

Spike: Spike 8

Title: Game Engines

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Goals / deliverables:

Familiarize myself with a game engine of my choice and how to modify it.

Besides this report, what else was created?

- A folder where the source code of the engine was copied.

Technologies, Tools, and Resources used:

List of information needed by someone trying to reproduce this work

- Visual Studio 2022
- Godot Documentation (e.g. https://docs.godotengine.org/en/stable/contributing/development/compiling/compiling_for_windows.html)
- A YouTube tutorial (<https://www.youtube.com/watch?v=lvs5lLcY5ug>)

Tasks undertaken:

List key tasks likely to help another developer

This section should resemble a tutorial – the goal is to allow another coder to reproduce your work following these steps.

Eg: (Good)

- Download and install either MinGW-w64 or VS Community.
- Download and the source code from the Godot's (engine of my choice) GitHub.
- Download Python.
- Install SCons with the next command: `python -m pip install scons`
- Compile Godot for windows with the next command: `scons platform=windows`
- Generate a VS solution with the next command: `scons p-windows vsproj=yes`
- Create a windows export template with the next command: `scons platform=windows target=template_debug arch=x86_64`
- Build from Visual Studio.

What we found out:

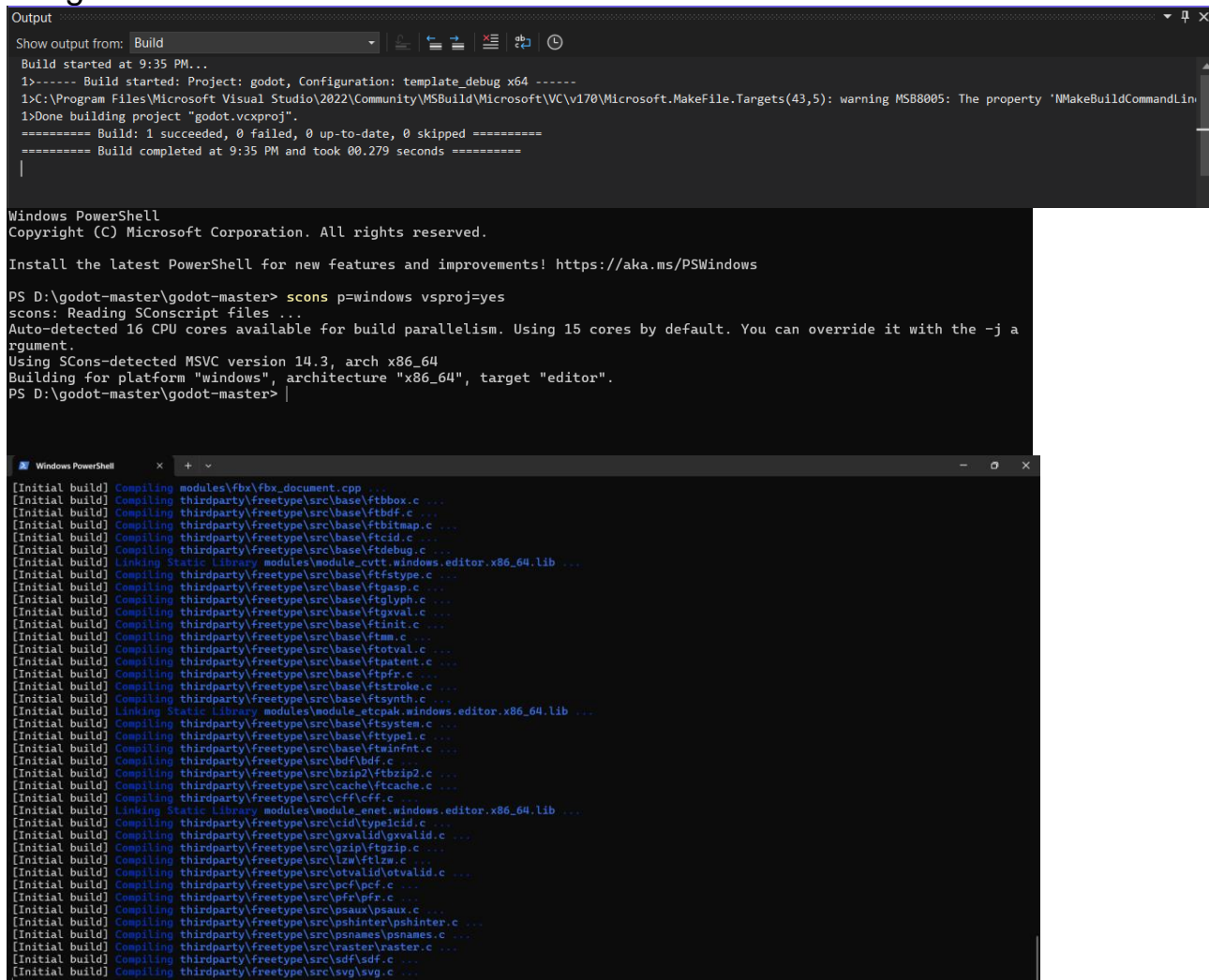
I was able to learn about how an engine work and how to build it from the source, also a lot of the steps to proceed and that all this almost kill my CPU. I must say that I have a little error at the end, but even with it I can build correctly, but I'll try to correct it anyway.

