QaTraq Pro Reports

Professional Reports for QaTraq

www.TestManagement.com

Contents

Introduction

One of the most difficult aspects of any test project is identifying the exact status of your test project. It is all very well diligently creating test scripts and entering test result data but unless you can easily pull out accurate status information you may as well be working in the dark. The QaTraq Professional Reports enables you to report on numerous aspects of your test project quickly, easily and accurately.

Pre Requisites

To utilize the Reports functionality in the QaTraq Professional you must ensure you comply with the following pre-requisites:

- ❏   - You need to be running QaTraq 6_10_0 or later
- ❏   - You need to be running with MySQL version 5 or later
- ❏   - You need to have installed the Zend Optimizer version 3.0.0 or later
- ❏   - You need to have purchased and installed the QaTraq Professional Licence

Installation Notes

This manual describes how to use QaTraq Professional Reports and assumes that you already have QaTraq Professional installed. For more information about how to install the QaTraq Professional please check the latest install guide, which can be found here www.testmanagement.com/proinstall.html.

Using QaTraq Professional Reports

QaTraq Professional Reports work on the principal that you define filter criteria for the report on the *Form* page, review an overview of the results with the *Graph* (not available for all reports) and then view the detailed results in the *Results* section of the report. So there are three key sections to each report:

1. **Form** : in the form section of the report you enter report filter criteria
2. **Graph** : provides a graphical display and summary of your report results
3. **Results** : shows detailed report results including numerical and statistical data (may also contain hyper links to various test documents relevant to the report)

Report Categories

The reports provided in QaTraq Professional Reports have been split into 6 key categories. Each category is listed below with a brief explanation of the category objective and the report types found in each category.

Tracking Test Scripts

Reports provided in this category provide you with information relating to the test script development, assignment (against product versions), execution status and result status. For example, using these reports, you can identify which test scripts are being run against which versions of a product and what the results are for those test scripts. Reports found in this category are:

- Pro Test Script Development
- Pro Scripts per Build
- Pro Scripts per Build Count
- Pro Test Script Summary

Tracking Test Cases and Results

This set of reports provides you with detailed information relating to the test cases and test results for particular products under test. For example you can instantly see how many test cases are being executed within a test script and see what the result status for those test cases are. These reports also provide you with information relating to the defects raised during the execution of test cases. Reports found in this category are:

- Pro Test Case Summary
- Pro My Test Case Count
- Pro Users Test Case Count
- Pro Test Case Defects

Prioritising Your Testing

With the priority based reports provided you have the ability to monitor and control your testing based on the priorities you are assigning to your test cases. Not only do these reports help individual testers see which tests to complete first, they also provide an essential overview of your test results in relation to the priorities assigned to your testing. Reports found in this category are:

- Pro My Test Case Count Priority
- Pro Test Script Summary Priority
- Pro Scripts per Build Priority

Identifying Test Coverage

Identifying test coverage is one of the most important parts of any test project. With these reports you can see where your testing efforts are being concentrated and where defects are being found in relation to your test coverage. Reports found in this category are:

- Pro Component Coverage Summary
- Pro Component Coverage vs Bugs Found
- Pro Requirements Coverage Summary
- Pro Requirements Coverage vs Bugs Found

Determining Test Progress

Knowing exactly how far you have progressed with your test project is one of the most difficult aspects of any testing project to keep track of. Using reports in this category you can immediately ascertain how many of your test cases have been executed and how the defects raised relate to the test failures you have identified. Reports found in this category are:

- Pro Tests Cases Executed
- Pro Test Failures by Defect

Identifying and Estimating Time Taken to Run Tests

Knowing how long it takes to run your tests, and estimating how long a selection of tests may take to run, is key to planning your testing efforts. With reports in this category you can see how long it took to run previous test scripts and then use this information to estimate how long it may take to run future test scripts. Reports found in this category are:

- Pro Test Script Calculated Time
- Pro Test Script Overall Time
- Pro Users Test Case Calculated Time
- Pro Users Test Case Overall Time
- Pro Scripts Build Calculated Time
- Pro Scripts Build Overall Time
- Pro Template Scripts Calculated Time
- Pro Template Scripts Overall Time

Tracking Test Scripts

Pro Test Script Development Report

The 'Test Script Development' report shows you how many test cases have been created and included in test scripts over a period of time. This gives you an indication of how much progress is being made with the creation of test scripts prior to the start of (or even during) testing.

This report is likely to be of most use at the start of a project where test analysts create test scripts based on design documents and requirements documents (i.e. before any actual testing starts). This report may also be of use as you create new, or copy test scripts, for each new build (or version) of a product. As you create new (or copy test scripts) for a new build the increase in the number of test cases will be displayed on this report.

The counted new test cases is based on the date/day on which the test script was last modified. So if you include 10 test cases in a test script on 12th Feb 2006 and then another 5 test cases are included on the 18th Feb 2006 the report will show 15 test cases as being included on the 18th Feb 2006. Think of it in terms of test cases being counted only when the test script has been completed (e.g. the day the script was last modified).

The trends displayed provide you with clear visibility of your test script development. However, the figures presented in this report could be considered quite subjective. No report can tell you how well written each test case is. Neither can any report give you an indication of how much coverage a manual test case provides. Using the trends shown in this report you do get a good indication of test case and test script development progress (as opposed to the running of tests and the recording for results).

Test Script Development Graph

Report Graph

The graph for this report shows the number of test cases included in a number of test scripts over a period of time. As you create test cases and then include them in test script you are effectively creating test result records on which to record the results of your testing. So this report and the graph show you how many tests you have written and plan to run.

In the example above we can see that over a period of 7 days we have created approximately 49 test cases (which are contained in various test scripts), against which we will records test results (when testing actually starts). As a rough average we can see from this graph that in a 7 day period we were adding around 7 test cases a day.

Test Script Development Results

Report Results

The results section of this report provides you with the exact figures for the test script development progress. This section also shows you which Test Plan, Test Design and Test Scripts the report applies to.

Test Script Development Form

Report Form

When specifying the requirements for this report you need to decide which test documents you are reporting on (e.g. test plans, designs and scripts), which product (components and versions) and the time frame for the report.

One key point to appreciate is that selecting 'All' for test scripts will make sure that any new test scripts added to the Test Plan will be automatically be added to the report when a new test script is created. Selecting 'All' from Components and Versions will also ensure that if you add any new Components or Versions to the Product that they will automatically be accounted for each time you run the report.

When deciding on the time frame for the report selecting a start date of 'Test Plan Creation Date' ensures that the report starts on the date that you created the Test Plan. At the other end of the time scale the end date can be specified explicitly (i.e. you pick a date) or you can run the report up to 'Today'. When you select 'Today' the report will always run up to the date on which you run the report.

The 'Value Markers' radio buttons allow you to include or remove the values on the cumulative count line graph.

Pro Scripts per Build Report

This report provides a table of test scripts run for selected product build/versions of a product. The results are broken down by product version/build vs. distinct test script titles. Use this report as the main view to create all the test script instances you need.

