

TestTrack TCM Quick Start Guide

This guide is provided to help you get started with TestTrack TCM and answer common questions about working with test cases and test runs. Your use of TestTrack may be different based upon your organization's testing process, but the same basic concepts apply.

How does our manual process translate to TestTrack TCM?

TestTrack TCM is ready to use out of the box, but can also be customized to fit your terminology, methodology, and regulations. Before your organization begins to use TestTrack TCM, it is important to take the time to evaluate and document each step in your testing process. Consider the following questions:

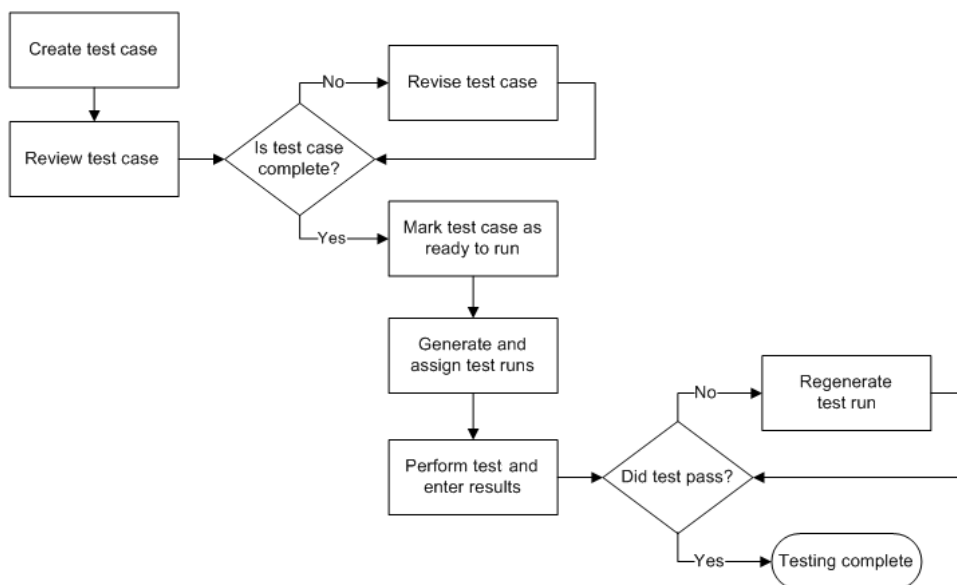
- What actions need to be performed?
- Who is responsible for performing each action?
- What data needs to be tracked for each action?
- What is required to move to the next step in the process?

This can help you determine how to use TestTrack TCM to automate and improve your process. The TestTrack TCM administrator or another high-level user is generally responsible for customizing TestTrack TCM.

Workflows

TestTrack TCM includes default test case and test run workflows. To move a test case or test run through the workflow, it is assigned to users who perform the required work. The workflows can be customized to adapt to your testing process or used as is.

The following diagram shows a high-level overview of the testing process supported by the default TestTrack TCM workflows.

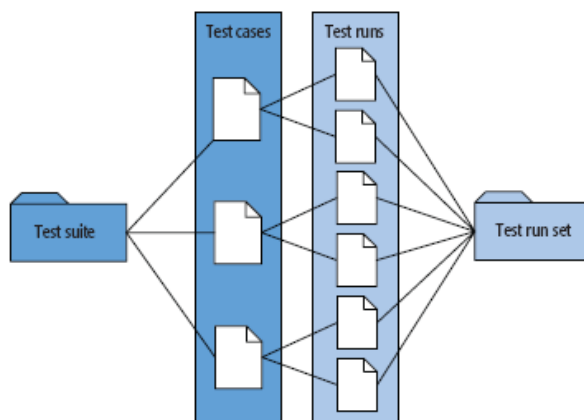


Test items

The test items used in your manual process are all represented in TestTrack TCM. In your process, you may have created a checklist of items to test. When a new product version required testing, you printed the checklist and wrote the test results on it. These items are all used in TestTrack TCM.

