

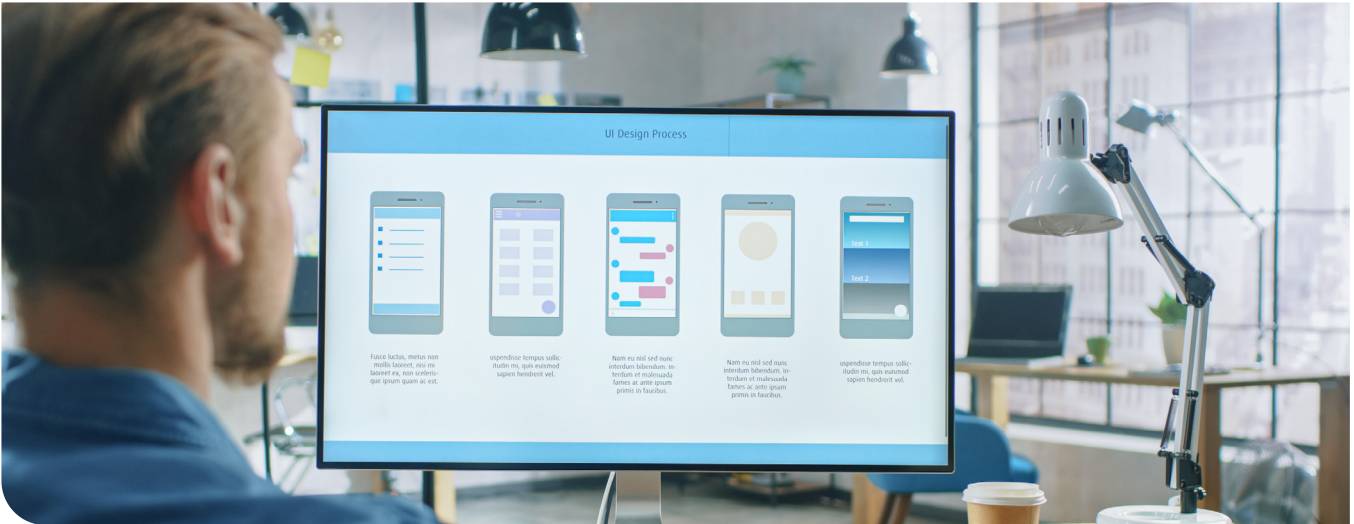
HCLTech App360 for Pega

Improving application lifecycle experience
with data-driven dashboards













Introduction

The world is evolving every second. With digital technologies like Pega progressing faster than ever, there's a growing demand to manage businesses more efficiently and proactively. Enterprises are swiftly adopting "Distributed Scaled Agile" to bring teams together – to interact, iterate and innovate, with faster delivery and business agility. Globally distributed teams rely on heterogeneous tools (like Jira, Jenkins, ServiceNow, etc.) to measure and execute different Software Development Lifecycle (SDLC) phases, making consolidated reporting a delicate & precise art. Thus, there is a need for unified dashboards, to manage different stakeholders and to ensure consistent status reporting with zero dependency on teams.



Application development in Pega is not an exception to this approach. Here as well, we follow Agile methodology, development activities, sprint level testing, end-to-end testing, release management activities, CI/CD (Continuous Integration Continuous Deployment) pipeline and so on. The scrum teams are spread across the globe with onsite & offshore model. There are multiple tools used by the Pega teams during SDLC such as JIRA, Jenkins, Service Now, etc. HCLTech App360 will help Pega teams to have a unified dashboard where the end to end details of SDLC is shown transparently.

Supported Tools by App360

| Planning | Code Tools | Build Tools | Test Management |
|---|---|---|--|
|  servicenow |  Bitbucket  |  GitLab CI  Bamboo |  ZEPHYR  ADAPACHE JMeter™ |
| Code Analysis | Service Management | | |
|  sonarqube |  servicenow  Service Desk | | |

Application 360:

Improving application lifecycle experience with data-driven dashboards

Application 360 is a DevOps Research and Assessment (DORA) compliant HCLTech solution that standardizes fragmented processes and tooling across various aspects of SDLC. It enables data-driven decision-making by leveraging its integral AI/ML module and helps enterprises align their digital strategy with execution, engineering processes and program management under an integrated dashboard and provides traceability from portfolio-level Epics to work items, giving stakeholders the contextual information needed to connect the dots.