With this report is important to understand the three identifiers for each test script:

1. **Unique ID**: every instance of a test script has a unique identifier. This unique numerical identifier is in the format of 'TSCnn'.

2. **Version**: every instance of a test script has a version. This version identifier is in the format of 'TSCnn-V.v', where 'V' is the major version number and 'v' is the minor version number.

3. **Title**: the test script title should describe the area of functionality that the test script and the associated test cases cover. The Test Script title is used as a common identifier for different instances and different versions of a similar test script

These identifiers are used on this report to show which test scripts (title), which unique instance of a test script (Unique ID) and which version of the test script have been run against a build/version of the product.

Scripts per Build Results

Report Results

So the results box for this report shows you which instance of a test script has been created against which build/version of the product. Each purple box indicates a test script to be run against a specific build/version of the product.

With the test script titles, Ids and versions all shown on this report it is easy to see how your test script execution strategy has developed. For example you can see how one version of a test script was run against one build/version of the product and then how a different version of the same test script might have been run against a later build/version of the product.

Each instance of a test script shown on this report is hyper linked and will take you to the Test Script document or the related Test Result documents (depending on your selection in the report form). One other small point to note about this report is that if you have run the same test script more than once for the same product build/version then only latest test script will be displayed.

Scripts per Build Form

Report Form
When specifying the filter criteria for this report you need to decide which test plan and which product (components and versions) you need to view data for.

Selecting 'Display Links to Test Results' means that you will have hyper links to the test results pages for all of the test scripts shown on the reports results page. Selecting 'Display Links to Test Scripts' means you will have hyper links to the actual test script documents. The former tends to be more useful when you are developing the test scripts and test script strategy. Links to test results becomes more useful once all the test scripts have been defined and testing starts.

Further Information
More information, about how to develop you test script execution strategy using this report, can be found in the 'Introduction to QaTraq Series' article 'Tracking Test Scripts' which can be found using the link below

http://www.testmanagement.com/articles.html

Pro Scripts per Build Count Report

The 'Scripts per Build Count' report provides a table of test scripts run for selected product versions (builds) of a product. Use this report as the main view showing how test execution is progressing and to find out where you still have areas of testing to address.

The results are broken down by product version vs. distinct test script titles. Figures displayed are in the format of *Selected Result Category Count / Total Results for Script.* So you might have 4 test cases/results which have passed out of a total number of 20 test cases/results in the test script. It should also be noted that if you have run the same test script twice for the same product version then only the test results for the latest script are displayed.

Scripts per Build Count Results

Report Results
From the results view for this report you can identify the number of test cases within a test script that match the result categories you have chosen. The results are broken down by product version/build vs. distinct test script titles. For example when you have a test script created for a particular build you might see that it has a value of X/Y. This implies that X number test cases are set to the selected test categories vs. Y total number of test cases in the test script. So if you select to see only Failed test cases then Y would show you how many test cases had failed within the each test script.

Scripts per Build Count Form

Report Form

When specifying the requirements for this report you need to decide which test plan to report on and then select the Product and Product Versions.

You will also need to specify which result categories you want the report to count for each test script. For example may select Fail and Outstanding results categories. When you pick more than one result category the total number of test cases for the selected categories are added together to produced the X component of the results displayed.

Pro Test Script Summary

The 'Pro Test Script Summary' report shows you test result information on an individual test script basis, broken down by product version. With this report you can see at a glance that for Version X of a product, you have N tests scripts each of which have multiple test result records.

With the graph section in particular you can step through each version of the product comparing the status for all test scripts assigned to the product versions (this is especially useful as you can open a graph for each version of the product in a new window and compare version summaries side by side).
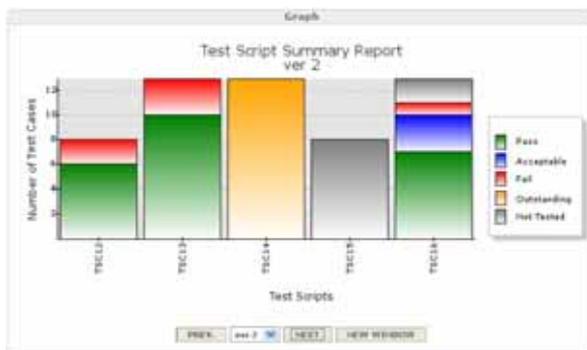
Test Script Summary Graph

Report Graph

The graph shown for this report shows us that we have a number of test scripts (listed on the X-axis) for a particular version of the product. Each test script has a certain number of test cases where each test case is assigned a particular test result category.

So in the example above we can see that for version 'ver 2' of the product we had 5 test scripts. The third test script TSC14 has all test associated test cases and test results set to 'Outstanding' (i.e. we haven't started running tests from this test script yet). However, the first test script TSC12 shows that 6 test cases have passed and 2 test cases have failed.

Using the drop down version box, or the prev/next buttons, you can step through all of the different product versions. So you can step through version 'ver 1' and 'ver 2' of the product and see the test scripts assigned to this version of the product. Using the 'New Window' button you can even open multiple graphs in new windows for each of the versions so that you can compare summary results side by side.

Test Script Summary Results

Report Results

The results section for this particular report again provides more granularity over the graph. From this section of the report you can see the exact number of pass/fail/etc result categories for each test script for each version of the product. Each test script is categories under its associated test design section. Links are also provided to the test scripts.

Test Script Summary Results

Report Form

When picking the filter requirements for this report you can select a specific test plan and then further filter on products within that test plan and the version of the product.

Whilst in most cases it is usual to have one product tested within a test plan it is quite possible to set up a test plan which covers multiple products. If you need your report to cover multiple products within the plan then select the required products in the product box.

If you are only interested in seeing a report for particular test results then select the relevant test results categories. For example if you want to know which tests you still have to complete then only select a result category of 'Outstanding'.

Tracking Test Cases and Results

Pro Test Case Summary

The 'Test Case Summary' report shows the number of test results in each category across the selected Test Plans, Test Design and Test Scripts. The percentage of test case results in each category is displayed too. This report is useful when you need to get an overview of the test results for a test plan or a subset of test areas within that test plan.
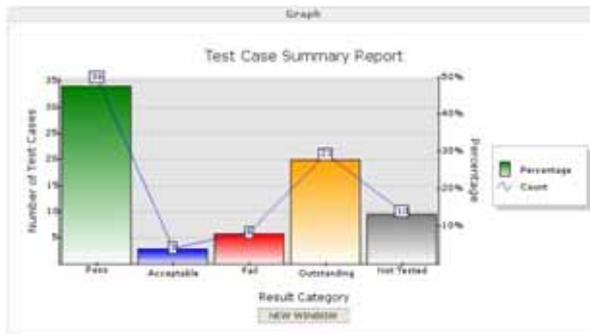
Test Case Summary Graph

Report Graph

The graph shown for this report shows us how many test cases / results have been assigned particular test result categories. The line graph shows the actual count of test cases within the category. The bar graph shows the percentage of test cases / results for a category as a percentage of the total number of test cases / results.

