Accelerate your business

HP Application Lifecycle Management software
Technology users across the globe are unrelenting in their demand for faster delivery of engaging applications and software functionality while expecting high quality and excellent performance. HP Application Lifecycle Management (ALM) software is a powerful, single repository for your application teams to plan, build, and accelerate delivery of reliable applications that drive innovation and enhance customer satisfaction while also providing your teams with visibility across all enterprise projects and the complete application lifecycle.

**Deliver new applications at the speed of business**

More and more, your business is reliant on you to deliver technology that satisfies end users, drives profit, and supports their need for innovative and modern products. However, the means of modernization—distributed teams, iterative methodologies, new architectures such as service-oriented and composite applications, the latest Web technologies, mobile platforms, and cloud-sourced components—pose new challenges to your teams. These things coupled with the rate and speed of technology innovation are driving rapid delivery cycles and pushing teams to their limits.

With all this pressure for new and better software technology, you require a means to keep track of it all. To make sure you’re delivering applications, on time, on budget, and with the quality and feature, sets your users desire.

HP ALM is designed for teams tasked with managing the logistical complexities of delivering modern applications at the speed of business. Using a robust and extensible platform, HP ALM manages application delivery from requirements through development, testing, and readiness for delivery that embraces heterogeneous tools creating a hub of activity and insight. Our modern take on delivering applications facilitates collaboration that encourages interactive communications throughout the entire application lifecycle.

**About HP ALM software**

HP ALM is a unified platform for managing and automating activities, insight, and assets to deliver applications from requirements through development, testing, and readiness for delivery. HP ALM includes market-leading HP Quality Center Enterprise (QCE) and integrates with upstream project portfolio management software and downstream deployment, monitoring, and incident management software to drive complete ALM of applications from inception to retirement.

HP ALM is ideal at improving visibility across local, distributed, and outsourced teams, and at managing the moving parts of today’s applications. It promotes consistency across processes, drives best practices and asset sharing, and improves interactive communication among executive management, project managers, business analysts, development, and testing teams. Built on a standards-based, easily extensible architecture and centralized repository, HP ALM is one of the first unified, technology-agnostic application delivery systems available now.
Key features

Project planning and tracking: Predictable application delivery needs awareness of progress and alignment with goals and milestones, and the ability to access updated information without relying on error-prone manual data gathering. HP ALM project planning and tracking feature enables teams to define, track, measure, and report project milestones and key performance indicators (KPIs). Project managers, release managers, and quality assurance (QA) managers can define and configure the project plan, its cycles, the milestones (quality gates), and associated KPIs (exit criteria) for each type of task being managed. Reports are generated, visualized in a scorecard, and exported to other tools including mobile devices. And through the traceability capability, HP ALM automatically updates the progress of the project, allowing risks to be highlighted upfront.

HP Application Lifecycle Intelligence: Included in HP ALM, HP Application Lifecycle Intelligence (ALI) is an action-oriented decision support system for modern application delivery. HP ALI provides real-time insights into who is working on what, when, where, and why. It delivers this information at a granular level, from coding and testing to risk management, risk assessment, and aligning to requirements. HP ALI aids decision making, providing insights for managing resources efficiently, and making sure project priorities align with release objectives and business expectations. HP ALI further extends traceability between requirements, tests, defects, and code changes, and builds management systems. And it delivers this five-way traceability in real time.

Figure 1. HP ALM provides visibility for key stakeholders throughout the lifecycle

HP ALM Lab Management Automation: Testing teams are often challenged with setting up a lab environment to run their tests. In most cases, lab setup requires manual coordination of tasks and herculean efforts from multiple teams. This takes time and can cause issues if done improperly. HP ALM lab management capability allows testing teams to provision and deploy test lab themselves in a hybrid delivery environment (bare metal or virtual, in house, or in the cloud), leveraging an out-of-the-box integration of HP ALM with HP Continuous Delivery Automation (CDA) for software deployment. The model-driven approach helps eliminate user errors in lab configuration, so testing efforts are more relevant and accurate. Testing teams can also schedule tests along with the lab deployment so that the execution can be kicked off when a new build is ready to be tested. With this functionality, teams can perform better build-verification tests at the end of every build cycle, improving quality and speed in Agile environments. HP ALM Lab Management helps bring development, testing, and operations teams closer in a DevOps model since the same model or configuration can be used across the entire ALM process.
Asset sharing and reuse: Many applications within an organization can be changed simultaneously as part of different projects, creating a need to share and reuse requirements and tests across multiple projects. This is key to verifying that changes to one application don't negatively impact another, producing rework. HP ALM supports shareable asset libraries that can be reused across projects while maintaining traceability. Specific changes can be applied to shared assets for each project while allowing the library to maintain its integrity, and projects can resynchronize with the library as needed, incorporating any change that has occurred. In addition, HP ALM provides cross-project defect collaboration.

Cross-project reporting: To gain full insight into all your application initiatives and make informed enterprise release decisions, you need a holistic view of your enterprise release with the ability to drill into individual projects. HP ALM provides cross-project reporting and pre-configured business views to easily create reports such as aggregated project status metrics, application quality metrics, requirements coverage, and defect trends for both an enterprise release and individual project view.

