



Effective Test Planning and Execution Tracking Using IBM® Rational® Quality Manager

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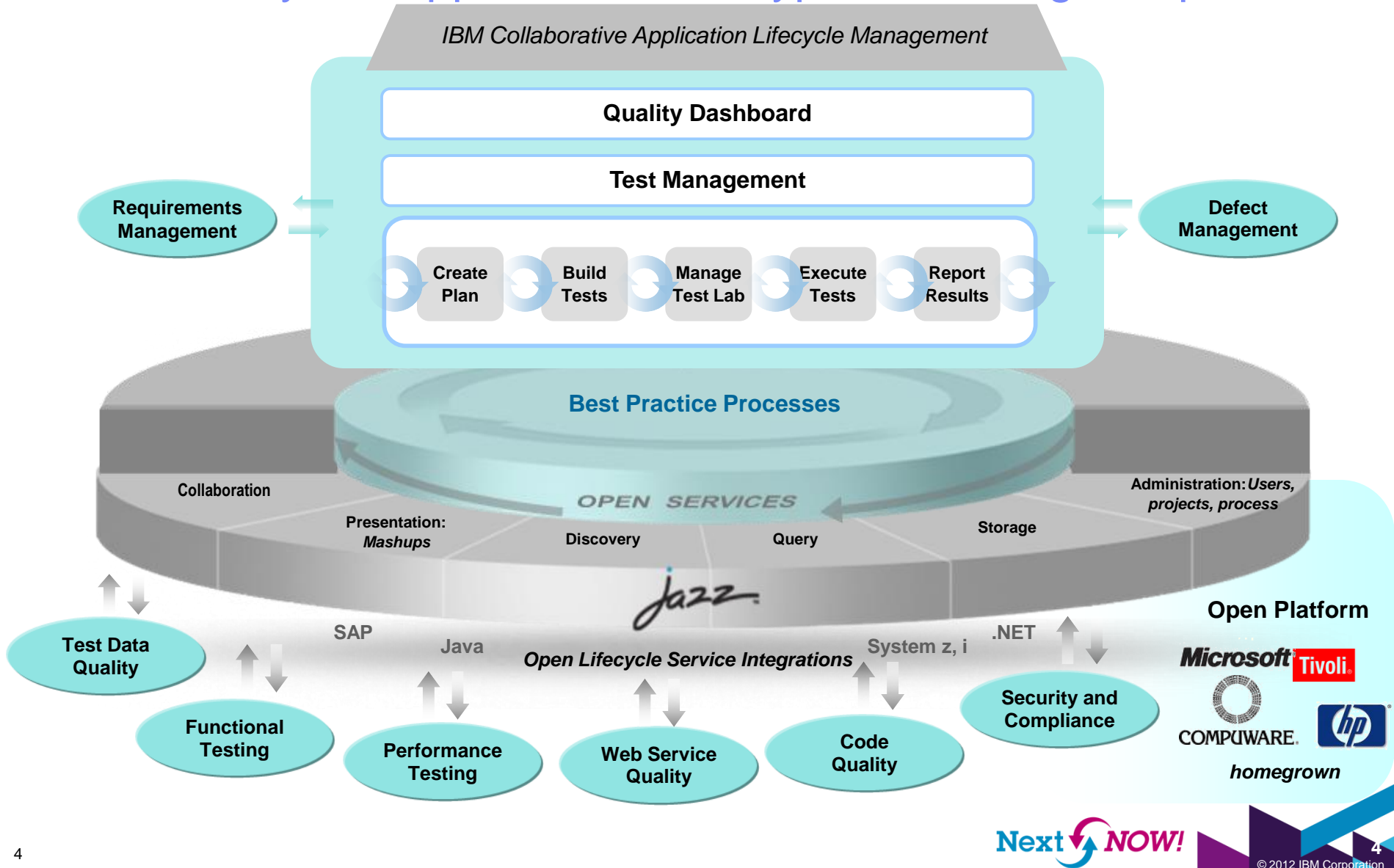
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Effective Test Planning and Execution Tracking Using IBM® Rational® Quality Manager

Agenda

- Introduction
- Estimating the Test Effort
- Prioritizing the Test Effort
- Tracking Progress
- Questions

Quality Management offers a centralized test management hub and full lifecycle support across all types of testing and platforms



