GameDev.tv

Unreal 4.22

Meet The GameDev.tv Community

Meet The Team

Ben Tristem - GameDev.tv CEO

Originally designed the course in 2015.

Gavin "TeslaDev" Milroy - Partner Instructor

Briefly with GameDev.tv in 2019.

Mike Bridges - Senior Founding Instructor

Also known for his Blender courses.

Live Google Slides at https://gdev.tv/uc2slides

Get The Most From The Course

- Do all the challenges when you see them
- Visit the Google Slides at `gdev.tv/uc2slides`
- Become an active community member
- Become a problem solver
- Stay positive & work hard.

You Are NOT Alone

- We have a world-class community forum
- You can Talk, Show or Ask
- Use code formatting in the forum
- Include screenshot(s)
- For instant help there’s Discord chat server.

Join At Least One Community

- Community forum site
- Discord live chat server
- Unreal Facebook Group
- Our Twitch channel
- Our YouTube channel
- GameDev.tv on Twitter
- All links in lecture resources.

How To Ask Good Questions

- Paste exact error text into Google first
- If you still need help, include error with code
- Make the problem reproducible
- Short as possible, long as necessary
- Answer other people’s questions.

Live Google Slides at https://gdev.tv/uc2slides

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Compilers & VS Community 2019

What is a Compiler?

- We want to speak "English"
- AKA a "high level language"
- The computer wants binary
- Text gets converted to binary
- This is called compilation

Unreal Development Environment

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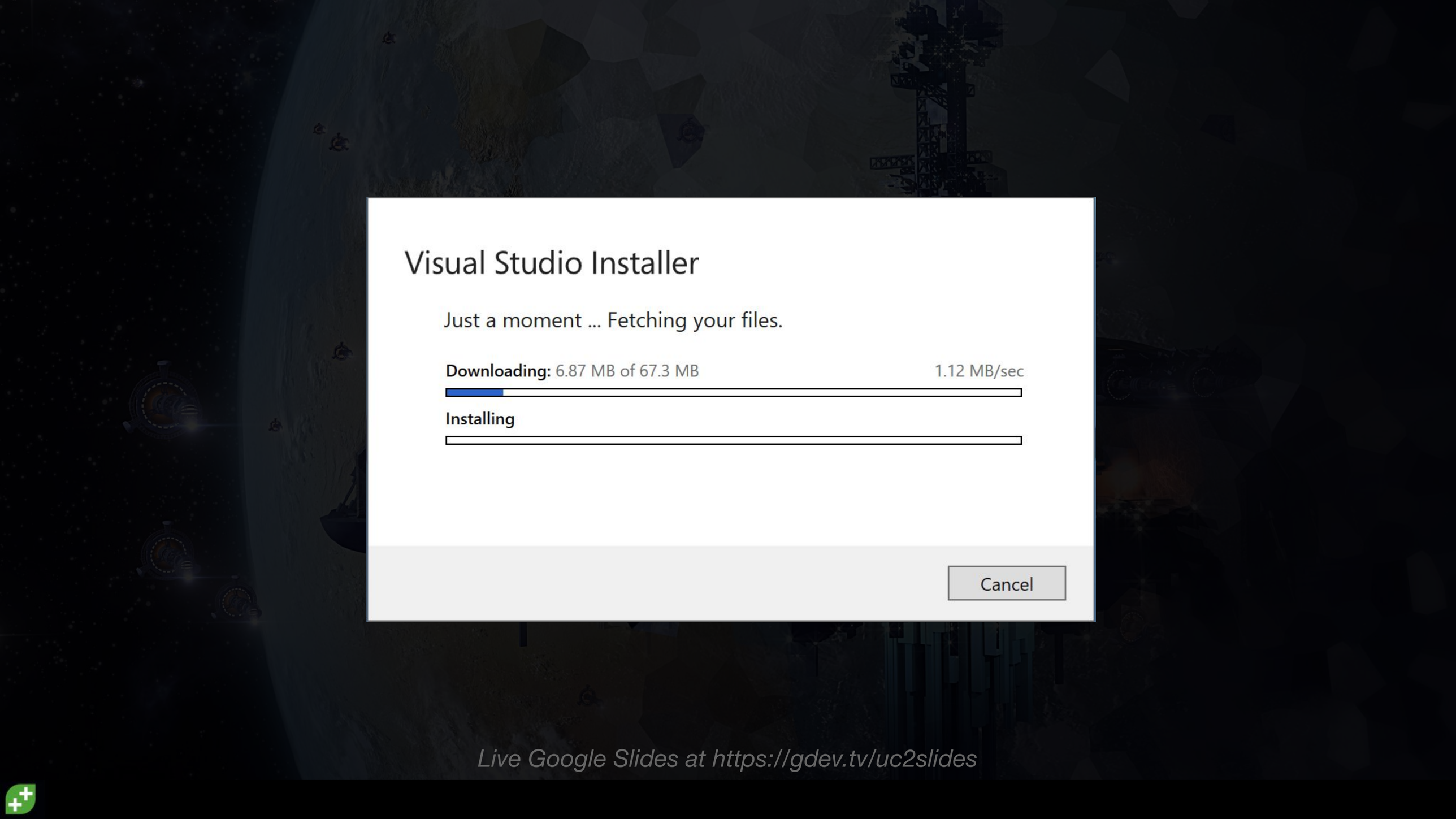
Visual Studio Installer
Just a moment ... Fetching your files.
Downloading: 6.87 MB of 67.3 MB
1.12 MB/sec
Installing
Cancel

