CONNX® Solutions™
Simplified Data Access™

Data Sheet

CONNX for VSAM

The CONNX VSAM Module provides secure, real-time, read/write, SQL access to VSAM databases running on OS/390, z/OS, MVS and VSE with connectivity through TCP/IP.

Compliance

ODBC Level 2 Compliant.
ODBC 3.51 Driver.
JDBC Type 3 Driver
OLE DB 2.5 Driver
.NET 1.1 Driver

Support for VSAM/CICS on OS/390 / z/OS

CONNX for VSAM offers real-time access to VSAM/CICS files on an OS/390 or z/OS mainframe server running TCP/IP. It runs as a CICS transaction, ensuring interoperability with existing CICS applications, and is able to import metadata directly from COBOL FD copybooks, which describe the VSAM file layouts.

OS/390 / z/OS Started Task Support for VSAM, QSAM and PDS files

The Started Task / Batch Job version of CONNX for VSAM / QSAM / PDS provides read/write access to VSAM files and read-only access to QSAM and PDS files. In conjunction with CONNX for CICS/VSAM, this version of the product provides real-time access to VSAM files during CICS region down-time periods.

Both versions for CONNX for VSAM on OS/390 / z/OS provide read/write access to Keyed Sequential Data Sets (KSDS), Relative Record Data Sets (RRDS), and Entry Sequenced Data Sets (ESDS).

Support for VSE/ESA

CONNX also supports real-time CICS TCP/IP access to VSAM files stored on IBM VSE/ESA (Virtual Storage Extended/Enterprise Systems Architecture) hosts. The CONNX CICS TCP/IP listener program runs in a VSE/ESA CICS partition and waits for client connection requests from ODBC/OLE DB/.NET/JDBC-compliant programs. The CONNX server program provides full read/ write access to VSAM KSDS, RRDS, and ESDS.

CONNX for VSE/ESA imports VSAM metadata from COBOL FD copybooks into a CONNX Data Dictionary file (CDD). Once imported, the target VSAM file can be treated as one or more logical tables or views.

Join VSAM with Multiple Data Sources

In conjunction with other products in the CONNX suite, you can perform seamless joins between two or more supported disparate databases using ODBC, OLE DB, JDBC, and .NET. CONNX for VSAM access is fast and efficient. With CONNX, a single metadata model can be created that spans all enterprise data sources and applications requiring data access. The result is an enterprise-wide view of data that provides a reusable standards-based framework for information access. To the user or application, data appears as if it existed in a single federated relational database.

SQL and CONNX for VSAM

The CONNX distributed SQL engine reduces the workload placed on the mainframe by performing CPU-intensive operations where the CONNX client resides (Unix, Linux or Windows. i.e., remote desktop, Web and/or application server), while allowing the database engine to perform tasks for which it is best suited.

CONNX supports ANSI SQL (Insert, Update, Select, and Delete); group by, distinct, aggregate (AVG, MIN, MAX, SUM, and COUNT), and all substring, string, date, conversion, and math functions. Nested inner and outer left/right joins are supported, as well as subqueries and correlated subqueries. CONNX also supports Unions and Insert/Select.

Views

CONNX supports the creation of views, which facilitate hiding table relationships from the end user. CONNX Views facilitate the creation of heterogeneous joins between multiple disparate databases.

Data Conversions

CONNX supports over 400 data types and performs bi-directional data conversions for data updates and retrieves.

Occurs Clauses

The CONNX unique Rotated Array Technology makes manipulation of large arrays simple. CONNX accomplishes this by returning each column of the array as a separate row.

Popular Program Access

As with all databases supported by CONNX, CONNX for VSAM has been tested with Microsoft Access, Microsoft Excel, Microsoft Visual Studio, including Visual Basic/C++, etc., Delphi, PowerBuilder, Impromptu, ReportNET, Lotus Approach, Crystal Reports and vendors such as Cognos and Business Objects. CONNX for VSAM also supports ADO and ASP.NET (Active Server Pages) and JDBC is used with Websphere and Apache Tomcat.

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Security Preserved and Extended

The CONNX CDD provides additional field and table-level encryptable security by group or user, ensuring the security of sensitive information. CONNX also supports row level security with CONNX Views. Additionally, the CONNX Data Dictionary is encrypted to secure sensitive information.

Metadata Import

CONNX for VSAM imports VSAM metadata directly from COBOL copybooks and a CONNX Text Specification file format into a CONNX Data Dictionary file (CDD).

Command Execution

For CICS/VSAM, CONNX provides an RPC (Remote Procedure Call) mechanism that allows remote execution of batch jobs, command procedures and applications from a PC.

Table Redefinition

The CONNX Data Dictionary supports multiple record layouts of the same VSAM file, based on a "record type" field.