Introduction

New artifact fields in RQM

- Priority
- Estimate
- Time Spent



Test Case Execution Records >

* (QM Tutorial) Allocate Dividends to Multiple Causes

Originator: QM User Owner: QM User

Team Area: Unassigned

Priority: High

Blocking Status: Blocked Run On: May 27, 201

Last Result: Passed

Description: < Click here to enter a description >

Overview

Test Plan:	Unassigned
Test Case: *	(QM Tutorial) Allocate Dividends to Multiple Causes
Default Test Script:	Allocate Dividends to Multiple
Iteration:	
Available Test Environments:	Unassigned
Weight: *	125
Estimate:	4 hours
Time Spent:	2 hours

Introduction

New artifact fields in RQM: Priority

Field	Artifact Types	Usage
Priority	<ul style="list-style-type: none"> • Test Plan • Test Case • Test Suite • TER 	<ul style="list-style-type: none"> • An enumeration of values describing relative priority of one test vs. another • Out of the box values: High, Medium, and Low • Viewable/Filterable/Sortable within Table Views • Used to make intelligent decisions of what test to focus on first and what to defer if needed

Introduction

New artifact fields in RQM: Estimate

Field	Artifact Types	Usage
Estimate	<ul style="list-style-type: none"> • Test Case • Test Suite • TER 	<ul style="list-style-type: none"> • A time measure of how long it will take to execute a test • For TERs: used with “Time Spent” to provide live execution progress data: Test Plan progress and progress by Owner • Viewable/Filterable/Sortable within Table Views • Yes, we know some of you used “Weight” for this already

Introduction

New artifact fields in RQM: Time Spent

Field	Artifact Types	Usage
Time Spent	<ul style="list-style-type: none"> • TER 	<ul style="list-style-type: none"> • The actual time it took to run a test • Used with “Estimate” to provide live execution progress data: Test Plan progress and progress by Owner • Used to correct Estimates based on historical data to help with more accurate future planning

Estimating the Test Effort

How can I plan my testing in a way that allows me to evenly distribute work across the team and make intelligent decisions about load balancing?



Estimating the Test Effort

Setting estimate on test cases

When you set an estimate on a test case all TERs generated from that test case will inherit the priority value

Test Cases >

* 12: Organization must provide justification for why funds are needed

Cancel Save

Test Case Overview | Snapshots | History

State: Under Review Action: Change State

Originator: Tanuj Owner: Tanuj

Priority: High

Description: < Click here to enter a description >

Generate Test Case Execution Records

Step1 > Step2 > Step3

Generated Test Case Execution Records Organization must provide justification needed

Group By: Ungrouped

Quality Task: Allows you to associate, create and generate execution records for an individual test case. Exec records contain detailed configuration information for the test case and the high level results for case execution. Detailed results are in the log files.

Group By: Ungrouped

10 Items per page

Priority	Name	Test Case	Test Environment	Iterati
High	Organization must ...	Organization must pr...	Chrome	S1
High	Organization must ...	Organization must pr...	Chrome 10	S1
High	Organization must ...	Organization must pr...	Chrome 11	S1
High	Organization must ...	Organization must pr...	Chrome 12	S1

Estimating the Test Effort Using historical time spent

You can use “time spent” from prior iterations to make intelligent decisions about correcting estimates

Test Case Execution Records ?

View As: **General** Group By: **Ungrouped** Type Filter Text

10 Items per page Previous | 1, 2 | Next

ID	Prior	Name	Test Case	Iteration	Own	Last Re	Time Spent	Estimate
	Any			... S1, ...	Any	Any		
17		Allocate_Dividends_to_a_Single...	Allocate Dividends to ...	S1	Tanuj	✓	6 h	5 h
18		Allocate_Dividends_by_Percenta...	Allocate Dividends by ...	S1	Tanuj	✗	1 d	1 d 2 h
19		Process_hard_copy_requests_Fi...	Process hard copy req...	S1	Marco	✓	7 h	5 h
20		Process_email_requests_Firefox...	Process email requests	S1	Marco	✗	6 h	5 h
21		Allocate_dividends_by_amount_a...	Allocate dividends by ...	S1	Tanuj	⌚	6 h	2 d
22		Customers can Nominate an	Customers can Nomi	S1	Deb	✓	5 h	5 h

Prioritizing the Test Effort

How can I plan my testing in a way that ensures that my team executes the most important tests first and defers the least important?