Application 360 offers everything that customers need to monitor and visualize their KPIs, program and business value metrics with insightful dashboards and reports. Furthermore, it supports Application Support and Maintenance (ASM) - ASM 2.0 is a framework by HCLTech 2.0 and delivers key ASM 2.0 Metrics (Tickets by Priority & Aging, Month-on-Month Trends, Requestor Console, Mean Time to Recover & Average Resolution Time). Application 360 integrated with HCLTech Virtual Distributed Agile framework, provides organizations the ability to measure crucial metrics of their virtual, distributed agile teams.

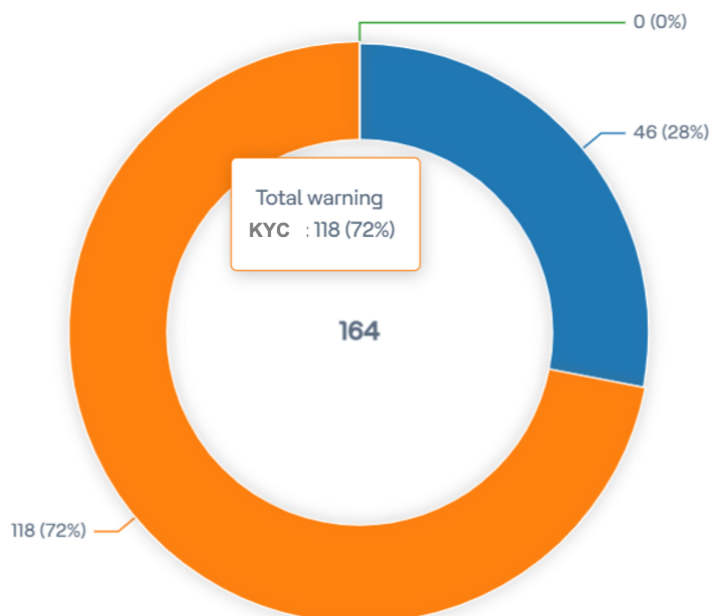


Few snapshots from App360 with Pega

App360 dashboard shows the details of the Pega applications, their guardrail score, automated unit test status etc which helps Project managers, Architects, Scrum masters to view the code quality.

Total Warning (per application)

