HP Application Lifecycle Management
Overview

HP Application Lifecycle Management is a software solution expressly designed to allow your team to take control of the application lifecycle while investing limited resources in the highest priorities and increasing velocity of delivery -- without sacrificing quality or performance.

Key features and benefits

Thousands of apps are released every day driving businesses world-wide to demand constant technology improvements to power competitiveness, delight customers, and achieve financial objectives.

Application teams are pushed for speed to deliver applications to an ever impatient and empowered business user while also maintaining and modernizing existing applications. Yet while speed is important, quality is impacting the bottom line as never before.

This is the new imperative for IT: Achieve velocity and quality. HP’s suite of Application Lifecycle Management solutions are designed to allow your team to take control of the application lifecycle and increase velocity of delivery without sacrificing quality or performance.
Key capabilities

- Track projects and releases with a shared workflow
- Share, version and re-use assets
- Define and manage requirements
- Collaborate from anywhere
- Provide complete traceability of development
- Plan and manage your quality targets
- Leverage your testing assets
- Automate the provisioning of dev/test
Key Business Challenges

1. The first challenge is how do fast moving organizations ensure they are working on the right things and maintaining alignment with the business?
2. Organizations worldwide struggle with speeding up time to market of their applications while maintaining quality.
3. In addition, they struggle with predictability—how to get visibility and insight into the work of distributed teams.
4. Application teams struggle with maintaining velocity while engaging in manual processes; how to apply automation throughout the application lifecycle for more efficient delivery.
5. And finally: they struggle with impediments, how to remove latency and delays resulting from handoffs and constrained resources delaying build, test, validate, and deploy steps.
Ready-made roles

HP Application Lifecycle Management is a unified yet open and extensible platform that is designed to use insights, artifacts, and tasks from many heterogeneous tools to provide visibility, collaboration, traceability, and lifecycle management. HP Application Lifecycle Management is highly useful to many different roles and departments in your organization chartered with the rapid delivery of high quality applications. Including:

- Chief Information Officer (CIO)
- Vice President of Applications (VP Apps)
- Vice President of Operations (VP Ops)
- Performance Automation Engineer
- QA Tester
- Test Automation Engineer
- Application Manager
- Functional Architect
- Team Leader
- Developer
- QA Manager
- Product Owner
- Scrum Master & Team Members
- Developer (Team Member)
- Team Members
- Manual Tester
Introduction » Application Lifecycle Management
Introduction

HP’s Application Lifecycle Management solution is designed to allow your team to take control of the application lifecycle while investing your limited resources in the highest priorities and increasing velocity of delivery -- without sacrificing quality or performance.

HP Application Lifecycle Management Menu:

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• R&D Team
• QA Team

Use case #2
Modern Application Development – Agile Approach

Executive Scorecard
VP of Apps / VP of Ops
Use case #1 - R&D Team

Traditional Application Development
Waterfall approach

Douglas Bryant
Chief Information Officer (CIO)

Debby Kramer
Vice president of Applications (VP Apps)

Michael Anderson
Vice president of Operations (VP Ops)

Michelle Daily
Application Manager (App Manager)

Ben Gilke
Developer

Eddie Zeller
Team Leader

Cheryl Wilson
Functional Architect
Use case #1 - R&D Team

Traditional Application Development
Waterfall approach

HP’s Application Lifecycle Management solution is designed to allow your team to take control of the application lifecycle while investing your limited resources in the highest priorities and increasing velocity of delivery -- without sacrificing quality or performance.

The request for planning, designing or modifying an application often comes from the customer. Customer satisfaction is one measure which can be examined on the HP Executive Scorecard. When detecting dissatisfaction, the project manager can analyze the case and recommend project handling according to different project functions and team members.

Challenges

• Need to increase agility
• Innovate more
• Faster revenue growth
Use case workflow

1. Adding requirement in HP ALM to make the application cloud ready. Assigning it to release.
2. Defining tests in the HP ALM Test Module to ensure product quality.
3. Provisioning a workspace in the HP ALI Dev Plug-in for Eclipse.
4. Changing source code according to the new requirement and starting implementation.
5. Running a build overnight.
6. Checking the ALI build report to ensure the build is covered and the tests are passing.