- The checklist is a test suite. In TestTrack TCM, folders or custom fields can be used to group related test cases in test suites.
- Each line in the checklist is a test case.
- The printed checklist is a test run set. In TestTrack TCM, you can add new test runs to test run sets, which can help you report on each test initiative and determine the current status.
- Each item in the printed checklist is a test run. In TestTrack TCM, test runs are generated from test cases at a milestone in the testing process. Testers use test runs to perform a test and enter the results.

The following diagram shows the relationship between these components.



How do I install TestTrack TCM?

The TestTrack installation program installs TestTrack TCM and TestTrack Pro, Seapine's defect management tool. You must have a valid TestTrack TCM license to work with test cases and test runs, even if you already use TestTrack Pro.

Make sure you have the following information from your TestTrack administrator:

- TestTrack Server address and port number—TestTrack projects are stored on servers. You need to add a connection to a server before you start using TestTrack TCM.
- Your TestTrack username and password—You need a username and password to log in to the TestTrack Server. Your organization may use single sign-on, which allows you to log in using your network credentials. Ask your TestTrack administrator for information about single sign-on.

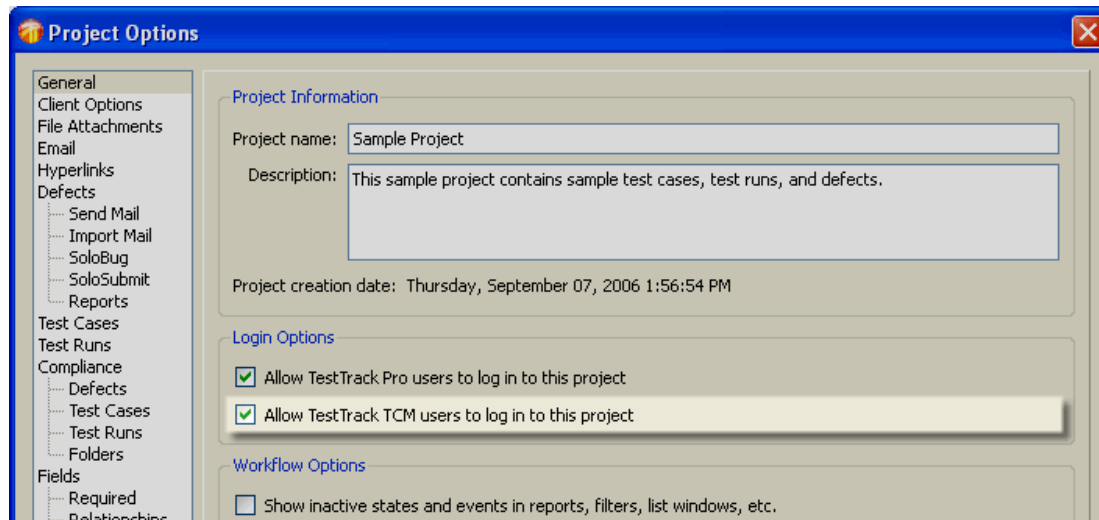
How do I enable TestTrack TCM?

The TestTrack administrator may need to enable TestTrack TCM for the project if you cannot access test cases or test runs.

1. Choose **Tools > Administration > Project Options**.

The Project Options dialog box opens with the General category selected.

2. Select **Allow TestTrack TCM users to log in to this project**.



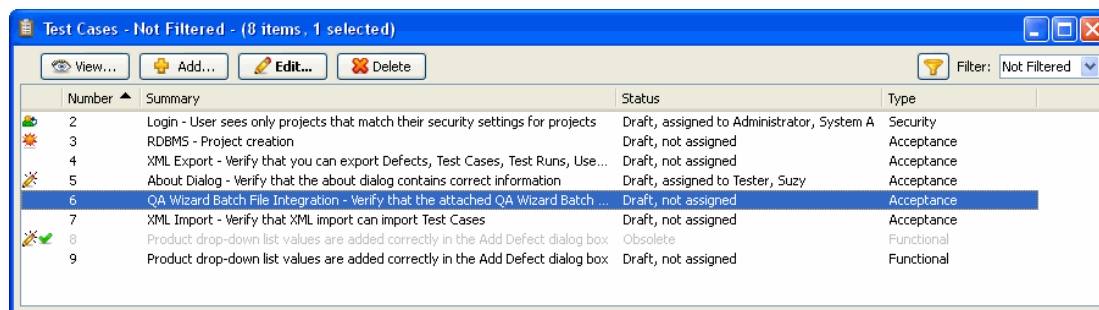
3. Click **OK**.

