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Oracle Policy Automation 10.1.0 Release Notes

Contents

Release Overview

Oracle Policy Automation 10.1 is an update to version 10.0, with several new features.

Policy Modeling
- Build and continue in Debugger
- Auto-include additional files at build time into rulebase.zip
- Command-line support for Regression Tester
- A new Entity and Relationship function – InstanceValueIf
- Entity Containment

Runtime
- Prevent custom functions making session data changes
- InferencingListener enhancements
- Rulebase Service Plug-in
- openSUSE Linux 11 support

These release notes cover Oracle Policy Modeling and Oracle Policy Automation runtime components, for both versions 10.0 and 10.1. Oracle Policy Automation Connector for Siebel 10.1 is available separately.

The following table summarizes new features of 10.0 and 10.1:

Product / Component	Feature / Enhancement
Oracle Policy Modeling	Rule Authoring • Faster startup and improved memory management • Automatic project upgrade from version 9.x • Define variables in Word directly into Properties files • Cross-entity reasoning functions and new rule syntax • Restructured on-line help materials • **InstanceValueIf function** *(new in OPA 10.1)* Interview Authoring • Built-in Screen Flow authoring replaces Visio flows • Screen Order feature simplifies backward chaining interviews • Streamlined commentary file management • **Automatic entity containment** *(new in OPA 10.1)* Debugging • New date, datetime and timeofday datatypes supported • Support for inferred relationships and partial knowledge • Manage collected/uncollected status for relationship data • Reverse relationships automatically handled for many-to-many • **Build and continue in debugger** *(new in OPA 10.1)* Testing • New date, datetime and timeofday datatypes supported • Build and Run with Oracle Determinations Server • Mass Case Tester still supported

	• **Command-line regression testing** *(new in OPA 10.1)* Localization and Language Support • Syntactic parsers for Chinese (Simplified), French and Spanish • All functions supported in new and existing syntactic parsers • Non-syntactic parsers for 15 other languages • Word/Excel experience and function reference in 24 languages • User configurable non-syntactic parsing for any other language Packaging and Platform Support • Full Windows 32-bit installer, with dependencies • Group Policy package without dependencies via Oracle Support • Support for Windows 7 • **Auto-include files in rulebase zip file** *(new in OPA 10.1)*
Oracle Web Determinations	User Experience • Accessible - WCAG 1.0 AA, and Section 508 compliance • Navigation bar shows progress through interview • HTML and PDF documents generated out of the box • Available out-of-the-box in 24 languages Data Collection and Screens • Entity data collection support many-to-many relationships • Uses defined Screen Flow or Screen Order to select screens Extensibility • Template-driven skinning and theme support for configurable look and feel • Pluggable screens, validation and event handling via new APIs • Extend and modify HTML, PDF and other document generation • New technical help materials • **Rulebase service plug-in API** *(new in OPA 10.1)* Deployment and Platform Support • Java and .NET now both fully supported with all features • Multiple languages supported from a single running instance • Multiple rulebases supported from a single running instance
Oracle Determinations Server	• New oracle namespace • Backward compatible with all pre-10.0 WSDL versions • Improved performance of both Java and .NET versions • Support for Oracle Application Server • Improved compatibility with various App Server • Date, datetime and timeofday datatype support • Inferred relationships handled in decision reports • Debugging now off by default
Oracle Determinations Engine	• **Note:** Projects must be recompiled to run in OPA 10 engine • API extensions for all new features as needed • Date, datetime and timeofday data types • Inferred relationships • Reasoning with partial knowledge • Single file rulebase deployment and streamlined loading • Default locale defined, and locale API improved • **Custom functions can't change sessions** *(new in OPA 10.1)* • **InferencingListener enhancements** *(new in OPA 10.1)*

Oracle Policy Automation - General	• Platform independent packages for Oracle Policy Automation, for both Java and .NET runtime components
	• New Install Guides that replace Platform Administrator Guide
	• **Linux on System z and Linux on Power Systems** support *(new in OPA 10.1)*
	• **openSUSE Linux 11 support** *(new in OPA 10.1)*

The following sections outline the new functionality in the 10.1 release only. For more information on the new capabilities of 10.0, see **Oracle Policy Automation 10.0.0 - Release Notes**.

