**INTERGRATION TESTING**

1. **What is IT?**

IT is a software testing process in which individual software modules are combine and tested.

S0 is tested when a funtion is called (S0 would be placed after the first curly bracket of this function).

S1 is tested when a child function in current function is called (S1 would be placed before that child function called).

1. **Step to Implement IT with board**

We have 3 environments for implement IT: VDI (tamcotran), LAB(172.29.145.75), BOARD(192.168.10.112)

* 1. **How to export file Test Report**

**Step 1: Build and export log file (.txt)**

Login your acount in MobaXteam.

If you see “%” in screen, type “bash”.

Typing “pwd” to check directory.

Typing “cd /data1/tamtran/rcar-env/build”.

Now, you’re in directory “/data1/tamtran/rcar-env/build”

Typing “git branch” to make sure to you’re in correct branch that named “dev-xos3-imp-Sprint23\_dsp\_fix\_AOU\_ASCXOSIIPDRDEV-4606-it”

Typing “ls -l” to check file in this directory, if it has any file, you would remove them by command “rm -rf \*” and check again.

Typing the command:

*"cmake -G "Unix Makefiles" -DCMAKE\_TOOLCHAIN\_FILE="../cmake/toolchain\_poky\_3\_1\_11\_adas.cmake" -DRCAR\_SOC=V4H2 -DSDKROOT=/data2/huypham/poky/3.1.11 -DRCAR\_OPEN\_SOURCE\_SOURCE\_DIR="/data2/huypham/rcar-env-opensource" .."*

If you see error, you need to type command "source ~/.bash\_profile" to update all tools for this process.

Then build file by command “cmake --build . --target imp\_....\_step…”

Login BOARD by command “ssh [root@192.168.10.112”](mailto:root@192.168.10.112\”)

Copy each files into BOARD(192.168.10.112).

Now, you’re in BOARD

Build all files that have been transmitted from LAB by command “./…… > log.txt”, how many files you transmit, how many log.txt you receive

Bring all log files into LAB again.

Now, you would have log files for each steps in LAB.

**Step 2: From log files (.txt) to Test Report (.xlsx)**

You have to bring log files from LAB into VDI.

In the directory having tool to export to file excel (.xlsx) (convert2report), it has 1 file (.py) (convert2report.py) and 1 file (.json) (config\_it.json).

You have to enter file .json to modify, it will have 4 essential sections to modify.

1. Directory to test spec.
2. Directory to test report.
3. Sheet spec.
4. Directory to log files.

Then you type command “python convert2report.py -c config\_it.json”.

Now you wil have file report (.xlsx), you have to refill test report from that file.

* 1. **How to export file S0S1 Report**

**Step 1: Export source code having S0S1 (.c)**

In VDI, from directory having file config.json, you have to modify 2 sections:

1. S0S1\_InSource
2. S0S1\_OutSource

In this directory, it has file (.py)(s0s1\_tester.py), you will type command “python s0s1\_tester.py -c maker -i config.json”.

Now you will have a directory suitable with S0S1\_OutSource, in this having all source files you need.

**Step 2: Build and export log file (.txt)**

Copy all sources you have created from step1, trasmit them to LAB.

Doing step by step like step 1 of “**How to export file Test Report**” until building file by command “cmake --build . --target imp\_....\_step…”, you have to build file have “s0s1”.

And step by step like step 1 of “**How to export file Test Report**” until you have all log files for each step.

**Step 3: From log files (.txt) to Test Report (.xlsx)**

You also have to bring log files from LAB into VDI.

In directory having file config.json, you have to modify 2 sections:

1. S0S1\_InLog
2. S0S1\_report.

Then you type command “python s0s1\_tester.py -c report -i config.json”.

Now you wil have file report (.xlsx), you have to refill test report from that file.