http://www.tutorialspoint.com/qc/qc_quick_guide.htm

QUALITY CENTER - INTRODUCTION

What is Quality Center?

HP Quality Center, a test management tool is now popularly known as **A**pplication **L**ife Cycle **M**anagement ToolALM as it is no longer just a test management tool but it supports various phases of the software development life cycle.

HP-ALM helps us to manage project milestones, deliverables, resources and keeping track of project health, standards that allows Product owners to guage the current status of the product. It is important to understand history, architecture and Quality Center Workflow.

History of QC

Quality Center was formerly known as Test Director, a product of mercury interactive. The below table provides us a better insights about the version history of QC.

S.No#	Commercial Name	Version Numbers	Owned By
1.	Test Director	v1.52 to v8.0	Mercury Interactive
2.	Quality Center	v8.0 to v9.0	Mercury Interactive
3.	Quality Center	v9.2 to v10.0	Нр
4.	ALM	v11.0 to v11.5x	Нр

Architecture of QC

HP-ALM, an enterprise-wide application that is based on Java 2 Enterprise Edition J2EE technology and uses MS SQL Server or Oracle as its back end. There is also a load balancer to ensure to effectively cater user's requests.

Site Administration Database is hosted on a standalone Database server while other projects data are stored on a seperate Database server. A typical installation of Quality Center is shown below:





HP ALM Editions:

HP ALM is a commercial licensed tool and HP deploys it in 4 different editions that are listed below:

- HP ALM
- HP ALM Essentials
- HP Quality Center Enterprise Edition
- HP ALM Performance Center Edition

ALM Edition Feature Comparison

Each one of the above said edition has its own limitation in terms of ALM functionalities. Based on below table one can decide which license is required for their project purposes.

Feature	HP ALM	HP ALM Essentials	HP QC Enterprise Edition	HP ALM Performance Center Edition
Release Management	Yes	Yes	Yes	Yes
Project Planning and Tracking	Yes	No	No	No
Risk Based Quality Management	Yes	No	Yes	No
Test Authoring and Execution	Yes	Yes	Yes	Yes
Test Resources	Yes	Yes	Yes	Yes
Test Configurations	Yes	No	Yes	Yes
Hp Sprinter	Yes	No	Yes	No
Lab Management	Yes	No	No	Yes
Versioning	Yes	No	Yes	Yes
Baselining	Yes	No	Yes	Yes
Cross Project Customization	Yes	Yes	No	Yes
Sharing Defects	Yes	No	No	No

Quality Center Workflow

Quality Center workflow is represented using a simple diagram as shown below:



Hp-Quality Center Set up

HP Quality Center Environment Set up is a complicated process and it is NOT a typical installation that we perform on a windows operating system.

Enterprise installation would be distributed, however for learning/evaluating purposes one can install the trial version of Hp-ALM 11.5x and also need to take care of the prerequisites carefully for successful installation.

Prerequisites for Installing QC

For Evaluating purposes both client and Server can reside on the same system and in this chapter we will do the installation of same kind.

Supported Windows Operating Systems:

Only the following list of Windows OS are supported hence one has to ensure that HP-ALM is installed on one of the below mentioned Windows OS only

- Microsoft Windows Server 2008 Enterprise SP2 32 Bit/64 Bit
- Microsoft Windows Server 2008 R2 Enterprise SP1 64 Bit
- Microsoft Windows Server 2012 Standard 64 Bit
- Microsoft Windows Server 2012 R2 Standard 64 Bit

Supported Databases:

Ensure that you have one of the databases installed before proceeding to install HP-ALM.

- Oracle 10.2.0.5
- Oracle 11.2.0.3
- Oracle 11.2.0.4
- Microsoft SQL Server 2005 SP4
- Microsoft SQL Server 2008 R2 SP1
- Microsoft SQL Server 2008 R2 SP2

Supported AppServers:

- Apache 2.2
- Microsoft IIS 7.0
- Microsoft IIS 7.5
- Microsoft IIS 8.0
- Microsoft IIS 8.5

Supported Browsers:

- Microsoft Internet Explorer 8
- Microsoft Internet Explorer 9
- Microsoft Internet Explorer 10
- Microsoft Internet Explorer 11

Downloading Hp-ALM

Following are the steps for downloading the 30 day trial version of Hp-ALM from HP website.

Step 1: Launch IE with URL - http://www8.hp.com/us/en/software-solutions/software.html? compURI=1174315

Step 2: Click on "Trials and Demos" and Select "HP Application LifeCycle Management 11.50 English SW E-Media Evaluation" as shown below

Application Test Software – Development Lifecyc O O O O O O O O O O O O O O	le Management H utions/software.html?	HP® Official	Site - Windows Inte 74315	rnet Explorer		Hp-Quality Center .	🤇 🔏 VBScript	Regular E Valic] M
	Fo	or Home	For Work	Support				Search HP.com	
	Software / Appl	lication Lifecyc	le Management / Al	.M Development Manag	ement				
	HP App Unify the app	plication	t ion Life lifecycle for al	cycle Ma ignment, visibili	nagem	pration.			
	Contact us	5 🗸	Trials and De	emos			~		
			HP Application	n Lifecycle Manago	ement 11.50 E	nglish SW E-Media Ev	aluation		
	Quarviaw		HP Performar	ice Center on Saa	5 evaluation				
	Overview	ALI AL	HP Quality Ce	nter on SaaS Evalı	uation				

Step 3: Fill in all the necessary details and click on "NEXT" as shown below

Software /Application Lifecycle Management /ALM Development Management



HP Application Lifecycle Management 11.50 English SW E-Media Evaluation

are your plans for using t ase select one * Area Phone as 2 stal code * click on "NEXT" a	his software? *	Country * India City/town * Cancel	2×
are your plans for using t ase select one * * * Area Phone ss 2 stal code * click on "NEXT" a	his software? *	Country * India City/town *	2×
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English SW E-Media	Evaluation		
Y BEFORE DOWNLOADING T	E SOFTWARE.		
between you ("You" or "You "Software"). By downloadir of this Agreement, do not c	") and Hewlett-Packarı g, copying, or using th l ick on "I Agree" belo w	d Company and its subsidiaries ("HP") ie Software You agree to this v and do not download, install, copy,	
ormation referenced by HP, w ies, supplier terms, open sou t: www.hp.com/go/SWLicen	hich may be software l rce software licenses a s <mark>ing</mark> .	icense information, additional license nd similar content ("Supporting	
another person or entity, yo lload, install or use the Produ	u warrant you have aut ict.	hority to do so. This Agreement will be	
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, HP grants You a non-exclus	ve non-transferable lic	ense to use one copy of the version or vare licensing information located in CLICK I DISAGREE AND DO NOT ACCEPT THE HP	
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Step 5: Download link appears and select the appropriate edition you want to install windows/Unix

HP Application Lifecycle Management 11.50 English SW E-Media Evaluation

Please review this first:

Ltr, HP ALM 11.50 Welcome

PDF 0.08 MB

You may now download your software and supporting materials.

For License keys or to download content again, please refer to our download confirmation email sent to Admin@Tutorialspoint.com. Review our FAQ for more helpful information.

