



Reality Solutions

V9.1

Release Information

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Introduction

Reality is a software environment that supports multiple databases on a single host and includes a range of powerful utilities for building, managing and accessing the databases.

The release information in this document applies to Reality Solutions V9.1 for UNIX and Windows. Reality V9.1 adds support for more platforms and environments and enhanced compatibility with similar database systems. You can also install an evaluation version with a limited number of users. Faults reported since Production Release of Reality V9.0 have been resolved. See [New Features in Reality V9.1](#) and [Fault Resolutions](#) for more details.

Included on the Reality Solutions CD are:

- The Reality database software.
- User Documentation
- UNIX-Connect – networking software that provides communications between Reality databases and between Reality and host system environments.
- Reality Remote Tape – server software that allows a Reality host to use tape units on remote systems.
- PCSNI – client software that allows communication between a PC and a Reality database.
- JReal – client software that provides the Java programmer with the ability to run Remote Basic subroutines and to write custom servlets to access a Reality database via RealWeb.
- Reality Explorer – client software that plugs in to Windows Explorer to provide a graphical view of a Reality database.
- RealWeb – client software that provides a Web developer with DataBasic experience with access to data held in a Reality database.
- RealSQL-JDBC Driver – client software that provides a standard API for Java applications, applets and servlets using SQL to access data.
- RealSQL-ODBC Driver – client software that allows PC applications to access data using SQL.
- WinSQLM – client software that assists in creating SQL tables based on existing Reality dictionary definitions.
- Reality and RealWeb demonstration software.

This version of the software supersedes all previously released versions. Northgate policy is to withdraw support for previous versions six months after a new release. The

relevant date for this software can be obtained from your Northgate representative or the Northgate web site, www.northgate-is.com.

Related Documents

Reality is supplied with comprehensive on-line documentation for viewing in a web browser. Printed manuals are also available. Refer to the [Document Directory](#) in the on-line documentation for details.

Packaging

All of the software comprising this release is supplied on the installation CD, with electronic versions of all documents (including this one).

The installation CD contains the following components.

Software	Version
PDS History Tool	V9.1
Reality	V9.1
User Documentation	V9.1
UNIX-Connect	V1.4.1
Reality Remote Tape	V9.1
Reality Explorer (client)	V1.0.1
Reality Explorer Help (client)	V1.0
PCSNI (client)	V2.3.1
JReal (client)	V3.1
RealSQL-JDBC Driver (client)	V1.0
RealSQL-ODBC Driver (client)	V2.3.1
RealWeb HTML (client)	V3.0
RealWeb Servlets (client)	V3.1
WinSQLM (client)	V2.0
Reality Demonstration	V1.0
RealWeb Demonstration	V1.0
WinSNI Configuration Editor (client)	V1.0
RealEdit (client)	T1.0

Prerequisites

Reality on UNIX

- One of the following:
 - SUN Sparc running Solaris 2.6, 7 (2.7) or 8 (2.8).
 - IBM P Series (RS 6000), running AIX 4.3.3 & 5L.
 - Hewlett Packard PA-RISC running HP-UX 11i.
 - PC with Intel Pentium processor or equivalent running Red Hat Linux 7.2.

Note: Support for DGUX on Motorola M88K and Intel has been discontinued.
- 128Mb minimum (512Mb recommended, 2-6Mb per Reality User). See also [Memory](#) on page 8.
- 500 Mb of available space to accommodate setup (actual hard disk used once installed will be between 220Mb and about 350Mb, depending on the system components installed).
- Korn shell.
- Perl – this is supplied with AIX, HP-UX and Linux (on HP-UX some configuration is necessary – contact Northgate for details). On Solaris, Perl is installed when you install Reality.
- UNIX-Connect for networking (supplied on Reality Solutions CD).

Note: UNIX-Connect is not available on Linux.
- Northgate Customisation (a CD is available for SUN – for other operating systems, contact Northgate).
- C compiler (on Solaris, if a C compiler is not available you can install the GNU C Compiler from the Northgate Customisation CD).

