

Setting Up a Test Script Review Process

Article #2 in the 'QaTraq Professional Series'



QaTraq Professional Series

The 'QaTraq Professional Series' is a series of articles looking at how you can tackle some of the more critical aspects of your test process with QaTraq Professional. In this second article we examine how you can implement a test script review process.



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Introduction

On occasions in the QA and Testing arena we demand standards of our development colleagues that we don't demand of ourselves. For example we often demand that our development teams follow a formal release and version control process. We expect a development team to deliver a formal release of software or hardware. We expect them to track all changes made and to control exactly which version is released for testing. This is considered good practice.

However, we seldom demand the same release and version control standards for the test teams' deliverables. In many test environments it is common for test scripts to be written, modified and run on an ad hoc basis, where no thought is given to formal approval and release for the test scripts that need to be run.

Such a situation usually arises because it is difficult to implement a release and approval process for a test team when the tools to control the process are not in place. So, on the one hand we'd be very concerned if we had a development team who weren't using source code control tools (like CVS or SourceSafe). Yet, on the other hand, because the QA or test team don't have equivalent tools, we continue without an effective approval and release process for our test scripts and test runs. QaTraq Professional can help you implement an effective review, approval and release process.

Users Involved with Reviews and Approvals

In any test script review and approval process (QaTraq based or otherwise) you will have four key groups of users:

1. Users who create, review and modify draft test scripts (known as templates)
2. Users who approve draft template test scripts (known as approvers)
3. Users who assign approved test scripts to testers ready for testing
4. Users who enter results against an approved test scripts

As an example a Test Analyst may be responsible for writing the draft template test script. The test manager may then review the draft template and mark it as approved, and ready for formal release. A test team lead may then assign the approved template test script to a tester ready for testing to commence. The tester will then enter test results against the approved test script.

Templates, Scripts and Results

As Templates, Test Scripts and Test Results form the key components of this review and approval process let's consider some definitions first.



Scripts: A Test Script is a document that describes in detail how a group of related tests should be conducted. A Test Script contains information outlining the test, defines the pre-requisites and contains a number of test cases.



Results: Every test script has a number of associated test results; one test result record for each test case included in the test script.



Templates: A template is essentially identical to a Test Script except that it doesn't have any test results associated with it. So you can develop a Template over a period of time and then, when you are ready, copy the Template to create a Test Script (which then has the associated test results).

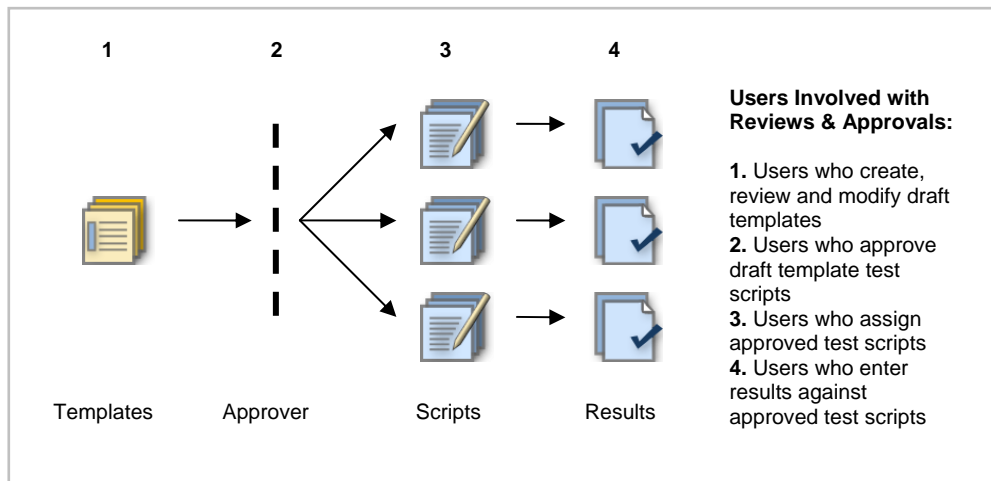
The interaction between Scripts, Results and Templates is what enables us to implement our test script review and approval process. So for example this interaction allows:

- i. A Template to be copied to create a Test Script
- ii. A set of Test Results to be created for the Test Script
- iii. A Test Script to be copied to create a Template (with no test results)

The key relationship we are interested in here is the process of developing draft Templates, approving these Templates, copying approved Templates to create approved Test Scripts and then entering Test Results against these approved Test Scripts.

Reviewing and Approving Templates

With Templates it is this ability to limit the version that can be copied to create a normal Test Script that enables us to implement a review and approval process. To facilitate this each Template has a “Approval” status which defines the version of the Template that can be copied to create a Test Script. Only an *Approver* can modify this “Approval” status on the Templates. For example if an Approver sets an “Approval” value to “Latest Version” you will only be able to copy the Latest Version of the Template to create a new Test Script.



It is important to understand that in implementing a review process the “Approver” privileges control other users’ ability to copy Templates to create Test Scripts. The approver privileges restrict, or allow, copying of Templates to create new Test Scripts. When a user is granted Approver privileges, that user is able to modify the “Approval” value for individual Templates.

Now we have an understanding of Templates, Scripts and Results we can start to examine how our users follow this process. So returning to our list of four key groups of users in a review process, we have:

1. Users who create, review and modify draft templates

A Test Analyst role, defined within QaTraq, could be given privileges to allow new Templates to be created. Allowing a particular group of users, such as Test Analysts, to create and modify templates means Templates can be developed in isolation prior to review and approval (e.g. before a Template is used for formal test runs).

2. Users who approve draft template test scripts

The ability to copy Templates to Test Scripts is restricted by the “Approval” value assigned to each Template. The ability to modify this value is only given to users who have approver privileges. So within each individual Template the “Approval” value selected takes one of 4 values:

- **Latest Version** - if this is selected for a particular Template then ONLY the latest version of the Template can be copied to create a new Test Script. So the Template can be used and effectively does not require any Approval.
- **Not Yet Approved** - if this is selected for a particular Template then this Template can NOT be copied to create a Test Script. So the Template is not approved for use.

- **Specific Version** - this value allows you to set any single particular version of the Template as approved (e.g. a specific version can be copied to create a Test Script). So a specific version of the Template has been approved.
- **Latest X.0 Version** - selecting this value means that only versions of a Template ending in x.0 can be copied and used to create formal Test Scripts. So you can develop minor versions of a Template (perhaps TMP2-0.2) and only when you increment the version number to a major number (i.e. TMP2-1.0) can the Template be used to create a formal Test Script. So only when the version number is incremented to a major version is the Template approved.

3. Users who assign approved test script to testers

Having users who can copy Templates to Scripts means that, say a Team Lead, would be able to copy an approved template (and copy ONLY approved templates) to create a new test script. You could, however, limit those users' privileges so that he/she does not have privileges to modify Templates or Scripts. Thus the user would be restricted to only issuing approved test scripts.

4. Users who enter results against approved test scripts

Once a test script has been created, results for that test script will need to be logged. Again, you may restrict a roles' privileges such that users can not modify, and can only enter, results against the test script for the test run (for example if you have a junior tester who you want to prevent from modifying already approved test scripts and templates).

Summary

In this article we have taken you through the high level principals of setting up and managing a test script review process. Using the Templates functionality within QaTraq Professional enables you to keep a close view of where each Template is in the review and approval process. Using the role based privileges within QaTraq enables you to enforce controls around which users can create and modify templates, copy templates to test scripts and, ultimately, create approved Test Scripts against which test results are recorded.

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