

# WebGPU Quick Reference (v.0.1.4)

dictionary GPUObjectDescriptorBase

enum GPUPredefinedColorSpace  
"srgb"

enum GPUPowerPreference  
"low-power"  
"high-performance"

enum GPUFeatureName  
"depth-clip-control"  
"depth24unorm-stencil8"  
"depth32float-stencil8"  
"texture-compression-bc"  
"texture-compression-etc2"  
"texture-compression-astc"  
"timestamp-query"  
"indirect-first-instance"

dictionary GPUBufferDescriptor  
GPUObjectDescriptorBase : size  
GPUBufferUsageFlags : usage

dictionary GPUTextureDescriptor  
GPUObjectDescriptorBase : size  
GPUIntegerCoordinate : mipLevelCount  
GPUSize32 : sampleCount  
GPUTextureDimension : dimension  
GPUTextureFormat : format  
GPUTextureUsageFlags : usage

enum GPUTextureDimension  
"1d"  
"2d"  
"3d"

dictionary GPUTextureViewDescriptor  
GPUObjectDescriptorBase : format  
GPUTextureViewDimension : dimension  
GPUTextureAspect : aspect  
GPUIntegerCoordinate : baseMipLevel  
GPUIntegerCoordinate : mipLevelCount  
GPUIntegerCoordinate : baseArrayLayer  
GPUIntegerCoordinate : arrayLayerCount

enum GPUTextureViewDimension  
"1d"  
"2d"  
"2d-array"  
"cube"  
"cube-array"  
"3d"

enum GPUTextureAspect  
"all"  
"stencil-only"  
"depth-only"

enum GPUTextureFormat  
"r8unorm"  
"r8snorm"  
"r8uint"  
"r8sint"  
"r16uint"  
"r16sint"  
"r16float"  
"rg8unorm"  
"rg8snorm"  
"rg8uint"  
"rg8sint"  
"r32uint"  
"r32sint"

dictionary GPUExternalTextureDescriptor  
GPUObjectDescriptorBase : source  
GPUPredefinedColorSpace : colorSpace

dictionary GPUSamplerDescriptor  
GPUObjectDescriptorBase : addressModeU  
GPUAddressMode : addressModeV  
GPUAddressMode : addressModeW  
GPUFilterMode : magFilter  
GPUFilterMode : minFilter  
GPUFilterMode : mipmapFilter  
GPUCompareFunction : compare

enum GPUAddressMode  
"clamp-to-edge"  
"repeat"  
"mirror-repeat"

enum GPUFilterMode  
"nearest"  
"linear"

enum GPUCompareFunction  
"never"  
"less"  
"equal"  
"less-equal"  
"greater"  
"not-equal"  
"greater-equal"  
"always"

dictionary GPUBindGroupLayoutDescriptor  
GPUObjectDescriptorBase : entries

enum GPUBufferBindingType  
"uniform"  
"storage"  
"read-only-storage"

enum GPUSamplerBindingType  
"filtering"  
"non-filtering"  
"comparison"

enum GPUTextureSampleType  
"float"  
"unfilterable-float"  
"depth"  
"sint"  
"uint"

enum GPUStorageTextureAccess  
"write-only"

dictionary GPUExternalTextureBindingLayout

dictionary GPUBindGroupDescriptor  
GPUObjectDescriptorBase : layout  
GPUBindGroupEntry : entries

dictionary GPUBufferBinding  
GPUBuffer : buffer  
GPUSize64 : offset  
GPUSize64 : size

dictionary GPUPipelineLayoutDescriptor  
GPUObjectDescriptorBase : bindGroupLayouts

enum GPUCompilationMessageType  
"error"  
"warning"  
"info"

dictionary GPUPipelineDescriptorBase  
GPUObjectDescriptorBase : layout

dictionary GPUComputePipelineDescriptor  
GPUObjectDescriptorBase : compute

dictionary GPURenderPipelineDescriptor  
GPUObjectDescriptorBase : vertex  
GPUPrimitiveState : primitive  
GPUDepthStencilState : depthStencil  
GPUMultisampleState : multisample  
GPUFragmentState : fragment

enum GPUPrimitiveTopology  
"point-list"  
"line-list"  
"line-strip"  
"triangle-list"  
"triangle-strip"

dictionary GPUPrimitiveState  
GPUPrimitiveTopology : topology  
GPUIndexFormat : stripIndexFormat  
GPUFrontFace : frontFace  
GPUCullMode : cullMode

enum GPUFrontFace  
"ccw"  
"cw"

enum GPUCullMode  
"none"  
"front"  
"back"

