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SEB

How SEB Empowers Its Mainframe Developers with Insights from XINFO

About SEB

Skandinaviska Enskilda Banken (SEB) is a leading Northern European financial group with a strong international presence. Headquartered in Stockholm, SEB operates in more than 20 countries and employs approximately 19,500 people. The bank serves over 4 million private individuals, 400,000 small and medium-sized enterprises, 2,000 large corporations, and around 1,100 financial institutions.

For more than 165 years, SEB has been known for its stability, customer focus, and innovation in financial services. Today, SEB continues to combine the trust and resilience of a traditional bank with forward-looking investments in technology, sustainability, and digital transformation.

The Role of the Mainframe at SEB

For SEB IBM Z integrates AI and breakthrough tech, ensuring top security, performance and agility.

At SEB, the IBM mainframe remains a strategic, high-performing platform supporting many of the bank's mission-critical applications and processes. SEB operates its own COBOL Academy, which attracts hundreds of applicants annually, and maintains a large internal mainframe organization consisting of more than 300 developers, system specialists, testers, database administrators, and system programmers.

> *It is crucial that we can be confident in every impact analysis we perform. And with XINFO, we are.*

Erik Weyler
Mainframe Solution Architect at SEB and IBM Champion 2024 & 2025

Enabling Developer Productivity with XINFO

Hundreds of SEB's developers and system programmers rely on XINFO every day to identify critical components affected by lifecycle management (LCM) activities or new business initiatives.

At SEB, XINFO is accessed in multiple ways — through ISPF, the PC client with its graphical visualizations, direct SQL queries on the database, and even via SEBz, a Visual Studio Code extension developed in-house to integrate XINFO insights directly into the development environment.

Open XINFO Data: The Foundation for Custom Tooling and Analytics

For SEB, it was essential that XINFO data resides in DB2 on z/OS and is accessible via SQL. This openness was a key differentiator when evaluating tools in the market — and a prerequisite for building SEB's own customized solutions.

Examples include:

- **CC-Info:** A custom XINFO panel enabling searches for elements in SEB's SCM system based on their descriptions.
- **SQL User-Defined Functions:** Such as SEB_XINFO_PCBUSE, which identifies all IMS database accesses within a program's unit of work.

"Some people are afraid of the word 'custom,' but when it comes to development tools, customization is what sets us apart," explains Erik Weyler.

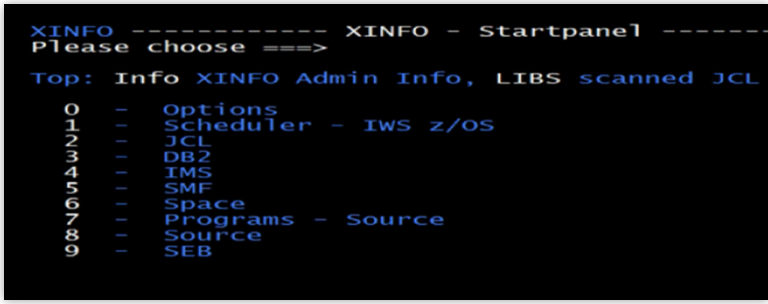
"If we can tailor a solution to SEB's environment and save developers time and effort, it's absolutely worth it."

To manage in-house SQL effectively, SEB uses alias structures that ensure compatibility during system upgrades — maintaining flexibility without additional maintenance effort.

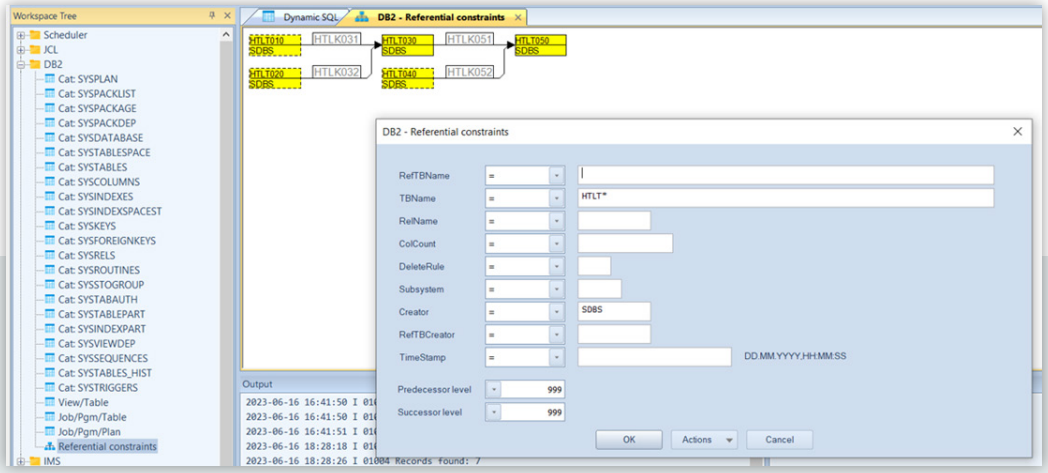
Another innovative approach involves offloading XINFO-generated data to IBM DB2 Analytics Accelerator (IDAA), enabling complex analytics queries to be executed with exceptional speed.

