RobotLog2DB

v. 1.2.4

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Contents

Chapter 1

Introduction

RobotLog2DB 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.

However, you can also provide required information as arguments when executing RobotLog2DB tool.

Chapter 2

Description

2.1 Robot Framework Testcase Settings:

Hint

The below document is common for Robot Framework Testcase Settings before execution. So that, the generated *.xml result file will contains all required information for importing to TestResultWebApp's database.

However, we suppose to use RobotFramework AIO with RobotFramework_Testsuites library for executing Robot testcase(s).
It will help to define the below `Metadata` information implicitly within the `Suite Setup` bases on your environment and configuration in *.json file:

- `project`
- `version_sw`
- `version_hw`
- `version_test`
- `machine`
- `tester`
- `testtool`

So that, you do not need to define these `Metadata` in your Robot test case.

For the whole test execution:

- Project/Variant (can be overwritten by argument `--variant` or `--config` of RobotLog2DB tool when importing):

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

- Versions (can be overwritten by argument `--versions` or `--config` of RobotLog2DB 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 RobotLog2DB 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

Above highlighted `Metadata` definitions are not required when using RobotFramework AIO. RobotFramework_Testsuites library will handle these definitions within `Suite Setup` .

2.3 Tool features:

2.3.1 Usage:

Please refer to Usage section of package's repository or try with below command to get tools's usage:

```
RobotLog2DB -h
```

The tool's usage should be showed as below:

```
usage: RobotLog2DB (RobotXMLResult to TestResultWebApp importer) [-h] [-v]
                    [-recursive] [-dryrun] [-append] [-UUID UUID]
                    [--variant VARIANT] [--versions VERSIONS] [--config CONFIG]
                    resultxmlfile server user password database

RobotLog2DB imports XML result files (default: output.xml) generated by the
                    Robot Framework into a WebApp database.

positional arguments:
resultxmlfile        absolute or relative path to the result file or directory
                    of result 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 schema for database login.

optional arguments:
-h, --help           show this help message and exit
-v                   Version of the RobotLog2DB importer.
-recursive           if set, then the path is searched recursively for output
                    files to be imported.
-dryrun              if set, then just show what would be done.
-append              is used in combination with -UUID UUID. If set, allow to
                    append new result(s) to existing execution result UUID in
                    -UUID argument.
-UUID UUID           UUID used to identify the import and version ID on webapp.
                    If not provided RobotLog2DB will generate an UUID for the
                    whole import.
--variant VARIANT    variant name to be set for this import.
--versions VERSIONS  metadata: Versions (Software;Hardware;Test) to be set for
                    this import (semicolon separated).
--config CONFIG      configuration json file for component mapping information.
```

The below command is simple usage with all required arguments to import robot results into TestResultWebApp's database:

```
RobotLog2DB resultxmlfile server user password database
```

Besides the executable file, you can also run tool as a Python module

```
python -m RobotLog2DB resultxmlfile server user password database
```

2.3.2 Handle missing information:

Default values:

TestResultWebApp requires `Project` , `version_sw` to manage the execution results and `component` group test cases in the displayed charts.

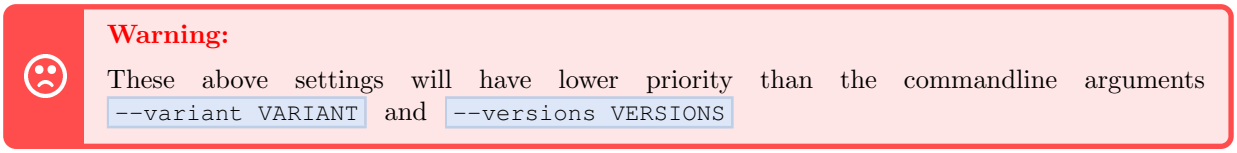
In case above information is missing in testcase settings during the test case execution, that leads to the missing information in the *output.xml* result file. So, these missing information will be set to default value when importing with RobotLog2DB tool:

- `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.

Specify missing information with optional arguments:

But, you can also provide the missing information as command arguments when executing the RobotLog2DB 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`
  to provide a configuration **.json* file as `CONFIG` argument. Currently, the configuration **.json* supports 3 types of settings:
  - `"version_sw"` to specify the **Software version** information as string value.
  - `"variant"` to specify the **Project/Variant** as string value.

