RobotResults2DB

v. 1.2.1

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Contents

Chapter 1

Introduction

RobotResults2DB tool helps to import robot *output.xml* result file(s) to TestResultWebApp's database for presenting an overview about the execution and detail of each test result.

In order to display the Robot Framework results on TestResultWebApp Dashboard properly, Robot testcase need to give some required information for management such as project/variant, software version, component, ...

Therefore, `Metadata` and `[Tags]` are used to provide that information to *output.xml* result which is used for importing data to WebApp.

Chapter 2

Description

2.1 Robot Framework Testcase Settings:

For the whole test execution:

- Project/Variant (can be overwritten by argument `--variant` or `--config` of RobotResults2DB tool when importing):

```
Metadata    project     ${Project_name}
```

- Versions (can be overwritten by argument `--versions` or `--config` of RobotResults2DB tool when importing):

```
Metadata    version_hw      ${Software_version}
Metadata    version_hw      ${Hardware_version}
Metadata    version_test    ${Test_version}
```

For the Suite/File information:

- Description/Documentation:

```
Documentation    ${Suite_description}
```

- Author:

```
Metadata    author    ${Author_name}
```

- Component (can be overwritten by argument `--config` of RobotResults2DB tool when importing):

```
Metadata    component    ${Component_name}
```

- Test Tool - framework and python version, e.g **Robot Framework 3.2rc2 (Python 3.9.0 on win32)**:

```
Metadata    testtool    ${Test_tool}
```

- Test Machine:

```
Metadata    machine    %{COMPUTERNAME}
```

- Tester:

```
Metadata    tester    %{USER}
```

For test case information:

- Issue ID:

```
[Tags]    ISSUE-${ISSUE_ID}
```

- Testcase ID:

```
[Tags]    TCID-${TC_ID}
```

- Requirement ID:

```
[Tags]    FID-${REQ_ID}
```

2.2 Sample Robot Framework Testcase:

For test case management, we need some tracable information such as version, testcase ID, component, ... to manage and track testcase(s) on RQM.

So, this information can be provided in `Metadata` (for the whole testsuite/execution info: version, build, ...) and `[Tags]` information (for specific testcase info: component, testcase ID, requirement ID, ...).

Sample Robot Framework testcase with the neccessary information for importing to RQM:

```
*** Settings ***
# Test execution level
Metadata    project         ROBFW               # Project/Variant
Metadata    version_sw      SW_VERSION_0.1      # Software version
Metadata    version_hw      HW_VERSION_0.1      # Hardware version
Metadata    version_test    TEST_VERSION_0.1    # Test version

# File/Suite level
Documentation               This is description for robot test file
Metadata     author         Tran Duy Ngoan (RBVH/ECM1)
Metadata     component      Import_Tools
Metadata     testtool       Robot Framework 3.2rc2 (Python 3.9.0 on win32)
Metadata     machine        %{COMPUTERNAME}
Metadata     tester         %{USER}

*** Test Cases ***
Testcase 01
   [Tags]    ISSUE-001    TCID-1001    FID-112    FID-111
   Log        This is Testcase 01

Testcase 02
   [Tags]    ISSUE-RTC-003    TCID-1002    FID-113
   Log        This is Testcase 01
```

Listing 2.1: Sample Robot Framework testcase

! **Hint**

You don't need to define above highlighted `Metadata` (`testtool` , `machine` and `tester`) with RobotFramework AIO because RobotFramework_Testsuites library will handle these definitions within `Suite Setup` .

2.3 Display on WebApp:

When the *output.xml* file(s) is importing sucessfully to database, the result for that execution will be available on TestResultWebApp.

Above settings in robot testcase will be reflect on **Dashboard** (General view) and **Data table** (Detailed view) as below figures:

Execution result metadata:

