



## **SQData® V1R3 Enterprise Information Integration Product Overview**

SQData version 1, release 3 (V1R3) is a high performance, multi-purpose data management product that streamlines the process of transforming, migrating and integrating corporate information. SQData's strengths lie in its versatility, seamless cross-platform operation and wide range of supported data formats, enabling maximum productivity in a short time frame.

### **Benefits**

The value that can be realized with SQData includes:

- A comprehensive tool that can be used to address multiple business issues including application integration, data conversions and data extraction / transformation / loading (ETL) against wide-range of databases/files across multiple operating system instances.
- Lower deployment costs that can be realized by reducing the labor resources and the number of components required to implement data migration and/or application integration solutions.
- Faster delivery times that can be achieved through the elimination of custom programming.
- Improved accuracy and consistency through the use of a common interface and component architecture.

### **SQData V1R3 Product Highlights**

A few of the features of SQData version 1, release 3 include:

- A powerful scripting language that virtually eliminates the need for custom developed 'exits' in order to perform advanced data manipulation, transformation and cleansing.
- Over 100 built-in functions that simplify data transformation, formatting and movement.
- Extensive XML data support including the bi-directional translation of relational and non-relational data to/from XML format.
- Near-real-time data propagation from IMS to any SQData supported database/file format on any supported operating system platform.
- High performance operation in and between multiple platforms including OS/390, z/OS, UNIX, Windows 2000/XP Server, Linux and OS/400 (iSeries).
- Read/update support for numerous mainframe data/file formats including IMS, DB2, VSAM and flat files. Support for additional non-IBM relational and non-relational databases are planned for future releases.
- Native read/update support for the DB2 UDB and Oracle database management systems in the UNIX and Windows environments. Support for other relational databases such as SQL Server, Informix, MS Access and Sybase is provided through a standard ODBC protocol.
- MQSeries (Websphere MQ Messaging) support to ensure reliable data delivery between operating system platforms, enabling SQData to become an integral component of an application integration framework.
- The ability to 'join' heterogeneous databases/files (i.e. IMS and DB2), which facilitates the consolidation of information between different applications.
- Advanced array handling for databases/files containing multi-level repeating groups/occurs.
- Data extraction, transformation, and loading (ETL) of conventional and XML formatted data.
- The ability to update multiple target databases/files from a single source.