Oracle Policy Modeling

Singleton entities should not be used

Singleton entities are deprecated and should not be used. Errors will occur in Web Determinations interviews if singleton entities are related to data needed for the interview.

For global data, use the global entity. An entity with a one-to-one relationship with the global entity should be used if there may be either zero or one instance of that related entity.

InstanceValueIf function

InstanceValueIf is a new function that retrieves an attribute value from a set of target entity instances, using a condition.

For example, *InstanceValueIf(the children, the eldest child's date of birth, the child's age = InstanceMaximum(the children, the child's age))* could be used to obtain the date of birth of the eldest child in a family, provided there is one such matching child.

Automatic entity containment

Due to the new *inferred relationship*s feature introduced in OPA 10.0, Web Determinations could not always determine whether additional entities needed be collected.

In version 10.1, a solution to this has been introduced via the concept of *containment relationships*. A containment relationship is a one-to-many relationship from a parent entity to a child entity. In version 10.1 containment relationships are identified automatically by the compiler. In future versions, it is planned for containment relationships to be able to be defined by a rulebase author.

Build and restart debugging

During debug, it is now possible to make rule changes, compile and build, and continue debugging with the new rules, while retaining current debug session data. You no longer need to Export and Import the debug session data between builds.

Command-line support for Regression Tester

A new RegressionTester command line tool has been added, called Oracle.Policy.Modeling.RegressionTester.CmdLine.exe. The regression test rules are saved to a specified output file. Optionally, these may be in JUnit format. Two modes are supported: an automatic project test mode that runs all project regression tests, and a manual rulebase plus test file mode, in which specific tests are executed against a particular rulebase.

Auto-include additional files into rulebase zip file

Any files placed into a folder called "include" under the project directory will now be automatically added into the rulebase zip file when the project is built.
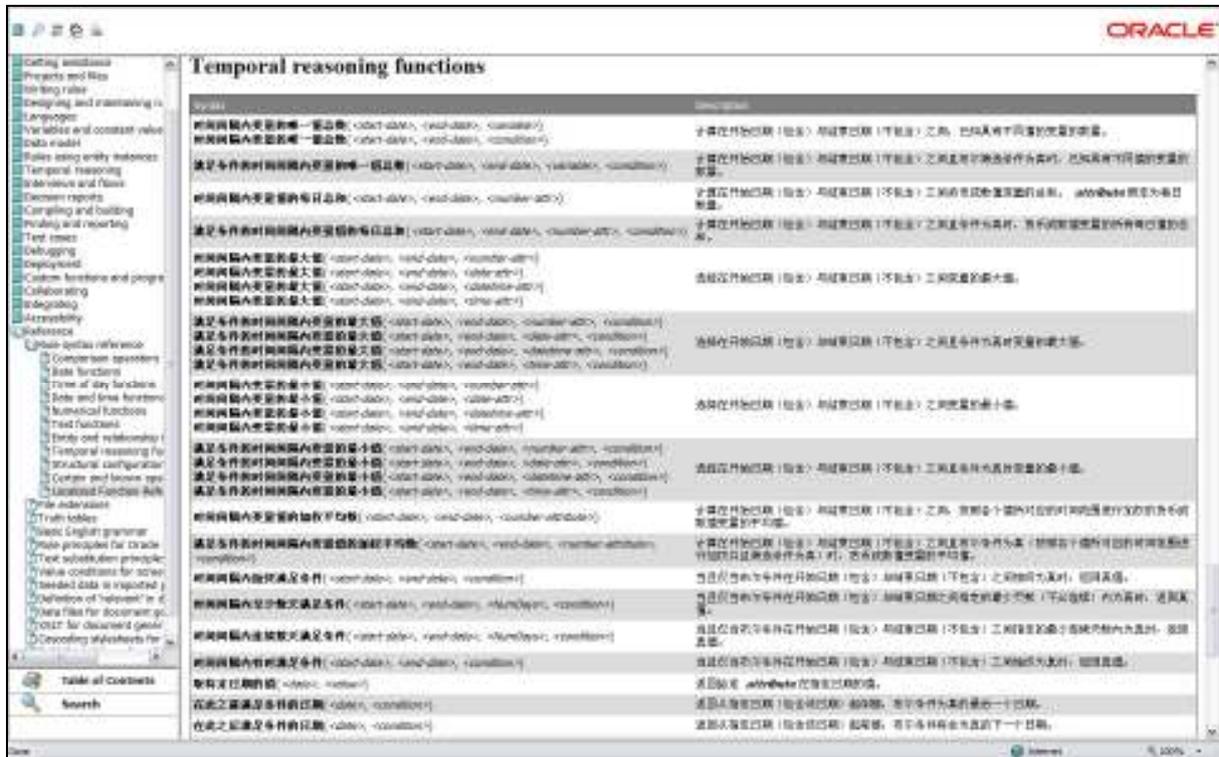
This is useful for custom function files, Web Determinations commentary, and language translation files, for example.

