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Oracle Rdb and Oracle Database on OpenVMS Product Update

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The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

Agenda

- Itanium and VSI Announcements: Impact on Oracle Database on OpenVMS and Oracle Rdb
- Oracle Database on VMS Update
 - Support Dates
 - Currently Supported Versions
 - Versions Under Development
 - Roadmap
- Oracle Rdb Update
 - Support Dates
 - Customer Focus
 - Oracle Rdb Roadmap
 - Oracle Rdb 7.3.1
 - Other Recent Releases

Oracle Statement Summary - 3/22/11

- **What:** Oracle has discontinued all software development on the Intel Itanium microprocessor.
- **Why:** The announcement is based on changing market conditions and follows both RedHat and Microsoft in dropping Itanium support.
 - [Press Release](#)
- **What This Means:** Oracle will continue to provide support for the current products that are already certified on Itanium until the end of either the release's Premier or Extended Support period. After those end, we will continue to provide indefinite Sustaining Support, which does not include any new fixes.
 - [Oracle Lifetime Support Policy](#)

Oracle Resumes Integrity Porting

- **Statement issued on September 4, 2012:**

Previously, Oracle announced that it would stop developing new versions of its software on Itanium microprocessors. For example, that meant version 12c of the Oracle database due out in early 2013 would not be available on Itanium. However, a judge recently ruled that Oracle has a contract to continue porting its software to Itanium computers for as long as HP sells Itanium computers. Therefore, Oracle will continue building the latest versions of its database and other software covered by the judge's ruling to HP Itanium computers. Oracle software on HP's Itanium computers will be released on approximately the same schedule as Oracle software on IBM's Power systems.

<http://www.oracle.com/us/corporate/features/itanium-346707.html>

Exerpt from Rick Lewis's June 2013 Letter

- ***“With the changes to extend sales and support of the HP Integrity i2 servers with OpenVMS, we will not offer OpenVMS on HP Integrity i4 (“Poulson”) servers.”***
 - *Integrity i2 server sales through at least December 31, 2015*
 - *Integrity i2 server upgrades through at least December 31, 2016*
 - *Integrity i2 server hardware support through at least December 31, 2020*
 - *OpenVMS 8.4 Updates and Support through at least December 31, 2020*
 - *OpenVMS V73-2 Alpha: prior version support through December 31, 2015*
 - *OpenVMS V8.3 on Alpha: standard support through December 31, 2015*
 - *OpenVMS 8.4 Alpha standard support through at least December 31, 2016*
 - *OpenVMS 8.3/8.3-1H1 on Integrity: standard support through at least December 31, 2016*

HP/VSI July 31, 2014 Announcement

- BOLTON, Mass.--([BUSINESS WIRE](#))--VMS Software, Inc. (VSI) today announced that HP has named it as the sole developer of future versions of the OpenVMS operating system and its layered product components.
- Under the agreement, VSI will license OpenVMS operating system source code from HP to expand the OpenVMS product roadmap, by adding new hardware platform releases, beginning with a new version of OpenVMS for HP Integrity i4 servers based on Poulson, Intel® Itanium® Processor 9500 Series (rx2800i4, BL8xxi4). In the future, VSI will support other hardware platforms, including X86-based servers.

Oracle's Lifetime Support Policy offers three stages of support for Itanium-based servers

- **Oracle Premier Support** provides customers with maintenance and support of Oracle software on Itanium servers for five years from the general availability date of the software release.
- **Oracle Extended Support** provides customers with an extra three years of support for specific Oracle releases for an additional fee. Customers benefit from the same quality of service received with Oracle Premier Support, with the security of knowing they can migrate their software to a new platform when the time is right.
- **Oracle Sustaining Support** customers will receive technical support for as long as they operate their Itanium-based systems—including access to online support tools, knowledge bases, pre-existing fixes and assistance from technical support experts.
- Oracle Lifetime Support

10g Support Dates

- **Extended Support ended 31-Jul-2013**
- **Terminal PSU for both Alpha and Integrity**
 - 10.2.0.5.12 July 2013
- **Limited Extended Support Added For All Platforms**
 - From Aug 2013 through July 2015 Limited Extended Support is available, Sev 1 fixes only (no Patch Set Update (PSU) or Security Patch Update (SPU) will be produced)
- **Additional Extended Support periods will be available for current Extended Support fees**

10g Support Dates

- **Extended Support ends 31-Jul-2013**
- **Limited Extended Support Added For All Platforms**
 - From Aug 2013 through July 2015 Limited Extended Support is available, Sev 1 fixes only (no PSU or SPU will be produced).
- **Additional Extended Support periods will be available for then-current Extended Support fees**

Itanium Platforms	
Platform	Additional Extended Support: S1 Fixes Only
HP OpenVMS on Itanium	August 2013 – July 2017
HP OpenVMS on Alpha	August 2013 – July 2015
HP-UX	August 2013 – Dec 2015
Linux Itanium	August 2013 – Dec 2015
Windows Itanium	August 2013 – Dec 2015