Name	File Size	Using HP Download Manager 🗸 💈
Software, HP QC/ALM 11.50 + SP2 Windows English (T7333-15018.ISO)	PDF 2542 MB	Download
Software, HP QC/ALM 11.50 + SP2 Unix English (T7333-15019.ISO)	PDF 1917 MB	Download
Ltr, HP ALM 11.50 Welcome	PDF 0.08 MB	Download

Installing HP-ALM

Step 1: After downloading the ISO file, unzip the contents and after unzipping, the folder structure would be as shown below:

HP_QC_ALM_11.50_W	indows_English_T7	333-15018(1)	22		
🍌 🔹 Computer 👻 New '	Volume (D:) 👻 Softwa	res 👻 ALM 11.5 👻	Software_	HP_QC_ALM_11	.50_Windows_English_T7333-15018(1) +
lame 🔺 🛛 🖌	Date modified 🛛 🗕	Туре	- Size	▼ Tags	+
ALM_Demo_Project	4/15/2013 7:40 PM	File Folder			
ALM_Win32	4/22/2013 1:31 PM	File Folder			
ALM_Win64	4/22/2013 1:34 PM	File Folder			
📙 dat	4/24/2013 3:47 PM	File Folder			
Docs	4/28/2013 4:41 PM	File Folder			
Readme	4/28/2013 4:42 PM	File Folder			
Third_Party_Products	4/15/2013 7:49 PM	File Folder			
Utilities	4/22/2013 1:39 PM	File Folder			
autorun.inf	10/1/2009 4:32 PM	Setup Information		1 KB	
Setup.exe	4/23/2013 5:40 PM	Application		55 KB	

Step 2 : After welcome screen opens up click on "NEXT" button as shown. Continue to Click Next button until you reach Finish Screen.

🙀 HP Application Lifecy	ycle Management Platform	
	Welcome to the HP Application Lifecycle Management Platform Installer	
Application Lifecycle Management Maintenance • Welcome • Setup Type	The Installer will allow you to modify, repair, or remove HP Application Lifecycle Management Platform. To continue, click Next.	



Step 3 : Upon Finishing, the HP ALM Platform Configuration Wizard Opens as shown below.

Welcome	Welcome
License Key Cluster Configuration Security Application Server HP ALM Platform service Web Server Mercury Tours Mail Server Database Server Site Administration Database Schema Site Administrator User File Repository Path Installation Summary Apply Configuration Finish	Welcome to the HP ALM Platform Configuration Wizard. The HP ALM Platform Configuration Wizard will guide you through the steps of installing HP Application Lifecycle Managemen Platform 11.00 on your computer.

Step 4 : License Key Tab opens and user need to select "Application Life Cycle Management" so that we can access all the features of the package.

Welcome	License Key	
License Key		
Cluster Configuration	packade).	ise key and type your maintenance key (located in the product
Security		
Application Server	License key file;	Brows
HP ALM Platform service	1	
Web Server	Maintenance key:	
Mercury Tours	🗹 Use Evaluation Key	
Mail Server		
Database Server	Quality Center Enterprise Edition	
Site Administration Database Schema	Quality Center Starter Edition	
Site Administrator Liser	Performance Center Edition	
File Denseiteru Deth	Application Lifecycle Management	
	La training and the second	
Installation Summary		
Apply Configuration		
Finish		

	Back	Cancel

Step 5 : Cluster Configuration Tab opens and choose Standalone as we will install all services in a standalone host and NOT as a distributed system.

HP ALM Platform Configuration Wizard	
 HP ALM Platform Configuration Wizard Welcome License Key Cluster Configuration Security Application Server HP ALM Platform service Web Server Mercury Tours Mail Server Database Server 	Cluster Configuration Choose "First node/Standalone" if you are installing HP ALM Platform on the first node of a cluster or as a standalone application. Choose "Secondary node" if you have an existing node and you want to install HP ALM Platform on another node. You must install the same version of HP ALM Platform on all nodes. First node / Standalone Secondary node
ail Server atabase Server ite Administration Database Schema ite Administrator User ile Repository Path istallation Summary poly Configuration	O Secondary node
Finish	
	Back Next Cancel Help



HP ALM Platform Configuration Wizard		
Welcome	Security	
License Key Cluster Configuration	ALM Platform encrypts confidential data, such as passwords to external systems (DB, LDAP), and secures communucation with other HP BTO applications.	
Security	Confidential Data Descrition	2
Application Server HP ALM Platform service Web Server Mercury Tours Mail Server	Enter a passphrase with at least 12 characters for secure storage of confidential data. Important: If you are installing a cluster of servers, make sure you enter the same passphrase on all nodes. Confidential data passphrase: qualitycenter	
Database Server Site Administration Database Schema Site Administrator User	Use default value (unsecure)	
File Repository Path	Communication Security	
Installation Summary Apply Configuration	Enter a passphrase with at least 12 characters for secure communication.	2

Finish	qualitycenter			
	Back	Next	Cancel	Help

Step 7 : Application Server Tab Opens and choose "Jboss Application Server" and allow all others as default values.

HP ALM Platform Configuration Wizard				
Welcome	Application Server			
Cluster Configuration Security	Select an application server configuration option			
Application Server HP ALM Platform service	O Other Application Server (manual deployment)			
Web Server Mercury Tours Mail Server Database Server Ste Administration Database Scheme	Deployment Path Enter the path under which the JBoss application and application archive files are deployed. This path is also used for storing extension data and ALM server logs. Deployment path: C:\ProgramData\HP\ALM			
Site Administrator User File Repository Path Installation Summary Apply Configuration Finish	JBoss Advanced Options JBoss Server HTTP Port: 8080 JBoss is configured with default parameters that are recommended for most environments. For details on configuring JBoss settings, refer to the HP ALM Installation Guide.			
	Back Next Cancel Help			

Step 8 : HP ALM Platform Service tab opens. Leave it empty so that your Windows login is used as the userid for starting the ALM Services.

MP ALM Platform Configuration Wizard	
Welcome	HP ALM Platform service
License Key Cluster Configuration	Type your Windows login user name, password, and domain to enable HP ALM Platform to run as a service using your local network.
Security Application Server	If you do not specify a user account, the local system account will be used to run the HP ALM Platform service. In this case, HP ALM Platform will not have access to files over the network.
HP ALM Platform service	
Web Server	User Name:
Mercury Tours	Password:
Mail Server	Damain:
Database Server	bonnan.
Site Administration Database Schema	
Site Administrator User	
File Repository Path	

The reportery rule					
Installation Summary					
Apply Configuration					
Finish					
					5
		Back	Next	Cancel	Help

Step 9 : Web Server selection window opens. We will use JBOSS as the Webserver. Hence we need NOT select anything but just click on "NEXT" button.

WHP ALM Platform Configuration Wizard	
Welcome License Key Cluster Configuration Security Application Server HP ALM Platform service Web Server Mercury Tours Mail Server Database Server Site Administration Database Schema Site Administrator User File Repository Path Installation Summary Apply Configuration Finish	Web Server The IIS Web server is currently not running on this machine. Choose one of the following To use JBoss as the Web server, click "Next" to continue. To use IIS as the Web server, click "Cancel" to end the configuration. Check that IIS is installed and running, then restart the configuration.
	Back Next Cancel Help

Step 10 : If you would like to install the sample application "Mercury Tours", Please select and click "NEXT".

HP ALM Platform Configuration Wi	izard
Welcome	Mercury Tours
Cluster Configuration	To help you get started with HP Application Lifecycle Management Platform, it is recommended to work with the HP Application Lifecycle Management Platform Tutorial.
Security Application Server	To work with the HP Application Lifecycle Management Platform Tutorial, you must import the HP Application Lifecycle Management Platform demo project and install the Mercury Tours application.
HP ALM Platform service Web Server	Install Mercury Tours
Mercury Tours	The HP Application Lifecycle Management Platform demo project is provided with the installation DVD. Refer to the ALM
Mail Server Database Server	Platform Installation Guide for instructions on how to import the demo project after installation.

Site Administration Database Schema Site Administrator User File Repository Path Installation Summary Apply Configuration Finish					
		Back	Next	Cancel	Help

Step 11 : For Mail Server Configuration, add your SMTP or MS IIS SMTP server name or Select None and Click "NEXT". This server setting will enable you to interact with other QC users via Email or it triggers an email based on the settings.

Note: The ALM Platform Configuration Wizard	
Welcome License Key Cluster Configuration Security Application Server HP ALM Platform service Web Server Mercury Tours Mail Server Database Server Site Administration Database Schema	Mail Server HP Application Lifecycle Management Platform uses the mail service to send e-mail messages to users in a project. (For example, each time changes are made to specified defect fields, HP Application Lifecycle Management Platform notifies users by mail.) To enable this option, choose a mail protocol. Choose a mail protocol Microsoft IIS SMTP Service SMTP Server None
Site Administrator User File Repository Path Installation Summary Apply Configuration Finish	Male Server, Kort
	Back Next Cancel Help

Step 12 : Choose the correct database Server Configuration. Please note that the database corresponds to the one that is already installed on the server. The user credentials should have previleges to create Database on the server. Only if all the field values are correct it moves on to the next screen.