- MortgageApp
- KYCModule
- DisputeResApp

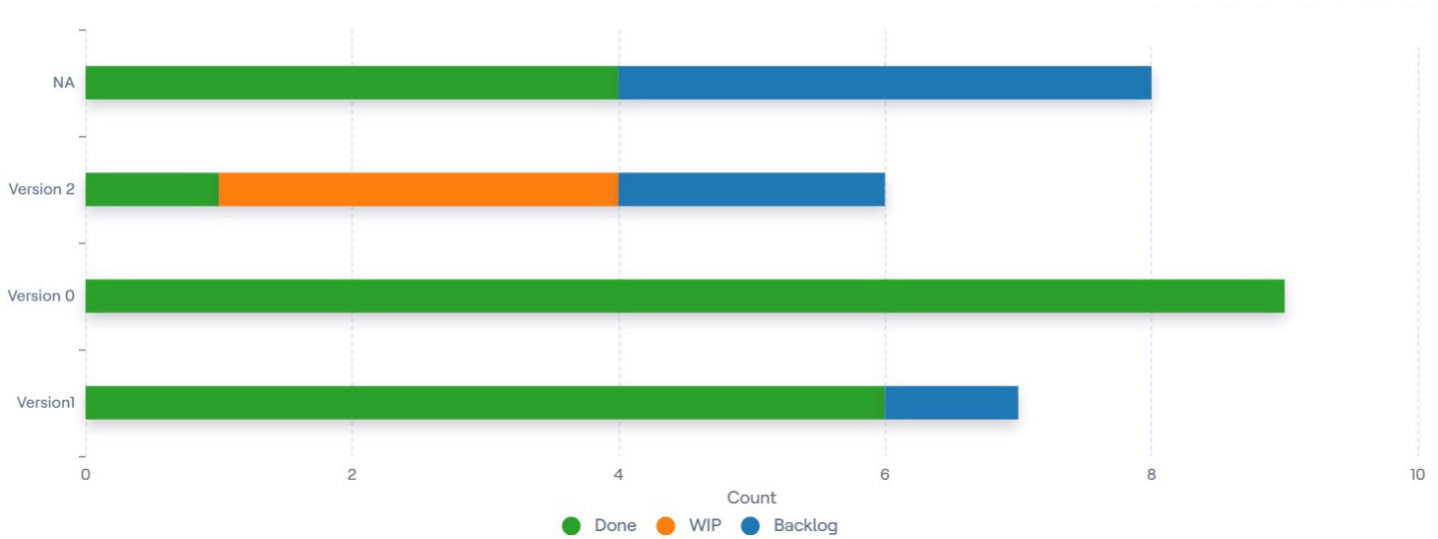


Unit Test Status

| App Name | Compliance | Rules Supported | Rules wt unit test | Rules w/o unit test | Record Date |
|---------------|------------|-----------------|--------------------|---------------------|---------------------|
| KYCModule | 0 | 27 | 0 | 27 | 2023-06-22T06:15:01 |
| DisputeResApp | 15 | 33 | 5 | 28 | 2023-06-22T06:15:01 |
| MortgageApp | 0 | 14 | 0 | 14 | 2023-06-22T06:15:01 |
| KYCModule | 0 | 27 | 0 | 27 | 2023-06-22T06:16:03 |
| DisputeResApp | 15 | 33 | 5 | 28 | 2023-06-22T06:16:03 |
| MortgageApp | 0 | 14 | 0 | 14 | 2023-06-22T06:16:03 |

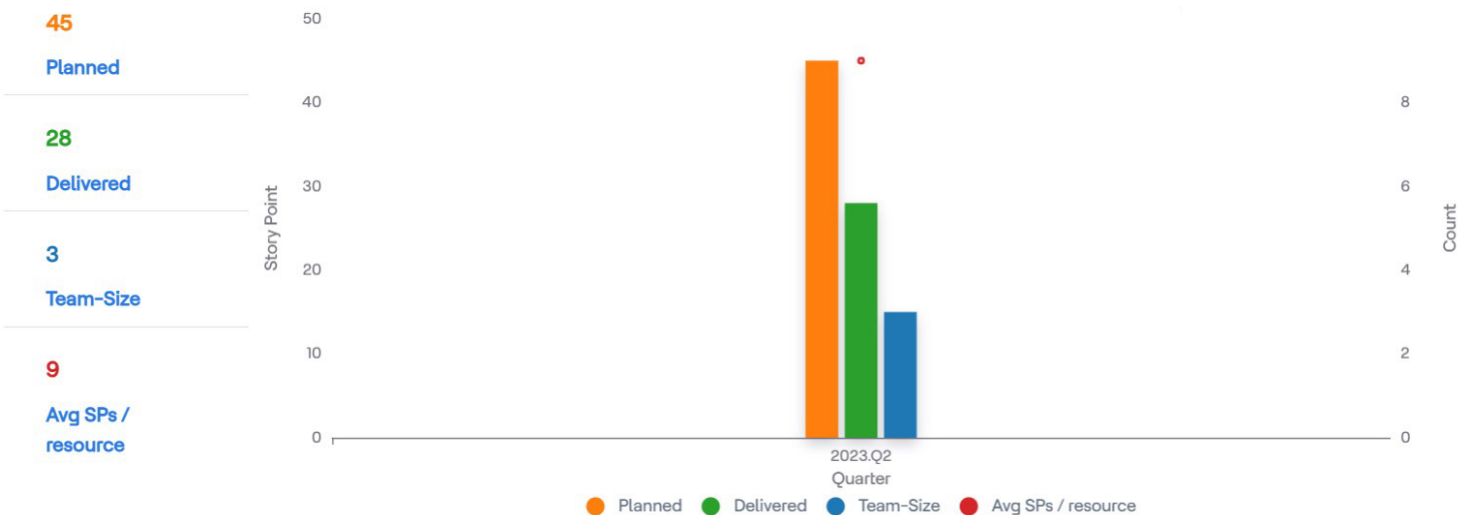
The below screen shows the release details, delivery efficiency from Jira for current sprint which is being addressed in Pega applications.

