



Vulkan Validation Layers



Validation Layers Included in the SDK

The Vulkan SDK includes the following validation layers:

Layer Name	Layer Type	Description
<code>VK_LAYER_KHRONOS_validation</code>	validation	the main, comprehensive Khronos validation layer -- this layer encompasses the entire functionality of the layers listed below, and supercedes them. As the other layers are deprecated this layer should be used for all validation going forward.
<code>VK_LAYER_LUNARG_core_validation</code>	validation	validate the descriptor set, pipeline state, and dynamic state; validate the interfaces between SPIR-V modules and the graphics pipeline; track and validate GPU memory and its binding to objects and command buffers; validate texture

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		formats and render target formats. Includes GPU-Assisted Validation for performing "bind-less" validation checks. <i>This layer has been deprecated.</i>
VK_LAYER_LUNARG_object_tracker	validation	track all Vulkan objects and flag invalid objects and object memory leaks. <i>This layer has been deprecated.</i>
VK_LAYER_LUNARG_parameter_validation	validation	validate API parameter values. <i>This layer has been deprecated.</i>
VK_LAYER_GOOGLE_threading	validation	check validity of multi-threaded API usage. <i>This layer has been deprecated.</i>
VK_LAYER_GOOGLE_unique_objects	utility	wrap all Vulkan objects in a unique pointer at create time and unwrap them at use time. <i>This layer has been deprecated.</i>

VK_LAYER_LUNARG_standard_validation meta-layer [Deprecated]

To avoid the need to individually specify multiple layers, a built-in meta-layer definition was provided to simplify validation for applications. Specifying this layer definition loaded the standard set of validation layers. As these layers have been deprecated, so has the meta-layer itself and in the interim it will load only the stand-alone Khronos validation layer.

```
VK_LAYER_LUNARG_standard_validation
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Use of the meta-layer is no longer recommended -- please replace references to VK_LAYER_LUNARG_standard_validation with VK_LAYER_KHRONOS_validation

See the [Layers Overview and Configuration](#) document for more information on how to configure Vulkan validation layers and message logging.