Building OpenCascade from Source using CMake and Visual Studio 2022

# Pre-Requisites

Download and install CMake <https://cmake.org/download/>

You need a single folder to hold all the files and source, call it OCCT-Build

If you need them OCCT instructions for building with CMake are [here](https://dev.opencascade.org/doc/overview/html/build_upgrade__building_occt.html#build_occt_win_cmake)

Install FreeType and TCL-TK 3rd Party Products from [here](https://dev.opencascade.org/resources/download/3rd-party-components)

* Ensure you install them in the root of your OCCT-Build in folders named freetype-2.5.5-vc14-64 and tcltk-86-64 vc12-64
* You specially need Freetype 2.5.5 for vc14 and x64

and

* Tcl/Tk 8.6 for vc14

Open CMake Gui

* File->Delete Cache
* Update the CMakeLists.txt line 1 to "cmake\_minimum\_required (VERSION 3.5 FATAL\_ERROR)"
* Set the "Where is the source code" item to the OCCT-Build folder
* Create a "Builds" folder in the root of your OCCT-Build
* Set the “3RDPARTY\_DIR” variable to your OCCT-Build folder
* Set the "Where to Build the Binaries" to a "Builds" sub-folder of OCCT-Build
* Set the INSTALL\_DIR to an “Install” sub-folder of OCCT-Build
* Set the Modules to build, see Figure 1
* Select the Configure button
* Select the Generate button
* Select the Open Project button
* In Visual Studio Build->Batch Build, choose the versions you want to build, select one or more, Debug and maybe Release, ReleaseWithDebugInfo is useful, do both INSTALL and ALL\_BUILDS
* Select build

Go make a coffee

To build an x86 version, delete the CMake cache on the CMake->file menu and repeat the above but choose a Win32 version

A screenshot of a computer program

Description automatically generated

Figure Modules to Build Minimum