Users with TestTrack TCM licenses can access test cases and test runs the next time they log in.

What are test cases?

Test cases are the core component of TestTrack TCM. Test cases include all information about a test, including the description, scope, conditions, detailed steps, expected results, scripts, and other test data. Each test case should focus on only one component or requirement.

To work with test cases, choose **View > Test Cases** to open the Test Cases list window.

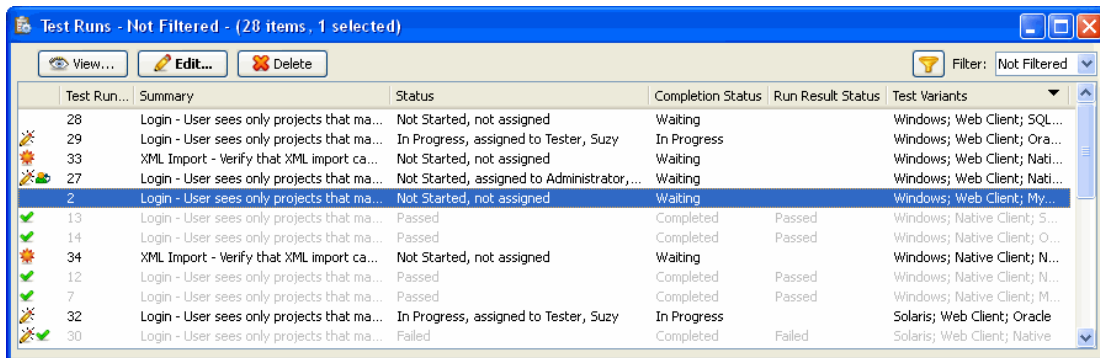


What are test runs?

Test runs are instances of a test case used to perform a test and document the results. Test runs are generated from a test case, typically at a milestone in the testing cycle. All information is copied from a test case to the related test runs.

A single test case can have one or more related test runs, which are performed against different builds or configurations.

To work with test runs, choose **View > Test Runs** to open the Test Runs list window.



Test Run...	Summary	Status	Completion Status	Run Result Status	Test Variants
28	Login - User sees only projects that ma...	Not Started, not assigned	Waiting		Windows; Web Client; SQL...
29	Login - User sees only projects that ma...	In Progress, assigned to Tester, Suzy	In Progress		Windows; Web Client; Ora...
33	XML Import - Verify that XML import ca...	Not Started, not assigned	Waiting		Windows; Web Client; Nati...
27	Login - User sees only projects that ma...	Not Started, assigned to Administrator,...	Waiting		Windows; Web Client; Nati...
2	Login - User sees only projects that ma...	Not Started, not assigned	Waiting		Windows; Web Client; My...
13	Login - User sees only projects that ma...	Passed	Completed	Passed	Windows; Native Client; S...
14	Login - User sees only projects that ma...	Passed	Completed	Passed	Windows; Native Client; O...
34	XML Import - Verify that XML import ca...	Not Started, not assigned	Waiting		Windows; Native Client; N...
12	Login - User sees only projects that ma...	Passed	Completed	Passed	Windows; Native Client; N...
7	Login - User sees only projects that ma...	Passed	Completed	Passed	Windows; Native Client; M...
32	Login - User sees only projects that ma...	In Progress, assigned to Tester, Suzy	In Progress		Solaris; Web Client; Oracle
30	Login - User sees only projects that ma...	Failed	Completed	Failed	Solaris; Web Client; Native

What are the differences between test cases and test runs?

Test cases generally do not change unless they include incorrect information or the tested application changes. They remain open and are reused to test subsequent builds and releases. Test cases are not used to perform tests and do not include results.

Test runs are only used once to perform a specific test during a testing cycle. Test runs include the test results and are closed after the specific test is performed.

