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# GPU Capabilities Utilities (gpu.capabilities)

This module provides access to the GPU capabilities.

gpu.capabilities.**compute_shader_support_get()**

Are compute shaders supported.

**RETURNS:**

True when supported, False when not supported.

**RETURN TYPE:**

bool

gpu.capabilities.**extensions_get()**

Get supported extensions in the current context.

**RETURNS:**

Extensions.

**RETURN TYPE:**

tuple[str]

gpu.capabilities.**hdr_support_get()**

Return whether GPU backend supports High Dynamic range for viewport.

**RETURN:**

HDR support available.

**RTYPE:**

bool

gpu.capabilities.**max_batch_indices_get()**

Get maximum number of vertex array indices.

**RETURNS:**

Number of indices.

**RETURN TYPE:**

int

gpu.capabilities.**max_batch_vertices_get()**

Get maximum number of vertex array vertices.

**RETURNS:**

Number of vertices.

**RETURN TYPE:**

int

gpu.capabilities.**max_images_get()**

Get maximum supported number of image units.

**RETURNS:**

Number of image units.

**RETURN TYPE:**

int

int

gpu.capabilities.**max_texture_layers_get()**

Get maximum number of layers in texture.

**RETURNS:**

Number of layers.

**RETURN TYPE:**

int

gpu.capabilities.**max_texture_size_get()**

Get estimated maximum texture size to be able to handle.

**RETURNS:**

Texture size.

**RETURN TYPE:**

int

gpu.capabilities.**max_textures_frag_get()**

Get maximum supported texture image units used for accessing texture maps from the fragment shader.

**RETURNS:**

Texture image units.

**RETURN TYPE:**

int

gpu.capabilities.**max_textures_geom_get()**

Get maximum supported texture image units used for accessing texture maps from the geometry shader.

**RETURNS:**

Texture image units.

**RETURN TYPE:**

int

gpu.capabilities.**max_textures_get()**

Get maximum supported texture image units used for accessing texture maps from the vertex shader and the fragment processor.

**RETURNS:**

Texture image units.

**RETURN TYPE:**

int

gpu.capabilities.**max_textures_vert_get()**

Get maximum supported texture image units used for accessing texture maps from the vertex shader.

**RETURNS:**

Texture image units.

**RETURN TYPE:**

int

gpu.capabilities.**max_uniforms_frag_get()**

Get maximum number of values held in uniform variable storage for a fragment shader.

**RETURNS:**

Number of values.

**RETURN TYPE:**

int

gpu.capabilities.**max_uniforms_vert_get()**

Get maximum number of values held in uniform variable storage for a vertex shader.

**RETURNS:**

Number of values.

**RETURN TYPE:**

int

gpu.capabilities.**max_varying_floats_get()**

Get maximum number of varying variables used by vertex and fragment shaders.

**RETURNS:**

Number of variables.

**RETURN TYPE:**

int

gpu.capabilities.**max_vertex_attribs_get()**

Get maximum number of vertex attributes accessible to a vertex shader.

**RETURNS:**

Number of attributes.

**RETURN TYPE:**

int

gpu.capabilities.**max_work_group_count_get(index)**

Get maximum number of work groups that may be dispatched to a compute shader.

**PARAMETERS:**

**index** (*int*) – Index of the dimension.

**RETURNS:**

Maximum number of work groups for the queried dimension.

**RETURN TYPE:**

int

gpu.capabilities.**max_work_group_size_get(index)**

Get maximum size of a work group that may be dispatched to a compute shader.

**PARAMETERS:**

**index** (*int*) – Index of the dimension.

**RETURNS:**

Maximum size of a work group for the queried dimension.

**RETURN TYPE:**

int

gpu.capabilities.**shader_image_load_store_support_get()**

Is image load/store supported.

**RETURNS:**

True when supported, False when not supported.

**RETURN TYPE:**

bool