

**Oracle® Retail POS Suite
13.3.3/Merchandising Operations
Management 13.2.3 Implementation
Guide**

October 2011

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Contents

| | |
|---|------|
| Send Us Your Comments | xvii |
| Preface | xix |
| Audience..... | xix |
| Documentation Accessibility | xix |
| Related Documents | xx |
| Customer Support..... | xx |
| Review Patch Documentation..... | xx |
| Oracle Retail Documentation on the Oracle Technology Network | xx |
| Conventions..... | xxi |
| | |
| 1 Integration Overview | |
| Data Import from Oracle Retail Merchandising System and Oracle Retail Price Management | 1-1 |
| Generic Data Import Flow | 1-3 |
| Feed Methods..... | 1-4 |
| Data Import Dependencies..... | 1-5 |
| Oracle Retail Price Management to Oracle Retail POS Suite Integration Overview | 1-6 |
| Oracle Retail Merchandising System to Oracle Retail POS Suite Integration Overview | 1-7 |
| Oracle Retail POS Suite to Oracle Retail Sales Audit Overview | 1-8 |
| Oracle Retail POS Suite..... | 1-8 |
| Oracle Retail POS Suite RTLog Files..... | 1-8 |
| Transport Middleware..... | 1-9 |
| Oracle Retail Sales Audit..... | 1-9 |
| Preconditions..... | 1-10 |
| Changing RTLog Locations..... | 1-10 |
| System Flow Description..... | 1-11 |
| Network Printing | 1-12 |
| | |
| 2 Integration Architecture | |
| Oracle Retail POS Suite to Oracle Retail Sales Audit Integration Architecture | 2-1 |
| RTLog Batch Generator..... | 2-1 |
| Sleep Interval | 2-2 |
| Maximum Transactions | 2-2 |
| Oracle Retail Sales Audit..... | 2-2 |

| | |
|--|-----|
| Data Import | 2-2 |
| Error Handling | 2-3 |
| Import Status Logging | 2-4 |
| The Logic | 2-4 |
| Reprocessing a Bundle | 2-5 |
| Exception Flow | 2-5 |
| Logging | 2-7 |
| RTLog Mapping and Translation | 2-7 |

3 Implementation Configuration

| | |
|---|-----|
| Data Import Spring Configurations | 3-1 |
| spring.properties | 3-4 |
| dimplogger.properties | 3-5 |
| Archive File Format | 3-5 |
| Oracle Retail Merchandising System Configuration | 3-8 |
| Oracle Retail Price Management Configuration | 3-9 |

4 Capacity Planning

5 Customization Notes

| | |
|--|------|
| Data Import Extension Points and Development | 5-1 |
| Import Adapter and Translator | 5-2 |
| SAXParserGenerator | 5-3 |
| Manually Editing Generated Code | 5-3 |
| Metadata | 5-5 |
| ImportControllerIfc | 5-6 |
| Oracle Retail POS Suite to Oracle Retail Sales Audit Extension Points and Development | 5-6 |
| Adding Data Elements to the RTLog Format | 5-6 |
| Blocking Transaction Export | 5-7 |
| Creating a New Fixed Length Export Record Format | 5-7 |
| Exporting a Non-Fixed-Length Record Format | 5-9 |
| Object Factories | 5-9 |
| StoreServerConduit.xml | 5-9 |
| DomainObjectFactory | 5-10 |
| ExtractorObjectFactory | 5-11 |
| EntityMappingObjectFactory | 5-11 |
| RTLogMappingConfig.xml | 5-11 |
| RecordFormatObjectFactory | 5-12 |
| Configuration | 5-12 |
| The Store Server Conduit File | 5-12 |
| The Export Format Configuration File | 5-13 |
| The Entity Reader Configuration File | 5-13 |
| The Mapping Configuration File | 5-14 |
| Development and Testing Tools | 5-15 |
| Classes | 5-15 |
| Executables in the bin Directory | 5-16 |

| | |
|---|------|
| Extending the RTLog Encryption Model..... | 5-17 |
|---|------|

6 Known Issues and Troubleshooting

| | |
|--|-----|
| Authorized for Sale | 6-1 |
| Clearance Pricing..... | 6-1 |
| Currency.XML Import Restart..... | 6-1 |
| Data Import | 6-1 |
| Data Import Field Width Maximums..... | 6-1 |
| Download of Items Currently on Promotion to New Stores..... | 6-2 |
| Hardcoded Attributes in Oracle Retail Merchandising System Extracts..... | 6-2 |
| Item Cost Attribute | 6-2 |
| Jar Extract | 6-2 |
| Multiple Regular Price..... | 6-3 |
| Need To Escape Special Characters In XML File..... | 6-3 |
| POSlog..... | 6-3 |
| Preload Section of ItemImport..... | 6-3 |
| Price Promotion/Discount Rule endDateTime in Pricing Import XSD..... | 6-3 |
| Promotion ID Item Not On File | 6-3 |
| Reason Codes for Price Discount..... | 6-3 |
| RegistryEligible Field..... | 6-3 |
| Retail Price Field Size Limitation..... | 6-4 |
| Special Order Eligible Coupons..... | 6-4 |
| Store ID Maximum Length..... | 6-4 |
| Transaction-Level Items | 6-4 |

7 Existing Functionality Gaps

| | |
|--|-----|
| Oracle Retail Price Management..... | 7-1 |
| Oracle Retail Point-of-Service..... | 7-3 |
| Oracle Retail Merchandising System | 7-3 |
| Data Import Field Width Maximums..... | 7-5 |
| Known Integration Gaps | 7-8 |
| Bank Deposit Details | 7-8 |
| Branded Debit Card Transactions..... | 7-8 |
| CatchWeight Item in RTLog..... | 7-8 |
| Character Restrictions for UOMs | 7-8 |
| CTILL Records in the RTLog..... | 7-8 |
| Data Mismatches in Data Import | 7-8 |
| Character Restrictions for ContactAddressCity..... | 7-8 |
| Character Restrictions for External Event ID | 7-8 |
| Character Restrictions for Item Cost/Unit Cost..... | 7-9 |
| Character Restrictions for PriceOverrideAmount..... | 7-9 |
| Character Restrictions for Pricing Coupon..... | 7-9 |
| Character Restrictions for Pricing Discount Percent, Discount Amount and New Price | 7-9 |
| Character Restrictions for PricingGroupID | 7-9 |
| Character Restrictions for Pricing Promo Description and Promo Name | 7-9 |
| Character Restrictions for UPC | 7-9 |

| | |
|--|------|
| Data Information for UOM..... | 7-10 |
| Geocode Data Missing..... | 7-10 |
| DepartmentDefaultTaxGroup | 7-10 |
| Discountable Attribute from Oracle Retail Merchandising System | 7-10 |
| Empty Item Classes Lists for DIMP | 7-10 |
| Geocode Tag Missing For Store | 7-10 |
| Gift Card Error | 7-10 |
| IGTAX Records in RTLog | 7-11 |
| Item Export: VATCode Datatype Mismatch | 7-11 |
| Layaway Deletion Fee | 7-11 |
| Missing Encryption Key For Saencrypt.pc | 7-11 |
| NM ITEM Codes in a Sales Audit Application | 7-11 |
| POSDepartmentID | 7-11 |
| Postal Code | 7-12 |
| Predefined Store ID..... | 7-12 |
| Price Changes and Price Promotions | 7-12 |
| Pricing Extract: Start Date and End Date Mismatch..... | 7-12 |
| Pricing Extract: Store ID Datatype Mismatch | 7-12 |
| Pricing Group ID: Data Mismatch | 7-13 |
| Reason Codes for Discount Rules | 7-13 |
| Third-party Tax and Employee Information | 7-13 |
| Till Opening and Closing..... | 7-13 |
| Total ID in the RTLog | 7-13 |
| UTF-8..... | 7-13 |

A Appendix: Discount Rules – Any or All

B Appendix: Pricing Rules

| | |
|---|-----|
| Buy/Get | B-2 |
| Price Management System Buy/Get Assumptions | B-2 |
| Threshold | B-5 |
| Threshold assumptions..... | B-5 |
| Simple | B-6 |
| Kits | B-7 |
| Finance Promotion | B-8 |

C Appendix: XSD Files and Data Element Definition Tables

| | |
|---|-------|
| Currency Import | C-2 |
| Customer Import | C-6 |
| Employee Import | C-17 |
| Item Import | C-23 |
| Merchandise Hierarchy Import | C-52 |
| Pricing Import | C-81 |
| Store Hierarchy Import | C-111 |
| Tax Import | C-135 |

D Appendix: Default Tax Handling

| | |
|---|-----|
| The Default Tax Rate | D-1 |
| The Default Tax Type Indicator (VAT) | D-2 |

Index

List of Examples

| | | |
|------|---|-------|
| 1-1 | Sample excerpted from StoreServerConduit.xml | 1-9 |
| 1-2 | Sample excerpted from StoreServerConduit.xml | 1-11 |
| 1-3 | Sample excerpted from StoreServerConduit.xml | 1-11 |
| 2-1 | Sample JMX Configuration | 2-6 |
| 2-2 | Message Bean Definition | 2-7 |
| 5-1 | SAXParserGenerator utility command prompt | 5-3 |
| 5-2 | EmployeeAccessHandler Process DTO Before Children | 5-4 |
| 5-3 | EmployeeImportHandler Process DTO During Start | 5-4 |
| C-1 | CurrencyImport.xsd | C-3 |
| C-2 | CurrencyImport.xml | C-4 |
| C-3 | CustomerImport.xsd | C-11 |
| C-4 | CustomerImport.xml | C-15 |
| C-5 | EmployeeImport.xsd | C-19 |
| C-6 | EmployeeImport.xml | C-22 |
| C-7 | ItemImport.xsd | C-40 |
| C-8 | ItemImport.xml | C-49 |
| C-9 | MerchandiseHierarchyImport.xsd | C-55 |
| C-10 | MerchandiseHierarchyImport.xml | C-59 |
| C-11 | PricingImport.xsd | C-97 |
| C-12 | PricingImport.xml | C-102 |
| C-13 | StoreHierarchyImport.xsd | C-118 |
| C-14 | StoreHierarchyImport.xml | C-123 |
| C-15 | TaxImport.xsd | C-139 |
| C-16 | TaxImport.xml | C-142 |

List of Figures

| | | |
|-----|--|------|
| 1-1 | Integration Overview Including POS Suite and Oracle Retail Merchandising System | 1-2 |
| 1-2 | POS Suite to Oracle Retail Price Management | 1-6 |
| 1-3 | POS Suite and Oracle Retail Merchandising System Integration..... | 1-8 |
| 1-4 | High-Level Model for Oracle Retail POS Suite-Oracle Retail Sales Audit Integration | 1-10 |
| 2-1 | Data Import Tables Logical Data Model | 2-6 |
| 3-1 | Adding Files To a Jar | 3-6 |
| 3-2 | Adding Files To A WinZip Archive | 3-7 |
| 5-1 | Employee Data Import Static Model | 5-2 |
| B-1 | The Price Management System to Strategic Stores Solutions Pricing Map | B-1 |

List of Tables

| | | |
|------|--|------|
| 2-1 | TransactionType (TRAT) | 2-8 |
| 2-2 | ReasonCode (REAC) | 2-9 |
| 2-3 | Sale Line Item (SASI)..... | 2-10 |
| 2-4 | Sale Item Type (SAIT) | 2-10 |
| 2-5 | UPCT | 2-10 |
| 2-6 | OverrideReasonCodes (ORRC)..... | 2-11 |
| 2-7 | Sale Return Reason (SARR)..... | 2-11 |
| 2-8 | Merchandising System Promotion Type (PRMT) | 2-11 |
| 2-9 | Sale Disc Type within a promotion (SADT) | 2-11 |
| 2-10 | TaxCode (TAXC) | 2-11 |
| 2-11 | TenderTypes (TENT) | 2-12 |
| 2-12 | TenderType ID (POS_TENDER_TYPE_HEAD)..... | 2-12 |
| 2-13 | Credit Card Auth Source (CCAS) | 2-13 |
| 2-14 | Credit Card Verification (CCVF) | 2-13 |
| 2-15 | Credit Card Entered Manually (CCEM)..... | 2-13 |
| 2-16 | Credit Card Special Condition (CCSC)..... | 2-13 |
| 2-17 | Card Weight (CW)..... | 2-14 |
| 2-18 | Total ID for TOTAL type transactions -- Char(10) in Oracle Retail Sales Audit | 2-14 |
| 2-19 | Check Tender Method ID -- Char(6) in Oracle Retail Sales Audit | 2-15 |
| 3-1 | Spring Bean IDs Used for Each of the Pluggable Components | 3-1 |
| 3-2 | Additional Spring Bean IDs Used for Each of the Pluggable Components | 3-3 |
| 3-3 | Oracle Retail Merchandising System Default Values in the Back Office Item Maintenance Screen .. | 3-8 |
| 3-4 | Oracle Retail Price Management Default Values | 3-10 |
| 4-1 | File Sizes | 4-1 |
| 4-2 | Bundle Size | 4-2 |
| 4-3 | Hard Drive Capacity | 4-2 |
| 4-4 | Item Import Data Volumes | 4-2 |
| 5-1 | Store Server Conduit File | 5-10 |
| 5-2 | EntityMappingObjectFactory Classes | 5-11 |
| 5-3 | RecordFormatObjectFactory Classes | 5-12 |
| 5-4 | Store Server Conduit File | 5-12 |
| 5-5 | Exportfile Utility Classes..... | 5-15 |
| 5-6 | bin Directory BAT Files | 5-16 |
| 7-1 | Functionality Gaps for Promotion Data Import..... | 7-1 |
| 7-2 | Functionality Gaps for Price Change Data Import | 7-2 |
| 7-3 | Functionality Gaps for Discount Rule Data Import..... | 7-2 |
| 7-4 | Functionality Gaps for Item Data Import | 7-3 |
| 7-5 | Functionality Gaps for Item Data Import | 7-3 |
| 7-6 | Functionality Gaps for Merchandise Hierarchy Data Import | 7-4 |
| 7-7 | Functionality Gaps for Store Hierarchy Data Import | 7-4 |
| 7-8 | Affected XML Elements..... | 7-5 |
| 7-9 | Default Value when integrating Oracle Retail Back Office with Oracle Retail Price Management.... | 7-12 |
| B-1 | Buy/Get | B-3 |
| B-2 | Threshold | B-5 |
| B-3 | Simple | B-6 |
| B-4 | Kits..... | B-7 |
| B-5 | Finance | B-8 |
| C-1 | Currency Import XSD Element Mapping Table..... | C-2 |
| C-2 | Customer Import XSD Element Mapping Table | C-6 |
| C-3 | Employee Import XSD Element Mapping Table | C-17 |
| C-4 | Item Import XSD PreloadData Element Mapping Table..... | C-23 |

| | | |
|------|--|-------|
| C-5 | Item Import XSD Item Element Mapping Table | C-28 |
| C-6 | Merchandise Hierarchy Import XSD PreloadData Element Mapping Table | C-52 |
| C-7 | Merchandise Hierarchy Import XSD Element Mapping Table | C-54 |
| C-8 | Pricing Import XSD PriceChange Element Mapping Table..... | C-81 |
| C-9 | Pricing Import XSD Price Promotion Element Mapping Table | C-85 |
| C-10 | Pricing Import XSD Discount Rule Element Mapping Table | C-91 |
| C-11 | Store Hierarchy Import XSD Preload Data Mapping Table..... | C-111 |
| C-12 | Store Hierarchy Import XSD Element Mapping Table | C-115 |
| C-13 | Tax Import XSD Element Mapping Table | C-135 |
| D-1 | Tax Rate Rule Table | D-1 |
| D-2 | Tax Rule Group Table | D-2 |

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Preface

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The Implementation Guide is intended for the Oracle Retail Point-of-Service integrators and implementation staff, as well as the retailer's IT personnel.

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Related Documents

For more information, see the following documents in the Oracle Retail POS Suite Release 13.3.3 and Oracle Retail Merchandising Operations Management Release 13.2.3 documentation sets:

- n Oracle Retail POS Suite Licensing Information
- n Oracle Retail Back Office documentation set
- n Oracle Retail Labels and Tags documentation set
- n Oracle Retail Central Office documentation set
- n Oracle Retail Point-of-Service documentation set
- n Oracle Retail Price Management documentation set
- n Oracle Retail Merchandising System documentation set

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- n Exact error message received
- n Screen shots of each step you take

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If you are installing the application for the first time, you install either a base release (for example, 13.2) or a later patch release (for example, 13.2.2). If you are installing a software version other than the base release, be sure to read the documentation for each patch release (since the base release) before you begin installation. Patch documentation can contain critical information related to the base release 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 (with the exception of the Data Model which is only available with the release packaged code):

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

The following text conventions are used in this document:

| Convention | Meaning |
|------------------------|--|
| boldface | Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary. |
| <i>italic</i> | Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values. |
| <code>monospace</code> | Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter. |

Integration Overview

Data Import from Oracle Retail Merchandising System and Oracle Retail Price Management

Seed data such as item, price and tax must be updated on an ongoing basis in the Store database as well as Operational Data Store (ODS) to enable daily store operations. Typically the system of truth for such data is an enterprise system, such as Oracle Retail Merchandising System, Oracle Retail Price Management or a third-party product. The frequency and size of the data feeds varies from customer to customer. Imports are scheduled to be picked up by stores on a nightly basis. This interval is adjustable. See [spring.properties](#).

Note: Data Import (DIMP) is not the system of record for data correctness. All data coming into the data import module is assumed to be correct. This applies at two levels:

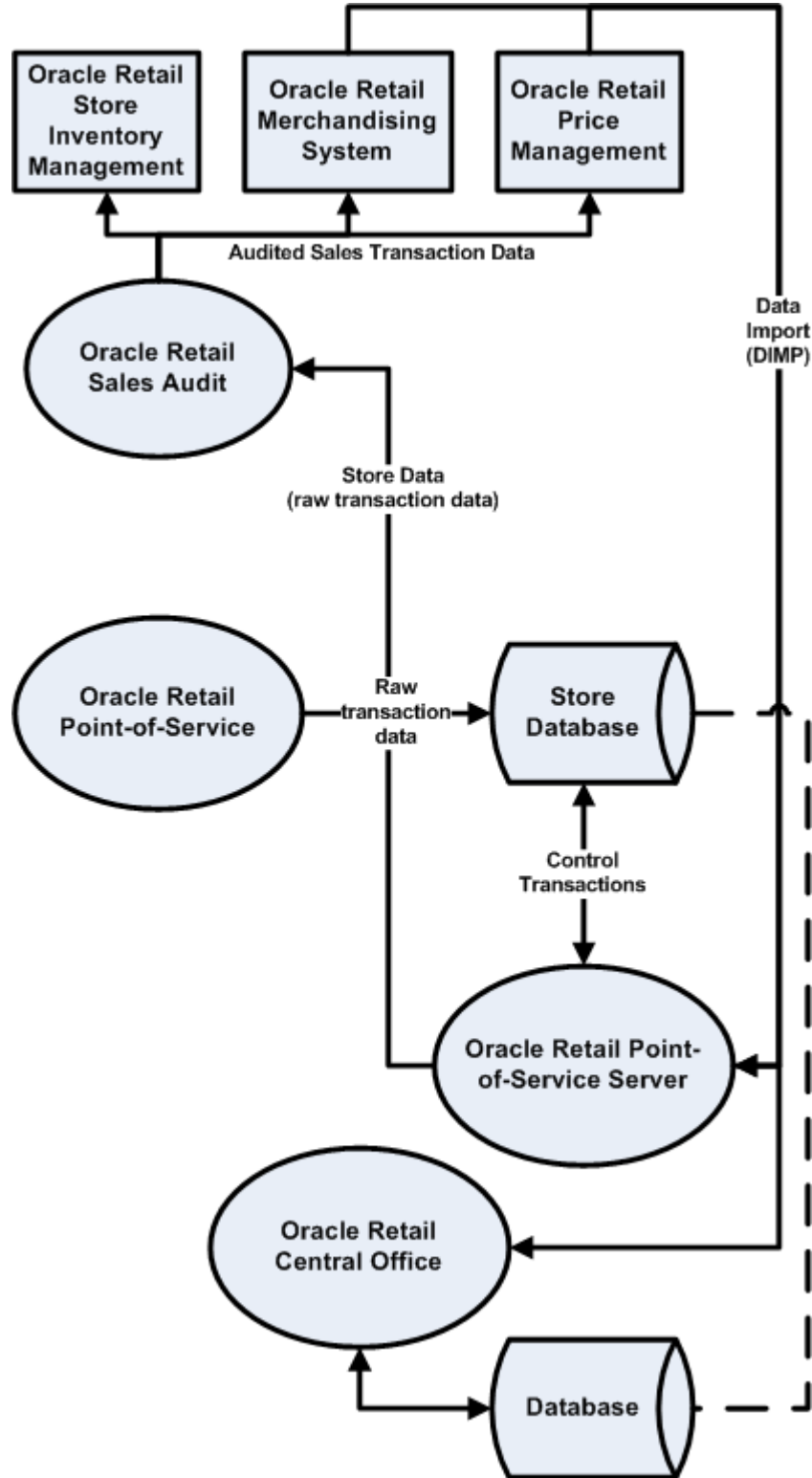
- First, the data must conform to the published XSDs. See [Appendix C, Appendix: XSD Files and Data Element Definition Tables](#).
- In addition, the database does not enforce referential integrity on the imported data, so the external system is responsible for not sending data that would create orphaned records in the database.

