ORG Engine – Programming Style Guide Arkell Tech Inc. – April 17, 2019

1 Files & Folders

- Media files (images, audio) follow UpperCamelCase.<extension>
- C++ source files follow UpperCamelCase.cpp
- C++ header files follow UpperCamelCase.hpp
- Folders/directories follow lower_underscore
- .md files follow CAPS_UNDERSCORE.md

2 C++

2.1 General

The ORG engine's priorities for C++ code are generally ordered as follows: 1. portability, 2. maintainability, 3. clarity, and 4. performance. Therefore if a segment of code is clear, but not easily maintained, it should be changed. Performant but not clear? Should probably be changed. Maintainable but not portable? Change it. Etc., etc.

STL containers are preferred when applicable. Similarly, C++ paradigms are preferred over C equivalents; e.g. enum class over enum, struct over typedef struct, constexpr over #define. Standard OO best practices should be followed; member data should be not be externally visible (accessor functions should be used instead),

auto is a useful tool for writing maintainable code, but be weary of using it in complicated snippets as it can hinder readability by hiding information.

2.2 Naming / Identifiers

- Class and struct names follow UpperCamelCase
- Member variables follow _lowerCamelCase
- Static class variables follow s_lowerCamelCase
- Local variables follow lowerCamelCase
- Constants follow CAPS_UNDERSCORE
- Enum values follow CAPS_UNDERSCORE

Lastly, short forms in identifiers should generally be avoided. So, if you're writing a class that represents a **regular expression**, RegularExpression is much preferred over RegExp.

- 3 C
- 4 Python
- 5 CMake