HP ALM Platform Configuration	Wizard	_ 🗆 🗙
Welcome License Kev	Database Server	
Cluster Configuration	Database Type	
Security		

Application Server	MIS-SUL (SUL AUIT.)
HP ALM Platform service Web Server	Database Connection
Mercury Tours Mail Server	Database Parameters DB host name: VDH-STWF2K8-802
Database Server	
Site Administration Database Schema Site Administrator User	DB port number: 1433
File Repository Path Installation Summary	O Connection String
Apply Configuration	jdbc/mercury/sqlserver///HYD-FBTW2k8-S02/1433
FINSI	
	Database Administrator Login
	DB admin user name: sa
	DB admin password:
	1 <u>. </u>
	Back Next Cancel Help

Step 13 : The Site Administration Database Schema configuration window Opens. Ensure that you give a unique DB Schema name where all the Admin data of QC will be stored.

PHP ALM Platform Configuration Wizard		
Welcome	Site Administration Database Schema	
Cluster Configuration	Selected Action	
Security Application Server	Create a New Schema	
HP ALM Platform service	SA Schema Details	
Mercury Tours Mail Server	Schëma name: [qcsiteadmin_db	
Database Server	Schema password:	
Site Administration Database Schema	New schema name:	
File Repository Path Installation Summary Apply Configuration Finish		
	Back Next Co	incel Help

Step 14 : Enter the Site Administrator user credentials. DONOT forget to remember these credentials so that you can log into QC using these credentials after successful installation.

WHP ALM Platform Configuration Wizard		
Welcome	Site Administrator User	

License Key Cluster Configuration Security Application Server HP ALM Platform service Web Server Mercury Tours Mail Server Database Server Site Administration Database Schema Site Administrator User File Repository Path Installation Summary Apply Configuration Finish	Type user name an Administration datal User name: Password: Retype password:	d password to be use base schema name an admin 	d when logging in to Site Ad	Iministration. This is no	t the same as the Site	
			Back	Next	Cancel	Heip

Step 15 : File Repository Path is given where all the QC related assets which we create would be saved in the location that we update during installation.

MP ALM Platform Configuration Wizard		_ 🗆 🗵
Welcome License Key Cluster Configuration Security Application Server HP ALM Platform service Web Server Mercury Tours Mail Server Database Server Site Administration Database Schema Site Administration Liser	File Repository Path File repository path: C:\ProgramData\HP\ALM\repository	Browse
Eile Depository Path		
Installation Summary Apply Configuration Finish		
	Back Next Cancel	Help

Step 16 : The Installation Summary Window Opens up which shows the complete summary of the selected configuration. If the user wishes to make any change this is the stage one can make the changes by going back to the previous window.



WHP ALM Platform Configuration Wizard		
Welcome License Key Cluster Configuration Security Application Server HP ALM Platform service Web Server Mercury Tours Mail Server	Apply Configuration	
Database Server Site Administration Database Schema Site Administrator User File Repository Path Installation Summary	10% Creating QC folders under application data folder	
Apply Configuration Finish		
	Next	Cancel Help

Launching Hp-ALM

Step 1 : Upon installing HP-ALM successfully, the ALM can be launched from the Start menu as shown below.



Step 2 : After Installing we can also launch ALM by giving the following URL in Internet Explorer and ALM would be opened as shown below. URL : http://localhost:8181/qcbin/



Server Side Configurations

Once the Hp-ALM is installed, we can continue to work with ALM only after creating domain, project and users. Below are the Steps to create Project, Domain and Users.

Creating Domain:

Step 1 : For Creating Domain, first step is to get into Site Administrator Page. Launch QC using the URL - http://localhost:8181/qcbin/SiteAdmin.jsp and enter the Admin credentials that was set up while installing QC.



Step 2 : After Logging into Site Admin page, we will land in Site Projects Tab as shown below and Next step is to create a Domain.

HP Application Lifecycle Management 11.52 - 9	ite Administration - Windows Internet Explorer	
💽 🗢 🗟 http://localhost:8181/qcbin/SiteAdmir	.isp 🔎 💌 🚱 🚱 🗙 ⊘ HP Application Lifecycle Man 🗙	
Application Lifecycle Management	- Site Administration	Site Adn
Site Projects Lab Management Site Users Si	e Connections Licenses Servers DB Servers Site Configuration Site Analysis Project Planning and Tracking	
🚼 Create Domain 🖉 Delete Domain 🔗 🔹	📂 Create Project 🖄 Create Template 🗙 Delete 📧 Rename 🥒 Edit 🖗 Ping 🖙 🦘 🥱 🗵 🍣 🗸 🖌 🖓 Enable Versioning	
Projects Template Projects	DEFAULT	
	Directories	
	Physical Directory: C: ProgramDatal/HP\ALM\repository\qc\Default\	

Miscellanenus
<u>Contact Name:</u>
<u>Contact E-mail:</u>
Default DB Server: (none)

Step 3 : Click on 'Create Domain' Button on Top Left Corner and Enter Domain Name and Click OK.

Site Projects	Lab Management	Site Users S	Site Connections Licenses Servers DB Servers Site Configurat	on
🚰 Create 🛙)omain 🚆 Delete Do	main 🔗	🔹 ಶ Create Project 🛛 Create Template 🗙 Delete 🛛 🖾 Rename 🥒 I	dit I
- 🚑 DEFAL	ULT ojects mplate Projects		DEFAULT	
			Directories	
	Create Domain		C:\ProgramData\HP\ALM\vepository\qc\E	efau
	Create Domain Domain Name		Diversed Directory: C: \ProgramData\HP\ALM\vepository\qc\D X	efau
	Create Domain Domain Name FINANCE		Dimensional Directory: C: \ProgramData\HP\ALM\vepository\qc\D	efau
	Create Domain Domain Name FINANCE OK	Cancel	Dimensional Thirectory: C: 'ProgramData'HP\ALM\vepository\qc\L Help pt Name:	efau
	Create Domain Domain Name FINANCE OK	Cancel	Dimensional Directory: C:\ProgramData\HP\ALM\vepository\qc\L Help t Name: Contact E-mail:	efau
	Create Domain Domain Name FINANCE OK	Cancel	Dissocies al Directory: C:\ProgramData\HP\ALM\vepository\qc\L Help t Name: User Quota: Unlimited Connections. Default DB Server: (cope)	efau 1

Step 4 : Domain would be Created as shown below.

Application Lifecycle Manageme Tools Help Ste Projects Lab Management Ste Users	ent – Site Administration
Create Domain	Create Project 2 Create Template
Electric Ele	FINANCE \ Projects
Projects Template Projects	Directories
	Physical Directory: C:\Prog

Creating Projects:

Once Domain is Created, the next step is to create 'Projects'. Creating Project takes us through a wizard and one Should follow the below steps to create 'Projects'

Step 1 : Select the Domain under which the project needs to be created and then click "Create Projects" button as shown below.