For example, there is no foreign key constraint enforced between the employee and store entities. A Kill And Fill import of the store hierarchy can result in a new set of stores that does not include a store for some existing employees. The external system that creates this import data must ensure that this type of situation does not occur.

Note: The base DIMP modules support parsing XML files only.

The following is an overview diagram of an integration of Oracle Retail POS Suite and Oracle Retail Merchandising System, including a Data Import logical flow:

Figure 1-1 Integration Overview Including POS Suite and Oracle Retail Merchandising System



Generic Data Import Flow

The following describes the flow of a generic data import:

1. The flow begins with the Quartz Scheduler configured in Spring invoking the ImportIOAdapter of the DIMP Controller module.

An import can be processed by either Central Office or Back Office. Central Office is not configured to process Pricing imports. To get new data to a store, the data must be imported by Back Office.
2. The DIMP Controller picks up the import bundle, which is a compressed archive, and invokes the DIMP Translator.
3. The XML files are processed as input streams in the order specified in the manifest by DIMP translators: one for each import type:
 - n **Currency** for Currency Import
 - n **Customer** for Customer Import
 - n **Employee** for Employee Import
 - n **Item** for Item Import
 - n **Merchandise** for Merchandise Hierarchy Import
 - n **Pricing** for Pricing Import
 - n **Store** for Store Hierarchy Import
 - n **Tax** for Tax Import
4. The implementation of the ImportTranslatorIfc (as configured by the Spring context) retrieves an instance of an ImportControllerIfc from Spring and creates a new ImportBatch.
5. The translator begins to parse its document and calls initializeImport onto the controller.
6. The translator sets the batch size based upon its configuration.
7. The translator then loops through the elements in the document, creating a Data Transfer Object (DTO) for each complex element. The entity DTOs are processed one at a time in the order they are placed into the ImportBatch, with all Delete DTOs processing first, all Add DTOs second, then all Update DTOs last.
8. The controller retrieves an instance of the specified Data Access Object (DAO) from Spring based upon the key passed to it and calls initializeImport() on the DAO.
9. The translator then loops through the elements in the document, creating a Data Transfer Object (DTO) as each complex element. The entity DTOs are processed one at a time by placing them into the batch.
10. Each batch is processed as a transaction. Any records in the batch with data errors roll back that transaction. The import proceeds with the next batch.

The default batch size is 1000. See [spring.properties](#) in Chapter 3 for more information.
11. The translator gives the ImportController a signal to process the batch after adding each DTO by calling processBatch().
12. If the batch size has been reached, the controller sends the batch to the DAO to be persisted.
13. The ImportDAOIfc loops through each DTO and delegates its data operation to a subordinate DAO.

14. Once the document parsing is complete, the translator notifies the controller, which processes the batch if there are any DTOs left over.
15. Finally, the controller calls `completeImport()` on the DAO, giving it the opportunity to copy data from temporary to production tables and drop temporary tables in case of a Kill And Fill, or release JDBC resources, and so forth.

Note: If you choose to retain any existing Oracle Retail Back Office or Oracle Retail Point-of-Service item-related functionality that creates or changes data types that are imported from Oracle Retail Merchandising System or any third party merchandising systems, you are responsible for handling and addressing any data overwrites performed by the import process.

Feed Methods

There are three feed methods:

Kill And Fill

Temporary tables are created at the beginning of a file's processing. Batches are written to the temporary tables. If the entire file is processed without error (all batches), the temporary table data replaces the production data and the temporary tables are dropped. If an error occurs, it is logged and the entire file import is aborted.

Note: During the data import of any `PricingImport` that has had its `FillType` set to **Kill And Fill**, all tables that contain `AdvancedPricingRules`, `PricePromotions`, and `PriceChanges` are cleared and refilled with the new data that is imported only. The `PriceLookup` mechanism uses the `PriceChange` tables to calculate the current price of an item. If all the prices are not supplied for existing items during a `PricingImport Kill And Fill`, then the items without prices have values of **zero**.

Full Incremental

Full Incremental is a fill type that performs adds and update, expecting that all data attributes for a particular record are included in the XML element. Any missing attributes are set to default values. Replace operations still only require enough data to properly identify the record.

Note: All columns for a row must be present in the import data.

For Full Incremental imports, each import XML data element must include all values. If some values are omitted from the import file, then the Data Import still updates the records in question, but uses default values for the omitted elements or attributes. Usually the default value chosen is **null**, **zero** or **false** unless otherwise specified in the XSD.

Consult the `TablesMapping` spreadsheets and the Data Dictionary for values to which specific columns are defaulted.

Delta Incremental

Delta Incremental is a fill type that produces dynamic update statements that allow for only those data attributes which are included in the file to be updated, leaving existing data attributes intact.

Note: Only those fields being updated are required in the import data.

Data Import Dependencies

Files listed in the manifest without any dependency will be processed first in no particular order. Then those files whose dependencies have already been processed will be processed, until all are completed. The following dependency information dictates the order in which files can be processed:

- Tax depends on nothing.
- Store Hierarchy/Stores depends on Tax (GeoCode).

Note: Oracle Retail Price Management and Oracle Retail Merchandising System do not provide any tax information, such as Tax Geocodes for stores or TaxGroup IDs for items. It is the responsibility of the implementation team to intercept the following download data and use a third-party tax application to apply the appropriate tax information:

- ItemImport.xml -- tax information for items.
- StoreHierarchyImport.xml -- geocode information for stores.

The implementation team must apply appropriate tax information after every Kill And Fill operation. This ensures that tax information applied to the store database is retained the next time a Kill And Fill operation is conducted.

An alternate tax information option involves the use of database triggers. The implementation team can create a database trigger to repopulate the Store table in the database with hard-coded tax information after every Kill And Fill operation. The implementation team is responsible for implementing the database trigger and providing the hard-coded tax information.

-
-
- Employee depends on Store Hierarchy/Stores.
 - Merchandise Hierarchy depends on nothing.
 - Item depends on Tax and Merchandise Hierarchy.

Note: Oracle Retail Price Management and Oracle Retail Merchandising System do not provide Tax Geocodes for stores or TaxGroup IDs for items. It is the responsibility of the implementation team to intercept download data and use a third-party tax application to apply the appropriate tax information.

- Pricing depends on Item and Customer.
- Currency depends on nothing.
- Customer depends on nothing.

Oracle Retail Price Management to Oracle Retail POS Suite Integration Overview

Oracle Retail Price Management is a strategy-based pricing solution that suggests and assists with pricing decisions, yielding a more predictable and profitable outcome. Oracle Retail Price Management evaluates prices within a broad business context with real-time access to the following:

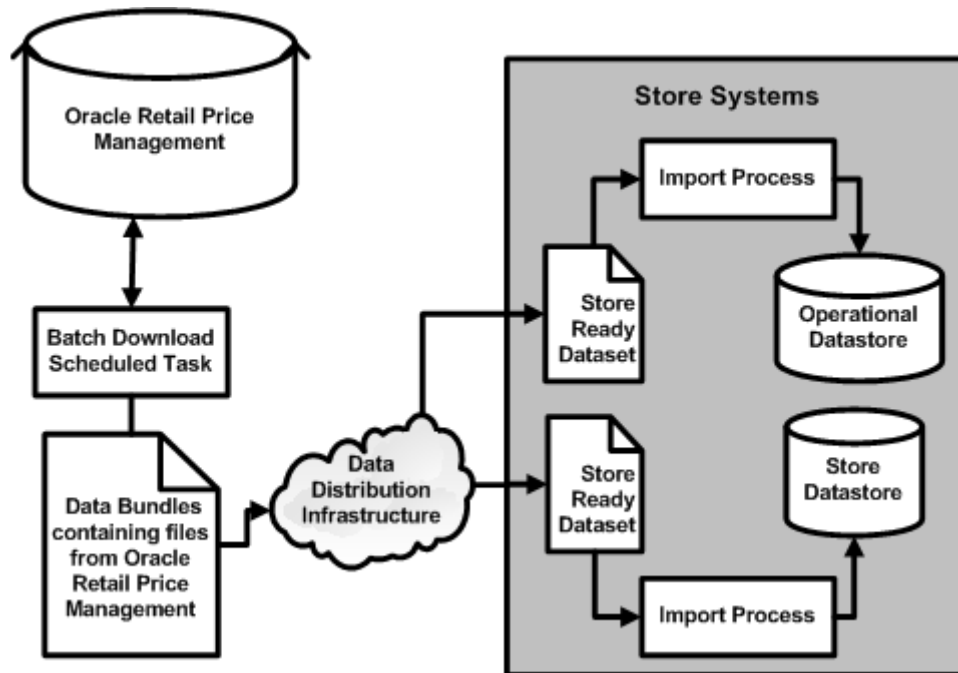
- Competitive and market data
- Projected sales impact
- Margin
- Pricing-based costs
- Current and projected inventory positions
- Markdown budgets

Oracle Retail Price Management provides a well-defined and efficient price change process that allows for aggregated permanent and clearance price change execution. Oracle Retail Price Management enables retailers to automate and streamline pricing strategies across the organization. Oracle Retail Price Management provides decision support to all pricing-focused business information to validate and approve pricing and markdown suggestions.

Note: This integration is one-way only. Oracle Retail POS Suite changes are not communicated back up to Oracle Retail Price Management.

The following figure shows a high level overview of the integration.

Figure 1–2 POS Suite to Oracle Retail Price Management



Oracle Retail Merchandising System to Oracle Retail POS Suite Integration Overview

Oracle Retail Merchandising System provides for core merchandising activities, including inventory replenishment, purchasing, and vendor management, in a global environment, across multiple retail channels. The solution incorporates three functional areas:

- Business foundation management
- Merchandise management
- Merchandise financial tracking

These functional areas enable retailers to streamline their business systems and unify business practices across their organization.

Oracle Retail Merchandising System is the main application for item, item location, merchandise hierarchy, stores and store (organizational) hierarchy data. This data is necessary for store operations and must be updated in the stores on an ongoing basis. Further, this data, particularly item data, can range in size from small incremental updates to large batch loads. The frequency and size of data feeds varies widely from customer to customer.

Note: This integration is one-way only. Oracle Retail POS Suite changes are not communicated back up to Oracle Retail Merchandising System.

Note: There are some conditions required on data in order to filter out the Oracle Retail Merchandising System data being extracted to the XML files. This is required mainly because Oracle Retail Point-of-Service has these limitations on data types. Some of these conditions are:

- Store ID length is less than or equal to 5.
- Chain value length is less than or equal to 4.
- Item ID length is less than or equal to 14.
- UOM length is less than or equal to 2.
- Diff_1 (ColorCode) length is less than or equal to 20.
- Diff_2 (SizeCode) length is less than or equal to 10.
- Unit retail is less than or equal to 999999.99

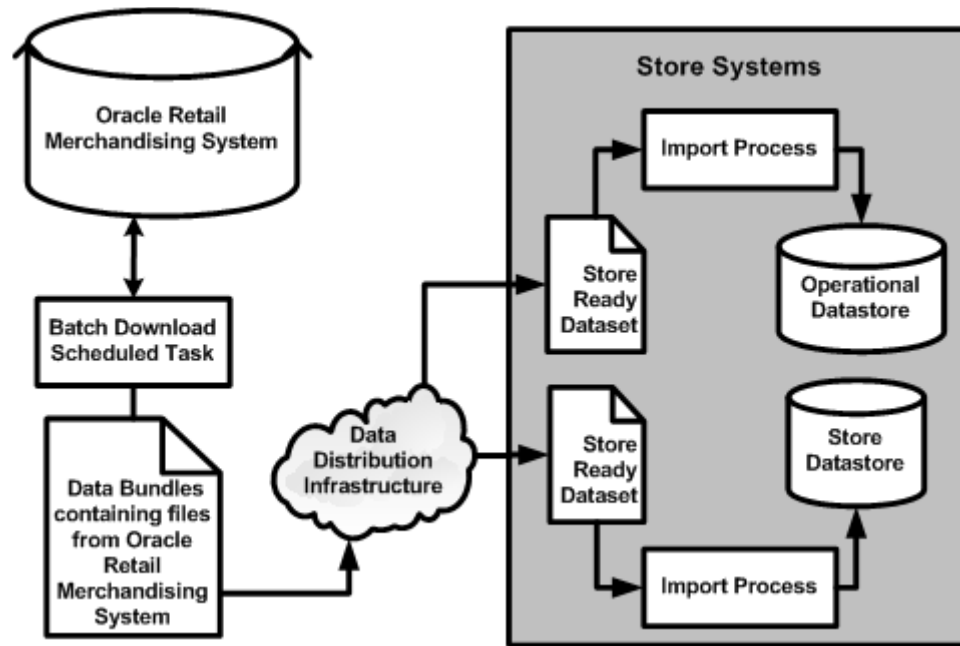
For more information, see *Oracle Retail POS Suite Relational Integrity Diagrams*.

Note: In Oracle Retail Merchandising System, class-level and store-level VAT-inclusive indicators must be set based on the Oracle Retail Point-of-Service configuration:

- When Oracle Retail Point-of-Service is set to **Unit retail tax inclusive**, then all class-level and store-level VAT-inclusive indicators in Oracle Retail Merchandising System must be set to **Y**.
 - When Oracle Retail Point-of-Service is set to **Unit retail tax exclusive**, then all class-level and store-level VAT-inclusive indicators in Oracle Retail Merchandising System must be set to **N**.
-
-

The following figure shows a high level overview of the integration.

Figure 1–3 POS Suite and Oracle Retail Merchandising System Integration



Oracle Retail POS Suite to Oracle Retail Sales Audit Overview

The integration of the Oracle Retail POS Suite products with Oracle Retail Sales Audit involves the following components:

Oracle Retail POS Suite

The Oracle Retail POS Suite logical component is comprised of Oracle Retail Point-of-Service, Back Office, and Central Office. RTLog data is created from Point-of-Service.

Oracle Retail POS Suite RTLog Files

The RTLog file is the communication mechanism for providing data from the Oracle Retail POS Suite to Oracle Retail Sales Audit. The RTLog is a transaction log file that is formatted specifically for Oracle Retail Sales Audit. Raw transaction data in the RTLog file is meant to update other merchandising system applications, and is populated from Oracle Retail POS Suite. The file is written to the physical file system by Oracle Retail POS Suite for consumption by the transportation middleware.

Oracle Retail POS Suite is responsible for writing the RTLog files to a configurable physical directory on the Store Server.

The `propname="outputAdapterClassName"` class in the `StoreServerConduit.xml` file controls the writing of the RTLog to a file.

Example 1–1 Sample excerpted from StoreServerConduit.xml

```

<TECHNICIAN name="RTLogExportDaemonTechnician"
class="RTLogExportDaemonTechnician"
package="oracle.retail.stores.domain.manager.rtlog"
export="Y">
<PROPERTY propName="daemonClassName"
propvalue="oracle.retail.stores.domain.manager.
rtlog.RTLogExportDaemonThread"/>
<PROPERTY propName="daemonName"
propvalue="RTLogExportDaemon"/>
<PROPERTY propName="sleepInterval"
propvalue="600"/>
<PROPERTY propName="exportDirectoryName"
propvalue="POSLog"/>
<PROPERTY propName="databaseAdapterClassName"
propvalue="oracle.retail.stores.domain.manager.
rtlog.RTLogDatabaseAdapter"/>
<PROPERTY propName="encryptionAdapterClassName"
propvalue="oracle.retail.stores.domain.manager.
rtlog.RTLogEncryptionAdapter"/>
<PROPERTY propName="outputAdapterClassName"
propvalue="oracle.retail.stores.exportfile.rtlog.RTLogClearTextOutputAdapter

```

Transport Middleware

The transport middleware is a component that is responsible for polling the RTLog file produced by the Oracle Retail POS Suite. This component has the following responsibilities:

- Polling the physical file system at a specified directory.
- Writing the RTLog file to a location that Oracle Retail Sales Audit expects.
- Cleaning and archiving the RTLog file once Oracle Retail Sales Audit has consumed the RTLog file.
- Error notification if the RTLog file is not able to be extracted successfully from a physical directory.

