

Introduction

Lecture 1

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1 The C++ Language

2 The Compiler

3 Example

Outline

1 The C++ Language

2 The Compiler

3 Example

C – The Precursor to C++

- The C language.
 - Named for the third letter of the alphabet (really).
 - Developed by Brian Kernighan and Dennis Ritchie in 1978 at Bell Labs.
 - Designed to give the programmer greater control over the computer.
 - The C syntax, although at times inscrutable, has become the standard for nearly all computer languages.

The C++ Language

- The C++ language.
 - C++ was developed by Bjarne Stroustrup in 1983 at Bell Labs.
 - C++ contains C as a sublanguage.
 - Its language structures support a more highly organized programming style than C did.
 - C++ was updated in 2011 (C++11) with new features added.
- An excellent online resource is
<http://www.cplusplus.com/reference/>

The C++ Language

- C++ is an **object-oriented** language.
 - Maps concepts to data types.
- The programmer may create his own data types.
 - Build hierarchies of related data types.
 - Number → Point → Polygon → Mesh.

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Microsoft's Visual Studio

- We will use the **integrated development environment (IDE)** Visual Studio 2017.
- Visual Studio provides
 - Editor
 - Compiler
 - Program execution
 - Debugger

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Example of a C++ Program

- Example
 - BMI.cpp