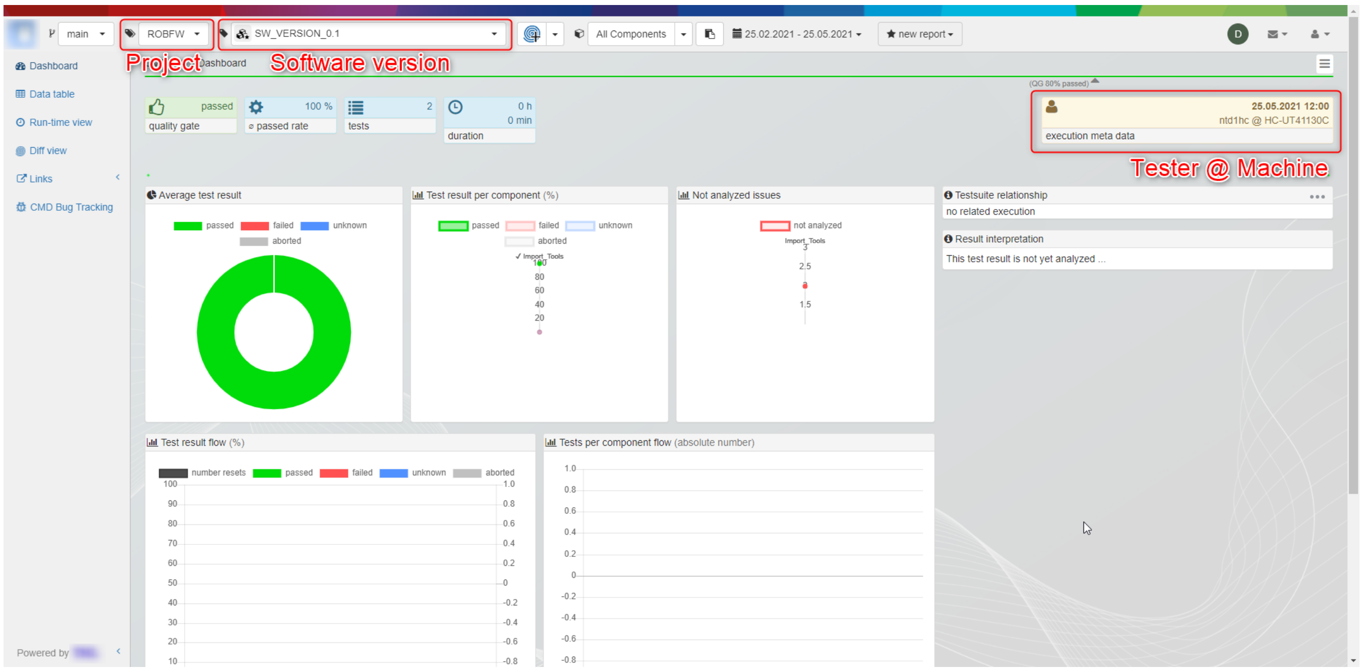
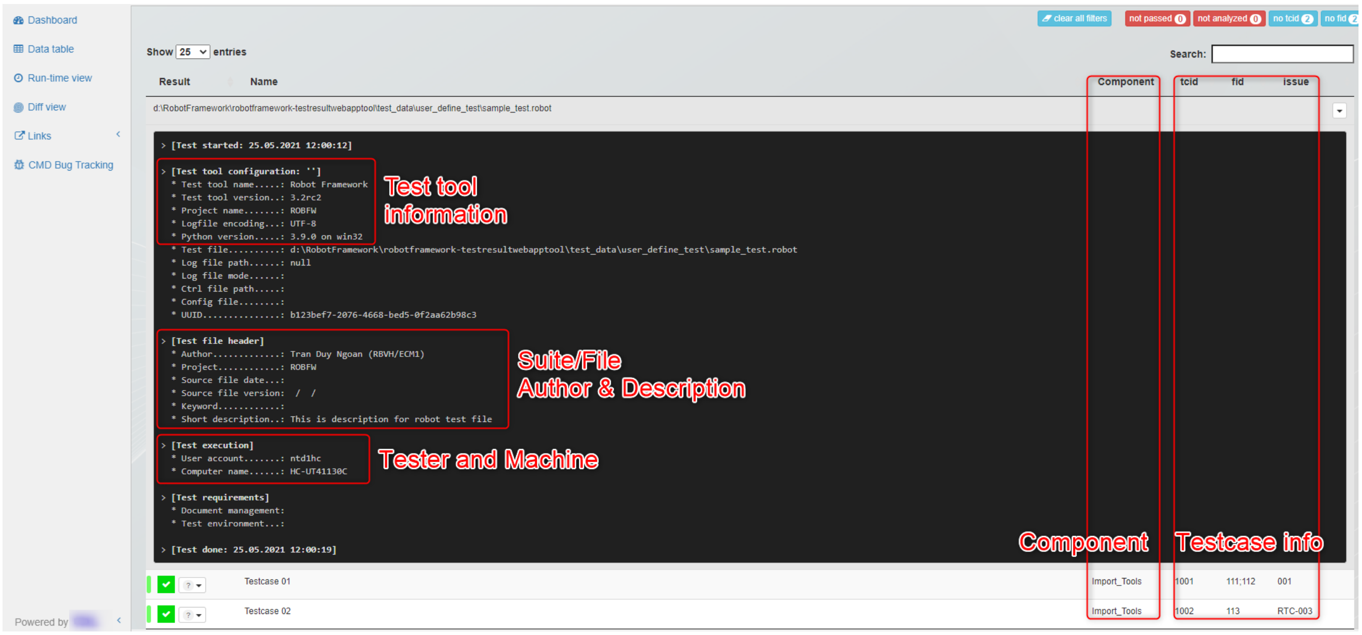


