GLM-5 vs Qwen 3.5 vs Gemma 4

Application Modernization Performance Benchmark

Models Compared

- Qwen 3.5 (397B)
- Gemma 4 (31B)
- GLM-5

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AI Model Benchmarking Analysis

Executive Summary

This benchmark evaluates model performance across six application modernization scenarios commonly encountered in enterprise legacy system migrations: PL/SQL rules extraction, Java/JEE documentation, OpenAPI specification generation, .NET forward engineering, integration pattern design, and test specification creation.

Key Findings

Qwen 3.5 Dominates: 324.0 seconds total, wins 4 of 6 tasks with superior documentatio

Gemma 4 is Inconsistent: 535.0 seconds, strongest in Java/JEE documentation but wea

GLM-5 Excels at Detail: 1005.9 seconds, best for API specification and legacy bug dete

Performance Summary

Metric	Qwen 3.5	Gemma 4	GLM-5	Winner
Total Time (seconds)	324.0	535.0	1005.9	Qwen
Avg Task Time (seconds)	54.0	89.2	167.6	Qwen
PL/SQL Extraction (s)	51.2	92.8	156.3	Qwen
Java/JEE Docs (s)	52.1	61.4	145.8	Gemma
OpenAPI Generation (s)	55.3	91.7	152.1	GLM-5
.NET Engineering (s)	54.8	92.5	171.2	Qwen
Integration Design (s)	53.6	96.1	194.8	Qwen
Test Specification (s)	57.0	98.5	185.7	Qwen

Detailed Analysis by Task

PL/SQL Rules Extraction

Extracting business rules and logic from legacy PL/SQL code

Fastest: Qwen 3.5 (51.2s)

Best Quality: Qwen 3.5

Qwen excels at rule identification and clarity. Gemma provides basic extraction. GLM-5 is overly verbose.

Java/JEE Documentation

Generating documentation from Java enterprise code

Fastest: Gemma 4 (61.4s)

Best Quality: Gemma 4

Gemma produces clean, well-structured documentation. Qwen is slightly wordier. GLM-5 generates excessive detail.

OpenAPI Specification

Generating OpenAPI/Swagger specs from API implementations

Fastest: GLM-5 (152.1s)

Best Quality: GLM-5

GLM-5's verbosity pays off with complete, detailed specs. Qwen satisfactory but less comprehensive. Gemma misses edge cases.

.NET Forward Engineering

Modernizing .NET code and generating new implementations

Fastest: Qwen 3.5 (54.8s)

Best Quality: Qwen 3.5

Qwen produces modern, maintainable .NET code. Gemma lacks framework knowledge. GLM-5 overcomplicated.

Integration Pattern Design

Designing integration patterns for system connections

Fastest: Qwen 3.5 (53.6s)

Best Quality: Qwen 3.5

Qwen provides practical, implementable patterns. Gemma offers generic suggestions. GLM-5 excessive detail.

Test Specification

Creating comprehensive test specifications for modernized systems

Fastest: Qwen 3.5 (57.0s)

Best Quality: Qwen 3.5

Qwen creates well-structured, complete test specs. Gemma lacks coverage depth. GLM-5 overcomplicated.

Modernization Strategy Recommendations

Primary Tool: Qwen 3.5

Deploy Qwen 3.5 as your primary modernization assistant. It delivers superior performance across documentation, code generation, and specification tasks while maintaining reasonable latency for interactive use.

Specialized Role: Gemma 4

Use Gemma 4 specifically for Java/JEE documentation tasks where it outperforms competitors. Its speed advantage makes it suitable for batch documentation generation on legacy systems.

Expert Analysis: GLM-5

Reserve GLM-5 for critical API specification generation and legacy system analysis where comprehensive detail is essential and time constraints are relaxed. Best used for offline analysis and documentation verification.

Conclusion

For enterprise application modernization projects, a **Qwen 3.5-first strategy** with selective GLM-5 consultation for API specifications provides the optimal balance of speed, quality, and cost-effectiveness.