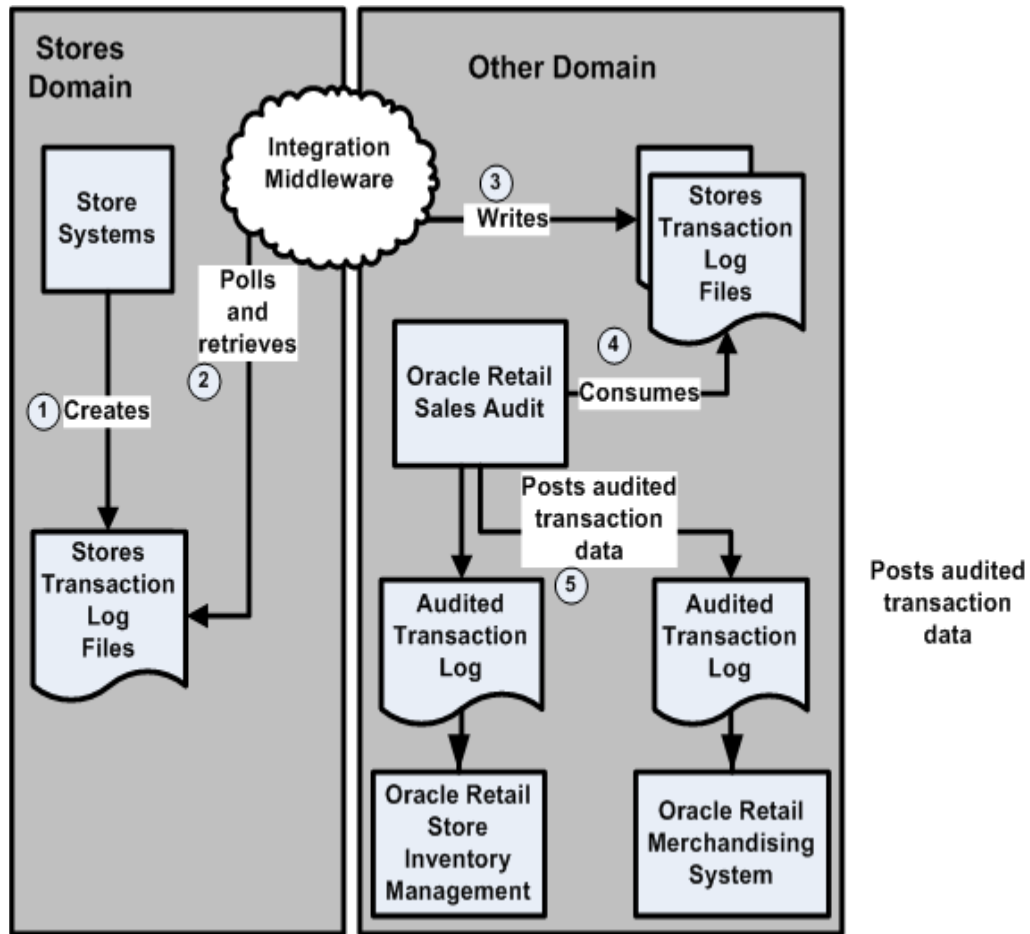
Note: Transport middleware is not provided by Oracle Retail. It is the responsibility of the implementation team to provide the integration middleware of their choice.

Oracle Retail Sales Audit

Oracle Retail Sales Audit is the gateway for transaction data updates to Oracle Retail Merchandising System and Oracle Retail Store Inventory Management. Oracle Retail Sales Audit consumes the RTLog file written to a specific directory by the integration middleware. Oracle Retail Sales Audit also sends audited data files to other merchandising system applications for consumption.

The following figure depicts the two domains that are involved when integrating transaction data within the Oracle Retail suite.

Figure 1–4 High-Level Model for Oracle Retail POS Suite-Oracle Retail Sales Audit Integration



Preconditions

The following preconditions must be observed for the system flow to function correctly:

1. Transport middleware requires read and write access to the physical file system to which Oracle Retail POS Suite writes the RTLog file.
2. Transport middleware requires read and write access to the physical file system from which Oracle Retail Sales Audit reads the RTLog files.
3. Oracle Retail POS Suite requires access to a physical file system to produce the RTLog file.

Changing RTLog Locations

In Windows, the Point-of-Service store server runs from the C:\OracleRetailStore\Server\pos\bin directory. The `propname="exportDirectoryName"` property in the following example enables implementers to specify the complete path name of any pre-existing directory on the store server computer to which they want to write RTLogs.

Example 1–2 Sample excerpted from StoreServerConduit.xml

```

<TECHNICIAN name="RTLogExportDaemonTechnician"
  class="RTLogExportDaemonTechnician"
  package="oracle.retail.stores.domain.manager.rtlog"
  export="Y">
  <PROPERTY propname="daemonClassName"

propvalue="oracle.retail.stores.domain.manager.rtlog.RTLogExportDaemonThread"/>
  <PROPERTY propname="daemonName"
    propvalue="RTLogExportDaemon"/>
  <PROPERTY propname="sleepInterval"
    propvalue="600"/>
  <PROPERTY propname="exportDirectoryName"
    propvalue="POSLog"/>

```

The value **propvalue="POSLog"/>** indicates that the RTLog files will be written to the relative path POSLog, or the complete pathname
C:\OracleRetailStore\Server\pos\bin\POSLog.

System Flow Description

The Point-of-Service client application generates transaction data and sends the transaction object structure to the Point-of-Service store server. The Point-of-Service store server populates the JDBC statement type and commits the transaction data to the store database. The time increment at which data is sent to Oracle Retail Sales Audit is dictated by the retailer by editing the `propname="sleepInterval"` property in the `StoreServerConduit.xml` file:

Example 1–3 Sample excerpted from StoreServerConduit.xml

```

<TECHNICIAN name="RTLogExportDaemonTechnician"
  class="RTLogExportDaemonTechnician"
  package="oracle.retail.stores.domain.manager.rtlog"
  export="Y">
  <PROPERTY propname="daemonClassName"

propvalue="oracle.retail.stores.domain.manager.rtlog.RTLogExportDaemonThread"/>
  <PROPERTY propname="daemonName"
    propvalue="RTLogExportDaemon"/>
  <PROPERTY propname="sleepInterval"
    propvalue="600"/>
  <PROPERTY propname="exportDirectoryName"
    propvalue="POSLog"/>

```

See [Table 5–1, Store Server Conduit File](#) in chapter 5 for more information.

The overall flow shown in [Figure 1–4](#) is summarized in the following sequence:

1. Oracle Retail POS Suite creates and encrypts RTLog files.
If the RTLog is not successfully created due to unsupported mappings, the transaction identifier and exceptional condition is logged in detail on the Point-of-Service store server.
2. Transport middleware scans directory that Oracle Retail POS Suite writes the RTLog file to and reads in unprocessed RTLog files.
3. Transport middleware moves the RTLog file from the physical directory written to by Oracle Retail POS Suite to a physical directory on an enterprise server defined by Oracle Retail Sales Audit.

4. Oracle Retail Sales Audit consumes the RTLog file written to a pre-defined directory by the transport middleware, decrypts, and executes data cleansing operations to produce audited transaction data. See [Oracle Retail POS Suite RTLog Files](#), this chapter.
5. Oracle Retail Sales Audit outputs audited RTLog-formatted transaction batch files and places the files into directories accessible by Oracle Retail Merchandising System.

Network Printing

Provides the retailer with the flexibility of choosing to print from the Point-of-Service to a network printer or to a JPOS receipt printer.

For more information, see the *Oracle Retail Point-of-Service Installation Guide*.

Integration Architecture

Oracle Retail POS Suite to Oracle Retail Sales Audit Integration Architecture

The Point-of-Service terminal is the platform that the Point-of-Service client application resides on. The cashier and the store manager interact with the Point-of-Service client application, which generates transaction data. The Point-of-Service client application sends a serialized object structure representing the sales transaction to the Point-of-Service store server residing on the In-Store-Processor (ISP). The ISP is responsible for persisting the raw transaction data to the store database.

The major component of the POS Suite to Oracle Retail Sales Audit integration is:

- **RTLog Export Daemon Technician**

Processes configuration settings from the Store Sever Conduit XML file; settings include sleep interval, maximum number of transactions per batch, export directory name, object factory class names, and export configuration files names.

Starts the RTLog Export Daemon Thread.
- **RTLog Export Daemon Thread**

Starts the export process on a periodic basis based on the configured sleep interval. Calls the RTLog Batch Generator.
- **RTLog Batch Generator**

Creates a list of transactions ready for export and calls the Export File Generator.
- **Export File Generator**

Reads the transactions in the list and formats the export data based on the export configuration files.

In this integration, the Point-of-Service store server also maps the transaction table structure to RTLog format and places the RTLog-formatted transaction into a file. The individual components that comprise the RTLog generation are described in the following subsections.

RTLog Batch Generator

The RTLog Batch Generator is a Java class that reads transactions from the store database and creates a physical RTLog file. The file format follows the standards outlined in *Oracle Retail Merchandising System Operations Guide, Volume 1 - Batch Overviews and Designs - Release 13.1*.

The RTLog Batch Generator consumes a configuration file that has the settings outlined in the following sections.

Sleep Interval

The RTLog batch generator runs in a daemon mode, which periodically outputs RTLog files created by pulling transactions from the database. In this configuration, Oracle Retail Sales Audit processes one or more RTLog files from any given store.

The default sleep interval value is 600 seconds. This value can be changed in the `StoreServerConduit.xml` file. See [Table 5–4, Store Server Conduit File](#) for more information

Maximum Transactions

The Maximum Transactions setting puts a cap on the number of RTLog transactions read from the store database during a processing cycle. If the number of transaction available is less than the maximum transactions setting, the RTLog Batch Generator reads the number of transactions available.

If Maximum Transactions is set to **-1**, then there is no limit to the number of RTLog transactions.

Oracle Retail Sales Audit

Oracle Retail Sales Audit is responsible for sales audit functionality at the store and at the corporate level. Store operations make use of Oracle Retail Sales Audit's functionality to determine over/short situations in stores, and make the necessary adjustments to raw transaction data in order to ensure integrity of data being sent to Oracle Retail Merchandising System and Oracle Retail Store Inventory Management.

Oracle Retail Sales Audit consumes unaudited transaction data in RTLog batch format. It then subjects the transaction data to numerous checks, and indicates exceptional conditions leading to out-of-balance situations. Oracle Retail Sales Audit outputs cleansed or audited RTLog data to be consumed by Oracle Retail Merchandising System, Oracle Retail Price Management, and Oracle Retail Store Inventory Management.

Data Import

Data Import (DIMP) is a set of domain-specific modules within either Oracle Retail Back Office or Oracle Retail Central Office that enable the import of data from both Oracle Retail Merchandising System and Oracle Retail Price Management. Imports through Oracle Retail Back Office are persisted to the store database, affecting the data available to and read by Oracle Retail Point-of-Service.

Note: When discussing Data Import, functionality applies to both Oracle Retail Merchandising System and Oracle Retail Price Management.

The DIMP subsystem and components are designed to enable external systems to send large volumes of data to the Oracle Retail POS Suite applications. The primary intent of this functionality is to allow for initial data seeding or routine data loading (and optional purging) to occur for such types of data as:

- Taxation
- Merchandise Hierarchy
- Store Hierarchy

- n Employee
- n Item
- n Pricing
- n Customer
- n Currency (Exchange Rates)

Note: For more information about the XML format required by any import, refer to its specific XML Schema Definition (XSD). Some attributes are labeled **required**. All attributes listed as required in the XSD must be included in the import XML file. See [Archive File Format](#) in Chapter 3 for more information about import XML format.

Note: Taxation, Employee, Customer and Currency information are not provided by Oracle Retail Merchandising System and Oracle Retail Price Management. Any of this information would come from third-party systems.

For more information, see [Third-party Tax and Employee Information](#) in Chapter 6.

Error Handling

POS Suite applications are not the system of record for data correctness. Error handling is limited to logging errors during the import and performing a retry in certain cases. Because the data imports can be interdependent, a failure in one file import may result in an abort of the import of the rest of the files in the import that depend on the failed data.

There were no changes made to the base data model to support the data import subsystem. However, a few tables exist (see [Import Status Logging](#)) to take care of data import error handling and to support any recovery or retry mechanism that might be put in place in the future (that may be custom developed).

For the current implementation, all Kill And Fill imports are applied into temporary tables. Once the import of the complete file is successful, the data is written onto the main tables. If any data operation fails, the entire file import is aborted. A FAILURE status message is logged for each of those files.

Incremental (Delta or Full) file imports continue even if a data operation fails. In that case, only the import batch containing the failure is rolled back and the error is logged. It is the customer's responsibility to decide how to handle the failed operations.

The act of aborting the import is configurable and can be changed based on implementation requirements. The class `ImportErrorHandler` mapped to the Spring key `persistence_ImportErrorHandler` in the Spring context file `PersistenceContext.xml` can be configured to any other custom implementation of an `ImportErrorHandler`.

Import Status Logging

The following section describes the statuses and three tables in the data model that record Data Import attempts:

- n In case of failure in opening the bundle or reading a file in the bundle, the status in the tables is `MA_STS_BNDL_IMP - FAILED`.

No other status is logged in any other table.

- n In case of failure in parsing a file, the statuses are:
 - `MA_STS_BNDL_IMP - PROCESSED`
 - `MA_STS_FL_IMP - FAILED` for that file and all other files that are dependent on that file.
 - `MA_FL_IMP_FLRS - Failure exception details of the file.`

- n In case of failure while persisting a batch:

– If Kill and Fill then:

`MA_STS_BNDL_IMP - PROCESSED`

`MA_STS_FL_IMP - FAILED` for that file and all other files that are dependent on that file.

`MA_FL_IMP_FLRS - Failure exception details of the file that has failed.`

– If Full Incremental or Delta Incremental then:

`MA_STS_BNDL_IMP - PROCESSED`

`MA_STS_FL_IMP - PARTIALLY PROCESSED` for that file only.

`MA_FL_IMP_FLRS - Failure exception details of the files that have failed.`

The Logic

MA_STS_BNDL_IMP

This is the Bundle Import Status table, which has the processing status at the bundle level. In a case where an input/output error occurs, such as unable to open the bundle or read a file from the bundle, the status is logged as `FAILED`. In all other cases where there is no input/output error, the status is `PROCESSED`. This is because a bundle can contain more than one file, and it is, from a performance standpoint, degenerative to keep track of how many files there are in the bundle and how many of them have succeeded and how many have failed. Therefore, unless an input/output error is encountered, the status `PROCESSED` is logged into the table.

MA_STS_FL_IMP

File Import Status maintains the processing status of each file in a bundle. The status `FAILED` for a file indicates that there is a parsing exception, or there is a failure while persisting a Kill And Fill file (as complete processing is aborted in case of Kill And Fill). If a failure is logged in this table for a file, then all other files in the bundle that are dependent on the failed file also have a `FAILED` status.

The status `PARTIALLY PROCESSED` for a Full Incremental or Delta Incremental import indicates there is a failure in persisting a batch. This status is irrespective of the number of records in the file. In an incremental type of import, a batch of records with no exceptions is persisted to the database and committed. Therefore, to note a `FAILED` status we must know how many records there are in the file, how many batches do these records form and the processing status of each of the batch. Performance-wise this is not advisable.

Also, if a bundle is re-processed, a `FAILED` status on an incremental file causes the file to be processed again, generating more exceptions.

MA_FL_IMP_FLRS

Any failures encountered are logged in this table.

Reprocessing a Bundle

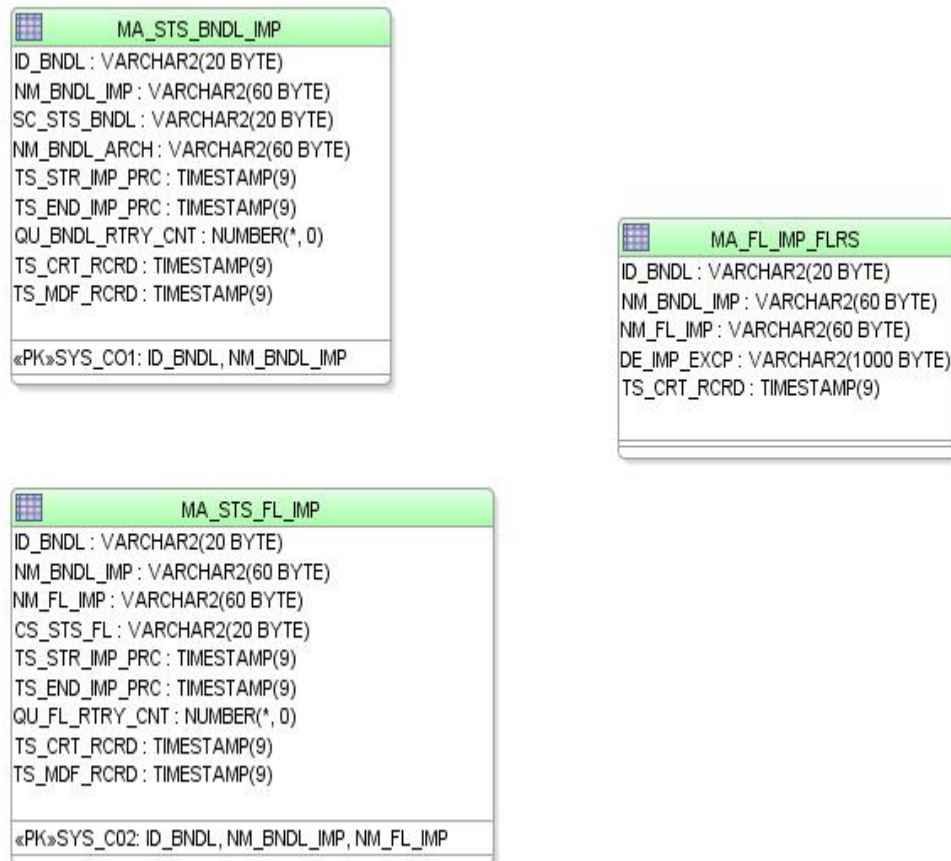
This facility is provided to reprocess any file that failed, that is, has a FAILED status in MA_STS_FL_IMP. No change is needed in the bundle to process a file again. If the same bundle is reprocessed, all the files with a status FAILED in MA_STS_FL_IMP are reprocessed.

Therefore, if an incremental file has already crossed the point of parsing, (an exception while persisting) then the status for that file must never be logged as FAILED, as some of the batches might have been persisted and reprocessing the file generates more errors.

Exception Flow

- If there is a failure in any insert operation for a file of the Kill And Fill variety, the exception is logged and the complete file is aborted. Import of any subsequent file in the sequence that depends upon the failed/aborted file is also aborted. This is done to ensure that partial data inserts from the file are not performed, compromising the integrity of the data in the database. Import of files that do not depend on this particular file is not impacted.
- If an operation (insert, update, delete) fails during the processing of an incremental file, delta or full, the current batch is aborted and subsequent batches are processed. The errors are logged for the failed batch and processing continues, starting with the next batch of the data in the file.

The following figure shows the logical data model for the tables being used in error handling in Data Import.

Figure 2–1 Data Import Tables Logical Data Model

The archive file status is logged as CONSISTENT or INCONSISTENT in the table ImportBundleStatus, with the BundleID of the archive.

If an exception is encountered during the import of a file, the record where the problem is encountered is logged in the table ImportRecordStatus.

The exception is then sent up to the Data Import Controller where a FAILED status is logged on to the table ImportFileStatus. If the import has been successful for a file, a status of SUCCESS is inserted in the table.

Instrumentation for application monitoring can be provided by exposing beans to JMX through Spring, which orchestrates the process of creating JMX management interfaces for beans, and removes the need to compile them to the JMX API.

The following example must be configured in the Spring PersistenceContext.xml file:

Example 2–1 Sample JMX Configuration

```
<bean id="mbeanServer"
class="org.springframework.jmx.support.MBeanServerFactoryBean"/>

<bean id="exporter" class="org.springframework.jmx.export.MBeanExporter">
  <property name="beans">
    <map>
      <entry key="bean:name=EmployeeImportDAOKey"
```



```

value-ref="EmployeeImportDAO"/>
    </map>
  </property>
  <property name="server" ref="mbeanServer"/>
</bean>

<bean id="EmployeeImportDAO"

class="oracle.retail.stores.commerceservices.employee.importdata.dao.EmployeeImportDAO"/>

```

Logging

At various points in the import process, exceptions such as `SQLException` and `SAXException` might be generated. They are generally rethrown as `ImportExceptions` and passed up the chain to the DIMP Controller, as well as logged for error tracking and resolution.

DIMP introduces a new Spring-based logging object to provide message consistency and allow retailer customization of messages. The underlying logging uses Apache Commons logging as the interface, and Log4j for the logging implementation. A `MessageLogger` is retrieved from the Spring service context. The logger gets message templates from a property file. Customers can define the layout of these messages to suit their needs, using the following format, where `{x}` is a placeholder for input data from the calling program:

```
Message from {0} with {1} information.
```

The Spring bean ID used for the pluggable message logger component is shown in [Table 3–1, Spring Bean IDs Used for Each of the Pluggable Components](#). The mapping is shown below.