This replaces the previously recommended approach of placing files in the "output" folder. The output folder can now be safely excluded from source control, and deleted between builds if desired.

Translated function reference

The function reference now describes each function in the language parser language, instead of in English. The function reference is available from the Oracle Policy Modeling Help menu, and is automatically shown in the current project parser language.

The function reference for all parser languages is also now available in the Oracle Policy Modeling Help: Reference > Rule syntax reference > Localized Function References

Available language parsers

Language	Locale code	Parser Type
Arabic (Egypt)	ar-EG	Non-syntactic
Arabic (Saudi Arabia)	ar-SA	Non-syntactic
Arabic (U.A.E.)	ar-AE	Non-syntactic
Brazilian	pt-BR	Non-syntactic

Chinese (Simplified)	zh-CN	Syntactic
Chinese (Traditional)	zh-TW	Non-syntactic
Czech	cs-CZ	Non-syntactic
Danish	da-DK	Syntactic
Dutch	nl-NL	Syntactic
English (Australian)	en-AU	Syntactic
English (Canada)	en-CA	Syntactic
English (United Kingdom)	en-UK	Syntactic
English (United States)	en-US	Syntactic
Finnish	fi-FI	Non-syntactic
French	fr-FR	Full syntactic
German	de-DE	Non-syntactic
Hebrew	he-IL	Non-syntactic
Italian	it-IT	Non-syntactic
Japanese	ja-JP	Non-syntactic
Korean	ko-KR	Non-syntactic
Polish	pl-PL	Non-syntactic
Portuguese	pt-PT	Non-syntactic
Russian	ru-RU	Non-syntactic
Spanish	es-ES	Syntactic
Swedish	sv-SE	Syntactic
Thai	th-TH	Non-syntactic
Turkish	tr-TR	Non-syntactic

The translated rule authoring experience in Word and Excel has been updated for every syntactic and non-syntactic parser language.

Oracle Web Determinations

Rulebase service plug-in

The Rulebase Service Plugin API is a new Interview Engine plug-in API. This API allows a developer to override the default rulebase loading behavior. For example, a custom data store could be used to

store and retrieve the rulebase data, or changes could be made to how frequently the rulebase is reloaded, for example.

Localization

Updates were made to the default Oracle Web Determinations user interface is all 24 languages for which a syntactic or non-syntactic parser is available.

Oracle Determinations Engine

Prevent custom functions making session data changes

An error will now occur if a custom function handler or inferencing listener attempts to make direct changes to the session in the middle of an inferencing cycle.

Although in previous releases it was possible to change session data in a custom function handler or inferencing listener, this practice could cause instability in the engine (at worst) or inconsistent behaviour (at best) and was officially strongly discouraged.

For the recommended alternative if this functionality is required, see **Inferencing Listener enhancements**.

