**Requirements – necessary python modules:**

Please install miniconda:

<https://docs.conda.io/en/latest/miniconda.html>

Open Anaconda PowerShell prompt via windows search bar

Using the provided requirements.txt found in the root directory of the project type the following command

conda create --name tensorflow python=3.6 --file DIRECTORY\_TO\_REQUIREMENTS.TXT

Once installation is complete, you should be good to go please run the BuildingGeneratorTool project. In this tool you will be asked to specify the miniconda install location, by default this should be at:

C:\Users\USERNAME\Miniconda3

You will also be asked to provide a building blueprint, of which I have left examples in root directory \Test Images folder. For reasons unbeknownst to me, the C# project puts lock guards on these images stopping the python script reading them, so **please move the Test Images folder to your desktop or pictures directory**.

**Please maintain the file structure of the project, for they are interlinked with one another.**

**Should know:**

Once you generate data in the BuildingGeneratorTool, run the DirectX tool in the following location:

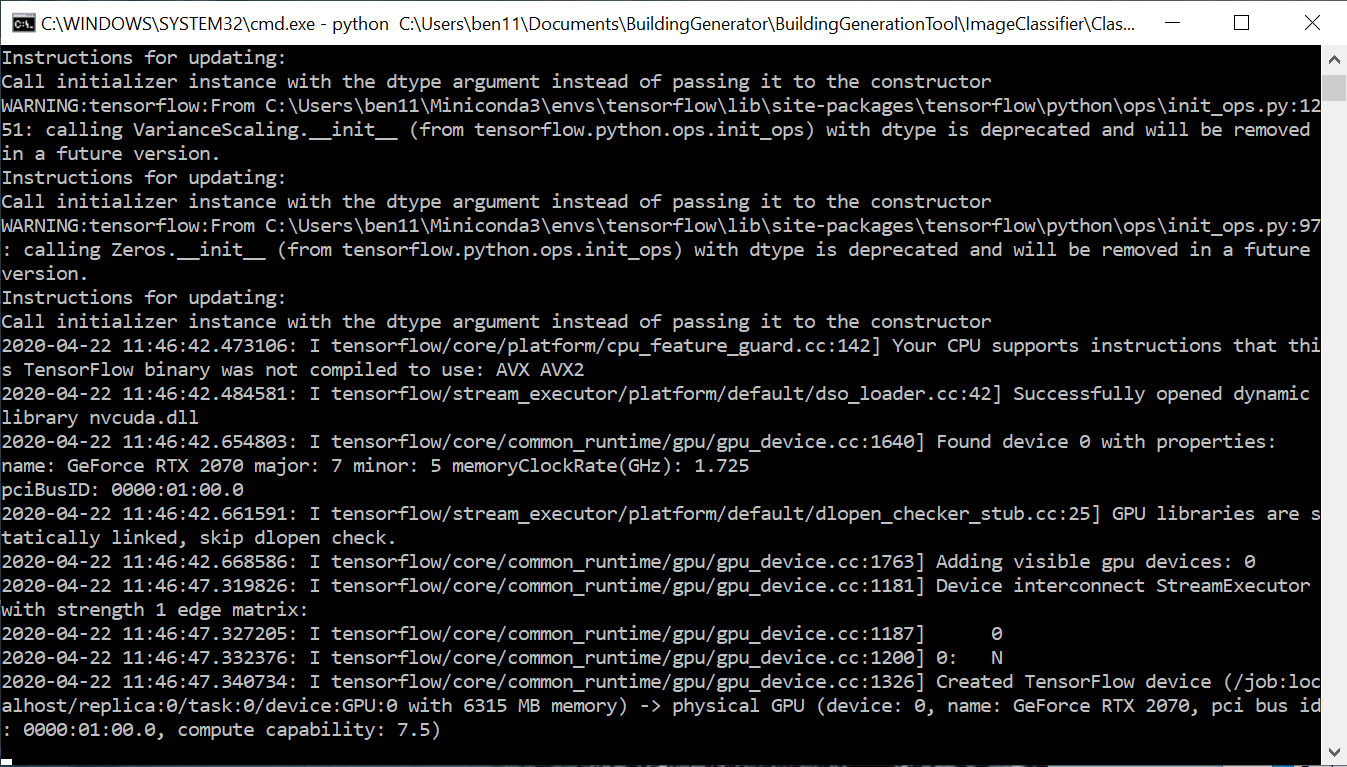
BuildingGenerator\BuildingGenerationTool\DirectXTool

In the DirectX project, camera movement happens with the mouse scroll and WSAD. The user should also click to interact with objects in the world space.