Example 2–2 Message Bean Definition

```

<bean id="service_MessageBuilder"
class="oracle.retail.stores.commerceservices.importdata.MessageBuilder"
singleton="true" lazy-init="true">
  <property name="prefix"><value>${dimp.prefix}</value></property>
  <property name="texts">
    <list>
      <value>${dimp.text1}</value>
      <value>${dimp.text2}</value>
      <value>${dimp.text3}</value>
    </list>
  </property>
</bean>

```

See [dimplogger.properties](#) for configuration options for the DIMP `MessageBuilder`.

RTLog Mapping and Translation

For RTLog format information, see "ReSA Interface File Layout [rtlog]" in the *Oracle Retail Merchandising System Operations Guide, Volume 1 - Batch Overviews and Designs - Release 13.2*.

Table 2–1 TransactionType (TRAT)

| TransactionType | TRAT (Static) | TRAS (Static) Sub-Transaction Type |
|--|---------------|---------------------------------------|
| (1) Sale | SALE | SALE |
| (2) Return | RETURN | RETURN |
| (3) Void | PVOID | VOID |
| (4) NoSale | NOSALE | NOSALE |
| (1) Sale where an even exchange is made | EEXCH | EXCH |
| (6) OpenStore | OPEN | OSTORE |
| (7) CloseStore | DCLOSE | DSTORE |
| (8) OpenRegister | OPEN | OREG |
| (9) CloseRegister | CLOSE | CRGRC |
| (10) OpenTill | OPEN | OTILL |
| (11) CloseTill | CLOSE | CTILL |
| | TOTAL | CTILLT |
| (12) LoanTill | LOAN | LOTILL |
| (13) PickupTill | PULL | PUTILL |
| (14) SuspendTill | NOSALE | STILL |
| (15) ResumeTill | NOSALE | RTILL |
| (16) PayinTill | PAIDIN | PITILL |
| (17) PayoutTill | PAIDOU | POTILL |
| (18) HousePayment | PAIDIN | HOUSE |
| (19) LayawayInitiate | SALE | LAYINT |
| (20) LayawayComplete | SALE | LAYCMP |
| (21) LayawayPayment | SALE | LAYPAY |
| (22) LayawayDelete | SALE | LAYDEL |
| (23) OrderInitiate | SALE | ORDINT |
| (23) OrderInitiate and Order.OrderType = (1) SpecialOrder | SPLORD | ORDINT |
| (24) OrderComplete | SALE | ORDCMP |
| (24) OrderComplete and Order.OrderType = (1) SpecialOrder | SPLORD | ORDCMP |
| (25) OrderCancel | SALE | ORDCAN |
| (25) OrderCancel and Order.OrderType = (1) SpecialOrder | SPLORD | ORDCAN |
| (26) OrderPartial | SALE | ORDPAR |
| (26) OrderPartial and Order.OrderType = (1) SpecialOrder | SPLORD | ORDPAR |
| (27) BankDepositStore | NOSALE | BANK |
| (35) Instant Credit Enrollment | NOSALE | INSCRE |
| (36) Redeem | RETURN | REDEEM |
| (37) Enter Training Mode | NOSALE | NTRAIN |
| (38) Exit Training Mode | NOSALE | XTRAIN |

Table 2-1 (Cont.) TransactionType (TRAT)

| TransactionType | TRAT (Static) | TRAS (Static) Sub-Transaction Type |
|--|----------------------|---|
| (40) Payroll Payout | PAIDOU | PAYOUT |
| (41) Enter Transaction Reentry | NOSALE | NTRENT |
| (42) Exit Transaction Reentry | NOSALE | XTRENT |
| Any transaction where Transaction.TransactionStatusCode = (3) Canceled | VOID | CANCEL |
| Any transaction where Transaction.TrainingMode= ON | NOSALE | TRAIN |
| Any transaction where Transaction.TransactionStatusCode = (4) Suspend Transaction | NOSALE | SUSPND |

Note: (4) Suspend Transactions get sent in the RTLog. Subsequent resume or cancel actions simply change the transaction status code to (6) Resume Transaction or (7) Canceled Suspended Transaction. A new transaction is not created, hence no subsequent RTLog record, except if the Suspended Transaction is Resumed then SOLD, upon which a SALE transaction is created.

Table 2-2 ReasonCode (REAC)

| Reason entered by cashier for some transaction types. Required for Paid In and Paid out transaction types, but can also be used for voids, returns, and so forth. | REAC | Description |
|--|-------------|---------------------------------|
| Till.TillPayInReasonCodes (53) BadCheckPayment | NSF | NSF Check Payment |
| Till.TillPayInReasonCodes(54) VendingMachineRevenue | TPIVMR | TillPayIn VendingMachineRevenue |
| Till.TillPayInReasonCodes(55) Miscellaneous | TPIMSC | TillPayIn Miscellaneous |
| Till.TillPayrollPayOutReasonCodes (1) PayrollAdvance | PAYRL | Payroll Payout |
| Till.TillPayrollPayOutReasonCodes (2) FinalPay | PAYRL | Payroll Payout |
| Till.TillPayOutReasonCodes (56) Postage | TPOP | TillPayOut Postage |
| Till.TillPayOutReasonCodes (57) Supplies | TPOS | TillPayOut Supplies |
| Till.TillPayOutReasonCodes (58) Entertainment | TPOE | TillPayOut Entertainment |
| Sale.NoSaleReasonCodes(1) CustomerChange | NSCC | NoSale CustomerChange |
| Sale.NoSaleReasonCodes(2) ChangeForRegister | NSCFR | NoSale ChangeForRegister |
| Sale.PostVoidReasonCodes(1) IncorrectPrice | PVIP | PostVoid IncorrectPrice |
| Sale.PostVoidReasonCodes(2) DiscountIncorrect | PVDI | PostVoid DiscountIncorrect |
| Sale.PostVoidReasonCodes(3) CustomerChangedMind | PVCCM | PostVoid CustomerChangedMind |

Table 2–2 (Cont.) ReasonCode (REAC)

| Reason entered by cashier for some transaction types. Required for Paid In and Paid out transaction types, but can also be used for voids, returns, and so forth. | REAC | Description |
|--|-------------|---------------------------|
| Sale.PostVoidReasonCodes(4) AssociateError | PVAE | PostVoid AssociateError |
| Sale.PostVoidReasonCodes(5) OtherFormPayment | PVOFP | PostVoid OtherFormPayment |
| Sale.PostVoidReasonCodes(6) Other | PVO | PostVoid Other |
| Where transaction type = (18) House Payment | HOUSE | House Payment |

Table 2–3 Sale Line Item (SASI)

| Status of the item within the transaction | SASI (Sale Line Item) | Static |
|---|------------------------------|--|
| SaleReturnLineItem.Quantity is negative | R | Return |
| SaleReturnLineItem.Quantity is positive | S | Sale |
| RetailTransactionLineItem.VoidFlag = true | V | Voided (when voided RTLog includes both original and voided line item) |
| OrderLineItemStatus.ItemStatus = (0) New | ORI | Order Item Initiate |
| OrderLineItemStatus.ItemStatus = (3) Canceled or (7) Voided | ORC | Order Item Cancel |
| OrderLineItemStatus.ItemStatus = (4) Pickedup | ORD | Order Item Complete |
| LayawayTransactionStatus.Status = (1) | LIN | Layaway Item Initiate (all sale return line items in the transaction take this status) |
| LayawayTransactionStatus.Status = (3) Expired or (5) Canceled or (6) Voided | LCA | Layaway Item Cancel (all sale return line items in the transaction take this status) |
| LayawayTransactionStatus.Status = (4) | LCO | Layaway Item Complete (all sale return line items in the transaction take this status) |

Table 2–4 Sale Item Type (SAIT)

| Identifies what type of item is transmitted. | SAIT (Sale Item Type) | Static |
|---|------------------------------|----------------------|
| Gift Cards or Gift Certificates | GCN | Voucher Number |
| Stock Items | ITEM | Item |
| Service Type items | NMITEM | Non-Merchandise Item |
| Transaction level item | REF | Reference Item |

Table 2–5 UPCT

| Identifies type of item number if item type is ITEM or REF | UPCT | Static |
|---|-------------|-------------------|
| Item.ItemID | ITEM | Retek Item Number |

Table 2–6 OverrideReasonCodes (ORRC)

| Reason an item price is overridden at the Point-of-Service. | ORRC (Price Override Reason Code) | Dynamic |
|--|--|-------------------|
| (3) Defective | D | Damaged Goods |
| (5) SignageError | S | Incorrect Signage |

Table 2–7 Sale Return Reason (SARR)

| The reason an item is returned. | SARR (Sale Return Reason) | Dynamic |
|--|----------------------------------|---------------------|
| (33) Defective | 01 | Damaged |
| (33) Defective | 02 | Defective |
| (11) WrongColor | 06 | Color Not As Shown |
| (45) CustomerChangedMind | 19 | CustomerChangedMind |
| (55) PriceAdjustment | 20 | PriceAdjustment |

Table 2–8 Merchandising System Promotion Type (PRMT)

| The Merchandising System Promotion Type | PRMT (Merchandising System Promotion Type) | Static |
|--|---|-------------------|
| Computed | 1004 | In Store Discount |
| Computed | 1005 | Employee Discount |
| Computed | 1006 | Off Retail |
| Computed | 2000 | DTC Promotions |
| Computed | 9999 | Promotion |

Table 2–9 Sale Disc Type within a promotion (SADT)

| The type of discount within a promotion. | SADT (Sale Disc Type within a promotion) | Dynamic |
|---|---|--------------------------|
| (2402,2006,2303,2105) Saturday Morning Special | SATSPL | Saturday Morning Special |
| (2410,2014,2311,2113) Senior Citizen | SENCIT | Senior Citizen |
| (2428,2022,2329,2121) Competition Special | CMPSPL | Competition Special |
| (2436,2030,2337,2139) Store Coupon | SCOUP | Store Coupon |
| (3) Defective | D | Damaged Goods |
| (5) SignageError | S | Incorrect Signage |
| (2) CompetitionPrice | CP | CompetitionPrice |
| (1) AdPrice | AP | AdPrice |
| (4) ManagersSpecial | MS | ManagersSpecial |

Table 2–10 TaxCode (TAXC)

| Tax code to represent whether it is a state tax type, provincial tax, and so forth. | TAXC | Dynamic |
|--|-------------|--------------------------------------|
| TOTTAX (No Longer Used) | TOTTAX | Aggregate total of tax excluding VAT |

Table 2–11 TenderTypes (TENT)

| High-level grouping of tender types. | TENT | Static |
|--------------------------------------|--------|--------------------------------|
| CASH Cash | CASH | Cash |
| CRDT Credit Card | CCARD | Credit Card |
| CHCK Check | CHECK | Personal Check |
| ECHK E-Check | CHECK | Personal Check |
| TRAV Travelers Check | CHECK | Personal Check |
| MBCK Mail Bank Check | CHECK | Personal Check |
| QPON Manufacturers Coupon | COUPON | Coupon |
| DBIT Debit Card | DCARD | Debit Card |
| MNYO Money Order | MORDER | Money Order |
| GCRD Gift Card | VOUCH | Voucher (gift cert. or credit) |
| GICT Gift Certificate | VOUCH | Voucher (gift cert. or credit) |
| STCR Store Credit | VOUCH | Voucher (gift cert. or credit) |
| MACT Mall Certificate | VOUCH | Voucher (gift cert. or credit) |
| PRCH Purchase Order | VOUCH | Voucher (gift cert. or credit) |
| VOUCH Voucher | VOUCH | Voucher (gift cert. or credit) |

Table 2–12 TenderType ID (POS_TENDER_TYPE_HEAD)

| Tender Type ID. Low level grouping of tender types. | POS_TENDER_TYPE_HEAD | Notes |
|---|-----------------------------------|------------------------|
| CASH Cash | 1000 CASH Cash - primary currency | |
| CHCK Check | 2000 CHECK Personal Check | |
| TRAV Travelers Check | 2020 CHECK Traveler Check | |
| QPON Manufacturers Coupon | 5000 COUPON Manufacturers Coupons | |
| DBIT Debit Card | 8000 DCARD Debit Card | |
| MNYO Money Order | 6000 MORDER Money Orders | |
| GICT Gift Certificate | 4030 VOUCH Gift Certificate | |
| GCRD Gift Card | 4040 VOUCH Gift Card | |
| STCR Store Credit | 4050 VOUCH Store Credit | |
| MACT Mall Certificate | 4060 VOUCH Mall Certificate | |
| PRCH Purchase Order | 4070 VOUCH Purchase Order | |
| VOUCH Voucher | 4080 VOUCH PrePaid | No longer used. |
| ECHK E-Check | 2030 CHECK E-Check | |
| MBCK Mail Bank Check | 2040 CHECK Mail Bank Check | |
| Visa | 3000 CCARD Visa | |
| MasterCard | 3010 CCARD Mastercard | |
| AmEx | 3020 CCARD American Express | |

Table 2–12 (Cont.) TenderType ID (POS_TENDER_TYPE_HEAD)

| Tender Type ID. Low level grouping of tender types. | POS_TENDER_TYPE_HEAD | Notes |
|--|--|--------------|
| Discover | 3030 CCARD Discover | |
| DinersClub or Diners | 3040 CCARD Diners Club - N. America | |
| HouseCard | 3120 CCARD House Card | |
| JCB | 3090 CCARD JCB | |
| CASH Cash Alternate Currency | 1010 CASH Cash Alternate Currency | |
| CHCK Check Alternate Currency | 2050 CHECK Personal Check Alternate Currency | |
| TRAV Travelers Check Alternate Currency | 2060 CHECK Travelers Check Alternate Currency | |
| STCR Store Credit Alternate Currency | 4090 VOUCH Store Credit Alternate Currency | |
| GICT Gift Certificate | 4100 VOUCH Gift Certificate Alternate Currency | |

Table 2–13 Credit Card Auth Source (CCAS)

| Authorization Source | CCAS (Credit Card Auth Source) | Dynamic |
|-----------------------------|---------------------------------------|----------------|
| Automatic, System | E | Electronic |
| Manual | M | Manual |

Table 2–14 Credit Card Verification (CCVF)

| Cardholder Verification | CCVF (Credit Card Verification) | Dynamic |
|--|--|--------------------|
| CreditDebitCardTenderLineItem.CustomerSignatureImage is NULL | C | Card Shown |
| CreditDebitCardTenderLineItem.TenderTypeCode = DBIT | P | PIN Entered |
| CreditDebitCardTenderLineItem.CustomerSignatureImage is NOT NULL | S | Signature Verified |

Table 2–15 Credit Card Entered Manually (CCEM)

| Credit card input type | CCEM (Credit Card Entered Manually) | Dynamic |
|-------------------------------|--|---------------------|
| Manual | T | Terminal Used |
| MagSwipe | MSR | Magnetic Strip Read |

Table 2–16 Credit Card Special Condition (CCSC)

| Credit card special condition | CCSC (Credit Card Special Condition) | Dynamic |
|--------------------------------------|---|--------------------|
| If CCAS = E | E | Electronic-secured |
| If CCAS = M | P | Phone |

Table 2–17 Card Weight (CW)

| Unit of Measure | CW (Card Weight) | Notes |
|----------------------|----------------------|-------|
| 'LF' 'linear feet' | 'LF' 'linear feet' | |
| 'LM' 'linear meters' | 'LM' 'linear meters' | |
| 'PN' 'pounds net' | 'LBS' 'POUNDS' | |
| 'KG' 'kilograms' | 'KG' 'KILOGRAM' | |
| 'UN' 'units' | 'EA' 'EACH' | |

Table 2–18 Total ID for TOTAL type transactions -- Char(10) in Oracle Retail Sales Audit

| Total ID (Reference Number 1) for TOTAL type transactions. | Char(10) in Oracle Retail Sales Audit | Notes |
|--|---------------------------------------|--|
| 1000 CASH Cash - primary currency | CASH | |
| 2000 CHECK Personal Check | CHCK | |
| 2020 CHECK Traveler Check | TRAVCHK | |
| 5000 COUPON Manufacturers Coupons | QPON | |
| UNKNW DCARD Unknown (unbranded Debit Card) | DEBITCARD Unbranded | DEBITCARD now will have branded/unbranded designations in Oracle Retail Sales Audit |
| 3000 DCARD Visa | DEBITCARD Visa | |
| 3010 DCARD Mastercard | DEBITCARD MCard | |
| 3020 DCARD American Express | DEBITCARD AmEx | |
| 3030 DCARD Discover | DEBITCARD Disc | |
| 3040 DCARD Diners Club - N. America | DEBITCARD Diner | |
| 3130 DCARD JCB | DEBITCARD JCB | |
| 2030 CHECK E-Check | ECHECK | |
| 2040 CHECK Mail Bank Check | MBCHECK | |
| 3000 CCARD Visa | CCARDVisa | |
| 3010 CCARD Mastercard | CCARDMCard | |
| 3020 CCARD American Express | CCARDAmEx | |
| 3030 CCARD Discover | CCARDDisc | |
| 3040 CCARD Diners Club - N. America | CCARDDiner | |
| 3120 CCARD House Card | CCARDHCard | |
| 3130 CCARD JCB | CCARDJCB | |
| 1010 CASH Cash Alternate Currency | CASHAC | |
| 2050 CHECK Personal Check Alternate Currency | PCHECKAC | |
| 2060 CHECK Alternate Currency | TCHECKAC | |
| 4090 VOUCH Store Credit Alternate Currency | STCRDTAC | |
| 4100 VOUCH Gift Certificate Alternate Currency | GIFTCERTAC | |

Table 2–19 Check Tender Method ID -- Char(6) in Oracle Retail Sales Audit

| Check Tender Method ID | Char(6) in Oracle Retail Sales Audit | Notes |
|-------------------------------|---|--------------|
| 10 - Driver's License | DRVRLC | |
| 20 - Passport | PASSPT | |
| 30 - Military ID | MILTID | |
| 40 - State/Region ID | STRGID | |
| 50 - Student ID | STUDID | |
| 60 - Resident Alien ID | RSALID | |

Implementation Configuration

Data Import Spring Configurations

The system has been designed to support a pluggable model. The DIMP Controller, ImportTranslator, ImportController, ImportDAO, MessageLogger and scheduler are all designed to be configurable at deployment time. This is accomplished through the use of Spring as a deployment configuration framework. Each of these classes is only accessed through their interface. Therefore, any new implementations only need to support the interfaces to be used by the subsystem. Introducing an alternate implementation is done through updates to the Spring properties or context files. No additional code changes are necessary.

Table 3–1 includes the set of Spring bean IDs used for each of the pluggable components.

Note: 1 to $2^{64} - 1$ is the logical range of the batchSize, though database performance may require the upper limit to be much smaller than that. Only the implementation team will be able to determine what the actual upper limit should be based upon database performance.

