

Oracle® Retail Replenishment Optimization
Administration Guide
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Preface

Oracle Retail Administration Guides are designed so that you can view and understand the application's 'behind-the-scenes' processing, including such information as the following:

- Key system administration configuration settings
- Technical architecture
- Functional integration dataflow across the enterprise
- Batch processing

Audience

This document is intended for the users and administrators of Oracle Retail Replenishment Optimization (RO). This may include merchandisers, buyers, and business analysts.

Related Documents

For more information, see the following documents in the Oracle Retail Replenishment Optimization 13.0 documentation set:

- *Oracle Retail Replenishment Optimization Release Notes*
- *Oracle Retail Replenishment Optimization Installation Guide*
- *Oracle Retail Replenishment Optimization User Guide*

Customer Support

- <https://metalink.oracle.com>

When contacting Customer Support, please provide:

- Product version and program/module name.
- Functional and technical description of the problem (include business impact).
- Detailed step-by-step instructions to recreate.
- Exact error message received.
- Screen shots of each step you take.

Review Patch Documentation

For a base release (".0" release, such as 13.0), Oracle Retail strongly recommends that you read all patch documentation before you begin installation procedures. Patch documentation can contain critical information related to the base release, based on new information and code changes that have been made since the base release.

Oracle Retail Documentation on the Oracle Technology Network

In addition to being packaged with each product release (on the base or patch level), all Oracle Retail documentation is available on the following Web site:

http://www.oracle.com/technology/documentation/oracle_retail.html

Documentation should be available on this Web site within a month after a product release. Note that documentation is always available with the packaged code on the release date.

Conventions

Navigate: This is a navigate statement. It tells you how to get to the start of the procedure and ends with a screen shot of the starting point and the statement “the Window Name window opens.”

Note: This is a note. It is used to call out information that is important, but not necessarily part of the procedure.

This is a code sample
It is used to display examples of code

A [hyperlink](#) appears like this.

Setting and Updating Replenishment Rule Groups

Replenishment Rule Groups

Replenishment Optimization (RO) allows users to specify Replenishment rules based on business needs. For example, high selling SKUs in a certain Department in a Region might need to have special Replenishment Rules to meet business goals. User can specify these business rules through a flat file interface that is parsed by RO batch scripts. (Please refer to Appendix: Flat File Interface Syntax for more information.) This is called Replenishment Rule Group Definition.

Once Replenishment Rule groups are defined, Replenishment thresholds are entered for each Replenishment Rule group through the Replenishment Admin Workbook. Thus the Replenishment Rule Groups allow for the grouping item/Locations based on business criteria. The Replenishment Thresholds are then assigned to Replenishment Rules or Replenishment Rule IDs. A Replenishment Rule (ID) uniquely identifies a combination of Replenishment Method and its parameters.

The Replenishment Rule Groups, Replenishment Thresholds and the Replenishment Rule IDs (Replenishment Method and Parameters) are based on best practices developed by Oracle Retail Consulting. These are fed into the RO system via a combination of the Replenishment Rule Group Definition File (flat file interface) and the Replenishment Admin Workbook. For more details, please refer to the *RO User Guide*.

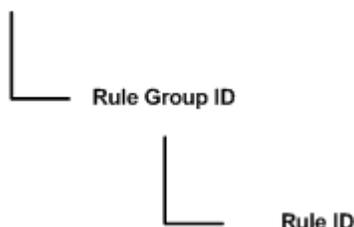
Creating and updating Replenishment Rule Groups is currently a three-step process:

1. Creating or updating the Replenishment Rule Hierarchy file and loading the hierarchy
2. Updating the flat file: rule_grp_def_file.txt with necessary business constraints
3. Running "run_create_rule_grps.sh" batch script

Note that the Replenishment Rule group criteria essentially consist of combination of hierarchy and measure values. Since these values must reflect changes in position names/reclassification of Items, the specification for these criteria is kept outside of the configuration using a flat file interface.

The Replenishment Rule Hierarchy is implemented in RO as a separate RPAS hierarchy with two dimensions. The Replenishment Rule ID dimension which rolls up to the Replenishment Rule Group dimension.

Rule Hierarchy



Creating or Updating Replenishment Rule Hierarchy File

This entails the Administrator defining a Replenishment Rule Group and Replenishment Rule ID roll ups. The number of Replenishment Rule Groups and Replenishment Rule IDs within each Replenishment Rule Group are a result of the best practices developed by the Oracle Retail Consulting group and are unique to each Client's business.

Once the number of Replenishment Rule Groups and Replenishment Rule IDs are established, the Replenishment hierarchy file (repl.dat) needs to be updated or created accordingly:

The number of Replenishment Groups is determined by the number of special sets of Replenishment Rules that need to be applied. For example, if there are two sets of special Replenishment Rules: one for High Selling SKUs in Dept A with average weekly sales > 800 and another for high cost Items in Dept B with average unit cost > \$400 then there will exist **three** Replenishment Rule Groups. One each for the 2 business criteria above and a third "Default" Replenishment Rule Group for all other item/locations that don't meet the above criteria.

The Replenishment Rule Group IDs are assigned based on the order in which the business criteria are entered in the flat file interface (rule_grp_def_file.txt). It is therefore important that they align correctly with the hierarchy file (repl.dat). The Default Replenishment Rule group will automatically get assigned to the first Replenishment Rule Group ID (i.e., the first position in the Replenishment Rule Group dimension). Each subsequent business criteria or rule specified in the rule_grp_def_file.txt will get assigned to the next position in the Replenishment Rule Group dimension.