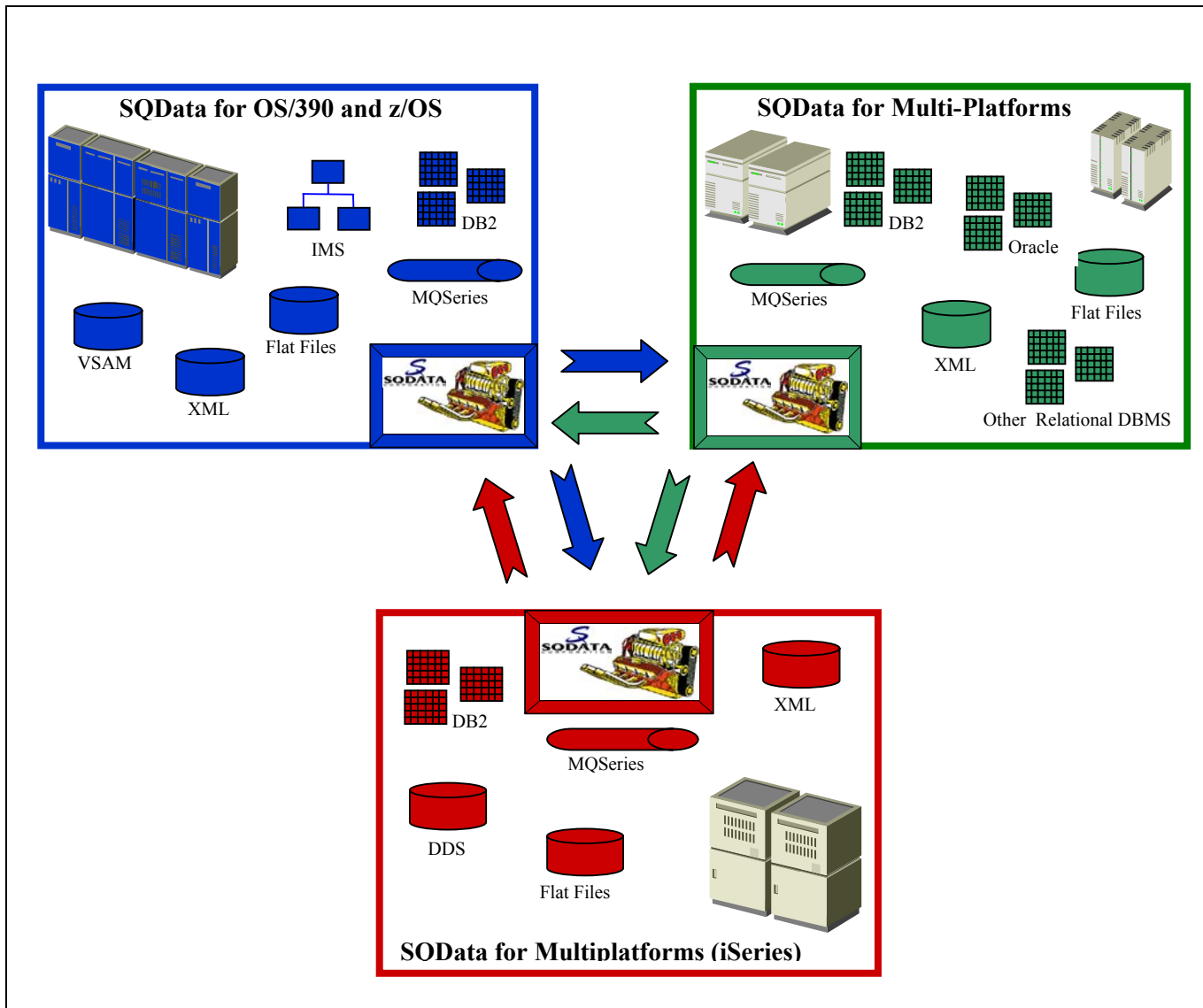
## SQData Product Family

The SQData Enterprise Information Integration product family provides comprehensive coverage for processing a wide-variety of databases/files on multiple operating system platforms.

- ✓ **SQData for OS/390 and z/OS:** mainframe legacy databases/files.
- ✓ **SQData for Multiplatforms:** distributed databases/files on UNIX, Linux and Windows platforms.
- ✓ **SQData for Multiplatforms (iSeries):** Midrange OS/400 (iSeries) databases/files.

\*\* Note: SQData for Multiplatforms includes support for the UNIX, Linux, Windows and OS/400 (iSeries) operating systems.

Each of these SQData components has been built to function seamlessly with each other across environments providing the consistency and reliability that is expected in an enterprise integration tool.





## **Data Propagation Solutions**

SQData supports data propagation for both IMS and DB2 on the OS/390 and z/OS platforms and for DB2 UDB, Oracle and other relational databases on the distributed platforms (UNIX, Linux, Windows). Data can be propagated to any SQData supported database/file format on any SQData supported operating system platform.

### **Data Propagation Highlights**

#### **IMS Data Propagation (OS/390 and z/OS platforms)**

- ✓ Near-real-time mode through a high-performance IMS change data capture (CDC) component.
- ✓ Asynchronously through the SQData transaction log processor component.

#### **DB2 Data Propagation (all supported platforms)**

- ✓ Enabled through IBM's DataPropagator Relational (DPropR) capture component by combining SQData's apply support for a wide-variety of database/file formats and the power of DPropR capture.
- ✓ User Defined Function (UDF) triggers on the source DB2 tables, which allow for the capture of changed DB2 data into MQSeries queues in a near-real-time manner.