Inferencing Listener enhancements

If an inferencing listener makes session data changes, the engine will now automatically trigger another inferencing cycle if those changes cause other rules to trigger.

Inferencing listeners may make changes to session data before or after an inferencing cycle. If an inferencing listener needs to make changes in response to a rulebase event, it should set some internal flag and wait until the end of the current inferencing cycle to make those changes.

General Features

New Supported Platforms

Linux on System z and Linux on Power Systems

Oracle Determinations Server and Oracle Web Determinations are now certified for SUSE Linux Enterprise Server 10 (in 64-bit mode) on IBM System z, System i and System p.

openSUSE Linux 11

Oracle Determinations Server and Oracle Web Determinations are now certified for openSUSE Linux 11

User Assistance

The following user assistance materials are available for Oracle Policy Automation 10.1.0:

Installation Guides

Oracle Policy Modeling Installation Guide
Oracle Policy Automation Installation Guide

Oracle Policy Automation On-Line Help

Oracle Policy Modeling Help
Oracle Policy Modeling RLS Tool User Guide
Oracle Policy Modeling Mass Case Tester Help
Oracle Policy Automation Developer Help

Installation Packages

Product	Components	Notes
Oracle Policy Modeling	• Policy Modeling Installation Guide (PDF) • Policy Modeling (installer) • Policy Modeling Help	
Oracle Policy Automation for .NET	• Policy Automation Installation Guide (PDF) • Web Determinations (.NET) • Determinations Server (.NET) • Determinations Engine Data Source Connector (.NET) • Determinations Engine (.NET) • Determinations Engine for Mobile Devices (.NET) • Policy Automation Developer Help (HTML)	For ease of extraction and installation of the necessary runtime components on target systems no installer program is used.
Oracle Policy Automation for Java	• Policy Automation Installation Guide (PDF) • Web Determinations (Java) • Determinations Server (Java) • Determinations Engine Data Source Connector (Java) • Determinations Engine (Java) • Determinations Engine for Mobile Devices (Java) • Policy Automation Developer Help (HTML)	Distributed in a single zip file. For ease of extraction and installation of the necessary runtime components on target systems no installer program is used.

Key Issues addressed in OPA 10.1.0

Area	Description
Policy Modeling - Installation	OPM installation will now use a custom directory if specified
Policy Modeling - Excel locale handling	Fixed "Old format or invalid type library" error in Excel when the client computer runs the English version of Excel and the locale for the current user is configured for a language other than English

Policy Modeling - Excel template	Entity declaration styles are no-longer included in the default Excel template
Policy Modeling - Public Names	Extra validation to prevent spaces in Public Names
Policy Modeling - Properties Files	Excluded properties files no longer appear in the add attribute dialog box
Policy Modeling – Build and Run	Build and Run with Web Determinations now works when Windows regional settings uses "," as decimal separator
Policy Modeling - Relationship Editor	The relationship editor has been modified so that a warning icon with tooltip error message will be displayed next to the dropdown if: 1. source is global or singleton and relationship type is many-to-many or many-to-one or 2. target is global or singleton and relationship type is one-to-many or many-to-many. In addition, errors will be displayed in the task list for any relationships that satisfy the above criteria. This is redundant for any new rulebases, because the relationship editor now prevents such relationships from being created. However this will find such problems in rulebases that have been authored in version 10.0 or earlier.
Policy Modeling – Swedish Parser	In the Swedish parser template, "it is unknown whether (or not)" is now mapping to "Unknown" rather than "Known"
Engine - NextDate function	Error when input is final day of the year fixed for NextDate function
Engine - Custom Functions	The Determinations Engine now explicitly prevents changes to the session data when using custom functions.
Engine – Deployment	A rulebase that has a name that starts with a number can now be deployed in the Determinations Server
Engine - Relationships	To work around issues with cross-entity reasoning in Web Determinations interviews, the concept of containment has been introduced in the product (topic - Understand entity collection and containment relationship in the Oracle Policy Modeling Help). For 10.1 a heuristic has been added to define the containment relationship between entities and include that information in the compiled rulebase
Engine – Entity Collection	Entity collection is now entirely inferred by the engine. Entity collection status cannot be directly set by the user at any point and therefore is not imported/exported with XDS files.
Engine – Decision Reports	In Decision Reports only relevant attributes are provided
Engine - Performance	Performance enhancements have been made to running large rulebases in the Determinations Server
User Assistance – Search	Searching OPA documentation for text strings surrounded by quotes now works