Table 3–1 Spring Bean IDs Used for Each of the Pluggable Components

| Spring Bean ID | Provided Implementation | Default Configuration |
|--|--|-----------------------|
| service_MerchandiseHierarchyImportTranslator | oracle.retail.stores.commerceservices.item.hierarchy.importdata.MerchandiseHierarchyImportTranslator | batchSize=1000 |
| service_StoreHierarchyImportTranslator | oracle.retail.stores.commerceservices.store.hierarchy.importdata.StoreHierarchyImportTranslator | batchSize=1000 |
| service_TaxImportTranslator | oracle.retail.stores.commerceservices.tax.importdata.TaxImportTranslator | batchSize=100 |
| service_EmployeeImportTranslator | oracle.retail.stores.commerceservices.employee.importdata.EmployeeImportTranslator | batchSize=1000 |
| service_CustomerImportTranslator | oracle.retail.stores.commerceservices.customer.importdata.CustomerImportTranslator | batchSize=1000 |
| service_ItemImportTranslator | oracle.retail.stores.commerceservices.item.item.importdata.ItemImportTranslator | batchSize=1000 |
| service_PricingImportTranslator | oracle.retail.stores.commerceservices.pricing.importdata.PricingImportTranslator | batchSize=1000 |

Table 3–1 (Cont.) Spring Bean IDs Used for Each of the Pluggable Components

| Spring Bean ID | Provided Implementation | Default Configuration |
|----------------------------------|--|---|
| service_CurrencyImportTranslator | oracle.retail.stores.commerceservices.currency.importdata.CurrencyImportTranslator | batchSize=1000 |
| service_ImportSequence | oracle.retail.stores.commerceservices.importdata.ImportSequence | |
| service_ImportInitiator | oracle.retail.stores.commerceservices.importdata.ImportInitiator | executeImport=false |
| service_ImportTranslatorMap | oracle.retail.stores.commerceservices.importdata.ImportTranslatorMap | |
| service_ImportIOAdapter | oracle.retail.stores.commerceservices.importdata.EEImportIOAdapter | |
| service_MessageBuilder | oracle.retail.stores.commerceservices.importdata.MessageBuilder | prefix=***DIMP: |
| DIMP_Scheduler | org.springframework.scheduling.quartz.SchedulerFactoryBean | triggers=service_ImportJobTriggerAutoStartup=true ApplicationContextSchedulerContext Key=applicationContextWaitForJobsToCompleteOnShutdown=true |

These settings can be found in the `ServiceContext.xml` file packaged in the `config.jar` under the `/config/context` package.

The `web.xml` in `WEB-INF` directory has the following configuration under the `web-app` section.

```
<context-param>
<param-name>contextConfigLocation</param-name>
<param-value>/WEB-INF/DataImportScheduler.xml</param-value>
</context-param>
```

The following servlet should also be configured to start up automatically. The servlet loads the context configuration files necessary for starting DIMP's bundle-polling mechanism. Because the `DataImportScheduler.xml` file is configured in the context, this file is loaded by the servlet. In the context, the `SchedulerFactoryBean` is configured to start on load; hence it is invoked and starts the scheduler timer. The timer intervals can be configured from `spring.properties`. See [spring.properties](#).

```
<servlet>
<servlet-name>context</servlet-name>
<servlet-class>org.springframework.web.context.ContextLoaderServlet</servlet-class>
>
<load-on-startup>1</load-on-startup>
</servlet>
```

Table 3–2 includes additional sets of Spring bean IDs used for each of the pluggable components.

Table 3–2 Additional Spring Bean IDs Used for Each of the Pluggable Components

| Spring Bean ID | Provided Implementation | Additional Configuration |
|---|---|-----------------------------------|
| persistence_ImportController | oracle.retail.stores.commerceservices.importdata.ImportController | batchSize=1000 |
| persistence_MerchandiseHierarchyImportDAOTarget | oracle.retail.stores.commerceservices.item.hierarchy.importdata.dao.MerchandiseHierarchyImportDAO | dataSource=persistence_dataSource |
| persistence_StoreHierarchyImportDAOTarget | oracle.retail.stores.commerceservices.store.hierarchy.importdata.dao.StoreHierarchyImportDAO | dataSource=persistence_dataSource |
| persistence_TaxImportDAOTarget | oracle.retail.stores.commerceservices.tax.importdata.dao.TaxImportDAO | dataSource=persistence_dataSource |
| persistence_EmployeeImportDAOTarget | oracle.retail.stores.commerceservices.employee.importdata.dao.EmployeeImportDAO | dataSource=persistence_dataSource |
| persistence_ItemImportDAO | oracle.retail.stores.commerceservices.item.item.importdata.dao.ItemImportDAO | dataSource=persistence_dataSource |
| persistence_PricingImportDAO | oracle.retail.stores.commerceservices.pricing.importdata.dao.PricingImportDAO | dataSource=persistence_dataSource |
| persistence_CurrencyImportDAO | oracle.retail.stores.commerceservices.currency.importdata.dao.CurrencyImportDAO | dataSource=persistence_dataSource |
| persistence_CustomerImportDAO | oracle.retail.stores.commerceservices.customer.importdata.dao.CustomerImportDAO | dataSource=persistence_dataSource |
| persistence_ImportErrorHandler | oracle.retail.stores.commerceservices.importdata.ImportErrorHandler | dataSource=persistence_dataSource |
| persistence_PricingElementsLoader | oracle.retail.stores.commerceservices.pricing.importdata.PricingElementsLoader | |
| persistence_TaxElementsLoader | oracle.retail.stores.commerceservices.item.item.importdata.TaxElementsLoader | |

These settings can be found in the PersistenceContext.xml file packaged in the config.jar under the /config/context package.

By default, the ImportController's batch size is set to 1000 and all the translators (except TaxImport) are also using the same. Each individual translator can be configured separately to optimize the import per the size of the data operation. Spring sets the batch size value onto the translator when instantiated using the propertyConfigurer. It is the responsibility of the translator to call setBatchSize(int) with that value onto the ImportController.

Note: Although the application ships with a default batch size set to 1000, the optimum batch size for every deployment is unknown. Determining the optimum size will depend on critical factors only known at deployment including, but not limited to, application server and database sizing. DIMP will perform faster with fewer batches, for example, a higher batch size, but care must be taken not to raise the size too high and exceed the data transaction timeout controlled by the middleware.

Notice that the ID of the DAO beans end with `Target`. This is because the ID that is actually used by the application returns a Proxy Bean configured to intercept method calls to the DAO and associate transactions with them. Upon `ImportExceptions` thrown by those methods, the transaction is rolled back. This is an example of Aspect Orient Programming whereby Spring has provided the mechanism to handle the transaction management..

Several configuration files exist containing settings specific to DIMP. Properties are read when the server starts, so any changes require a server restart before they take effect.

spring.properties

Find `spring.properties` in the following location:

```
<INSTALL_DIR>\profiles\AppSrv01\properties
```

The following is an example `spring.properties` file:

```
#####  
## Global settings (applicable to OC4J and WAS) ##  
#####  
  
# directory in which incoming data import bundles arrive  
importdata.file.path=C:/temp/dataimport/incoming  
  
# directory in which dimp bundles are archived after processing  
importdata.archive.path=C:/temp/dataimport/archive  
  
# true/false whether data import scheduler should scan importdata.file.path  
execute.import=false  
  
# schedule DIMP to check for new bundles every five minutes between 1:00 and 3:00  
AM everyday.  
  
# see http://en.wikipedia.org/wiki/CRON\_expression for editing CRON expressions.  
  
import.scheduler.cronexpression=0 0/5 1-3 * * ?  
  
# name of the DIMP logger config file  
logger.filename=dimplogger  
  
# default import data batch size for ImportController  
importdata.batchsize=1000  
  
# Specific import type batch size to override the default size.  
# When the attribute is set with a value of 0 then the default batch size is used.  
# The attribute is mandatory to be mentioned along with a non null value. The  
value can be 0.  
  
merchandisehierarchy.importdata.batchsize=${importdata.batchsize}  
storehierarchy.importdata.batchsize=${importdata.batchsize}  
tax.importdata.batchsize=100  
currency.importdata.batchsize=${importdata.batchsize}  
customer.importdata.batchsize=${importdata.batchsize}  
employee.importdata.batchsize=${importdata.batchsize}  
item.importdata.batchsize=${importdata.batchsize}  
pricing.importdata.batchsize=${importdata.batchsize}  
  
#KeyStore Encryption Properties  
keyStoreEncryption.providerName=SunJCE  
keyStoreEncryption.hashAlgorithmName=SHA-256  
#keyStoreEncryption.jndiName=eis/keystoreconnector
```

```
keyStoreEncryption.jndiName=eis/keystoreconnector
keyStoreEncryption.implementationClassName=oracle.retail.stores.simkeystore.simint
erface.SimKeyStoreEncryptionService
```

`importdata.file.path` and `importdata.archive.path` are file-system dependent. Windows systems would use paths such as:

```
C:/temp/dataimport/incoming
```

Linux systems would use paths such as:

```
/tmp/dataimport/incoming
```

Note: Take care on systems that have more than one Back Office or Central Office or a combination of both: do not configure each to point to the same directory; they will race each other for the incoming bundles.

`execute.import` determines whether or not data imports execute in the environment. Its default is **false**. Set this to **true** to enable DIMP.

`logger.filename` points to another properties file containing the string values that can be customized for DIMP messages.

dimlogger.properties

This is the file referred to by the value, `logger.filename`, in `spring.properties`. It contains text values that can be customized to make DIMP messages easily distinguishable in the `oracleretail` log file.

Every DIMP message appears with the `dimp.prefix`. `dimp.text1`, `dimp.text2` and `dimp.text3` are used depending on how much information is supplied by the underlying system.

Archive File Format

The Archive File is of the following format:

```
META-INF
  MANIFEST.MF
ItemImport-12345-20032-007.xml
PriceImport-12345-20032-007.xml
StoreHierarchy.xml
... .
```

The suggested file naming convention for the archive is as follows:

```
[arbitrary_portion] - [store_id] - [YYYYMMDD] - [NNN].jar
```

Where `[arbitrary_portion]` can be used by the implementation team for any value, and `[NNN]` is the batch ID in the range of 0 through $2^{32}-1$, or 2,147,483,647 (because of the limitations of the XSD int datatype). This is a sequential number that is used to allow more than one bundle with the same `[YYYYMMDD]`, if more than one exists on the server at a time. When more than one file does exist, the file creation time is used to determine the order in which they are processed. The date is only available for visual reference. If the file name is not formatted as above, the values in the manifest are used instead. However, if both the archive file name and the file names within the manifest contain a batch ID, the value in the archive file name takes precedence.

There is no restriction on the file names and they can be in any format. But the exact file names have to be listed in the MANIFEST.MF.

The format of the MANIFEST.MF is as follows:

```
Manifest-Version: 1.0

# This manifest describes the contents of an archive referred to as a
# bundle. The following two values list the ID of the batch that
# produced this bundle and the ID of the destination store to receive
# it. The BatchID should be numeric less than 2^32-1.

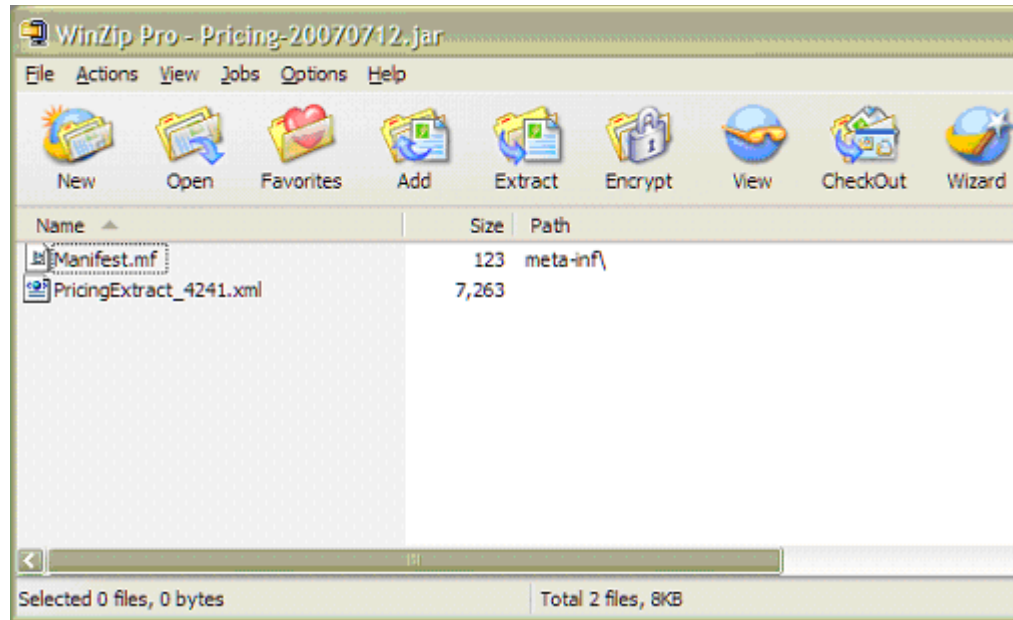
BatchID: <N>
StoreID: <NNNNN>

# The following section lists the files contained in this bundle archive.
# Each key should begin with "FileN" without quotes and N being a number.
# The value of the key consists of a bundle entry file name followed
# by hard brackets containing a list of files that should be processed
# before it.
#
# e.g. File1: ItemImport.xml [TaxImport.xml,StoreHierarchyImport.xml]
#
# The order of the files or their dependency list is not important.

File1: <filename1>[<optional dependencies>]
...
FileN: <filenameN>[<optional dependencies>]
```

With the exception of manifest.mf, path names should not be used when creating the manifest. In [Figure 3-1](#), note that the path column is empty except for meta-inf, the path for manifest.mf.

Figure 3-1 Adding Files To a Jar

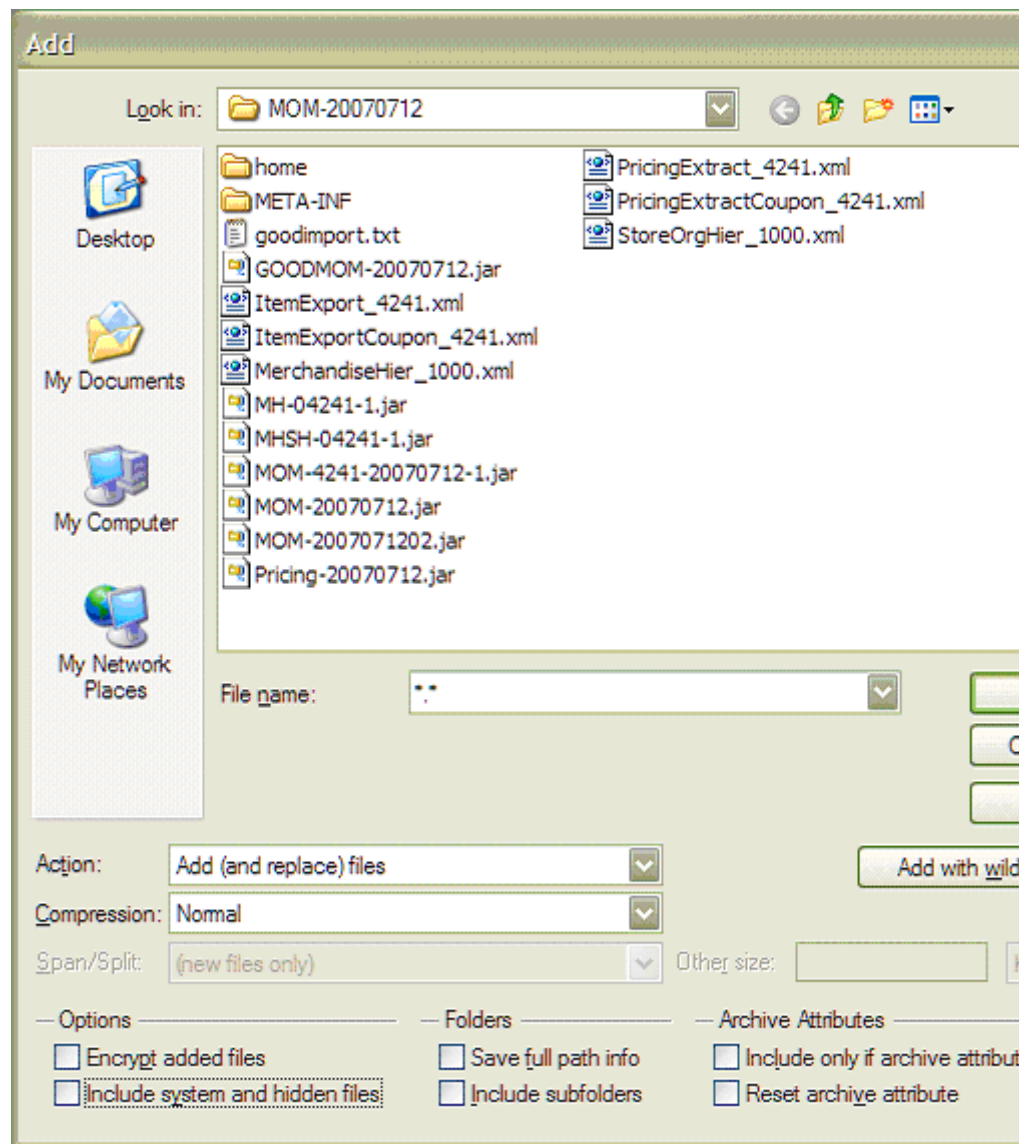


Note: WinZip can be used to create a bundle, inspect the bundle, as well as add, delete, or modify the XML contents. Care should be taken to use text editors that will not corrupt the contents, as often happens when using Notepad. Alternately, use the following *jar* command line utility (from a Java Standard Development Kit) to create a bundle:

```
C:\temp\dataimport\archive>%JAVA_HOME%\bin\jar -cvfm test_
coupon3.jar manifest_details.txt PricingImportSample_
addCouponDiscount.xml ItemImportSample_addCoupon.xml
```

In Figure 3–2, note that the **Save full path info** option at the bottom is not selected.

Figure 3–2 Adding Files To A WinZip Archive



The following is an example of a manifest file:

```

Manifest-Version: 1.0

# This manifest describes the contents of an archive referred to as a
# bundle. The following two values list the ID of the batch that
# produced this bundle and the ID of the destination store to receive
# it. The BatchID should be numeric less than 2^32-1.

BatchID: 1
StoreID: 04241

# The following section lists the files contained in this bundle archive.
# Each key should begin with "FileN" without quotes and N being a number.
# The value of the key consists of a bundle entry file name followed
# by hard brackets containing a list of files that should be processed
# before it.
#
# e.g. File1: ItemImport.xml [TaxImport.xml,StoreHierarchyImport.xml]
#
# The order of the files or their dependency list is not important.

File1: TaxImport.xml []
File2: MerchandiseHierarchyImport.xml []
File3:
ItemImport.xml [TaxImport.xml,MerchandiseHierarchyImport.xml,StoreHierarchyImport.xml]
File4: ItemImport2.xml [ItemImport.xml]
File5: PriceImport.xml [ItemImport2.xml]
File6: StoreHierarchyImport.xml []
File7: EmployeeImport.xml [StoreHierarchyImport.xml]
    
```

Oracle Retail Merchandising System Configuration

If the retailer is integrating with Oracle Retail Merchandising System, it is assumed that the retailer is setting up items within Oracle Retail Merchandising System, and not using this feature in Back Office. If the retailer chooses to add or edit an item within Back Office, then that item data might be overridden by the next download from Oracle Retail Merchandising System.

Some data fields are defaulted to the values shown in [Table 3–3](#).

