Custom Report Reference Guide

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Weifeng Lu

1. Introduction

Reports are the most important part of any automation execution. Any report generated by the tool or custom built reports must satisfy all kinds of user requirements. The report generated for every execution should be stored or archived for audit purposes too. Below sections will explain in detail about the automation execution reporting.

2. Why Custom Report

QTP tool provides its own report at the end of every execution. But that doesn't cover all the internal user requirements.

QTP report Cons:

1. In case of categorizing/prioritizing and automating the test cases, QTP cannot provide a summary report of how many critical, high, medium and lo cases were automated and executed, in which how many of them passed and failed.
2. Any user who doesn't have working knowledge of QTP, will find hard to interpret the QTP's reporting structure,
3. After the test execution, automation engineer has to export to the QTP report to HTML report and save it in a location manually, which makes the process as not completely automated task.
4. QTP reports are not customizable by the user/automation engineer.
5. QTP snapshots are not stored in user friendly locations, which makes quite difficult to maintain during audits.

3. Features

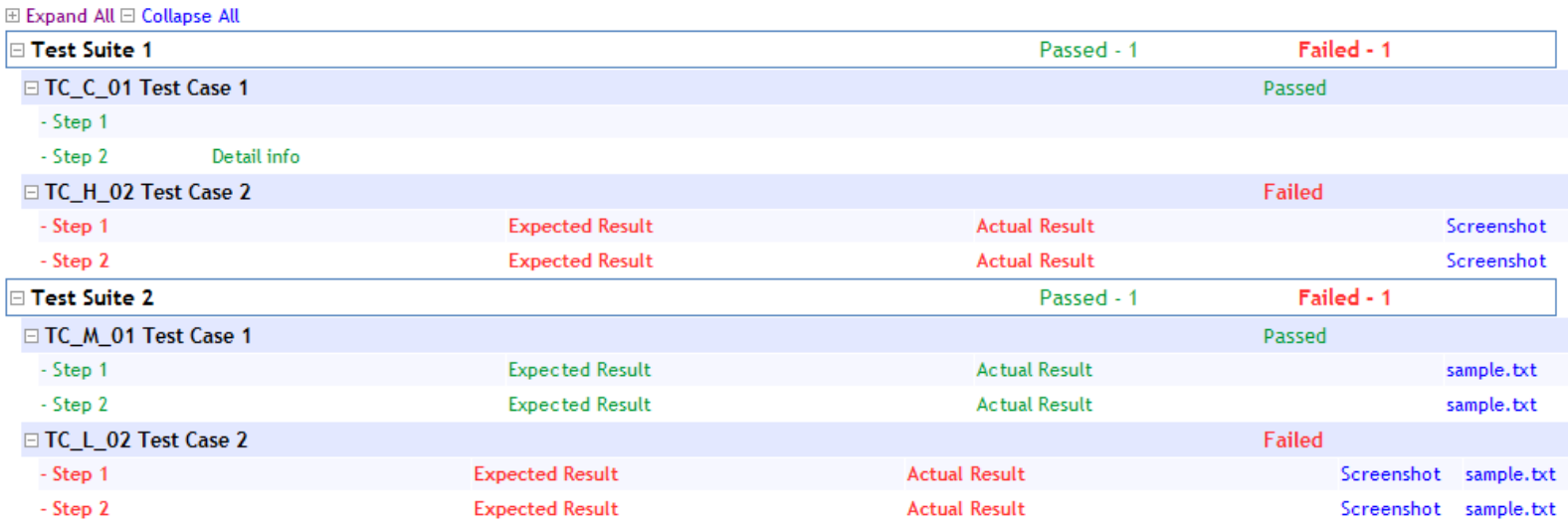
Based on the above Cons, a new custom HTML report was designed based on XML+XSLT 1.0+CSS+Javascript technology which would overcome all the above. Here are the features contained in this customized HTML report.

1. Summary of each test suite execution containing
   - Total Passed
   - Total Failed
   - Total number of test cases

This part is useful for the managers to get a high level report on the automated test execution.

Summary of TestSuites	Passed	Failed
Test Suite 1	1	1
Test Suite 2	1	1
Total	2	2

2. Clearly hierarchical tree – Test Suite layer, Test Case layer and Test Step layer, and each layer can be expanded and collapsed. Layers may include:
   - Test Suite name
   - Test Case ID and Test Case Name
   - Objective of the test step
   - Detail info
   - Expected Result
   - Actual Result
   - Link to snapshot of the step
   - Link to file of the step
   - Status of the step



3. Details of each test suite containing
   Total Critical, High, Medium and Low Passed
   Total Critical, High, Medium and Low Failed
   Total number of test cases

Test Suite 1 Test Cases	Critical	High	Medium	Low
Total Passed	1	0	0	0
Total Failed	0	1	0	0