What information should a test case include?

A test case should include all the information a tester needs to successfully perform a test. It is important to include complete information to avoid ambiguity during testing. All the test case information is copied to test runs when they are generated.

Test cases generally include the following information:

- **Details**—The estimated time to perform the test, a description of the scope of the test, any test environment setup information or other requirements that must be in place before the test is performed, and the expected outcome of the test. Your organization may also use custom fields to capture additional information in the test case details.
- **Steps and expected results**—The specific actions the tester needs to perform, in sequential order. Expected results can be added to each step to describe the outcome of completing the step.

- Supporting files—Any files that can help the tester perform the test can be attached to a test case. You can attach automated scripts, source code files, or other files, such as requirements, test data, or screenshots.

To create a test case, choose **Create > Test Case** or click **Add** on the Test Cases list window.

The screenshot shows the 'Add Test Case' dialog box. At the top, the title is 'Add Test Case'. Below the title bar, there is a 'Summary' field containing 'Login - User sees only projects that match their security settings for projects'. Below that is the 'Status' field, which says 'Draft, not assigned'. The 'Type' is set to 'Security', and there is an unchecked checkbox for 'Automated Test'. A navigation bar contains tabs for 'Overview', 'Detail', 'Steps', 'Variants', 'Files', 'Test Runs', 'Workflow', 'Links', 'Folders', and 'History'. Below the navigation bar is an 'Estimated run time' field set to '(hh:mm:ss) 0 : 30 : 0'. A 'Custom Fields' section contains several fields: 'Testing Phase' (dropdown menu with 'Alpha Regression Tests; Beta Regression Tests'), 'Description' (text area with 'This test case verifies that a user only sees projects that match their permissions on the login dialog.'), 'Scope' (text area with 'All platforms, databases, and clients'), 'Pre-Conditions' (text area with a list: '1. Create a new global user in the license server admin', '2. Verify that you have 3 or more projects to work with', '3. Retrieve the newly created global user into only 2 of the projects'), and 'Expected Results' (text area with 'The user only sees the projects that they were added to.'). At the bottom, there are buttons for 'Generate Test Runs...', 'Apply', 'Add', and 'Close'.

How do I use a single test case to support multiple configurations?

If the same test needs to be performed against different builds or configurations, you can use one test case to cover all the required tests.

TestTrack TCM includes test variants, which represent the variable elements of an application that need to be tested, such as multiple platforms, databases, or client types. When you generate test runs, you select the test variant values to use. A test run is created for each unique combination of the selected variant values.

For example, if you test a Web-based application in multiple browsers, you can create a Browser test variant with Internet Explorer, Firefox, Safari, and other browsers as the variant values. When you generate test runs, TestTrack TCM generates unique test runs for each browser you select.

The TestTrack administrator or another high-level user generally configures test variants. To create test variants, choose **Tools > Custom Fields** and then select **Test Variants** as the record Type.

How do I make sure that only valid test variants are used?

When you generate test runs, every test variant value is available. While this makes it easy to quickly generate a large number of test cases, you could end up with dozens of test runs that do not apply to the test case. Instead, you can add the variant values in test cases to always include or exclude them when test runs are generated.

- Included test variant values are always used to generate test runs. If you add included test variant values to a test case, no other values will be used to generate test runs.
- Excluded test variant values are never used to generate test runs. If you add excluded test variant values to a test case, all values except the excluded values will be used to generate test runs.

To include or exclude test variant values in test cases, click the **Variants** tab in the Add Test Case or Edit Test Case window.

The screenshot shows the 'Variants' tab in a software interface. It is divided into two main sections:

- Included Test Variant Values:** This section contains a table with the following data:

Variant Name	Value
Client Type	Native Client

 To the right of the table are three buttons: 'Add Variant...', 'Edit Variant...', and 'Remove Variant...'.
- Excluded Test Variant Values:** This section contains a table with the following data:

Variant Name	Value
Database	Oracle

 To the right of the table are three buttons: 'Add Variant...', 'Edit Variant...', and 'Remove Variant...'.