10g Itanium Extended Support Fees Now Waived an Additional 2 Years

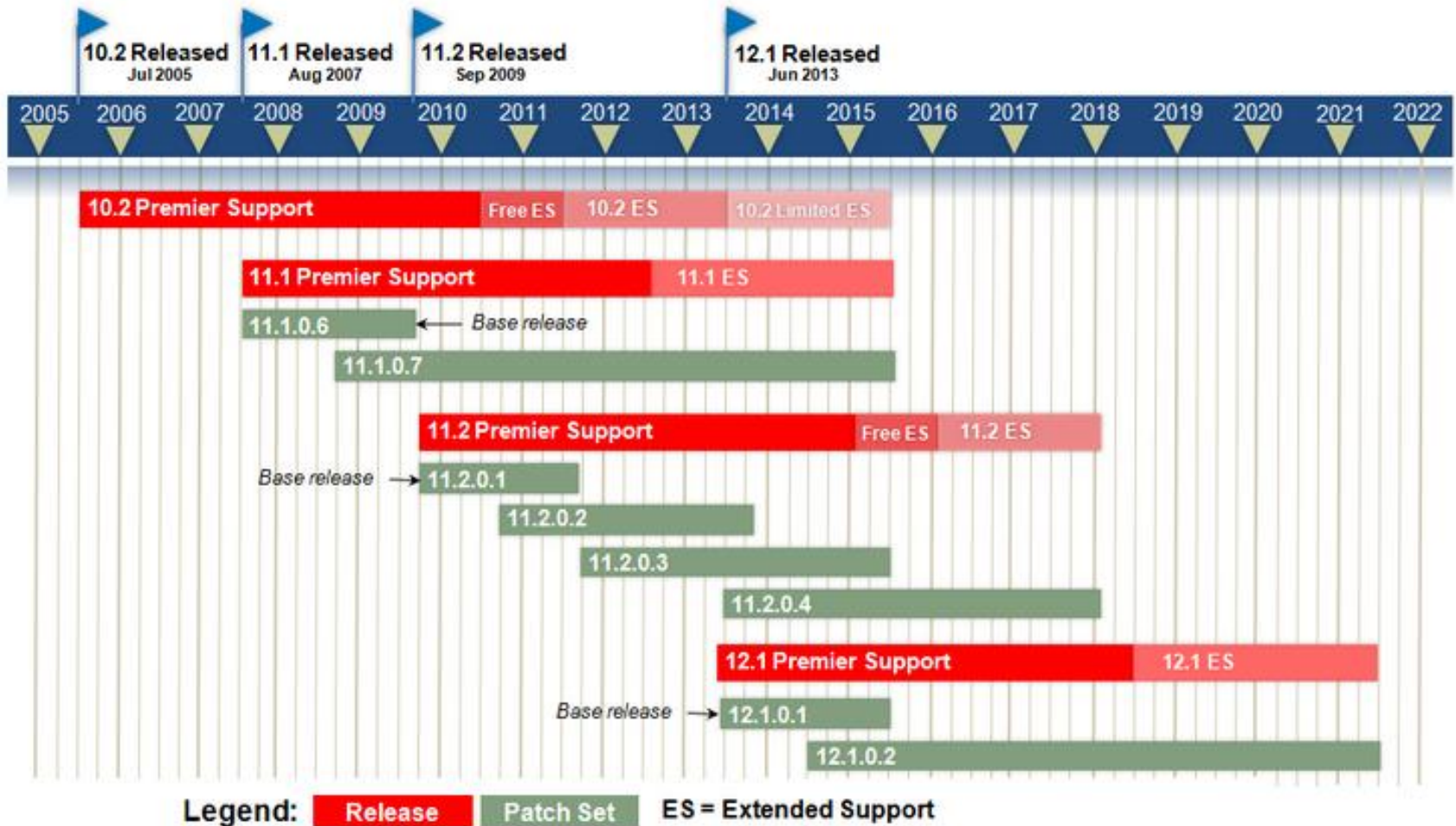
- See

<http://www.oracle.com/us/support/library/057419.pdf>

- For customers with current support contracts running Oracle Database 10gR2 on HP OpenVMS on Itanium, the Extended Support fee will be waived for **five years**; the Extended Support fee will be waived from August 2010 – **July 2015**. For the period of August 2015 – July 2017, Extended Support will continue to be available but will be at then-current Extended Support fees. During this period, Extended Support will be limited to Severity 1 fixes only; critical patch updates will not be made available.

Oracle 11g Support Dates

Database Patch Set Release Roadmap



Review of Current Products for the Oracle Database on OpenVMS

- 10.2.0.5.0 Released 31-Oct-2012
 - 10.2.0.5.12 PSU available for Alpha & Integrity
- Grid Control Agent
 - 10.2.0.2 Agent for Integrity and Alpha shipping
 - Patch kit 6 is available

Review of Current Products for Oracle Database on OpenVMS

- 10.2.0.5.0 is a Patch Set
 - Suggest install in a new Oracle home
 - Install initial 10.2.0.2.0 release
 - For Alpha no need to apply any patches
 - For Integrity you should apply the patch 5840282 before applying this patch set
 - No need to install 10.2.0.4.0 before installing 10.2.0.5.0
 - Apply the 10.2.0.5.0 Patch Set
- OpenVMS 8.4 is the minimum OS version for both Alpha and Integrity
- Can be downloaded from My Oracle Support (MOS)
 - Patch # 8202632

Where to find 10.2.0.5 on My Oracle Support

The screenshot shows the Oracle My Oracle Support website in Internet Explorer. The browser address bar displays the URL: https://support.oracle.com/epmos/faces/ui/patch/PatchDetail.jspx?_afzLoop=468516374452092&patch. The page title is "Patch Details - Internet Explorer, optimized for Bing and MSN".

The Oracle My Oracle Support header is visible, with the "Patches & Updates" tab selected. The main content area displays the details for **Patch 8202632: 10.2.0.5 PATCH SET FOR ORACLE DATABASE SERVER**.

Patch Details:

- Last Updated: Dec 4, 2012 4:24 AM (2+ months ago)
- Size: 1.1 GB
- Product: Oracle Database Family
- Release: Oracle 10.2.0.5
- Platform: HP OpenVMS Itanium
- Download Access: General
- Software Classification: General
- Patch Tag: General

Bugs Resolved by This Patch: List of bugs fixed is not available. Consult the Readme.