UNIX-Connect

'rosi' UNIX user id with a home directory on a file system with at least 25 Mbytes free.

Reality on Windows

- PC with Intel Pentium processor or equivalent, 200MHz or faster, running Windows NT 4.0 SP3+, 2000 SP1+, XP Home Edition or XP Professional Edition

Note: Reality is not available for Windows 95, 98, 98 SE or ME, though many of the client components can be installed on these operating systems (refer to the [Reality Client Components, Installation Guide](#) for details).

- 64Mb RAM minimum (128Mb recommended, 2-6Mb per Reality User). See also [Memory](#) below.
- 500Mb of available disk space to accommodate setup (actual hard disk used once installed will be between 150Mb and about 350Mb, depending on the system components installed).

It is recommended that Reality is installed on an NTFS partition.

- The Reality database can be loaded on to a Primary Domain Controller, Backup Domain Controller, stand-alone member server or WorkStation.
- Northgate can take no responsibility for the processor and memory requirements of other applications running on a Windows server. Ideally, Reality should be loaded on a dedicated server.
- Reality backup and restore is supported on 4mm, 8mm and DLT tape units.
- Using at least a dual processor system is highly recommended.

Memory

Reality memory usage is difficult to predict, but as a rough sizing guide use 128Mb for the system and then 2Mb to 6Mb per user, depending on type of user and application. Performance problems are generally caused by lack of memory. If the server is not dedicated to Reality then other application memory requirements must be added to this.

Client Components

RealWeb

- A web server with support for Java servlets. (This can be on the same system as the Reality database or on another system.) On web servers that do not support servlets, plug-ins can be used to add servlet support.
- Java Run Time Environment (JRE) version 1.2 or above. If this is not available, it can be downloaded from <http://java.sun.com/j2se/>.
- If you are connecting to a Reality database on a UNIX host, the host will require UNIX-Connect.

RealSQL-JDBC Driver

- Java Run Time Environment (JRE) version 1.2 or above. If this is not available, it can be downloaded from <http://java.sun.com/j2se/>.
- If you are connecting to a Reality database on a UNIX host, the host will require UNIX-Connect.

Reality Explorer

- Microsoft Windows 98, ME, NT4.0, 2000 or XP (Home or Professional).
- Northgate PCSNI software V2.2 Rev C or later.
- A Winsock compliant TCP/IP transport stack for TCP/IP connections.

- If you are connecting to a Reality database on a UNIX host, the host will require UNIX-Connect.

RealSQL-ODBC Driver

- Microsoft Windows 95, 98, ME, NT4.0, 2000 or XP (Home or Professional).
- Northgate PCSNI software V2.2 Rev C or later.
- Any ODBC Level 1 or 2 compliant application.
- A Winsock compliant TCP/IP transport stack for TCP/IP connections.
- If you are connecting to a Reality database on a UNIX host, the host will require UNIX-Connect.

The PC applications and transport stacks use large amounts of memory. It is therefore essential that PCs running this package are configured for the optimum use of memory, otherwise it is possible that GPFs and other memory type errors will occur.

WinSQLM

- Microsoft Windows 95, 98, ME, NT4.0, 2000 or XP (Home or Professional).
- Northgate PCSNI software V2.2 Rev C or later.
- A Winsock compliant TCP/IP transport stack for TCP/IP connections.
- If you are connecting to a Reality database on a UNIX host, the host will require UNIX-Connect.

Remote Tape Server

Any UNIX or Windows system that supports Reality.

Online Documentation

The on-line documentation can be installed on a web or file server, or on individual PCs running Windows 95, 98, ME, NT4.0, 2000 or XP. On Windows systems, they can also be viewed from the Reality Solutions CD.

To view the on-line documentation you will require one of the following web browsers:

- Internet Explorer 5 or above, OR
- Netscape 6 or above.

Internet Explorer is recommended.