Release Progress View



Release version is a label given to packaged application software that has can be made available to target users.

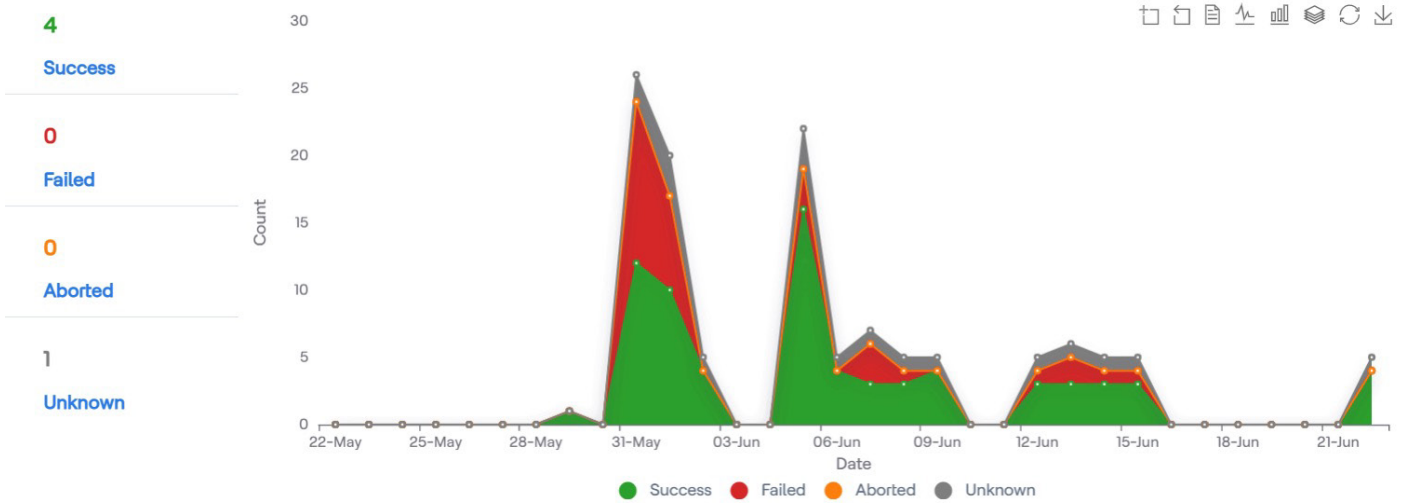
Delivery Efficiency (Q-o-Q)



An Aggregate view of the Quarter on Quarter Plan vs Delivered at the project level, along with Num of resources for each period and the Avg Story points delivered by each member.

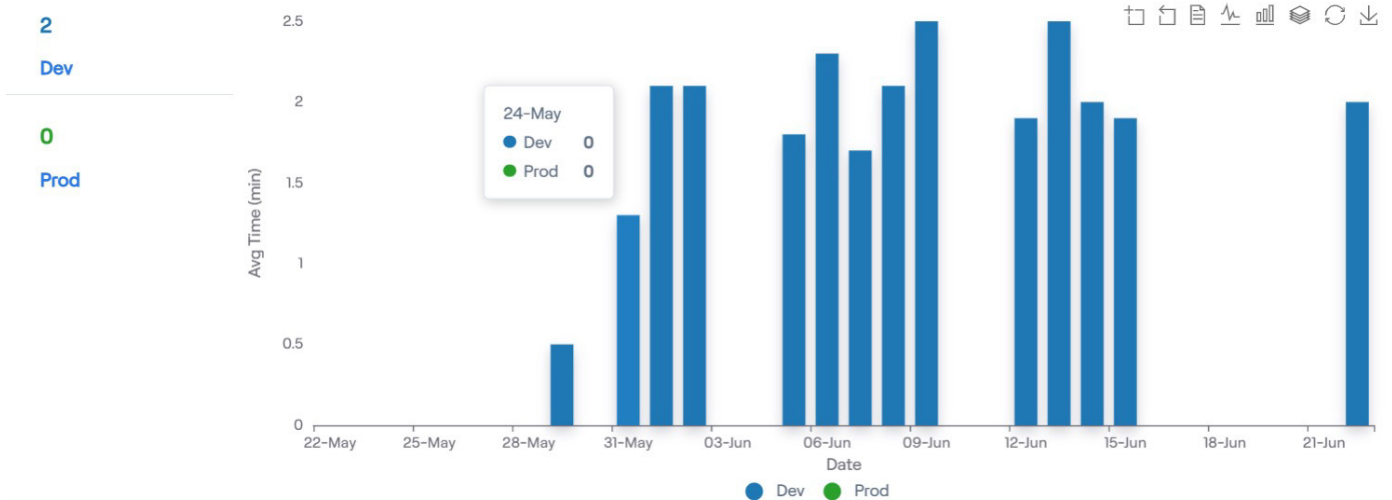
Below screen shows the DevOps daily job status (for Pega applications) with Jenkins and the deployment status/trend. Stakeholders need not switch to various tools (Jira, Pega, Jenkins etc) and App360 helps them with one Dashboard.

