], default 0.004

gl_texture_limit

Limit the texture size to save graphics memory

TYPE:

enum in ['CLAMP_OFF', 'CLAMP_8192', 'CLAMP_4096', 'CLAMP_2048', 'CLAMP_1024', 'CLAMP_512', 'CLAMP_256', 'CLAMP_128'], default 'CLAMP_OFF'

gpu_backend

GPU backend to use (requires restarting Blender for changes to take effect)

- OPENGL OpenGL – Use OpenGL backend.
- METAL Metal – Use Metal backend.
- VULKAN Vulkan (experimental) – Use Vulkan backend.

TYPE:

enum in ['OPENGL', 'METAL', 'VULKAN'], default 'OPENGL'

gpu_preferred_device

Preferred device to select during detection (requires restarting Blender for changes to take effect)

- AUTO Auto – Auto detect best GPU for running Blender.

TYPE:

enum in ['AUTO'], default 'AUTO'

image_draw_method

Method used for displaying images on the screen

- AUTO Automatic – Automatically choose method based on GPU and image.

- `2DTEXTURE` 2D Texture – Use CPU for display transform and display image with 2D texture.
- `GLSL` GLSL – Use GLSL shaders for display transform and display image with 2D texture.

TYPE:

enum in ['AUTO', '2DTEXTURE', 'GLSL'], default 'AUTO'

is_microsoft_store_install

Whether this blender installation is a sandboxed Microsoft Store version

TYPE:

boolean, default False, (readonly)

legacy_compute_device_type

For backwards compatibility only

TYPE:

int in [-inf, inf], default 0, (readonly)

light_ambient

Color of the ambient light that uniformly lit the scene

TYPE:

`mathutils.Color` of 3 items in [0, inf], default (0.0, 0.0, 0.0)

max_shader_compilation_subprocesses

Max number of parallel shader compilation subprocesses, clamped at the max threads supported by the CPU (requires restarting Blender for changes to take effect). Setting it to 0 disables subprocess shader compilation.

TYPE:

int in [0, 32767], default 0

memory_cache_limit

Memory cache limit (in megabytes)

TYPE:

int in [0, inf], default 4096

network_connection_limit

Limit the number of simultaneous internet connections online operations may make at once. Zero disables the limit.

TYPE:

int in [0, 255], default 0

network_timeout

The time in seconds to wait for online operations before a connection may fail with a time-out error. Zero uses the systems default.

TYPE:

int in [0, 255], default 0

pixel_size

TYPE:

float in [-inf, inf], default 1.0, (readonly)

register_all_users

Make this Blender version open blend files for all users. Requires elevated privileges.

TYPE:

boolean, default False

scrollback

Maximum number of lines to store for the console buffer

TYPE:

int in [32, 32768], default 256

sequencer_disk_cache_compression

Smaller compression will result in larger files, but less decoding overhead

- `NONE` None – Requires fast storage, but uses minimum CPU resources.
- `LOW` Low – Doesn't require fast storage and uses less CPU resources.
- `HIGH` High – Works on slower storage devices and uses most CPU resources.

TYPE:

enum in ['NONE', 'LOW', 'HIGH'], default 'NONE'

sequencer_disk_cache_dir

Override default directory

TYPE:

string, default '', (never None)

sequencer_disk_cache_size_limit

Disk cache limit (in gigabytes)

TYPE:

int in [0, inf], default 100

sequencer_proxy_setup

When and how proxies are created

- `MANUAL` Manual – Set up proxies manually.
- `AUTOMATIC` Automatic – Build proxies for added movie and image strips in each preview size.

