

# Unreal Course Section 1 Slides

>> To Section 2

These are the slides that accompany the Complete Unreal Developer Course.

See me develop the slides as I write the course...

- Right click or Insert > Comment to comment, especially if you see a typo
- The slides will update immediately as I change things.

Enjoy your stay!

Ben Tristem





# Promo Video & Games List

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# In This Video...

- What this course is all about
- Why you would want to take this course
- What you will need to get started
- What games you will build
- What you will learn.





# Welcome to the Course

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# In This Video...

- Slide handouts are attached, and live on Google.
- Who gets the most from this course.
- Introduce yourself in the discussions now.
- How we'll help. How to help each other.
- What if I'm more experienced?





# 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.





# A Note On Unreal Versions

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# In This Video...

- Use the latest versions of Unreal
- They work well with the latest Visual Studio
- Why the videos use older versions
- What to do if something is different.





# Setup Visual Studio or XCode

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# In This Video...

- Configure Visual Studio Community 2017.
- If you're on MacOS skip ahead 2 mins.





# Visual Studio 2015 Configuration

- Add Programming Languages > Visual C++.
- Add Common Tools > VS Tools ... Update 1.
- Carry on watching while it downloads.

*If already installed then check update flag, and above install options.*





# Unreal Development Environment

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# In This Video...

- Start Unreal Engine Downloading too.
- An overview of the Unreal install process.
- What is an IDE and why you need it.





# Start the Unreal Engine Download

- Get the Epic Games Launcher.
- Sign-in or register Epic.
- Get Unreal Engine 4.10 or higher downloading.
- Carry on watching the video.





# Approximate Install Time-scale

Times on an SSD, with 100 Mb/s connection...

	Size	Rough Time
Download & Install VS 2015 with C++ (on Windows)	About 4 GB	1 hour*
Download & Install Xcode (on MacOS)	About 3GB	45 min
Download Epic Games Launcher.	Small	5 min
Download & install Unreal Editor	N/A	1 hour

Handy conversion: <http://www.wolframalpha.com/input/?i=13GB+at+10+mbps>

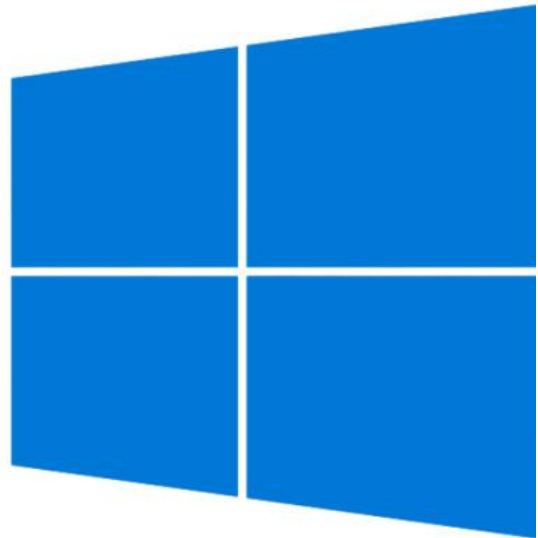
\* May vary from 20 minutes to 3+ hours depending on machine and broadband.







**UNREAL  
ENGINE**





# Windows and MacOS Compared

	Mac OS	Windows (VM on Mac)	Windows (Native)
Refactoring	No (Xcode)	Yes	Yes
Oculus SDK	No	Yes, slow	Yes
Oculus Min Spec.	No	No*	Maybe

VM = Virtual Machine

\*Assuming you're not running a naughty Hackintosh!





# Choosing Your Operating System

1. Windows on a PC or Mac.
2. Mac using Xcode.
3. Something else (Linux, other IDE\*).

\* IDE = Integrated Development Environment.

*See lecture resources for further reading.*





# Intro to Visual Studio 2015 on PC

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# In This Video...

- Get Visual Studio running.
- Xcode is covered in the next video.
- Write your first line of C++ code.
- Check the code “compiles”.
- Learn where to find the Output log.





# Get “Hello World” Working

- Add **cout << “Hello World\n”;**
- Run your code.
- Check the console.
- Tell us in the Discussions that you did it.





# Intro to Xcode on MacOS

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# In This Video...

- Get Xcode running.
- Write your first line of C++ code.
- Check the code “compiles”.
- Learn where to find the Output.





# Get “Hello World” Working

- Add **cout << “Hello World\n”;**
- Run your code.
- Check the console.
- Tell us in the Discussions that you did it.





# How to Ask Good Questions

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# In This Video...

- Expected vs Observed behaviour.
- Creating a Minimal Viable Test case.
- Useful information to include.
- Explaining what has already been tried.
- Sharing code the smart way.
- Using Udemy Q&A effectively.





# Ask the Rubber Duck First

- Explain your problem out loud.
- Walk through your understanding.
- The sensei will be enigmatic.
- Do 3 things to test your understanding.





# Question Structure

- Expected behaviour
- Observed behaviour
- Steps to reproduce
- What has been tried already
- Useful info: versions, etc.





# Screenshots and Code

- Take screenshots when useful.
- E.g. Unreal editor windows.
- Share a Gist if there's lots of code.





# Minimal Viable Test Case

- Don't include extra steps.
- Minimum steps to reproduce.





# Be a Q&A Ninja!

- Summarise in your title.
- Stay responsive.
- Mark a top answer.
- Share if you solve it.
- Answer other people.





# Go and Answer

- Find a question in the previous videos.
- Try to provide some suggestion.
- How well do you think the question was asked?





# A Quick Tour of Unreal Editor

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# In This Video...

- Create a new Basic C++ project.
- Take a quick look around Unreal.
- Learn about saving and scenes.
- Customise the Unreal Editor interface.





# Add A 2nd Object

- Add a 2nd object to the scene.
- Save the scene.
- Close the Unreal editor.
- Re-open and ensure the object is there.
- Congratulate yourself!





# Section Wrap-Up

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# In This Video...

- Well done getting setup.
- Introduce yourself in the discussions.
- Going from C# to C++.
- Start the next section NOW.





# Going From C# to C++

- A lot of what you know will transfer.
- Getting into the header files (.h) mindset.
- You can do cool bitwise operations.
- Don't worry about memory management yet.
- Get used to `->` and `::` where you expect a dot.





# Instructor Hangout

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# In This Video...

- We answer your questions
- Thanks for the intros.
- Visual Studio on Mac?
- Ben's Momentum plugin.
- And more.
- Awkward paws...

