

Oracle Machine Learning for R 2.0 Release Notes

These release notes contain important information about Release 2.0 of OML4R.

The OML application programming interface for R, previously under the name Oracle R Enterprise, is now named Oracle Machine Learning for R (OML4R). The package, class, and function names are not rebranded. They remain `ORE`, `OREbase`, `ore.frame`, `ore.connect`, and so on.

The OML application programming interfaces for SQL include PL/SQL packages, SQL functions, and data dictionary views. Using these APIs is described in publications, previously under the name Oracle Data Mining, that are now named Oracle Machine Learning for SQL (OML4SQL). The PL/SQL package and database view names are not rebranded. They remain `DBMS_DATA_MINING`, `ALL_MINING_MODELS`, and so on.

- [New Features in Oracle Machine Learning for R 2.0](#)
OML4R 2.0 has some new features that are compatible with Oracle Database Release 19c and later.
- [Oracle Machine Learning for R 2.0 Platform and Configuration Requirements](#)
OML4R 2.0 runs on Linux 64-bit platforms only.
- [Bugs Fixed in Oracle Machine Learning for R 2.0](#)
OML4R 2.0 fixes the problems listed in this topic.

New Features in Oracle Machine Learning for R 2.0

OML4R 2.0 has some new features that are compatible with Oracle Database Release 19c and later.

Support for R-4.0.5

OML4R 2.0 requires R-4.0.5. As with earlier releases of OML4R, Oracle recommends that you use Oracle R Distribution.

 **Note:**

Each version of Oracle R Distribution (ORD) is compatible with the OML4R binary built under that specific R version.

- [New Features for Oracle Database Release 19c and Later](#)
This topic describes the new features in Oracle Machine Learning for R for Oracle Database Release 19c and later releases.

New Features for Oracle Database Release 19c and Later

This topic describes the new features in Oracle Machine Learning for R for Oracle Database Release 19c and later releases.

The new machine learning algorithms enabled in OML4R Release 2.0 are the following:

- Neural Network
- Random Forest
- Exponential Smoothing Models
- XGBoost (DB 21 and later)

The following functions are deprecated in the OML4R Release 2.0:

- ore.lm
- ore.glm
- ore.stepwise
- ore.neural
- ore.randomForest
- ore.esm
- prcomp
- Singular Value Decomposition (SVD)

Oracle Machine Learning for R 2.0 Platform and Configuration Requirements

OML4R 2.0 runs on Linux 64-bit platforms only.

Both client and server components are supported on each of the platforms described in this topic.

Table 1-1 Oracle Machine Learning for R Platform Requirements

Operating System	Hardware Platform	Description
Linux x86-64	Intel and AMD	64-bit Red Hat Enterprise Linux Releases 7 and 8.

 **Note:**

R-3.6.1 is supported on Linux 7, and R-4.0.5 is supported on Linux 7 and 8. Linux 8 is a supported OS with the introduction of R-4.0.5.

Oracle Linux may be running on Oracle Exadata Database Machine.

Table 1-2 Oracle Machine Learning for R Configuration Requirements and Server Support Matrix

OML4R Version	Open Source R or Oracle R Distribution	Oracle Database Release
2.0	4.0.5	19c, 21c
1.5.1	3.6.1	12.2.0.1, 18c, 19c, 21c
1.5.1	3.3.0	11.2.0.4, 12.1.0.1, 12.1.0.2, 12.2.0.1
1.5	3.2.0	11.2.0.4, 12.1.0.1, 12.1.0.2
1.4.1	3.0.1, 3.1.1	11.2.0.3, 11.2.0.4, 12.1.0.1, 12.1.0.2
1.4	2.15.2, 2.15.3, 3.0.1	11.2.0.3, 11.2.0.4, 12.1.0.1
1.3.1	2.15.1, 2.15.2, 2.15.3	11.2.0.3, 11.2.0.4, 12.1.0.1
1.3	2.15.1	11.2.0.3, 11.2.0.4, 12.1.0.1
1.2	2.15.1	11.2.0.3, 11.2.0.4, 12.1.0.1
1.1	2.13.2	11.2.0.3, 11.2.0.4, 12.1.0.1
1.0	2.13.2	11.2.0.3, 11.2.0.4, 12.1.0.1

 **Note:**

In Oracle Database Release 12.1.0.2, for some embedded R operations to be successful, Oracle R Enterprise releases 1.4.1 and later require the database patch -- 20173897 WRONG RESULT OF GROUP BY FROM A TABLE RETURNED BY EXTPROC (Patch).

Bugs Fixed in Oracle Machine Learning for R 2.0

OML4R 2.0 fixes the problems listed in this topic.

Table 1-3 Bugs Fixed in OML4R 2.0

Number	Description
34682590	DATASTORE PYQDROPDATASTORE (AND RQDROPDATASTORE) ERROR MESSAGE UNCLEAR IF NOT FOUND
34318474	ADD TOPN_ATTRS TO OREDM PREDICT METHOD
34325698	PROVIDE API FUNCTION TO DROP A NAMED MODEL
26865094	ENABLE PATTERN MATCHING FOR ORE.SCRIPTLOAD AND ORE.SCRIPTDROP
26248901	ADD TOPN BESTN OPTION IN ORE.ODM MODEL PREDICTION
21576922	ORE.DELETE FOR DATASTORE TO SUPPORT PATTERN FOR BATCH DELETION
17654997	DATASTORE - PROVIDE ABILITY TO RENAME EXISTING DATASTORE AND CONTAINED OBJECTS
21106144	EMBEDDED R PASSES FACTOR COLUMNS AS CHARACTER
20417467	ORE: USING R OPERATOR %IN% PRODUCES ERROR ORA-00913 FOR LARGE VECTORS
22567206	ORE.SCRIPTLIST AND VIEWS TO SHOW RQ\$ & RQG\$ SCRIPTS VISIBLE TO USER
22558188	ORE UNINSTALL REMOVING ORACLE_HOME/R DIRECTORY
22554793	ORE.SCRIPTDROP: NEED BETTER ERROR IF SCRIPT IS NOT IN USER SCHEMA
32286586	RQSYS USER AUTHENTICATION_TYPE SHOWS PASSWORD AND ACCOUNT_STATUS SHOWS EXPIRED & LOCKED
34485716	ORE.SUMMARY FAILED WITH STATS SET TO MODE AND NMIS
27201219	PREDICT ON ORE.ODMESA MODEL WITH TYPE="RAW" PRODUCES ERROR " IDENTIFIER IS TOO"
27194453	ESA MODEL FEATURE_COMPARE SHOULD RETURN ONLY NON-DUPLICATE RESULTS
26026670	TAIL FUNCTION DOES NOT WORK CORRECTLY FOR ORE.FRAME
23732451	ORE.CORR(): WEIGHT ARGUMENT RETURNS ERROR

Copyright © 2012, 2023, Oracle and/or its affiliates.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle®, Java, and MySQL are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.