HP Application Lifecycle Management 11.52 - S	ite Administration - Windows Internet Explorer
🚱 💿 🗢 🙋 http://localhost:8181/qcbin/SiteAdmin	.isp 🔎 💽 🚱 🎸 🗙 ⊘ HP Application Lifecycle Man 🗙
Application Lifecycle Management	- Site Administration
Tools ▼ Help ▼ Site Projects Lab Management Site Users Sit	e Connections Licenses Servers DB Servers Site Configuration Site Analysis Project Planning and Tracking
🙀 Create Domain 🦉 Delete Domain 🔗 🔹	🗂 Create Project 🖾 Create Template 🗴 Delete 🛛 🖾 Rename 🦯 Edit 🖗 Ping 🖙 🦘 🏷 🗵 🕰 🗸 🖉 🖉 🖓 Enable Versioning
	FINANCE
	Directories
- <u></u> Projects	
Lengthere Projects	Physical Directory: C:\ProgramData\HP\ALM\repository\qc\FINANCE_2\
	Miscellaneous
	<u>Contact Name:</u> <u>Contact E-mail:</u>
	Marcana Unlimited Connections.
	Derault DB Server: (none)

Step 2 : The Create Project Wizard opens. Select "Create an Empty Project" and click "Next".

eate	Project						
elect	to create a r	new projec	:t				
۲	Create an e	mpty proje	ct				
0	Create a pro	oject from	a template				
0	Create a pro	oject by co	pying data	a from an e×	isting project		
0	Create a pro	oject by im	porting da	ta from an e	xported project 1	ile	
		Back			Cancal	Halp	
		DOUR		INCAL	Cancer		

Step 3 : Enter the "Project Name" and Select Domain and click "Next".

Project Name :	CALCULATOR	
In Domain :	FINANCE	*

Step 4 : Enter the Database Credentials and click "NEXT".

O Oracle			
MS-SQL			
B Server ————			
Server Name :	YDH-STWF2K	3-802	
)B Admin User :	sa	-	
B Admin Password :	*********]	
🗌 Create as Unicode			
		1	

Step 5 : Select the Project Administrator user ID and click "NEXT".

Administrator	Available Users
	User Name Full Name

Step 6 : Select the extensions to activate the project and click "NEXT".

LM Dev Extension LM Lab Extension for functional and performance opplication Lifecycle Intelligence 2.6	testing			
LM Lab Extension for functional and performance application Lifecycle Intelligence 2.6	testing			
pplication Lifecycle Intelligence 2.6				
nalication Model				
abhicarou woaci	Application Model			
nterprise Integration for SAP applications				
cense Status				

Step 6 : check the Activate check box and Enable Version controlling if you want and click "NEXT".

About to create a new MS-SQL project	ct		
Project Name : CALCULATOR			
On Domain : DEFAULT			
On Server : YDH-STM/F2K8-B02			
☑ Activate project)			
☑ Activate project) □ Enable Versioning			
☑ Activate project) □ Enable Versioning			
✓ Activate project) ☐ Enable Versioning			

Step 7 : Upon Clicking "Next", the project "Calculator" is created Successfully. Click "OK" to see the created project in the Project Pane.



Creating Users:

Step 1 : Select the Site Users Tab in "Site Admin" Page as shown below and click on "Add New

HP Application Lifecycle Mana	gement 11.52	2 - Site Admin	istration - W	/indows Intern	net Explorer
🔇 💽 🗢 🙋 http://localhost:81	81/qcbin/SiteA	dmin.jsp			🔎 🗹 🚱 😏 🔀 🤣 HP Application Lifecycle Man 🗙
Application Lifecycle	Manageme	ent – Site Ac	dministratic	n	
Tools + Help + Site Projects Lab Management	Site Users	Site Connectio	ons Licens	es Servers	DB Servers Site Configuration Site Analysis Project Planning and Tracking
🎁 🎄 🔲 🍰 Find	in the second se	* - *-	H 5	Assword	d
Luser Name	Full Name			Administrato	tor
				User Details	User Projects
					User Name: Administrator
					Full Name:
					Status: 🔒 Active 📃 Deactivate
					Deactivation Date:

Step 2 : The New User window opens up. Fill the User details and click "OK".

User Name:	Smith
Full Name:	Jane Smith
E-mail:	JaneSmith@Tutorialspoint
Phone Number:	
Description:	

Step 3 : After Creating the user, give the user the project access that they need.

Smith		
User Details User Projects		
🕼 Select Projects 🔹 Remove 🔗 Find 🔄 M 🔲 Group By Domain	🔁 🗘 Clear All	×
Domain 🛆 Project		

Step 4 : Verify the user list in "Project Users" Tab after giving the user to access to the project.

Create Domain 🚆 Delete Domain 🧳	🍹 🕶 🎁 Create Project 🛛 👌 Cre	eate Template 🗙 Delete	🖾 Rename 🥖 Ec	lit 🧟 Ping 😽	+	י 🛛	\$- 0	🔒 Enable Versioning
GEFAULT Projects GALCULATOR	CALCULATOR							
Template Projects Finance	Project Details Project	Users Project Extension	ns					
	🐴 Add 👻 🤹 Remove	5 Find	n N					
	User Name	🛆 Full Name	Proje	ect Administrator	•			
	Administrator				0.			
	Smith	Jane Smith						

Commonly used Functionalities:

HP Application Lifecycle Management ALM displays data in infragistics grid view or in a tree structure and users can manipulate the data in various ways, such as rearranging columns, filtering, sorting, and grouping.

One can also attach files to those grid records, search for specific text in records, and view history of various entities. The following features are to be understood to ensure that users are able to work with Quality center seamlessly.

Click on each one of those links to know more about the common functionalities.

Common Functionality	Description
<u>Filter Dialog Box</u>	Dialog box enables user to perform operations such as filter, sort, and group ALM data based on defined criteria.
<u>Users Dialog Box</u>	Enables users to choose a user name from the list of users.
Find Dialog Box	enables users to search for a particular record in a tree view or grid view
<u>Replace Dialog Box</u>	Enables user to find and replace a specific field value in a tree or grid.
<u>History Tab</u>	Enables user to view a list of changes made to the currently selected workitem.
Send Email Dialog	Enables quality center users to send an email about an entity to other users.
<u>Attachments Dialog</u>	Enables users to add and manage attachments to a specific record.
<u>Snapshot Dialog</u>	Enables user to capture and attach images of your application under test to an quality center.
<u>Column chooser Dialog</u>	Enables user to specify which columns are displayed in ALM.
Set Defaults Dialog	Enables user to set default values for certain fields in ALM.
<u>Alerts and Flags Dialog</u>	Enables user to view a list of alerts for a selected record and also allows user to create, view, and modify follow up flags to remind yourself to follow up on an issue
Favorites Dialog	Allows user to create and organize favorites.

Management Tab:

This area helps us to create and manage releases and cycles and also to helps us make project planning and tracking. Management tab helps us to work with the following areas in ALM:

- Creating Releases
- Creating Cycles
- Release Scope and Milestone
- Master Plan and Status
- Libraries

• Baselining

Releases

Creating releases is the first step in Quality Center. All the work item such as libraries, test execution and defects are tracked based on the release.

Before creating a release, one can create a container/folder for the same by clicking on a new folder icon as shown below.



Click on New Releases button and the New Release dialog opens. Enter the name of the release and Click ok. The Release will be created as shown below

Releases	Edit View			
es 😋	◊ () 🗶 📋 () ◊	◆ x c ■		
E E Rel	eases 2014 1		Details Attachments	5
	2014.1		* Name:	2014.1
	New Release			X
	🗙 📲 💀			
	* Name <mark>: Q1 2014</mark>			
	Details	Details		
	Attachments	* Start Date: 1/1/2014 * End Date: 3/31/2014 Description B I U A ab := := := := := := ™ ™ > C III ^5		

	ок	Close	Help		
	ter restance to a				

Select the created release one can notice that the tabs - Details, release scope, master plan, scorecard, status and attachments are generated.

Releases Edit View						
]					
Releases	Details	Release Scope	Master Plan	Scorecard	Status	Attachments
E - @ Q1 2014	* Nam	e:	Q	1 2014		
	Relea:	se ID:	10)01		
	Chabiatian					
	Require	». ements assigned to r	elease:			
	area araa	99.0998-09980957-009889983				
	0.1					

Cycles

Each release is further divided into cycles and let us see how to create cycles in Quality Center.