Prioritizing the Test Effort

Creating custom priorities for your organization

The Project Area Administration page has a “Priority” entry in the newest version of RQM that allows you to rename, remove, and create custom priority values.

You can set the default priority value used for new test artifacts.

You can insert new priority values within the existing hierarchy indicating relative priority.

This project area is part of a Lifecycle Project: Money that Matters Sample

Active Project Areas >

* JKE Banking (Quality Management) *

- Overview
- Timelines
- Roles
- Permissions
- Iteration Types
- Access Control
- RequisitePro Projects
- Process Description
- Releases
- Categories
- Mail Templates
- Work Items
- ▼ Test Artifacts
 - Workflows
 - Priority**

Test Artifacts - Priority

Define the priorities for test artifacts.

Final (ignore customization of this data in child areas)

Properties

Default Literal: * Medium ▼

Literals

To create a new priority literal, 1st select an existing literal. Click on literal.

Icon	Name
	Unassigned
	Low
	Medium
	High
	Must

Prioritizing the Test Effort

Deriving test case priority – requirements and workitems

Use Requirement “Business Priority” and Workitem “Priority” and “Story Points” to determine Test Case priority.

The new “Traceability” view for Test Cases is great for this. BTW – you can add those columns to all Test Case views.

Test Cases ?

View As **Traceability** Type Filter Text

10 Items per page Previous | 1, 2, 3 | Next

ID	Name	Validates Requirement	Tests Development Item
1	Verify dividend transfer frequency	Frequency of dividend transfer	Frequency of dividend transfer
7	Allocate dividends by amount and frequency	Allocate dividends by amount an...	Allocate dividends by amount an...
8	Organizations may apply with an initial request	Organizations may apply with an ...	Organizations may apply with an ...
9	Donors Can Choose to Support an Organization	Donors can choose to support a...	Donors Can Choose to Support ...
2	Donors Deposit Money Into a Pooled Assistanc...	--	Donors Deposit Money Into a Po...
3	Allocate Dividends by Percentage	Allocate dividends by Percentage	Allocate Dividends by Percentage
4	Process hard copy requests	Requests sent in form of hard co...	Requests sent in form of hard co...
5	Process email requests	Requests sent in form of email	Requests sent in form of email
6	Organization must identify how much money is ...	Organization must identify how ...	Organization must identify how ...
20	Check Account Balance	--	--

Showing 1-10 of 27 items Previous | 1, 2, 3 | Next

Prioritizing the Test Effort

Deriving test case priority – defects and prior runs

Use defects found and results of prior runs to determine “sensitive” areas that require more focus.

Use a filtered TER view and leverage the new “Defects” column to make intelligent decisions here.

Test Case Results ?

View As: **General** Group By: **Ungrouped**

10 Items per page Previous | 1, 2, 3, 4, 5 | Next

ID	Name	State	Test Case	Test Script	Status	Defects
17	Allocate Dividends_by_Percentag...	Draft	Allocate Dividends by Pe...	Allocate Dividends by P...	Failed	Organizati...
31	Allocate Dividends_to_a_Single_...	Draft	Allocate Dividends to a S...	Allocate Dividends to a ...	Passed	--
29	Dividend_Allocation_by_Percenta...	Draft	Dividend Allocation by P...	Allocate Dividends by P...	Passed	--
15	Allocate Dividends_to_a_Single_...	Draft	Allocate Dividends to a S...	Allocate Dividends to a ...	Failed	Organizati...
33	Allocate Dividends_by_Percentag...	Draft	Allocate Dividends by Pe...	Allocate Dividends by P...	Passed	--
4	Allocate Dividends_to_a_Single_...	Draft	Allocate Dividends to a S...	Allocate Dividends to a ...	Passed	--
44	Dividend_Allocation_by_Percenta...	Draft	Dividend Allocation by P...	Allocate Dividends by P...	Passed	--
14	Dividend_Allocation_by_Percenta...	Draft	Dividend Allocation by P...	Allocate Dividends by P...	Passed	--
28	Dividend_Allocation_by_Percenta...	Draft	Dividend Allocation by P...	Allocate Dividends by P...	Blocked	Organizati...
12	Allocate Dividends_to_a_Single_...	Draft	Allocate Dividends to a S...	Allocate Dividends to a ...	Passed	--

Prioritizing the Test Effort

Deriving test plan priority

Do you classify test plans with categories to indicate type of testing? Using categories to separate plans by regression, translation, new feature, etc. is useful to define relative priority.