**When exporting the obj it saves to the following directory:**

BuildingGenerator\BuildingGenerationTool\DirectXTool\DirectXTool\objFile.obj

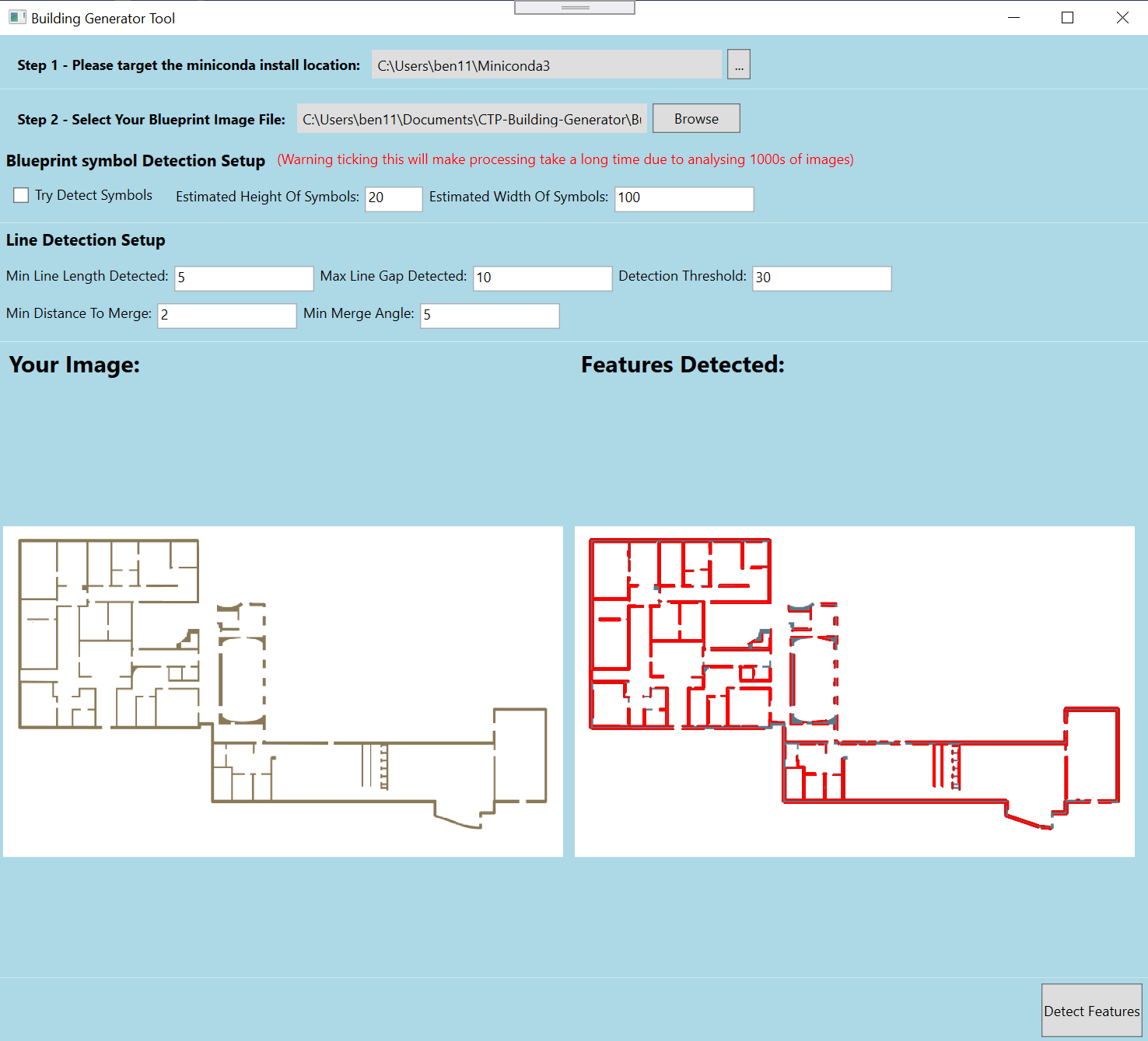
If you see a cmd window popup looking something like this, do not worry it is processing in the background and has not stalled, and is just searching for blueprint icons:



If you have any issues, feel free to email me here:

[Benjamin6.green@live.uwe.ac.uk](mailto:Benjamin6.green@live.uwe.ac.uk)

What you should expect to see in both tools if working correctly:





By default, the DirectX project is loaded with a building example, so if you can’t get the tool to work due to python installation being challenging, just run the DirectX project.