Table 3–3 Oracle Retail Merchandising System Default Values in the Back Office Item Maintenance Screen

| Back Office Data Field | Default Value when Integrating with Oracle Retail Merchandising System or Limitation |
|---------------------------|--|
| Cost | 0 |
| Class | Items belong to one class only |
| Manufacturer | Null |
| Planogram | Null |
| Labels/Tags Template Type | Default |
| Serialized | FALSE |
| Restocking Fee | FALSE |
| Activation Required | No |
| Registry Eligible | No |

Table 3–3 (Cont.) Oracle Retail Merchandising System Default Values in the Back Office Item Maintenance Screen

| Back Office Data Field | Default Value when Integrating with Oracle Retail Merchandising System or Limitation |
|----------------------------|--|
| Employee Discount Eligible | Yes |
| Damage Discount Eligible | Yes |
| Size Entry Required | No |
| Authorized for Sale | Active |
| Item Department | The first department in the drop down list. If no Item Department is specified, then the value is defaulted to the first value in the drop down list. |

Service items (non-merchandise items that are non-inventory) need to be loaded separate from the download process.

In Oracle Retail Merchandising System, differentiators **1** and **2** are sent as values and are mapped to COLOR and SIZE in Point-of-Service.

n 1 = COLOR

n 2 = SIZE

Oracle Retail Price Management Configuration

If the retailer is integrating with Oracle Retail Price Management, it is assumed that the retailer is managing items and pricing within Oracle Retail Price Management, and not using this feature in Back Office. If the retailer chooses to add or edit an item within Back Office, that item data might be overridden by the next download from Oracle Retail Price Management. Oracle does not provide support for using Back Office to manage items and pricing when in an integrated environment with Oracle Retail Price Management.

Note: You must edit the Data Definition Language (DDL) before building the store's database when integrating with Oracle Retail Price Management.

In the files `CreateTableTemporaryPriceChangeItem.sql` and `CreateTablePriceDerivationRule.sql` there are the following two lines:

```
-- Uncomment and use this index for Oracle Retail Price Management
integrations
-- CREATE UNIQUE INDEX ITM_TMP_PRM_IDX ON MA_ITM_TMP_PRC_CHN (ID_
PRM, ID_PRM_CMP, ID_PRM_CMP_DTL);
```

Remove the dashes that start the second line so that when the database is built, these three columns (that contain Oracle Retail Price Management IDs) create a unique index.

During this phase of the integration, some data fields are defaulted to the values shown in [Table 3-4](#).

Table 3-4 Oracle Retail Price Management Default Values

| Back Office Screen | Back Office Data Field | Default Value when Integrating with a Oracle Retail Price Management or Limitation |
|---------------------------|---------------------------------|--|
| Discount Rule | Start Time | 0:00 |
| Discount Rule | End Time | 23:59:59 |
| Discount Rule | Source Threshold | None |
| Discount Rule | Source Limit | None |
| Discount Rule | Target Threshold | None |
| Discount Rule | Target Limit | None |
| Discount Rule | Number of Times Per Transaction | -1 |
| Discount Rule | Accounting Method | Discount |
| Discount Rule | Allow Source to Repeat | Yes |
| Discount Rule | Deal Distribution | Target |
| Discount Rule | Target Quantity | 1 |
| Price Maintenance | Start Time | 0:00 |
| Price Maintenance | End Time | 23:59:59 |
| Price Maintenance | Status | This field is deprecated and no longer used. The status is determined from the effective and expiration dates. |
| Price Maintenance | Template Type | Default |

Capacity Planning

This chapter lists the approximate hard drive sizes that are required at each store to be able to support the Data Import project.

The following assumptions were made to arrive at an approximate capacity:

- The archival period is one week.
- The frequency is one import bundle per day.
- Tax, Customer and Currency imports where not included in the bundles.
- Peak Load for the EMPLOYEE Import is 30 employees per file.
- The Peak Load Capacity of each file is taken into consideration for the estimation. See [Table 4-1, File Sizes](#).
- The average compression ratio in creating a jar file is considered to be 60%.
- As the frequency is one bundle per day, and the archival period is one week, therefore the maximum number of files on the disk is eight.
- A footprint on the DDI (Data Distribution Interface) on the Store Server is considered to be the size of one bundle and added to the final estimate. The footprint on the DDI is not part of the scope of the DIMP.
- Because the peak load size for Merchandise Hierarchy is not defined, a load of 5000 records is estimated.

[Table 4-1](#) identifies the file sizes for components in the data import at a store.

Table 4-1 File Sizes

| Type of Import | One-Record Size in Bytes | Peak Load (Number of Records) | Peak File Size in Bytes |
|----------------|--------------------------|-------------------------------|-------------------------|
| Item | 950.00 | 15,000,000.00 | 14,250,000,000.00 |
| Pricing | 1,600.00 | 820,000.00 | 1,312,000,000.00 |
| Store | 710.00 | 5,000.00 | 3,550,000.00 |
| Merchandise | 300.00 | 5,000.00 | 1,500,000.00 |
| Employee | 1,400.00 | 30.00 | 42,000.00 |

Total Size of Files

15,567,092,000.00 Bytes

Table 4–2 identifies the sizes of data import bundles.

Table 4–2 Bundle Size

| | | | |
|-------------------------|--|------------------|-------|
| Bundle Size (jar Size) | Assuming 60% Compression Ratio in creating a jar | 9,340,255,200.00 | Bytes |
| Approximate Bundle Size | | 8,900.00 | MB |
| | | 8.69 | GB |

Table 4–3 identifies the required hard-drive capacities to enable a data import.

Table 4–3 Hard Drive Capacity

| | | | |
|--|--|-----------|----|
| Seven files in Archive + One File in current | | 71,200.00 | MB |
| | | 69.53 | GB |
| Approximate Hard Drive Size to retain the Bundles | | 70.00 | GB |
| Footprint on DDI Store Server (the DDI remains the responsibility of the implementation team to implement) - assuming size of one Bundle | | 78.69 | GB |

Required Hard Drive Capacity (Approximate)

80.00 GB

Table 4–4 Item Import Data Volumes

| Data Volumes | | |
|----------------------------------|--|--|
| Item | 800,000 – 1.5 million for peak season 5000 – 15,000 for delta | 1.5 million |
| Item Location | See Item | See Item |
| Item (Merchandise) Hierarchy | number of departments groups number of hierarchies | number of departments number of groups number of hierarchies |
| Organizational (Store) Hierarchy | 5000 stores, 6 levels number of regions number of districts per region number of stores per district. | 5000 stores, 6 levels |
| Tax data | See Item (since any tax information is limited to item-related attributes such as tax group ID) *Tax information does not come from Oracle Retail Merchandising System. | See Item (since any tax information is limited to item-related attributes such as tax group ID) *Tax information does not come from Oracle Retail Merchandising System. |

Pricing Import Data Volumes

Data Volumes: 800000 price changes per day per store.

Customization Notes

Data Import Extension Points and Development

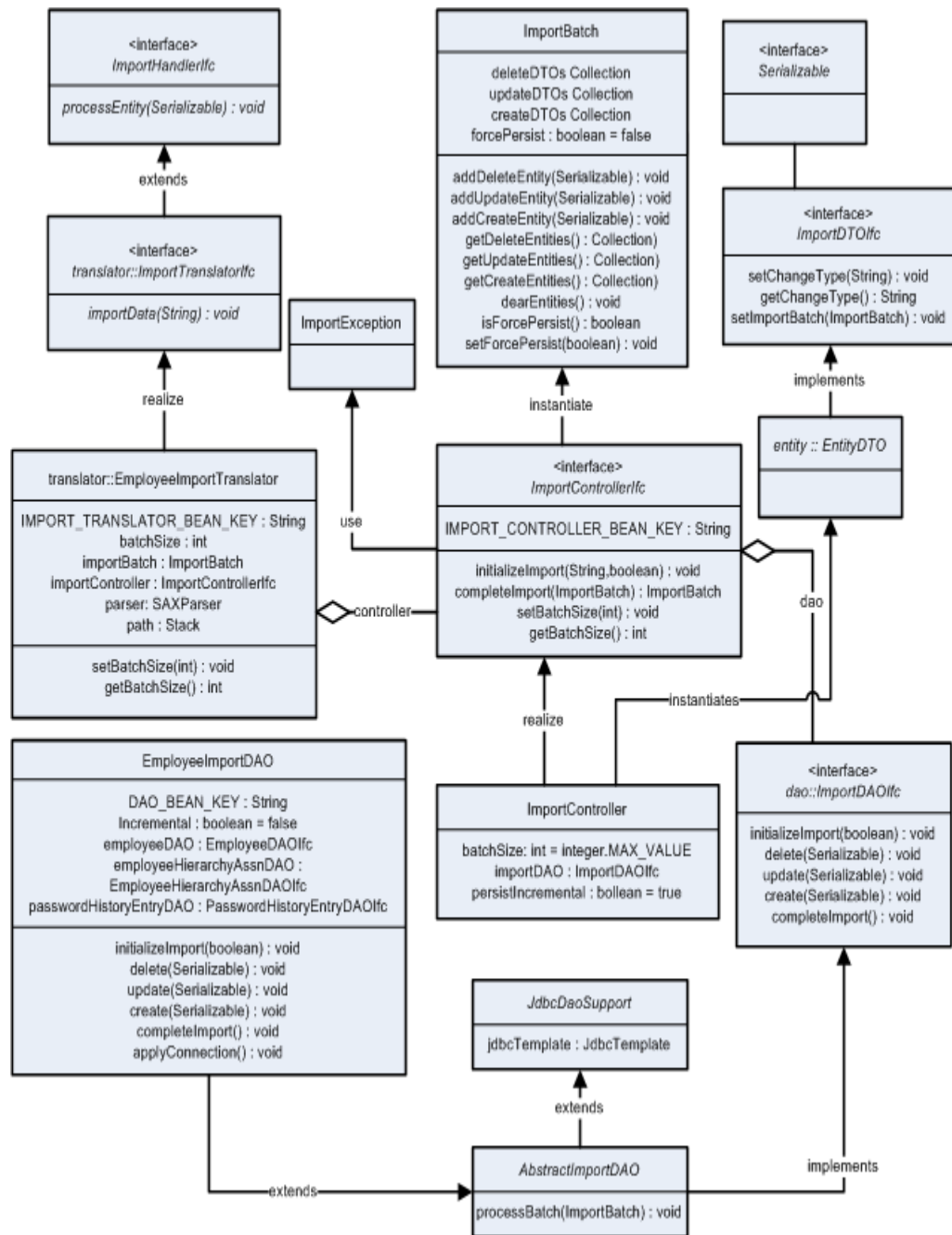
Oracle Store Solutions has provided not only extension points for enhancing or modifying the capabilities of the existing data imports, but there are also tools provided for jump-starting an altogether new data import. Do the following to create a new data import module:

1. Compose an XSD to which the import data conforms. Follow patterns set in existing XSDs for determining order of type declarations.
2. Generate sample XML based on the XSD. This can be done manually or by using a tool such as the Eclipse EMF plug-in. See:
<http://www.eclipse.org/>
3. Map the XSD to the Data Model.
4. Use SAXParserGenerator with XSD.
5. Add new SAXParser to the ImportTranslatorMap specified in ServiceContext.xml.
6. Use DAOGenerator to generate data access objects (DAO) for tables mapped to.
7. Rename DAO classes to match logical names of tables.
8. Delete duplicate DTOs or DAOs that might exist in other packages and that can be reused.
9. Update DAOIfc method parameters to pass actual DTO objects.
10. Remove column names from UPDATE_SQL that are not updated during update procedure from DAO and SQLIfc.
11. Update DAO get*Statement() methods to map DTO fields to PreparedStatement buckets.
12. Create a test that reads the XML and sends it to translator. How the XML is created or read is not important at this time, nor is using Spring or JUnit or AppServer.

The following sections discuss these steps in more detail. Where these steps overlap with steps for enhancement (as opposed to steps for creating new imports), the enhancement steps are identified.

First, extension points are identified, and techniques for enhancing existing data imports are described. Each of the previously mentioned DIMP modules (Taxation, Merchandise Hierarchy, Store Hierarchy, and Employee) follow the same patterns of implementation and vary in minor details only. We concentrate on Employee. The following diagram is the Employee Data Import Static Model.

Figure 5–1 Employee Data Import Static Model



Import Adapter and Translator

The entry point for data imports is the `ImportIOAdapterIfc`. It is configured through a Spring context as either `EEImportIOAdapter`, for JCA implementations, or `FileImportIOAdapter` for direct file I/O implementations. The IO Adapter retrieves the bundles from the file system, determines the processing order, and passes the XML stream data to the `ImportInitiator`, which determines the import type from the payload and passes the string to a translator. The `ImportInitiator` (as the `BeanLocator`) provides an `ImportTranslatorIfc` from the service context by passing the key `EmployeeImportTranslator.IMPORT_TRANSLATOR_BEAN_KEY`, for example.

The following example shows the EEImportIOAdapter implementation in use:

```
<!-- Import IO Adapter Implements
oracle.retail.stores.commerceservices.importdata.ImportIOAdapterIfc -->
<bean id="service_ImportIOAdapter"
class="oracle.retail.stores.commerceservices.importdata.EEImportIOAdapter">
</bean>
<!--<bean id="service_ImportIOAdapter"
class="oracle.retail.stores.commerceservices.importdata.FileImportIOAdapter">
```

SAXParserGenerator

If creating a new data import module and starting with a defined XSD, a simple utility can be run to generate code for a Translator, SAX handlers, simple DTO, and a skeleton Import DAO. The following is an example of how to run this utility.

Example 5-1 SAXParserGenerator utility command prompt

```
<root>\modules\utility>java
oracle.retail.stores.codegen.importtranslator.SAXParserGenerator "C:\Data
Import\Design\Employee\EmployeeImport.xsd"
oracle.retail.stores.commerceservices.employee.importdata
../../commerceservices/employee/src
```

This command line example shows that the utility program is Java-based and takes three arguments:

- n The location of the XSD file.
- n The desired package name for the generated source code.
- n The directory in which to place new source code files.

This utility can be configured as an executable target in your favorite Integrated Development Environment (IDE) so this utility can be run again as changes continue to be made to the XSD which defines the format of the new data input.

The code generation uses the Java-based Velocity templates and APIs. See:

<http://jakarta.apache.org/velocity>

The templates can be found at:

```
<root>/modules/utility/templates/
```

Manually Editing Generated Code

The generated code requires additional manual editing before it can be used. For example, the ImportDAO has only the barest of implementations in its methods. Add code to pass various DTOs to the correct DAO that can handle it.

Appropriate DTOs might already exist in the codebase. Examine the attributes of the pre-existing DTO to see if it or the generated DTO should be used. In some cases, additional code might need to be added. For example, if you consider that a single-entity DTO usually represents a single record in the database, the SAX handlers are coded to not process child DTOs passed to the SAX handlers until the DTO that a SAX Handler creates is successfully processed.

Example 5–2 EmployeeAccessHandler Process DTO Before Children

```

/**
 * End handling this element. Calls {@link
 * ImportHandlerIfc#processEntity(java.io.Serializable)}
 * @throws SAXException
 */
public void end() throws SAXException
{
    try
    {
        // process this first
        parent.processEntity(employeeAccessDTO);

        // process all its children
        Iterator iter = children.iterator();
        while (iter.hasNext())
        {
            Serializable child = (Serializable)iter.next();
            parent.processEntity(child);
        }
    }
    catch (ImportException e)
    {
        logger.error("Could not end element " + getText(), e);
        throw new SAXException("Could not end element " + getText(), e);
    }
}

```

However, in some cases, such as when there are important attributes that are needed to fill the DTOs, and which need to be persisted immediately, the call to `parent.processEntity(Serializable)` can be commented out of the `end()` method and added to the `start(Attributes)` method. The `start(Attributes)` method is called when parsing the beginning of the XML element. Notice in the following example, the value for "Incremental" defaults to true if it does not exist.

Example 5–3 EmployeeImportHandler Process DTO During Start

```

/**
 * Start handling this element by inspecting its attributes, if any.
 * @param attributes the attributes given.
 * @throws SAXException
 */
public void start(Attributes attributes) throws SAXException
{
    String incremental = attributes.getValue("Incremental");
    Boolean bIncremental = (incremental != null)? Boolean.valueOf(incremental)
: Boolean.TRUE;

    employeeImportDTO.setEmployeeImportIncrementalAttribute(bIncremental.booleanValue(
));

    try
    {
        // process this first
        parent.processEntity(employeeImportDTO);
    }
    catch (ImportException e)
    {

```

```

        logger.error("Error starting import" + employeeImportDTO, e);
        throw new SAXException("Error starting import" + employeeImportDTO,
e);
    }
}

```

There also might be a scenario where parent XML element values, such as IDs, are required for child DTO objects. These attributes might have to be added manually to the DTOs and set by the handlers. See the Merchandise Import DTO, LevelDTO as an example, and the handlers that call its set methods.

If it seems that the SAX handlers or the DTOs are missing attributes for defined XML elements, there might be errors in the XSD that the SAXParserGenerator cannot decipher. Ensure that your XSD validates properly based upon the schema at:

<http://www.w3.org/2001/XMLSchema>

Metadata

The top-level element of each import includes metadata pertaining to the import bundle. Among other possible uses, this data is included in import bundle tracking and error logging. The following is an example XML fragment. Consult the development team for the status of data import schemas beyond this release.

```

<ItemImport
    Priority="0"
    FillType="FullIncremental"
    Version="1.0"
    Batch="1"
    CreationDate="2001-12-17T09:30:47.0Z"
    ExpirationDate="2007-12-17T09:30:47.0Z"
    xsi:noNamespaceSchemaLocation="ItemImport.xsd"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
. . .

```

The metadata attributes are defined as follows:

Priority

An integer specifying the order, from lowest to highest, in which multiple files of one type in a bundle should be processed.

Note: Priority is not currently used. The Manifest.mf file specifies the XML file processing order and any dependencies.

FillType

The feed method: Kill And Fill, Delta Incremental, or Full Incremental. The XSD specifies which of these are allowed for an import type. For example, Tax allows only Kill And Fill, while Item allows all three.

- Kill And Fill – Deletes (kills) all existing data and then performs record operations to fill tables. The kill is rolled back upon failure during the fill stage.
- Full Incremental – Incrementally perform record operations in order against production tables. Updates contain the full record needed for the update.
- Delta Incremental – Same incremental behavior as for Full Incremental import type, but updates can contain only the delta values of each record wanting to update.

Version

The version of the application processing the data.

Batch

An integer sequence number, corresponding to the ID of the process that created the file.

CreationDate

A timestamp identifying the file's creation time.

ExpirationDate

A timestamp beyond which a file has become stale and should not be processed. This attribute does not need to be present.

ImportControllerIfc

The current implementation of the `ImportControllerIfc` operates well in most circumstances. However, there might be circumstances that call for a different version of the controller to be plugged in. For example, a new controller might put a parsed batch onto one of many secondary queues instead of passing it synchronously to a DAO, then returning control to the translator to continue parsing the import.

The secondary queue is another thread that takes the incoming batch and passes it to an instance of the import DAO. This enables multiple batches to be processed at once.

Oracle Retail POS Suite to Oracle Retail Sales Audit Extension Points and Development

There are three distinct situations in which a implementation team would need to extend the functionality in the Export File Generator:

- Adding data elements to the RTLog Format.
- Creating an entirely new fixed length export format.
- Creating an entirely new export format which is not fixed length.

