QT\_HMI

Unit Test Instruction

Version 1.0.0

Revision History

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| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| Apr/03/2018 | 1.0.0 | Unit Test Structure and build |  |
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# Introduction

## Overview

This article describes the test environment architecture, involves the code structure and test tool path planning and specification .

Using Google Mock and Google Test testing tools, the version uses googletest-release-1.8.0.

## Scope

Code-level interface tests, check problems at the code.

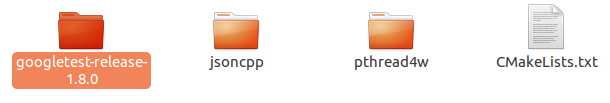
Improve program stability.

# Test Tool Configuration

Using Google Mock and Google Test testing tools,the version uses googletest-release-1.8.0

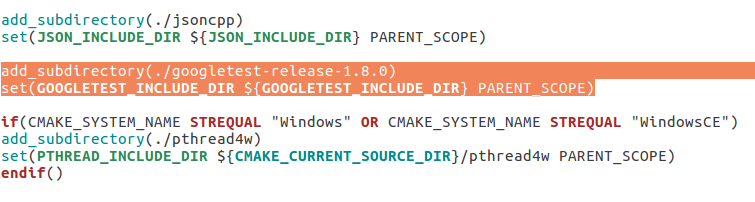
## Add Test Tool

In the tools directory，as follow：



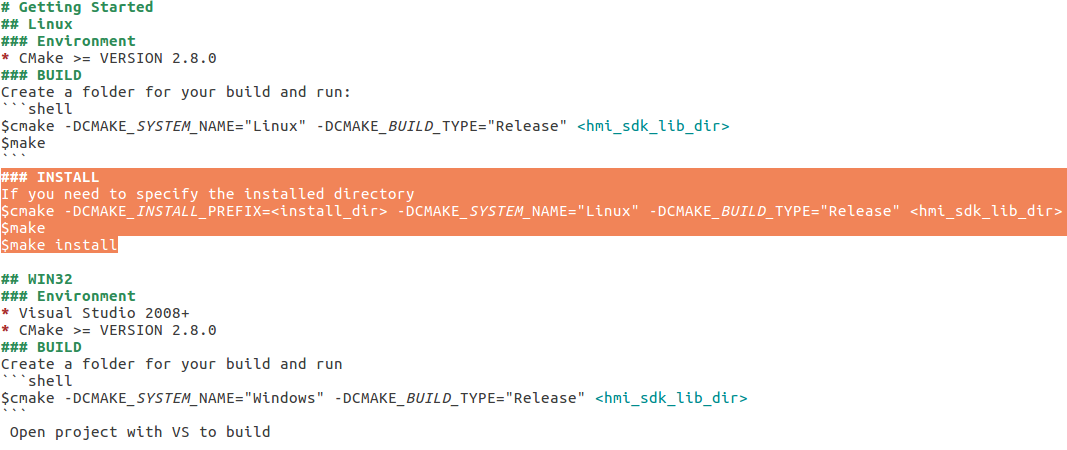
## Cmake Configuration

Modify CmakeList.txt in the tools directory，and add configuration for googletest-release-1.8.0，as follow：



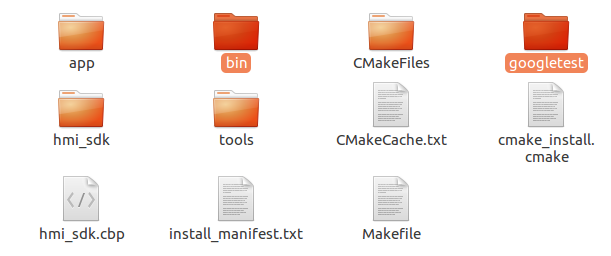
## Modify README.md Document

Add INSTALL Description in the README.md Document ,as follow:



## Cmake Install Structure

Specify the installation directory as ”googletest” and the make & make install results are as follows:



There are two newly generated directories bin directory and googletest directory.