Test Case Summary Results

Report Results

The results for this report are fairly straightforward in that you see the exact figures for each test result category across all of the test scripts selected. In one column you have the actual count of test cases/results within the test scripts and in the last column you have the percentage figures for each category as a percentage of the total number of test cases/results in all of the selected test scripts.

Test Case Summary Form

Report Form

When specifying the filter criteria for this report you just need to decide which test documents you are reporting on (e.g. test plans, designs and scripts).

Pro My Test Case Count

The 'My Test Case Count' report shows you how many test cases and test results are assigned to you (the logged in user). The results shown in this report are split based on the product build/version and result category. So for example the logged in user can see at a glance that outstanding test cases need to be run for a particular build.

It is important to realise that this report only shows results for the logged in user. So results are only shown for test cases and test results that are assigned to the logged in user. Test cases and test results are assigned to a user based on the intended user value set in the test script and the specific 'tester' field set in the test results.

My Test Case Count Graph

Report Graph
The graph for this report shows how many test cases are assigned to the user for each version of a product under test. Each set of test cases for a particular version is split into their result categories. So for example, in the example graph, we can see that for version 'Ver 1' of the product most tests assigned to the logged in users have been run and have passed.

Using the criteria selectable on the form page (see below) it is possible to restrict the results shown in this graph by Result Category. So for example you could restrict the results to only contain cases that have Failed. You can also restrict the results based on the version/build of a product too.

My Test Case Count Results

Report Results
With this particular report the results section is probably the most useful section. Whilst the graph gives an overall indication of test status and progress for the user, this section provides with the key information needed to focus your testing. Using this information you can instantly see which test scripts have been assigned to you on a version-by-version basis for the product.

So once you know which version of the product you a testing you can drill down to see exactly which test scripts and test cases have been assigned to you. Test scripts and results are further divided into their respective result categories. So if you need to know which 'outstanding' tests need to be completed for version X of the product this is the place to look. You will also find the Script ID and Result ID links taking you directly to the test script and the test result pages where you can start entering results.

My Test Case Count Form

Report Form
When deciding on the filter requirements for this report you can select a specific test plan and then further filter on products/versions within that test plan. Whilst in most cases it is usual to have one product tested within a test plan it is quite possible to set up a test plan that covers multiple products. If you need your report to cover multiple products within the plan then select the required products in the product box.

If you are only interested in seeing a report for particular test result category then select the relevant test results categories in the 'Result Category' select box. For example if you want to know which tests you still have to complete then only select the 'Outstanding' result category.

One key point to note here is that test scripts (and their associated results) are assigned to an intended tester (the intended tester is selected when you create or modify a test script record). Normally this report only shows results for test scripts that are assigned to the intended tester (where the intended tester matches the logged in user). If you have test scripts that are assigned to a particular intended test (i.e. not you) where there are individual results that are assigned to you then you should check the 'Include Test Scripts for which I am not the Intended Tester'. If in doubt check this box!

Pro Users Test Case Count

The 'Users Test Case Count' report shows you how many test cases and test results are assigned to a range of selected users. The results shown in this report are split based on the product build/version, result category and users. So for example a manager can see at a glance, which outstanding test cases need to be run for a particular build for each tester.
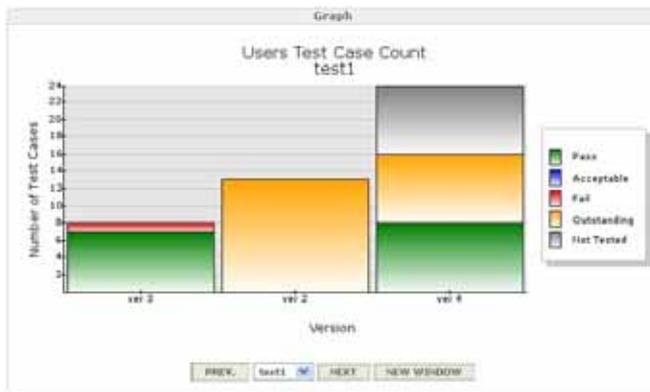
Users Test Case Count Graph

Report Graph
The graph for this report shows how many test cases are assigned to a selected user for each version of a product under test. Each set of test cases for each version have been split into their result categories. So for example, in the example graph, we can see that for version 'Ver 3' of the product most tests assigned to the user 'test1' have been run and have passed (although 1 test case has failed).

Using the drop down select box (and/or the Prev/Next buttons) you can graph the results for different users. Using the 'New Window' button you can even open multiple windows for multiple users enabling you to compare test cases/results for different users.

Using the criteria selectable on the form page (see below) it is possible to restrict the results shown in this graph by Result Category. So for example you could restrict the results to only contain cases that have Failed.

Users Test Case Count Results

Report Results
Whilst the graph gives an overall indication of test status and progress for each user, this section provides the key information needed to focus your testing. Using this information you can instantly see detailed test status information on a user-by-user and version-by-version basis for the product.

So, for example, you can see that for 'Version X' of a product 'User 1' has maybe 20 outstanding test cases to complete. So if you need to know which 'outstanding' tests need to be completed for version X of the product by user Y this is the place to look.

Users Test Case Count Form

Report Form
When deciding on the filter requirements for this report you can select a specific test plan and then further filter on products within that test plan and the version of the product. Whilst in most cases it is usual to have one product tested

within a test plan it is quite possible to set up a test plan that covers multiple products. If you need your report to cover multiple products within a specific test plan then select the required products in the product select box.

If you are only interested in seeing a report for particular test result category then select the relevant test result categories in the 'Result Category' select box. For example if you want to know which tests you still have to complete then only select the 'Outstanding' result category. You may also use the Users select box on this form to further restrict your results to a specific list of users.

Pro Test Case Defects

The 'Test Case Defects' report shows the defects logged in the test scripts, cases, and result records. If you need to identify defects that are blocking or stopping testing then this is the place to look. For example if you have one defect that is blocking 3 tests then you will find that information highlighted in this report.
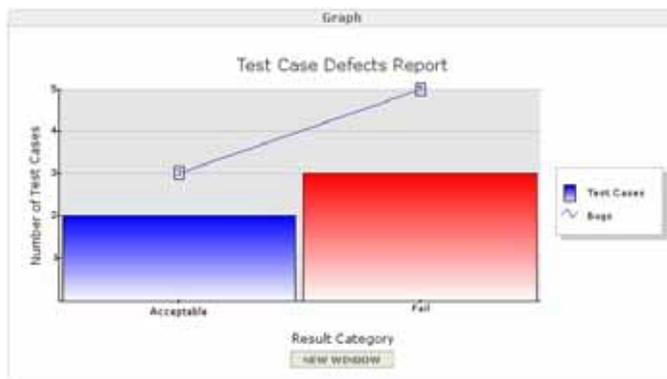
Users Test Case Count Form

Report Graph

The bar graph for this report shows how many test cases for each test result category have defects logged against them. The line graph counts the number of defects logged against the test cases. It is quite possible for a single test case to have multiple defects logged against it. If there is a one-to-one correlation between defects and test cases then the line graph will match the bar graph on this report. You can include all test result categories on this report, although, it might be considered slightly unusual to see defects logged against test cases that 'Pass'.