Adding Data Elements to the RTLog Format

To add VAT information added to the one or more of the reference fields in the Transaction Item record to the RTLog a implementation team takes the following steps:

1. Define the format of the VAT data.
2. Depending on the outcome of step 1, it might be advantageous to modify the definition of a Reference field in the Transaction Item record. This cause the creation of Acme-specific Export Format Configuration file. If this is desirable, copy `RTLogFormat.xml` to `AcmeRTLogFormat.xml` and make the modifications in this file.
3. Define how the columns in the table `TR_LTM_SLS_RTN_TX` map to the format defined in step 1.
4. Write a `FieldMapper` class called `AcmeItemVATTax.java` to perform the mapping.
5. Copy `RTLogMappingConfig.xml` to `AcmeRTLogMappingConfig.xml` and make the following change to the new file:

```
<TABLE table="TR_LTM_SLS_RTN_TX">  
  <MAP column="MO_TX_RTN_SLS" record="TransactionTax" field="TaxAmount"
```

```
fieldMapper="com.acme.exportfile.RTLog.fieldmappers.AcmeItemVATTax "/>
</TABLE>
```

6. Modify StoreServerConduit.xml to use AcmeRTLogMappingConfig.xml and AcmeRTLogFormat.xml instead of RTLogMappingConfig.xml and RTLogFormat.xml.

If the Reference field is partitioned correctly, and the values coming from the database to these new fields do not requires manipulation, then it is possible that the FieldMapper class is not required.

Blocking Transaction Export

The RTLog file export feature processes all transactions. However, there may be some kinds of transactions that a customer does not want to send to Oracle Retail Sales Audit. For example, the customer might not want Training Mode transactions to be sent to Oracle Retail Sales Audit. Do the following to prevent the Training Mode transactions from being exported, for example:

1. Modify the RTLogMappingConfig.xml file. Replace the following code:

```
<MAP column="FL_TRG_TRN" record="TransactionHeader"
field="SubTransactionType">
  <VALUE_MAPPINGS handleNotFound="success">
    <VALUE_MAPPING DatabaseValue="1" RecordValue="TRAIN"/>
  </VALUE_MAPPINGS>
</MAP>
```

With these lines:

```
<MAP column="FL_TRG_TRN" record="TransactionHeader"
field="SubTransactionType"
fieldMapper="oracle.retail.stores.exportfile.rtlog.fieldmappers.TrainingModeTra
nsNotExportableMapper"/>
```

2. Add a FieldMapper called TrainingModeTransNotExportableMapper.java. This FieldMapper contains the following method:

```
public int map(String columnValue, Row row, ColumnMapIfc columnMap,
    FieldFormatIfc field, RecordFormatIfc record, EntityIfc entity,
    EntityMapperIfc entityMapper) throws ExportFileException
{
    // The column is FL_TRG_TRN; it is a boolean where "1" indicates
    // the transaction was created in training mode.
    if (columnValue.equals("1"))
    {
        logger.warn("Not exporting training mode transactions due to a
duplicate transaction issue at Oracle Retail Sales Audit.");
        RTLogMappingResultIfc results =
(RTLogMappingResultIfc)entityMapper.getResults();
        results.setTransactionExportable(false);
    }
    return ColumnMapIfc.SUCCESS;
}
```

Creating a New Fixed Length Export Record Format

Oracle Retail has only one way to send transactional data to a customer's back end systems: POSLog. However, it is expensive and time consuming to extend POSLog, to explain it to customers and to develop the code that loads it into the customer back end.

It might be faster and cheaper to use the Export File Generator to generate the transaction log format that the customer is already consuming.

The generation of all three current formats (DTM for Central Office, POSLog for the customer backend, and RTLog for Oracle Retail Sales Audit) simultaneously has been tested in the development environment.

Do the following to create a transaction log export code for **Acme**, a generic customer:

1. Work with Acme developers to create a mapping document that describes the relationship between the Oracle database and the current Acme back end system/transaction log format. A mapping exercise of this type must be done even if the customer eventually chooses to use the POSLog to transfer the data. Understanding the customer's current transaction log can provide valuable insight into the data requirements.
2. Construct an Acme-specific Export Format Configuration file which describes all the records in the Acme transaction log; call this file AcmeTLogFormatConfig.xml.
3. Create an Acme-specific Mapping configuration file; call this file AcmeTLogMappingConfig.xml.
4. Create an Acme-specific Entity Reader configuration file; call this file AcmeTLogExtractConfig.xml.
5. If Acme exports the RTLog for Oracle Retail Sales Audit, the RTLogExportDaemonTechnician and RTLogExportDaemonThread can still be used to export the Acme Tlog formatted data. Just create another entry in StoreServerConduit.xml with a different technician and daemon name. This entry looks like the following:

```
<TECHNICIAN name="AcmeTLogExportDaemonTechnician"
            class="RTLogExportDaemonTechnician"
            package="oracle.retail.stores.domain.manager.RTLog"
            export="Y">
  <PROPERTY propname="daemonClassName"
            propvalue="oracle.retail.stores.domain.manager.RTLog.RTLogExportDaemonThread"/>
  <PROPERTY propname="daemonName"
            propvalue="AcmeTLogExportDaemon"/>
  .
  .
  .
</TECHNICIAN>
```

6. Modify StoreServerConduit.xml to use AcmeTLogExtractConfig.xml, AcmeTLogFormatConfig.xml and AcmeTLogMappingConfig.xml when exporting the Acme TLog.
7. Determine the batch ID column to use for this process. By convention, DTM uses TR_TRN.ID_TLOG_BTCH, POSLog uses TR_TRN.ID_BTCH_ARCH, and RTLog uses ID_RTLOG_BTCH. If your system exports RTLog, you must override RTLogExportBatchGenerator.retrieveTransactionList() and RTLogDatabaseAdapter.postResults() to change the column your application uses.
8. Over the course of development add table names to AcmeTLogExtractConfig.xml, mapping information to AcmeTLogMappingConfig.xml. Write Acme-specific FieldMapperIfc and AccessorIfc classes.
9. It is necessary to create an Acme-specific implementation for the MappingResultIfc interface to hold the Acme transactional information. Call this class AcmeTLogMappingResult. This necessitates the creation of an Acme-specific EntityMappingObjectFactoryIfc class. Call this class AcmeEntityMappingObjectFactory.

10. It is necessary to create an Acme-specific implementation for the RecordFormatContentBuilderIfc to assemble the Acme-specific export records. Call this class AcmeTLogRecordFormatContentBuilder. This necessitates the creation of an Acme specific RecordFormatObjectFactoryIfc class called AcmeRecordFormatObjectFactory.
11. Modify StoreServerConduit.xml to use the AcmeEntityMappingObjectFactory and the AcmeRecordFormatObjectFactory when exporting the Acme TLog.

Exporting a Non-Fixed-Length Record Format

There are other styles of text besides fixed record length which have been used to transfer transactional information to the enterprise. For example: comma delimited, and tag and value. To support either of these you must complete all the steps in the previous section, as well as the following:

1. It is likely that you need additional information about the export file format. As a result you must add information to the Export Format Configuration file, and create an Acme-specific implementation of the RecordFormatConfiguratorIfc interface; call this class AcmeRecordFormatConfigurator.
2. The FieldFormat class formats its data based on the data type and generates a fixed length field. When all the fields in a record are aggregated, this creates a fixed length record. This class must be replaced by an Acme-specific implementation; call this class AcmeCommaDelimitedFieldFormat. It might also be necessary to create an Acme-specific implementation of RecordFormatIfc; call this class AcmeCommaDelimitedRecordFormat.
3. Modify AcmeRecordFormatObjectFactory to return AcmeRecordFormatConfigurator, AcmeCommaDelimitedFieldFormat, and AcmeCommaDelimitedRecordFormat.

Object Factories

Object factories provide system implementers with the means to replace base product implementations with classes that are more appropriate to their needs. The object factory classes appear as entries in configuration files, and often times a configuration file functions as an object factory. This section discusses the object factory aspects and the configuration aspects of the configuration files.

StoreServerConduit.xml

The Store Server Conduit file (`<root>\applications\pos\config\conduit\StoreServerConduit.xml`) defines at runtime the classes and configuration files that make up the managers and technicians in the Point-of-Service Store Server. One of the technicians it defines is the RTLogExportDaemonTechnician. Following are the classes the Store Server Conduit file defines for use when exporting the RTLog:

Table 5–1 Store Server Conduit File

| Class Name | Interface Name | Description |
|--|---|--|
| RTLogExportDaemonTechnician (oracle.retail.stores.domain.manager.rtl og) | RTLogExportDaemonTechnicianIfc (oracle.retail.stores.domain.manager.rtl og) | Sets up the RTLog Export Process. The Dispatcher instantiates this class and then sets all the other parameters this object. It is also responsible for managing the batch regeneration process. |
| RTLogExportDaemonThread (oracle.retail.stores.domain. manager.rtlog) | RTLogExportDaemonThreadIfc (oracle.retail.stores.domain. manager.rtlog) | Sleeps for a configurable amount of time, then wakes up and initiates the export process. |
| RTLogDatabaseAdapter (oracle.retail.stores.domain.manager.rtl og) | DatabaseEntityAdapterIfc (oracle.retail.stores.exportfile) | Provides access to the database for reading each transaction Entity. This particular implementation uses the DataManager/DataTechnician to retrieve this information. |
| RTLogEncryptingOutputAdapter (oracle.retail.stores.exportfile.rtlog) | OutputAdapterIfc (oracle.retail.stores.exportfile) | Writes the RTLog file to the configured directory. This particular adapter encrypts the file as it writes the file to disk. There is another adapter, RTLogOutputAdapter, which writes the file in clear text. |
| RTLogEncryptionAdapter (oracle.retail.stores.domain.manager.rtl og) | EncryptionAdapterIfc (oracle.retail.stores.exportfile) | Provides access to the mechanisms for decrypting values which are encrypted in the database. |
| ExportFileConfiguration (oracle.retail.stores.exportfile) | ExportFileConfigurationIfc (oracle.retail.stores.exportfile) | Contains much the of configuration information in the RTLogExportDaemonTechnician; the technician passes this object to the daemon, which passes it to the batch generator which passes it to the export file generator. |
| RTLogExportFileResultAuditLog (oracle.retail.stores.domain.manager.rtl og) | ExportFileResultAuditLogIfc (oracle.retail.stores.exportfile) | Formats the export result information for logging. |
| EntityMappingObjectFactory (oracle.retail.stores.exportfile) | EntityMappingObjectFactoryIfc (oracle.retail.stores.exportfile) | Instantiates the classes used to map the database Entity to the export file format. |
| RecordFormatObjectFactory (oracle.retail.stores.exportfile) | RecordFormatObjectFactoryIfc (oracle.retail.stores.exportfile) | Instantiates the classes used to setup and generate the export the file format. |
| ExtractorObjectFactory (com.oracle.xmlreplication) | ExtractorObjectFactoryIfc (com.oracle.xmlreplication) | Instantiates the classes used to generate the database Entity. |
| RTLogCurrencyAdapter (oracle.retail.stores.domain.manager.rtl og) | CurrencyAdapterIfc (oracle.retail.stores.exportfile) | Provides currency services. |

DomainObjectFactory

The DomainObjectFactory instantiates the RTLogExportBatchGeneratorIfc class. The RTLogExportBatchGenerator builds the WorkUnit (the list of transactions to export) and calls the WorkUnitController (ExportFileGenerator).

RTLogExportBatchGenerator also instantiates the ExportFileGeneratorIfc and the WorkUnitIfc. If you need a different implementation of either class, create a new implementation of RTLogExportBatchGenerator.

ExtractorObjectFactory

The ExtractorObjectFactory instantiates the classes that generate the database Entity class.

One item of note is that the application gains access to this factory through a singleton called ReplicationObjectFactoryContainer. All changes made to these classes must work for both DTM and Export File generation.

EntityMappingObjectFactory

The following table is a list of the classes this factory instantiates:

Table 5–2 *EntityMappingObjectFactory Classes*

| Class Name | Interface Name | Description |
|--|---|--|
| MappingCatalogConfigurator (oracle.retail.stores.exportfile.mapper) | MappingCatalogConfiguratorIfc (oracle.retail.stores.exportfile.mapper) | Reads the mapping configuration file and builds an EntityMappingCatalogIfc object. |
| EntityMappingCatalog (oracle.retail.stores.exportfile.mapper) | EntityMappingCatalogIfc (oracle.retail.stores.exportfile.mapper) | Holds the information that describes the relationship between the tables and columns in the database to the records and fields in the export file. It contains a list of TableMaps and a map of Accessors. |
| TableMap (oracle.retail.stores.exportfile.mapper) | TableMapIfc (oracle.retail.stores.exportfile.mapper) | Contains a list of ColumnMaps associated with a table. |
| ColumnMap (oracle.retail.stores.exportfile.mapper) | ColumnMapIfc (oracle.retail.stores.exportfile.mapper) | Describes the relationship between a column and a field in a specific export record. It can contain a ValueMapping Hashmap and/or FieldMapper class to perform more complex mapping actions. |
| EntityMapper (oracle.retail.stores.exportfile.mapper) | EntityMapperIfc (oracle.retail.stores.exportfile.mapper) | Controls the mapping process. It stores the result in the MappingResultIfc object. |
| RTLogMappingResult (oracle.retail.stores.exportfile.rtlog) | MappingResultIfc (oracle.retail.stores.exportfile.mapper) | Contains the result of Mapping an Entity to the Export File Format. |

RTLogMappingConfig.xml

This configuration file is a factory for FieldMapperIfc and AccessorIfc classes.

The simplest mapping occurs when a value goes directly from a column to a field. However, many times the mapping between a column and a field is more complex. If code is required, the configuration file calls out a FieldMapperIfc class to perform this mapping task. A FieldMapperIfc is associated with a particular table/column record/field mapping.

The values in a particular record are built up by processing of each individual ColumnMapIfc objects. There is no guarantee that all the data for a particular export record resides in a single row in the database. In fact it is unlikely. For example, a row from the Tender Line Item Table supplies the tender amount, but a row from the Credit Debit Tender Line Item Table supplies authorization information. Much processing can take place in between the time that the application has access to each of these rows.

An AccessorIfc object knows how to locate a particular existing “working” export record in the MappingResultIfc object. If a record is not available, the AccessorIfc creates a new one and store it in the MappingResultIfc object.

RecordFormatObjectFactory

Following is a list of the classes this factory instantiates:

Table 5–3 RecordFormatObjectFactory Classes

| Class Name | Interface Name | Description |
|---|---|---|
| FieldFormat (oracle.retail.stores.exportfile.formater) | FieldFormatIfc (oracle.retail.stores.exportfile.formater) | Contains the attributes associated with a field including name, value, starting index, length, and data type. |
| RecordFormat (oracle.retail.stores.exportfile.formater) | RecordFormatIfc (oracle.retail.stores.exportfile.formater) | Contains a list of FieldFormatIfc objects. |
| RecordFormatCatalog (oracle.retail.stores.exportfile.formater) | RecordFormatCatalogIfc (oracle.retail.stores.exportfile.formater) | Contains a list of RecordFormatIfc objects. |
| RecordFormatConfigurator (oracle.retail.stores.exportfile.formater) | RecordFormatConfiguratorIfc (oracle.retail.stores.exportfile.formater) | Reads the format configuration file and builds a RecordFormatCatalogIfc object. |
| RTLogRecordFormatContentBuilder (oracle.retail.stores.exportfile.rtlog) | RecordFormatContentBuilderIfc (oracle.retail.stores.exportfile.formater) | Converts MappingResultsIfc object into the text that is written to the export file. |
| RTLogItemContainedRecords (oracle.retail.stores.exportfile.rtlog) | ContainedRecordsIfc (oracle.retail.stores.exportfile.formater) | A list of records, such as discounts, that are a part of the item information. |
| RTLogTransactionContainedRecords (oracle.retail.stores.exportfile.rtlog) | ContainedRecordsIfc (oracle.retail.stores.exportfile.formater) | A list of records, such as header total records, that are part of a transaction. |

Configuration

Each of the configuration files used by this feature (Store Server Conduit, Entity Reader Configuration, Mapping Configuration, and Record Format Configuration) has already been referred to in this document. This section describes them in more detail.

The Store Server Conduit File

The Store Server Conduit file (<root>\applications\pos\config\conduit\StoreServerConduit.xml) defines the following settings for the RTLog Export process.

Table 5–4 Store Server Conduit File

| Setting Name | Installed Product Value | Description |
|-----------------------------|---------------------------------|--|
| sleepInterval | 600 (seconds) | The length of time between each execution of the RTLog export process. |
| exportDirectoryName | For example, POSLog | The directory where the RTLog is placed. |
| formatConfigurationFileName | ../config/rtlog/RTLogFormat.xml | The relative or absolute path of the Export Format configuration file. |

Table 5-4 (Cont.) Store Server Conduit File

| Setting Name | Installed Product Value | Description |
|------------------------------------|--|--|
| entityReaderConfigurationFileName | ../config/rtlog/RTLogExtra ctConfig.xml | The relative or absolute path of the Entity Reader configuration file. |
| entityMappingConfigurationFileName | ../config/rtlog/RTLogMappi ngConfig.xml | The relative or absolute path of the Mapping configuration file. |
| maximumTransactionsToExport | -1 | The maximum number of transactions that should exported to single RTLog file. The value -1 indicates there is not limit on the maximum number. |

The Export Format Configuration File

The export format configuration file describes each of the export record types. For example, the RTLog specifies the following records:

- n File Header
- n File Tail
- n Transaction Header
- n Transaction Tail
- n Transaction Item
- n Item Discount
- n Item Tax
- n Transaction Tender

The following is a snippet from RTLogFormat.xml:

```
<?xml version="1.0"?>
<RECORD_FORMATS ... >
  <COMMENT>This file defines the format of the Oracle Retail Sales Audit
RTLOG</COMMENT>
  <RECORD_FORMAT_VERSION version="V.12.0.5"/>
  <RECORD_FORMAT name="FileHeader">
    <FIELD_FORMAT name="FileRecordDescriptor" type="char" length="5"
value="FHEAD"/>
    <FIELD_FORMAT name="FileLineIdentifier" type="integer"
length="10"/>
    <FIELD_FORMAT name="FileType" type="char" length="4" value="RTLG"/>
    <FIELD_FORMAT name="FileCreateDate" type="datetime" length="14"/>
    <FIELD_FORMAT name="BusinessDate" type="date" length="8"/>
    <FIELD_FORMAT name="LocationNumber" type="char" length="10"/>
    <FIELD_FORMAT name="ReferenceNumber" type="char" length="30"
value=" "/>
  </RECORD_FORMAT>
  .
  .
  .
</RECORD_FORMATS>
```

This snippet shows one Record definition (the File Header) composed of seven fields of various types, lengths and default values.

The Entity Reader Configuration File

This file defines tables that Entity Reader reads.

The Mapping Configuration File

This file describes the relationship between the tables and columns in the database and the records and fields in the export format. The following is a snippet from RTLogMappingConfig.xml:

```
<?xml version="1.0"?>
<ENTITY_MAPPER ... >
  <COMMENT>This is a configuration file for the Point-of-Service Transaction to
RTLog Mapping</COMMENT>
  <TABLE table="TR_TRN">
    <MAP column="DC_DY_BSN" record="FileHeader" field="BusinessDate"

fieldMapper="oracle.retail.stores.exportfile.rtlog.fieldmappers.BusinessDateMapper
"/>
    <MAP column="ID_STR_RT" record="FileHeader" field="LocationNumber"

fieldMapper="oracle.retail.stores.exportfile.rtlog.fieldmappers.StoreNumberMapper"
/>
    <MAP column="TS_TRN_END" record="TransactionHeader"
field="RegisterTransactionDate"

fieldMapper="oracle.retail.stores.exportfile.rtlog.fieldmappers.DateTimeMapper"/>
  .
  .
  .
    <MAP column="TY_TRN" record="TransactionHeader" field="TransactionType"
mappingStrategyOrder="FieldMapperThenValueMapping"

fieldMapper="oracle.retail.stores.exportfile.rtlog.fieldmappers.ExportItemsAndTaxS
tatusMapper">
    <VALUE_MAPPINGS handleNotFound="error">
      <VALUE_MAPPING DatabaseValue="1" RecordValue="SALE"/>
      <VALUE_MAPPING DatabaseValue="2" RecordValue="RETURN"/>
      <VALUE_MAPPING DatabaseValue="3" RecordValue="PVOID"/>
      .
      .
      .
    </VALUE_MAPPINGS>
  </MAP>
  .
  .
  .
  </TABLE>
  .
  .
  .
  <ACCESSOR record="FileHeader"

class="oracle.retail.stores.exportfile.rtlog.accessors.AccessFileHeader"/>
  <ACCESSOR record="TransactionHeader"

class="oracle.retail.stores.exportfile.rtlog.accessors.AccessTransactionHeader"/>
  .
  .
  .
</ENTITY_MAPPER>
```

Looking at this snippet, it is easy to see that the column TR_TRN.DC_DY_BSN maps to the BusinessDate field in the FileHeader record using the BusinessDateMapper class to format the data.

