

Product Brief

SQL-Ease™ for Db2 for z/OS

Key Benefits

- **Reduce application development time:** Create and test embedded SQL from within ISPF edit.
- **Explain and execute SQL statements:** Analysis includes descriptions of access paths.
- **Speed up the application review process:** Create efficient SQL and avoid rewriting and recompiling.
- **IBM Db2 Accelerator:** Use this feature to manage queries to facilitate processing.

Key Features

- **SQL generation:** SQL-Ease generates syntactically correct SQL and places it at your specified location. Table and column lists assist you in generating precise SELECT, UPDATE, DELETE, INSERT, and MERGE SQL. Host variable declarations are created for C, COBOL, ASSEMBLER, and PL/I programs.
- **Validation of SQL statements:** SQL-Ease provides syntax checking and can execute SQL statements so that you can validate that the expected data is processed during development.
- **Standardized SQL:** SQL-Ease standardizes generated and written SQL statements for program readability and easier maintenance.
- **Enhance Db2 performance:** Explain Services quickly detects potential problems and makes recommendations for rewriting your SQL, clearly indicating how the current Db2 access path affects application performance.

At a Glance

SQL-Ease™ for Db2 for z/OS (SQL-Ease) is architected to reduce the time and complexity of developing syntactically correct, properly formatted and highly efficient SQL code for Db2 applications. SQL-Ease offers application developers the power and versatility to generate, test and analyze embedded SQL for Db2 for z/OS applications from within a familiar ISPF session. During the application development cycle, you can conveniently interface with SQL-Ease by entering a single command to help generate clean, clear and highly efficient SQL code for your C, COBOL, Assembler, or PL/I programs.

Business Challenges

Maintaining and creating new SQL can be challenging, time consuming and error-prone. Descriptive table and column names are easily mistyped. Indexed columns may not be known, which can lead to poor performance when not referenced. SQL verification takes additional time and can consume resources, and failure to perform adequate testing can result in the movement of poorly tuned SQL into production.

Solution Overview

SQL-Ease provides tools to help you quickly create and maintain SQL. It helps make generating SQL for a table as easy as selecting the statement type and the table name, enabling you to focus on selecting the tables and columns instead of introducing potential errors by typing their names directly.

Related index and referential integrity information is provided to SQL-Ease from the Db2 catalog. This information helps you write SQL that performs well. In addition, SQL-Ease generates consistent SQL text formatting and standard host variable names to help standardize SQL.

You can explain SQL on multiple Db2 subsystems or in Db2 data-sharing groups without migrating the SQL. SQL-Ease enables you to refine an application in the test subsystem, rather than evaluating the performance when the application is in the production subsystem. This approach helps reduce the likelihood that problematic SQL will make it into production. In addition, Explain Services help streamline SQL analysis and reporting.

Critical Differentiators

The following capabilities set SQL-Ease apart:

- **ISPF integration:** Create, modify, and format your SQL in ISPF edit.
- **Easy selection of table and columns:** Select from the Db2 catalog to create or modify your SQL.
- **Host variable data declarations for all supported languages:** Tailor the generated names to use a common prefix in addition to the column name.
- **WHERE clauses and JOIN predicates recommendations:** Defined index and referential integrity relationships form the basis for these suggestions.
- **Syntax checking and SQL execution:** SQL-Ease enables quick and easy SQL syntax checking and execution from within your edit session. View the results and execution statistics.
- **Comprehensive Explain Services:** When Db2 EXPLAIN output is not sufficient, use Explain SQL and Enhanced Explain for advanced performance analysis.
- **Db2 profile services:** Simplify Db2 profile management by facilitating the process of managing profiles and profile attributes in the DSN_PROFILE_TABLE and DSN_PROFILE_ATTRIBUTES tables.
- **IBM Db2 Accelerator integration:** SQL-Ease generates accelerator-related explain data, which helps you assess whether queries are accelerator-eligible. ACCEL profiles also help verify that queries that meet certain cost thresholds are processed on the IBM Db2 Accelerator.

Related Products

SQL-Ease integrates with the following Broadcom® products:

- **Plan Analyzer™:** SQL-Ease shares the same expert systems rules as Plan Analyzer so that SQL recommendations are consistent across the two products.