User Standard suite build usage

**Software Quality Team**

**Abstract:**

TMP client is created to support all test suites in LSH with the same format. Standard suite build usage will focus on the detail work flow on suite building.

REVISION HISTORY

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# 1 Objective

Standard suite build usage will focus on the detail work flow on suite building, including the suite structure, detail requirements and default setting for every folder or file and some demo suite.

# 2 Test suite Build

Test suite is a collection of sub-suite folders, test cases and description files. A test suite often contains detailed instructions or goals for each collection of test cases and information on the system configuration to be used during testing.

## 2.1 Top directory creates

The top directory of test suite is used to collect all files or folders which will be used in suite run flow including: sub-suite files, cases and test suite info (the .xlsx file)… Top directory can be any name. For example:

./suite1

./case1

./case2

./case3

./sub-suite1

./sub-suite2

./regression.xlsx

./other files

Here, “suite1” is the test suite name.

To build a top directory of test suite, the user need to:

1. build test case one by one
2. collect all test cases, sub-suites and test suite info file to construct test suite

## 2.2 Test case build

For test case build please refer: User Standard case build usage.docx

## 2.3 Test suite info file build

Test suite info file (the .xlsx file) is a case list and configure file for test suite regression use. Since this file includes the suite and case list information, sometimes we also name it suite file. The method to build it will be given in chapter 3.

## 2.4 Demos:

There are three demos for Diamond, Icecube and radiant suite build which are located at the next level of the demos’ folder

### 2.4.1 Diamond demo

The suite is in the directory of diamond\_demo. The diamond\_suite is the suite name. The folders like cmd\_flow, design\_entey, general\_flow are sub-suites. Next subdirectories of them are cases, for example: run\_all, run\_map in the directory of cmd\_flow.

### 2.3.2 icecube demo

The suite is in the directory of icecube \_demo. The construction is like diamond.

### 2.3.3 Radiant demo

The suite is in the directory of radiant \_demo. The construction is like diamond.

Tips: 1. the folders of cases and test suite info (the regression.xlsx) should be put into the same directory to construct a test case suite.

2. Normally, the cases are divided into different sub-suite folders or in the suite folder directly according to its function to construct the suite.

# 3 Test suite info file Build

The content below will show how to build the test suite info (the regression.xlsx) and try to standard the interface between user and command entry (component of TMP), user need to following the rules below before uploading test suite into TMP platform.

There are four sheets in every test suite info file, they are suite sheet, case sheet, description sheet and comments sheet. The user needs to modify some info here to build its suite file.

Six options must be filled in the suite sheet which is the equivalent of the requirement list of all the cases including four requirements: Environment, Software, System, Machine and two illustrations: CaseInfo, LaunchCommand.

For uploading the suite to TMP platform, anther two options should be filled: project\_id and suite\_name. The meaning of them and how to fill them will be introduced in chapter 3.1.

## 3.1 Suite sheet:

Suite sheet used to summary the test suite common info.

It will construct by [suite\_info] and [macro], in which [suite\_info] is must while [macro] is optional.

### 3.1.1 Suite\_info

Suite\_info is a list of the cases requirement.

#### 3.1.1.1 Illustration

The suite\_info listed some basic rules that the cases need to obey. This information required by automation regression platform (TMP) to indicate where the cases are, extra requirements for test case run and how to launch it in test suite level. All information will be upload to TMP website.

#### 3.1.1.2 Requirements

* Note that the priority of case is higher than suite. In another words, if these info redefined in case sheet, the case will be implemented according to the info in the case sheet.
* Please keep the name: ”project\_id, suite\_name, CaseInfo, Environment, LaunchCommand, System, Machine” since there are linker with internal database.
* Project\_id: It’s an identifier to the items in the TMP platform of Lattice. For example: the identifier of Diamond is 3; the identifier of iCEcube2 is 4. Please go to TestRail project level to see which project you would like to insert this suite and record the project id. Typically the project id will like ”P<digital>”on the website, just put the digital number here.
* Suite\_name: please type your suite name
* Other options will be introduced in chapter 3.2.

#### 3.1.1.3 Demo

Take the diamond regression for example:

|  |  |  |  |
| --- | --- | --- | --- |
| [suite\_info] |  |  | |
| project\_id | 3 |  | |
| suite\_name | misc\_diamond\_regression |  | |
| CaseInfo | repository = http://lshlabd0001/platform/trunk/bqs\_scripts/regression\_suite | | |
| suite\_path | diamond\_suite |  | |
| Environment |  |  | |
| LaunchCommand | cmd = python DEV/bin/run\_diamond.py | |  |
| Software | diamond=3.9.0.48 |  | |
| System | os\_type=windows |  | |
| Machine |  |  | |

Additional: column 1 is option name, column 2 is option value. If you have multi values for same option name, please use semicolon (;) to separate them in the same cell or put it in the next line without option name:

example1: column A ∣column B ∣column C

name1 ∣value1; value2 ∣

example2: column A ∣column B ∣column C

name1 ∣value1 ∣

∣value2 ∣

Name2 ∣… ∣

### 3.1.2 Macro\_info

#### 3.1.2.1 Illustration

Macro section intends to offer a convenient way to build sections globally. Every test suite may have zero or several macro setting.