Installing — Visual Studio Community 2019 — 16.2.0

Workloads | Individual components | Language packs | Installation locations

Create applications for the Universal Windows Platform with C#, VB, or optionally C++.

Mobile & Gaming (4)

Mobile development with .NET
Build cross-platform applications for iOS, Android or Windows using Xamarin.

Game development with Unity
Create 2D and 3D games with Unity, a powerful cross-platform development environment.

Mobile development with C++
Build cross-platform applications for iOS, Android or Windows using C++.

Game development with C++
Use the full power of C++ to build professional games powered by DirectX, Unreal, or Cocos2d.

Other Toolsets (6)

Data storage and processing
Connect, develop, and test data solutions with SQL Server, Azure Data Lake, or Hadoop.

Data science and analytical applications
Languages and tooling for creating data science applications, including Python and F#.

Visual Studio extension development
Create add-ons and extensions for Visual Studio, including

Office/SharePoint development
Create Office and SharePoint add-ins, SharePoint solutions

Installation details

- Visual Studio core editor
- Game development with C++

Included
- C++ core features
- Windows Universal C Runtime
- C++ 2019 Redistributable Update
- MSVC v142 - VS 2019 C++ x64/x86 build tools (v1...

Optional
- [x] C++ profiling tools
- [x] Windows 10 SDK (10.0.18362.0)
- [x] IntelliCode
- [ ] Windows 10 SDK (10.0.17763.0)
- [ ] Windows 10 SDK (10.0.17134.0)
- [ ] Windows 10 SDK (10.0.16299.0)
- [ ] IncrediBuild - Build Acceleration
- [ ] Cocos
- [x] Unreal Engine installer
- [ ] Android IDE support for Unreal engine

Location
C:\Program Files (x86)\Microsoft Visual Studio\2019\Community Change...

Total space required 7.41 GB

By continuing, you agree to the license for the Visual Studio edition you selected. We also offer the ability to download other software with Visual Studio. This software is licensed separately, as set out in the 3rd Party Notices or in its accompanying license. By continuing, you also agree to those licenses.