User Assistance – API Reference	API reference improved to list valid data types

User Assistance – API Reference	In previous versions the zip files containing the API references were included in the *engine* and *web-determinations* directories of the Java and .NET runtime zip files. This made them hard to find. A new directory *api* now appears under the *help* directory (at the same level as the *run* directory) containing these four zip files
	Java runtime zip:
	    engine\determinations-engine-doc.zip
	    web-determinations\web-determinations-doc.zip
	DotNet runtime zip:
	    engine\determinations-engine-net.zip
	    engine\masquerade-net.zip

Known Issues

Issue	Description
Test cases saved in certain locales may need manual updating	In versions prior to 9.4.2, test cases containing numeric values were saved using the numeric format of the current system locale. So, for example, if the Windows XP locale was set to the Netherlands, the numeric value 1000.5 was saved in the XML test case file as "1.000,5". In versions 9.4.2 and 10.0, the format of saved numeric values is no longer dependent on your current system locale, to ensure consistency across all systems. When loading test cases from earlier versions, the system cannot tell what locale they were saved using, so some test case values may be misinterpreted. If you experience unexpected test case failures after upgrading, open failed test cases and manually correct any numeric values that have been interpreted incorrectly.
Some test cases may become known that were previously unknown	Partial Knowledge reasoning allows decisions to be made when only some of the members of a relationship are provided. E.g. if only some of the children are known. As a result, some test cases that were previously unknown may become known when inferred in the 10.0 engine. You should update your expected test case outcomes as a result. The reverse (known values becoming unknown) will never happen.
Visio flows not supported, even when running with a 9.x WSDL	Visio flows have been replaced by a new screen flow component, and are not supported in Oracle Determinations Server 10. Visio flows should be migrated to the new Screen Flow feature.
No web service API for interviews	At this time, no web service API is provided for interviews. A future release is planned to provide a new interview web service API to support

	development of interactive applications in an SOA.
Temporal reasoning does not function over inferred relationships	Relationships inferred from values that contain time based values cannot be expected to return correct results. This is planned to be addressed in a future release.
Folder paths in IsHTML control captions aren't cross-platform compatible	For interviews deployed to Web Determinations for .NET to function correctly on IIS, paths used in IsHTML control captions must include .aspx in the folder name. This will prevent the same interview from working if then deployed to a Java application server, such as through the Build/Build and Run menu item. For example, *../../../images/button.gif* must be entered as *../../../images.aspx/button.gif*, and *../../../commentary/some-word-text* as *../../../commentary.aspx/some-word-text*
Singleton entities not supported in Oracle Web Determinations	Oracle Web Determinations 10.0 does not support rulebases that contain singleton entities. Singleton entities should be removed and their attributes added to the global entity instance.
Functions are not supported when concluding text attributes in Excel rule documents	Entering a function in a cell as a conclusion may be incorrectly parsed as a string value if the concluded attribute type is text.
Time of day values in session data files from previous releases may not import correctly	Old .xds files with Time Of Day attributes are no longer being imported successfully due to a change made in the element/field name during import-export, that results in the actual values being set to "Unknown". Before it was <time-of-day-val> </time-of-day-val> Now it's <time-val></time-val>

Feedback and Links

Oracle products are designed according to your needs. We appreciate your feedback, comments or suggestions.

Let us know what you think.

Discussion forum for Oracle Policy Automation

http://forums.oracle.com/forums/forum.jspa?forumID=828.

Support web site

http://www.oracle.com/support/index.html

Oracle Policy Automation on Oracle Technology Network

http://www.oracle.com/technology/products/applications/policy-automation.