Related Knowledge to this Patch:

Document ID	Document Title	Modified
730365.1	Oracle Database Upgrade Path Reference List	Modified 08/03/2012
161549.1	Oracle Database, Networking and Grid Agent Patches for Microsoft Platforms	Modified 02/08/2013
1316079.1	How To Install Oracle 10.2.0.5 Client Software on Windows 7 (32 or 64-bit) and Windows 2008 R2 (64-bit)	Modified 08/30/2012
1173433.1	How to Install Oracle 10gR2 on MS Windows 7/Windows 2008R2	Modified 01/14/2013
132904.1	Compatibility Matrix for Export And Import Between Different Oracle Versions [Video]	Modified 12/28/2012
1477727.1	Patch Set Update and Critical Patch Update October 2012 Availability Document	Modified 12/06/2012
1454618.1	Quick Reference To Patch Numbers For Database PSU, SPU(CPU)	Modified 02/13/2013

Release Information:

- Release: 10.2.0.5
- Platform: HP OpenVMS Itanium
- Language: American English

Actions: Read Me, Download, Add to Plan

All-time Downloads: 79 [View Trends](#)

Community Discussions: [Reply to Discussion](#)

User380159: 1+ year ago

Patchset Size for patch 8202632 (Solaris 10.2.0.5)

The down load tab said this patchset should be 1.2 Gig. When I down load the patchset to my desktop I get 1,048,582. Does anyone know why?

Additional Supported Features

- Mixed Architecture RAC – (MAR)
 - Released supporting 10.2.0.4.0
 - 10.2.0.5.0 is supported
 - Both the Alpha and Integrity systems must run the same version of Oracle – matching patches as far as possible.
- Data Vault
 - Released with 10.2.0.4.0
 - Updated with 10.2.0.5.0

Oracle MySupport OpenVMS Information

- **OpenVMS: Master Note for Oracle 10.2 on hp OpenVMS**
 - [\[ID 726914.1\]](#)
- **OpenVMS: Oracle Release 10gR2 Mixed Architecture (Multi-Home) CRS/RAC Installation on hp Integrity and Alpha**
 - [\[ID 785970.1\]](#)
- **OpenVMS: Getting started with the 10.2 Grid Control Agent on OpenVMS**
 - [\[ID 739445.1\]](#)
- **Installing AV Agent 10.2.3.2 on HP OpenVMS**
 - [\[ID 1111278.1\]](#)
 - **Master Note For Oracle Audit Vault**
 - [\[ID 1199033.1\]](#)

Review of Oracle Database 11gR2

Oracle Database 11gR2 on OpenVMS

- Will be a full release - Server/Client Kit
 - Web images
 - No instant client
- Will provide new Oracle features to OpenVMS Integrity
 - Note: An incremental set of features will be available for OpenVMS
 - Not all Oracle features will be available on OpenVMS

OpenVMS 11g Porting Environment (VPE)

- Integrity OpenVMS only planned
- 11gR2 only available for OpenVMS 8.4
 - We use OpenVMS sym-links to create the release
- We are doing labels and builds every two weeks as a default
 - This is including completing core testing
- 40% larger than 10.2.0.5.0

Status September 2014

- November 2012 we resumed 11.2.0.2.0
 - Merged all changes from 10.2.0.5.0 release
- Skipped 11.2.0.3.0
- Base Released 11.2.0.4.0 in August 2013
 - We merged to 11.2.0.4.0 label
 - Starting Q3CY2013
 - Three months of work
 - CY2014
 - Operating System Code (OSD) development continues
 - Short regressions in process
 - Long regressions started

Status September 2014

- 11.2.0.4.0 is final Patch Set for the 11.2 code line
 - PSU planned available until at least Jan 2018 See MOS note 742060.1
 - Plan is to release the current PSU approximately the same time as our 11gR2 release

What will an Oracle 11g Client Kit Provide to OpenVMS

- Client/Server Interoperability Support to future database releases
- Standard Supported client tools (next slides)
- Upgraded Security Functionality
- Gives you the ability to continue to run your application on VMS while connecting to the database server platform of your choice (either to a VMS server or to other platforms supported by Oracle).

Oracle Client / Server Interoperability General Policy

- Oracle's general policy is to test and support each new Oracle release for compatibility with older releases thus:
 - **Test the NEW client to each OLDER server release**
 - where the OLDER release is still covered by **Premier Support** at the time that the NEW version is released.
 - **Test OLDER clients to the NEW server release**
 - where the OLDER release is still covered by **Premier Support** OR is in the first two years of Extended Support.
- Tests between the NEW version and other OLDER releases may be added where Oracle deems it sensible to support interoperability between those releases.

Client / Server / Interoperability Support Matrix For Different Oracle Versions [ID 207303.1]

Client Version	Server Version					
	12.1.0	11.2.0	11.1.0	10.2.0	10.1.0	9.2.0
12.1.0	Yes	Yes	ES	ES #7	No #3	No #3
11.2.0	Yes	Yes	ES	ES #7	No	Was #5
11.1.0	ES	ES	ES	ES #7	Was #6	Was #5
10.2.0	ES #7	ES #7	ES #7	Was	Was	Was #5
10.1.0(#4)	No	Was #6	Was #6	Was	Was	Was
9.2.0	No #8	Was #5	Was #5	Was #5	Was	Was

11g Client Kit Contents

- Oracle SQLJ
- Oracle Database Utilities
- Oracle Java Client
- SQL*Plus
- Oracle JDBC/THIN Interfaces
- Oracle Internet Directory Client
- Oracle Call Interface (OCI)
- Oracle Programmer
- Oracle XML Development Kit
- Oracle Advanced Security
- Enterprise Manager Minimal Integration
- OLAP Analytic Workspace Manager and Worksheet
- Oracle Net

11g Client Kit Contents (cont.)