Products

- HP Application Lifecycle Management
- Requirements Management
- Test Management
- Release Management
- Eclipse + HP ALI Dev Plug-in
Douglas is the CIO of Advantage Inc. Douglas uses HP Executive Scorecard to verify the IT organization performs well, that the business is well supported by the technology his organization delivers.

In HP Executive Scorecard he notices that customer satisfaction KPI is red. Also that many incidents have been opened recently on one of the customer facing applications.
Together, the VP of Operations, VP of Applications, and the Application Manager analyze this case and define a goal to increase customer satisfaction by the end of the quarter.

**Michelle Daily is the Application Manager.** She says that the root cause of these KPIs is related to increased number of mobile users that accessing the app very frequently, creating too much traffic on the backend servers.

Michelle recommends deploying the application in the cloud to deliver high performance, flexibility, and better customer satisfaction.

They decided to make the application Cloud-ready, and since it is an urgent issue that impacts external customers, they also decided to deliver this change within a few weeks.

**Challenges**

- Aligning IT value and strategy to the business goals
- Defining and demonstrating continual improvement in terms of delivery, costs, risk and quality
- Reporting on IT metrics in business terms
Cheryl is the Functional Architect. She adds a requirement in HP ALM to add functionality to an application to make it cloud ready.

Benefits

- Encourage widespread adoption through ease of use
- Provide a single point of truth for both visual and textual requirements
Cheryl also defines in the **HP ALM Test Module** a set of manual test steps to ensure the quality of the product after the change:

- Manual steps to test for the Mobile interface
- Manual steps to test for the web interface
- Manual test for the new Cloud API

**Value Proposition**

A single view of requirements for all stakeholders

- Collaborate with stakeholders to make sure the right requirements are captured
- Trace the links between requirements and other development assets
- Enforce standardization for consistency and quality
Eddie is the Team Leader. Since it is a production application and customer satisfaction is very low because of the current issues, Eddie decided to drop a couple of low priority requirements and focus on the new requirements.

Key Differentiators
HP Requirements Management provides a comprehensive solution for defining, managing, and tracking software requirements.
Then he goes to the requirements module in HP Application Lifecycle Management and assigns the new requirements to Release 10.2.

**Take Aways**

Better requirements definition and management, leads to better business outcomes
Ben is a developer and uses Eclipse as his IDE. As a new member of the team, he needs to set his development environment such as provision his workspace. He is using HP ALI DEV plug-in for Eclipse to automatically provision his workspace.

**Benefits**

- Tighten collaboration between QA and development teams
- Provide predictability based on risk, stability, quality, and health metrics

**Key Differentiators**
Within a minute his workspace is ready, his source code checked out, and he can see his HP ALM requirements directly in Eclipse. All set, Ben is ready to start the implementation.

- Easily visualize change impact and make critical decisions confidently
- Smooth the transition of new applications into production
After adding the new APIs for the cloud, Ben commits the change to his Source Code Repository (SCM).

**Benefits**

Eclipse + HP ALI DEV plug-in // ALI plug-in tasks

**Key Differentiators**

- Provides valuable project data directly within the IDE
- Seamlessly tracks development assets against managed work items such as defects and requirements.
The HP ALI DEV plug-in keeps track of all code changes that are related to the particular requirement. These changes can be later reviewed in the requirement module of HP ALM.

The build runs overnight.

Value Proposition
- Bring development activities and work products into the ALM workflow.
- Better understand real progress and impact of changes
Eddie the Team Leader checks the ALI build report and notices that the tests are passing and build including the Cloud APIs is well covered by unit tests.

Benefits

Key Differentiators
Quality and more effectively deploy resources during the project
Value Proposition
Shift the balance: free up resources to deliver faster and transform your enterprise
Use case #1 - QA Team

Traditional Application Development

Waterfall approach

Ingrid Borge
QA Manager

Linda Howard
Manual Tester

Stella Watkins
Test Automation Engineer

Gus Hoffman
Performance Automation Engineer

Lillian Fredo
QA Tester

Cheryl Wilson
Functional Architect
Use case #1 - QA Team
Traditional Application Development
Waterfall approach

The HP Application Lifecycle Management is designed for project planners, developers, QA testers and almost every function which takes part in the process of the project.