Users Test Case Count Results

Report Results

Whilst the graph gives an overall indication of defect relationships with test case results, the Results section of this report identifies exactly which test cases/results have defects logged against them.

These results are broken down by Result Category, Test Script, Test Result and Test case. The final column shows any defects relating to the test case. Defects identified in the defect column are hyper linked to the relevant defect web page (normally an external web based defect tracking database). Links are also provided directly to the Test Script, Test Result and Test Case pages.

Report Form

When deciding on the requirements for this report you can select a specific test plan and then further filter on test designs and test scripts. You can also limit the results to specific Result Categories (a logical choice might be to only display Failed, Acceptable and Outstanding result categories).

There is an option to only display test cases/results that have defects logged against them. If you don't check this option all test cases/results for the selected test scripts will be displayed even if there are no defects logged against the test case/result (which can give you quite a long list of results).

Prioritising your Testing

Pro My Test Case Count Priority

The 'My Test Case Count Priority' report shows you how many test cases and test results are assigned to the logged in user. The results shown in this report are split based on the product version, result category and then further filtered by the priority of the tests. So, for example, the logged in user can see at a glance which high priority, outstanding test cases need to be run for a particular version/build.

It is important to realise that this report only shows results for the logged in user. So results are only shown for test cases and test results that are assigned to the user logged in to QaTraq. Test cases and test results are assigned to a user based on the intended user value set in the test script and the specific 'tester' field set in the test results.
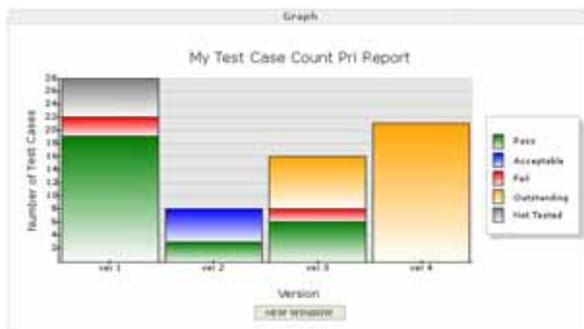
My Test Case Count Priority Graph

Report Graph
The graph for this report shows how many test cases are assigned to the user for each version of a product under test. Each set of test cases for a particular version are split into their result categories. So for example, in the graph on the left, we can see that for version 'Ver 1' of the product most tests assigned to the logged in users have been run and have passed. A few tests (three in fact) have failed and several more have been marked 'Not Tested' (i.e. a conscious decision was made not to complete these tests). We can also see that for version 'Ver 4' of the product no tests have yet been started.

Using the filter criteria selectable on the form page (see below) it is possible to restrict the results shown in this graph by Result Category and Priority. So you could, if you need to, only graph the high priority, P1 and P2, test cases which are outstanding. Equally it is possible to graph only the high priority test cases that have Failed.

My Test Case Count Priority Results

Report Results
Whilst the graph in this report gives an overall indication of test status and progress for the user, this section provides the key information needed to focus your testing. Using this information you can instantly see which test scripts have been assigned to you on a version-by-version and priority basis for the product.

So once you know which version of the product you a testing you can drill down to see exactly which test scripts and test results have been assigned to you and which tests need to be completed. Test scripts and results are further divided into their respective result categories and priorities. So if you need to know which high priority tests need to be completed (i.e. they are still outstanding) for version 'n' of the product this is the place to look. You will also find the Script ID and Result ID links taking you directly to the test script and the test result pages where you can start entering test results.
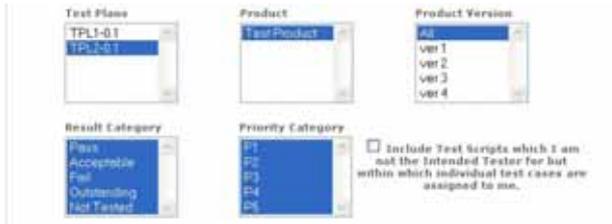
My Test Case Count Priority Form

Report Form

When deciding on the requirements for this report you can select a specific test plan and then further filter on products within that test plan and then the version of the product. Whilst in most cases it is usual to have one product tested within a test plan it is quite possible to set up a test plan that covers multiple products. If you need your report to cover multiple products within the plan then select the required products in the product box.

If you are only interested in seeing a report for particular test result categories then select the relevant test results categories. For example if you want to know which tests you still have to complete then only select a result category of 'Outstanding'. Further more if you are only interested in seeing high priority outstanding tests then filter further by selecting only P1 and P2 priority tests under the 'Priority Category' section.

One key point to note here is that test scripts (and their associated results) are assigned to an intended tester (the intended tester is selected when you create or modify a test script record). Normally this report only shows results for test scripts that are assigned to the intended tester (where the intended tester matches the logged in user). If you have test scripts that are assigned to a particular intended test (i.e. not you) where there are individual results that are assigned to you then you should check the 'Include Test Scripts for which I am not the Intended Tester'. If in doubt check this box!

Pro Test Script Summary Priority

The 'Pro Test Script Summary Priority' report shows you test result information on an individual test script basis, broken down by product version. So you can see at a glance that for Version X of a product you have 7 tests scripts each of which have various test results assigned to them.

With the graph section in particular you can step through each version of the product comparing the status for all test scripts assigned to the product versions (this is especially useful as you can open a graph for each version of the product in a new window and compare version summaries side by side).
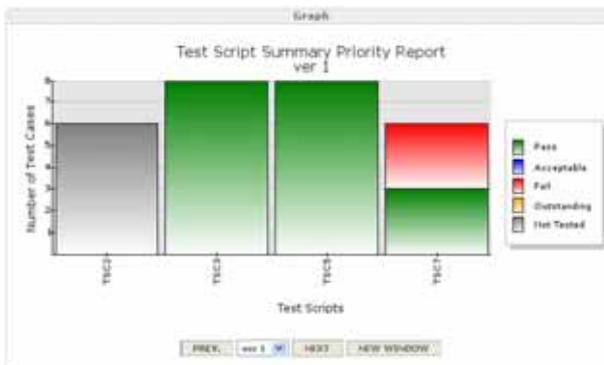
Test Script Summary Priority Graph

Report Graph

The graph shown for this report shows us that we have a number of test scripts (listed on the X-axis) for a particular version of the product. Each test script has a certain number of test cases where each test case is assigned a particular test result category.

So in the example on the left we can see that for version 'Ver 1' of the product we had 4 test scripts. The first test script TSC2 has all test and associated test results set to 'Not Tested' (i.e. a conscious decision was made not to complete these tests). However, the second test script TSC3 shows that all tests have passed.

