
COBOL-IT[®]

CitSQL Family



COBOL-IT CitSQL® is the COBOL-IT Family of Pre-Compilers which includes COBOL-IT Pre-compiler for MySQL, COBOL-IT Pre-compiler for PostgreSQL and COBOL-IT Pre-compiler for ODBC.

The CitSQL pre-compilers translate COBOL ESQL commands into CALLS to functions which are included in the CitSQL Runtime Component.



The CitSQL for MySQL and CitSQL for PostgreSQL runtime components are designed to make native calls directly to the database ensuring the very highest level of performance possible. The CitSQL for ODBC runtime component makes calls to the Microsoft ODBC interface which in turn can connect to Microsoft SQL Server.

SUPPORTS MYSQL, POSTGRESQL AND ODBC

The CitSQL Family of products extends COBOL-IT's commitment to embrace Open Source solutions.

CitSQL provides Pre-compilers for the latest versions of Open Source Databases MySQL and PostgreSQL. CitSQL is designed for use with 32-bit Databases that support the Open Database Connectivity standard (ODBC) created by Microsoft.

CitSQL generates code that can access MySQL, PostgreSQL and ODBC. SQL statements are passed directly to the database. Database error-reporting is supported for cases where ESQL statements are unsupported.

PRE-COMPILER AND RUNTIME COMPONENT

The CitSQL Pre-compiler serves as a replacement to COBOL ESQL Pre-compilers provided by other vendors.

The CitSQL Pre-compiler transforms EXEC SQL statements so that they can be compiled by the COBOL-IT Compiler. This is done by commenting out the EXEC SQL statements and replacing them with CALL "RCQxSQL" statements.

The CitSQL Runtime Component is a DLL (Windows) or shared object (Linux/Unix) that is the target of the CALL statements produced by the CitSQL pre-compiler. No linking needs to be done.

CitSQL provides different Runtime Components for the different databases, each of which is developed specifically for the target database.

NATIVE CALL INTERFACE FOR HIGH PERFORMANCE

CitSQL binaries are optimized for high performance when they are built, allowing them to target different databases on different machines using the host database's Native Call Interface.

The Runtime Component makes native calls to the target MySQL and PostgreSQL databases, and is highly optimized for the ODBC standard.

COMPATIBLE WITH DEVELOPER STUDIO

CitSQL is compatible with COBOL-IT Developer Studio for purposes of editing precompiling, compiling and debugging.

The Developer Studio can be configured to recognize programs that require precompiling by their file extensions.

The Developer Studio can be configured to include pre-processing in the compiler command and to run a selected script while pre-processing.

Compiler errors are stored in a Problems View and provide a simple clickable interface that returns to the line on which the compiler error was detected.

When debugging your code inside the Developer Studio, you may elect either to debug the original source code or the source code generated by the pre-compiler.

LOG MODE FOR TRACING SQL OPERATIONS

To enhance debugging of programs with ESQL statements, CitSQL can be run as a Log Mode to create a trace of SQL operations.

This can greatly reduce the time required to analyze an unexpected behavior.

COBOL-IT COMPILER SUITE FEATURES AND BENEFITS

FEATURE	BENEFIT
Run pre-compiler commands from a highly configurable resource file	Resource files support wildcard syntax that allows for short-hand designation of name and location of source files and can be used to apply multiple options to multiple files.
Runtime components make native calls to the database	Native calls to the database provide the highest level of performance.
Intelligent handling of unrecognized SQL statements.	Different databases can support their own extensions to deal with table spaces, indexing methods, special column types and more. CitSQL will pass along SQL statements directly to the database that it does not recognize. This greatly expands the ability of the pre-processor to work across multiple databases.
Application of Standard Prefix	CitSQL allows the user to avoid collisions between generated variables and pre-existing variables with the application of a prefix to the generated variables. This eliminates the need to resolve conflicts which can be time-consuming.
Supports multiple quoting conventions	Allows the user to use the same source code with different databases having different quoting conventions without changing the source code.
Allocate extra memory for pre-compiling of very large source files	Effectively removes limitations caused by memory when handling very large source files.
Log Mode to trace SQL operations for debugging purposes	Provides an effective debugging tool with a log file that contains a full record of SQL operations performed.
Produce output in "free" source format	Allows user to match output format to the source format that they prefer and which matches their corporate coding conventions.
The precompiled source code produced by CitSQL produces calls to the runtime component which is included with the product as either a DLL (Windows) or shared object (Linux/Unix)	There is no need to statically link the runtime component to the program.
Integrated with the Developer Studio for purposes of pre-compiling, compiling and debugging.	Provides users of CitSQL with all of the compiling, editing and debugging capabilities of the Developer Studio.

PLATFORM SUPPORT

For the most recent information about Platform Support for CitSQL for MySQL, CitSQL for PostgreSQL and CitSQL for ODBC, please reference the COBOL-IT Port List.

About COBOL-IT

COBOL-IT is the first company to offer a high quality, professional COBOL compiler to large enterprises seeking to migrate, deploy and maintain their COBOL applications at the most cost effective-price and lowest risk. Founded in 2008, COBOL-IT has rapidly assumed a position of leadership in the global COBOL community, migrating hundreds of customers, with hundreds of thousands of users and hundreds of millions of lines of COBOL code.

With a robust product suite and a proven migration process, the company provides solutions that allow clients to preserve the functionality of their strategic COBOL applications, with superior performance, agility and a significant reduction in costs.

Technical Hubs located around the world allow COBOL-IT to guarantee that all of our clients have access to expert, responsive technical support.

Partnership agreements between COBOL-IT and the leading providers of technical services and software solutions in Open Systems ensure that moving to COBOL-IT can be accomplished at the most cost effective-price and low risk everywhere in the world.

For more information, visit COBOL-IT at: www.cobol-it.com
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