Figure 2.1: Dashboard view

Suite/File metadata and Testcase information:



d:\RobotFramework\robotframework-testresultwebapptool\test_data\user_define_test\sample_test.robot

```
> [Test started: 25.05.2021 12:00:12]

> [Test tool configuration: '']
  * Test tool name.....: Robot Framework
  * Test tool version..: 3.2rc2
  * Project name.......: ROBFW
  * Logfile encoding...: UTF-8
  * Python version.....: 3.9.0 on win32
  * Test file..........: d:\RobotFramework\robotframework-testresultwebapptool\test_data\user_define_test\sample_test.robot
  * Log file path......: null
  * Log file mode......:
  * Ctrl file path.....:
  * Config file........:
  * UUID...............: b123bef7-2076-4668-bed5-0f2aa62b98c3

> [Test file header]
  * Author.............: Tran Duy Ngoan (RBVH/ECM1)
  * Project............: ROBFW
  * Source file date...:
  * Source file version:  /  /
  * Keyword............:
  * Short description..: This is description for robot test file

> [Test execution]
  * User account.......: ntd1hc
  * Computer name......: HC-UT41130C

> [Test requirements]
  * Document management:
  * Test environment...:

> [Test done: 25.05.2021 12:00:19]
```

Result	Name	Component	tcid	fid	issue
✓	Testcase 01	Import_Tools	1001	111;112	001
✓	Testcase 02	Import_Tools	1002	113	RTC-003

Figure 2.2: Datatable view

2.4 Notes:

When above settings is missing, that leads to the missing information in the *output.xml*.

Some required fields for management will be set to default value when importing with RobotResults2DB tool:

- `Project` : will be set to default value `ROBFW` if not defined.
- `Software version` : will be set to execution time `%Y%m%d_%H%M%S` as default value.
- `Component` : will be set to default value `unknown` if not defined.

But, you can provide them as command arguments when executing the RobotResults2DB tool with below optional arguments (refer its usage):

- `--variant VARIANT`
  To specify the Project/Variant information.
- `--versions VERSIONS`
  To specify the Software version information.
- `--config CONFIG`
  Provide a configuration json file `CONFIG` which helps:
  - To configure the Project/Variant, Software version information (lower priority than above commandline arguments)
  - To create a mapping between testcase folder and Component information which is display on TestResultWebApp.

  Sample configuration json file:

```
{
   "component"  : {
                  "cli"        : "robot/cli",
                  "core"       : "robot/core",
                  "external"   : "robot/external",
                  "keywords"   : "robot/keywords",
                  "libdoc"     : "robot/libdoc",
                  "output"     : "robot/output",
                  "parsing"    : "robot/parsing",
                  "reboot"     : "robot/reboot",
                  "rpa"        : "robot/rpa",
                  "running"    : "robot/running",
                  "std_lib"    : "robot/standard_libraries",
                  "tags"       : "robot/tags",
                  "test_lib"   : "robot/test_libraries",
                  "testdoc"    : "robot/testdoc",
                  "tidy"       : "robot/tidy",
                  "variables"  : "robot/variables"
   },
   "version_sw" : "Atest",
   "variant"    : "ROBFW"
}
```

Chapter 3

CDataBase.py

3.1 Class: CDataBase

```
RobotResults2DB.CDataBase
```

CDataBase class play a role as mysqlclient and provide methods to interact with TestResultWebApp's database.

3.1.1 Method: connect

Connect to the database with provided authentication and db info.
Arguments:

- `host`
  / *Condition*: required / *Type*: str /
  URL which is hosted the TestResultWebApp's database.
- `user`
  / *Condition*: required / *Type*: str /
  User name for database authentication.
- `passwd`
  / *Condition*: required / *Type*: str /
  User's password for database authentication.
- `database`
  / *Condition*: required / *Type*: str /
  Database name.
- `charset`
  / *Condition*: optional / *Type*: str / *Default*: 'utf8' /
  The connection character set.
- `use_unicode`
  / *Condition*: optional / *Type*: bool / *Default*: True /
  If True, CHAR and VARCHAR and TEXT columns are returned as Unicode strings, using the configured character set.

Returns:
(*no returns*)

3.1.2 Method: disconnect

Disconnect from TestResultWebApp's database.

Arguments:

(*no arguments*)

Returns:

(*no returns*)

3.1.3 Method: cleanAllTables

Delete all table data. Please be careful before calling this method.

Arguments:

(*no arguments*)

Returns:

(*no returns*)

3.1.4 Method: sCreateNewTestResult

Creates a new test result in `tbl_result`. This is the main table which is linked to all other data by means of `test_result_id`.