#### 3.1.2.2 Requirements

* The options always start with: condition or action
* The value in column must be found in Case sheet
* Expression: Current we only support these key word ”=”. All these key words should be surround by ” ” (blank space) for a well capability.
* Any basic case in “case” sheet satisfy with the requirement of this macro will be duplicated and run actions in this macro.
* Setting: It’s a kind of global setting for ”CaseInfo”, ”Environment”,”LaunchCommand”,

”Software”, ”System”, ”Machine” in the level of suite. But the values in “case” sheet have a higher priority.

* For other columns: global setting will over write the values in “case” sheet.
* There may be more than one condition or action and the final behavior will be: any case satisfy all conditions will do the actions.
* Different macros will duplicate different case sections.
* Please make sure the “END” followed the last macro otherwise script will skip it.

#### 3.1.2.3 Demo

Expression

setting

|  |  |  |  |
| --- | --- | --- | --- |
| [macro] | (column) |  | |
| condition | Sorting | =new\_design |  |
| action | LaunchCommand | cmd = --check-conf=designpool\_default.conf | |

## 3.2 Case sheet

Case sheet used to list the info of the test case one by one which is correspond to options when building a case in TMP.

### 3.2.1 Requirements

Do not modify raw 1 and 2. If you want to upload some more info which is not list in the title, please contact TMP admin.

### 3.2.2 Public case info

The following content will introduce the public case info in the case sheet.

#### 3.2.2.1 Order

An identifier for local use which will not be upload. Its type is integer which is a must to fill the blank and it will not be upload to TMP.

#### 3.2.2.2 NoUse

It’ a mark for the case. If it marked as YES, this case will not be uploaded to TMP. Its type is string which is not a must to fill the blank.

#### 3.2.2.3 Title

It’s the name of the case which descripts your case in summary. Its type is string which is not a must to fill the blank and it will be upload to TMP.

#### 3.2.2.4 Section

It’s a standard to classify which test section will this case belong in. Blank will make the case go to “Test Cases”. Its type is string which is not a must to fill the blank and it will be upload to TMP.

#### 3.2.2.5 Design\_name

It’s the design’s name. we accept a path segment (i.e. topdir/design\_name) but do use ”/” instead of “\”for a platform. This column will be override by “CaseInfo” design\_name value. Its type is string which is a must to fill the blank and it will be upload to TMP.

#### 3.2.2.6 Test Level:

It’s the case level which can be three values: 1 for every detail feature, 2 for feature combination, and 3 for feature and tool combination. Its type is integer which is a must to fill the blank and it will be upload to TMP.

#### 3.2.2.7 Test Scenarios:

Test aim for this case. Its type is text which is not a must to fill the blank and it will be upload to TMP.

#### 3.2.2.8 Description:

Detail description for this case. Its type is text which is not a must to fill the blank and it will be upload to TMP.

#### 3.2.2.9 Type:

It represents the type of the case which has five available values to fill: Functional, Performance, Regression, Smoke, Manually and Other. Its default value is Functional. Its type is string which is not a must to fill the blank and it will be upload to TMP.

#### 3.2.2.10 Priority:

It means the test case priority whose value can be: Critical, High, Medium, Low. Its default value for upload is Medium. Its type is string which is not a must to fill the blank and it will be upload to TMP.

#### 3.2.2.11 CaseInfo

It’s the final path of the case after uploading to TMP. Its type is text which is not a must to fill the blank and it will be upload to TMP. The following alternative options can be filled in the blank.

1. Repository: It can both support for suite and case which can also be divided into three types:
2. Online: Its repository location is subversion. This mode is supported so that you can use it. The user are recommended to refer to the diamond\_demo, icecube\_demo or the radiant\_demo.
3. Remote: Its repository location can be divided into two parts, one is for windows machine. But it’s not so stable for linux which is not so recommend to use it. The other one is for linux machine. They are stable to use.
4. Local: Its repository location is also divided into two parts, one is for local disk. The other one is mapped disk. They are stable to use.

The final design path will be: reponsitory/suite\_path/design\_name. And the suite\_path, design\_name will be introduced as follow.

Note: Do make sure there is no “\”in your path, replace it with “/”.