- Oracle Connection Manager
- Oracle Net Listener
- Oracle Multimedia Client Option
- Oracle ODBC Driver
- Oracle Clusterware High Availability API
- Oracle SQL Developer
- Oracle Scheduler Agent
- Oracle Services For Microsoft Transaction Server
- Oracle Administration Assistant for Windows
- Oracle Counters for Windows Performance Monitor
- Oracle Objects for OLE
- Oracle Provider for OLE DB
- Oracle Data Provider for .NET
- Oracle Providers for ASP.NET



Oracle Rdb Update

Rdb Product Family Lifetime Support Dates

	General Availability	Premier Support Ends	Extended Support Ends	Sustaining Support Ends
Rdb 7.0	Oct 1996	Aug 2007	Aug 2009	Indefinite
Rdb 7.1	Jul 2001	Dec 2007	Dec 2010	Indefinite
Rdb 7.2	Jan 2006	Jul 2015	Jul 2017	Indefinite
Rdb 7.3	Mar 2011	Sep 2018	Sep 2021	Indefinite

See: <http://www.oracle.com/us/support/library/lifetime-support-technology-069183.pdf>

Rdb Product Family Releases Since March, 2011

- **ODBC 3.3.2.4, September, 2014**
- **Oracle Rdb JDBC 7.3.3.1, August 2014**
- **ORCM 7.3.0, June, 2014**
- **Rdb 7.2.5.5, June, 2014**
- **Oracle Rdb JDBC 7.3.3, May 2014**
- **ORDT 7.3.3, May, 2014**
- **Rdb 7.3.1.1, February, 2014**
- **Rdb 7.2.5.4, February, 2014**
- CODASYL DBMS 7.3.1, November, 2013
- SQL/Services 7.3.2, October, 2013
- CDD/Repository 7.2.0.4, October, 2013
- Rdb 7.3.1, September, 2013
- Rdb 7.2.5.3, July, 2013
- Oracle Rdb JDBC 7.3.2, April, 2013
- Rdb 7.2.5.2 Update 3, April, 2013
- Rdb 7.2.5.2 Update 2, February, 2013
- Rdb 7.2.5.2 Update 1, November, 2012
- Rdb 7.2.5.2, July, 2012
- Rdb 7.2.5.1, March, 2012
- Rdb 7.2.5, June, 2011
- CODASYL DBMS 7.2.5, July, 2011
- SQL/Services /OCI Services 7.3.1.1, May, 2012
- Oracle Rdb JDBC 7.3.1, March, 2012
- Oracle Rdb JDBC 7.3.0.2 September, 2011
- ORDP.NET 7.3.2.2, May, 2012
- ORDP.NET 7.3.2.1, Sep, 2011
- ORDP.NET 7.3.2.0, May, 2011
- ODBC 3.3.2.3, April, 2012
- ODBC 3.3.2.2, November, 2011
- ODBC 3.3.2.1, April, 2011

Rdb Marketing Focus

- Focus on meeting our customers' needs
- Rdb Web page, Rdb Web Journal, MetaLink, OTN
- Rdb management personal customer visits /meetings
- Events
 - Oracle OpenWorld
 - HP Events
 - OpenVMS SIG Groups
- **Technical Forums (2014)**
 - Burlington, MA USA, October 2-3
 - Redwood Shores, CA, USA, Oct 6-7
 - Stockholm, Sweden, Nov 10-11
 - London, UK, Nov 13-14
 - Utrecht, NL, Nov 17-18
 - Paris, France, Nov 20-21
 - Sydney, Australia, Dec 10-11
- <http://www.oracle.com/technetwork/database/database-technologies/rdb/community/index-101986.html> to register for the 2014 Forums

Rdb 7.3.1, September 2013

- The kit is available on My Oracle Support as patch set numbers 17482084 (Itanium kit) and 17482096 (Alpha kit)
- Note that there is no longer an 'unoptimized' Alpha kit. For example in 7.2 Alpha we have:

7.2.5.3.0 (not optimized for EV56 or higher)

7.2.5.3.1 (optimized for EV56 or higher)

In 7.3 Alpha we only have:

7.3.1.0.1 (optimized for EV56 or higher)

Rdb 7.3.1 on My Oracle Support

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Patch Details

☆ Patch 17482084: ORACLE RDB RELEASE 7.3.1.0.0 FOR OPENVMS ITANIUM

Last Updated 23-Sep-2013 12:21 (Monday) Size 83.4 MB

Product Rdb Server

Release RDB 7.3

Platform HP OpenVMS Itanium

Download Access Software

Classification General

Patch Tag

Bugs Resolved by This Patch
List of bugs fixed is not available. Consult the Readme.

[View Related Knowledge to this Patch](#)

Release RDB 7.3

Platform HP OpenVMS Itanium

Language American English

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From Richard Miller on January 29, 2009

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pjose38

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15 minutes ago | 4 of 5 found this helpful

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Rdb 7.3.1 New Features and Enhancements

- New /ERROR_LIMIT Qualifier Added as the Default to RMU/VERIFY
- RMU /VERIFY Root Displays the Corrupt Page Table Entries
- DECLARE LOCAL TEMPORARY TABLE Supports COMMENT IS Clause
- Temporary Tables Now Support LARGE MEMORY Option
- COUNT Now Returns BIGINT Result
- Aggregate Functions Now Use BIGINT Counters
- /[NO]KEY_VALUES Qualifier Added to RMU/VERIFY/INDEX
- The /LOCK_TIMEOUT Qualifier Now Allows the Database Default
- Compression of AIJ Backup Files for Automatic AIJ Backups
- Global Statistics Sections for Better Performance
- RMU/SET AUDIT Supports Wildcard Table and Column Names
- RMU/BACKUP Database Root Verification Performance Enhancement
- RMU /UNLOAD /AFTER_JOURNAL New Qualifier /DELETES_FIRST
- Add Option to Pass Values to /CONFIRM During RESTORE Operation
- Table Names Can Now Be Specified For Index Verification
- New RMU/VERIFY Feature to Detect Orphan Hash Index Buckets

