

# Reality V14

## Key Enhanced Features

### Introduction

Welcome to your **new Reality** by Northgate Information Solutions. A MultiValue SQL-enabled Data Management System designed to help your organization run effectively. Reality's key aim is to maximize existing technologies while ensuring that customer needs are met, now and in the future. Reality V14.0 provides the following significant new features:

### Key Features

- **Safe & Secure**
  - Data Encryption at Rest
  - Enhanced Disaster Recovery – RealityDR
- **Interoperability**
  - English generated Web Pages
  - Improved ActiveX Interface enabling '.NET' integration
- **Performance**
  - Configurable Database internal frame size
  - Real-time auto File Sizing
  - Non-fragmenting multi-stream Account Restore
  - Increased Transaction Log sizes
- **MultiValue Compatibility**
  - Simulates other MV platforms
  - Enhanced DataBasic functionality
- **Reality Environment**
  - ANALYZE "user process" command
  - New TCL Logger
  - Optionally exclude files from transaction boundaries
  - Additional platform support

### Safe & Secure

The majority of data security spending is used to protect the infrastructure and individual devices, as opposed to protecting the data itself. These efforts may ignore the fact that perimeter defenses such as firewalls cannot protect data from internal threats and externally by unauthorized access to an organization's infrastructure. Data has always needed to be kept safe, now it also needs to be secure.

Businesses, governments and other organizations are becoming increasingly aware of the need to protect data against unauthorized access from both external and internal sources. Also the global rise of 'Identity theft' and recent legislation, such as the Health Insurance Portability and Accountability Act (HIPAA) in the USA, has made data security an issue which can no longer be ignored.

### Data Encryption at Rest

Reality has addressed the secure data concerns with its new 'Data Encryption at Rest' feature. This refers to all data stored in computer storage, both for on-line access and off-line data archiving. Reality V14.0 offers several new encryption components to meet these needs which are summarized below.

#### Fully Encrypted Files:

When a file is created it can be identified as encrypted with access determined within a user's profile. All data types (including binary) will be encrypted when written and decrypted when read back, with this being transparent to the user or underlying application.

#### Encrypted Data in Reality Indexes:

Any indexes that refer to encrypted data are themselves encrypted to ensure that the data remains hidden to unauthorized access.

#### Save/Restore of Encrypted Files:

Reality's utilities save all items 'as is', any encrypted data will not be decrypted prior to writing to media, similarly restore utilities restore data 'as is', any encrypted data will remain encrypted.

#### Encrypted Data on Portable Media:

All Reality tape devices and images allow for an encryption option which causes data written to use a specified key for data export. The data can only be decrypted and read with access to this key, thus allowing it to be transported and stored securely.

#### Enhanced DataBasic ENCRYPT and DECRYPT:

Enhanced versions of the existing DataBasic commands allow the use of the new encryption feature.

#### Secure Management of Encryption Keys:

Data Encryption is based on keys that encrypt and decrypt data. These user defined keys are held securely within Reality and are referenced by name within a user's profile. Utilities are provided to securely manage and archive encryption keys, with DES (Data Encryption Standard), CBC (Cipher Block Chaining) and triple-DES currently supported.

# Key Enhanced Features

## Safe & Secure... continued

### Enhanced Disaster Recovery - RealityDR\*

Reality V14.0 Disaster Recovery (DR) capability provides an unattended mechanism for synchronizing standalone or Failsafe Databases to a separate remote System. Significantly, this can operate over a slow or intermittent communications link. RealityDR is fully integrated into the resilience management utilities, simplifying the configuration and day-to-day tasks.

Key Features include:

- Auto starts from System boot
- Unattended operation
- Auto recovery from network interruptions
- Continuous synchronization up to the last completed transaction
- Operates over a slow or intermittent network
- Simple to use configuration utility

## Interoperability

### Web Pages generated from English

Reality V14.0 can generate HTML Web Pages directly from English without the need for programmer or third party product intervention, enabling greater efficiencies for business reporting.

### New ActiveX Interface

The ActiveX interface delivered with Reality V14.0 enables Windows applications written in environments such as .NET, 'C', VBA and Visual Basic to efficiently call individual DataBasic subroutines remotely.

## Performance

### Configurable Database Frame Size

Reality V14.0 now supports frame sizes of (1, 2, 4 or 8 KB) to achieve optimum application performance. Statistics are generated to assist choosing the frame size required.

### Auto File Sizing

Auto File Sizing is now set by default to deliver optimal performance with no administrative overhead.

### Multi-stream Account Restore

The multi-stream restore process has been optimized to reduce disk fragmentation, thus significantly improving the performance of the restored database.

### Increased Transaction Log Sizes

Reality V14.0 increases each individual transaction log size from 2GB to 200GB or 4 billion individual transactions, whichever occurs first – thus reducing the total cost of ownership.

\* Note:

RealityDR is a chargeable optional resilience feature.

Reality Encryption:

This product includes software developed by Eric Young (eay@cryptsoft.com)

## MultiValue Compatibility

Reality V14.0 further simplifies and eases migration from other MV platform environments:

### Simulate MV platforms

- Options and definable MV Environment configurations can change the behavior of English, DataBasic, TCL, Proc and other runtime areas
- New TCL stacker which is capable of emulating other MV environments

### Key DataBasic Enhancements

- DataBasic EQU to statements
- DataBasic functions and statements – RAISE, LOWER, SORT, COMPARE, PAUSE and WAKE
- Improved error handling within the DataBasic compiler ... plus numerous other enhancements

## Reality Environment

### ANALYZE "user process" Command

Key information about a user process can now be presented together; e.g. System and DataBasic run status, return stacks and lock contention.

### New TCL Logger

Reality V14.0 satisfies the new demands in security auditing and support capabilities. This new feature logs user activity across configured databases enabling:

- Logging and monitoring of user activity at TCL
- View or run all user TCL history, including program invoked commands

## Supported Platforms

### UNIX

SUN SPARC running Solaris 8, 9 or 10.

IBM pSeries (RS 6000), running AIX 5.2 & 5.3.

### Linux

Intel Pentium processor or equivalent running:

Red Hat Linux 7.2, 9, ES/AS 2.1/3, ES4, or ES3(64bit).

### Windows

Intel Pentium processor or equivalent running:

2000 +SP1 or greater (Professional or Server).

Server 2003.

XP +SP2 or greater (Home or Professional) and Vista.

### Advanced HTML User Documentation:

Viewable from the Reality CD image or installed on any File or Web Server, including the built in mini Web Server.

### Evaluation Product:

A download or CD set is available for evaluation purposes from the dedicated Reality Website, refer to the below.

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