These Release Notes contain important information not included in the Oracle REST Data Services documentation.

This document contains these topics:

- Checking for the Most Current Release
- New Features and Other Changes
- Bugs Fixed
- Open Bugs and Known Issues
- Documentation Accessibility

See Also: readme.html in the folder where you unzipped the Oracle REST Data Services installation kit, for detailed information about new features, changes, and issues fixed.

1 Checking for the Most Current Release

Oracle REST Data Services is released more frequently than Oracle Database. To view information about or download a more current release (including a possible beta or "early adopter" release), see:


2 New Features and Other Changes

This section describes new features and other changes and enhancements for Oracle REST Data Services releases.

- Release 3.0.0
- Release 3.0.1
- Release 3.0.2

See Also: Bugs Fixed

2.1 Release 3.0.0

Oracle REST Data Services release 3.0 includes the following new features and other changes:

- Changes to the Oracle REST Data Services Installer
2.1.1 Changes to the Oracle REST Data Services Installer
You can now install Oracle REST Data Services with its own schema and define
RESTful services.

You have options to run the installation in simple or advanced mode to prompt you
for the information. The installation process is simple and fast.

The installer provides the option to migrate RESTful Service definitions stored in
Application Express workspaces to Oracle REST Data Services-enabled schemas.

The installer provides an uninstall command; enter java -jar ords.war help
uninstall for more information.

Oracle Application Express is no longer required for an Oracle REST Data Services
installation. (It was required in Oracle REST Data Services releases 2.0.n.)

2.1.2 PL/SQL API for Creating RESTful Services
This release previews the PL/SQL API for creating and editing restful services using
PL/SQL, enabling the creation and maintenance of RESTful services to be scripted via
PL/SQL. The API also exposes all the OAuth 2.0 functionality, enabling OAuth Clients
to be registered and managed. Note that this API is subject to change before the final
release of 3.0.0.

2.1.3 OAuth 2.0 Client Credentials Grant Support
The OAuth 2.0 Client Credentials Grant type is now supported, enabling server to
server authorization via OAuth 2.0, which is an important use case for enterprise
applications.

2.1.4 RESTful Privileges Can be Mapped to URL Patterns
RESTful privileges can now be associated with arbitrary URL patterns, enabling
RESTful privileges to protect any database resource accessed through Oracle REST
Data Services, including JSON Collection store resources and AutoRest resources.
Privilege to URL mappings can be configured using the PL/SQL API or using SQL
Developer.

This and the preceding feature mean that JSON Collection store resources and
AutoRest resources can now be protected by OAuth 2.0.
2.1.5 Improved NoSQL Database Support
The /store prefix on NoSQL Database resources has been eliminated, and support has been added for the new DDL capability introduced in NoSQL Database 3.2.5, enabling DDL statements to be issued through a RESTful endpoint.

2.1.6 RESTful Services Query Filtering Support
RESTful Services (that perform SQL queries) now support the specification of a JSON based filtering clause to further constrain the query. The filter clause can either be specified by including it as a parameter of the service's query string, or by submitting a POST request with the filter clause as the body of the POST request.

2.1.7 Java API for Oracle REST Data Services Plugins
A new Java API enables third parties to contribute extensions to the Oracle REST Data Services runtime. (Note that this API is subject to change before the final release of Oracle REST Data Services 3.0.0.) For more information, see the following under the location where you installed Oracle REST Data Services:

- Documentation: docs\javadoc\plugin-api
- Tutorial demonstrating how to compile and add a plugin: examples\plugins\plugin-demo

2.1.8 "Developer's Guide" Material Now in Oracle REST Data Services Installation, Configuration, and Development Guide
The Oracle REST Data Services Installation, Configuration, and Development Guide has been expanded to include material based on the old, unofficial "developer's guide" that was supplied as a file named restful_services_devguide.html.

The development material is now in the chapter titled "Developing Oracle REST Data Services Applications".