Heterogeneous environment support: HP ALM supports integrated development environments (IDEs) including Eclipse, Microsoft® Visual Studio, IntelliJ, Build Systems, and source code configuration management (SCCM) systems. That means developer tasks, requirements, and defect issues can be linked throughout the development lifecycle. HP ALM makes it easy to track developer progress and code changes against requirements, so you have better visibility for project status and risk mitigation. The proven platform of HP ALM welcomes heterogeneous environments across the application lifecycle, including requirement management tools, project management tools, multiple SCCM tools, commercial and open-source build management tools, continuous integration tools, and different developer IDEs. It also supports common identification management standards like single sign-on (SSO) with SiteMinder and Common Access Card (CAC). This level of support protects your current investments and provides a more complete look at the performance of your business.

Figure 2. HP ALM build changes report and increases agility with continuous delivery best practices

HP Live Network: To help you get the most out of your HP software investment, HP provides you with additional software content, best practices, drivers, and information via the HP Live Network. You can access this content via the Web using a personalized passport on hpln.hp.com.

Requirements definition and management: Managing requirements is vital for alignment between business demands and IT application delivery. HP ALM includes a rich foundation for business, technical, and test requirements definition and management.
Key advantages of HP ALM Requirements Management include:

- Linking and structuring requirements to imported business process models and evaluating path coverage
- Configurable templates
- Requirements authoring using a rich text editor that provides a Microsoft Word-like experience without leaving HP ALM
- Document-centric viewing mode enabling you to see a list of requirements in a single view for quick editing of descriptions
- Ability to view requirements coverage at project or release level with views available to be configured on the fly
- Ability to trace relationships between requirements, process paths, defects, and test coverage
- Ability to link all requirements directly to tests, developer tasks, and defects to enable alignment in the face of change
- Linkage of requirements to other requirements, Agile user stories, and upstream business strategies

QA across function, performance, and security

HP ALM features include:

- **Risk-based test planning and management**: Define, manage, and track all test script types (functional, performance, and security) in one place. Coupled with risk-based test management, HP QCE allows stakeholders to assign business risk to requirements and calculate where to apply testing resources. Advanced test planning capabilities allow functional, regression, load, unit, and integration testing—each with its own set of requirements, schedules, and procedures. With HP QCE, QA teams can emulate business processes and run tests unattended during off-peak times, define and share test cases and business process test components, and execute manual and automated testing with integrated results.

- **Version control**: Version control is enabled for requirements, tests, and test assets, allowing distributed teams to collaborate and manage multiple versions of assets in parallel while maintaining data integrity and providing an audit history of changes throughout the project application lifecycle.

- **Baselining**: Baselining captures a group of requirements, tests, or test assets at strategic points in the project lifecycle to mark specific milestones. Baselines can be compared to assess change impact and enable rollback.

- **Quality release and cycle management**: Release and cycle management enables quick development and testing cycles and breaks large projects into meaningful phases. Release efforts can be planned by identifying requirements and tests for each cycle and attaining real-time visibility into actual vs. planned testing status to make informed go or no-go decisions.

- **Test scheduling and execution**: HP Sprinter, an innovative manual testing environment, allows you to execute, control, schedule, and record all manual and automated tests, including unattended tests. This innovative solution supports desktop or mobile use. You can then view and assess test execution runs and results, and log defects with run details.

- **Integrated manual testing**: HP Sprinter revolutionizes manual testing with the power to slash test cycles and document defects in accurate detail. With data injection, mirror testing, and defect scanners, repetitive steps are reduced to save time and rework. HP Sprinter allows you to author tests in a Microsoft Excel-like environment manually, as well as auto-author tests based on interaction with the application under test (AUT). Testers are freed from the burden of tracking steps during exploratory testing, since the steps are captured automatically and can be submitted as a defect or used to jumpstart future tests. And, full integration with HP QCE and ALM means full traceability, from requirement to test case to defect. For more information, visit [hp.com/go/sprinter](http://hp.com/go/sprinter).
• **Defect management:** Defects found in production are significantly more expensive to correct, than those found during development or pre-release testing. HP ALM defect management identifies, manages, tracks, and enforces defect resolution across the application lifecycle. Testers can create functional, performance, and application security defects manually or directly from the execution of manual and automated tests, and communicate them to developers with context from linked requirements and test execution results. This functionality is also available on mobile devices.

**Unified management of the complete application lifecycle**

**HP Project and Portfolio Management (PPM) software:** HP PPM integrates to HP ALM and supports the management of the application lifecycle—first, by helping with the investment planning process and helping ensure you are investing in the most effective activities with your limited resources. Second, by providing real-time management visibility into the health, value, and status of any project program or application within the portfolio. Third, automated ALM process controls, including financial reporting and support for industry standards and methodologies, to improve application quality while lowering costs.

**HP Executive Scorecard:** This product helps IT leaders summarize and understand the key elements of IT performance by leveraging data that has been merged from different IT systems. The product is integrated with HP ALM, providing application health and project status. It includes over 100 KPIs out of the box.