dictionary GPUMultisampleState  
GPUSize32 : count  
GPUSampleMask : mask

dictionary GPUFragmentState  
GPUProgrammableStage : targets

dictionary GPUColorTargetState  
GPUTextureFormat : format  
GPUBlendState : blend  
GPUColorWriteFlags : writeMask

dictionary GPUBlendState  
GPUBlendComponent : color  
GPUBlendComponent : alpha

dictionary GPUBlendComponent  
GPUBlendOperation : operation  
GPUBlendFactor : srcFactor  
GPUBlendFactor : dstFactor

enum GPUBlendFactor  
"zero"  
"one"  
"src"  
"one-minus-src"  
"src-alpha"  
"one-minus-src-alpha"  
"dst"  
"one-minus-dst"  
"dst-alpha"  
"one-minus-dst-alpha"  
"src-alpha-saturated"  
"constant"  
"one-minus-constant"

enum GPUBlendOperation  
"add"  
"subtract"  
"reverse-subtract"  
"min"  
"max"

dictionary GPUDepthStencilState  
GPUTextureFormat : format  
GPUCompareFunction : depthCompare  
GPUStencilFaceState : stencilFront  
GPUStencilFaceState : stencilBack  
GPUStencilValue : stencilReadMask  
GPUStencilValue : stencilWriteMask  
GPUDepthBias : depthBias

dictionary GPUStencilFaceState  
GPUCompareFunction : compare  
GPUStencilOperation : failOp  
GPUStencilOperation : depthFailOp  
GPUStencilOperation : passOp

enum GPUStencilOperation  
"keep"  
"zero"  
"replace"  
"invert"  
"increment-clamp"  
"decrement-clamp"  
"increment-wrap"  
"decrement-wrap"

enum GPUIndexFormat  
"uint16"  
"uint32"

enum GPUVertexFormat  
"uint8x2"  
"uint8x4"  
"sint8x2"  
"sint8x4"  
"unorm8x2"  
"unorm8x4"  
"snorm8x2"  
"snorm8x4"  
"uint16x2"  
"uint16x4"  
"sint16x2"  
"sint16x4"  
"unorm16x2"

enum GPUVertexStepMode  
"vertex"  
"instance"

dictionary GPUVertexState  
GPUProgrammableStage : buffers

dictionary GPUVertexBufferLayout  
GPUSize64 : arrayStride  
GPUVertexStepMode : stepMode  
GPUVertexAttribute : attributes

dictionary GPUVertexAttribute  
GPUVertexFormat : format  
GPUSize64 : offset  
GPUIndex32 : shaderLocation

dictionary GPUCommandBufferDescriptor

dictionary GPUCommandEncoderDescriptor

enum GPUComputePassTimestampLocation  
"beginning"  
"end"

enum GPURenderPassTimestampLocation  
"beginning"  
"end"

dictionary GPURenderPassColorAttachment  
GPUTextureView : view  
GPUTextureView : resolveTarget  
GPULoadOp : loadValue  
GPUStoreOp : storeOp

dictionary GPURenderPassDepthStencilAttachment  
GPUTextureView : view  
GPULoadOp : depthLoadValue  
GPUStoreOp : depthStoreOp  
GPULoadOp : stencilLoadValue  
GPUStoreOp : stencilStoreOp

enum GPULoadOp  
"load"

enum GPUStoreOp  
"store"  
"discard"

dictionary GPURenderPassLayout  
GPUObjectDescriptorBase : colorFormats  
GPUTextureFormat : depthStencilFormat  
GPUSize32 : sampleCount

dictionary GPURenderBundleDescriptor

dictionary GPURenderBundleEncoderDescriptor  
GPURenderPassLayout : depthReadOnly

dictionary GPUQuerySetDescriptor  
GPUObjectDescriptorBase : type  
GPUSize32 : count

enum GPUQueryType  
"occlusion"  
"timestamp"

enum GPUCanvasCompositingAlphaMode  
"opaque"  
"premultiplied"

enum GPUDeviceLostReason  
"destroyed"

enum GPUErrorFilter  
"out-of-memory"  
"validation"

dictionary GPUColorDict

dictionary GPUOrigin2DDict  
GPUIntegerCoordinate : x  
GPUIntegerCoordinate : y

dictionary GPUOrigin3DDict  
GPUIntegerCoordinate : x  
GPUIntegerCoordinate : y  
GPUIntegerCoordinate : z

dictionary GPUExtent3DDict  
GPUIntegerCoordinate : width  
GPUIntegerCoordinate : height  
GPUIntegerCoordinate : depthOrArrayLayers

list interfaces  
GPUObjectBase  
NavigatorGPU  
GPUProgrammablePassEncoder  
GPURenderEncoderBase  
GPURenderBundleEncoder  
GPUQueue  
GPUCanvasContext