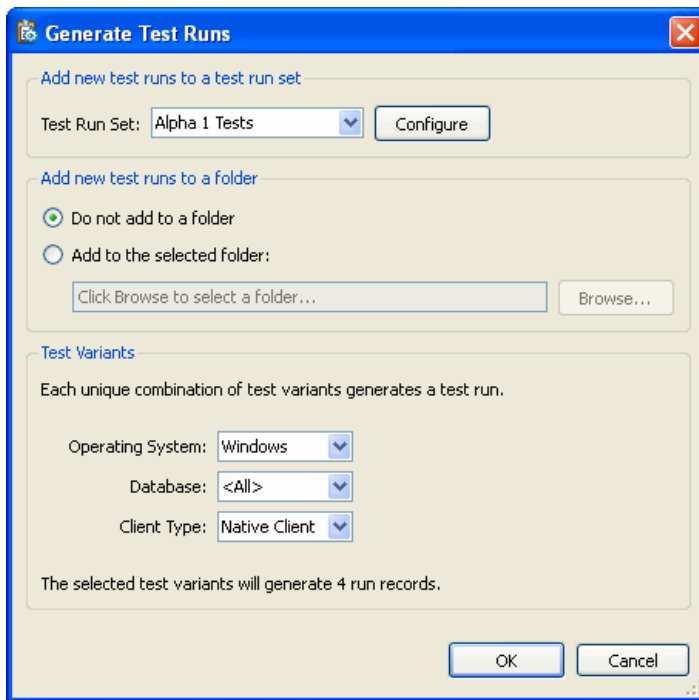
Note: If you add included test variant values and do not add excluded values, all test runs include all variant values. Make sure you add excluded test variant values if the test case does not apply to a specific variant value.

When should I generate test runs?

Test runs are typically generated when test cases are complete and the product is ready for testing. You may want to generate test runs at the beginning of each testing phase so you can more easily track the test cases that test runs have been generated for. This can also help you evaluate how many test runs still need to be performed so you can determine the status of the testing cycle. For example, you may generate test cases at the beginning of the Alpha testing phase, at the beginning of the Beta testing phase, and for each Beta build.

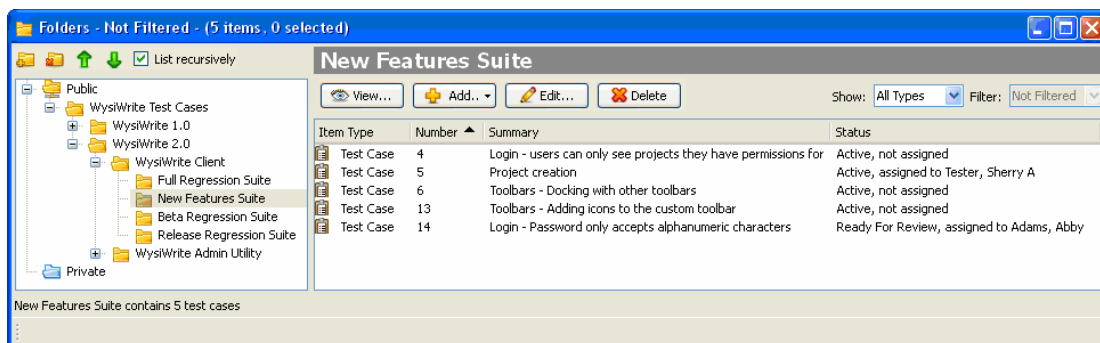
Depending on your organization's workflow, you may only be able to generate test runs from test cases in a specific state. For example, the default test cases workflow only allows you to generate test runs for test cases in the Ready state.

To generate test runs, select a test case on the Test Cases list window and choose **Activities > Generate Test Runs**.



How can I organize test cases and test runs?

You may already use test suites. In TestTrack TCM, you can use folders or custom fields to represent test suites. For example, you can create folders to store regression test cases grouped by product component. You may also add related test runs to a sub-folder to group the related items. The following example shows how folders can be used to create test suites.