Rdb 7.3.1 New Features and Enhancements

- New COMPILE Clause for ALTER TRIGGER Statement
- New COMPILE ALL TRIGGERS Clause for ALTER TABLE Statement
- New RETRY Clause for ACCEPT Statement
- New Character Sets ISOLATIN2 and WIN_LATIN2 Supported
- Changes and Enhancements to Trigger Support
- New RMU BACKUP RBF File BRH\$K_ROOT1, BRH\$K_ROOT2, BRH\$K_ROOT3 Records /kroot_records
- New Functions NUMTODSINTERVAL, NUMTOYMINTERVAL Supported
- RMU Dump Audit Command
- New BIN_TO_NUM Numeric Function
- RMU /PROGRESS_REPORT and Control-T for RMU Backup and Restore
- /[NO]SNAPSHOTS, /[NO]DATA_FILE Added to RMU/MOVE_AREA
- Enhancements for Compression Support in SQL EXPORT DATABASE Command
- /[NO]PARTITIONS Qualifier Added to RMU/ANALYZE/INDEXES
- /[NO]PARTITIONS Qualifier Added to RMU/ANALYZE Storage Statistics
- /[NO]PARTITIONS Qualifier Added to RMU/ANALYZE/PLACEMENT
- New RMU/[NO]ASSIST Qualifier for Commands Using Tape Drives

Rdb 7.3.1 New Features and Enhancements

- New RMU/ALTER Feature to Modify the Area Header Root File Specification
- REVERSE Index
- Support for New Syntax for Sequence Generator Statements
- RMU/SET AUDIT Supports MODULE, ROUTINE, SEQUENCE and VIEW
- RMU/SHOW AUDIT Supports MODULE, ROUTINE, SEQUENCE and VIEW
- SQL Now Supports SQL Standard Syntax for SET CONSTRAINTS ALL Statement
- Support ANSI and ISO SQL Standard Length Units
- New SET FLAGS Clause Supported by CREATE and ALTER PROFILE
- New Support for SAVEPOINT Syntax and Semantics
- SAVEPOINT Statement
- RELEASE SAVEPOINT Statement
- ROLLBACK TO SAVEPOINT Statement
- New OPTIMIZE OUTLINE Clause Allows Outline Specification
- RMU/DUMP/HEADER=ROW_CACHE Now Displays Whether Row Cache is Enabled
- RMU/LOAD Now Supports CSV Formatted Files
- RMU/UNLOAD Now Supports CSV Formatted Files
- RMU/UNLOAD Supports BITMAPPED_SCAN Optimize Option

Rdb 7.3.1 New Features and Enhancements

- New EDIT STRING Clause for CREATE FUNCTION and CREATE MODULE Functions
- Changes to RMU/VERIFY/CONSTRAINTS and ALTER TABLE Statement
- New SQRT Numeric Function
- New MOD Numeric Function
- New Data Types BINARY and BINARY VARYING
- PERSONA SUPPORT is Enabled For All New Databases
- New Dialects Support in SQL
- New WITH Clause Provides Subquery Factoring
- New MEMORY ALLOCATION Clause for the GLOBAL BUFFERS Definition
- DECLARE LOCAL TEMPORARY VIEW Statement
- Enhancements for Buffered Read Support in SQL EXPORT DATABASE Command
- New BITMAPPED SCAN Clauses Added to OPTIMIZE Clause
- New Support for Allocations Specified Using Quantified Numeric Literal
- New SQL Functions Added
- Changes and Improvements to the Rdb Optimizer and Query Compiler
- Optimized NOT NULL Constraint Execution
- New RMU/LOAD Option CHARACTER_ENCODING_XML
- New REPLACE Statement

Oracle Rdb V7.3.1.1, February, 2013

- **New Features**

- New LIMIT_TO Qualifier Added to RMU Load Command
- New BEFORE and SINCE Qualifiers Added to RMU Load Audit
- New RMU/SHOW/STATISTICS Output File Periodic Buffer Flushes
- New Error and Log Messages Added for Segmented String Verification

- **Bug Fixes (partial list)**

- RMU/CONVERT/ROLLBACK From V7.3 May Prevent Access to Some Tables
- Memory Leak Possible When Using BITMAPPED SCAN Queries
- Bugcheck at DIOFETCH\$FETCH_SNAP_SEG

Oracle Rdb V7.3.1.2, October, 2014

- **New Features (partial list)**

- New FULBCKREQ Message Output When a Full Backup is Required
- SQL Precompiler Now Generates C++ Compatible Intermediate C Source
- Alter Index Now Supports REVERSE and NOREVERSE Clauses

- **Bug Fixes (partial list)**

- RMU Convert Leaves After Image Journal SUPPRESSED
- Ranked Index Bugchecks – PSII2REMOVEDUPBBC & PSII2INSERTDUPBBC
- Wrong Result From a Nested UNION Query With OR Predicate
- Unable to Call External Routine When Attached Remotely to a Database

Oracle Rdb V7.2.5

- V 7.2.5.0, June 2011
 - Significant release including many new features
 - Some internal re-structuring for performance
- V 7.2.5.1, March, 2012
 - New Features
 - New RMU Options file to modify the Row Cache Backing Store Directories
 - New RMU/REPAIR option file to initialize database snapshot files
 - Show Statistics enhancements
 - Maintenance

Oracle Rdb V7.2.5.2

- V 7.2.5.2, July, 2012
 - New Prefix Added to Logical Name Created by the Log Recovery Server
 - Now a prefix has been added to this logical name to identify it as being created by the Rdb or DBMS LRS server when database replication is started. The new prefix for this logical name is "RDM\$LRS" for Rdb.
 - New data values added to the following Information Tables:
 - RDB\$CACHES
 - RDB\$DATABASE_ROOT
 - RDB\$DATABASE_JOURNAL
 - Maintenance
 - e.g Wrong results for some zig-zag match queries

Oracle Rdb V7.2.5.2 (Update 1), November, 2012

- **Corrupt SORTED RANKED Index After Row INSERT**
 - In rare cases an INSERT or UPDATE of a SORTED RANKED index can leave the index incomplete. The reported problem was caused by a cascading node split upon an INSERT. That is, an INSERT caused the node to split and that action caused the parent node to split, and so on up the index. The subsequent verify of the index using RMU/VERIFY/INDEX/DATA reported the missing key values which shows that a subtree of the index was not correctly incorporated into the index tree.