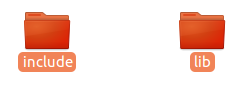
### bin directory

The content is as follows：



### googletest directory

1. The content of googletest directory is as follow：



1. The content of lib directory is as follow：



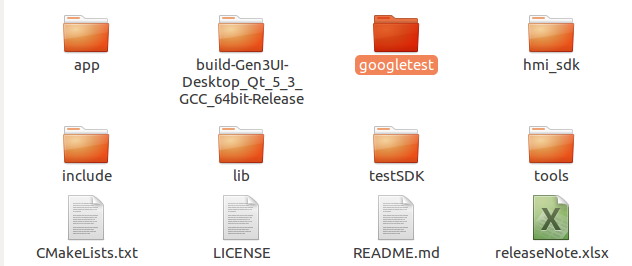
# Test Environment Configuration

## Install Test Tool

1. Specify the install directory as googletest
2. Put the generated bin directory under googletest directory



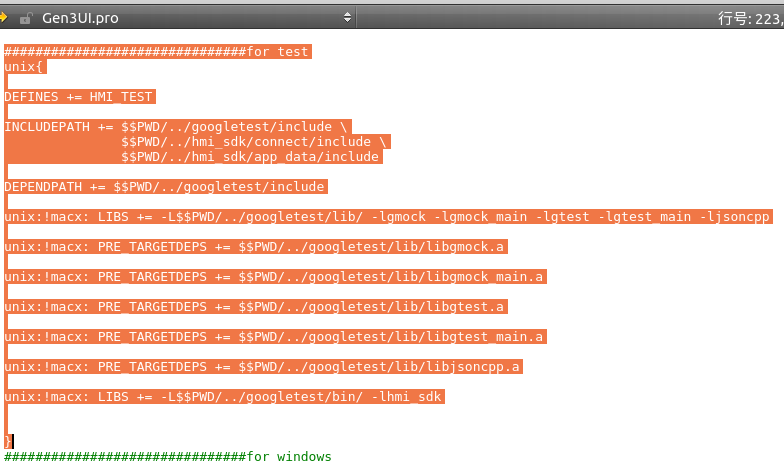
1. Deploy test tools



Put the googletest directory under HMI\_SDK\_LIB directory . Same level as hmi\_sdk directory.

## Configure The Qt Project

Add the test module in the pro file as follows:



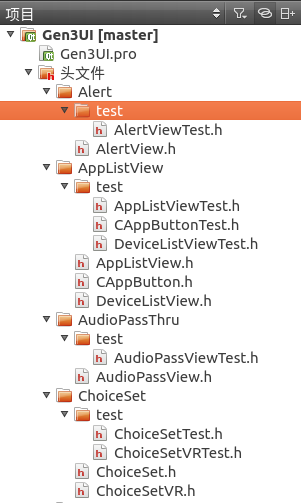
Defines: HM\_TEST

Header dependencies: googletest, hmi\_sdk

Library dependencies: libgmock.a, libgmock\_main.a, libgtest.a, libgtest\_main.a, hmi\_sdk.so, jsoncpp.a