New Features in Reality V9.1

Platform Certifications/Ports

In addition to those platforms supported by Reality V9.0, Reality V9.1 has been certified for use on the following:

Unix

- IBM P Series (RS 6000), running AIX 4.3.3 & 5L.
- Hewlett Packard PA-RISC running HP-UX 11i.
- PC with Intel Pentium processor or equivalent running Red Hat Linux 7.2. This is a limited port, providing core database functions only – see [Functionality/Features Restrictions](#) on page 12 for details.

Support for DGUX on Motorola M88K and Intel has been discontinued.

Windows

PC with Intel Pentium processor or equivalent, running Windows XP (Home or Professional).

Evaluation Installation

You can now choose between an evaluation version or the full version of Reality.

- If you choose the evaluation version, you will be limited to 3 concurrent users. You do not need any software keys for this option. If you wish to carry out performance/stress testing, you can increase the number of users for a 30-day period by registering with Northgate Information Solutions (via the Northgate web site – www.northgate-is.com).

Note: If you are running the evaluation version of Reality, the TCL colon prompt will be prefixed by the text “Eval”.

- If you choose the full version, you will need software keys to enable Reality.

You can also install Reality and RealWeb demonstration programs.

Compatibility Enhancements

The following enhancements improve compatibility with other MultiValue systems:

- The [ACCOUNT-RESTORE](#) and [M-A-R](#) commands now recognise additional save formats.
- An alternative [file-specifier](#) syntax is available, using commas to separate the various elements:

`{file-modifier} {account,}filename{,data-section-name}`

- The DataBasic *EQUATE* statement can now define an identifier more than once, provided it is always set to the same value or expression.
- Both forms of the DataBasic *LOCATE* statement now accept a *start#* parameter.
- The *MultiValue* syntax for the DataBasic *INCLUDE* statement (**INCLUDE** *filespec itemname*) is now accepted by the BLIST verb.
- A new DataBasic statement, *\$OPTIONS*, allows you to mark a code module for compatibility with other MultiValue systems. Refer to *Appendix J* of the *DataBasic Reference Manual* for details of the statements and functions affected.
- New DataBasic functions *DTX* and *XTD* are available to convert decimal to hexadecimal and vice versa.

Other New Features

The *MAKE-SPECIAL* command now allows you to create a special file containing a view of the Reality licence and connection counts.

Functionality/Features Restrictions

All Versions

FILE-SAVEs taken from databases running with Reality 8.1 and above and using the new hashing algorithm cannot directly be restored on an earlier release of RealityX or on Series 19/18 proprietary hardware. A special form of file save can be used for backwards compatibility.

The TANDEM and ALLOW-TANDEM verbs are currently only supported on Solaris.

Heartbeat

Heartbeat is only available on Sun Sparc systems.

Linux

Reality for Linux is a limited port, providing core database functions only. The following features are not available:

- Remote Tape.
- UNIX-Connect.
- Remote file access.
- DDA terminal interface.
- Remote client server.
- PLID handling.
- Remote Basic.
- RealWeb.
- SQL (ODBC and JDBC).
- Failsafe
- Heartbeat.

Windows

1. End of tape handling is not supported for any form of file save. If the database cannot be fitted onto one reel, DBSAVE must be used.
2. 1/2" tapes are not supported.
3. LOGTO can only log to another REALITY account. It is not possible to LOGTO a UNIX or DOS shell.

Fault Resolutions

Reality Solutions V9.1 includes resolutions of the following customer-reported faults, which have been reported since Production Release of Reality V9.0:

Fault Number	Description
---	Incorrect primary key creation in SQLM.
---	ODBC driver: Cannot insert a new row using the OLE DB control in VB6.0.
---	ODBC driver: If Reality is defined as a source for data transformation services (that is, a connection item) on Microsoft SQL Server, manually creating the source results in a memory violation error.
---	ODBC driver: If an application inserts multiple rows of data using parameterised data, an error is reported during a call to SendParam.
---	ODBC driver: Transferring BIT fields as data-at-exec parameters fails.
48641	MOVE-FILE from target account with retrieval locks fails.
48700	mklog -t doesn't create a populated file of a given size.
48710	Cannot Quit from Table Creation in SQLM.
48711	Conflict occurs when Updating SQLM Column Definitions.
48713	SQL indexes defined incorrectly.
48723	In Reality Explorer, copying a large number of item results in a memory allocation failure when the copy object is created.
48731	SQLM does not prompt for attribute 0 data.
48733	TL Autoswitch functionality is incorrect.
48734	List of Dictionary items, columns too narrow, need to be increased.
48736	The default index definition IID needs to be updated when Primary Keys are altered.
48737	Attributes 6,7 and 16 are not given default column values.
48738	Index definitions are not processed correctly by SQLM.
48739	SQLTABLES are not updated when a column Primary Key field is changed.
48740	Complex Primary Keys are not generated during SQLM automatic table generation.
48742	Reality explorer has a memory leak.
48743	In Reality Explorer, the keyboard focus on the FILECREATE and RENAME dialog boxes is incorrect. The cursor flashes in the edit box, but typed characters are not inserted into the edit box.
48745	When using Reality Explorer in Windows 98 or 2000, multiple Reality server sessions are started if the user open a database with the right-hand pane still displaying non-reality files; for example, the 'C' drive.
48750	Forward Link Zero (error 5) when using 'S' in DataBasic debugger.

Fault Number	Description
48751	Terminal echo is lost when TL is enabled.
48753	Creation of an SQL Column in SQLM does not function correctly.
48754	Problem with WinSQLM.
48755	Problem with WinSQLM.
48756	The ODBC driver fails to extract data from a DATE column when connected to an 8.1D database (returns SQL_ERROR "Restricted data type attribute violation").
48757	Remote Basic Subroutine in WinSQLM fails when retrieving Index information.
48758	Unexpected error message when renaming a file.
48759	Multiplying small fractions gives incorrect result.
48760	Text captured in a RealWeb form cannot contain an '=' sign.
48762	SQL "Special Null Handling" does not work.
48766	RealWeb enhancement.
48767	RealWeb RWA_IMAGE subroutine overwrites the existing contents of the <i>text</i> parameter, instead of appending to it.
48769	RealWeb: Unwanted indents generated for TEXTAREA and PRE sections when placed within HTML tables
48770	RealWeb: Calls to RW_SET_TYPE do not handle unknown types correctly.
48771	RealWeb subroutine RWA_TEXT_AREA appends a LF to the contents of <i>text</i> before tagging them as a Text Area.
48772	Reality Explorer: Clicking on SYSFILES account on the left-hand pane causes an RSC error to be reported.
48773	tlmenu -v forcibly logs off users from live database of shadow pair during replay of clean logs.
48774	Reality Explorer: The 'Paste' and 'Paste Binary' options on the popup menu are always enabled.
48775	DCOUNT corrupts the stack if a null delimiter is used.
48776	Failsafe aborts when trying to debug (Windows).
48777	Auto table generation fails when using multiple files in SQLM.
48778	When creating a new table, SQLM does not offer a default table name.
48780	ACCOUNT-RESTORE stops when trying to overwrite a file with an item.
48781	User exit 90E0 hangs.
48786	Reality Explorer aborts when attempting actions after 'rename' has been performed.
48787	Reality Explorer aborts when trying to expand in tree view.
48789	SQL: SELECT COUNT(*) FROM T1 returns null if the table contains no rows; should return 0.

