CMAKE Cheatsheet

The Basics

Basic commands

Project definition	`project ( <NAME> )`
cmake version requirement	`cmake_minimum_required( VERSION 2.8.7 )`
Add a subdirectory to cmake	`add_Subdirectory(src)`

Executables and Libraries

Targets

Add library target	`Add_Library ( data ${DATA_SOURCES} )`
Add dependency libraries (for library or an executable)	`Target_Link_Libraries (test_generator util data fix fixml)`
Add executable target	`add_executable(${CPP_EXE} ${CPP_FILE})`

Add an executable target for each cpp file	`foreach ( CPP ${SAMPLES_SRCS} )`
	`get_filename_component(EXE ${CPP} NAME_WE )`
	`add_executable ( ${EXE} ${FILE} )`
	`endforeach( CPP_FILE )`

Files

Filenames

Get files by their names using wildcard (here all cpp files)	`File ( GLOB <VAR_NAME> *.cpp )`
Get filename without extension	`get_filename_component(FNAME ${CPP} NAME_WE)`
Get name without directory	`get_filename_component(FNAME ${CPP} NAME)`
Get file extension (longest)	`get_filename_component(FEXT ${CPP} EXT)`
Get file absolute path	`get_filename_component(FPATH ${CPP} ABSOLUTE)`
Get file absolute path with sym-links resolved	`get_filename_component(FPATH ${CPP} REALPATH)`
Get file directory	`get_filename_component(FDIR ${CPP} DIRECTORY)`

C++

Compiler

Define C++ standard requirement of the compiler (here c++14)	`set(CMAKE_CXX_STANDARD 14)` `set(CMAKE_CXX_STANDARD_REQUIRED ON)`
Add compilation flag	`add_definitions ( "-std=c++11" )`
Add include directory	`Include_Directories(${Xerces_INCLUDE_DIRS})`

Tests

Tests

TODO	`Command`

Packaging and Installation

Packaging

TODO	`Command`

Installation

TODO	`Command`