

VkCommandBuffer for a One-Time Command

VkCommandBufferAllocateInfo

```
sType = VK_STRUCTURE_TYPE_COMMAND_BUFFER_ALLOCATE_INFO;  
pNext = nullptr;  
commandPool; ← VkCommandPool  
level = VK_COMMAND_BUFFER_LEVEL_PRIMARY;  
commandBufferCount; // num buffers to allocate
```

```
VkResult vkAllocateCommandBuffers(  
    VkDevice device, ← VkDevice  
    const VkCommandBufferAllocateInfo* pAllocateInfo,  
    VkCommandBuffer* pCommandBuffers → VkCommandBuffer  
);
```

VkCommandBufferBeginInfo

```
sType = VK_STRUCTURE_TYPE_COMMAND_BUFFER_BEGIN_INFO;  
pNext = nullptr;  
flags = VK_COMMAND_BUFFER_USAGE_ONE_TIME_SUBMIT_BIT;  
pInheritanceInfo; // usually null.
```

```
VkResult vkBeginCommandBuffer(  
    VkCommandBuffer commandBuffer,  
    const VkCommandBufferBeginInfo* pBeginInfo  
);
```

<ONE-TIME COMMAND>

```
VkResult vkEndCommandBuffer(  
    VkCommandBuffer commandBuffer  
);
```

VkSubmitInfo

```
sType = VK_STRUCTURE_TYPE_SUBMIT_INFO;  
pNext = nullptr;  
waitSemaphoreCount = 0;  
pWaitSemaphores = nullptr;  
pWaitDstStageMask = 0;  
commandBufferCount = 1;  
pCommandBuffers;  
signalSemaphoreCount = 0;  
pSignalSemaphores = nullptr;
```

```
VkResult vkQueueSubmit(  
    VkQueue queue, ← VkQueue  
    uint32_t submitCount,  
    const VkSubmitInfo* pSubmits,  
    VkFence fence ← VkFence  
);
```

```
VkResult vkQueueWaitIdle(  
    VkQueue queue  
);
```

```
void vkFreeCommandBuffers(  
    VkDevice device, ← VkDevice  
    VkCommandPool commandPool, ← VkCommandPool  
    uint32_t commandBufferCount,  
    const VkCommandBuffer* pCommandBuffers  
);
```