Install while downloading | Install

Live Google Slides at https://gdev.tv/uc2slides

Visual Studio Installer

Installed Available

Visual Studio Community 2019

Pause

Downloading and verifying: 32 MB of 1.83 GB (6 MB/sec)
1%

Installing: package 10 of 286
0%
Microsoft.VisualStudio.Platform.Editor

Start after installation

Release notes

Developer News

Visual Studio 2019 version 16.2 Generally Available and 16.3 Preview 1

Today we are making Visual Studio 2019 version...

Thursday, July 25, 2019

Skill up on Visual Studio 2019 with Pluralsight

With the launch of Visual Studio 2019 in April, w...

Thursday, July 25, 2019

Announcing Entity Framework Core 3.0 Preview 7 and Entity Framework 6.3 Preview 7

Today, we are making new previews of EF Core...

Thursday, July 25, 2019

View more online...

Need help? Check out the Microsoft Developer Community or reach us via Visual Studio Support.

Installer Version 2.2.3073.701

Visual Studio Installer

Installed Available

Visual Studio Community 2019

16.2.0

Free, fully-featured IDE for students, open-source and individu

Release notes

Visual Studio

Welcome!
Connect to all your developer services.

Sign in to start using your Azure credits, publish code to a private Git repository, sync your settings, and unlock the IDE.

Learn more

Sign in

No account? Create one!

Not now, maybe later.

Developer News

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Installer Version 2.2.3073.701

Install VS Community 2019

- Get VS Community 2019 installed
- Help each other in the community.

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Install Prerequisites On MacOS

Unreal Development Environment

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XCode & Epic Games Launcher

- Get Xcode installing from the App Store
- Agree to terms and conditions
- If slow broadband let it finish, else continue
- Also get Epic Games Launcher installing
- Will use it soon to get Unreal downloading
- Help each other in the community.

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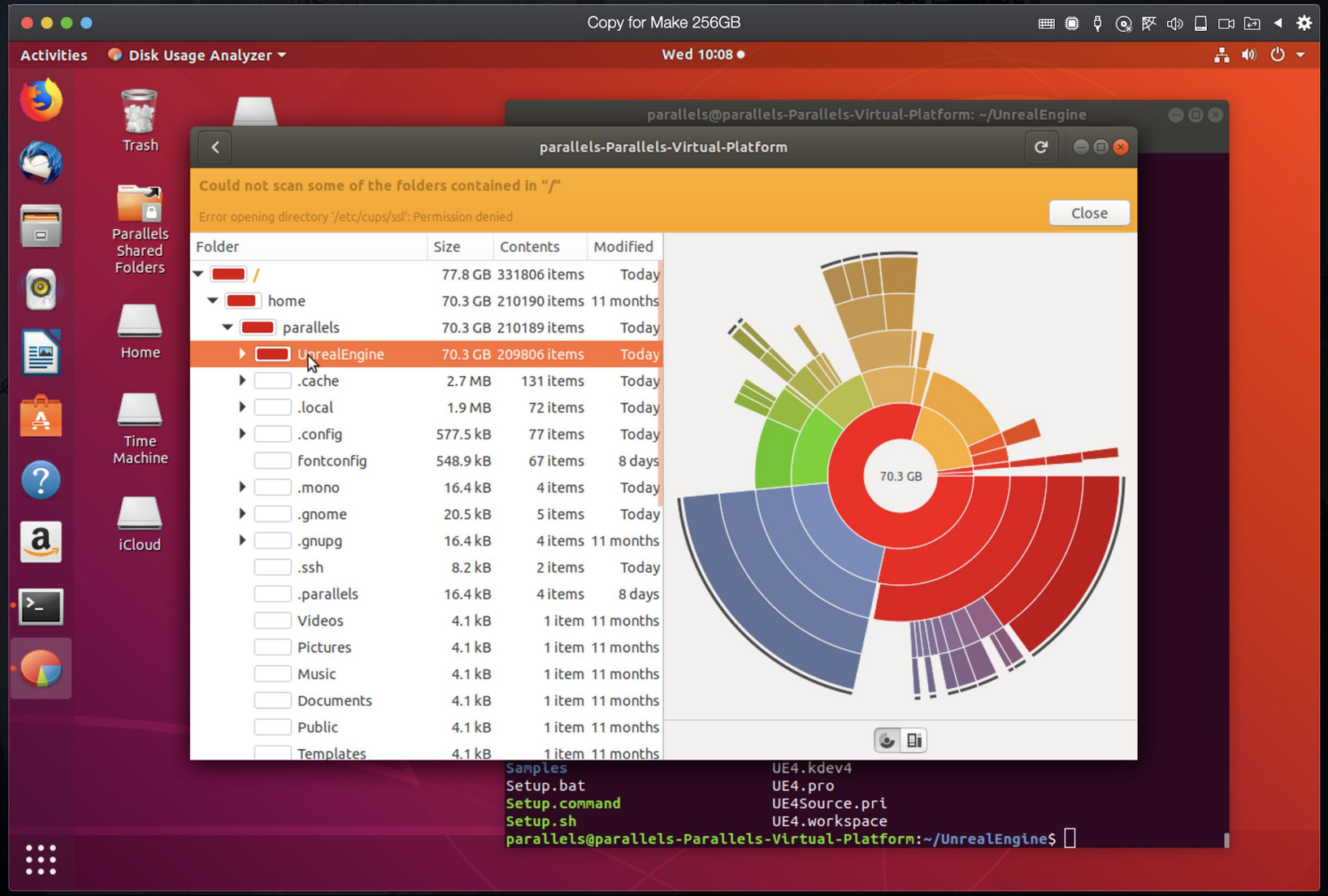
Build Unreal From Source (Linux)

