

Relativity: Real-Time Access to Relational Data

Relativity enhances the data processing capabilities of COBOL applications and enables business users and developers to take full advantage of modern analytics and reporting tools by presenting COBOL data as a relational data source. This solution delivers the benefits of relational database access to COBOL applications by making COBOL data files available to virtually any ODBC or JDBC enabled toolset, such as Microsoft Excel. Relativity provides the performance of COBOL data files with the flexibility of RDBMS access—all without code or application infrastructure change.

Relativity at a Glance:

- + *Create custom user-defined reports for business and technical audiences*
- + *Analyze data using Crystal Reports, Microsoft Access, Microsoft Excel or virtually any ODBC or JDBC enabled reporting tool*
- + *Access and integrate with data using Java, C#, VB.NET and C++ languages*
- + *Deliver secure, real-time data access and analytics for data warehousing, ETL, business intelligence and data archival needs*

Business Challenge

Solving the legacy data access problem is not easy for most organizations. As the importance of data access increases, driven largely by the digital transformation of business, IT teams must provide new secure, reliable and standards-based methods of access to this valuable information. But, not all approaches to unlocking legacy data access are the same. Some vendor solutions offer developers and business users a conversion strategy, serving up a snapshot of the data into an approximation within a relational database. Other data access approaches utilize gateway technologies acting as the 'middle man' between legacy data storage systems (VSAM) and ODBC-aware applications. In these instances, these approaches are merely ODBC drivers for one or more file access methods, but most importantly, they haven't addressed the core challenge—the data, itself, is not relational. As a result, the power and utility of SQL and RDBMS are never realized for business users or developers.

The Solution

Relativity is designed to address the business need for relational data access. Architected

not as a generic "driver," but as a COBOL-specific database engine, this unique solution handles all COBOL data types and structures, and provides a mapping capability of COBOL record areas into one or more truly relational entities. The Relativity engine is powered by COBOL language-centric SQL access technology, which nearly any COBOL application data file can be represented by well normalized relational tables. This capability, along with Relativity's ODBC and JDBC interface means that the full power of SQL and ODBC are available to end users of modern business intelligence, analytics and data reporting tools.

The following are key capabilities of the Relativity solution:

- **Faster access to business data.** Provide developers with easy-to-use design tools and instantly create relational table views of COBOL records. Once the tables are defined, business users can immediately connect modern reporting tools, such as Microsoft Excel, which see the COBOL files as just another relational data source.
- **No code changes.** Because Relativity works with your existing COBOL data files, there's no need to re-architect or change your application code.

“Our customers love that they don’t have to rely on development to build their reports, but instead can run custom reports which help them run their business. It saves time and has given us a real value-add.”

TOM VINCENT
President
Geneva Software Co.

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- **Unlock your application data.** Relativity unlocks your COBOL data files and provides secure and standards based access to virtually any ODBC or JDBC tool or application providing users or programs a path to consume COBOL data and enable multiple integration points with your application.
- **Real-time data access.** Deliver SQL-based, relational data access to COBOL data files. The end user sees exactly the same data at exactly the same time as the COBOL application.
- **Data modernization made easy.** Provide a fast and simple approach to data modernization with minimal impact to the existing application architecture

Key Features

DBMS CONFIGURATIONS

Relativity offers two configurations: a single-tier architecture for use on Windows desktops where application data is contained locally and a two-tier Data Server for applications that maintain COBOL data on one or more server or mainframe host systems. In both cases, the same Windows-based Relativity Designer is used to define the relational database model that will be seen by end users.

RELATIVITY DESIGNER

The Relativity Designer is a graphical Windows tool that assists the developer in creating a mapping between the records and fields within a COBOL data file to the tables and columns

of a relational data source. The tool can support advanced needs such as mapping multiple tables against a single file, managing multiple record types and repeating COBOL data found in OCCURS fields. Relativity Designer can also be used to denote special fields, such as those in a COBOL record that comprise a date value and should be treated as a single data field by an ODBC client.

RELATIVITY DBA

The Relativity DBA is an admin tool used by the Database Administrator to assign user names and passwords to those requiring access to the Relativity toolset. These security features can be used to restrict access to the COBOL data. The Relativity DBA provides the ability to create a group of users, to describe the tables and columns that the group may access, and how they may access the tables and columns such as the ability only to read them. The Micro Focus® *extend*® portfolio offers a similar relational data access solution for ACUCOBOL applications—AcuXDBC. For more information, please see the AcuXDBC datasheet.

OTHER DATA MODERNIZATION SOLUTIONS

Where Relativity is designed to provide relational data access to underlying COBOL data files, Micro Focus Database Connectors enable you to store data within an RDBMS such as Microsoft SQL Server, Oracle or IBM DB2. Database Connectors minimize the effort required to change application source code by automatically translating COBOL file IO operations into SQL instructions.



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