CMake-Tutorial

Dennis Groß

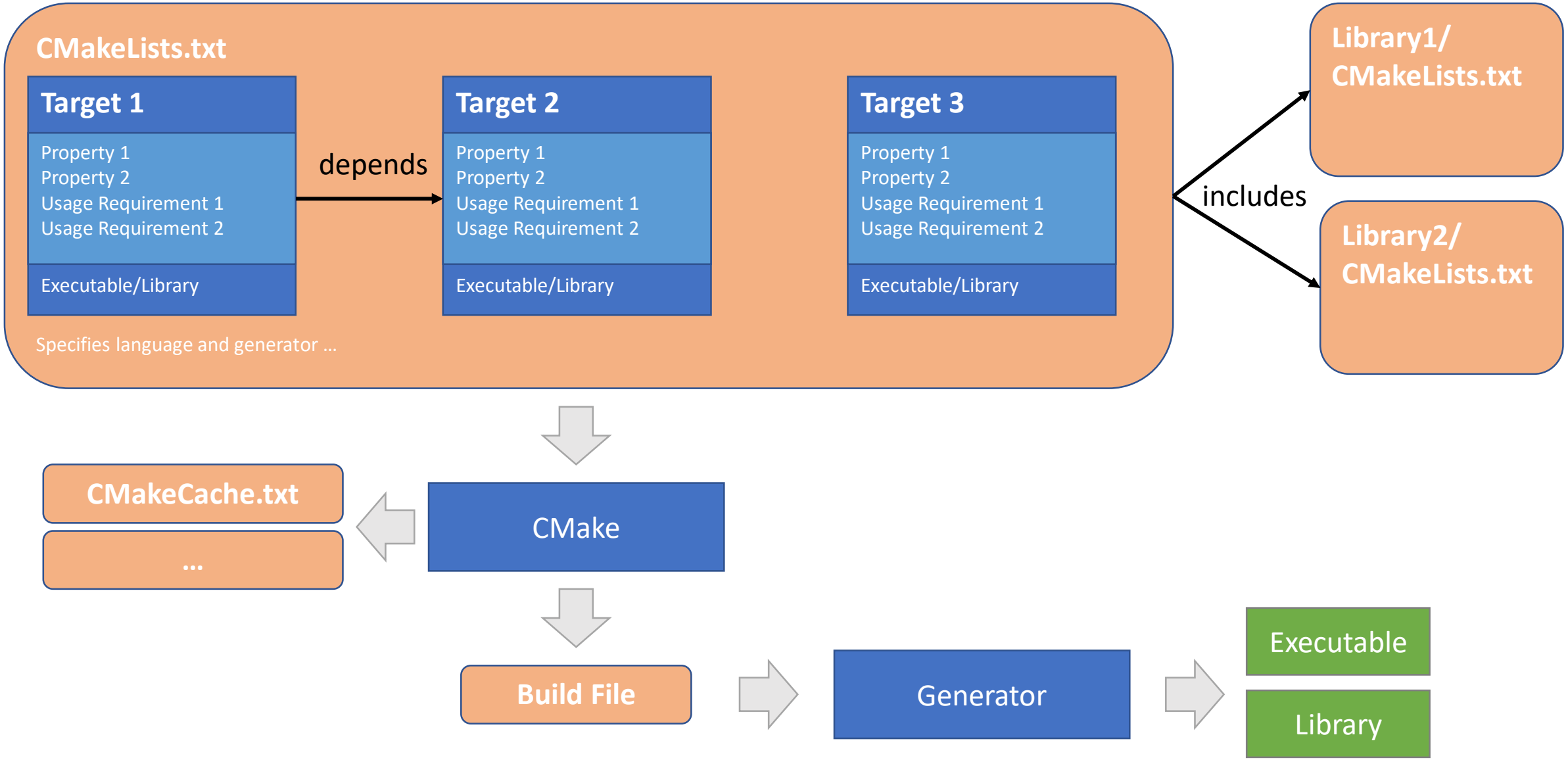
What is a Build System?

- It is a collection of tools for automating the program compilation
- At its core, there is normally a functional based language. It maps a set of source resources (files) to a target (executable/libraries).
- Build Systems: Make, Ant, Jam, ...

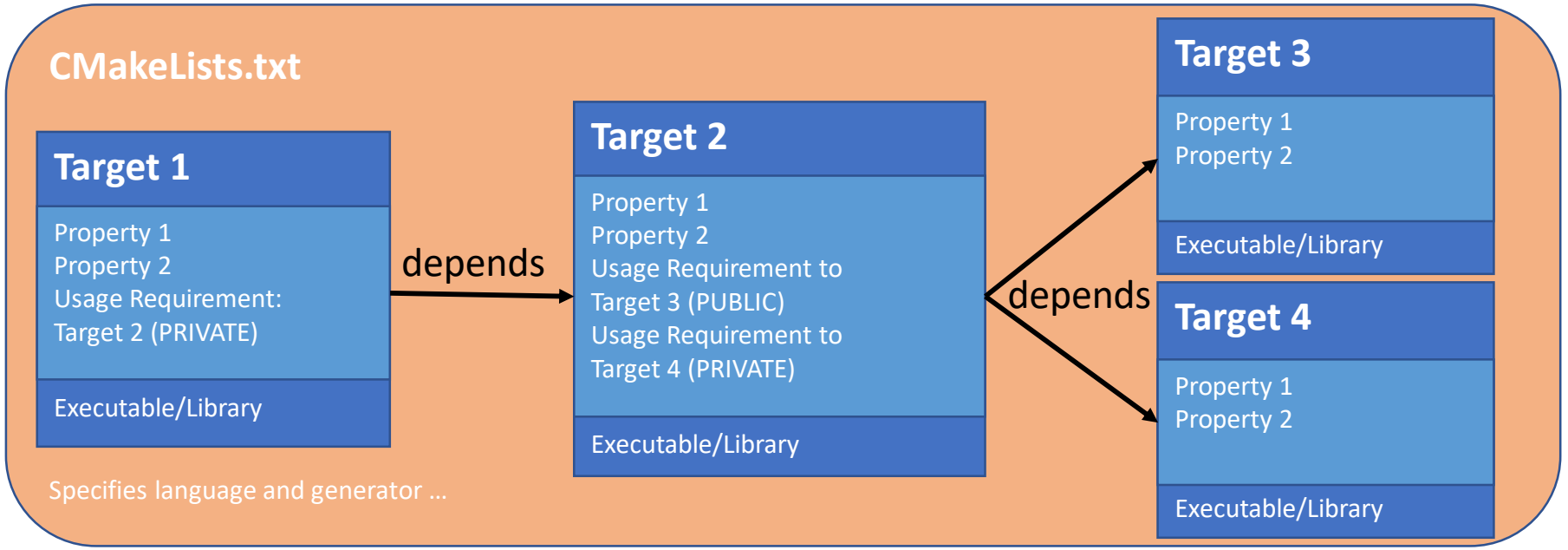
What is CMake?