Using the drop down version box, or the prev/next buttons, you can step through all of the different product versions. So you can step through to version 'ver 2' of the product and see the test scripts assigned to this version of the product. Using the 'New Window'

button you can even open multiple graphs in new windows for each of the versions so that you can compare summary results side by side.

Test Script Summary Priority Results

Report Results
The results section for this particular report provides more detail over the summary graph. From this section of the report you can see the exact number of pass/fail/etc result categories for each test script for each version of the product. Each test script is categories under its relevant test design section. Links are also provided to the test scripts.

Also show at the top of this section of the report is the specific Plan, Product version, Category and Priority selections made on the form (see below).

Test Script Summary Priority Form

Report Form
When picking the requirements for this report you can select a specific test plan and then further filter on products within that test plan and the version of the product. Whilst in most cases it is usual to have one product tested within a test plan it is quite possible to set up a test plan that covers multiple products.

If you need your report to cover multiple products within the plan then select the required products in the product box.

If you are only interested in seeing a report for particular test results then select the relevant test result categories. For example if you want to know which tests you still have to complete then only select a result category of 'Outstanding'. Further more if you are only interested in seeing high priority outstanding tests then filter further by selecting only P1 and P2 priority tests under the 'Priority Category' section.

Pro Scripts per Build Priority

The 'Scripts per Build Priority' report provides a table of test scripts run for selected product versions (builds) of a product filtered by test priority. Use this report as the main view to how test execution is progressing and to find out where you still have areas of high priority testing to complete.

The results are broken down by product version vs. distinct test script titles. Figures displayed are in the format of *Selected Result Category Count / Total Results for Script.* So you might have 4 P1 test cases/results that have passed out of a total number of 20 test cases/results in the test script. It should also be noted that if you have run the same test script twice for the same product version then only the test results for the latest script are displayed.

With this report the priority is used to indicate how important a test case is in the context of a test script. Priority values are specified in terms of P1, P2, P3, P4 or P5 (P1 being the highest priority and P5 being the lowest).

Using the 'Scripts per Build Priority' report you have the capability to see instantly the priorities of test cases across a number of test scripts and product versions (or builds).

Scripts per Build Priority Report

Report Results

From the results view for this report you can identify the number of test cases within a test script that match the result categories you have chosen. The results are broken down by product version/build vs. distinct test script titles. For example when you have a test script created for a particular build you might see that it has a value of X/Y. This implies that X number test cases are set to the selected test categories/priority vs. Y total number of test cases in the test script. So if you select to see only Failed P1 test cases then Y would show you how many top priority test cases had failed within the each test script.

Scripts per Build Priority Form

Report Form

When specifying the requirements for this report you need to decide which test plan to report on and then select the Product and Product Versions. You also need to specify which result categories you want the report to count for each test script. Key to this report is the ability to select only certain priority values to report on. Picking, say only P1, P2 and P3 categories, means that only these priority test cases will be counted.

The '*Scripts per Build Priority*' report is one of the key reports to use when defining and reviewing the priorities you have assigned. You will notice that this report also provides you with direct links to the test script or test result records. When using this report you can select if you want to see links to the test scripts or the test results. We suggest that, when you are defining the priorities, you select links to the test scripts (so that you can immediately go to a test script and modify the priorities). When you are reviewing and entering results we suggest that you select links to the test results (so that you can review a test scripts results immediately and see what result categories are being logged against the test cases).

Identifying Test Coverage

Pro Component/ Requirement Coverage Summary

The 'Pro Component Coverage Summary' and 'Pro Requirements Coverage Summary' reports enable you to identify test results on a component-by-component basis or requirement-by-requirement basis. So for a particular set of test results, you can see which test failures have been caused by specific components or requirements within the product under test. You will see that this report shows you the number of test cases run against specific components/requirements within the product. Further more the report shows you the results of the test cases run against each component/requirement.

Using the graph section of this report you can step through each version of the product comparing the status for components for each of the product versions (this is especially useful as you can open a graph for each version of the product in a new window and compare versions side by side).

Where you have test cases covering more than one component you will see that the test results are counted once for each component. This gives the impression that there are more test results than there are actual test cases. For example if 'Test Case 1' covers 'Comp 1' and 'Comp 2' then a failure for this test case is registered against both 'Comp 1' and 'Comp 2'. If you need to keep things simple then you might want to make sure that a test case is always assigned to only component.
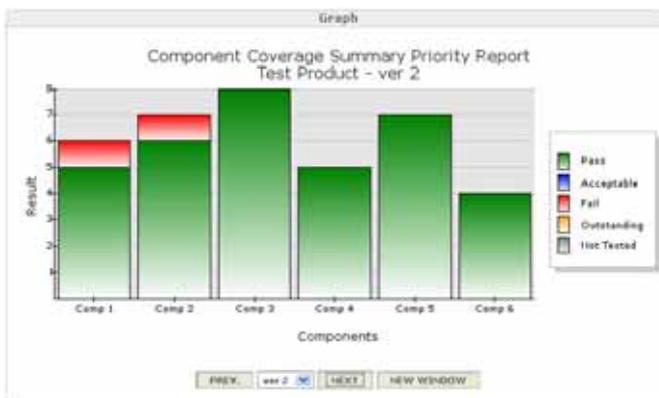
Component Coverage Summary Graph

Report Graph

The information conveyed in this graph shows how many test cases have been run for a particular component of a product. Separate graphs are displayed for each version of the product. So using the prev/next buttons, or the drop down version box, you can select which version of the product you need to see test coverage information for. In fact using the 'New Window' button you can compare, side by side, the component coverage results for different versions of the product.

In the graph above we can see that 6 test cases were run against 'Comp 1' for 'Ver 2' of the product. In fact we can see that 1 of these six test cases failed for component 'Comp 1'. We can also see that one test case failed for 'Comp 2'. If the test case that failed was assigned to both 'Comp 1' and 'Comp 2' then it may very well be that this failure shows in both 'Comp 1' and 'Comp 2' (even though it is a single test case/result which has failed).

You can see that this graph is useful for quickly highlighting where issues are being identified within the product. In the graph above for 'Ver 2' of the product we have seen no issues for 'Comp 3', 'Comp 4', 'Comp 5' or 'Comp 6'. Perhaps in this instance it might be that 'Comp 1' and 'Comp 2' were subjected to more change for version 2 of the product.

Component Coverage Summary Results

Report Results
The results section for this particular report lets you see the precise test case result figures for each component within the product. Components are grouped, as per the graph, into the different versions of the product. Results are shown for all test result categories.

Note that you can see in this section of the report that the results can be filtered further by Priority Categories (see below for more information on filtering by priority). So for example if you were only interested in seeing results for components that applied to high priority tests you could limit these results to only P1 and P2 priority test cases/ results.