Select the Release under which one would like to create cycles and click on New cycles button and the New cycles dialog opens as shown below. User has to enter the start date and end date of the cycle. User can create as many cycles as they can under a release.

eleases	-> Details	Release Scope	Master Plan	Scorecard	Status	Attachments
a 2014 B-@ 2014.1	* Name Releas	e: se ID:	20 10	14.1		
New Cycle						
Details Details Attachments Release Start	/1/2014 1/1/2014		Release Er <mark>* End Date:</mark>	nd 6/30)/2014 /2014	2
Description			00*00			

 OK Close Help	

Under Cycle, one can see the progress and Quality. The Progress is shown in a pictorial representation.

tal days in cycle:	91 Deve
emaining days in cycle:	91 (Not started)
tal test instances for cycle:	0 Remaining
	0
anaimig test instances to run.	Test Instance Runs
equired execution rate (test instances/day):	0.00 N/A
ctual execution rate (test instances/day):	N/A
	Coverage Progress
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95%	
90%	
85%	
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0%	22 25 27 20 44 42 45 47 40 54 52 55 57 50 64 62 65 67 60 74 72 75 77 70 84 82 85 77
0 1 2 3 4 5 6 7 6 9 11 13 15 17 19 21 23 25 27 29 3	22 20 21 28 41 42 40 47 48 51 52 55 57 58 57 58 57 58 57 58 71 73 75 77 79 51 53 55 57 5 Time

Release Scope and Milestone:

Each Release has a scope and scope can be added under "Release Scope" Tab under Releases as shown below.

Details	Release Scope	Master Pla	n Scorecard	Status	Attachments			
+ ×	C III 7	•						
🔽 New	Scope item						- E1.	
×	A® R A₽							
*Name	e: Feature 1							
	Details	Deta	ils					
x C	Content	Pr	iority:	1-Low		Owner:	admin	
				Electronic				
		4						
		De	scription					
				-57. - 538 - 5		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5600RC	

OK Close Help

Each Release has also a milestone assiciated with it and a release can be added using the Milestone icon under Releases as shown below.

Releases Edit View	
E 3 🕹 🕹 🗶 📋 🛛 🗞 🔶 🗶 😅 🗉	
Releases 2014 Cycle 1 Cycle 2	Details Release Scope * Master Plan Scorecard Status Attachments + X Image: Complex and the state of the sta
New Milestone	1001 Release Scope 1 1002 Release Scope 2 1003 Release Scope 3
X Name: MileStone 1	
Attachments Attachments Attachments Release Start 1/1/20 * Start Tracki 3/4/20 B I U A ab	114 Release End 6/30/2014 114 * Due Date: 3/31/2014
04	Close Help

Master Plan and Status

Master plan can be accessed under "Releases" Tab which displays the cycles and milestone timelines as shown below.





Status shown the pictorial representation of the progress and Quality.

nahing days in release: al test instances for release: anaining test instances for release: anaining test instances for release: au test instances for rel	l days in release:	181	Davia	
altest instances for release: 0 Elapsed Remaining naming test instances to run: 0 Test instance Runs uited vecution rate (test instances/day): 0.00 N/A 0.00 0.00 N/A	aining days in release:	117	Days 35.%	
naining test instances to run: 0 Test Instance Runs uai execution rate (test instances/day): 0.00 N/A	I test instances for release:	0 Elapsed		Remaining
Instances /day): 0.00 NA ual execution rate (test instances /day): 0.00 NA	aining test instances to run:	0		
Image: construction rate (test instances/day): Image: construction rate (test instances/day): Image: construction rate (test instances/day): Coverage Progress Image: construction rate (test instances/day): Image: construction rate (test instances/day): <th>uired execution rate (test instances/day);</th> <th>0.00</th> <th>Test Instance Runs</th> <th></th>	uired execution rate (test instances/day);	0.00	Test Instance Runs	
Coverage Progress 100% 95% 90% 95%	ial even tim rate (test instances (day))	0.00	N/A	
Coverage Progress 100% 95% 90% 95%	an execution rate (test instancestary).			
Coverage Progress 100% 95% 90% 86% 80% 76%				
10% 9%				
95% 95%	1009/	overage Progress		
90% 85% 80% 75% 76% 65% 66% 65% 55% 50% 45% </td <td>95%</td> <td></td> <td></td> <td></td>	95%			
85% 80% 75% 76% 76% 65% 65% 60% 65% 55%	90%			
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5% 5% 4% 40% 3% 3% 2% 2% 1% 1% 5%	60%			
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20% 15% 10%	25%			
15% 10% 5%	20%			
10% 5%	15%			
5%	10%			
	5%			

Libraries

A library represents a set of entities in a project and the relationships between them which consists of requirements, tests, test resources, and business components

A New Library can be created by clicking on "New Library" Icon in Library Navigation bar. A New window would be as shown below and one can name the library and add resources such as requirements, test plan, components.

* Name: Libraries * Name: * Nam	彩 @ 中・ ※ [] X 🖉 7 - 🛛	Details	
Image: Second	oraries		* Name:	Libraries
* As Requirements Resources Components Tests Content To	💭 New Library			
*Name: Details Content Requirements Resources Components Tests Components Tests Components Tests Component	🗙 🕹 💀 🖺			
Image: Content Requirements Resources Components Tests	* Name:			
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	17 P 2 19 20 20 20 20 20 20 20 20 20 20 20 20 20			
W OCH IT OF OOVED	Content			
nequienens	Content			

44 4		OK Close	Help			০শ শব
		UIUSE:				

Baseline

Once Libraries are created, the libraries can be baselined which is a snapshot of the library at a specific point in time. Users can compare baselines at any stage of the development phase. A baseline includes all the entities defined in the library, including requirements, tests, and test resources.

A New Baseline can be created by clicking on New Baseline button under "Libraries" Navigation bar. Users can also compare baselines and export to CSV format.

Requirements

Defining and Capturing Requirements is one of the key criteria for any software development process. Describing Requirements refers to what needs to be done to meet the objectives during development. Defining requirements Clearly and correctly upfront so that there is minimal/no rework after UAT.

The Requirements module enables userto define, manage and track requirements at all stages of the software lifecycle. The following are the key functionalities in requirements module and click on each link to know about that particular module.

Functionality	Description
Creating Requirements	Create requirements, assign to releases/cycles.
Uploading Requirement	Uploading requirements using ALM-MS Excel Addins
Requirement Traceability	Enables how to define traceability links between requirements and dependencies that exist between the requirements.
Traceability Matrix	Enables user to view the traceability matrix that lists source requirements and their associated requirements and tests.

Test Plan

The crucial step in testing any application is developing a clear and a precise test plan. A good test plan enables the team to assess the quality of the application under test at any point in the software development life cycle.

Following functionalities are very important in order to understand in the test plan module better. Click on each one of the functionalities to know more about it.

Functionality	Description
Creating Tests	This module describes how to create folders of test subjects in the test plan tree and also to add tests.

Uploading Tests	Uploading Tests using ALM-MS Excel Addins
Requirement and Test Coverage	Enables how to define the relationship between the requirements and tests.
Test Configuration	Specifies the subset of data or a run-time environment that the test should use.

Test Lab

This module helps the testers to execute the created tests. One can schedule, run and analyze, post defects using this module.

The Following functionalities in Test Lab module helps us to understand it indetail. Click on each one of those functionalities to understand in detail.

Functionality	Description
Creating Test Set	This functionality describes how to create and define test sets in the Test Lab module.
<u>Test Run Schedules</u>	Helps the testers to control the execution of test instances in a test set.
Test Execution	Enables testers to execute the test/test set.
Test Results	This Functionality enables testers to analyze the test results.

QTP-QC Integration:

In this section, we are going to learn how to integrate QTP and QC. By Integrating, the QTP automation scripts can be executed right from Quality Center. For establishing a connection, first step is to install the required Addins. We will understand how to integrate by taking a sample QTP script and execute it from QC.

Step 1: Navigate to ALM home page and click on "Tools" from the list of links.



Step 2: Click on "More HP ALM Addins" Link from the addins page as shown below.