Test run sets are designed to group related test runs. Test runs can be added to test run sets when they are generated. Test run sets are similar to folders, but the test run set is displayed in the Edit Test Run and View Test Run windows. For example, you may want to create a test run set for each milestone in the testing cycle. This can help you when it is time to generate reports to evaluate testing progress.

The TestTrack administrator or another high-level user generally configures folders, custom fields, and test run sets.

How do I use a test run to perform a test?

When a test run is assigned to you, take the time to review it before you perform the test. Open the test run and review the following information:

- The Variants tab includes the environment to use to perform the test. These are the test variant values that were selected when the test run was generated from the test case.
- The Detail tab includes general information about the test, including any setup instructions.
- The Files tab includes any files you may need to perform the test, including automated scripts, screenshots, or other test data.
- The Steps tab includes the steps and expected results that you use to perform the test.

Perform each step exactly as described on the Steps tab. If the actual result of performing a step is different from the expected result, add a problem statement to explain the issue. You can also attach files, such as screenshots, script reports, or source code files, to the test run to report results.

Finally, you need to indicate if the test passed, failed, or if the results were unclear. For example, if your organization uses the default test runs workflow, choose **Activities > Enter Results**. You can select Passed, Failed, or Result Unclear (Needs Review) as the resulting state to indicate the test result. The test run moves to this status when you save it.

How do I print test runs to use when performing a test?

You can print detail reports to use when you perform a test. To create a test run detail report, choose **Create > Report** and choose **Detail**. Select **Test Runs** from the Report contains field.

Test run detail reports include all information about a test run. You can use this report to review the workflow for a test run to understand where it stands in your testing process and the next steps. To print the report, click the Print button in the Edit Test Case dialog box and make sure the TestRunDetailReport.xslt stylesheet is selected.

Test run checklist reports include the test run details in a format you can use for handwritten information. You can use this report to perform a test and capture the results if TestTrack TCM is not installed on the test computer or you want to write the results before entering them in TestTrack TCM. To create this report, make sure the TestRunStepsDetailReport.xslt stylesheet is selected. The following example shows a test run checklist report.



Test Run Checklist

Test Run Number: 1		
Test Case Number: 1		
Summary: Login - User sees only projects that match their security settings for projects		
Status: Passed		
Type: Security		
Is An Automated Test: false		Test Run Set: Version 2 Alpha
Steps:	Step #	Step
<input type="checkbox"/>	1	Start TestTrack Client
<input type="checkbox"/>	2	On the server login screen, log in with the newly created user to the server that contains the projects from the set up steps
<input type="checkbox"/>	3	Click Connect
<input type="checkbox"/>	4	
<input type="checkbox"/>	5	Select one of the projects
<input type="checkbox"/>	6	Click OK
		Expected Result
		Verify that the Project login screen appears
		Verify that ONLY the projects the user is assigned to are listed with the project drop down
		Verify the user is logged into the project
Generated Test Coverage Attributes:		
Attribute Name	Value	
Operating System Variant	Solaris	
Database Variant	MySQL	
Run Results		
Date and time you started this test run: _____		
Date and time you completed this test run: _____		
How much time did it take you to complete this test run? _____		
Were any additional test variants tested? _____		
What was the result of this test run? <input type="checkbox"/> Passed <input type="checkbox"/> Failed <input type="checkbox"/> Unclear		
Describe any problems encountered in running these steps (include a step number and generated defect number if possible):		