Test Suite 2 Test Cases	Critical	High	Medium	Low
Total Passed	0	0	1	0
Total Failed	0	0	0	1

4. Execution Date, Time and the Total time for the execution to complete.

Start Time : 6/12/2011 8:04:44 PM

End Time : 6/12/2011 8:04:46 PM

Execute Time : 0 Hr(s) 0 Min(s)

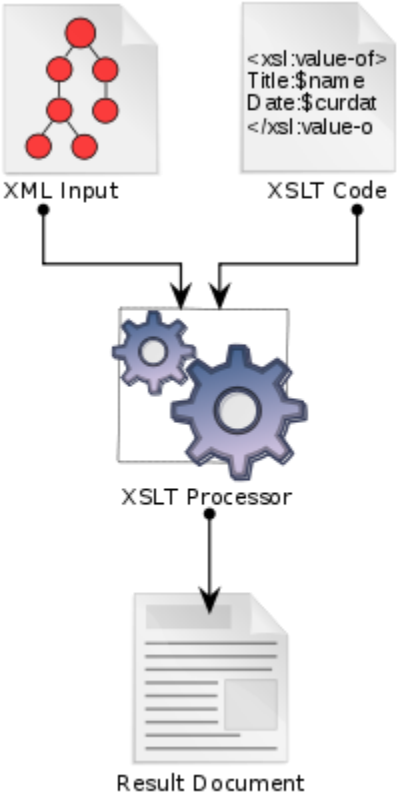
4. How To Work

This custom report template is based on XML+XSLT 1.0+CSS+Javascript technology.
Current report template contains the three key files - ReportLib.vbs, Report.xsl and Report.css

1. ReportLib.vbs – the library to create xml file

2. Report.xsl – an XSLT style sheet to transform xml file generated by above report library (ReportLib.vbs) into Html document.

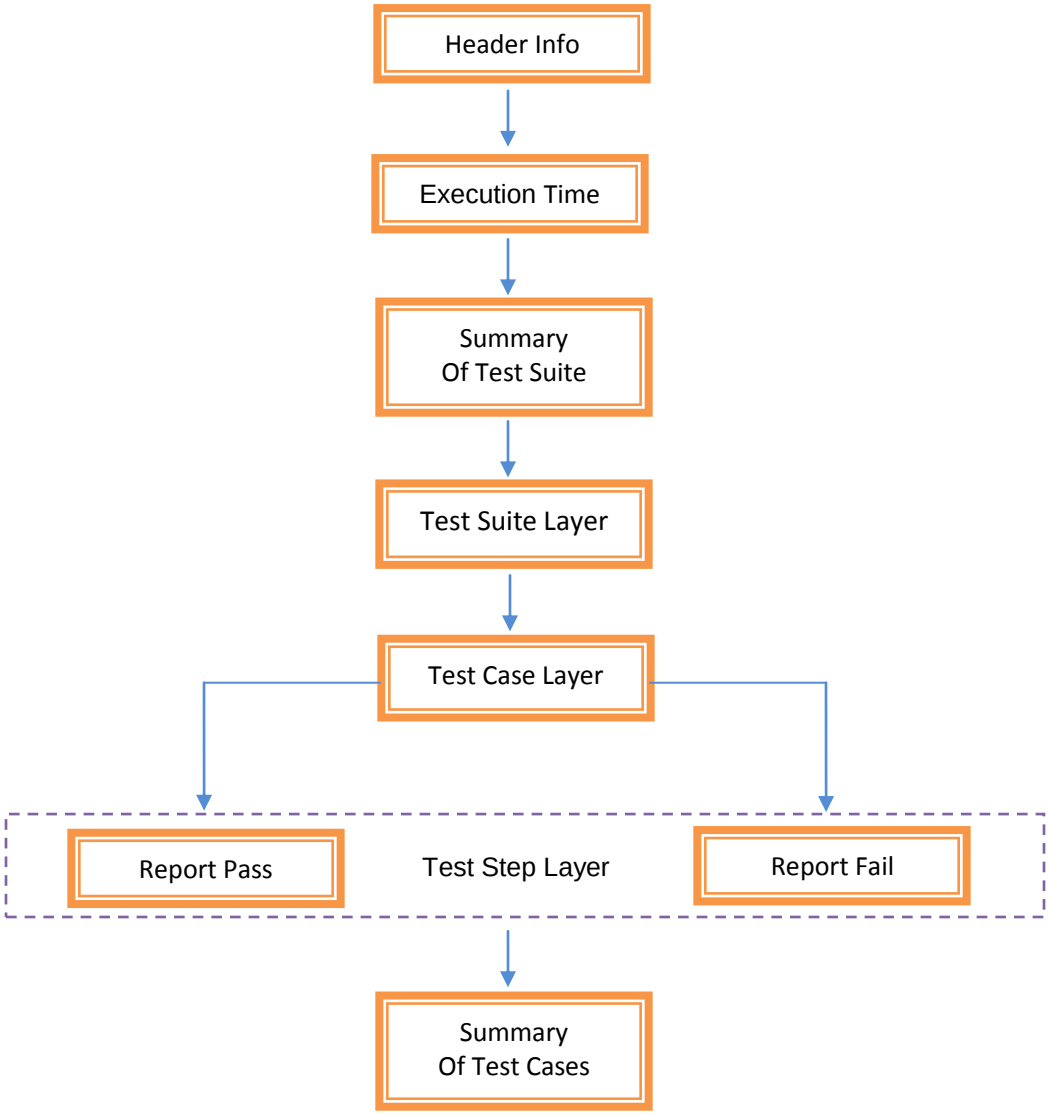
The XSLT processor ordinarily takes two input documents—an XML source document, and an XSLT style sheet—and produces an output document.
XSLT processing model see following figure.