Step 3: In the Addins page, select "Addins for HP applications" and choose "Quick Test Professional". In case of "Unified Functional testing" UFT, choose the options appropriately and install the addins. The Installation is similar to HP-MS Office Addins.

HP Application Lifecycle Management Resources



Add-ins

HP ALM provides a unified platform for managing and automating processes, activities, and assets that organizations use to build, test, deliver, and ma

To enhance the overall, end-to-end experience and collaboration between business analysts, development and testing teams, HP Application Lifecycle HP and third-party tools. Add-ins provide solutions for driving consistent processes, incorporating shared best-practices, and sharing assets across proj





Step 4: Establish a connection between QTP and QC by Navigating to "File" >> "ALM/QC Connection".

or Quick	Test Professional - [Test*]	
🔂 Eile	Edit View Insert Automation Resources Debug Tools Windo	w Help
1	New	• 🤍 🖗 A, 🚛 🗄 💕 🚰 🎟 🖪 83 🚱 🖕
0	Open	
Fest F	⊆lose	
⊡)	Close All Eunction Libraries	
	ALM/QC Connection	
	ALM/QC Version Control	▶ 1E : Calculator
(g)	Save Ctrl+5	Drivers Script to Execute Automated Test for the Calculator Ap Tutorials Point
Canada	Save As	: 30-Dec-2013
	Save Test with Resources	IATED : Calcisr
	Save All	, Common vos
	Enable Editing	
	Export Test to Zip File Ctrl+Alt+S	
	Import Test from Zip File Ctrl+Alt+N	
	Convert to Scripted Component Ctrl+Alt+C	resourcesj Resources\BPT Resources\Libraries\" alculator.qfl", LibPath + "Os_Utils.qfl"
2	Print Ctrl+F	
	Print Preview	
5		tem32\Calc.exe": wait (2)
100	Process Guidance Management	alityCenter\Resources] Resources\Calc_Automation\Calculator.xls" = "Calc_test"
	$\underline{1}$ C:\Users\u0139151.TEN\Documents\HP\QuickTest Professional\Tests\Test3	llc_test" er.Locate(FileName) , SheetSource , SheetDest
	2 C:\Users\u0139151.TEN\Documents\HP\QuickTest Professional\Tests\Test2	
	3 C:\Users\u0139151.TEN\Documents\HP\QuickTest Professional\Tests\Test1	Allo
	Exit	Path)

Step 5: HP ALM Connection dialog opens. Enter the Server URL as shown in the below example.

ep 1: Connec	t to Server		
Server URL:	http://localhost:8181/	'qcbin	2
	Example: http://server	/qcbin	
Reconnec	t to server on startup		
		Chara I	Uala

Step 6: Once the URL is correct, the credientials dialog opens. Tester has to connect to the relevant project area.

Step 1: Co	nnect to server		
Server I	JRL: http://localhost:8181/	/acbin	

User name: admin	
Password:	
Authenticate on startup	
Step 3: Login to project	
Domain: DEFAULT	
Project: CALCULATOR	
Login to project on startup	
Class Halp	

Step 7: Once ALM Connection is successful, we need save the Driver Script in Quality Center. Select ALM/QC Plan as shown below.

Look in:	Subject		iii 🕈 🕈 💽	100 *
M/QC Test Plan	2013	Base Plan		
	File name: Files of type:	Quick Tests		Save

Step 8: Once the test is saved, we can see the in ALM where the test type is shown as "Quick Test".

Tests Edit View Favorites Analysis									
No Filter Defined	Details	Design Steps	Test Script *	Parameters	Test Configurations	Attachments	Req Coverage	Linked Defects	Dependencies
	* Test Creatic Status	Name: on Date: :	Calculate 3/16/201 Design	97 4	×	* Type Desig Test II	e: ner: D:	द्धि QUICK admin 18	TEST_TEST

Step 9: Upon Navigating to "Test Script" Tab which appears only if the test type is of "Quick Test". The same script shown in QTP screen would be displayed in Quality Center as well.

HP Application Lifecycle Management 11.52 - Windows Internet Explorer



Step 10: The other necessary component that is required for script execution is Library files which can be placed under "Test Resources" Folder.

Application Lifed	ycle Management
ack Forward > Tools •	r Help -
Dashboard ¥	Resources Edit View
Management ×	
Requirements *	
🛛 Requirements 🕽 Business Models	Application Areas Libraries
Testing 🏾 🌣	Common.txt
Test Resources	- 💋 Java.txt
Business Compone	
Test Plan	PeopleSoft.txt
Test Lab	- 📝 Sap.txt
Test Runs	
Defects	
- perceta	Web txt

Step 11: The Function Library file can be added by creating a new resource of type ".qfl" or ".vbs"

.

🔗 New Resource					
🗙 🖓 🕵 📴					
* Name: Calculator				* Type: 📝 Function li	brary 💌
Details	Details Created by: Modified:	admin	Creation date:	j5/16/2014	

Description Comments
OK Close Help

Step 12: The Added library file can be accessed in quality Center using resource Viewer.

Resources Edit View	
🖆 🥸 🗙 💋 🍸 · 🖂 ·	
Per Resources Per Resources Application Areas Libraries PooleSoft M Avaitat Avaitat PooleSoft M Subt M Subt M Application Areas Subt M Application Soft M Subt M Application Soft M Subt M Application Soft M Application Soft M Application Soft M Application Soft M Soft M	Details Resource Viewer Dependencies History

Step 13: If there are more library files, the same is added by creating a new resource of type ".qfl" or ".vbs".

	* Type: 📝 Function library 💌
Details Created by: admin Creation date: Modified:	: <u>β/16/2014</u> ■ ▲
	Details Created by: Modified: Description Comments B I U A ab E E C OT TO C C C C C C C C C C C C C C C C

Step 14: Once again, Added library file can be accessed in quality Center using resource Viewer.



Step 15: The Next dependant component for any script execution is "Object Repository" which is again placed under "Resources" section.

ame: Calc	* Type: 😭 Shared object repository
Details	Details Created by: admin Modified: Description Comments B I U A abo = = = = = = = = = fill form 110 Shared Object Repository!
	OK Close Help

🖆 💱 🗙 🔂 🛐 🖂 -					
	Details	Resource Viewer	Dependencies	History	
E P Application Areas	🔶 Upl	oad File 🔻 🦊 Do	wnload 🛛 🝘		

- 🕼 ActiveX.txt	File name:	Calc.tsr		
🕼 Common.txt 🕼 Java.txt	Test Objects		Test object details	
- M Dracle txt			Name	Value
PeopleSoft.txt	BE Static 2	2	Description properties	
- 📝 Sap.txt	- <u></u> -		text	%
- 📝 Siebel.txt			nativeclass	Button
- 🗹 Terminal_Emulator.txt			Visual relation identifier	
Visual_Basic.txt			Visual relation identifier settings	[None
Web.txt			⊟ Ordinal identifier	
Calculator			Type , Value	None
	=		E Additional details	
E E Object Repositories			Enable Smart Identification	False
Calc	1/2		Comment	
🗄 🥅 Recovery Scenarios	2			

Step 17: The Datatable, parameterized table also be placed in Quality Center under "Test Resouces" section.

New Resource	
* Name: Calculator	* Type: 🖽 Data table
Details	Details Created by: admin Creation date: 3/16/2014 Modified: Description
	B I U A № Ε Ε C C ▷୩ ୩୦ ▷ C Ⅲ ↔
	OK Close Help

Step 18: The added data Table can be viewed using in "Resource Viewer".

🕼 Applicatio	on Lifec	ycle Management		
< Back Forward >	Tools .	r Help 🔻		
② Dashboard	×	Resources Edit View		
📀 Management	×	🖆 💱 🗙 🔁 🟹 • 🖂 •		
Requirements	*		Details Resource Viewer	Dependencies History
📰 Requirements		🗘 🧮 Application Areas		ownload
👸 Business Mode	els	E - E System Application Areas	File name:	Calaulatarula
🧟 Testing	*			Calculator.xis
🙆 Test Resources	s	ActiveX.txt	⊡ Sheets	
🚇 Business Com	pone	Java.txt	🔚 🛗 Calc_test 🗜	



Step 19: The Datatable should now also be mapped to the test settings so that they can be picked while execution. The same can be done using "Settings" of "File" Menu.