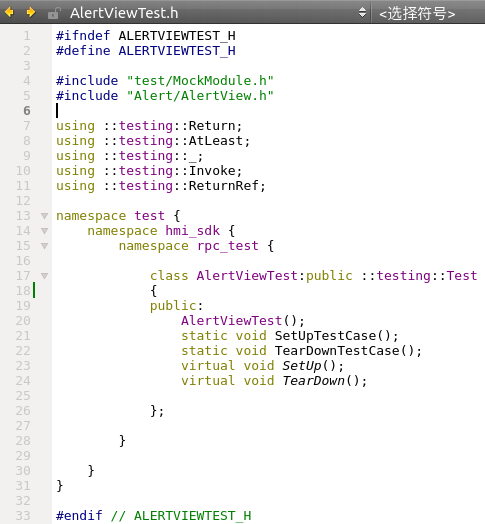
# Qt Project Test Structure

## Add Test Module For every Module

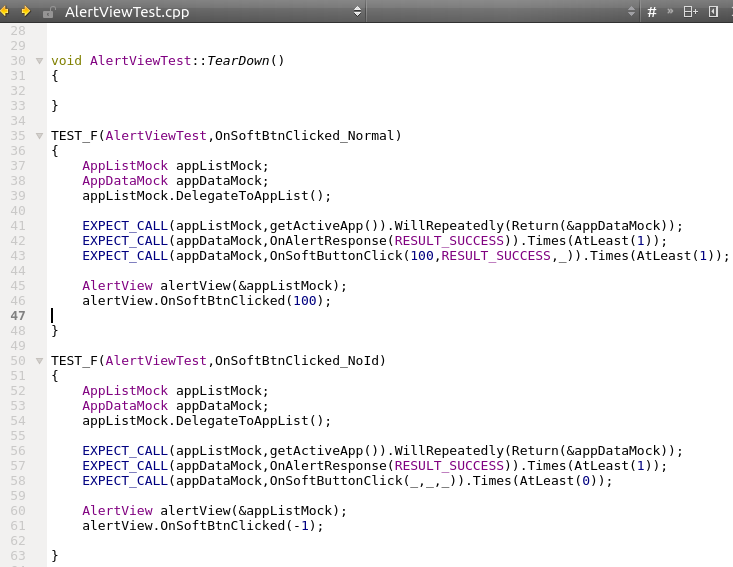


Add the test directory under each module and add the Test file under the test directory.

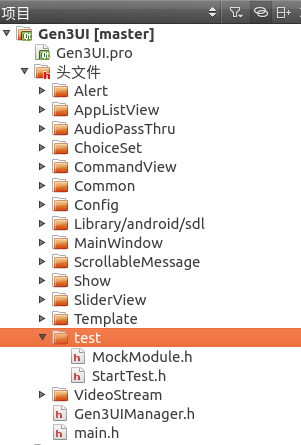
### Test Class Header File



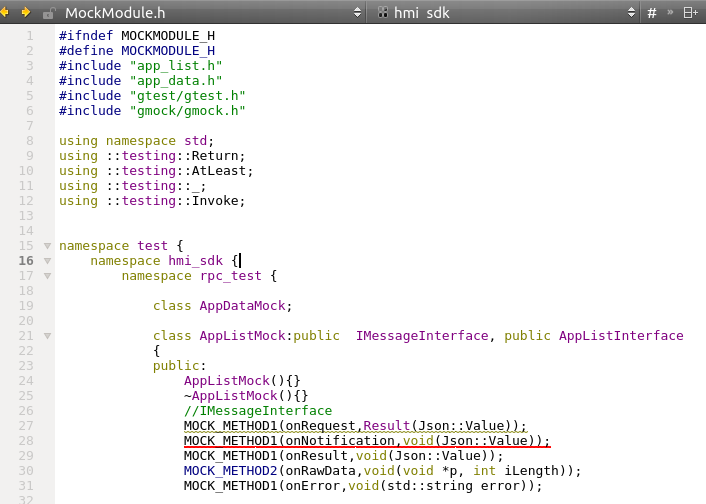
### Test Source Files

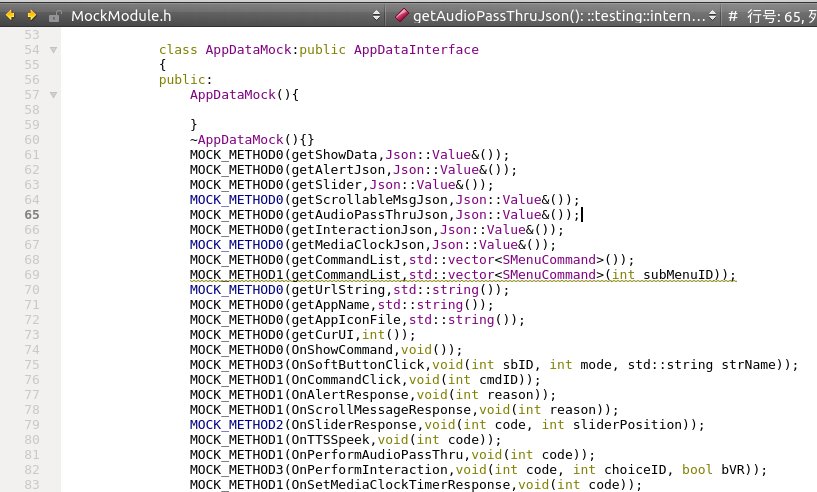


## Add Test Module For Main Directory



### Configure The Mock Class





Add the mock class int the MockModule.h .