Oracle Rdb V7.2.5.2 (Update 2), February, 2013

- **Session Crash if Run Time Routine Native Compiler Enabled**
 - When using the "Just-in-Time" native compiler for Itanium systems (SET FLAGS 'CODE_OPTIMIZATION(2)'), which is the default, in some instances where a large (greater than 8K) code routine is generated, a stack corruption could occur resulting in the current process being deleted. A large arithmetic expression involving float values is one way to possibly cause the problem.

Oracle Rdb V7.2.5.2 (Update 2), February, 2013 (cont.)

- **Unexpected RDMS-E-SEQNEXTS Error Reported When GRANT or REVOKE is Used on View**
 - Starting with Oracle Rdb Release 7.2.5.1, GRANT and REVOKE statements on tables with IDENTITY columns propagate these actions to the associated sequence that implements the IDENTITY for the table. Unfortunately, some nested view definitions are erroneously flagged as having identity sequences (these are actually reflections of the base table reference) and GRANT or REVOKE statements may fail

Oracle Rdb V7.2.5.2 (Update 3), April, 2013

- **Encrypted Parallel Backup Files Could Not Be Restored Or Dumped**
 - Encrypted parallel backup RBF files could not be restored or dumped because of an RMU/RESTORE and RMU/DUMP/BACKUP problem decrypting encrypted backup files created by a parallel backup of an Oracle Rdb database. The backup files were encrypted correctly. The problem was only with the decryption of the database backup files produced by a parallel backup.
 - To allow encrypted backup files produced by parallel backups in previous versions of RDB to be correctly decrypted, a new PARALLEL_BACKUP option has been added to the existing /ENCRYPT qualifier options that can only be used with the RMU/RESTORE and RMU/DUMP/BACKUP commands. This new option cannot be negated.

Oracle Rdb V7.2.5.2 (Update 3), April, 2013 (cont.)

- **Unexpected Bugcheck During Query Execution at RDMS\$\$SET_USED_OR_DESCENDANTS**
 - In some cases, a query might bugcheck when processing a subselect within a DISTINCT aggregation.
- **Wrong Result When Constant Boolean Appears in Predicate**
 - In prior releases of Oracle Rdb, it was possible that queries using a predicate containing only literal values would produce the wrong results.

Oracle Rdb V7.2.5.3, July, 2013

- **New Features**

- SQL Now Supports SQL Standard Syntax for SET CONSTRAINTS ALL
- New RMU/DUMP/BACKUP Enhanced Error Handling Features
- RMU/DUMP/BACKUP Now Dumps Plan File Parameters for Parallel Backups

- **Bug Fixes (partial list)**

- Rows Returned in the Wrong Order From Sorted Tactic During Bitmapped Scan
- Corrupt SORTED RANKED Index After Row INSERT
- ACCVIO In COSI_MEM_GET_VM64_2

Oracle Rdb V7.2.5.4, February, 2014

- **New Features**

- SQL Now Supports SQL Standard Syntax for SET CONSTRAINTS ALL
- New RMU/DUMP/BACKUP Enhanced Error Handling Features
- RMU/DUMP/BACKUP Now Dumps Plan File Parameters for Parallel Backups

- **Bug Fixes (partial list)**

- Memory Leak Corrected in Queries That Use Sorting
- Ranked Index Bugchecks – PSII2REMOVEDUPBBC & PSII2INSERTDUPBBC
- Using BEGIN/END Around Set Transaction Leads to Memory Leak
- Bugcheck at DIOFETCH\$FETCH_SNAP_SEG

Oracle Rdb V7.2.5.5, June, 2014

- **New Features**

- New FULBCKREQ Message Output When a Full Backup is Required
- RMU Extract Now Extracts SYS_GET_DIAGNOSTIC Function

- **Bug Fixes (partial list)**

- Memory Leak Possible When Using BITMAPPED SCAN Queries
- Dialect SQL99 Does Not Use Max Key Lookup
- Wrong Result From a Nested UNION Query With OR Predicate
- unexpected Zero Result From COUNT Aggregate
- Inner Join Query With NOT LIKE Predicate Slows Down
- Unable to Call External Routine When Attached Remotely to a Database

Major Rdb 7.3 Features Deferred To Post 7.3.2

- Memory Protection
- Database Vault
- Database Encryption

Database Vault

- Changes the way Rdb handles OpenVMS privileges
- `ALTER DATABASE ...
DATABASE VAULT IS ENABLED;`
- Requires SECURITY privilege to enable
- No longer inherit overrides from current system user
- ***WARNING*** Ensure there is a SECURITY user defined in the database because once DATABASE VAULT is enabled you can not use a OpenVMS privilege to change it externally