Fault Number	Description
48790	English: A non-columnar listing of a F code gives BLZ R6 @ 75,261 if the number of columns displayed is greater then the item id.
48792	Opening partition fails when using telnet/realweb access to database using WindowsXP NTFS.
48794	'Release Information' hot spot on CD startup screen fails; RelInfo.pdb unreadable.
48795	dbsave doesn't recognise that tape device storage capacity is insufficient.
48796	T-LOAD can corrupt a partition database when the database becomes full.
48797	T-VERIFY aborts into RDB with a hardware stack overrun problem.
48799	ACCOUNT-RESTORE * (O with trailing spaces fails to restore existing accounts.
48800	Mini web server fails to find default web page.
84206	Obscure problem in SEL-RESTORE that can result in no items being restored.
84220	English aborts when processing a faulty F conversion.
84230	Multivalued inserts handled incorrectly in Wordmate.
84237	Reality Explorer: When trying to cut & paste a Reality item, the item remains in the original directory.
84238	Reality Explorer: If attempting to connect to database using a user id that does not have Remote Basic privileges enabled, a server process is left running on the host machine.
84246	Central daemon dumps the core.
84251	ODBC driver: SQL INSERT into a LONGVARCHAR column fails when using MSAccess 2000. The client process aborts with an Access Violation error while executing the INSERT statement.
84253	mkdbase to build database fails when format phase complete: unable to connect to cdaemon.
84257	Using NPU in NETDEVS does not work.
84259	mkdbase: A database is incorrectly registered in the ROUTE-FILE if simply remaking an existing one.
84262	SCREENPRO reports NOT ENOUGH SPACE.
84264	Central daemon reports that SamPRecRetrieve cannot find pid.
84267	After accessing a wrong database realcd generates messages realcd WARNING: SamPRecRetrieve:
84268	tlmenu does not check that the database is a valid Reality database.
84270	When configuring shadow pair, tlmenu can select wrong database if shadow partition is unmounted.
84278	tlmenu autoswitch does not function when failsafe updates are paused during a file save.

Fault Number	Description
84279	SECURITY records incorrect after SYS-UPDATE.
84282	Since upgrading to RealityX 9 user is unable to update the shadow database.
84287	tlmenu is incorrectly detecting failed status on database restore.
84289	LISTFILES not showing data sections.
84290	Message queue fills up when running out of Reality licences.
84294	Poor performance of SQL statements (due to IID optimisation not being used).
84296	User Exit security can cause problems in English.
84297	tlmenu does not unload the clog file once it has been dumped and verified.
84301	Poor performance when loading a RealityX 5.0 file save.
84302	Function keys in load-t23 do not load correctly when fieldread is enabled.
84304	Reality Explorer fails to connect if the account you are connecting to has a password.
84306	tlmenu seems to always returns an exit code of 1.
84313	NET-LOGON leaves many ports in 'reserved' state.
84314	RealWeb reports RWP_SCAN_BUFFER has not been cataloged.
84319	SQL insert into table fails with return code 2 - 1739 cannot update: column read only.
84320	Install-fix does not warn of corrupt tar files.
84330	Databasic compiler does not report line numbers with errors.
84333	Forward Link Zero (error 5) when using 'S' in DataBasic debugger.
84334	BLIST does not support "INCLUDE FILENAME ITEMNAME" syntax.
84337	Cannot SELECT-INDEX using a index defined with BY-EXP on multivalue attributes.
84341	ON GOTO and ON GOSUB display incorrect error messages if range is incorrect.
84343	TANDEM verb not working. Cannot TANDEM to an idle port - get 'can't open monitor output file'.
84345	Remote tape server fails with multiple T-LOADs.
84346	Tlmenu: REALCLOGPREFIX does not allow a manual archive of clean logs with a prefix starting with 'N'.
84350	DIR-VIEW overwrites 'Q' item in a single-level file.
84351	After applying additional licences, the message queue fills up and the central daemon crashes.
84357	Unable to logon more than 186 users.
84358	Despoolers do not tidy up after dropped network connection.
84359	tlmenu shadow does not allow shadow to become live if not mounted.

Fault Number	Description
84360	Looping Reality process uses 100% cpu time.

Third Party Products

The following third party products may be included with Reality (depending on the operating system):

- Perl scripting environment (GNU Software Foundation);
- Gzip compression software (GNU Software Foundation);
- GNU C-compiler (GNU Software Foundation);
- Gdb Debugger (GNU Software Foundation);
- Adobe Acrobat document reader (Adobe Systems Inc.);
- TomCat web server (Apache Software Foundation).

The following third party products are used within Reality:

- GNUmalloc (GNU Software Foundation);
- zlib compression library (GNU Software Foundation).