Test Plans [?]

View As: Group By:

Items per page Previous | 1 | Next

ID	Priority	Name	State	Owner	Iteration	Product	Release	Test Phase
1		Development Test	Draft	Tanuj	TestPlan 1	Personal Ban...	R 1.0	Developer Test
2		System Verification	Draft	Tammy	TestPlan 2	Personal Ban...	R 1.0	Integration Test
3		User Acceptance	Draft	Tammy	TestPlan 3	Personal Ban...	R 1.0	User Acceptanc...

Tracking Progress

How can I track execution progress and make adjustments real-time to react to business reality?



Tracking Progress Test plans – live view

Use the new test plan “Live View” for real-time, at a glance, info on how your testing is progressing.

Test Plans >

* 2: System Verification

Test Plan Overview | [Snapshots](#) | [History](#)

State: Draft Action: ▼

Originator: Tammy Owner: ▼

Priority: High ▼

Execution Progress

Test Case:	<div style="width: 100%; height: 10px; background-color: #c8e6c9;"></div>	<div style="width: 100%; height: 10px; background-color: #c8e6c9;"></div>
	Estimated: 100%	Progress: 1155
	Total: 104/105 h	Total: 1580
Test Suite:	<div style="width: 0%; height: 10px; background-color: #c8e6c9;"></div>	<div style="width: 0%; height: 10px; background-color: #c8e6c9;"></div>
	Total: 0/0 h	Estimated: 0%
	Progress: 0	Total: 0

Description: Formal test plan for system verification.

Tracking Progress

Test plans – TER view

There's a new section for test plans to list all TERs associated with the plan. "Group By Owner" shows you individual progress.

Test Case Execution Records ?

View As: Group By:

10 Items per page Previous | 1, 2 | Next

ID	Priority	Name	Test Case	Iteration	Owner	Last Res	Time Spent	Estimate
<div style="border: 1px solid red; padding: 5px;"> Total: 78/75 h Estimated: 100% Progress: 550 Total: 975 </div>								
12		Dividend_Allocation_by_Percenta...	Dividend Allocation by P...	S2	Marco	✓	1 d 6 h	1 d 2 h
10		Allocate_Dividends_to_a_Single...	Allocate Dividends to a ...	S2	Marco	✓	6 h	5 h
9		Allocate_Dividends_to_a_Single...	Allocate Dividends to a ...	S2	Marco	✓	7 h	5 h
7		Dividend_Allocation_by_Percenta...	Dividend Allocation by P...	S1	Marco	✓	1 d 5 h	1 d 2 h
6		Dividend_Allocation_by_Percenta...	Dividend Allocation by P...	S1	Marco	✓	1 d 7 h	1 d 2 h
14		Dividend_Allocation_by_Percenta...	Dividend Allocation by P...	S2	Marco	○	6 h	1 d 2 h
13		Dividend_Allocation_by_Percenta...	Dividend Allocation by P...	S2	Marco	○	7 h	1 d 2 h
11		Allocate_Dividends_to_a_Single...	Allocate Dividends to a ...	S2	Marco	○	3 h	5 h
8		Dividend_Allocation_by_Percenta...	Dividend Allocation by P...	S1	Marco	○	7 h	1 d 2 h
<div style="border: 1px solid red; padding: 5px;"> Total: 26/30 h Estimated: 100% Progress: 605 Total: 605 </div>								
5		Request_Credit_Increase_Intern...	Request Credit Increase	S1	Tanuj	○	2 h	5 h

Tracking Progress TER view

Use the TER view grouped by owner to reassign test ownership. Transfer TERs from overbooked testers to under-booked testers.

The TER view in a plan is great, but the general TER view can also be grouped by Owner for a more holistic view.

Test Case Execution Records ?