The request for planning, designing or modifying an application often comes from the customer. Customer satisfaction is one measure which can be examined on the HP Executive Scorecard. When detecting dissatisfaction, the project manager can analyze the case and recommend project handling according to different project functions and team members.

Challenges
Application teams are pushed for speed to deliver applications to an ever impatient and empowered business user while also maintaining and modernizing existing applications.
Yet while speed is important, quality is impacting the bottom line as never before. This is the new imperative for IT: Achieve velocity and quality
Use case workflow

Examine the ALI Build report to determine focus of work

Connecting to HP Sprinter with HP ALM and accessing tests

Running tests and reporting defects using HP Sprinter features

Automating tests on HP Unified Functional Testing. Tests are saved on HP ALM Repository

Developing performance scripts for the HP Performance Center

Running the HP Build Verification Suite and HP Unified Functional Testing tests to verify the new build and ensure functionality

Checking the HP Build Verification Suite test status

Reviewing the HP ALM Analysis report and verifying build is ready for production

Products

- HP ALI
- HP ALM-Test & Defect modules
- HP Sprinter
- HP Unified Functional Testing
- HP Performance Center
- HP Lab Management Automation
**Ingrid the QA Manager** uses the ALI Build report to determine which areas in the products the team need to test and keep being focused on the areas in the product with high risk.

**Benefits**

- Accurately understand what was changed and deploy test resources more effectively
- Align test effort to target the highest risk areas in your application

**Key Differentiators**
In the team meeting she asks the team to focus and put a lot of attention on requirements / tests that are associated with many lines of code.

**Value Proposition**
Shift the balance: free up resources to deliver faster and transform your enterprise
Linda is the Manual Tester. She connects with HP Sprinter to HP ALM to access her tests. She runs the tests and reports a few defects using HP Sprinter features (Annotations, Smart Defect, etc).

Benefits

- Intuitive Tests Authoring including rich design capabilities
- Data injection minimizes data entry time and errors
Stella the Test Automation Engineer uses **HP Unified Functional Testing** to automate some of the tests. She is responsible for all automation in the team, which includes test development and test maintenance.

The tests are saved in the HP ALM repository.

- **Value Proposition**
  - Significantly increase the efficiency of the manual tester
  - Execute in parallel across multiple machines for increased environment coverage
  - Auto-generated smart documentation improves communication with developers
Gus is the Performance Automation Engineer. He develops performance scripts for the HP Performance Center.

Benefits

- Ensure consistent and efficient deployment of test labs
- Enable the team to validate quality faster, more often, and automatically
Lillian, the QA Tester uses HP ALM to run the Build Verification Suite to ensure that there were no regressions in the new build. She is using HP ALM Lab management which includes functional testing and performance testing.

The HP Build Verification Suite includes HP Unified Functional Testing tests sets to ensure functionality.
Cheryl the Functional Architect reviews the HP ALM Analysis report and verifies that the build is ready for production.
Benefits

Key Differentiators

- Plan and track projects and releases from a single dashboard for predictability
- Manage and create traceability between requirements, tests, defects, code changes, and build management system tasks
- Unify functional, performance, security, and quality management
- Increase visibility with milestones and KPIs to better align business and IT
- Allow testing teams to provision and deploy a test lab themselves in a hybrid delivery environment
- Support DevOps by bringing development, testing, and operations teams closer together

Value Proposition

HP’s suite of Complete Application Lifecycle Management solutions are designed to allow your team to take control of the application lifecycle while investing your limited resources in the highest priorities and increasing velocity of delivery -- without sacrificing quality or performance.