0 Quie	ckT	est Professional - [[Quality([enter] Subje	ect\Base	Plan\Auto	omation	Calculate	or]																	. 8 ×
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		Save <u>A</u> s							: 31	-Dec-2013	3															
Ę	3	Save Test with Resource	es				ľ	ATED	: a	aicisi Common v	ne															
		Save All																								
	2	Enable Editing																								
		Export Test to Zip File				Ctrl	+Alt+S																			
		Import Test from Zip Fil	e			Ctrl+	+Alt+M					101 - 32 - 537														
		Convert to Scripted Co	monent			CH	+ alt+C	esource:	s] Resour afl" LibPa	ces\BPTF th + "Os_L	Resources' Itils af!"	Libraries\'														
9		Print					Ctrl+P																			
		Print Prevjew						em32\Ce	alc.exe" : 1	wait (2)																
1	1	Settings						26 10 - 100 - 100	10.00		1200020			94 05 BA												
		Process Gyjdance Mana	gement				-	alityCente Calc.t	er∖Resour est″	ces] Resc	ources\Calc	:_Automati	on\Calcul	ator.xis"												
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		2 C W Isers's (0139151 TE	NDocume	ots\HD\QuickTe	att Drofetti	ional\Tests\T	att3	er.Locate	(FileNam	e) , Sheets	Source , Sh	eetDest														
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Step 20: The Test Settings dialog opens. Navigate to Resources Tab and select the Datatable that we added in Step 16.

+ × + ×

Data Table
Other location: [QualityCenter\Resources] Resources\Calc_Automation

Step 21: Now, we should allow QTP to interact with other Hp Products. This will allow QTP to interact with Quality Center. Goto "Tools" >> "Options"

👼 QuickTest Professional - [[(QualityCenter] Subject\Base	Plan\Automation\Calculator]	
: 🛃 Eile Edit View Insert	Automation Resources Debug	Tools Window Help	
🕴 🚮 New 👻 🗁 Open 👻 🔚 🔮	1 🖧 🥑 I 🗴 🗗 🕰 I 🖓 (Options	R = 3 22 R =
🕴 🥝 Record 🕨 Run 👻 🔳 Stop	ið ix 🖬 🔒 🕌 i 🔗	a View Options	
Test Flow 🔻 🕈 🗙	Start Page Calculator	Gheck Syntax Ctrl+F7	
⊡-गूू Calculator	Calculator Calculator Calcommon.Start Calcommo	Extensibility Accelerator Regular Expression Evaluator Object Identification .NEI Windows Forms Spy Object Spy Web Event Recording Configuration Data Driver Change Active Screen Withual Objects E Customize	urces\Calc_Automation\Calculator.xls" Source , SheetDest ces\BPT Resources\Object Repositories\Calc.tsr"

Step 22: Now, enable "Allow other HP products to run tests and components" as shown below.

∃-General Text Recognition	Run
Folders Active Screen Bun Screen Capture Windows Applications Advanced	Run mode Normal (displays execution marker) Delay each step execution by: 0 🚔 milliseconds C Fast
- Web Page/Frame Options Advanced	 Submit a defect to ALM/QC for each failed step View results when run session ends Allow other HP products to run tests and components
	Stop command shortcut key: Ctrl + Alt + F5

 ОК	Cancel	Apply	Help

Step 23: The Next Step is to add the test in "Test Lab" and execute the test. The Procedure to Add tests into Test Lab remains the same as that of manual tests.

🖆 🐮 🗙 💭 · 💭 🔽 · 🐥	🗐 Selec	t Tests 🝺 Rur	🔹 🖉 Run Test Set	× 57.	🗰 ୶ 🛛 🛛 🖚		Test Plan Tree	Requirements Tree
No Filter Defined	Details	Execution Grid	Execution Flow Au	tomation Attachm	ents Linked Defe	ects History	4 🗉 🍀	C Q T · >
Root D Contached Contached	080	Name	Test: Test Name	Туре	Status	Iteration	E E Subject	ached
E-2014 Iteration 2 E-2014 - Iteration 1 Therefore a constraint of the second		[1]Calculator	勁 Calculator	QUICKTEST_TE	O No Run		E Base	Plan utomation
							¶ ⇒- 	L Calculator
								 01 - UI Design Chi 02 - Left Pane Chi 03 - Calculators Gi

Step 24: Upon Clicking on "Run", the automatic runner opens and enable "Run all tests locally" and hit "Run".

Automatic Runner <root\2 Run Settings</root\2 	014 - Iteration 1\Autom	ation>	
🕨 Run All 🜔 Run 📕 Stop	Stop All		0
☐ Run All Tests Locally ✓ Enable Log			
Test Name	Run on Host	Status	
	2		

Step 25: Once execution is complete, the test result is displayed on the the same "Automatic Runner" dialog.

>Automatic Runner <root\2< th=""><th>014 - Iteration 1\Automatior</th><th>1></th><th></th></root\2<>	014 - Iteration 1\Automatior	1>	
Run Settings			
🕨 Run All 📡 Run 🔳 Stop	Stop All		0
🗹 Run All Tests Locally			
🗹 Enable Log			
Test Name	Run on Host	Status	
Staticulator	VDH-STWE2K8-802	Test run nassed	

Step 26: In Test Lab QTP report is loaded automatically. User can click on "Launch report" to get to know about more details of the execution.

Run All 🜔 Run 📕 Stop	Stop All		(
Run All Tests Locally			
Enable Log			
Test Name	Run on Host	Status	
🔂 [1]Calculator	YDH-STWF2K8-B02	💙 Test run passed.	

Defects

During test execution, when expected result doesnot match with actual result, a defect should be logged. Now Let us focus various functionalities associated with defects.

Navigate to defects Tab in Quality Center and Click on "New Defects".

HP Application Lifecycle M	1anagement 11.52 - Windows Internet Explorer	
COO V Co http://localh	pst:8181/qcbin/start_a.jsp	-
Application Life	ycle Management	
< Back Forward > Tools	▼ Help ▼	
📀 Dashboard 🛛 🗧 🎗	Defects Edit View Favorites Analysis	
📀 Management 🛛 🗧	🚹 New Defect 🗱 🧭 🔽 🕶 📖 🕨 💌 🕶 🖓 🕶 🔍 💷 🖉	
🕄 Requirements 🛛 🛠	No Filter Defined	



Fill in the mandatory parameters such as defect summary, detected by, Severity and Description.

007 IV 0				
nable to Login to	Application			
	Details			
nents				
	* Detected By:	admin 💌	* Detected on Date:	3/16/2014
	* Severity:	4-Very High 🔹	Actual Fix Time:	
	Assigned To:	*	Closed in Version:	
	Closing Date:	•	Detected in Cycle:	¥
	Detected in Release:	×	Detected in Version:	x
	Estimated Fix Time:		Modified	
	Planned Closing Version:	×	Priority:	
	Project:	×.	Reproducible:	Y
	Status:	New	Subject:	T
	Target Cycle:	Cycle 1	Target Release:	2014.1
44	Description:			
4	Description:			
44	↓ Description: B I U A ab III III = III = IIIIIIIIIIIIIIIIIIII	E G 01 10 9 (1 H 4)		
4	Description:	I (] (* 10)) (* III (* 10		
4	Description:	I (] (4 10) (4) (4) III (5)		

Once a defect is posted, the same be accessed in Defects Tab as shown below.