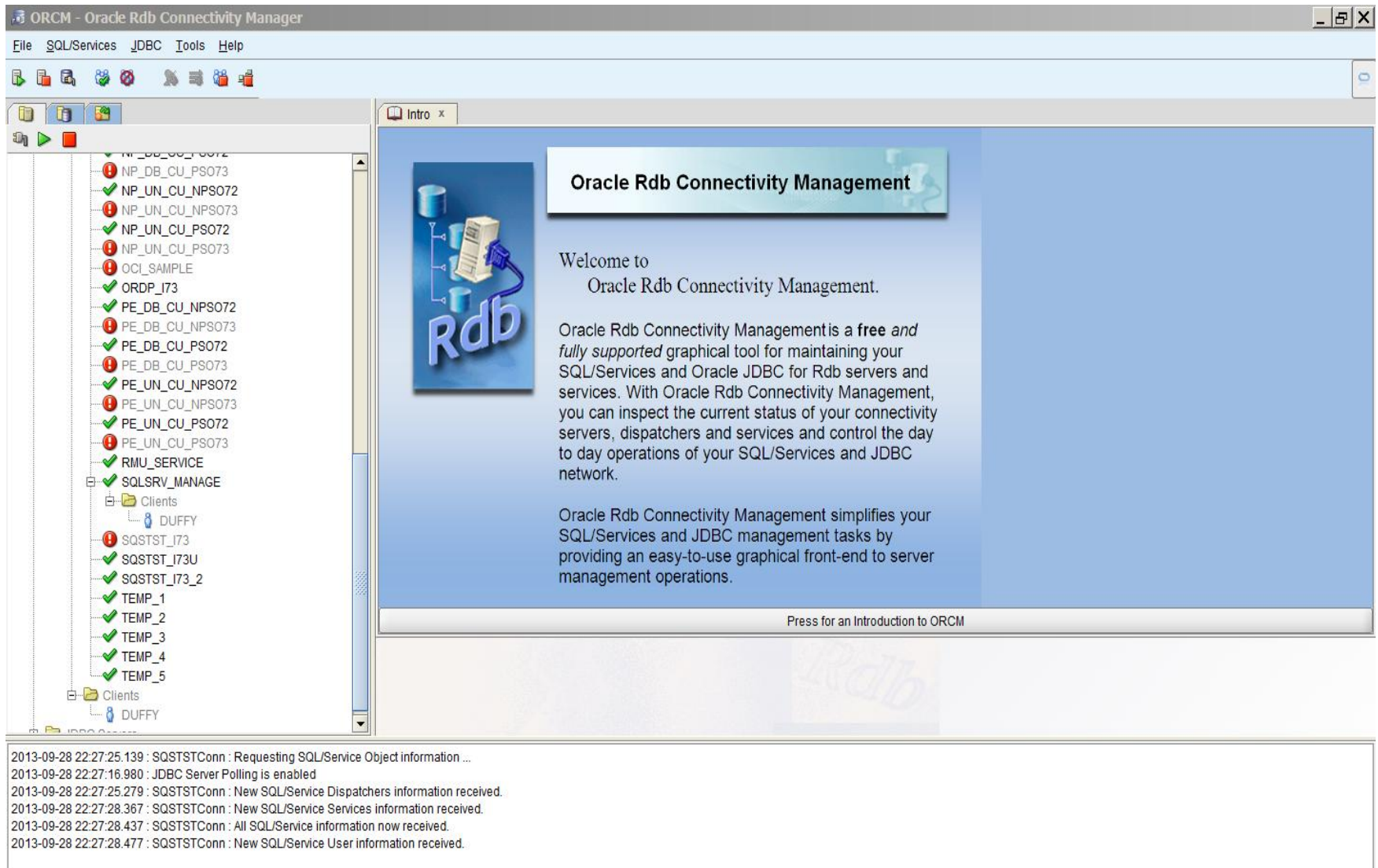
Encryption

- Customer Demand for PCI-DSS Compliance
 - Standard Defined by the PCI Security Council
 - Founding Members are: American Express, Discover, JCB International, MasterCard, Visa
- Design and Implementation Guided By Oracle 10g & 11g Transparent Data Encryption (TDE)

Transparent Data Encryption

- Table data is encrypted at-rest
- New ENCRYPTION USING clause for CREATE STORAGE AREA
- Decryption requires KEY value to be specified by RMU/OPEN
- Key Management
 - Oracle Wallet Manager
 - Middle-Tier Deployment
- Status
 - Prototype running
 - Investigating impact on all database and utility operations

Oracle Rdb Connectivity Management V7.3



The screenshot displays the Oracle Rdb Connectivity Manager (ORM) application window. The title bar reads "ORM - Oracle Rdb Connectivity Manager". The menu bar includes "File", "SQL/Services", "JDBC", "Tools", and "Help". The toolbar contains icons for file operations and connectivity. The left pane shows a tree view of database services, including "NP_DB_CU_PS072", "NP_UN_CU_NPS072", "NP_UN_CU_NPS073", "NP_UN_CU_PS072", "NP_UN_CU_PS073", "OCI_SAMPLE", "ORDP_I73", "PE_DB_CU_NPS072", "PE_DB_CU_NPS073", "PE_DB_CU_PS072", "PE_DB_CU_PS073", "PE_UN_CU_NPS072", "PE_UN_CU_NPS073", "PE_UN_CU_PS072", "PE_UN_CU_PS073", "RMU_SERVICE", "SQLSRV_MANAGE", "Clients", "DUFFY", "SQSTST_I73", "SQSTST_I73U", "SQSTST_I73_2", "TEMP_1", "TEMP_2", "TEMP_3", "TEMP_4", "TEMP_5", and "Clients" (DUFFY). The right pane shows a welcome message titled "Oracle Rdb Connectivity Management". The message text reads: "Welcome to Oracle Rdb Connectivity Management. Oracle Rdb Connectivity Management is a **free and fully supported** graphical tool for maintaining your SQL/Services and Oracle JDBC for Rdb servers and services. With Oracle Rdb Connectivity Management, you can inspect the current status of your connectivity servers, dispatchers and services and control the day to day operations of your SQL/Services and JDBC network. Oracle Rdb Connectivity Management simplifies your SQL/Services and JDBC management tasks by providing an easy-to-use graphical front-end to server management operations." Below the message is a button labeled "Press for an Introduction to ORCM". The bottom pane shows a log of events: "2013-09-28 22:27:25.139 : SQSTSTConn : Requesting SQL/Service Object information ...", "2013-09-28 22:27:16.980 : JDBC Server Polling is enabled", "2013-09-28 22:27:25.279 : SQSTSTConn : New SQL/Service Dispatchers information received.", "2013-09-28 22:27:28.367 : SQSTSTConn : New SQL/Service Services information received.", "2013-09-28 22:27:28.437 : SQSTSTConn : All SQL/Service information now received.", and "2013-09-28 22:27:28.477 : SQSTSTConn : New SQL/Service User information received."

Oracle Rdb Connectivity Management

Welcome to
Oracle Rdb Connectivity Management.

Oracle Rdb Connectivity Management is a **free and fully supported** graphical tool for maintaining your SQL/Services and Oracle JDBC for Rdb servers and services. With Oracle Rdb Connectivity Management, you can inspect the current status of your connectivity servers, dispatchers and services and control the day to day operations of your SQL/Services and JDBC network.