Open issues/risks [Optional – remove heading/section if not used!]:

- One of the command lines given crashes in the middle of the download.

Recommendations [Optional – remove heading/section if not used!]:

- To correct the issue there are 2 options, try with another code given in the documentation, or close all things except the command prompt and try again if the CPU was the problem.

Images:

```
Output
Show output from: Build
Build started at 9:35 PM...
1>----- Build started: Project: godot, Configuration: template_debug x64 -----
1>C:\Program Files\Microsoft Visual Studio\2022\Community\MSBuild\Microsoft\VC\v170\Microsoft.MakeFile.Targets(43,5): warning MS88005: The property 'NMakeBuildCommandLine' is not defined for this project.
1>Done building project "godot.vcxproj".
===== Build: 1 succeeded, 0 failed, 0 up-to-date, 0 skipped =====
===== Build completed at 9:35 PM and took 00.279 seconds =====
|

Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS D:\godot-master\godot-master> scons p=windows vsproj=yes
scons: Reading SConscript files ...
Auto-detected 16 CPU cores available for build parallelism. Using 15 cores by default. You can override it with the -j a
rgument.
Using SCons-detected MSVC version 14.3, arch x86_64
Building for platform "windows", architecture "x86_64", target "editor".
PS D:\godot-master\godot-master> |

[Initial build] Compiling modules\fbx\fbx_document.cpp
[Initial build] Compiling thirdparty\freetype\src\base\ftbbox.c
[Initial build] Compiling thirdparty\freetype\src\base\ftbdf.c
[Initial build] Compiling thirdparty\freetype\src\base\ftbitmap.c
[Initial build] Compiling thirdparty\freetype\src\base\ftcid.c
[Initial build] Compiling thirdparty\freetype\src\base\ftdebug.c
[Initial build] Linking Static Library modules\module_cutt.windows.editor.x86_64.lib
[Initial build] Compiling thirdparty\freetype\src\base\ftfstype.c
[Initial build] Compiling thirdparty\freetype\src\base\ftgasp.c
[Initial build] Compiling thirdparty\freetype\src\base\ftglyph.c
[Initial build] Compiling thirdparty\freetype\src\base\ftgxval.c
[Initial build] Compiling thirdparty\freetype\src\base\ftinit.c
[Initial build] Compiling thirdparty\freetype\src\base\ftmm.c
[Initial build] Compiling thirdparty\freetype\src\base\ftotval.c
[Initial build] Compiling thirdparty\freetype\src\base\ftpatent.c
[Initial build] Compiling thirdparty\freetype\src\base\ftpcf.c
[Initial build] Compiling thirdparty\freetype\src\base\ftstroke.c
[Initial build] Compiling thirdparty\freetype\src\base\ftsynth.c
[Initial build] Linking Static Library modules\module_etcpak.windows.editor.x86_64.lib
[Initial build] Compiling thirdparty\freetype\src\base\ftsystem.c
[Initial build] Compiling thirdparty\freetype\src\base\ftyp1.c
[Initial build] Compiling thirdparty\freetype\src\base\ftwinfnt.c
[Initial build] Compiling thirdparty\freetype\src\bdfl\bdfl.c
[Initial build] Compiling thirdparty\freetype\src\gzip\ftgzip.c
[Initial build] Compiling thirdparty\freetype\src\cache\ftcache.c
[Initial build] Compiling thirdparty\freetype\src\cff\cff.c
[Initial build] Linking Static Library modules\module_enet.windows.editor.x86_64.lib
[Initial build] Compiling thirdparty\freetype\src\cid\type1cid.c
[Initial build] Compiling thirdparty\freetype\src\gxvalid\gxvalid.c
[Initial build] Compiling thirdparty\freetype\src\gzip\ftgzip.c
[Initial build] Compiling thirdparty\freetype\src\lzw\ftlzw.c
[Initial build] Compiling thirdparty\freetype\src\otvald\otvald.c
[Initial build] Compiling thirdparty\freetype\src\pcf\pcf.c
[Initial build] Compiling thirdparty\freetype\src\pfr\pfr.c
[Initial build] Compiling thirdparty\freetype\src\psaux\psaux.c
[Initial build] Compiling thirdparty\freetype\src\psinter\psinter.c
[Initial build] Compiling thirdparty\freetype\src\psnames\psnames.c
[Initial build] Compiling thirdparty\freetype\src\raster\raster.c
[Initial build] Compiling thirdparty\freetype\src\sdf\sdf.c
[Initial build] Compiling thirdparty\freetype\src\svg\svg.c
```



(Me during this spike).