View As: General Group By: Owner Type Filter Text

Show All Items per page Previous | 1 | Next

ID	Priori	Name	Test Case	Iteration	Owner	Last Res	Time Spent	Estimate
<div style="border: 1px solid red; padding: 5px; width: fit-content;"> Change Owner ✕ Owner: Deb ▼ OK Cancel </div>								
21		Allocate_dividends_by_amount_a...	Allocate dividends by a...	S1	Tanuj		6 h	2 d
31		Allocate_Dividends_to_a_Single_...	Allocate Dividends to a ...	S2	Tanuj	✓	3 h	5 h
29		Dividend_Allocation_by_Percenta...	Dividend Allocation by P...	S1	Tanuj	✓	1 d	1 d 2 h
28		JKE_Charity_Coordinator_respon...	JKE Charity Coordinator ...	S1	Tanuj	✓	1 d	1 d 2 h
18		Allocate_Dividends_by_Percentag...	Allocate Dividends by Pe...	S1	Tanuj	⊖	1 d	1 d 2 h

Tracking Progress Dashboard viewlet – Test Plans Execution Status

Test plan execution status can be tracked via a viewlet on personal, team, and project dashboards.

Hover over progress bars for breakdowns of details.

Click on progress bars to open the relevant table of test case or test suite execution records.

JKE Banking (Quality Management)

General | Planning | Execution | Development | Defects

Test Plans Execution Status (JKE Banking (Quality Management))

Test Plan	Estimated	Total	Progress
Development Test	100%	1520	1320
System Verification	100%	1580	1155
User Acceptance	100%	1495	1495
Master Test Strategy	0%	0	0

Progress Report - Points

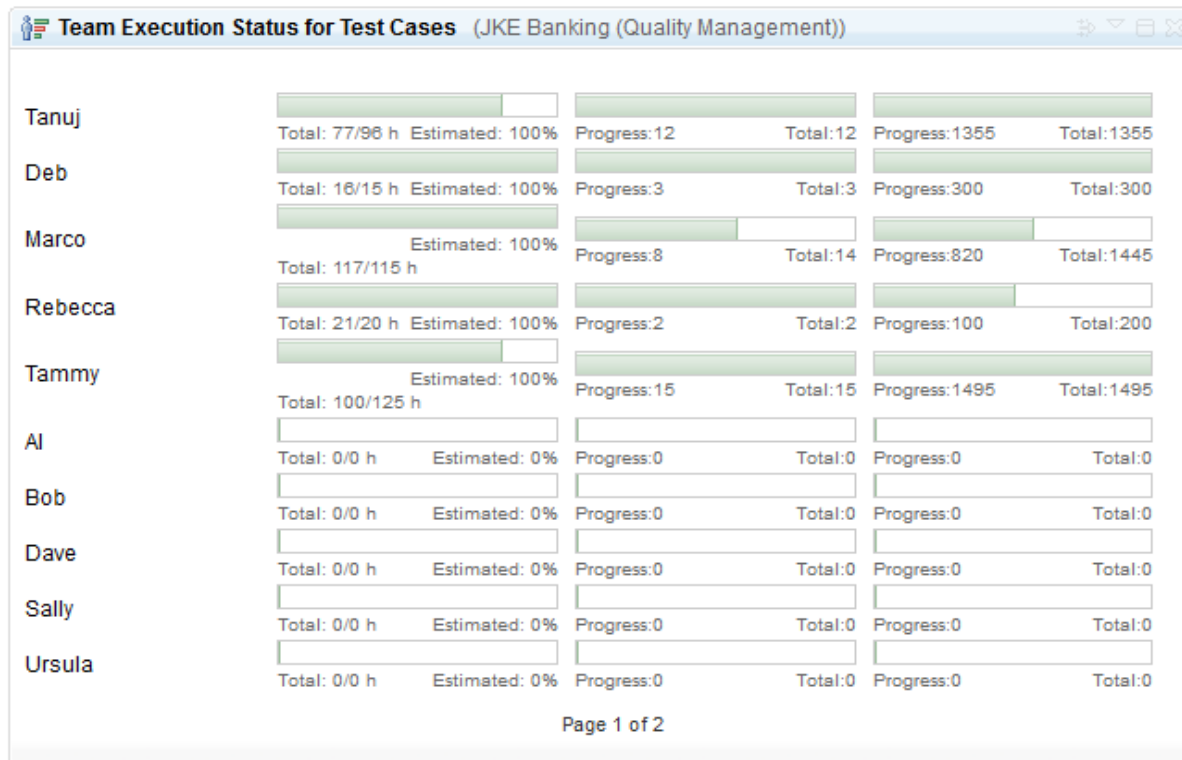
Total:	1520	Progress: 1320
Points attempted:	1320	Progress: 1155
Pass:	1058	Progress: 1495
Fail:	112	Progress: 0
Blocked:	100	Total: 0
PermFailed:	0	Progress: 0
Deferred:	0	Total: 0
Inconclusive:	150	
Points unattempted:	200	

Page 1 of 1 | Next

Tracking Progress Dashboard viewlet – Team Execution Status for Test Cases

A great team dashboard viewlet (also available on personal and project dashboards) is a breakdown of your team's progress.

