

Automotive Engineering: ASPICE

A Manufacturing Case Study

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Overview

Transforming Engineering Processes to Achieve ASPICE Capability Level 2

Vilas Business Solutions transformed a large North American Tier 1 Automotive supplier's embedded systems development process — spanning software, hardware, cybersecurity, and functional safety — to achieve ASPICE Capability Level 2 under ASPICE 4.0 guidelines.

CL2

ASPICE Level

42%

Fewer Defects

18 mo

Delivery Timeline



CHALLENGE

ASPICE CL2 across 3 engineering streams, without disruption

A North American Tier-1 automotive supplier needed to achieve ASPICE Capability Level 2 (CL2) across all VDA Scope process areas and Cybersecurity aligned with ASPICE 4.0 and ISO 21434.

The challenge: Integration of multiple engineering processes into a unified ASPICE-compliant framework. Maintain continuity of ongoing development programs during the process transformation. Develop standardized documentation and consistent development practices. Engender cross-team transparency and collaboration across three engineering functions. Avoid risks of over-engineering process and documentation, tool lock-in and creating knowledge siloes.



STRATEGY

Integrated Process Charter + Lean ASPICE + Digital Thread

Establish Integrated ASPICE Assessment Checklist aligned with VDA process areas and define clear responsibilities using RASIC model. Performed comprehensive gap assessment against ASPICE base practices and identify improvement areas across engineering processes.

Train team of 28 engineers to drive gap closure and strengthen ASPICE assessment capabilities. Implemented ASPICE-compliant documentation, templates, and job aids to support consistent process adoption.

Conducted semi-annual assessments to validate ASPICE compliance across the VDA scope.



Results Measured in KPI Improvements

CL2

ASPICE Capability Level Achieved

42%

Reduction in client-reported defects

30%

Faster change request turnaround

28

Staff upskilled (Assessor / P-Level)

18 mo

End-to-end delivery timeline

Risk Management Highlights

Risk	Mitigation
Over-engineering documentation	Lean ASPICE policy: Templates capped at 2 pages per work product unless safety-critical
Tool lock & license cost spikes	Adopted client's existing tool suites to avoid dependencies
Knowledge fragmentation	Monthly lunch-and-learn sessions, shared system models, recorded practitioner sessions
Assessment failure	Quarterly dry-run audits; gap items tracked in OKR dashboard with targeted closure



THANK YOU

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