Arguments:

- `_tbl_prj_project`
  / *Condition*: required / *Type*: str /
  Project information.
- `_tbl_prj_variant`
  / *Condition*: required / *Type*: str /
  Variant information.
- `_tbl_prj_branch`
  / *Condition*: required / *Type*: str /
  Branch information.
- `_tbl_test_result_id`
  / *Condition*: required / *Type*: str /
  UUID of test result.
- `_tbl_result_interpretation`
  / *Condition*: required / *Type*: str /
  Result interpretation.
- `_tbl_result_time_start`
  / *Condition*: required / *Type*: str /
  Test result start time as format `%Y-%m-%d %H:%M:%S`.
- `_tbl_result_time_end`
  / *Condition*: required / *Type*: str /
  Test result end time as format `%Y-%m-%d %H:%M:%S`.
- `_tbl_result_version_sw_target`
  / *Condition*: required / *Type*: str /
  Software version information.

- `_tbl_result_version_sw_test`
  / *Condition*: required / *Type*: str /
  Test version information.
- `_tbl_result_version_target`
  / *Condition*: required / *Type*: str /
  Hardware version information.
- `_tbl_result_jenkinsurl`
  / *Condition*: required / *Type*: str /
  Jenkinsurl in case test result is executed by jenkins.
- `_tbl_result_reporting_qualitygate`
  / *Condition*: required / *Type*: str /
  Qualitygate information for reporting.

Returns:

- `_tbl_test_result_id`
  / *Type*: str /
  `test_result_id` of new test result.

3.1.5 Method: nCreateNewFile

Create new file entry in `tbl_file` table.

Arguments:

- `_tbl_file_name`
  / *Condition*: required / *Type*: str /
  File name information.
- `_tbl_file_tester_account`
  / *Condition*: required / *Type*: str /
  Tester account information.
- `_tbl_file_tester_machine`
  / *Condition*: required / *Type*: str /
  Test machine information.
- `_tbl_file_time_start`
  / *Condition*: required / *Type*: str /
  Test file start time as format `%Y-%m-%d %H:%M:%S`.
- `_tbl_file_time_end`
  / *Condition*: required / *Type*: str /
  Test file end time as format `%Y-%m-%d %H:%M:%S`.
- `_tbl_test_result_id`
  / *Condition*: required / *Type*: str /
  UUID of test result for linking to tbl_result table.
- `_tbl_file_origin`
  / *Condition*: required / *Type*: str /
  Origin (test framework) of test file. Deafult is "ROBFW"

Returns:

- `iInsertedID`
  / *Type*: int /
  ID of new entry.

3.1.6 Method: vCreateNewHeader

Create a new header entry in `tbl_file_header` table which is linked with the file.

Arguments:

- `_tbl_file_id`
  / *Condition*: required / *Type*: int /
  File ID information.
- `_tbl_header_testtoolconfiguration_testtoolname`
  / *Condition*: required / *Type*: str /
  Test tool name.
- `_tbl_header_testtoolconfiguration_testtoolversionstring`
  / *Condition*: required / *Type*: str /
  Test tool version.
- `_tbl_header_testtoolconfiguration_projectname`
  / *Condition*: required / *Type*: str /
  Project name.
- `_tbl_header_testtoolconfiguration_logfileencoding`
  / *Condition*: required / *Type*: str /
  Encoding of logfile.
- `_tbl_header_testtoolconfiguration_pythonversion`
  / *Condition*: required / *Type*: str /
  Python version info.
- `_tbl_header_testtoolconfiguration_testfile`
  / *Condition*: required / *Type*: str /
  Test file name.
- `_tbl_header_testtoolconfiguration_logfilepath`
  / *Condition*: required / *Type*: str /
  Path to log file.
- `_tbl_header_testtoolconfiguration_logfilemode`
  / *Condition*: required / *Type*: str /
  Mode of log file.
- `_tbl_header_testtoolconfiguration_ctrlfilepath`
  / *Condition*: required / *Type*: str /
  Path to control file.
- `_tbl_header_testtoolconfiguration_configfile`
  / *Condition*: required / *Type*: str /
  Path to configuration file.
- `_tbl_header_testtoolconfiguration_confname`
  / *Condition*: required / *Type*: str /
  Configuration name.
- `_tbl_header_testfileheader_author`
  / *Condition*: required / *Type*: str /
  File author.

