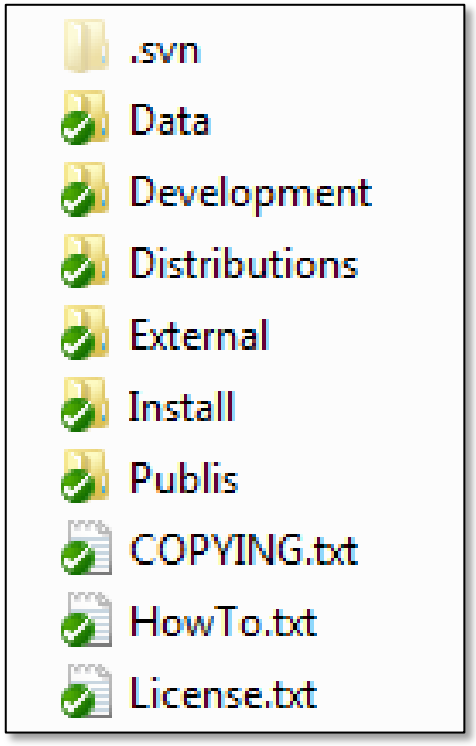
GigaVoxels
Project Environment

Root dir



Development : source code
Install : scripts to generate project environment

External : extern dependendies/libraries

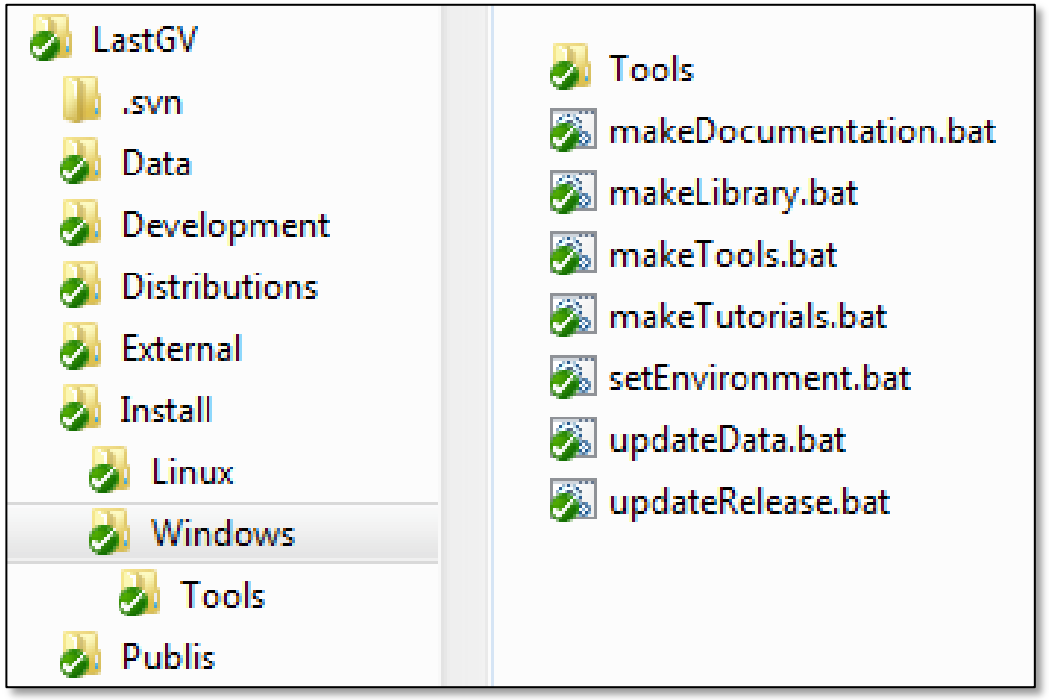
Data : common data used in tutorials

Distributions : files required to build installers

Publis : to be removed...

GigaVoxels
Project Environment

Project generation



Multi-plateform environment based on CMake

makeXXX : generate project environment for Library, Tutorials and Tools (Visual Studio solutions, Linux makefiles, etc...)