In our example, we have established that we need three Replenishment Rule Group IDs. We now need to assign corresponding Replenishment Rule for each Replenishment Rule Group (this number can be different for different Replenishment Rule Groups).

Thus to summarize, first identify the number of distinct Replenishment Rule Groups are needed. This number should equal the number of special Replenishment Rule sets plus one for the Default set of Replenishment Rules. Next, identify the number of distinct Replenishment Rule IDs that need to exist within each Replenishment Rule Group.

Note: It is useful to enter descriptive hierarchy labels to make the Replenishment Rule groups and IDs more intuitive.

Below is an example repl.dat hierarchy file:

```

1_1    LowVolume/LowVariability-Default Group      1      Repl Grp 1-Default
1_2    LowVolume/HighVariability-Default Group     1      Repl Grp 1-Default
1_3    HighVolume/LowVariability-Default Group     1      Repl Grp 1-Default
1_4    HighVolume/HighVariability-Default Group    1      Repl Grp 1-Default
2_1    LowVolume/LowVariability-Repl Group 2      1      Repl Grp 2-Dept1310 Or
Dept1110 and Average Revenue>800
2_2    LowVolume/HighVariability- Repl Group 2    1      Repl Grp 2-Dept1310 Or
Dept1110 and Average Revenue>800
2_3    HighVolume/LowVariability- Repl Group 2    1      Repl Grp 2-Dept1310 Or
Dept1110 and Average Revenue>800
2_4    HighVolume/HighVariability- Repl Group 2    1      Repl Grp 2-Dept1310 Or
Dept1110 and Average Revenue>800

```

Creating or Updating rule_grp_def_file.txt File

The rule_grp_def_file.txt is the flat file interface for Administrators to enter business criteria for special Replenishment Rule sets. This flat file is parsed by the run_create_rule_grps.sh batch script, which processes these criteria and assigns corresponding Replenishment Rule IDs to item/locations.

In our example above, we have two special business criteria: one for High Selling SKUs in Dept A with average weekly sales > 800 and another for high cost Items in Dept B with average unit cost > \$400.

Say the Average Weekly Sales are stored in the measure: AvgSalesU

Average Unit Cost is stored in the measure: GCost_

This would translate to the following two criteria that need to be entered by user:

```
deptDIM=="A"&& AvgSalesU > 800
```

```
deptDIM=="B" && GCost_ > 400
```

Please refer to Appendix: Flat File Interface Syntax for more information.

Setting and Updating Exception Groups

RO allows users to input different Exception or Alert thresholds for item/locations that meet specific business criteria. For example, if it is important to watch the out of stock rate for high revenue items of Dept A more closely, it can be done so by specifying lower Alert thresholds for this group of items. This grouping of item/locations to specify alert thresholds can be considered analogous to the Replenishment Rule Groups definition. In fact, both of these functionalities are implemented in the same way with in RO.

The exception grouping is implemented in RO as a separate, single dimension hierarchy with in RPAS (similar to the Replenishment Rule hierarchy).

Creating or Updating Exception Hierarchy File

This entails specifying the pre-determined number of exception groups. For example, if high revenue Items ($\text{AvgDemandR} > 400$) of Dept A are to be treated specially:

The exception dimension consists of two positions: the Default Exception group and the special group of item/locations that meet the above business criteria.

An example of the excp.dat hierarchy file would be as follows:

```
1           Default
2           DeptA and AvgDemand Revenue > 400
```

Note that this hierarchy only consists of one dimension.

Creating or Updating exp_def_file.txt File

Creating or updating this file is similar to updating the rule_grp_def_file.txt file. For our example above, the entry in the exp_def_file.txt would be as follows:

```
DeptDIM=="A" && AvgDemandR > 400
```

This file is parsed by the run_create_exp_grps.sh batch script which assigns a Default Excp ID (first position in the excp.dat hierarchy file) for all item/locations that don't meet the above criteria and assigns the special excp ID (second position in the excp.dat hierarchy file) for all item/locations that meet the above criteria.

Appendix: Flat File Interface Syntax

As noted previously, the Replenishment Rule group and Exception group criteria essentially consist of combination of hierarchy and measure values. Below is the syntax for specifying these criteria in the flat file interface. Note that the same syntax applies for both the rule_grp_def_file.txt and exp_def_file.txt.

1. Each business criteria is entered as a single line and delimited by end of line.
2. Hierarchy dimension criteria are entered followed by the keyword "DIM". For example, Dept is entered as deptDIM and Subclass is entered as sclsDIM.
3. Measure values are entered as is.
4. AND is entered as keyword: &&.
5. OR is entered as keyword: ||.
6. Braces: () help identify the precedence of expressions.

Example:

```
(deptDIM== "1310" || deptDIM == "1110") && avgdemandr > 800
```

7. RHS character values are to be entered in double quotes: " ".
8. The default grouping is implicit and is applied to all item/locations that do not meet any of the specified criteria. This criteria does not need to be specified.
9. If the same item/location meets more than one business criteria, it is assigned the first criteria that it meets. The precedence is based on the order in which this criterion is entered in the flat file. This logic was put in place to avoid accidentally overriding assignment.