  - `"component"` to specify the **Component** information which will be displayed on TestResultWebApp. Value can be:
    - A string to apply a single **Component** or all test cases within the execution result. E.g:

      ```
      {
        "component" : "atest",
        ...
      }
      ```

    - A json object to define the mapping between testcase folders and **Components**. E.g:

      ```
      {
        "component" : {
          "cli"        : "robot/cli",
          "core"       : "robot/core",
          "external"   : "robot/external",
          "keywords"   : "robot/keywords",
          "libdoc"     : "robot/libdoc",
          ...
        },
        ...
      }
      ```

    The error will be occurred when the provided configuration **.json* schema is not correct.

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"
}
```

2.3.3 Append to existing execution result:

In case you want to append new test result(s) into an existing execution result (is identified by the **UUID**) in TestResultWebApp's database, the combincation of optional arguments `-UUID <UUID>` and `-append` will help to do it.

For example, the result with UUID **c7991c07-4de2-4d65-8568-00c5556c82aa** is already existing in TestResultWebApp's database and you want to append new result(s) from **output.xml** into that execution result.

The command will be used as below:

```
python -m RobotLog2DB output.xml localhost testuser testpw testdb -UUID ↩
    ↪ c7991c07-4de2-4d65-8568-00c5556c82aa -append
```

If the argument `-UUID <UUID>` is used without `-append` :

- An error will be thrown and the import job is terminated immediately if the provided **UUID** is already existing.

```
FATAL ERROR: Execution result with UUID 'c7991c07-4de2-4d65-8568-00c5556c82aa' is ↩
    ↪ already existing.
              Please use other UUID (or remove '-UUID' argument from your command) ↩
    ↪ for new execution result.
              Or add '-append' argument in your command to append new result(s) to ↩
    ↪ this existing UUID.
```

- The importing execution result will have an identifier as the provided **UUID** if that **UUID** is not existing.

If the argument `-append` is used without `-UUID <UUID>` , only a warning message will be showed as below:

