pws-engine

Generated by Doxygen 1.8.20

Chapter 1

Class Index

1.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Chapter 2

Class Documentation

2.1 argparse::Args Class Reference

Public Attributes

- string **inputFile**

The documentation for this class was generated from the following file:

- src/argparse.h

2.2 jdscn::Camera Class Reference

Public Member Functions

- **NLOHMANN_DEFINE_TYPE_INTRUSIVE** (Camera, position, orientation, meta, focalLength)

Public Attributes

- Position **position**
- Orientation **orientation**
- Meta **meta**
- float **focalLength**

The documentation for this class was generated from the following file:

- src/scene.h

2.3 Win::Canvas Class Reference

Public Member Functions

- **Canvas** (int, int, const char ∗)
- void **draw** (int, int, jdscn::Color)
- void **clear** ()

Public Attributes

- int **width**
- int **height**
- const char ∗ **title**

The documentation for this class was generated from the following files:

- src/win.h
- src/win.cpp

2.4 draw::Drawloop Class Reference

Public Member Functions

- **Drawloop** (Win::Canvas &, jdscn::Scene &, float framerate)
- void **startLoop** ()

Public Attributes

- Win::Canvas **canvas**
- jdscn::Scene **scene**
- float **interval**

The documentation for this class was generated from the following files:

- src/draw.h
- src/draw.cpp

2.5 jdscn::Light Class Reference

Public Member Functions

- **NLOHMANN_DEFINE_TYPE_INTRUSIVE** (Light, type, meta, orientation, color, position, power, radius, cone)

Public Attributes

- std::string **type**
- Meta **meta**
- Orientation **orientation**
- Color **color**
- Position **position**
- float **power**
- float **radius**
- float **cone**

The documentation for this class was generated from the following file:

- src/scene.h

2.6 jdscn::Material Class Reference

Material used by objects.

`#include <scene.h>`

Public Member Functions

- **NLOHMANN_DEFINE_TYPE_INTRUSIVE** (Material, color, roughness, metallic, transparency, meta)

Public Attributes

- Color **color**
- float **roughness**
- float **metallic**
- float **transparency**
- Meta **meta**

2.6.1 Detailed Description

Material used by objects.

This is a simplified version of the Principled BSDF shader in Blender. Some of these properties might be removed due to implementation difficulties.

The documentation for this class was generated from the following file:

- src/scene.h

2.7 jdscn::Meta Class Reference

Information attached to all objects.

`#include <scene.h>`

Public Member Functions

- **NLOHMANN_DEFINE_TYPE_INTRUSIVE** (Meta, name)

Public Attributes

- std::string **name**

2.7.1 Detailed Description

Information attached to all objects.

This class is used by every object to store it's name, but we might decide to add more properties to this class for debugging purposes.

The documentation for this class was generated from the following file:

- src/scene.h

2.8 jdscn::Object Class Reference

Public Member Functions

- void **transform** (std::function< jdscn::Position(jdscn::Position)>)
- void **transformScale** (jdscn::Scale, bool)
- void **transformRotate** (jdscn::Orientation, bool)
- void **transformTranslate** (jdscn::Position, bool)
- UVFloat **projectVertices** (Camera)
- **NLOHMANN_DEFINE_TYPE_INTRUSIVE** (Object, orientation, position, scale, vertices, meta, material)

Public Attributes

- Orientation **orientation**
- Position **position**
- Scale **scale**
- Vertices **vertices**
- Meta **meta**
- Material **material**

The documentation for this class was generated from the following files:

- src/scene.h
- src/scene.cpp

2.9 jdscn::Scene Class Reference

Public Member Functions

- void **draw** (Win::Canvas, int)
- **NLOHMANN_DEFINE_TYPE_INTRUSIVE** (Scene, meta, camera, lights, objects)

Public Attributes

- SceneMeta **meta**
- Camera **camera**
- std::vector< Light > **lights**
- std::vector< Object > **objects**

The documentation for this class was generated from the following files:

- src/scene.h
- src/scene.cpp

2.10 jdscn::SceneMeta Class Reference

Public Member Functions

- **NLOHMANN_DEFINE_TYPE_INTRUSIVE** (SceneMeta, version, generator)

Public Attributes

- std::string **version**
- std::string **generator**

The documentation for this class was generated from the following file:

- src/scene.h

2.11 jdscn::Texture Class Reference

Public Member Functions

- **NLOHMANN_DEFINE_TYPE_INTRUSIVE** (Texture, meta, path, uv)

Public Attributes

- Meta **meta**
- std::string **path**
- UV **uv**

The documentation for this class was generated from the following file:

- src/scene.h

Index