Features	Benefits
▶ Federate with other relational, non-relational, networked, hierarchical, object, and flat-file database information through a single, easy-to-use, SQL-based interface. ▶ Data at your fingertips – anything from legacy data to recently added content to application information – anytime, anywhere. ▶ A reusable standards-based framework for information access that drastically lowers the short- and long-term costs usually associated with complex enterprise data solutions.	▶ Boosts productivity and efficiency of end users and application builders by connecting different functions within the enterprise. ▶ Shortens development time on projects using open standards. ▶ Improves time to market. ▶ Provides cost-effectiveness. ▶ Preserves initial investment.
▶ Access from Microsoft Windows, Unix and Linux productivity tools, database applications, and development environments (VB.NET, C# and JDBC) that are used with Websphere, Apache Tomcat.	▶ Enhances flexibility.
▶ Proven scalability, supporting any number of client machines. Compatible with any .NET- ODBC-, OLE DB-, or JDBC-compliant application.	▶ Enables use of open standards interfaces with investment protection. ▶ Minimizes resource utilization. ▶ Utilizes current infrastructures with no additional cost.
▶ Open-platform technology that integrates with existing systems so you can manage them with ease.	▶ Extends the functionality and life of existing architecture. ▶ Preserves investments.
▶ Windows, Unix and Linux client support.	▶ Supports existing IT infrastructure at no additional cost. ▶ Eliminates staff re-training.
▶ Field and record level protection. ▶ Thread-safe support for multi-threaded applications.	▶ Provides maximum levels of data security.
▶ Heterogeneous joins for the creation of reports that consolidate data spanning multiple data sources.	▶ Maintains integrity of data.
▶ Real-time read/write access to VSAM data.	▶ Enhances flexibility.
▶ Multiple views support. ▶ Extensive data type conversion support. ▶ Flexible data format and storage.	▶ Minimizes complexity for end users.
▶ Comes bundled with the CONNX InfoNaut querying and reporting tool that enables users to instantly view their data.	▶ Easy to install and use.

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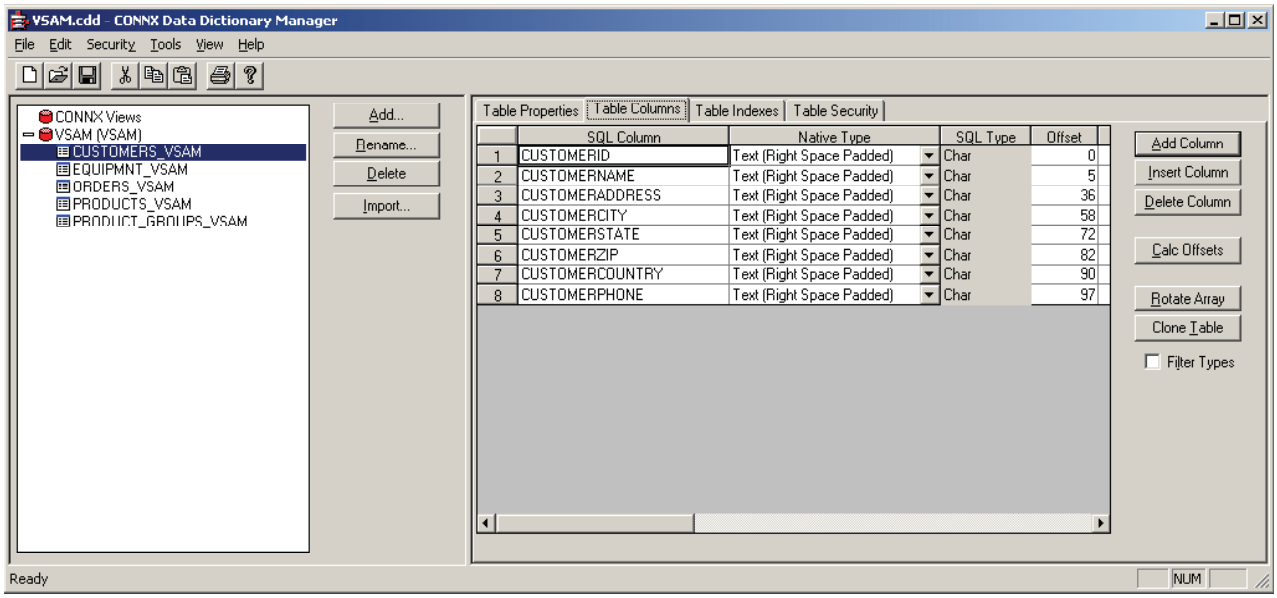
CONNX Data Dictionary Manager



System Requirements

CONNX for VSAM	Operating System	Supported File Types	Network Software	Version/Release
CONNX for CICS/VSAM	z/OS, OS/390 and MVS	VSAM	TCP/IP V3R2 and above	V4R1 or TS 1.x and above
CONNX for VSAM / QSAM / PDS	z/OS, OS/390 and MVS	VSAM / QSAM / PDS	TCP/IP V3R2 and above	N/A
CICS/VSE	VSE 2.3 and above	VSE	TCP/IP (CSI / IBM) or Barnard TCP/IP Stack	V2R3 and above (since 1976)
CICS/TS	VSE 2.4 and above	VSE	TCP/IP (CSI / IBM) or Barnard TCP/IP Stack	TS 1.1.1 and above (since 1995)

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