```
WARN: '-append' argument should be used in combination with '-UUID UUID` argument.
```

2.4 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:

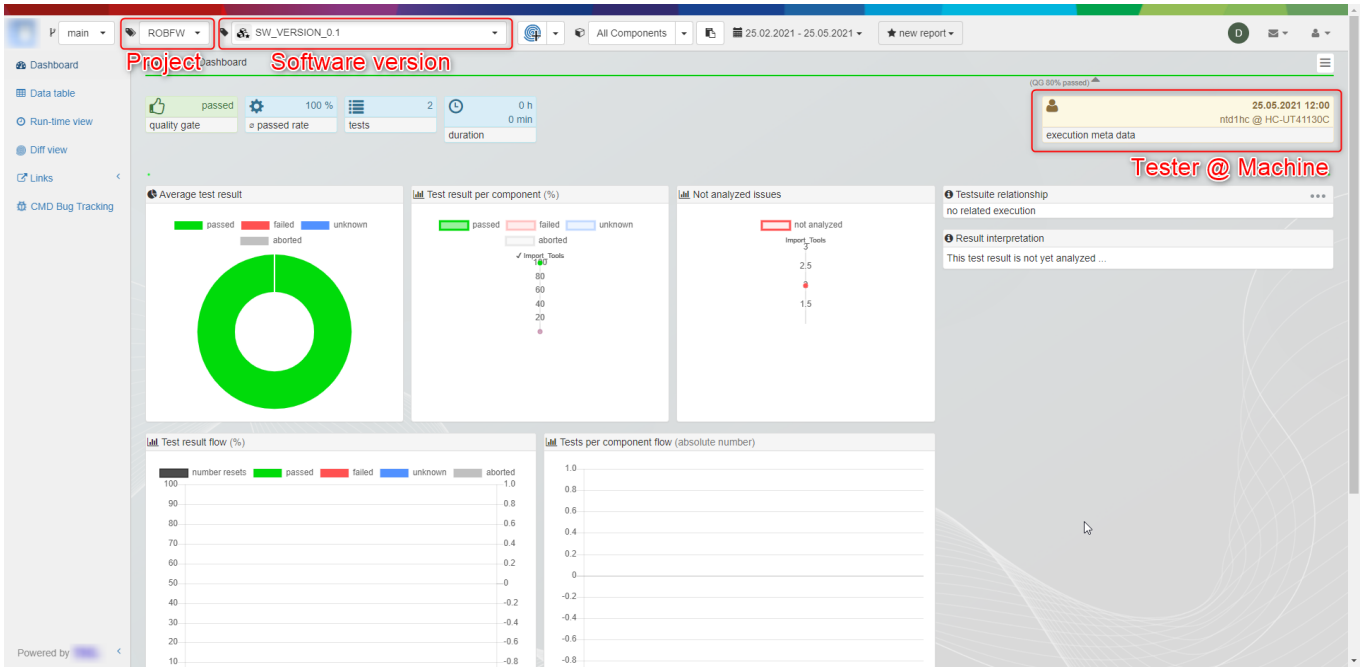


Figure 2.1: Dashboard view

Suite/File metadata and Testcase information:

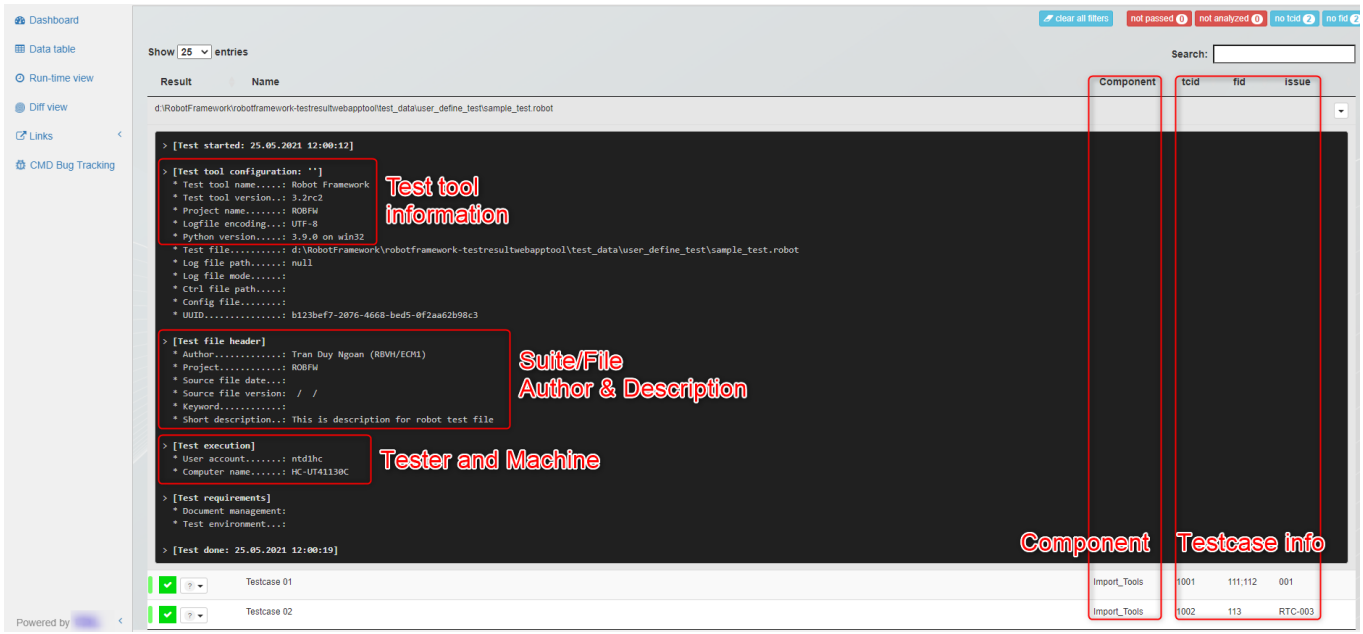


Figure 2.2: Datatable view

Chapter 3

CDataBase.py

3.1 Class: CDataBase

Imported by:

```
from RobotLog2DB.CDataBase import 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

robotlog2db.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: RobotLog2DB

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:
  - resultxmlfile : path to the xml result file or directory of result 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.
  - -append : if True, then allow to append new result(s) to existing execution result UUID which is provided by -UUID argument.
  - 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

Imported by:

```
from RobotLog2DB.robotlog2db import Logger
```

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	RobotLog2DB
Version	1.2.4
Date	18.11.2022
Description	Imports robot result(s) to TestResultWebApp database
Package URL	robotframework-robotlog2db
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	
1.2.2	13.10.2022
- Fix findings and enhance README and document files *- Change argument name 'outputfile' to 'resultxmlfile'*	
1.2.3	10.11.2022
Rename package to RobotLog2DB	
1.2.4	18.11.2022
Add -append argument which allow to append into existing UUID	

RobotLog2DB.pdf

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