Asset Manager

Manages

Mesh Manager | **Scene Manager** | **Material Manager** | **Texture Manager**

Consists of

Consists of

Consists of

Consists of

Scenes

References

Camera | **Lights** | **Materials**

References

Creates Textures for: Device, Queue

Creates:
material from:
- Textures

for:
- Pipeline
- Device
- Queue
- engine settings
- uniform manager

All descriptor sets from:
- Global Uniforms
- Material
- Parameters
- „Render" Instance

Textures

Renderer

Manages

Pipeline Manager | **Uniform Manager**

Pipelines | **Global Uniforms**

Lights Info | **MVP Matrix**

Render | **Window**

Renders to window

Creates:
- Vulkan Renderer
- Pipeline manager
- Window
Does:
- Rendering
  - From all "renderable" instance in the current scene stored in the scene manager
- Swapchain recreation

Input

**Manages
(in own thread)**

Input Handler

Updates key map | Overwrites old key map

Key Map

The key map has a reference in the Asset manager. The key map can be referenced by anything Input related like a camera.

New Meshes, lights etc

New Scene

The importers store all new assets in the appropriate manager, create a scene from it and send the scene to the scene manager

Assimp loader

Tools