Hover over progress bars for breakdowns of details.



Tracking Progress

Reviewing what has not been executed: TER view

The TER view in a test plan filtered with “Last Result = Not Run” is a quick and easy way to see your exposure.

Leverage the priority you've assigned to TERs to assess risk and exposure, drilling into the associated test case's related requirements and workitems for a complete picture. Use the progress view to reassign those critical TERs!

ID	Priority	Name	Test Case	Iteration	Owner	Last Result
	Any			Any	Any	Not Run
<div style="display: flex; justify-content: space-between;"> ▼ Marco (1 - 5 of 5) Total: 31/45 h Estimated: 100% </div>						
13		Dividend_Allocation_by_Percentage_Fir...	Dividend Allocation by Perce...	S2	Marco	
8		Dividend_Allocation_by_Percentage_Int...	Dividend Allocation by Perce...	S1	Marco	
14		Dividend_Allocation_by_Percentage_Int...	Dividend Allocation by Perce...	S2	Marco	
11		Allocate_Dividends_to_a_Single_Caus...	Allocate Dividends to a Singl...	S2	Marco	
16		Dividend_Allocation_by_Percentage_Ch...	Dividend Allocation by Perce...	Unassigned	Marco	

Tracking Progress

Reviewing what has not been executed: exporting to CSV

You may need to report status to others in your organization who may not want to or be licensed to use CLM reporting, let alone QM itself. CSV Export is a new 2012 feature that allows you to export exactly what you're seeing in any table view to a spreadsheet. Start your pivot table engines!

Items per page
 « Previous | 1 | Next »

ID	Priority	Name	Test Case	Iteration	Owner	Last Result	Time Spent	Estimate
Marco (1 - 5 of 5) <div style="float: right;"> Total: 31/45 h Estimated: 100% Progress: 0 Total: 525 </div>								
13	High	Dividend_Allocation_by_Percentage_Firefox_DB2_WAS_Linux_S2	Dividend Allocation by Percentage	S2	Marco	Not Executed	7 h	1 d 2 h
8	Low	Dividend_Allocation_by_Percentage_InternetExplorer_DB2_WAS_Windows_S1	Dividend Allocation by Percentage	S1	Marco	Not Executed	7 h	1 d 2 h
44	Low	Dividend_Allocation_by_Percentage_InternetExplorer_DB2_WAS_Windows_S2	Dividend Allocation by Percentage	S2	Marco	Not Executed	6 h	1 d 2 h



Priority	Name	Test Case ID	Test Case	Iteration	Owner
Must	Dividend_Allocation_by_Percentage_Firefox_DB2_WAS_Linux_S2	18	Dividend Allocation by Percentage	S2	Marco
Low	Dividend_Allocation_by_Percentage_InternetExplorer_DB2_WAS_Windows_S1	18	Dividend Allocation by Percentage	S1	Marco
Low	Dividend_Allocation_by_Percentage_InternetExplorer_DB2_WAS_Windows_S2	18	Dividend Allocation by Percentage	S2	Marco
Medium	Allocate_Dividends_to_a_Single_Cause_InternetExplorer_DB2_WAS_Windows_S2	19	Allocate Dividends to a Single Cause	S2	Marco
Medium	Dividend_Allocation_by_Percentage_Chrome_DB2_Tomcat_Linux	18	Dividend Allocation by Percentage		Marco

Summary

- Use priority to focus your test efforts and make intelligent decisions on what can be deferred.
- Estimate and time spent drive our live status views and allow you to better track your execution progress from a resource perspective.
- Traceability views provide easy access to linked data to make planning decisions.
- Live views in the test plan offer “at a glance” status without running a report.
- The TER section in a test plan is a powerful way to easily and conveniently track testing progress.

QUESTIONS

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