makeDocumentation : Doxygen documentation of the project

GigaVoxels
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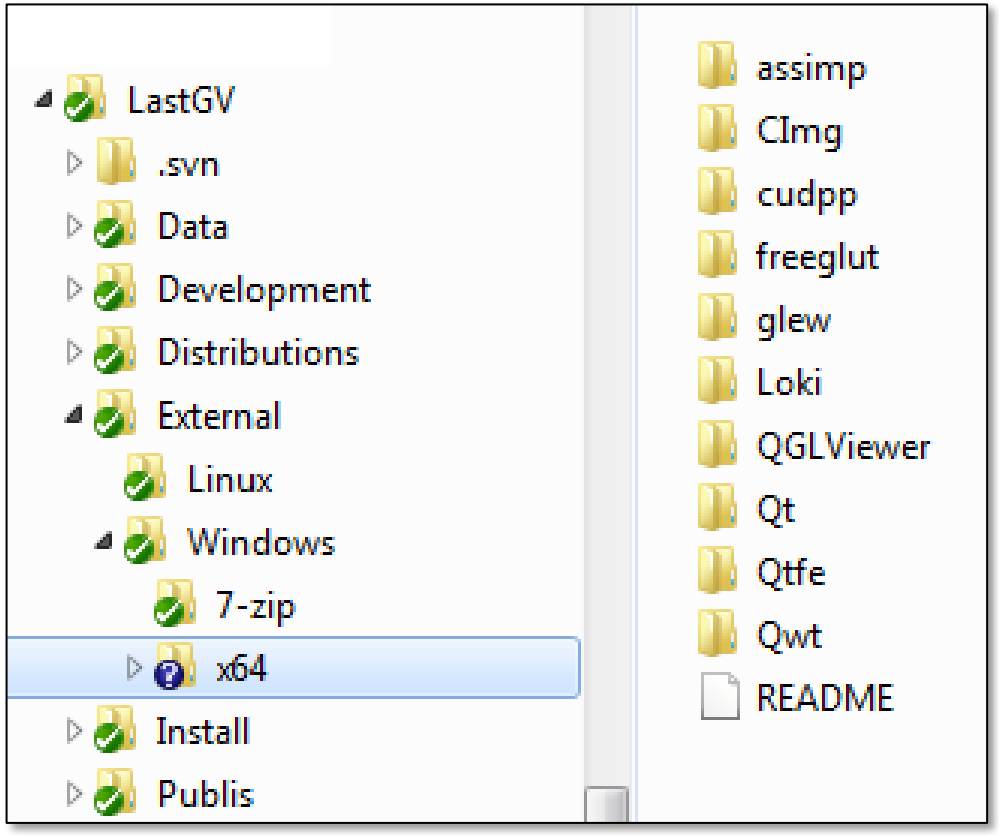
Dependencies

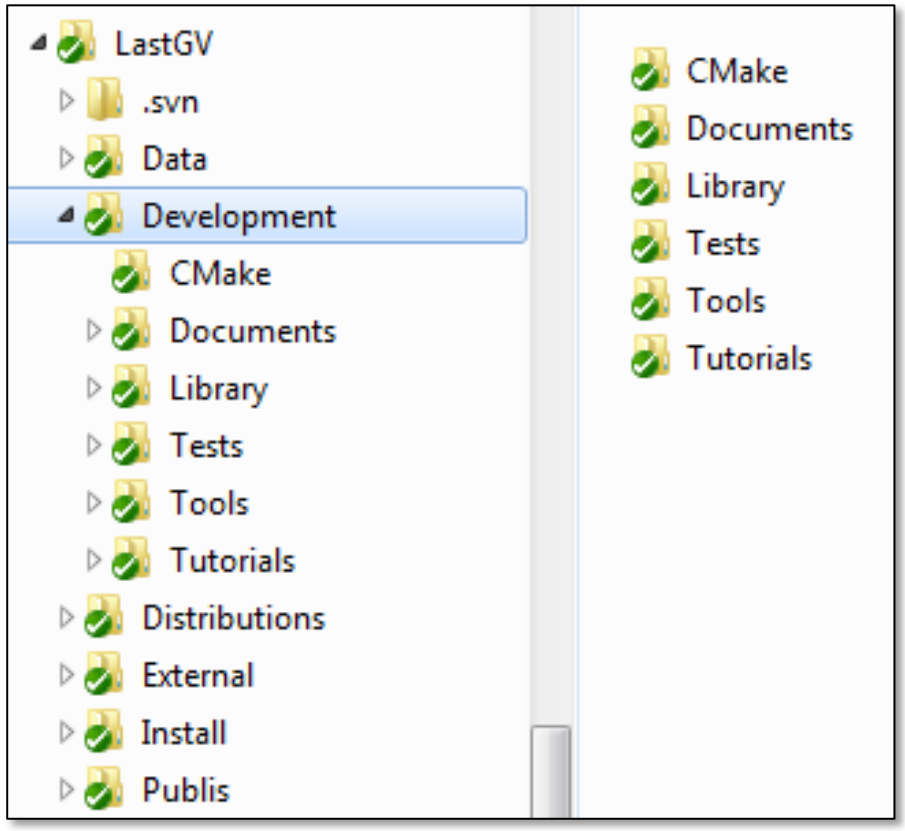


CORE
- CUDA : 5.0
- cudpp (cuda prefix sum, reduction, compaction, etc…)
- glew/freeglut (OpenGL)
- LOKI : C++ template

TUTORIALS / TOOLS specific
- Qt, QGLViewer : 3D window, editors
- Qwt : Qt plots
- Qtfe : transfer functions editor
- Assimp : 3D models loader
- Cimg, ImageMagick : images loader

GigaVoxels
Project Environment

Development



Library : GigaVoxels library

Tutorials : SDK examples
Tools : viewer, voxelizer, etc...