TYPE:

enum in ['MANUAL', 'AUTOMATIC'], default 'AUTOMATIC'

solid_lights

Lights used to display objects in solid shading mode

TYPE:

`bpy_prop_collection` of `UserSolidLight`, (readonly)

texture_collection_rate

Number of seconds between each run of the GL texture garbage collector

TYPE:

int in [1, 3600], default 60

texture_time_out

Time since last access of a GL texture in seconds after which it is freed (set to 0 to keep textures allocated)

TYPE:

int in [0, 3600], default 120

ui_line_width

Suggested line thickness and point size in pixels, for add-ons displaying custom user interface elements, based on operating system settings an Blender UI scale

TYPE:

float in [-inf, inf], default 1.0, (readonly)

ui_scale

Size multiplier to use when displaying custom user interface elements, so that they are scaled correctly on screens with different DPI. This valu is based on operating system DPI settings and Blender display scale.

TYPE:

float in [-inf, inf], default 0.0, (readonly)

use_edit_mode_smooth_wire

Enable edit mode edge smoothing, reducing aliasing (requires restart)

TYPE:

boolean, default True

use_gpu_subdivision

Enable GPU acceleration for evaluating the last subdivision surface modifiers in the stack

TYPE:

boolean, default True

use_online_access

Allow Blender to access the internet. Add-ons that follow this setting will only connect to the internet if enabled. However, Blender cannot prevent third-party add-ons from violating this rule.

TYPE:

boolean, default False

use_overlay_smooth_wire

Enable overlay smooth wires, reducing aliasing

TYPE:

boolean, default True

use_region_overlap

Display tool/property regions over the main region

TYPE:

boolean, default True

use_select_pick_depth

When making a selection in 3D View, use the GPU depth buffer to ensure the frontmost object is selected first

TYPE:

boolean, default True

use_sequencer_disk_cache

Store cached images to disk

TYPE:

boolean, default False

use_studio_light_edit

View the result of the studio light editor in the viewport

TYPE:

boolean, default False

vbo_collection_rate

Number of seconds between each run of the GL vertex buffer object garbage collector

TYPE:

int in [1, 3600], default 60

vbo_time_out

Time since last access of a GL vertex buffer object in seconds after which it is freed (set to 0 to keep VBO allocated)

TYPE:

int in [0, 3600], default 120

viewport_aa

Method of anti-aliasing in 3d viewport

- `OFF` No Anti-Aliasing – Scene will be rendering without any anti-aliasing.
- `FXAA` Single Pass Anti-Aliasing – Scene will be rendered using a single pass anti-aliasing method (FXAA).
- `5` 5 Samples – Scene will be rendered using 5 anti-aliasing samples.
- `8` 8 Samples – Scene will be rendered using 8 anti-aliasing samples.
- `11` 11 Samples – Scene will be rendered using 11 anti-aliasing samples.
- `16` 16 Samples – Scene will be rendered using 16 anti-aliasing samples.
- `32` 32 Samples – Scene will be rendered using 32 anti-aliasing samples.

TYPE:

enum in ['OFF', 'FXAA', '5', '8', '11', '16', '32'], default '8'

classmethod bl_rna_get_subclass(id, default=None)

PARAMETERS:

id (*str*) – The RNA type identifier.

RETURNS:

The RNA type or default when not found.

RETURN TYPE:

`bpy.types.Struct` subclass

classmethod bl_rna_get_subclass_py(id, default=None)

PARAMETERS:

id (*str*) – The RNA type identifier.

RETURNS:

The class or default when not found.

RETURN TYPE:

type

Inherited Properties

- `bpy_struct.id_data`

Inherited Functions

- bpy_struct.as_pointer
- bpy_struct.driver_add
- bpy_struct.driver_remove
- bpy_struct.get
- bpy_struct.id_properties_clear
- bpy_struct.id_properties_ensure
- bpy_struct.id_properties_ui
- bpy_struct.is_property_hidden
- bpy_struct.is_property_overridable_library
- bpy_struct.is_property_readonly
- bpy_struct.is_property_set
- bpy_struct.items
- bpy_struct.keyframe_delete
- bpy_struct.keyframe_insert
- bpy_struct.keys
- bpy_struct.path_from_id
- bpy_struct.path_resolve
- bpy_struct.pop
- bpy_struct.property_overridable_library_set
- bpy_struct.property_unset
- bpy_struct.type_recast
- bpy_struct.values

References

- Preferences.system