Daily Jobs Status



Number of Jobs Success vs Failure - Daily Trend for a month

Lead Time for Changes (DORA)



DORA - Throughput: Average time taken from code committed to code successfully running in production (includes the wait time - ex. for approvals, as part of the Release workflow) - Smaller the cycle, Better

This helps to understand if a new work item started today, how long would it take on average to get to production.

Application 360: Key features

Integrated with Pega

Brings the data from Pega w.r.to Guardrail warnings, results of Automated Unit Test suite, Security warnings etc in dashboard to show the code quality for the stakeholders. It can be extended further with traceability and any custom APIs from Pega

Traceability

Monitoring end-to-end process flows to aid corrective and proactive measures.

Unified View

Key health indicators at one place for quick decision making.

Customizable Dashboards

Customizable widgets to suit your requirements.

Persona based reporting

Stakeholders like Scrum Master, Product Owner, Architect, Tech Lead, Release Manager etc

Industry standard metrics

Scrum, Scaled Agile, DevOps, Testing, DORA, ASM, and Platform.

AI & ML for predictability

Extendable AI & ML capability

Application 360 Metrics

| Project Management | Program & Portfolio | Digital Platform |
|---|-----------------------------------|------------------|
| ASM 2.0 | DevOps & DORA | |
| Requirements & Testing | Development Phase | |
| Backlog Views | Active Sprints Views | |
| Product Mix (past 20 sprints) | Velocity Variance, SSF | |
| Refinement Index | Story Size, Average Effort per SP | |
| Story Stability Rate (SSR/RSI) | Sprint & Feature Burndown | |
| Story Acceptance | Epics/Features Progress | |
| Test Case Creation & Exec Rate | Features CFD, Cycle Time | |
| Testing Effectiveness (TE) | Defect Density, DRE, RCA | |
| Team Productivity, Utilization, Happiness Index | Technical Debt & Code Trendlines | |
| | Code Coverage, Testing Rate | |

Build & Deploy

Build Status Summary • Trends of jobs & build time • Deployment & pipeline views • Build-to-code traceability • Deployment Frequency • Lead time for changes • Time-to-restore service • Change failure rate

Product Support

INC tickets summary • Distribution by Geo, Channel • Tickets by priority & aging • Month-on-Month trends • Requester Console • Mean time to recover & average resolution time

Program & Scaled Agile

Project and program RAG (based on various parameters) • Business value & cost trends • PI Predictability • EPIC/PI progress & future readiness • PI velocity trends • Risk module and quality trends • Resource KPIs (Productivity & Attrition), Team Happiness

Projected business benefits

Avoids switching to various system for the status of SDLC and **saves time by 5%**



Improvement in application quality by **20%**, with end-to-end traceability that ensures consistency across teams DevOps toolchains.



Integrated view of the overall project/program health (KPIs) and analytics-enabled insights supports mid-course correction.

HCLTech | Supercharging Progress™

HCLTech is a global technology company, home to 219,000+ people across 54 countries, delivering industry-leading capabilities centered around digital, engineering and cloud, powered by a broad portfolio of technology services and products. We work with clients across all major verticals, providing industry solutions for Financial Services, Manufacturing, Life Sciences and Healthcare, Technology and Services, Telecom and Media, Retail and CPG, and Public Services. Consolidated revenues as of 12 months ending September 2022 totaled \$12.1 billion. To learn how we can supercharge progress for you, visit hcltech.com.

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