- `_tbl_header_testfileheader_project`
  / *Condition*: required / *Type*: str /
  Project information.
- `_tbl_header_testfileheader_testfiledate`
  / *Condition*: required / *Type*: str /
  File creation date.
- `_tbl_header_testfileheader_version_major`
  / *Condition*: required / *Type*: str /
  File major version.
- `_tbl_header_testfileheader_version_minor`
  / *Condition*: required / *Type*: str /
  File minor version.
- `_tbl_header_testfileheader_version_patch`
  / *Condition*: required / *Type*: str /
  File patch version.
- `_tbl_header_testfileheader_keyword`
  / *Condition*: required / *Type*: str /
  File keyword.
- `_tbl_header_testfileheader_shortdescription`
  / *Condition*: required / *Type*: str /
  File short description.
- `_tbl_header_testexecution_useraccount`
  / *Condition*: required / *Type*: str /
  Tester account who run the execution.
- `_tbl_header_testexecution_computername`
  / *Condition*: required / *Type*: str /
  Machine name which is executed on.
- `_tbl_header_testrequirements_documentmanagement`
  / *Condition*: required / *Type*: str /
  Requirement management information.
- `_tbl_header_testrequirements_testenvironment`
  / *Condition*: required / *Type*: str /
  Requirement environment information.
- `_tbl_header_testbenchconfig_name`
  / *Condition*: required / *Type*: str /
  Testbench configuration name.
- `_tbl_header_testbenchconfig_data`
  / *Condition*: required / *Type*: str /
  Testbench configuration data.
- `_tbl_header_preprocessor_filter`
  / *Condition*: required / *Type*: str /
  Preprocessor filter information.
- `_tbl_header_preprocessor_parameters`
  / *Condition*: required / *Type*: str /
  Preprocessor parameters definition.

Returns:

(*no returns*)

3.1.7 Method: nCreateNewSingleTestCase

Create single testcase entry in `tbl_case` table immediately.

Arguments:

- `_tbl_case_name`
  / *Condition*: required / *Type*: str /
  Test case name.
- `_tbl_case_issue`
  / *Condition*: required / *Type*: str /
  Test case issue ID.
- `_tbl_case_tcid`
  / *Condition*: required / *Type*: str /
  Test case ID (used for testmanagement tool).
- `_tbl_case_fid`
  / *Condition*: required / *Type*: str /
  Test case requirement (function) ID.
- `_tbl_case_testnumber`
  / *Condition*: required / *Type*: int /
  Order of test case in file.
- `_tbl_case_repeatcount`
  / *Condition*: required / *Type*: int /
  Test case repeatition count.
- `_tbl_case_component`
  / *Condition*: required / *Type*: str /
  Component which test case is belong to.
- `_tbl_case_time_start`
  / *Condition*: required / *Type*: str /
  Test case start time as format `%Y-%m-%d %H:%M:%S`.
- `_tbl_case_result_main`
  / *Condition*: required / *Type*: str /
  Test case main result.
- `_tbl_case_result_state`
  / *Condition*: required / *Type*: str /
  Test case completion state.
- `_tbl_case_result_return`
  / *Condition*: required / *Type*: int /
  Test case result code (as integer).
- `_tbl_case_counter_resets`
  / *Condition*: required / *Type*: int /
  Counter of target reset within test case execution.
- `_tbl_case_lastlog`
  / *Condition*: required / *Type*: str /
  Traceback information when test case is failed.

- `_tbl_test_result_id`
  / *Condition*: required / *Type*: str /
  UUID of test result for linking to file in `tbl_result` table.
- `_tbl_file_id`
  / *Condition*: required / *Type*: int /
  Test file ID for linking to file in `tbl_file` table.

Returns:

- `iInsertedID`
  / *Type*: int /
  ID of new entry.

3.1.8 Method: nCreateNewTestCase

Create bulk of test case entries: new test cases are buffered and inserted as bulk.
Once `__NUM_BUFFERD_ELEMENTS_FOR_EXECUTEMANY` is reached, the creation query is executed.
Arguments:

- `_tbl_case_name`
  / *Condition*: required / *Type*: str /
  Test case name.
- `_tbl_case_issue`
  / *Condition*: required / *Type*: str /
  Test case issue ID.
- `_tbl_case_tcid`
  / *Condition*: required / *Type*: str /
  Test case ID (used for testmanagement tool).
- `_tbl_case_fid`
  / *Condition*: required / *Type*: str /
  Test case requirement (function) ID.
- `_tbl_case_testnumber`
  / *Condition*: required / *Type*: int /
  Order of test case in file.
- `_tbl_case_repeatcount`
  / *Condition*: required / *Type*: int /
  Test case repeatition count.
- `_tbl_case_component`
  / *Condition*: required / *Type*: str /
  Component which test case is belong to.
- `_tbl_case_time_start`
  / *Condition*: required / *Type*: str /
  Test case start time as format `%Y-%m-%d %H:%M:%S`.
- `_tbl_case_result_main`
  / *Condition*: required / *Type*: str /
  Test case main result.

- `_tbl_case_result_state`
  / *Condition*: required / *Type*: str /
  Test case completion state.
- `_tbl_case_result_return`
  / *Condition*: required / *Type*: int /
  Test case result code (as integer).
- `_tbl_case_counter_resets`
  / *Condition*: required / *Type*: int /
  Counter of target reset within test case execution.
- `_tbl_case_lastlog`
  / *Condition*: required / *Type*: str /
  Traceback information when test case is failed.
- `_tbl_test_result_id`
  / *Condition*: required / *Type*: str /
  UUID of test result for linking to file in tbl_result table.
- `_tbl_file_id`
  / *Condition*: required / *Type*: int /
  Test file ID for linking to file in `tbl_file` table.