Component Coverage Summary Form

Report Form
When selecting the filter requirements for this report you can select a specific test plan and then further filter on test designs and test scripts. Selecting 'All' for both Test designs and test scripts ensures that when ever you run this report any newly created test scripts are included in the results. Further filtering can be applied by products, components, versions and test case priorities. For example if you are only interested in seeing the component coverage for high priority tests you can select P1 and P2 within the Priority Category select box.

Pro Component/Requirement Coverage vs Bugs Found

The 'Component Coverage vs Bugs Found' and 'Requirement Coverage vs Bugs Found' reports enable you to identify test results on a component-by-component or requirement-by-requirement basis and view the relationship of bugs raised. So for a particular set of test results, you can see which test failures for a component/requirement have been caused by which bugs. So in essence you can see how many bugs have resulted in test failures for a component or requirement. Or, to think of it the other way round how many test failures in a component or requirement have resulted in a bug.

For example, if you see many test case failures against a single component and only one defect logged against that component, then you could resolve a lot of test cases failures by fixing that one bug.

Using the graph section of this report you can step through each version of the product comparing the status for all components for each of the product versions (this is especially useful as you can open a graph for each version of the product in a new window and compare versions side by side).

Where you have test cases covering more than one component you will see that the test results are counted once for each component. This gives the impression that there are more test results than there are actual test cases. For example if 'Test Case 1' covers 'Comp 1' and 'Comp 2' then a failure for this test case is registered against both 'Comp 1'

and 'Comp 2'. If you need to keep things simple then you might want to make sure that a test case is always assigned to only component.
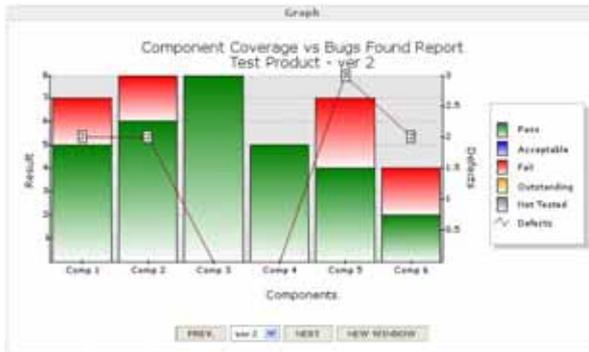
Component Coverage vs Bugs Found Graph

Report Graph
The information available from this graph shows how many test cases have been run for a particular component with an overlay line graph showing how many bugs have been raised against each component. Separate graphs are displayed for each version of the product. So using the prev/next buttons, or the drop down version box, you can select which version of the product you need to see test coverage information for. In fact using the 'New Window' button you can compare the component coverage/bugs for different versions of the product side by side.

In the graph above we can see that for component 'Comp 1' in version 'ver 2' of the product we have run 7 test cases. Two of those test cases failed, possibly as a result of 2 bugs which have been raised against 'Comp 1'.

Note that a test case can be related to many components. If a test case is related to many components then a bug logged against that component will be counted multiple times against the different components.

Component Coverage vs Bugs Found Results

Report Results
The results section for this particular report lets you see the precise test result categories figures for each component. In addition there are columns that show the total number of test cases against a component along with the bugs logged against that component. Results are shown for each version of the product that you have selected in the report form. Note that you can also see on this results section, the Plan, Design and test scripts for which test results apply.

Component Coverage vs Bugs Found Form

Report Form
The form for this report allows you to select a specific test plan and then further filter on test designs and test scripts. Selecting 'All' for both Test designs and test scripts ensures that when ever you run this report any newly created test scripts are included in the results.

Further filtering can be applied based on products, components and versions. For example if you are only interested in seeing the results for specific components within the product then select only the required components in the 'Components' select box.

Determining Test Progress

Pro Test Cases Executed

The 'Test Cases Executed' report shows you how many test cases have been executed (or run) over a period of time. From this report you get a clear indication of the progress you are making on completing test cases for a product. For this report the result categories are aggregated as follows:

Completed :	Fail, Pass or Acceptable
Not Completed:	Not Tested or Outstanding

Aggregating the test result categories in this way provides a clear way of communicating which tests have been completed (or run) and which have not been completed (or haven't been run).

Although the result categories have been aggregated to provide a clear indication of test progress it is possible to overlay results for particular categories on the graph too. So for example you could overlay a line graph showing the number of test case failures over a period of time.
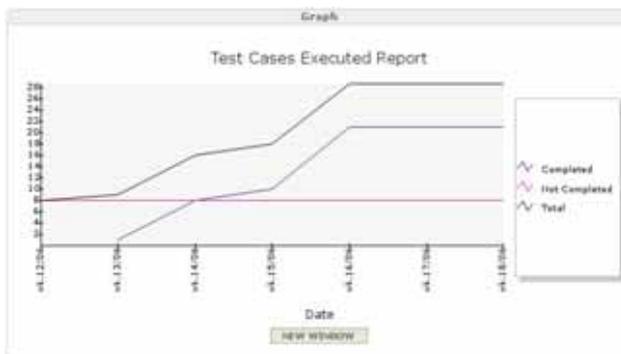
Test Cases Executed Graph

Report Graph

From this graph we can see how many test cases have been executed or run. The Completed line shows the number of test cases which have Failed, Passed or been marked as acceptable. So we can see that for a three week period we have executed around 20 test cases. The 'Not Completed' test cases remain at around 8. The Not Completed test cases remain constant because no date has been entered against these test case results (because you haven't executed or run them yet). The black line on this report shows the total (completed + not completed) number of test cases.

Using the form for this report (see below) we can also overlay line graphs for specific result categories. So for example we could overlay two new lines for the number of test cases passed and the number of test cases failed over this period.

Test Cases Executed Results

Report Results

The results section for this particular report lets you see the precise figures for each of the cumulative completed and cumulative not completed results. The total column shows the total number of test cases for the defined periods. Note that you can also see the Plan, Design and test scripts for which the test results apply.

Test Cases Executed Results

Report Form
The form for this report allows you to select a specific test plan and then further filter on test designs and test scripts. Selecting 'All' for both Test designs and test scripts ensures that when ever you run this report any newly created test scripts are included in the results.

Further filtering can be applied based on products, components and product versions. For example if you are only interested in seeing the results for specific components within the product then select only the required components in the 'Components' select box.

The section at the bottom of this form allows you to select specific test result categories to overlay on the main line graph. You can also opt to display value markers on all of the lines displayed on this graph.

Pro Test Failures by Defect

This report shows how many test cases a defect has been logged against. So for each unique each defect logged a count of the test cases impacted by the defect is shown. For example defect 232344 could have caused 4 test cases to fail. Thus this report could be used to form judgments about where to focus defect correction efforts. If for example a single defect is shown to be blocking the completion of many test cases you may decide to focus your development efforts on that defect so that you can clear a number of blocked test cases.