1. Suite\_path: It can both support for suite and case. Its available value depends on user.
2. Design\_name: It only support for case and its value depends on user.
3. Script\_address: It can both support for suite and case and its value depends on user.
4. Auth\_key: It can both support for suite and case and its value depends on user. User account and password to access the repository and it’s generated by keygen.exe file. The user can see the help doc for detail.
5. Priority: It’s the priority for this task. It only support for suite and the value can be set to 0, 1 and 2 which depends on user.
6. Timeout: It can both support for suite and case. Its value can be set for 0 and any integer larger than 30 (0 means no unlimited).

#### 3.2.2.12 Environment

Its type is text which is not a must to fill the blank and it will be upload to TMP. It can be divided into different options, for example: foundry which can support for suite and case. See the demo of demo\_ispfpga (at the next level of demos folder) and its value depends on user.

#### 3.2.2.13 LaunchCommand

The command line to launch the case. Its type is text which is not a must to fill the blank and it will be upload to TMP. There are two alternative options for it: one is “cmd” which can both support for suite and case. Its available value depends on user. i.e. Python \*\*\*.py –till –map. The other one is “override” which also can both support for suite and case and its available value can be global or local.

#### 3.2.2.14 Software

The software and its version to launch the case. Its type is text which is not a must to fill the blank and it will be upload to TMP. The alternative options to fill in the blank include: override, diamond, icecube, classic, modelsim, questasim, active\_hdl, Riviera, squish, python and perl. They are all support suite and case and their available value need to check in TMP machine. For example: diamond=3.8.0.115; questasim=10.2.

#### 3.2.2.15 System

The computer system which can launch the case. Its type is text which is not a must to fill the blank and it will be upload to TMP. The alternative options to fill in the blank include:

①Os: support suite and case. Its available value can be: viata\_32b, vista\_64b, win7\_32b, win7\_64b, win8\_32b, win8\_64b, win10\_32b, win10\_64b, redhat4\_32b, redhat4\_64b, redhat5\_32b, redhat5\_64b, redhat6\_32b, redhat6\_64b, redhat7\_32b, redhat7\_64b, suse10\_32b, suse11\_64b.

②Os\_type: support suite and case. Its available value can be: windows, linux.

③Os\_arch: support suite and case

④Min\_space: support suite and case. Its available value can be: 32b, 64b

⑤Min\_cpu: support suite and case

⑥Min\_mem: support suite and case

#### 3.2.2.16 Machine

It’s the name of the computer which meet the requirements to launch the case. Its type is text which is not a must to fill the blank and it will be upload to TMP. There are two alternative options: one is for “terminal”: support suite and case. Demo value: terminal = D25966. For multi values, separate by “,”. The other one is for “group”: support suite and case. Demo value: terminal = general\_group. For multi values, separate by “,”.

#### 3.2.2.17 Sorting

Its type is string which is not a must to fill the blank and it will not be upload to TMP.

#### 3.2.2.18 CRs

Its type is string which is not a must to fill the blank and it will not be upload to TMP.

#### 3.2.2.19 Create

Its type is string which is not a must to fill the blank and it will not be upload to TMP.

#### 3.2.2.20 Update

Its type is string which is not a must to fill the blank and it will not be upload to TMP.

### 3.2.3 FPGA Extra INFO

#### 3.2.3.1 Family

Its type is string which is not a must to fill the blank and it will be upload to TMP.

#### 3.2.3.2 Slice

Its type is integer which is not a must to fill the blank and it will be upload to TMP.

#### 3.2.3.3 PIO

Its type is integer which is not a must to fill the blank and it will be upload to TMP.

#### 3.2.3.4 RTL

Its type is String which is not a must to fill the blank and it will be upload to TMP. Its available value can be: YES, NO and unknown. For uploading, its default value is unknown.

#### 3.2.3.5 Flow

Which test flow this case support, the definition depends on yourself and we will use your keyword to duplicate this test case with different flow key words. Its type is String which is not a must to fill the blank and it will be upload to TMP. Multi-flow need to be separated by semicolon, i.e. impl; sim

### 3.2.4 User Extra INFO

It’s just for local record. The user can add more columns behind Flow column which will not be upload to TMP.

## 3.3 Description sheet

Description sheet will work as a simply handbook to indicate you how to fill the sheets.

Some detail info about suite sheet and case sheet setting are listed at the front of the description sheet for the user to follow.

Tips: At the end of the description sheet, there are four tables helping the user to finish the regression setting which have been summarized above.

1. Table 1 and table 2 are some details on suite sheet and case sheet, including the general info and configuration info. You must follow the rules in the tables to fill in the sheets.
2. For option priority in table 2: case > suite
3. Table 3 is the TMP supported Repository location.
4. Table 4 is the modify history of the tables above.

## 3.4 Comments sheet

Comments sheet lists some tips to the user. For user comments, script will not read.