▼	ost:8181/qcbin/start_a	, jsp					🗡 ⊘ HP Applica	ition Lifecycle Mar
Application Life Back Forward > Tools	cycle Manageme	ent						
Dashhoard ¥	Defects Edit V	iew Favorites An	alysis					
Management ×	New Defect	. 🗙 👩 🛛 -	<mark>- ∞ 4</mark> 70	a · a 🗐 🛛	0			
] Requirements 🛛 🕆	No Filter Defined		11. 11. 32. T	-	-	1		1.
] Requirements] Business Models	Defect ID	Description	Detected By	Detected in	Detected in	Severity	Detected in	Detected or
Testing *	<u>1</u> <u>2</u>	Test Set: Functio Unable to Login t	admin admin	Cycle 1	2014.1	4-Very High 4-Very High		3/13/2014 3/16/2014
Et Resources Business Compone Test Plan Test Lab Stet Runs								
Defeate								

If the defects are logged during the test execution the step and description would be autopopulated from test case where as If a defect is logged by clicking on "New Defect" in defect module the steps, description and summary needs to be entered manually by the user. Many a times testers will NOT be in a position to enter all field values in "New Defect" Window. Instead they can make use of "Set Default Values" Option. It can be accessed from "New Defect" Window as shown below.

× 61	- AB RA	🗄 📗 Use Default Value	es 🔲 Set Default Values
'Summary	: []		-

The "Set Default Values" dialog opens. We will be able to set a default value for each one of the fields in "Defects" Section which would be prepopulated once we click on "New Defect" button. We can also add/remove Default values using the appropriate button in this dialog box.

ield: Priority (BG_PRIORITY)	💌 V	Values: 3-High	💌 Add
elected values:			Remove 🏠 🖑
Field	U	Values	
	ā.	orngn	

Defects can also be uploaded from Excel to Quality Center and the procedure remains the same as that of uploading "Requirements" and "Test Cases" using HP-MS Excel plugin utility.

All the defects are displayed by default, hence user has to use filter functionalities to display only those that are filtered by user.

Dashboard Analysis:

Dashboard Tab contains "Analysis View" and "Dashboard View" enabling user to analyze and display ALM data in various formats. Let us understand the importance of each one of them in briefly.

- **Analysis View :** It Contains the analysis tree using which project managers/QA can organize all of their analysis items which can be any one of the following viz graphs, project reports, and Excel reports.
- **Dashboard View :** It Contains the dashboard tree in which managers/testers organize dashboard pages that can arrange multiple graphs that was created in the analysis tree, and display them in a single view.

Analysis View

Step 1 : Goto "Analysis View" and click on "+" button and select "Graph wizard". The "Graph Wizard" dialog opens.

	cycle Management	
Back Forward > Tools	▼ Help ▼	
🦻 Dashboard 🛛 🖇	Analysis View Analysis Menus	
🖁 Analysis View	Analysis Edit View	
🧟 Dashboard View	📴 🕀 📲 🗶 🕒 🖺 🗶 🔂 🐺 Generate	
🔉 Management 🛛 🕆	Ctrl+P	
👔 Releases 🗐 Libraries	R New Business View Graph Ctrl+B	1
🕄 Requirements 🛛 🛠	New Graph Ctrl+G	
🗧 Requirements 🗊 Business Models	New Excel Report Ctrl+E	
Testina 🏦	New Project Report Ctri+1	_

Step 2 : Select "Entity Graph" and click "Next" as shown below.



Step 3 : Select the kind of Entity Defects, TestCase, runs, TestConfiguration against which the graph needs to be generated.





Step 4 : One can choose all projects that they have got access to or they can choose just the current project.

ep 3 of 5: Select Proje	Project Selection © Use <u>C</u> urrent F	^p roject	Defects - Summary Graph
Application Lifecycle Management Graph wizard	Domain DEFAULT	Project CALCULATOR	state of the second sec

Step 5 : One can filter based on release/cycle and ensure that only the relevant data is displayed.

										×
Filter	r Selection Do <u>n</u> ot use a filter Define a new <u>f</u> ilter Filter	55 40		D	efec	:ts - 38	Sum	nmary Graph		osed
Application Lifecycle Management Graph wizard		Number of Defec	1 user 1-	 ankmown> - 	12 • xəjy	- yex_dc -	18 e P	25 	Fi Ni	xed ew ejected eopen

Step 6 : We can also "group by" based on a particular field and choose what needs to be mapped against X-Axis.





Step 6 : Once Finish button is clicked, the graph is generated based on the users choice/settings.



Step 7 : The generated graph can be named and saved either as public or private.

New Graph	
Graph Name:	
Defects - by 'Assigned To'	
Select Folder	New Folder
Private	



Step 8 : The added graph is can now be accessed from "Dashboard" >> "Analysis View".

new Graph	_ 🗆 🗵
Graph Name:	
Defects - by 'Assigned To'	
Select Folder	New Folder
Public	
Save Car	cel

Dashboard View:

Step 1 : Goto "Dashboard View" and create a "New Folder" if you wish to or create a "New Dashboard" page straight away.

HP Application Lifecycle M	anagement 11.52 - Windows Internet Explorer
Carlos	t:8181/qcbin/start_a.jsp
(Annelievition Lifes)	
	vcie Management
< Back Forward > Tools •	Help 🔻
② Dashboard *	Dashboard Edit View
🔏 Analysis View	📴 🧞 🕺 🖺 🖺 🗶 🔁 🐺 Generate
📿 Dashboard View	
📀 Management 🛛 🛠	Public
🧃 Releases	
🚇 Libraries	
🕄 Requirements 🛛 🛠	
Requirements	
Rusiness Models	New Dashboard Page



Step 2 : Upon creating a "New Dashboard" Page, various tabs are generated. "Configuration" tab is one of them in which users can add those graphs which can be added to the dashboard.

Details Configuration View	
	Graphs Tree ← □ → □ → □ G Filter: Type['BVGraph''OR ''Graph''] □ → Private ↓ Defects - by 'Assigned To' ↓ Defects Trend Graph - Group by ' <all fields="">' B → Public</all>

Step 3 : Users should use "View" Tab to view the added dashboard and hit refresh to get the latest data.



Project Customization

Sometimes we are in a situation to customize the project. Below are the modules which will help us

in customizing the project. Click on each one of these links to understand the functionalities in detail. Project Customization module can be accessed by navigating to "tools" >> "Customize" as shown below:

HP Application Lifecy	cle Management 11.52 - pcalhost:8181/gcbin/start_a	Wind	ows In	terne	t Explo	orer			
Application I	Lifecycle Manageme	ent							
< Back Forward > To	ools 🔻 Help 👻	_			_	_			
⑦ Dashboard	Change Project	•							
	Customize	, i	M	()	to:	1	×	0	
Analysis view Q Dashboard Viev	New Defect				1.276		etails		
S Management	Spelling and Grammar Clear History Task Manager		one 1						
🕞 Releases							* Name:		
🚇 Libraries			1	Re			Relea	elease l	
🔋 Requirements	Document Generator		ŕ						

When a project administrator accesses project Customization then following modules would be shown to the user for custmization.

Application Lifecycle Manag	ement – Project Customization	
• · · · · · · · · · · · · · · · · · · ·	User Properties	
Oser Properties Project Users	💾 Save 🛛 🦻 Change Passw	/ord
Groups and Permissions		
Module Access	User Name:	admin
noject Entities		5
🔚 Requirement Types	E-mail:	172 ²
h Risk-Based Quality Management	Status:	🔒 Active
🔃 Project Lists	2007010100074	
🖂 Automail		
🧞 Alert Rules		
😫 Workflow		
🎁 Project Planning and Tracking		
Project Report Templates		
🛅 Business Process Test		
🛐 Business Views	7	

Functionality	Description
User Properties	Helps user to update profile details.
Project Users	Add/Remove user and user roles.
<u>Groups and</u> <u>Permissions</u>	Add/Remove group previleges.

Module Access	Edit Module Level Access.
Project Entities	Add/Edit/Delete Project Fields
<u>Requirement Type</u>	Create,Edit,delete requirement Type
Project Lists	Add,Edit,Delete all project list box fields.
<u>Automail</u>	Send mail based on specific settings.
<u>Alert Rules</u>	Alert users based on specific changes.
<u>WorkFlow</u>	Defect Fields Customization.