CMake Language

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Organization

CMake Source files are organized into:

- Directories (CMakeLists.txt)

- Scripts (<script>.cmake)

- Modules (<modules>.cmake)

Variables

- Basic unit of storage

- Values are always of string type (but some commands may interpret the strings as values of other types)

- Use *set()/unset()* to initialize/delete Variables in the current scope

- Use Variable reference *${<variable>}* to access variable values.
  If a variable is not set, the variable value is a empty string

- Environment variables have got a global scope

- Environment variable reference: *$ENV{<variable>}*

- Cmake Variables (Provide information, change behavior, control the build, …)

- There are also lists, which can be *set()/unset()*

Scopes

- Function Scope: A variable in this scope is only visible for the current function and any nested calls within it

- Directory Scope: Each of the Directories in a source tree has its own variable bindings

- Persistent Cache: This variables are stored in a separate cache and they are persist across multiple CMake runs

Control Structures

- *if()/elseif()/else()/endif()*
- *foreach()/endforeach()*
- *while()/endwhile()*

Command Definitions

- *macro()/endmacro()*
- *function()/endfunction()*