



# C++ Development in Visual Studio Code

Julia Reid, Program Manager

@jureid22 @visualc in/jureid

# Prerequisites

1. Install Visual Studio Code: <https://code.visualstudio.com/download>
  
2. Install a C++ compiler
  - a. GCC on Linux
  - b. GCC on Windows
  - c. Microsoft C++ on Windows
  - d. Clang on macOS
  - e. Learn more: <https://code.visualstudio.com/docs/languages/cpp>

# Today's demo



<https://github.com/SuperTux/supertux>

# Cross-platform C++ development in VS Code

- Runs on Linux, Windows, and Mac
- First-class CMake support through CMake Tools extension
  - Cross-platform, meta-build system
- Vcpkg integration
  - Cross-platform, command line package manager
- Remote development extensions
- IntelliSense configurations for cross-compiling

# vcpkg

- Cross-platform, command-line package manager for C++
- Open-source
- Over 1300 libraries in vcpkg catalog across Windows, Linux, and Mac
- Simplifies acquisition and installation of third-party libraries
- Libraries are routinely tested against each other to ensure a high-quality catalog
- Integrate with CMake and Visual Studio Code

# Installing vcpkg

- Clone vcpkg Github repository: <https://github.com/Microsoft/vcpkg>
- Run the bootstrapper
- vcpkg integrate install

# Recap

- Rich, productive C++ editing features from the C++ extension
  - IntelliSense, find all references, rename, go to definition
- Recommended tools for cross-platform development
  - CMake
  - Vcpkg
  - Visual Studio Code: CMake Tools extension, Remote SSH extension
- Collaborative development support in Visual Studio Code
  - GitHub Pull Requests and Issues extension
  - Live Share extension pack

# What's next?

- Vcpkg enhancements:
  - Manifest file (demoed today)
  - First-class experience for managing private libraries with vcpkg
  - Use binaries to update rather than pulling from source every time
  - Versioning
- C++ extension: remote development/debugging for Linux on ARM
- Stay tuned: (<https://devblogs.microsoft.com/cppblog/>)



# Give us your feedback

The C++ extension, CMake Tools extension, and vcpkg are all open source

Link to GitHub repositories:

- C++ extension: <https://github.com/microsoft/vscode-cpptools>
- CMake Tools extension: <https://github.com/microsoft/vscode-cmake-tools>
- Vcpkg: <https://github.com/microsoft/vcpkg>

Create an issue, upvote feature asks, and contribute to the repos yourself!