VRE::VRE_Window

- int mWidth
- int mHeight
- bool mFrameBufferResized
- const std::string mWindowName
- GLFWwindow * mWindow

+ VRE_Window(int width, int height, std::string name)
+ ~VRE_Window()
+ VRE_Window(const VRE_Window &)=delete
+ VRE_Window & operator =(const VRE_Window &) =delete
+ bool ShouldClose()
+ void CreateWindowSurface (VkInstance instance, VkSurface KHR *surface)
+ VkExtent2D GetExtent()
+ bool HasWindowResized()
+ void ResetWindowResizedFlag()
+ GLFWwindow * GetGLFWwindow () const
- void Init()
- static void FrameBufferResized Callback(GLFWwindow *window, int width, int height)

-mWindow

VRE::VRE_Device

+ const bool mEnableValidation Layers
+ VkPhysicalDeviceProperties mProperties
- VkInstance mInstance
- VkDebugUtilsMessengerEXT mDebugMessenger
- VkPhysicalDevice mPhysical Device
- VkCommandPool mCommandPool
- VkDevice mVkDevice
- VkSurfaceKHR mVkSurface
- VkQueue mGraphicsQueue
- VkQueue mPresentQueue
- const std::vector< const char * > mValidation Layers
- const std::vector< const char * > mDeviceExtensions

+ VRE_Device(VRE_Window &window)
+ ~VRE_Device()
+ VRE_Device(const VRE_Device &)=delete
+ VRE_Device & operator =(const VRE_Device &) =delete
+ VRE_Device(VRE_Device &&)=delete
+ VRE_Device & operator =(VRE_Device &&)=delete
+ VkCommandPool GetCommand Pool()
+ VkDevice GetVkDevice()
+ VkPhysicalDevice GetPhysical Device()
+ VkSurfaceKHR Surface()
+ and 12 more...
- void CreateInstance()
- void SetupDebugMessenger()
- void CreateSurface()
- void PickPhysicalDevice()
- void CreateLogicalDevice()
- void CreateCommandPool()
- bool IsDeviceSuitable (VkPhysicalDevice device)
- std::vector< const char * > GetRequiredExtensions()
- bool CheckValidationLayer Support()
- QueueFamilyIndices FindQueueFamilies(VkPhysical Device device)
- void PopulateDebugMessenger CreateInfo(VkDebugUtilsMessenger CreateInfoEXT &createInfo)
- void HasGflwRequiredInstance Extensions()
- bool CheckDeviceExtension Support(VkPhysicalDevice device)
- SwapChainSupportDetails QuerySwapChainSupport (VkPhysicalDevice device)

-mDevice   -mDevice

VRE::VRE_DescriptorSetLayout

- VkDescriptorSetLayout mDescriptorSetLayout
- std::unordered_map < uint32_t, VkDescriptorSet LayoutBinding > mBindings

+ VRE_DescriptorSetLayout (VRE_Device &device, std ::unordered_map< uint32_t, VkDescriptorSetLayoutBinding > bindings)
+ ~VRE_DescriptorSetLayout()
+ VRE_DescriptorSetLayout (const VRE_DescriptorSetLayout &)=delete
+ VRE_DescriptorSetLayout & operator =(const VRE _DescriptorSetLayout &) =delete
+ VkDescriptorSetLayout GetDescriptorSetLayout () const

VRE::VRE_DescriptorPool

- VkDescriptorPool mDescriptorPool

+ VRE_DescriptorPool (VRE_Device &device, uint32_t maxSets, VkDescriptor PoolCreateFlags poolFlags, const std::vector< VkDescriptorPool Size > &poolSizes)
+ ~VRE_DescriptorPool()
+ VRE_DescriptorPool (const VRE_DescriptorPool &)=delete
+ VRE_DescriptorPool & operator=(const VRE _DescriptorPool &)=delete
+ bool AllocateDescriptorSet (const VkDescriptorSetLayout descriptorSetLayout, VkDescriptorSet &descriptor) const
+ void FreeDescriptors (std::vector< VkDescriptorSet > &descriptors) const
+ void ResetPool()

-mSetLayout   -mPool

VRE::VRE_DescriptorWriter

- std::vector< VkWriteDescriptor Set > mWrites

+ VRE_DescriptorWriter (VRE_DescriptorSetLayout &setLayout, VRE_DescriptorPool &pool)
+ VRE_DescriptorWriter & WriteBuffer(uint32 _t binding, VkDescriptorBuffer Info *bufferInfo)
+ VRE_DescriptorWriter & WriteImage(uint32 _t binding, VkDescriptorImage Info *imageInfo)
+ bool Build(VkDescriptorSet &set)
+ void Overwrite(VkDescriptor Set &set)