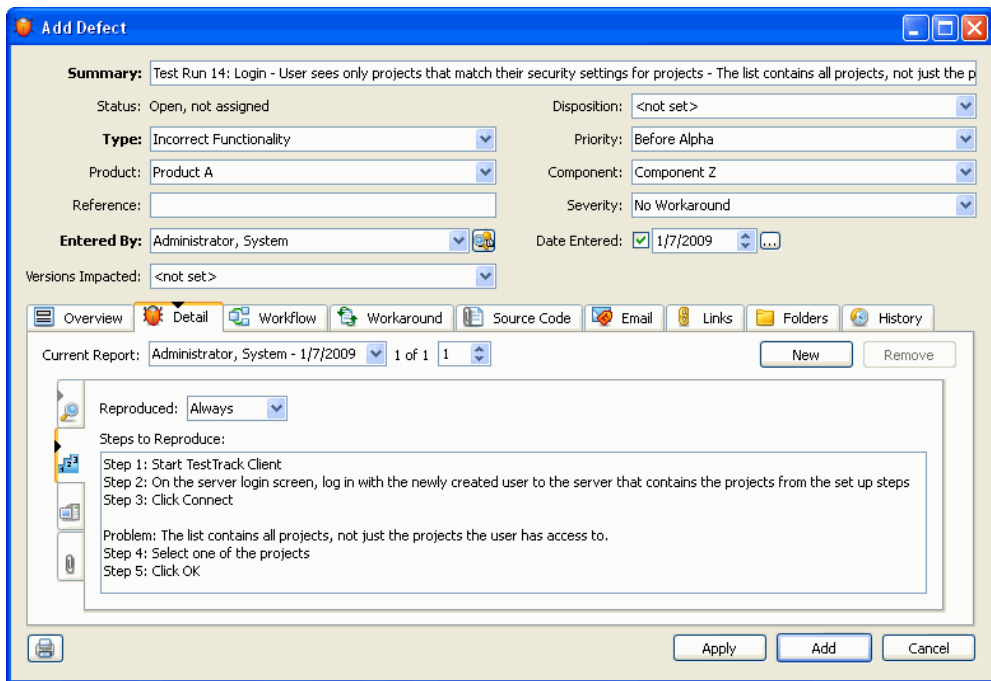
Signature: _____	Date: _____	

What should I do if a test fails?

If your organization uses a defect management tool, add a defect for the failed test to push the failure into your workflow so it can be fixed and retested.

If your organization uses TestTrack Pro, you can add a defect from the failed test run. The test run information is copied to the defect so other users can review the steps to reproduce the problem when fixing the defect or verifying the defect fix.

To create a defect from a test run, click **Create Defect** in the Edit Test Run dialog box.



After the defect is fixed, you can regenerate the test run so the test can be performed again.

How do I determine how much testing remains?

You can create a distribution report based on test run sets to view a snapshot of test runs at a specific point in the testing cycle. For example, as you approach the end of the Alpha testing phase, generate a distribution report based on the Alpha test run set to see how much testing remains. To create a test run distribution report, choose **Create > Report** and choose **Distribution**. Select **Test Runs** from the Report contains field.

Test run status by test run set reports includes the status of test runs in each test run set. This report can help you determine how many test runs are waiting, in progress, on hold, or completed for each test run set. To create this report, select the **Status by** option and then select **Test Run Set** from the corresponding list. The following example shows the test run status report.

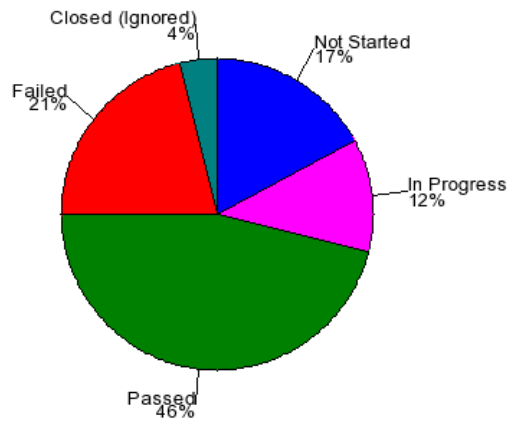


Test run status by test run set

Report Period: from first test run found through last test run found

	Version 2 Alpha	Version 2 Beta	Version 2 Beta Build 1	Version 2 Beta Build 2	Totals
Not Started	0	0	0	13	13
In Progress	0	0	6	3	9
Passed	16	13	6	0	35
Failed	4	8	4	0	16
Closed (Ignored)	0	3	0	0	3
Totals	20	24	16	16	

Overall status



Test run result status by test run set reports include the test run results for each test run set. These reports can help you determine how many test runs in each test run set are passed, failed, or undetermined. To create this report, select **Run result status by** and then select **Test Run Set** from the corresponding list.