Returns:
(*no returns*)

3.1.9 Method: vCreateTags

Create tag entries.

Arguments:

- `_tbl_test_result_id`
  / *Condition*: required / *Type*: str /
  UUID of test result.
- `_tbl_usr_result_tags`
  / *Condition*: required / *Type*: str /
  User tags information.

Returns:
(*no returns*)

3.1.10 Method: vSetCategory

Create category entry.

Arguments:

- `_tbl_test_result_id`
  / *Condition*: required / *Type*: str /
  UUID of test result.
- `tbl_result_category_main`
  / *Condition*: required / *Type*: str /
  Category information.

Returns:
(*no returns*)

3.1.11 Method: vUpdateStartEndTime

Create start-end time entry.

Arguments:

- `_tbl_test_result_id`
  / *Condition*: required / *Type*: str /
  UUID of test result.
- `_tbl_result_time_start`
  / *Condition*: required / *Type*: str /
  Result start time as format `%Y-%m-%d %H:%M:%S`.
- `_tbl_result_time_end`
  / *Condition*: required / *Type*: str /
  Result end time as format `%Y-%m-%d %H:%M:%S`.

Returns:

(*no returns*)

3.1.12 Method: arGetCategories

Get existing categories.

Arguments:

(*no arguments*)

Returns:

- `arCategories`
  / *Type*: list /
  List of exsiting categories.

3.1.13 Method: vCreateAbortReason

Create abort reason entry.

Arguments:

- `_tbl_test_result_id`
  / *Condition*: required / *Type*: str /
  UUID of test result.
- `_tbl_abort_reason`
  / *Condition*: required / *Type*: str /
  Abort reason.
- `_tbl_abort_message`
  / *Condition*: required / *Type*: str /
  Detail message of abort.

Returns:

(*no returns*)

3.1.14 Method: vCreateReanimation

Create reanimation entry.

Arguments:

- `_tbl_test_result_id`
  / *Condition*: required / *Type*: str /
  UUID of test result.
- `_tbl_num_of_reanimation`
  / *Condition*: required / *Type*: int /
  Counter of target reanimation during execution.

Returns:

(*no returns*)

3.1.15 Method: vCreateCCRdata

Create CCR data per test case.

Arguments:

- `_tbl_test_case_id`
  / *Condition*: required / *Type*: int /
  test case ID.
- `lCCRdata`
  / *Condition*: required / *Type*: list /
  list of CCR data.

Returns:

(*no returns*)

3.1.16 Method: vFinishTestResult

Finish upload:

- First do bulk insert of rest of test cases if buffer is not empty.
- Then set state to ”new report”.

Arguments:

- `_tbl_test_result_id`
  / *Condition*: required / *Type*: str /
  UUID of test result.

Returns:

(*no returns*)

3.1.17 Method: vUpdateEvtbls

Call `update_evtbls` stored procedure.

Arguments:

(*no arguments*)

Returns:

(*no returns*)

3.1.18 Method: vUpdateEvtbl

Call `update_evtbl` stored procedure to update provided `test_result_id`.

Arguments:

- `_tbl_test_result_id`
  / *Condition*: required / *Type*: str /
  UUID of test result.

Returns:

(*no returns*)

3.1.19 Method: vEnableForeignKeyCheck

Switch `foreign_key_checks` flag.

Arguments:

- `enable`
  / *Condition*: optional / *Type*: bool / *Default*: True /
  If True, enable foreign key constraint.

Returns:

(*no returns*)

3.1.20 Method: sGetLatestFileID

Get latest file ID from `tbl_file` table.

Arguments:

- `_tbl_test_result_id`
  / *Condition*: required / *Type*: str /
  UUID of test result.

Returns:

- `_tbl_file_id`
  / *Type*: int /
  File ID.

3.1.21 Method: vUpdateFileEndTime

Update test file end time.

Arguments:

- `_tbl_file_id`
  / *Condition*: required / *Type*: int /
  File ID to be updated.
- `_tbl_file_time_end`
  / *Condition*: required / *Type*: str /
  File end time as format `%Y-%m-%d %H:%M:%S`.

Returns:

(*no returns*)

3.1.22 Method: vUpdateResultEndTime

Update test result end time.

Arguments:

- `_tbl_test_result_id`
  / *Condition*: required / *Type*: int /
  Result UUID to be updated.
- `_tbl_result_time_end`
  / *Condition*: required / *Type*: str /
  Result end time as format `%Y-%m-%d %H:%M:%S`.

Returns:
(*no returns*)

3.1.23 Method: bExistingResultID

Verify the given test result UUID is existing in `tbl_result` table or not.

Arguments:

- `_tbl_test_result_id`
  / *Condition*: required / *Type*: int /
  Result UUID to be verified.

Returns:

- `bExisting`
  / *Type*: bool /
  True if test result UUID is already existing.

