DEPENDENCIES

1. GDAL 3.0 or greater, with PROJ

It is offered as a .zip file containing GDAL built together with PROJ.
COMPILATION DOWNLOAD (lib and headers)::
http://download.gisinternals.com/sdk/downloads/release-1900-x64-gdal-3-0-4-mapserver-7-4-3-libs.zip
EXECUTION DOWNLOAD (dll):
http://download.gisinternals.com/sdk/downloads/release-1900-x64-gdal-3-0-4-mapserver-7-4-3.zip

The compilation download must be placed inside the helios-plusplus directory as follows:
`lib/gdal/include/` MUST contain header files (.h and .hpp)
`lib/gdal/lib/` MUST contain the gdal_i.lib file

WARNING: It is required to rename the `lib/gdal/include/boost` folder to `lib/gdal/include/boost-gdal` otherwise conflicts between used boost version and gdal will occur, leading to compilation errors.

The execution download contain the dll files which shall be added to the PATH or placed into the same folder where the helios executable is placed after compilation.

2. GLM 0.99 or greater

The OpenGL mathematics header only library.
LINK: https://github.com/g-truc/glm
DOWNLOAD LINK:
https://github.com/g-truc/glm/releases/download/0.9.9.7/glm-0.9.9.7.zip

It must be placed inside the helios-plusplus directory as follows:
`lib/glm` MUST contain the unzipped `glm/glm` folder

3. **BOOST 1.72.0**

   Boost library for C++.
   LINK: https://www.boost.org/users/history/version_1_72_0.html
   DOWNLOAD LINK:
   https://dl.bintray.com/boostorg/release/1.72.0/source/boost_1_72_0.zip

   It must be unzipped inside the helios-plusplus directory.

   Also, download zlib (web page: https://www.zlib.net/) source (for instance: https://www.zlib.net/zlib1211.zip). Unzip it inside boost_1_72_0 folder. From now on, zlib 1.2.11 version will be assumed. However, if you are using another version, just change the path to zlib to match yours in following commands::

   ```
   cd lib/boost_1_72_0
   bootstrap.bat
   b2.exe -j6 -sNO_ZLIB=0 -sZLIB_INCLUDE="zlib-1.2.11"
   -sZLIB_SOURCE="zlib-1.2.11"
   ```

   Notice boost compilation can be accelerated using multithreading with -j parameter. For instance, to use 4 threads use -j4, to use 6 threads use -j6 and so on.

4. **tinyXML2**

   Already integrated in Helios++ source.

BUILT

First of all, rename or copy CMakeLists_WINDOWS.txt as CMakeLists.txt.

Also, to build helios++ at windows, the release configuration must be used. Hence, if using visual studio, remember to change the build type to release.