



A High AI-Q[™]
Company



AI-Embedded Software Delivery: Accelerating SDLC Velocity and Quality

Embedding AI across every stage of the software delivery lifecycle to remove friction, automate routine tasks, and double engineering output.

Overview

QBurst embedded custom agentic workflows and AI tools across the entire software delivery lifecycle for the client, unifying the end-to-end journey from initial product strategy to production release while transforming traditional engineering friction points into an integrated, AI-first pipeline.

- **End-to-End AI Integration:** Seamlessly connects Jira, Confluence, Figma, and GitHub to power intelligent market research, AI-assisted requirement synthesis, automated sub-task planning, workspace-embedded coding, and same-sprint agentic QA validation under strict human guardrails.
- **Proven Delivery Outcomes:** Accelerated market delivery by reducing overall application timelines by 50% (6 months down to 3 months), cutting code rework by 70%, and reducing documentation effort by 60%.



Client Profile

The Australia-based client is a forward-thinking organization committed to digital transformation and high-velocity engineering. Operating in dynamic software delivery environments, the enterprise focuses on maximizing developer productivity, maintaining high code quality, and scaling software output without escalating team headcount.

Traditional Software Delivery Friction Points

Legacy delivery workflows suffered from manual bottlenecks across handoffs, causing unpredictable schedules and high operational overhead.

- **Slow Documentation & Specs:** Business analysts spent days manually drafting Functional Requirement Documents (FRDs) and iterating on user stories across multiple workshops.

- **Developer Context-Hunting:** Engineers lost hours reading legacy code, disconnected documentation, and repository structures before building new features.
- **Delayed Code Reviews:** Pull request reviews involved frequent back-and-forth iteration, creating multi-day waiting periods and high defect rework.
- **Unpredictable Delivery Timelines:** Manual handoffs across project management, design, and code led to frequent schedule overruns and inconsistent project velocity.

Solution: AI-First Delivery Lifecycle Transformation

We embedded AI at every phase of the delivery chain—from initial requirements gathering to deployment—acting as a force multiplier without replacing human oversight.

- **Phase 1 – AI-Driven Requirements & Spec Generation:** Captured business requirements from meeting recordings to instantly generate structured FRDs, user stories, and Jira backlogs for BA review.
- **Phase 2 – Intelligent Implementation Planning:** Utilized repository-aware AI to generate modular implementation plans with precise code references, breaking tasks into small, assignable AI agents or other developers too.
- **Phase 3 – Workspace-Embedded AI Coding:** Deployed specialized agents with dedicated roles that operate independently and control the agent loop to ensure precise, high-accuracy results across the software delivery lifecycle.
- **Phase 4 – Automated PR Reviews & Guardrails:** Configured AI to perform upfront code reviews and flag bugs before human peer reviews, ensuring compliance with team standards.
- **Phase 5 – Smart Model Selection & Tooling Integration:** Leveraged complexity based model selection using model pinning for individual agents to get better results at right cost.

Technical Highlights

- **Toolchain Integration:** Integrated AI natively into existing workflows using GitHub Copilot, Jira, Confluence, Figma, GitHub PRs, and Context7 without introducing new platforms.
- **Smart Model Selection Strategy:** Deployed high end model powered agents for complex architectural reasoning and planning alongside lightweight models for rapid execution to optimize cost and performance.
- **Modular Rulebook & Repository Indexing:** Created project-level knowledgebase and full repository indexing to prevent logic duplication and enforce team coding standards.
- **Incremental Sub-Issue Execution:** Standardized single sub-task AI generation and review loops to prevent merge conflicts and ensure clean, auditable delivery.
- **Human-in-the-Loop Supervision:** Embedded human review checkpoints at every stage—BA validation for FRDs, tech lead reviews for tasks, and peer code reviews for PRs.

Impact