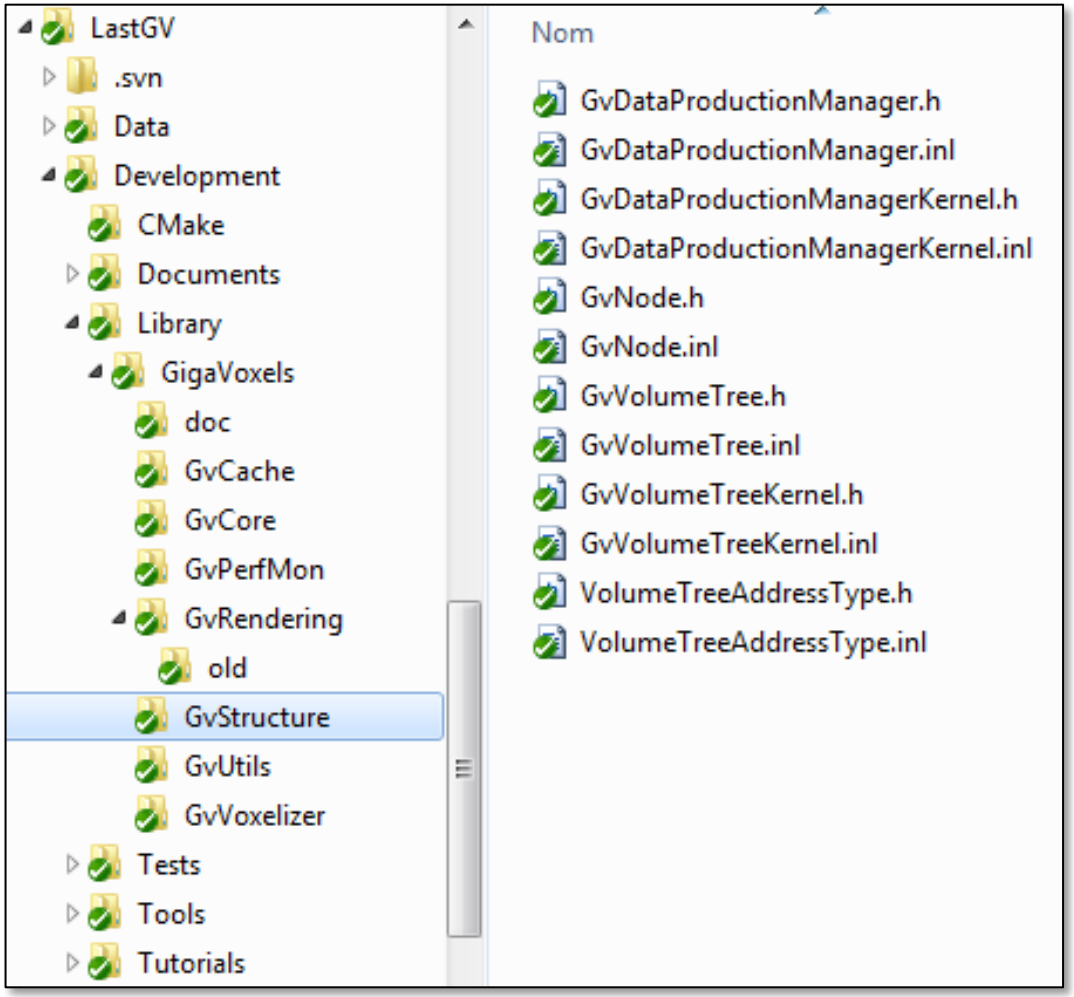
Tests : benchmarks, studies...

Documents : documentation

CMAKE
- all dependency modules used by CMake (to find all required Include and Library directories)
- commun CMake files to compile GigaVoxels library, tutorials and tools

GigaVoxels
Project Environment

Source code : LIBRARY



SHARED LIBRARY
(but lots of template…)

- GvCore : commun classes (CUDA features)
- GvStructure : data structure management (octree, N3-tree…)
- GvCache : cache management
- GvRendering : rendering management (GL interop)
- GvUtils : useful base/common classes to ease develoment
- GvVoxelizer : to pre-process meshes
- GvPerfMon : performance monitoring