Chapter 4

robot2db.py

4.1 Function: is_valid_uuid

Verify the given UUID is valid or not.
Arguments:

- `uuid_to_test`
  / *Condition*: required / *Type*: str /
  UUID to be verified.
- `version`
  / *Condition*: optional / *Type*: int / *Default*: 4 /
  UUID version.

Returns:

- `bValid`
  / *Type*: bool /
  True if the given UUID is valid.

4.2 Function: get_from_tags

Extract testcase information from tags.

Example: `TCID-xxxx`, `FID-xxxx`, ...

Arguments:

- `lTags`
  / *Condition*: required / *Type*: list /
  List of tag information.
- `reInfo`
  / *Condition*: required / *Type*: str /
  Regex to get the expectated info (ID) from tag info.

Returns:

- `lInfo`
  / *Type*: list /
  List of expected information (ID)

4.3 Function: get_branch_from_swversion

Get branch name from software version information.

Convention of branch information in suffix of software version:

- All software version with .0F is the main/freature branch. The leading number is the current year. E.g. `17.0F03`
- All software version with `.1S`, `.2S`, ... is a stabi branch. The leading number is the year of branching out for stabilization. The number before "S" is the order of branching out in the year.

Arguments:

- `sw_version`
  / *Condition*: required / *Type*: str /
  Software version.

Returns:

- `branch_name`
  / *Type*: str /
  Branch name.

4.4 Function: format_time

Format the given time string to TestResultWebApp's format for importing to db.

Arguments:

- `stime`
  / *Condition*: required / *Type*: str /
  String of time.

Returns:

- `sFormatedTime`
  / *Type*: str /
  TestResultWebApp's time as format `%Y-%m-%d %H:%M:%S`.

4.5 Function: process_suite_metadata

Try to find metadata information from all suite levels.

Metadata at top suite level has a highest priority.

Arguments:

- `suite`
  / *Condition*: required / *Type*: TestSuite object /
  Robot suite object.
- `default_metadata`
  / *Condition*: optional / *Type*: dict / *Default*: DEFAULT_METADATA /
  Initial Metadata information for updating.

Returns:

- `dMetadata`
  / *Type*: dict /
  Dictionary of Metadata information.

4.6 Function: process_metadata

Extract metadata from suite result bases on DEFAULT_METADATA.

Arguments:

- `metadata`
  / *Condition*: required / *Type*: dict /
  Robot metadata object.
- `default_metadata`
  / *Condition*: optional / *Type*: dict / *Default*: DEFAULT_METADATA /
  Initial Metadata information for updating.

Returns:

- `dMetadata`
  / *Type*: dict /
  Dictionary of Metadata information.

4.7 Function: process_suite

Process to the lowest suite level (test file):

- Create new file and its header information
- Then, process all child test cases

Arguments:

- `db`
  / *Condition*: required / *Type*: CDataBase object /
  CDataBase object.
- `suite`
  / *Condition*: required / *Type*: TestSuite object /
  Robot suite object.
- `_tbl_test_result_id`
  / *Condition*: required / *Type*: str /
  UUID of test result for importing.
- `root_metadata`
  / *Condition*: required / *Type*: dict /
  Metadata information from root level.
- `dConfig`
  / *Condition*: required / *Type*: dict / *Default*: None /
  Configuration data which is parsed from given json configuration file.

Returns:
(*no returns*)

4.8 Function: process_test

Process test case data and create new test case record.

Arguments:

- `db`
  / *Condition*: required / *Type*: CDataBase object /
  CDataBase object.
- `test`
  / *Condition*: required / *Type*: TestCase object /
  Robot test object.
- `file_id`
  / *Condition*: required / *Type*: int /
  File ID for mapping.
- `test_result_id`
  / *Condition*: required / *Type*: str /
  Test result ID for mapping.
- `metadata_info`
  / *Condition*: required / *Type*: dict /
  Metadata information.
- `test_number`
  / *Condition*: required / *Type*: int /
  Order of test case in file.

Returns:
(*no returns*)

4.9 Function: process_config_file

Parse information from configuration file:

- `component`:

  ```
  {
     "component" : {
        "componentA" : "componentA/path/to/testcase",
        "componentB" : "componentB/path/to/testcase",
        "componentC" : [
           "componentC1/path/to/testcase",
           "componentC2/path/to/testcase"
        ]
     }
  }
  ```

  Then all testcases which their paths contain `componentA/path/to/testcase` will be belong to `componentA`, ...
- `variant`, `version_sw`: configuration file has low priority than command line.

Arguments:

- `config_file`
  / *Condition*: required / *Type*: str /
  Path to configuration file.

Returns:

- `dConfig`
  / *Type*: dict /
  Configuration object.

4.10 Function: validate_config

Validate the json configuration base on given schema.