2.1.9 Apache JServ Protocol (AJP) Support Removed
Apache JServ Protocol (AJP) support has been removed because Jetty is now used as the run time for standalone mode. Jetty does not support AJP.

2.1.10 SQL Developer 4.1 Graphical Interface for Oracle REST Data Services
Oracle SQL Developer release 4.1 provides a graphical user interface and enables users to install Oracle REST Data Services and run it in standalone mode within SQL Developer. Within SQL Developer you can create, edit and validate RESTful services that are stored in Oracle REST Data Services schema.

For more information, see the topic "Oracle REST Data Services Administration and Development" in Oracle SQL Developer User’s Guide or in the SQL Developer online help.

2.2 Release 3.0.1
See the readme.html file for detailed information about new features and other changes for this release. These include:

- Oracle 12c multitenant architecture support, which is explained in the new "Using the Multitenant Architecture with Oracle REST Data Services" appendix in Oracle REST Data Services Installation, Configuration, and Development Guide.
• A new "Getting Started with RESTful Services" appendix in Oracle REST Data Services Installation, Configuration, and Development Guide.

• Standalone mode document root for serving arbitrary static resources

• A new book, Oracle REST Data Services SODA for REST Developer's Guide.

### 2.3 Release 3.0.2

See the readme.html file for detailed information about new features and other changes for this release.

### 3 Bugs Fixed

The following section lists bugs fixed in Oracle REST Data Services. Numbers in parentheses following the problem description refer to bug numbers in the Oracle Bug Database.

**Tip:** This section is current as of the writing of this document. To view the most current information, see Section 1, "Checking for the Most Current Release".

This section contains the following topics:

- Bugs Fixed in Oracle REST Data Services in Release 3.0.0
- Bugs Fixed in Oracle REST Data Services in Release 3.0.1

#### 3.1 Bugs Fixed in Oracle REST Data Services in Release 3.0.0

See readme.html in the folder where you unzipped the Oracle REST Data Services installation kit for detailed information about problems, fixes, and issues. In addition to the fixes listed in that file, the bugs fixed since the final 2.0.n release include the following:

- Fixed a problem where the Oracle REST Data Services uninstall script sometimes did not work, often with no explanation or an unhelpful one. (20140082)

- Ensured that a transaction for original resource handler is committed before forwarding the request to the GET handler. (20197577)

- Correctly handle escaped slash characters in JSON values. (20221841)

- Addressed regression in 3.0.0 EA1 that prevented tabular forms in Application Express from working correctly. (20536145)

- Ensured that @ApplicationScoped services are not started when the command line is active. (20568202)

- Enabled PL/SQL Gateway support for the HEAD operation. (20601219)

#### 3.2 Bugs Fixed in Oracle REST Data Services in Release 3.0.1

See readme.html for information about bugs fixed since Release 3.0.0 and since the previous beta (Early Adopter 1) of Release 3.0.1.
3.3 Bugs Fixed in Oracle REST Data Services in Release 3.0.2
See readme.html for information about bugs fixed since Release 3.0.0 and Release 3.0.1.

4 Open Bugs and Known Issues
This section describes bugs and known issues for Oracle REST Data Services.
See also readme.html in the folder where you unzipped the Oracle REST Data Services installation kit for possible additional information about problems, fixes, and issues.

4.1 SODA
■ Indexing of TIMESTAMP type does not work.
■ HEAD responses incorrectly report 0 (zero) as the content length, and some also incorrectly report 204 (no content) as the status.

4.2 Application Express RESTful Service Migrations
■ Migrating Application Express-based RESTful Services is not handling the case where a database does not contain any Application Express schema. It also does not handle the case where the installed version of Application Express is 5.0.0 or later. (Bug 21302877)

4.3 Autogenerated REST Endpoints
■ AutoREST resources support the OAuth 2.0 Client Credentials flow only.

4.4 NoSQL
■ It is currently not possible to access secured NoSQL REST Endpoints with OAuth 2.0. Only first-party cookie authentication is supported.

5 Documentation Accessibility
For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

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