Flexibility for Continuous Enhancement

XINFO's inherent flexibility allows SEB to extend and adapt the tool to specific needs — for instance, by adding custom panels within the ISPF interface:



"We especially appreciate the opportunity to influence XINFO's development," says Erik. One feature developed based on SEB's request was Referential Integrity for DB2, providing developers with a convenient, automatically generated visualization of database structures directly in the tool they use daily.



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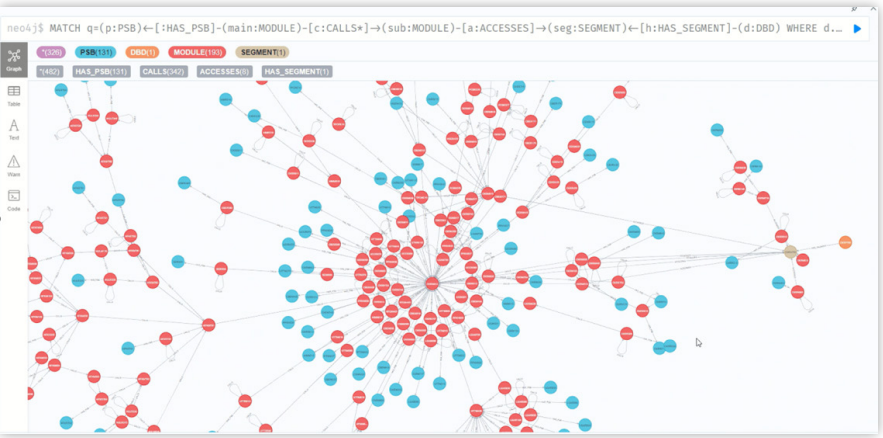
Innovation in Visualization: The Sky Is the Limit

A striking example of SEB's innovation with XINFO is an interactive topology map of one of its major DL/1 applications, including all dependencies. The map is powered by a Neo4j Graph Database deployed as a Docker container in zCX on the mainframe, with all data collected by XINFO scanners.



"For me, XINFO is the ultimate enabler," says Erik. "Whether it's new developers learning the mainframe environment, or teams modernizing and integrating applications — XINFO holds many of the answers. It connects multiple sources into a live, production-level view. The day we see AI applied to XINFO data will be a very exciting one."

Performance at Scale

Object	Type Volume	Scan Duration
JCL Scripts	136,799	10 minutes
COBOL Programs	58,944	40 minutes
Assembler Programs	4,791	6 minutes
IMS PSBs	59,658	30 minutes

Conclusion

SEB has built a robust foundation for continuous improvement and modernization of its mainframe landscape by leveraging the openness, flexibility, and analytical power of XINFO. The result is a highly empowered developer community — one that can act faster, make more informed decisions, and continuously evolve one of Europe's most advanced banking IT environments.

Examples of XINFO Usage at SEB

SEB's teams use XINFO to answer hundreds of analytical and quality-related questions, including:

- Which COBOL modules use GO TO or NEXT SENTENCE statements?
- Are there jobs or programs where the member name differs from the job name?
- Which jobs have never been executed?
- Are production jobs using test datasets (and vice versa)?
- Do jobs use the appropriate CLASS= and MSGCLASS= parameters?
- Are there COBOL copybooks or DB2 tables not referenced by any program or job?
- Which DB2 columns are defined but never used?
- Which datasets, procedures, or triggers are no longer active or needed?
- Are there IMS transactions without corresponding PSB sources?

These and many other insights help SEB maintain a clean, efficient, and well-governed mainframe environment — supporting both reliability and innovation.

XINFO

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