Default schema just supports `component`, `variant` and `version_sw`.

```
CONFIG_SCHEMA = {
   "component" : [str, dict],
   "variant"   : str,
   "version_sw": str,
}
```

Arguments:

- `dConfig`
  / *Condition*: required / *Type*: dict /
  Json configuration object to be verified.
- `dSchema`
  / *Condition*: optional / *Type*: dict / *Default*: CONFIG_SCHEMA /
  Schema for the validation.
- `bExitOnFail`
  / *Condition*: optional / *Type*: bool / *Default*: True /
  If True, exit tool in case the validation is fail.

Returns:

- `bValid`
  / *Type*: bool /
  True if the given json configuration data is valid.

4.11 Function: normalize_path

Normalize path file.

Arguments:

- `sPath`
  / *Condition*: required / *Type*: str /
  Path file to be normalized.
- `sNPath`
  / *Type*: str /
  Normalized path file.

4.12 Function: truncate_string

Truncate input string before importing to database.

Arguments:

- `sString`
  / *Condition*: required / *Type*: str /
  Input string for truncation.
- `iMaxLength`
  / *Condition*: required / *Type*: int /
  Max length of string to be allowed.
- `sEndChars`
  / *Condition*: optional / *Type*: str / *Default*: '...' /
  End characters which are added to end of truncated string.

Returns:

- `content`
  / *Type*: str /
  String after truncation.

4.13 Function: RobotResults2DB

Import robot results from `output.xml` to TestResultWebApp's database.

Flow to import Robot results to database:

1. Process provided arguments from command line.
2. Connect to database.
3. Parse Robot results.
4. Import results into database.
5. Disconnect from database.

Arguments:

- `args`
  / *Condition*: required / *Type*: ArgumentParser object /
  Argument parser object which contains:
  - outputfile : path to the output file or directory with output files to be imported.
  - server : server which hosts the database (IP or URL).
  - user : user for database login.
  - password : password for database login.
  - database : database name.
  - recursive : if True, then the path is searched recursively for log files to be imported.
  - dryrun : if True, then just check the RQM authentication and show what would be done.
  - UUID : UUID used to identify the import and version ID on TestResultWebApp.
  - variant : variant name to be set for this import.
  - versions : metadata: Versions (Software;Hardware;Test) to be set for this import.
  - config : configuration json file for component mapping information.

Returns:

(*no returns*)

4.14 Class: Logger

```
RobotResults2DB.robot2db
```

Logger class for logging message.

4.14.1 Method: config

Configure Logger class.

Arguments:

- `output_console`
  / *Condition*: optional / *Type*: bool / *Default*: True /
  Write message to console output.
- `output_logfile`
  / *Condition*: optional / *Type*: str / *Default*: None /
  Path to log file output.
- `indent`
  / *Condition*: optional / *Type*: int / *Default*: 0 /
  Offset indent.
- `dryrun`
  / *Condition*: optional / *Type*: bool / *Default*: True /
  If set, a prefix as 'dryrun' is added for all messages.

Returns:
(*no returns*)

4.14.2 Method: log

Write log message to console/file output.

Arguments:

- `msg`
  / *Condition*: optional / *Type*: str / *Default*: " /
  Message which is written to output.
- `color`
  / *Condition*: optional / *Type*: str / *Default*: None /
  Color style for the message.
- `indent`
  / *Condition*: optional / *Type*: int / *Default*: 0 /
  Offset indent.

Returns:
(*no returns*)

4.14.3 Method: log_warning

Write warning message to console/file output.

Arguments:

- `msg`
  / *Condition*: required / *Type*: str /
  Warning message which is written to output.

Returns:

(*no returns*)

4.14.4 Method: log_error

Write error message to console/file output.

Arguments:

- `msg`
  / *Condition*: required / *Type*: str /
  Error message which is written to output.
- `fatal_error`
  / *Condition*: optional / *Type*: bool / *Default*: False /
  If set, tool will terminate after logging error message.

Returns:

(*no returns*)

Chapter 5

Appendix

About this package:

Table 5.1: Package setup

Setup parameter	Value
Name	RobotResults2DB
Version	1.2.1
Date	22.08.2022
Description	Imports robot result(s) to TestResultWebApp database
Package URL	robotframework-testresultwebapptool
Author	Tran Duy Ngoan
Email	`Ngoan.TranDuy@vn.bosch.com`
Language	Programming Language :: Python :: 3
License	License :: OSI Approved :: Apache Software License
OS	Operating System :: OS Independent
Python required	>=3.0
Development status	Development Status :: 4 - Beta
Intended audience	Intended Audience :: Developers
Topic	Topic :: Software Development

Chapter 6

History

0.1.0	07/2022
Initial version	
1.2.1	22.08.2022
Rework repository's document bases on GenPackageDoc	

RobotResults2DB.pdf

Created at 25.08.2022 - 17:38:55

by GenPackageDoc v. 0.27.0