



The right use of AI in the SDLC: development & reengineering at scale

Analysis and modification of 63 IBM i programs
completed in 100 hours with AI-First development

An large-scale project estimated at 230 hours was completed in 100 hours, including review, correction, restructuring, and testing of 63 SQLRPGLE programs.

Industry: Technology / Software Development

*Image for illustrative purposes only

Summary

An AS400 pass with multiple returns from the JIS — flagging bad practices, inadequate standards, and architecture issues — required the review and modification of 63 programs within an 8-day window. The traditional estimate was 230 work hours. By applying AI-First Development systematically at every stage, the team completed the project in 100 hours, meeting the commitment and exceeding quality expectations.

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Main challenges

- Pass returned by the JIS with observations on bad practices and deficient architecture.
- 63 distinct SQLRPGLE programs requiring analysis, modification, and correction.
- Traditional estimate of 230 hours vs. available timeframe of 8 days.
- Need to fix pre-existing bugs in addition to the requested modifications.
- Complete restructuring required on a significant portion of the programs.

Approach

AI-First Development applied comprehensively across all 6 project stages:

AI-First analysis of the 63 programs to map the real scope.	Collaborative code generation with AI.
Automated syntax validation with AI.	Intelligent refactoring with AI to correct architecture and standards.
Review and adjustments to programs with AI.	Testing and bug correction on functionalities.

Results

- 63 programs reviewed, modified, corrected, and tested in record time.
- 20 programs fully restructured and rebuilt with AI-First.
- 15 bugs identified and corrected in the original pass.
- Time reduced from 230 hours to 100 hours (56% reduction).
- Delivery commitment met within the deadline.

Technologies used

IBM i / AS400

SQLRPGLE

GitHub Copilot (AI-First)



Conclusion

The greater the scale, the greater the impact of the AI-First paradigm. With 63 programs in play, AI didn't just speed up the work — it made it possible to identify and fix problems that the traditional process had missed across two previous reviews. The result was a faster and higher-quality deliverable.

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