#### **Relational Database Propagation (other than DB2)**

Performed through the use of triggers on the source tables that update staging tables within a unit-of-work. SQData's Active Listener component reads the changed data from the staging tables and sends the data through the SQData Integration Engine, which applies the changes to any supported database/file format.

#### **SQData "Smart Apply" Technology**

Ensures that older data does not overlay more recent updates. This feature allows for less dependence on the time of full data extracts within a data propagation framework.

#### **SQData "Power Loader" Component**

Dramatically speeds up the process of performing full data extracts of source legacy databases prior to activating changed data propagation. The SQData Power Loader enables the loading of distributed UNIX relational databases (i.e. DB2 UDB, Oracle, SQL Server, etc.) from mainframe legacy source data without having to 'land' the extracted data on the UNIX instance prior to invoking the database load utility.

## **SQData V1R3 - Functional Capability Overview**

### **General Capabilities**

- Concurrent operation across multiple operating system platforms
- Simultaneous multi-record type file handling
- Multi-level array handling (repeating groups) of source data store records/rows
- Conditional logic control during execution
- Dynamic lookup table processing
- Support for data transfer and communication using TCP/IP and MQSeries
- Preservation of referential integrity (RI) rules on target updates
- Joins / Merges of heterogeneous databases/files

### **Data Transformation Capabilities**

- XML data formatting
- Arithmetic functions (add, subtract, multiply, etc.)
- Aggregation functions (sum, min, max, abs, etc.)
- Data type conversions (packed decimal to integer, integer to zoned decimal, etc.)
- String searches
- String concatenation
- Data filtering
- If / Else logic

### **Database/File (data store) Processing Capabilities**

- High performance bulk data transfer
- Concurrent processing of multiple data store types
- Creation of target data stores from source data store format
- Insert / append to existing target data stores
- Update / replace existing target data stores
- Delete from existing target data stores
- New column / field creation

## SQData V1R3 - Technical Specifications

Supported Operating Systems	SQData for OS/390 and z/OS	SQData for Multi-Platforms
<b>OS/390</b>	<b>X</b>	
<b>Z/OS</b>	<b>X</b>	
<b>AIX</b>		<b>X</b>
<b>Solaris</b>		<b>X</b>
<b>HP-UX</b>		<b>X</b>
<b>Linux</b>		<b>X</b>
<b>Windows 2000/XP</b>		<b>X</b>
<b>OS/400</b>		<b>X</b>

Supported Database/File Formats	SQData for OS/390 and z/OS	SQData for Multi-Platforms
<b>IMS</b>	<b>X</b>	
<b>IMS Unload Utility Format</b>	<b>X</b>	<b>X</b>
<b>DB2 (native support)</b>	<b>X</b>	<b>X</b>
<b>DB2 Unload Utility Format</b>	<b>X</b>	<b>X</b>
<b>VSAM</b>	<b>X</b>	
<b>MOSeries</b>	<b>X</b>	<b>X</b>
<b>XML</b>	<b>X</b>	<b>X</b>
<b>Oracle (native support)</b>		<b>X</b>
<b>ODBC - SOL Server, Informix, Sybase, etc)</b>		<b>X</b>
<b>DDS (OS/400 – iSeries)</b>		<b>X</b>
<b>Flat Files (fixed, delimited, multi-red)</b>	<b>X</b>	<b>X</b>
<b>SQData IMS Propagated Data Format</b>	<b>X</b>	<b>X</b>

Supported Data Structures	SQData for OS/390 and z/OS	SQData for Multi-Platforms
<b>COBOL Copybooks</b>	<b>X</b>	<b>X</b>
<b>XML Document Type Definitions (DTD)</b>	<b>X</b>	<b>X</b>
<b>C/C++ Headers</b>	<b>X</b>	<b>X</b>
<b>Relational Data Definition Language (DDL)</b>	<b>X</b>	<b>X</b>
<b>Relational DBMS Catalogs (direct)</b>	<b>X</b>	<b>X</b>

### For more information about SQData V1R3

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