Reality
Interoperability Features

Introduction

Reality delivers comprehensive interoperability options to enable the integration with other environments. Whether accessing data held in Reality from external applications or accessing data from other data sources, Reality has a solution.

Relational Access to Reality Data

Accessing Reality data from external sources is simple and straightforward using its powerful SQL (Structured Query Language) interface via ODBC[*1] or JDBC[*2]. This enables the use of relational applications accessing Reality Data, with full read and write capabilities in a secure environment, while transparently mapping relational data to MultiValue. The capabilities of Reality are such that it is used as a full relational database in its own right, often outperforming current relational market leaders.

Transparent Access to External Data Sources

Reality integrates with data from other external data sources and provides a transparent bridge between applications using the following technologies...

Remote Q/Pointers: allow files on other Reality databases to be transparently accessed.

SQL-VIEW: tables on remote relational databases are presented as MultiValue files within Reality, allowing direct read and write access.

DIR-VIEW: allows platform host files external to Reality to be mapped as Reality files, giving transparent access from applications.

CSV-VIEW: delimited text files such as CSV (comma separated values) are presented as Reality files, removing the need for bespoke code to access them – including updating.

Web Pages from English: generated directly from reporting, without the need for programming or external products.

Foreign Database Support: enables Reality to use any ODBC compliant database as its underlying data store. This allows deployment across other relational databases, without any application change.

Sequential File Access: provides straightforward but high performance access to large files, allowing files of any size to be accessed – including appending data.

XML Parser: can easily extract information from XML documents with simple to define queries using native extraction routines. With the generate routines you can incorporate MultiValue data into XML documents using simple templates. The Reality high performance XML parser is written in C and accessed from DataBasic for superior performance – faster than any solely DataBasic-based XML solution.

Share DataBasic with other Environments

Web Services: Reality deploys Northgate's Web Services Framework to expose and publish existing DataBasic subroutines as Web Services. This provides benefits such as the ability to provide application access across different machine types, an intranet and the Internet. You can integrate disparate applications with ease and allow seamless integration for GUI applications. Web Services enables you to communicate with any language including JAVA, the Microsoft suite via .net (Office, VB, C#...) and many others whilst remaining platform independent. Refer to Product Datasheet *Reality Web Services*.

JReal: enables you to instantiate a DataBasic Subroutine as a JAVA class, allowing developers access to current technology including access to vast toolset libraries. Coupled with this is the ability to access Reality MultiValue data directly from JAVA.

RealWeb: DataBasic programmers can produce web-based applications with little knowledge of HTML. Applications are deployed on the Web using existing programming resources. RealWeb extends DataBasic to provide a comprehensive set of functions to build static and dynamic Web pages. It exposes the resulting DataBasic subroutine to the Web by a unique URL. The DataBasic subroutine is invoked when the URL is accessed and the RealWeb functionality is used to return the constructed web page. Refer to Product Datasheet *Reality RealWeb*.

ActiveX: Applications can efficiently call DataBasic subroutines from any supporting environment – e.g. .NET, C++, C#, Visual Basic, Office VBA, Delphi...
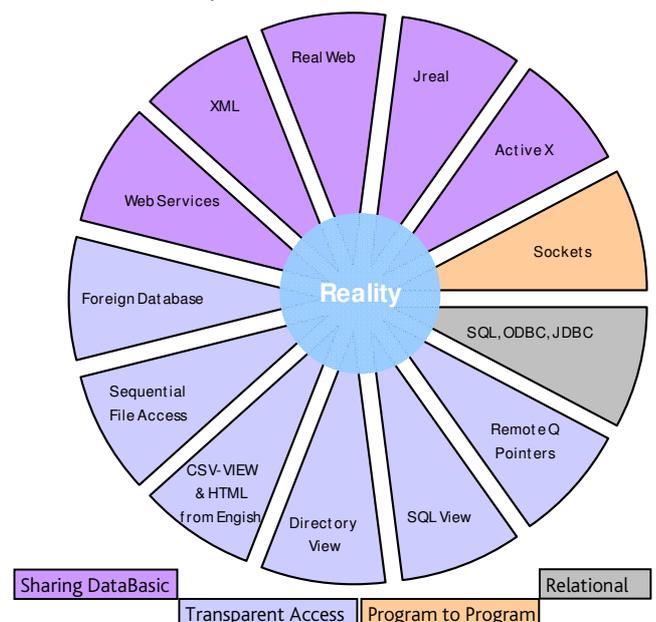
Program to Program Connections

Reality offers high performance program-to-program connectivity via TCP/IP sockets. This allows DataBasic programs to communicate with virtually all programming languages, including other DataBasic programs, either locally or across intranets and the Internet.

This allows easy connection to once difficult interfaces without third-party components, e.g. it is now a simple task to generate and send an email from within the Reality environment.

Notes[*]

1. ODBC – Open Database Connectivity
    A standard for accessing different SQL-based database systems.

2. JDBC –Java Database Connectivity
    Part of the Java Development Kit which defines an application programming interface for Java for standard SQL access to databases from Java programs.

Refer to http://www.opengroup.org/
A consortium of international computer vendors that was founded in 1984 to resolve standards issues. Incorporated in 1987 and based in London, X/Open merged with the Open Software Foundation in 1996 to become The Open Group.