

C++ Style Guide

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Header Files

Class declarations shall occur in header files (.h) and be implemented in a (.cpp) file of the same name. Header files shall include both the `#pragma once` and `#ifndef ... #define ...` guards against multiple inclusion.

Classes

Classes containing pointers shall initialize those pointers to `NULL` in the class constructor. The purpose of the class should be clearly identified by comments.

Functions

All functions shall have a comment block above the function prototype that clearly states their purpose, required inputs, and outputs.

Variables

Variable names shall be descriptive to the purpose of the variable or identify the data that it contains. Temporary variables (variables that only store values for a short amount of time and are then released) may have less descriptive names. In other cases, single-letter variable names may only be used if the singular letter is descriptive in the context of the variable itself, such as `x` or `y` for coordinate pairs or a variable in a formula that has already been stated.

Global variables should have comments describing what they are used for, and why they are global.

Comment Style

Use the `//` comment style for comment blocks two lines or less. Use `/**/` comment style for comment blocks longer than 2 lines.