Have 70 GB+ Free



Build Unreal From Source

1. `sudo apt install g++ git make -y`
2. `git clone --single-branch --branch 4.22 https://github.com/EpicGames/UnrealEngine.git`
3. Create GitHub "Personal Access Token" with "repo" access (or use SSH)
4. `cd UnrealEngine`
5. `./Setup.sh` (register Unreal file types when asked)
6. `./GenerateProjectFiles.sh` (much faster)
7. `make` will take some time (add `-j x` to set x jobs). Have 100GB+ free.
8. `cd Engine/Binaries/Linux/` then run `./UE4Editor` Celebrate!
9. Vulkan warning? Update or `./UE4Editor -opengl`
10. Write-down start time & share build-time & specs with community!

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Install Unreal Engine 4.22 (Mac & PC)

Start Unreal 4.22 Downloading

- Linux users can skip this video
- Use the Epic Games Launcher
- Download Unreal Engine 4.22.X (X doesn’t matter)
- Carry-on with the course during download
- Can resume following restart if required.

Why Are YOU Taking This Course?

- Share your hopes with your peers
- Why did you buy the course?
- What do you hope to build / learn / create?
- This isn’t going to be easy
- What’s going to keep you going?

Live Google Slides at https://gdev.tv/uc2slides

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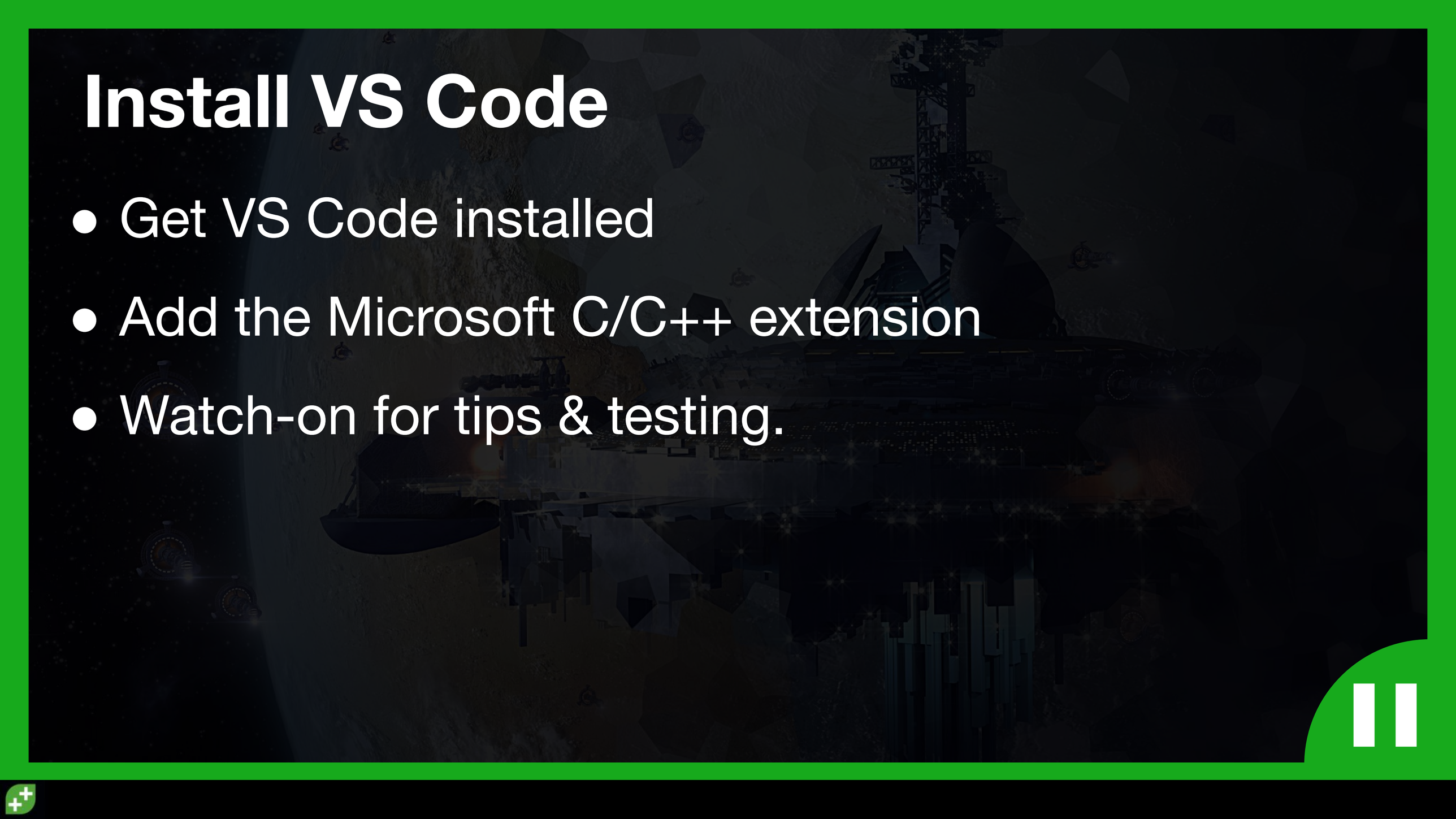
Also Install Visual Studio Code

Why Also Install VS Code?

- Fast, Free and Familiar
- Supported in Unreal since 4.18
- The same on Windows, MacOS & Linux
- About 10x smaller to download
  - Please use the same drive as VS Community
- Can extend to our needs later.

Install VS Code

- Get VS Code installed
- Add the Microsoft C/C++ extension
- Watch-on for tips & testing.



VS Code Survival Tips

- Preferences: Color Theme from cog or...
- View > Command Palette to access anything
- Tick File > AutoSave to save your sanity
- Compiling code is separate to running it
- VS Community or Xcode optional alternative.

Live Google Slides at https://gdev.tv/uc2slides

Extra VS Code Setup on MacOS

- For compiler to work on MacOS you'll need to
- Launch VS Code from your terminal with `code`
- Make that possible like this...

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Section Wrap-up