CGP3016M Advanced Games Programming

Workshop 0: Installing the Urho3D Engine

Objectives

1. Download the Urho3D Engine source code (as a CMake Project)
2. Generate Visual Studio Project Files
3. Build the engine
4. Look at the samples

Guide time: 45 minutes

Tools / Libraries

1. Urho3D 1.7
2. CMake v3.12.1.
3. Microsoft Visual Studio 2017 Community Edition.

Download

We are using Urho3D version 1.7, with Visual Studio 2017 and CMake.

You can download Urho from: https://urho3d.github.io/
Alternatively, you may clone or download the latest commit from the Urho3D Github page, if you wish.

Urho3D is cross platform: the zip file contains engine source code, samples, 3rd party libraries, assets, and CMake scripts which enable you to build it for a range of platforms.

We will use Visual Studio 2017 to build the engine to run under Windows 10. This means that we need to use CMake to create the Visual Studio project files, and then use those to actually compile and link it. Once we have done that, we can create our own projects using the engine as a library.

Building Urho3D Project for PC/Visual Studio 2017

Official instructions are here, but I have included simplified instructions below:
https://urho3d.github.io/documentation/HEAD/_building.html

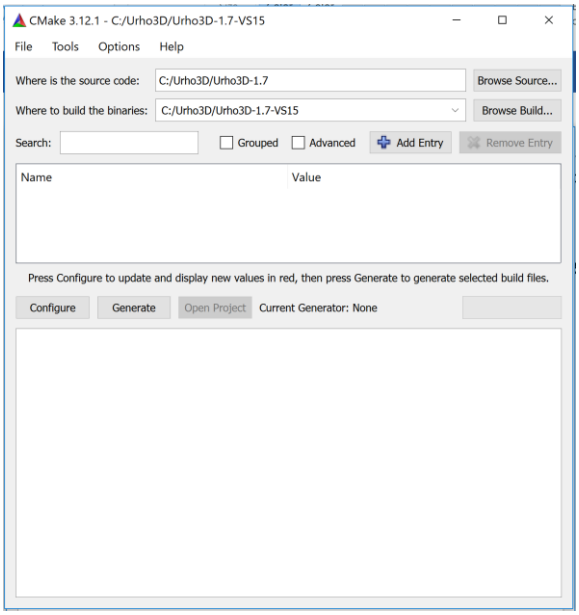
1. You will need to download and install CMake if you don't already have it (https://www.cmake.org). Current version at time of writing is 3.12.1.

2. Create a directory "C:\Urho3D", and put the Urho3D-1.7.zip file there.

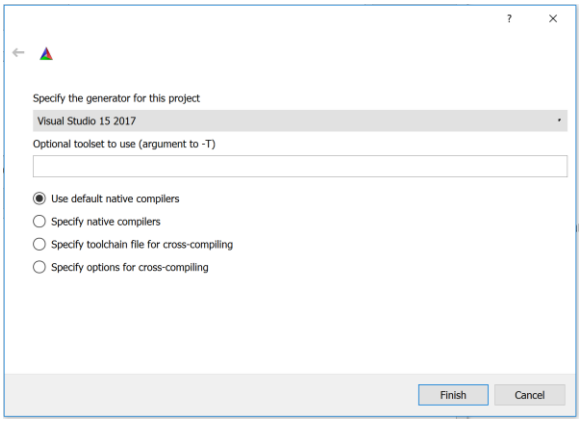
3. Unzip the Urho3D-1.7.zip file: you should now have a directory called "C:\Urho3D\Urho3D-1.7".

4. Create a new empty directory for the VS17 project files: "C:\Urho3D\Urho3D-1.7-VS17".

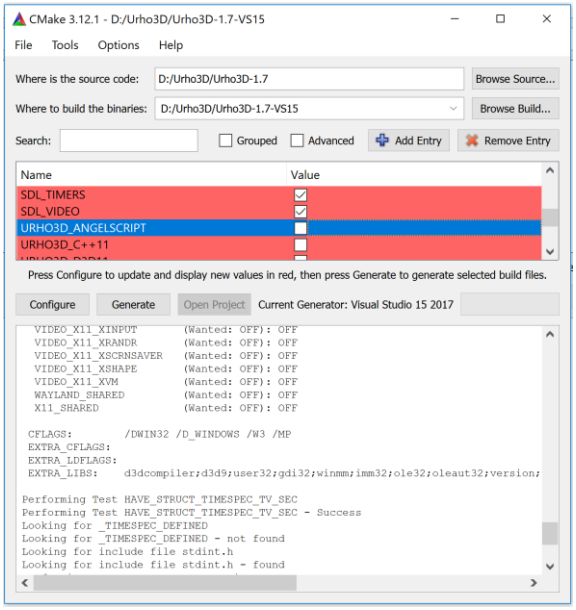
5. Run the CMake GUI. For the source directory, browse to Urho3D-1.7. For the build directory, select the new empty directory you created.



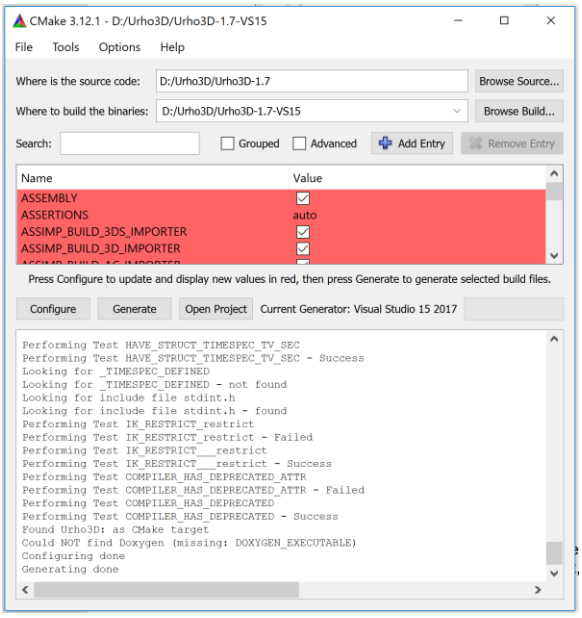
6. Click Configure, and select Visual Studio 2017. Click Finish, and CMake will generate the configuration.



7. **VERY IMPORTANT**: de-select the URHO3D_ANGELSCRIPT option, in the configuration option list.



8. Click Generate.



9. Navigate to the output directory, and open the Urho3D.sln solution file in VS2017. You should now be able to build it, and all the sample projects.

10. Select and run the project “39_CrowdNavigation”, to check it works.

Note that the source code files for the samples remain in C:\Urho3D\Urho3D-1.7.