Take Aways

Master the Application Lifecycle
Use case #2

Modern Application Development
Agile approach

Gina Anderson
Product Owner

David Spiegel
Scrum Master

Thomas Hadorn
Developer
(Team Member)

Anna Anthony
Manual Tester

Team Members
Use case #2
Application Development – Agile approach

Challenges
• Drive faster decision making and time to release: with Agile team analytics & insight
• Reduce cycle time: ensure Dev and Test stay in sync with integrated test automation
• Improve product experience: deliver positive user experience, quality and business results

Products
• HP Application Lifecycle Management
• HP Agile Manager
• HP ALI DEV plug-in
• HP Sprinter
Use case workflow

- Adding new user story in HP Agile Manager
- Prioritizing and addressing it to a Sprint
- Assigning working tasks to team members
- Updating task progress and completion in HP Agile Manager Taskboard.
- Reviewing tasks in IDE and begin coding
- Using the Sprint Backlog Report to approve that user stories have been delivered and tests are passing in the Sprint
- Checking the ALI build report to verify build is covered by unit tests.
- Running manual tests to approve quality of the new build.
- Reporting defects to HP ALM using HP Sprinter
- Test status is synchronized from HP ALM to Agile manager
- Dragging completed tasks to the Completed tasks section
Gina the Product Owner logs in to HP Agile Manager and adds a new User Story, as below:

Since the customer’s satisfaction is very low (because of the current issue), she assigns it to the current release and gives the story high priority.
As Product Owner, Gina wants to be sure that the team is going to develop exactly what the customer wants to have, therefore she adds 4 user acceptance criteria to the User story.
**David is the Scrum Master.** During the sprint planning meeting, he goes, along with his team mates, through the backlog items and sees the newly created User Story in **HP Agile Manager.**

**Benefits**

- Manage the planning with a single click
Since this item has high priority, they plan to address it in the immediate sprint. They also decide that Thomas, the most senior team member, will be in charge of this user story.

Take Aways
Collaboration and visibility of the tasks cross team.
Thomas, as a Senior Team Member, needs to analyze the new User Story and breaks it into working tasks. He assigns them to himself and, after discussion with his teammates, also to other team members. He also defines a few acceptance tests verifying the user story is ready for delivery once it’s implemented.
Each Team Member estimates how many hours it would take to complete the task and can use Agile Manager Taskboard to see their assigned backlog items for the Sprint, and easily update the tasks progress such as updating remaining hours, or mark the task as completed.
The tasks are synchronized from HP Agile Manager to the developer IDE via the **HP ALI DEV Plug-In** so the team members can see their tasks in their IDE (Eclipse / Visual Studio). Now the team can start coding and commit the code.

![Eclipse + HP ALI DEV plug-in](image)

The build runs overnight.

**Benefits**

- Each task assignee can view and update his task progress in the backlog, enabling full collaboration between the team members.
- Agile synchronized to IDE via ALI Dev plug-in
David approves that all planned user stories have been delivered in the Sprint according to the plan and verifies that all acceptance tests are passing; he is using Sprint backlog report for that. He also checks the ALI build report and notices that the build is well covered by unit tests.

- Customized reports allows progress monitoring collecting data from multiple environments
Anna, the Manual Tester, discusses with Thomas to get deep insight of the new architecture for the Cloud. She uses HP Sprinter to run exploratory tests to approve the quality of the new build. She finds a minor defect and uses Sprinter Smart Defects and Sprinter Annotations to report this Defect to HP ALM. Besides the minor defect, all the tests pass successfully.

Benefits

Key Differentiators
• Reduces test cycle time, creates reusable assets
**Take Aways**

Support for exploratory testing activities by capturing screenshots and videos
The test status is being automatically synchronized from HP ALM to HP Agile manager. Direct Cover Status is visible in HP Agile Manager for each User story.
Anna drags her tasks to the Completed tasks section.
Executive Scorecard
VP of Apps / VP of Ops

Douglas Bryant
Chief Information Officer (CIO)

Debby Kramer
VP of Applications (VP Apps)
Debby sees that the teams were very productive over the past month, she is very satisfied from that.
After 3 months, Douglas notices that the customer satisfaction KPI increased and that there is increased usage of the application.