Oracle Rdb Connectivity Management simplifies your SQL/Services and JDBC management tasks by providing an easy-to-use graphical front-end to server management operations.

Press for an Introduction to ORCM

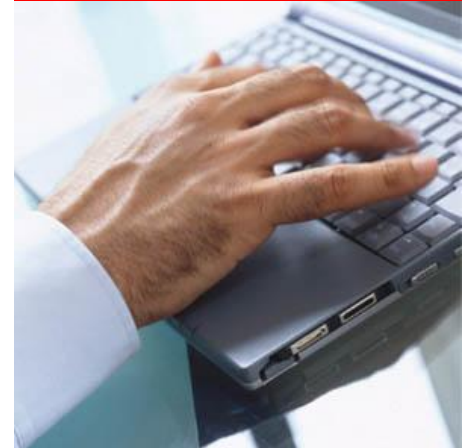
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CDD/Repository 7.2.0.4, October, 2013

- New Features
 - Explanations and User Actions Updated
 - Integrate Enhanced to Support New BLR\$K_AGG_COUNT Syntax
- Problems Fixed
 - RDB-F-SEGSTR_PARAM Error During Integrate
 - CDO Could Not be Invoked Using SYSMAN
 - CDO Show Version Only Shows Two Digits
 - %PASCAL-E-LNETOOLNG on Compile When Field Comments More Than 255
 - CDD Pathname Versions Truncated on SQL ALTER TABLE
 - Access Violation During Integrate Alter Files
 - Using SQL CREATE After DROP of Object With Same Name Caused ACCVIO
 - Alignment Faults Corrected

Connectivity: Supported protocols

- Oracle SQL/Services
- OCI Services for Oracle Rdb
- Oracle ODBC Driver for Rdb
- Oracle JDBC for Rdb
- Oracle Rdb Developer Tools for Visual Studio



SQL/Services 7.3.2, October, 2013

- OCI Services for Oracle
 - Oracle 10.2.0.5 Library
 - Enhancements to OCI Logging
 - Retries for Preparing or Upgrading a Database
 - Problems Fixed:
 - ALTER SESSION REMOTE_DEPENDENCIES Setting Now Accepted
 - Insert Returning into a Variable
 - Unexpected Read Only Transaction Error

SQL/Services 7.3.2, October, 2013 (cont.)

- Client API
 - New Oracle SQL/Services Client API Kit for 64-Bit Linux Platforms
 - Updated Oracle SQL/Services Client API Kit for 32-Bit Linux Platforms
 - Updated Oracle SQL/Services Client API Kits for Windows Platforms
 - Desupport of HP Tru64 Unix Platform
 - Updated Guide to Using the Oracle SQL/Services Client API
 - Updated Help For SQL/Services
- SQL Service Problems Fixed
 - Oracle SQL/Services PID Output Now Always Displayed in HEX

Oracle ODBC Driver for Rdb

- 3.3.2.4, September , 2014
- 3.3.2.3, April, 2012
- 3.3.2.2, November, 2011
- 3.3.2.1, April, 2011
- Supported Windows
 - Windows 32bit
 - Windows 7, XP, Vista, Server 2008, Server 2003, 2000,
 - Windows 64bit
 - Windows 7 XP, XP X64, Vista X64, Server 2008 X64, Server 2003 X64

Oracle Rdb JDBC Releases

- 7.3.3.1, August, 2014
- 7.3.3, - May, 2014
- 7.3.2 – April, 2013
- 7.3.1, March, 2012
- 7.3.0.2 – September, 2011
- 7.3.0.1 – February, 2011
- 7.3 – February, 2010
- 7.2.5.5 – December 2009
- 7.2.5.4 – September 2009
- 7.2.5.3 – June 2008



Oracle JDBC for Rdb 7.3.3.0, May, 2014

- **New Features**

- Oracle Rdb PID now Displayed
- Controller Command Show Executors
- Extra Timestamp Precision
- Nlslang Connection Switch
- Use Query Header as Description

- **Bug Fixes (partial list)**

- Hang on Connection to Server when using SSL
- Access Violation in MP Server
- Executor Initialization Problem
- Forced Client Termination may Crash Thin Server

Oracle JDBC for Rdb 7.3.3.1, August, 2014

- **New Features**

- Change in Template Configuration Filename
 - the copy installed to RDB\$JDBC_HOME is renamed to RDBJDBCCFG_TEMPLATE.XML
 - Only the copy in RDB\$JDBC_COM is used for production

- **Bugs fixed (partial list)**

- Severe Performance Degradation in MP Server
- Server Configuration Deny User not Enforced
- Server Access Restrictions Ignored
- Datetime Insertion Issues

Oracle Rdb Developer Tools for Visual Studio

- 7.3.3, May, 2014
- 7.3.2.2, April, 2012
 - Fixes Entity Framework related connection issues when using SQL/Services for connectivity rather than JDBC
- 7.3.2.1, September, 2011
 - Entity Framework Support
 - Performance
 - Maintenance
- 7.3.2 , May, 2010
- 7.3.1.1, December, 2009
- 7.3.1, February, 2009



Oracle Rdb Developer Tools for Visual Studio V7.3.3, May, 2014

- **New Features**

- Visual Studio 2005 Integration no Longer Supported
- Visual Studio 2012 Integration

- **Bug Fixes (partial list)**

- None

Training Partner List

- **Europe, Asia, Middle East and Africa**

- VX Company
Baarn, The Netherlands

<http://www.vxcompany.com/rdbtrainingcourses>



- **Americas**

- JCC Consulting, Inc.
Granville, Ohio, United States

<http://www.jcc.com/>



- **Oracle CODASYL DBMS Worldwide**

- Software Concepts International
Nashua, New Hampshire, United States

<http://www.sciinc.com/>





Q&A


QUESTIONS
ANSWERS



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