**HP Performance Center and HP LoadRunner:** HP Performance Center and LoadRunner integrate with HP ALM, providing a common user experience and simpler performance validation. With one view, you can check the status of manual, functional, and performance requirements, tests, and defects. As a result, of the unified platform, HP Performance Center and HP LoadRunner customers can apply HP ALM as well as performance validation across their projects and releases by upgrading to HP ALM.

**HP Software to manage the production lifecycle:** HP features a complete set of market-leading software tools that automate and simplify processes for the “operations” or “production” part of the application lifecycle. Many of these tools also integrate back into HP ALM, giving you a complete view into what matters most about your applications.

**Figure 3.** Importing a business process model in HP ALM and aligning business process to requirements

**Fortified walls: HP Fortify Software Security Center**

Application security needs to be part of the ALM process from the beginning, not just as part of production operations. HP Fortify Software Security Center offers a proven portfolio of application security software including both dynamic Web application security testing and static code analysis. These solutions are available on demand in the cloud and are supported by one of the industry’s largest teams of security experts, who are constantly updating the solutions with the latest knowledge and support against application threats worldwide. HP Fortify solutions are integrated into HP ALM to drive application lifecycle progress and decisions from requirements through development and testing. For you, it means secure, high-quality application delivery.
**HP ALM and Agile delivery**

HP ALM supports Agile delivery by enabling teams to track project status, accelerate testing, reduce cost, improve development and QA collaboration, and manage both Agile and non-Agile projects in parallel. Your teams can leverage the two-way synchronization between HP Agile Manager and HP ALM. HP Agile Manager is a new, unified, easy-to-use communication hub and decision support system that streamlines the process of organizing, planning, and delivering Agile projects. The combination of these two systems allows organizations to achieve velocity and quality by leveraging superior application lifecycle visibility, quality management, and continuous testing capabilities found in the HP ALM suite with the real-time, 360-degree visibility offered by HP Agile Manager into Agile team tasks, metrics, and progress.

**HP ALM for mobile devices**

Obviously, the need for quality testing within your mobile applications cannot be overstated and HP ALM fits the need. Also, QA teams and developers often need to conduct tests and work on defects when they are away from their computers. Testers may need to test functionality of applications that are not locally installed. The HP ALM software mobile apps, powered by HP Anywhere, make it possible to access the power of HP ALM software from an iPhone® or Android mobile device.

With the HP ALM Defect Submission mobile application, you can verify defects, check online status, change defect status, create defects, and upload defects to HP ALM software on the go, without entering them directly on your computer.

With the HP ALM Manual Testing mobile application, you can view and run manual tests that are assigned to you. You can also download tests to your mobile device to work on them offline, and then upload them back to HP ALM software.

**Figure 4. HP Agile Manager task board interface**

![HP Agile Manager task board interface](image)

**Delivery—the way you need**

HP ALM offers both on-premise perpetual as well as software-as-a-service (SaaS) subscription offerings. SaaS enables faster time to value, whether you need quick and secure access to the software, or you engage our experts to help drive efficiency into your quality management practice. ALM on SaaS customers can manage and test application quality through the complete ALM process with lower total cost of ownership (TCO) and a predictable operational cost model. The benefits of cloud deployment include reducing resources to manage actual technology and removing the burden of migrations or upgrades. All this allows our customers to benefit from the latest HP Software technology innovations while focusing on executing their core business strategy and creating business outcomes as their competitive advantage.
HP ALM on SaaS brings the following business benefits:

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<th>Benefit</th>
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<tr>
<td>Flexible delivery and subscription model for lower TCO</td>
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<tr>
<td>Predictable IT expenditure and service-level agreements (SLAs)</td>
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<td>Agility to scale and change when business demands</td>
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<td>On-demand scalability, multi-layer security, 24x7 support and expertise available</td>
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<tr>
<td>Access to latest technology and HP Software innovations</td>
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<td>&quot;Upgrade to SaaS&quot; means less risk, cost, and technology management, and focus more on delivery of the business outcome</td>
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**HP ALM Professional Services**

HP ALM Professional Services focus on innovative solutions for lifecycle management of modern-era enterprise applications. These include:

- Enterprise agility solutions for scaling Agile and lean practices at different levels of the enterprise—from large Agile teams up to Agile portfolio management
- DevOps solutions for driving agility across the IT value chain (requirements to deployment)
- HP Enterprise Mobility solutions for supporting DevOps solutions specific to "extreme Agile" mobile applications
- HP ALM Optimization solutions for helping our customers accelerate value and return on investment (ROI) using HP ALM technologies based on our library of best practices and pre-build accelerator utilities
- Cloud ALM solutions that exploit on-demand infrastructure and platform capabilities to deliver services on a consumption-based model
- Enterprise Centers of Excellence (COE) solutions for ALM functions such as testing, service virtualization, Agile, and requirements management

We offer outcome-based services geared toward generating specific outcomes that are enabled through SLAs.

Learn more at [hp.com/go/hpalm](http://hp.com/go/hpalm)