Test Failures by Defect Graph

Report Graph
The data presented in this graph shows, for the test scripts selected, that we have a number of unique defects impacting the test case results. So for example the defect 10034, shown in the diagram on the left, impacts two test cases. This defect may be impacting two test cases/results from the same test script or it may be impacting test cases/results distributed across different test scripts (assuming that you've selected multiple test scripts in the report form). We can't tell from this graph which test cases/results are impacted so we have to turn to the report results to help identify the exact test scripts and test cases that are impacted (see below)

You can probably appreciate that this report is key to helping us identify which defects are blocking which test cases/results. Used in conjunction with your defect tracking system's information (e.g. checking the priority of each defect listed) and the priorities of the test cases (found from checking the test scripts or test results in QaTraq) we can see exactly where we need to concentrate our defect correction efforts in order to make the most of our test resources.

Test Failures by Defect Graph

Report Results

The results section for this particular report lets you see the precise test scripts, test cases and test result records which have been impacted by a defect. So for example defect 10034 has been logged against two test results in test script TSC12. If we were to click on the link to the test result records for TSC12 / TRS12 we would see that this defect had been logged against test cases TCA7 and TCA9.

You will see from these example results that the Result Category is also listed against each record. Although defects are usually raised against test cases that fail it is quite possible that defects might be logged against other test result categories (for example a test result category of 'acceptable' where an issue has been found but it is not deemed serious).
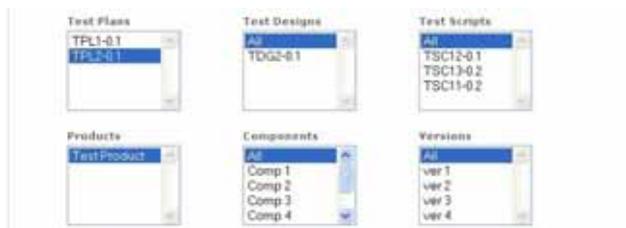
Test Failures by Defect Graph

Report Form

The form for this report allows you to select a specific test plan and then further filter on test designs and test scripts. Selecting 'All' for both Test designs and test scripts ensures that when ever you run this report any newly created test scripts are included in the results.

Further filtering can be applied based on products, components and versions. For example if you are only interested in seeing the results for specific components within the product then select only the required components in the 'Components' select box.

Identifying and Estimating Time Taken to Run Tests

Pro Test Script Calculated Time

The 'Test Script Calculated Time' report allows you to compare the estimated and actual time it took to run the test cases within a test script. Each test case within a test script has both an estimated time to complete and an actual time to complete. The sum time taken for all the test cases within a script is displayed so that you can compare the estimated against the actual.

Est. and Actual Time to Run test scripts

Report Graph

The data presented in the graph shows the actual time to complete test cases within each test script and the esstimated time that was specified for the test script. Each bar shows the actual time taken to complete the tests (sub divided by the appropriate test result categories), whilst the line graph shows the estimated time that the tests were expected to take to complete.

You can see from this report if you are taking more or less time to complete a series of tests than you originally estimated. You will also get a good idea if test cases that are failing are taking you over the estimated time you specified.

Est. and Actual Time to Run Results

Report Results

The results section for this report lets you see the actual and estimated calculated times to complete individual test scripts. The actual times listed for each test script are also broken down by test result category. This break down by result category enables you to see exactly how long it took to complete say all the Failed test cases.

You will also see from the example on the left that individual test scripts are hyper linked enabling you to jump straight to the test scripts in question to see exactly why/how a test script took so long to execute. On the right hand side of the table the Actual and Estimated results are listed in columns side by side for easy comparison.

Est. and Actual Time to Run Form

Report Form

The form for this report enables you to select specific test plans and test designs to report on. You can even take this one step further and report on individual test scripts if so required.

Further filtering can be applied based on products and product versions. For example if you are only interested in seeing the results for specific version of the product then select only the required versions in the 'versions' select box. You can also limit the results displayed by test result category and priority too. So if you wanted to only see how long it took to run the test cases that failed you would filter by the failed test result category.

Pro Test Script Overall Time

The 'Test Script Overall Time' report allows you to compare the estimated and actual time taken to run a test script (where the report takes the time values from the test scripts "overall" time value). The bar graphs allow you to compare, side by side, the estimated overall times for 1 or many test scripts.

Est. and Actual Overall Test Script Time

Report Graph

The data presented in the graph shows the actual time to complete test scripts. The left hand bar (purple) showing the Estimated recorded time for the test script. The right hand bar (black) showing the actual overall time value recorded once the test script has been run.

Again you can see from this report if you are taking more or less time to complete a series of test script than you estimated originally.

Est. and Actual Overall Time Results

Report Results

The results section for this report lets you see the actual and estimated overall times to complete test scripts. Actual and Estimated times are provided in columns on the right hand side for easy comparison.

You will also see from the example on the left that individual test scripts are hyper linked to both the test script and the test script results enabling you to jump straight to the test scripts/results in question. Also provided at the bottom of the report are total values for Estimated and Actual times across all the test scripts selected for the report.

Est. and Actual Overall Time Form

Report Form

The form for this report enables you to select specific test plans and test designs to report on. You can also further filter and report on individual test scripts if so required.

Pro Users Test Cases Calculated Time

The 'Users Test Cases Calculated Time' report allows you to see both the estimated and actual time that a particular user will or has spent running test cases. By selecting users you can actually see for example the estimated time a particular user will spend running tests across a version of a product. Once the tests have been run you can also see how long a particular user spent running a set of tests and compare that against the estimated time.
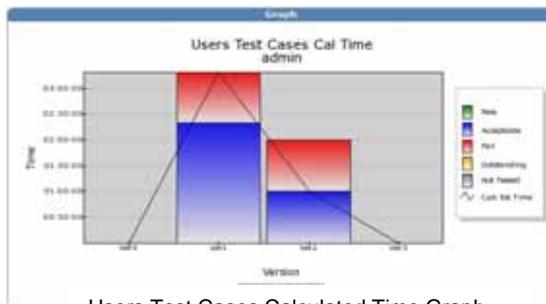
Users Test Cases Calculated Time Graph

Report Graph

The graph for this report shows you the estimated time (line graph) and the actual time (bar graph) taken to run tests. The bar graph in particular shows you how long was spent running tests which have particular result categories.

For example, on the left, we can see that we estmated 3:30 hrs to run tests for version 1 of the product but that just the failed and acceptable tests have test have taken 3:30 hrs to complete. Including the passed test cases as well may show us that we have run significantly over our esstimated time to run these tests.

Report Results

The results section for this report shows you the time taken and estimated to run the test cases within the selected test scripts. You can see the calculated time, estimated time in conjunction with the number of test cases assigned to the selected user.

You will also see from the example above that the statistics are broken

down by result category. So for example you can see exactly how long it took a particular user to run the failed test cases for a certain version of the product that was being tested.

Users Test Cases Calculated Time Form

Report Form
The form for this report enables you to select specific test plans and test products to report on. You can further filter and report on users that are running the tests, the product version the tests are being run for and the results categories. As an example you may select the outstanding tests to be completed by a particular user for a certain version of the product.

