Logical Devices

Vulkan: Overall Block Diagram

Vulkan: a More Typical (and Simplified) Block Diagram

Looking to See What Device Layers are Available

Looking to See What Device Extensions are Available

What Device Layers and Extensions are Available
VkDeviceCreateInfo vdci;
vdci.sType = VK_STRUCTURE_TYPE_DEVICE_CREATE_INFO;
vdc1.pNext = nullptr;
vdc1.flags = 0;
vdc1.queueCreateInfoCount = 1; // # of device queues
vdci.pQueueCreateInfos = &vdqci; // array of VkDeviceQueueCreateInfo's
vdci.enabledLayerCount = sizeof(myDeviceLayers) / sizeof(char *);
vdc1.ppEnabledLayerNames = myDeviceLayers;
vdc1.enabledExtensionCount = sizeof(myDeviceExtensions) / sizeof(char *);
vdc1.ppEnabledExtensionNames = myDeviceExtensions;
vdc1.pEnabledFeatures = &PhysicalDeviceFeatures;

result = vkCreateLogicalDevice( PhysicalDevice, &vdci, PALLOCATOR, &LogicalDevice );

Vulkan: Creating a Logical Device

float queuePriorities[1] =
{ 1. }

VkDeviceQueueCreateInfo vdqci;
vdc1.sType = VK_STRUCTURE_TYPE_DEVICE_QUEUE_CREATE_INFO;
vdc1.pNext = nullptr;
vdc1.flags = 0;
vdc1.queueFamilyIndex = 0;
vdc1.queueCount = 1;
vdc1.pQueueProperties = queuePriorities;

// get the queue for this logical device:
vkGetDeviceQueue( LogicalDevice, 0, 0, &Queue ); // 0, 0 = queueFamilyIndex, queueIndex

Vulkan: Creating the Logical Device's Queue