- CMake builds build systems
- Can be used for multiple programming languages
- Open Source

How does CMake work?

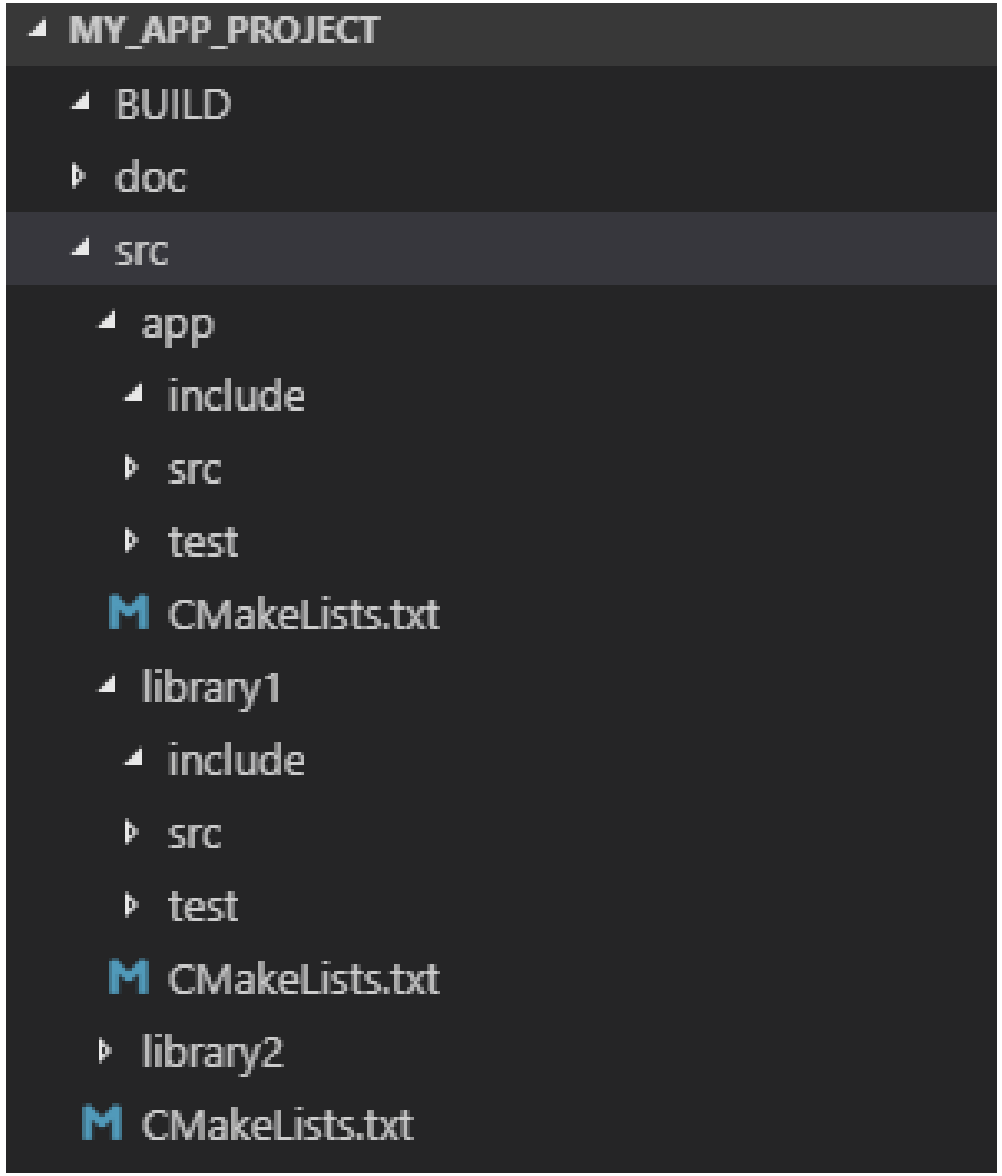


PUBLIC, PRIVATE and INTERFACE



- PUBLIC Usage Requirements are propagated to Childs
  (i.e *Target Usage Requirement to Target 3* is propagated to Target 1)
- PRIVATE Usage Requirements are NOT propagated to Childs
  (i.e *Target Usage Requirement to Target 4* is NOT propagated to Target 1)
- INTERFACE If dependency only used by its header, you can use INTERFACE dependencies

Recommended Project Structure



References

- https://cmake.org/cmake/help/v3.14/index.html