Pro Users Test Cases Overall Time

The 'Users Test Cases Overall Time' report allows you to see both the estimated and actual time that a particular user will or has spent running test scripts (please note that it is different from the calculated report in that it shows the time values at the test script level). By selecting users you can see side by side comparisons of the estimated time a user was expected spend running test scripts and the actual time spent.

Users Test Cases Overall Time Graph

Report Graph
The graph for this report shows you the estimated time (purple bar) and the actual time (grey bar) taken to run test scripts. The estimated and actual times are based on individual test scripts selected for this report.

For example, on the left, we can see that we estmated 42 hrs for a particular user to run these tests for version 2 of the product but that so far he/she has
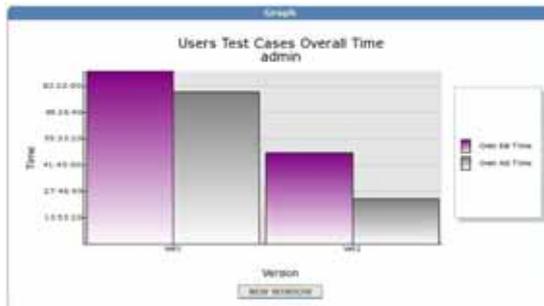
spent approximately 25 hrs running the script.

Report Results
The results section for this report shows you the exact time for estimated and actual runs of the selected test scripts.

You will also see from the example that the statistics are broken down by product version and the user running the tests. Thus you can see at a glance the estimated work load for a particular user

across a version of the product that is under test.

Users Test Cases Calculated Time Form

Report Form
The form for this report enables you to select specific test plans, designs and scripts to report on. You can then further filter by product and product version, with additional result category and user filtering where necessary.

Pro Scripts per Build Calculated Time
Pro Scripts per Build Overall Time

These two Scripts per Build reports show the estimated and actual time taken to run test scripts. They display the information on a grid combining the test scripts titles against the version/build of the software under test. These are very useful reports to use to help make estimates for future runs of test scripts as you can see the estimated and actual times for test script runs across previous builds.

The "Calculated" report shows estimate/actual time based on the calculation of adding up the time assigned to individual test cases within the test scripts. The "Overall" report shows the estimated/actual time based on the single time values assigned to the overall test script. These reports are useful for helping test teams visualise how much effort is going into the different areas of testing and different versions of the product under test.

Scripts per Build Calculated/Overall Time

Report Results

The results section for this report displays a grid with the versions/builds of the product under test listed across the top and the test scripts listed down the right hand side. From this report each coloured cell indicates a test script run for a version of the product under test.

Within each cell you can then see the estimated and actual time specified against the test script. This then makes it very easy to make comparisons between the same test scripts run for different versions/builds of the product, both from an estimated point of view and actual point of view.

Scripts per Build Calculated/Overall Time Form

Report Form

The form for this report enables you to filter your report results based on the test plan, the product and the product version. In addition to this you can also filter on result categories and priorities.

So for example if you wanted to only see the time recorded to run the failed test cases you could filter on the "failed" result category. Then when viewing the report you would be comparing the time taken to complete the failed test cases against the estimated time specified to execute all test cases. When you filter by test case priority too you are also further limiting your results, and hence the actual time values displayed, to the test cases which meet certain priority criteria. For example only show the time taken to execute the Priority 1 test cases.

Pro Templates Calculated Time

The 'Templates Calculated' report allows you to see the estimated amount of time that it is expected to take to execute a template test script, *based on the calculation of the time taken to run all test cases within the test script.* This information can be especially important if you have selected a number of tests for execution and you want to match that to the amount of time allocated to running test scripts within your team. For example

if you know you have 40 hrs of test resources available for the next week, selecting various templates using this report can enable you to best select the tests to run based on the time you expect it to take to complete these tests. Please note that as a template does not have any associated results records there are no "actual" time values to report on for templates.
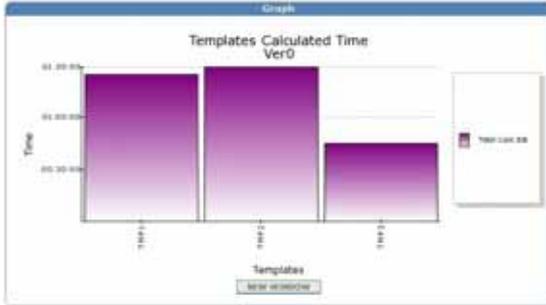
Templates Calculated Time

Report Graph

The graph for this report shows how much time it is estimated to take to run individual template test scripts, based on the calculation of the time taken to run individual test cases within the template. Using this information, for example, you can gain an understanding about how long a selection of template test scripts might take to execute.

Templates Calculated Time Results

Report Results

The results section for this report shows you the estimated time to run individual template test scripts. Also provided is a sum value which indicates the total estimated time to run a selection of template test scripts.

Using these results it is simple to select and then build up a group of template test scripts that fits with a known amount of test resources that are available to execute the tests.

Templates Calculated Time Results

Report Form

The form for this report enables you to select specific test plans and test designs to report on. You can even take this one step further and report on individual templates if so required.

Further filtering can be applied based on products and product versions. You can also limit the results displayed by priority of the test cases within the template. So if you wanted to only see the estimate to run the high priority test case you would filter by the priority category.

Pro Templates Overall Time

The 'Templates Overall' report allows you to see the estimated amount of time that it is expected to take to execute a template test script, *based on the overall time defined within the test script.* This information can be especially important if you have selected a number of tests for execution and you want to match that to the amount of time allocated to running test scripts within your team. For example if you know you have 40 hrs of test resources available for the next week, selecting various templates using this report can enable you to best select the tests to run based on the time you expect it to take to

complete these tests. Please note that as a template does not have any associated results records there are no "actual" time values to report on for templates.
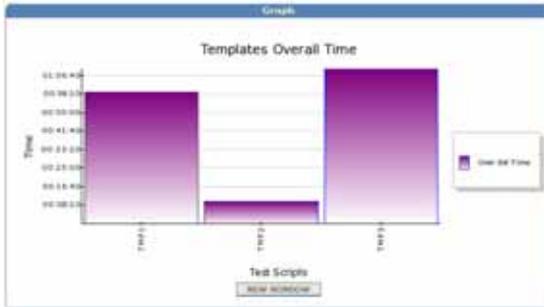
Templates Overall Time

Report Graph
The graph for this report shows the estimated time taken to run individual template test scripts, based on the overall time assigned to the template. Using this information, for example, you can gain an understanding about how long a selection of template test scripts might take to execute.

Templates Overall Time Results

Report Results
The results section for this report shows you the estimated time to run individual template test scripts. Also provided is a sum value which indicates the total estimated time to run the selection of template test scripts.

Using these results it is simple to select and then build up a group of template test scripts that fits with a known amount of test resources that are available to execute the tests within the selection.

Templates Overall Time Results

Report Form
The form for this report enables you to select specific test plans and test designs to report on. You can even take this one step further and report on individual templates if so required.