C++ Notes

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1 Preprocessor Directives

The following table shows some of the most common preprocessor directives

PREPROCESSOR DIRECTIVE	FUNCTIONALITY	COMMON USES
#include [file]	The specified file is inserted into the code at the location of the directive	Almost always used to include header files so that code can make use of functionality defined elsewhere
#define [key] [value]	Every occurence of the specified key is replaced with the specified value.	Often used in C to define a constant value or a macro. C++ provides better mechanisms for constants and macros. Macros are often dangerous so use them cautiously.
#ifdef [key] #endif #ifndef [key] #endif	Code within the ifdef ("if defined") or ifndef ("if not defined") blocks are conditionally included or omitted based on whether the specified key has been defined with #define	Used most frequently to protect against circlar includes. Each include file starts with a #ifndef checking the absence of a key, followed by defining that key. The include file ends with a #endif. This prevents the file from being included multiple times.
#pragma [xyz]	xyz varies from compiler to compiler. Often allows the programmer to display a warning or error if the directive is reached during preprocessing	See examples