3. Report.css - control presentation (the look and formatting) of an Html document

5. Structure Diagram

The Structure of the custom HTML report will be as below diagram.



6. How To Call

ReportLib.vbs file contains all the functions that are needed to create this XML file.
Below sample will demonstrate how to call report library (ReportLib.vbs)

```
'Declare an instance of the ReportLib class
Dim oReport
'New an instance of the ReportLib class
Set oReport = ReportLib

'Create a custom report with header info
oReport.CreateCustomReportFile "Header", "SGOWeb", "4.8.0", "1.0"

'Create a Test Suite Node
oReport.AddTestSuiteNode "Test Suite 1"

'Create a Test Case Node
oReport.AddTestCaseNode "TC_C_01", "Test Case 1"

'Create a passed step without expect/actual result
oReport.ReportPass array("Step 1"), false
'Create a passed step with Detail info
oReport.ReportPass array("Step 2","Detail info"), false

'Create a Test Case Node
oReport.AddTestCaseNode "TC_H_02", "Test Case 2"

'Create a failed step with screenshot
oReport.ReportFail array("Step 1", "Expected Result", "Actual Result"), true
oReport.ReportFail array("Step 2", "Expected Result", "Actual Result"), true

'Create a Test Suite Node
oReport.AddTestSuiteNode "Test Suite 2"

'Create a Test Case Node
oReport.AddTestCaseNode "TC_M_01", "Test Case 1"

'Create a passed step with linking to file
oReport.ReportPass array("Step 1", "Expected Result", "Actual Result", "_filepath\sample.txt"),
false
oReport.ReportPass array("Step 2", "Expected Result", "Actual Result", "_filepath\sample.txt"),
false

'Create a Test Case Node
oReport.AddTestCaseNode "TC_L_02", "Test Case 2"
'Create a failed step with screenshot and linking to file
oReport.ReportFail array("Step 1", "Expected Result", "Actual Result", "_filepath\sample.txt"), true
oReport.ReportFail array("Step 2", "Expected Result", "Actual Result", "_filepath\sample.txt"), true

'Release the instance
Set oReport = nothing
```

Appendix A – Test Case ID Rule

In order to count the number of critical, high, medium and low cases, the test Case ID should always have a prefix of the type of test case.

For example

C – Critical	H - High	M - Medium	L - Low
G1W_MGCC_C_001	G1W_MGCC_H_002	G1W_MGCC_M_003	G1W_MGCC_L_004

Appendix B – Screenshot (Mockup)

Header

Automation Test Report

Application Name: SGOWeb
Release: 4.8.0
Build: 1.0

Start Time : 6/12/2011 8:04:44 PM
End Time : 6/12/2011 8:04:46 PM
Execute Time : 0 Hr(s) 0 Min(s)

Summary of TestSuites	Passed	Failed
Test Suite 1	1	1
Test Suite 2	1	1
Total	2	2

⊞ Expand All ⊟ Collapse All

⊟ **Test Suite 1**		Passed - 1	Failed - 1
⊟ TC_C_01 Test Case 1			Passed
- Step 1			
- Step 2	Detail info		
⊟ TC_H_02 Test Case 2			Failed
- Step 1	Expected Result	Actual Result	Screenshot
- Step 2	Expected Result	Actual Result	Screenshot
⊞ **Test Suite 2**		Passed - 1	Failed - 1

Test Suite 1 Test Cases	Critical	High	Medium	Low
Total Passed	1	0	0	0
Total Failed	0	1	0	0

Test Suite 2 Test Cases	Critical	High	Medium	Low
Total Passed	0	0	1	0
Total Failed	0	0	0	1

Appendix C – Report Folder Structure

This report can be organized and stored in any location as per the user requirements.
The custom Result file is named in such a way that every file is identified uniquely by the release, build, date and time it was run.