app/Application

Simulation
+InitConfig()
+CreateTask()
+Run()

自动化依赖

SceneEditor
+RunGUI()
+Preview()
+Export()

数据模板依赖

MeshTool
+RunAsCLI()
+RunAsGUI()

AppDelegate
+SetUp()
+Run()
+CleanUp()

DataFactory
+AutoLayout
+PreView
+LiveRange
+DataProductor

MaterialTool
+RunCLI()
+RunGUI()

sc/Scene

IResourceMgr
资源管理接口
+Load
+Free

实现

DFResourceMgr
-_textureTable:std::map
-_meshTable:std::map

DF::INode
节点
+Attach()
+Detach()
+SetPosition()
+Position()
+SetRotation()
+Rotation()
+SetScale()
+Scale()
+FreeDomDim()

聚合

继承

DF::IEntity
实体接口
+ Init
+ PrimitiveSet
+ NativeEntity
+ CreateLine
+ CreateQuadrangle
+ CreateCube
+ Build

接口实现

DFEntityImpl
- _affine: mat4
- _position:vec3
- _scale: vec3
-_eulerRot:vec3
-_quadRot:vec4
-_renderAble:IPrimitive*
-_physicAble:IPhysicBody*
+ FlushTransform ()

组合

DF::IScene
场景接口
+Init
+Load
+Free
+LoadSceneFile()
+CreateEntity()

接口实现

DFSkelentonNode
-_bones:DFSkeleton*[]
-_freedom:float6[]
+ForwardKinetic()
+InverseKinetic()

聚合

DFScene
-_engine:F_Engine*
-_scene:F_cene*
-_root:DF::INode*
-_objects:DF::IEntity*[]
-_lights:DF::IEntity*[]
-_skybox:DF::IEntity*
-_physic:
+Load
+Free
+LoadSceneFile()
+CreateEntity

graph/Graphic

IMaterial
材质
+HasTexture()
+HasParameter()

DF::IPrimitive
+RenderHandle()
+SetMaterial()
+Build()
+BufferCount()
+VertexCount()
+AttributeBits()
+AttributeBuffer()
+BufferDesc()
+IndexBuffer()

关联

DFMaterial
-baseColor
-emissive
-roughness
-metallic
.....

DFBatchMesh
_vertices;
_indices;

DFSkeletonMesh

依赖

DFMesh
+InitWithFile()
+InitWithData()

继承

DFSkinedMesh
-_BlendCount

集成

DFStaticMesh
+Merge

依赖

phy/Physic

DF::IPhysicBody
物理替身
+SetSpeed
+SetForce
+SetMass
+IsActive

DF::IPhysicWorld
物理世界接口
+SetGravity
+SetStepTime

DFPhysicWorld
-_gravity:float

DFRigidBody
-_mass:float
-_elasticity:float
-_damping:float

DFSoftBody

DFFluid

DFPhysicBody
+Type()
+InitWithNode(INode*)
+Position(INode*)
+Rotation(INode*)
+Joints(INode*)
+Particle()
+SetConvexHull()