Also note that application uses a VALUE_MAPPINGS element to transform the value from the column TR_TRN.TY_TRN to equivalent value in the TransactionType field in the TransactionHeader record.

Development and Testing Tools

There are a number of tools that were developed during the course of this project that are helpful when extending this subsystem.

Classes

The following classes are all located at <root>\modules\exportfile\src\oracle\retail\stores\exportfile\utility:

Table 5-5 Exportfile Utility Classes

| Class Name | Description |
|------------------|--|
| ExportTestDriver | <p>This class is a test harness that can be used to develop the configuration files, FieldMapperIfc and AccessorIfc classes in isolation from the rest of the application. It uses the classes DatabaseEntityAdapterTest, EncryptionAdapterTest, CurrencyAdapterTest, OutputAdapterTest and ExportFileResultAuditLogTest to emulate system specific adapters.</p> <p>An Eclipse-run configuration for this class should run out of the exportfile project. The classpath should include the domain, foundation-client, foundation-server, common, utility, foundation-shared, clientinterfaces, datareplication projects and /thirdparty/apache-ant-1.6.2/lib/xml-apis.jar, /thirdparty/apache-ant-1.6.2/lib/xercesImpl.jar, and /thirdparty/apache/log4j-1.2.8.jar. It should also include the JDBC jar(s) for the database you are using.</p> <p>You might need to modify this class to use the appropriate JDBC driver, username, password and transaction IDs.</p> |

Table 5–5 (Cont.) Exportfile Utility Classes

| Class Name | Description |
|-------------------------------|---|
| FileDecryptionUtility | <p>By default the application generates encrypted files. This class reads all the encrypted files from a target directory, decrypts them, and write them to a single target file. This class uses a single known encryption key.</p> <p>The main() method has two command line parameters:</p> <ul style="list-style-type: none"> • EncryptedDirectoryName - the pathname of the directory of *.ENC files • DecryptedFileName - the pathname of the decrypted file <p>For more information about encryption, see Oracle Retail POS Suite RTLog Files in Chapter 1.</p> |
| KeyStoreFileDecryptionUtility | <p>Uses the encryption service defined by the Spring configuration in \modules\exportfile\bin\config\context.</p> <p>The main() method has two command line parameters:</p> <ul style="list-style-type: none"> • EncryptedDirectoryName - the pathname of the directory of *.ENC files • DecryptedFileName - the pathname of the decrypted file |
| RTLOGReportDriver | <p>This class reads an export format configuration file and an export log file then generates a report file (rtlog_rpt.txt) to the current directory. This saves a lot effort when trying to determine if an export file has the correct data in it. The main() method has three command line parameters:</p> <ul style="list-style-type: none"> • ExportFileName - full/relative path pathname of the export file. • Either S (sales tax) or V (VAT). This parameter indicates if the IG TAX amounts should be included in the transaction balance calculation. • XMLFormatFileName - full/relative path pathname of the format file. |

Executables in the bin Directory

The following BAT files are all located at <root>\modules\exportfile\bin:

Table 5–6 bin Directory BAT Files

| Class Name | Description |
|---------------------------------|--|
| setenv.bat | Sets up the classpath |
| RTLogFileDecryption.bat | Executes FileDecryptionUtility.class; it points at the bin\POSLog directory in the default installation, writes the decrypted records to RTLOG.DEC, and uses the default encryption key. |
| RTLogReport.bat | Executes RTLOGReportDriver.class; it reads RTLOG.DEC, and uses to the export format file .. \config\RTLogFormat.xml. |
| RTLogKeyStoreFileDecryption.bat | Executes KeyStoreFileDecryptionUtility.class; it points at the bin\POSLog directory in the default installation, writes the decrypted records to RTLOG.DEC, and uses the default encryption key. |

Extending the RTLog Encryption Model

The requirements for this release call for the RTLog to be encrypted; however, the solution to encryption key sharing between POS Suite and Oracle Retail Sales Audit is not provided with the product. Therefore, POS Suite and Oracle Retail Sales Audit use a single known encryption key, cipher, and set of encryption parameters. Oracle Retail Point-of-Service uses this predetermined information to encrypt the file, and Oracle Retail Sales Audit uses it to decrypt the file. The single known key approach to encryption is used out-of-the-box by Oracle Retail Sales Audit.

In many cases this will not be sufficient for a specific implementation; some retailers will choose to deploy third party key store/encryption technology. In this case the implementation team must provide custom code for both Oracle Retail Point-of-Service and Oracle Retail Sales Audit.

In Oracle Retail Point-of-Service there are three classes that appear to be candidates for assisting in this process:

- `RTLogEncryptionAdapter` – provides a service which the application uses to decrypt credit card numbers. Oracle Retail has its own internal approach to encrypting credit card numbers before storing them in the database. The primary purpose of this adapter is to decrypt encrypted credit card numbers.

This class generates clear text output.

- `RTLogEncryptingOutputAdapter` – performs the encryption on the RTLog using the simple approach outlined above.

This class generates output with a single known key.

- `RTLogKeyStoreEncryptingOutputAdapter`– uses the Key Store Service as defined for the application in the Spring ServiceContext.xml file.

This class uses a third-party keystore encryption service.

Since the decryption key information is well known to the current applications, no provision has been made to communicate this information to Oracle Retail Sales Audit in the RTLog. In a third-party key store scenario the key identifier must be included with each RTLog file. The key identifier must be provided to the key store application in order to obtain the actual key used to perform the decryption. The key identifier could be included as part of the file name or pre-pended in the clear to the encrypted data within the RTLog file.

The supplier of the third party key store application will supply details for how to use their application.

Known Issues and Troubleshooting

Authorized for Sale

The Oracle Retail Back Office data field **Authorized for Sale** is mapped to the status of an item at a store (item_loc). If the item is **Active** at that location, then **true** is extracted. Other statuses, such as **Discontinued** and **Delete** cause the value **false** to be extracted.

Clearance Pricing

Oracle Retail POS Suite does not support Clearance pricing. Clearance pricing coming from Oracle Retail Price Management are considered normal Permanent Price Changes.

Currency.XML Import Restart

When Currency.XML is imported with Fill Type **KillandFill**, the Foreign Currency Exchange Rates table in the UI is empty even though the import is successful.

Point-of-Service, Back Office and Central Office must be restarted after the currency import.

Data Import

If an individual batch fails but the rest of the data import completes successfully, there is no retry mechanism to import only the batch that failed.

If the integrity of the incoming data cannot be guaranteed as Data Import expects, it is possible to avoid rolling back valid data within a failed batch by adjusting the size of the import batches from the default size of 1000 to 1 by editing the `spring.properties` file and restarting the application server. Note that this resolution will have a negative impact on performance.

Data Import Field Width Maximums

All VARCHAR(255) sizes were changed to VARCHAR(250) to match Oracle Retail Merchandising System and Oracle Retail Price Management sizes.

This was done as of version 12.0.

Download of Items Currently on Promotion to New Stores

In a new store situation, items currently on promotion may download to Oracle Retail Point-of-Service with the original price on the item, not the promotion price. This occurs because the import process assigns a creation date equal to the current date, but this date is after the start date of the promotion.

Hardcoded Attributes in Oracle Retail Merchandising System Extracts

The following lists identify attributes that are hardcoded in Oracle Retail Merchandising System extracts:

Item Extract

- n RegistryEligible = **true**
- n SizeRequired = **false**
- n SerializedItem = **false**
- n Discountable = **true**
- n DamageDiscountable = **true**
- n EmployeeDiscountAllowed = **true**
- n MinimumSaleUnitCount = **1**

ItemCoupon Extract

- n ItemCost = **0**
- n Taxable = **false**
- n Discountable = **false**
- n Returnable = **false**
- n EmployeeDiscountAllowed = **true**

CouponPrice Extract

- n PromoCompID = **-1**
- n PromoCompDetlID = **-1**
- n NbrTimesPerTrans = **1**
- n AccountingMethod = **Discount**
- n AllowSourceToRepeat = **false**

Item Cost Attribute

In Item Maintenance screen, Item Cost attribute is set to **0.00** by default.

Jar Extract

Extracts from Oracle Retail Merchandising System and Oracle Retail Price Management system are typically scheduled to happen once per day.

Multiple Regular Price

When multiple regular prices are passed for an item, the last regular price passed is the regular price that is used.

Need To Escape Special Characters In XML File

Special characters in an XML file, such as <, >, & and so forth, must be escaped. For more information, see the following:

<http://www.w3.org/TR/REC-xml/>

POSlog

For more information about the POSlog, see "POSlog Import Service" in the *Oracle Retail Central Office Operations Guide Release* and in the *Oracle Retail Back Office Operations Guide Release*.

Preload Section of ItemImport

Data in the Preload section of ItemImport is treated as an UPS which stands for **Upsert**. DIMP tries to Update data and if fails to update, then it Inserts data.

Price Promotion/Discount Rule endDateTime in Pricing Import XSD

Oracle Retail Price Management Price Promotion/Discount Rule imported through DIMP that have no specified end dates will default to December 31 at 11:59 PM, 19 years in the future. That is, the endDateTime is set to `12-31-(calendar year+19) 11:59 PM`.

For example, if current year is 2009, the year in the endDateTime of promotion/Discount rule will be 2028 (2009+19):

```
12-31-2028 11:59 PM
```

```
HPQC 1384,1501
```

Promotion ID Item Not On File

When a Promotion ID that is associated with an item that is greater than the value 2^{31} (2,147,483,647), then that item is considered an item not on file.

Promotion ID, Promotion Component ID and Promotion Component Detail ID cannot have a value greater than the maximum allowed for a Java int datatype (2^{31}).

Reason Codes for Price Discount

Oracle Retail Sales Audit is unable to identify the reason codes for a Price Discount transaction.

RegistryEligible Field

The **RegistryEligible** field is hardcoded with the value **true** in Oracle Retail Merchandising System extracts.

Retail Price Field Size Limitation

Current ORPOS column length for Unit Retail Price supports six whole digits (Decimal 8,2) only.

Special Order Eligible Coupons

By default, all coupons imported through DIMP will be Special Order Eligible.

Store ID Maximum Length

The Oracle Retail POS Suite products support a maximum store ID length of five digits.

Use a store ID that is not greater than five digits in length.

Transaction-Level Items

Oracle Retail Merchandising System extracts transaction-level items only.

Existing Functionality Gaps

There are certain functionality gaps that exist in the Oracle Retail POS Suite to Oracle Retail Merchandising System integration that are not remedied at this time. This chapter describes these functional gaps, and the suggested resolution.

Oracle Retail Price Management

Table 7-1 is a list of functionality gaps that exist for the Promotion data import.

Table 7-1 *Functionality Gaps for Promotion Data Import*

| Identified Functionality Gap | Suggested Resolution |
|---|---|
| Oracle Retail Price Management (ORPM) will allow specific start times for promotions, however it is not currently included in the download file. | Assume a start time of 00:00:00. |
| Oracle Retail Price Management will allow specific end times for promotions, however it is not currently included in the download file. | Assume an end time of 23:59:59. |
| Oracle Retail Price Management supports a larger field (Change Value - Number) than does POS Suite. This field is the amount, either monetary or percent, to be used to change or replace the current selling price for a sale unit of an item. Could result in loss of data in case of a very large discount amount is sent to the POS Suite. | Gap to remain unchanged for this release. |
| Oracle Retail Price Management may be configured to allow overlapping promotions. If allowed, all applicable price promotions are applied in the appropriate sequence. In Point-of-Service, if price promotion and discount rule apply to the same item, then the best deal is applied. If price change and discount rule or price promo apply to the same item, then both price change and promo or discount rule are applied. | Oracle Retail Price Management should be configured to not allow overlapping promotions. This ensures that only one promotion is sent to be applied to an item or location at a time. |
| Oracle Retail Price Management supports a larger Item Number field than POS Suite. | POS Suite logs an error if the database field is exceeded. |
| Field for Promotion Price attribute is larger in Oracle Retail Price Management. If Oracle Retail Price Management is configured to allow overlapping promotions, multiple promotions can be applied, and the selling price represents the results of each promotion applied in the Apply Order. One record is downloaded for each promotion applied, and each has the same selling price. The functionality gap between ORPM and ORPOS results in the stores system only applying the best deal, and it does so at the time the transaction is rung up. | Avoid creating promotions in Oracle Retail Price Management with prices larger than Point-of-Service can support, DECIMAL(13,2). Oracle Retail Price Management should be configured to not allow overlapping promotions. This ensures that only one promotion is sent to be applied to an item or location at a time. |

Table 7–2 is a list of functionality gaps that exist for the Price Change data import.

Table 7–2 Functionality Gaps for Price Change Data Import

| Identified Functionality Gap | Suggested Resolution |
|---|---|
| Oracle Retail Price Management supports a longer field (Selling Retail) and more precision. | Gap to remain unchanged for this release. |
| Oracle Retail Price Management supports a longer Item ID field. | Item ID length remains the same in POS Suite and Oracle Retail Price Management. If the item ID is too long in the download file, the record is logged and discarded. |
| Oracle Retail Price Management does not send description field in download file. | Optional Description field is not populated in ORPOS. |

Table 7–3 is a list of functionality gaps that exist for the Discount Rule data import.

Table 7–3 Functionality Gaps for Discount Rule Data Import

| Identified Functionality Gap | Suggested Resolution |
|---|---|
| Oracle Retail Price Management supports a longer Item ID field. | Item ID length remains the same in POS Suite and Oracle Retail Price Management. If the item ID is too long in the download file, the record is logged and discarded. |
| Oracle Retail Price Management field (Threshold Value) is longer and supports more precision. | Field length remains the same in Oracle Retail Price Management and POS Suite. If the threshold is a decimal value, it is logged and discarded. |
| Oracle Retail Price Management supports larger values and more precision than stores. Meaning of value (% , \$, or new price) is defined by Change Type. | Field length remains the same in Oracle Retail Price Management and POS Suite. |
| Oracle Retail Price Management (ORPM) will allow specific start times, however it is not currently included in the download file. | Assume a start time of 00:00:00. |
| Oracle Retail Price Management will allow specific end times, however it is not currently included in the download file. | Assume an end time of 23:59:59. |
| Oracle Retail Price Management does not support threshold or limit. In the following example: <ul style="list-style-type: none"> • Get 30% off any items that are priced between \$45 and \$90 RPM doesn't support the threshold – limit construct. | Assume no threshold. |
| Oracle Retail Price Management does not support the Number Of Times Per Transaction (NbrTimesPerTrans) field. | Assume -1, which means no limit to the number of times the promotion can be applied to a transaction. The NbrTimesPerTrans attribute is in the PricingImport.xsd file. |
| Oracle Retail Price Management does not support the Accounting Method field. | Assume the discount. |
| Oracle Retail Price Management does not directly support the Allow Source to Repeat field. | Allow source to repeat. |
| Oracle Retail Price Management does not directly support the Deal Distribution field. | Assume target only. |
| Target Quantity field is not supported in Oracle Retail Price Management. | Assume target quantity of 1. |

Oracle Retail Point-of-Service

Table 7–4 is a list of functionality gaps that exist in ORPOS for RPM functionality.

Table 7–4 Functionality Gaps for Item Data Import

| RPM Functionality | Identified Functionality Gap | Suggested Resolution |
|--|--|---|
| RPM supports tiered Threshold Promotions. Buy 1 to 5, pay \$10 each. Buy 6 to 11, pay \$9 each. Buy 12 or more, pay \$8 each. | ORPOS only supports one Target Quantity or threshold quantity. | Gap to remain unchanged for this release. |
| RPM supports multiple promotions if configured to allow them. | ORPOS applies only one promotion at the time of transaction; best deal is applied. | Gap to remain unchanged for this release. |
| RPM supports multiple options for Threshold and Multi-Buy promotion components. | See Appendix B, Appendix: Pricing Rules for specific gaps between RPM and ORPOS for promotion pricing rules. | Gap to remain unchanged for this release. |
| RPM supports three distinct price types: Regular, Promotional, Clearance. Note: In conjunction with any change to ORPOS for this gap, RPM will need to separate Clearance pricing in the download file to ORPOS. | ORPOS does not support Clearance as a distinct price type. Clearance pricing from RPM is seen as a new regular price. | Gap to remain unchanged for this release. |
| RPM enables the execution of Finance Promotions. Buy <i>N</i> of <i>X</i> with promoted card, get promotional interest % for <i>Z</i> duration. For example, promotion is set up for Visa Credit Card with a threshold of \$1,000 and promotion percentage of 0, with a duration of 18 months (for no interest payments if paid in full within 18 months). | ORPOS does not support Finance Promotion components. | Gap to remain unchanged for this release. |

Oracle Retail Merchandising System

Table 7–5 is a list of functionality gaps that exist for the Item import.

Table 7–5 Functionality Gaps for Item Data Import

| POS Suite Attribute | Identified Functionality Gap | Suggested Resolution |
|---------------------|---|--|
| Cost | Cost data is included in the Point-of-Service download file, from Oracle Retail Merchandising System. However, Point-of-Service does not access item cost data from manufacturer. | Gap to remain unchanged for this release. |
| Manufacturer | Not included in the Point-of-Service download, but Oracle Retail Merchandising System has this data. | This value is null. |
| Planogram | Not maintained by Oracle Retail Merchandising System. Oracle Retail Merchandising System has a generic attribute that could be used for this purpose. | Gap to remain unchanged for this release. |
| Restocking Fee | Not maintained by Oracle Retail Merchandising System. Point-of-Service uses this to prompt for a restocking fee during returns. | Default to false for Oracle Retail Merchandising System imports. |

Table 7–5 (Cont.) Functionality Gaps for Item Data Import

| POS Suite Attribute | Identified Functionality Gap | Suggested Resolution |
|----------------------------|--|--|
| Activation Required | Not maintained by Oracle Retail Merchandising System. | No attribute in Oracle Retail Merchandising System. Not used by Point-of-Service. |
| Registry Eligible | Not maintained by Oracle Retail Merchandising System. | No attribute in Oracle Retail Merchandising System. Not used by Point-of-Service. |
| Employee Discount Eligible | Identifies an item as eligible for an employee discount. Not maintained by Oracle Retail Merchandising System. | Default to true for Oracle Retail Merchandising System imports. |
| Damage Discount Eligible | Identifies an item as eligible for damage discount. Not maintained by Oracle Retail Merchandising System. | Default to true for Oracle Retail Merchandising System imports. |
| Size Entry Required | Not maintained by Oracle Retail Merchandising System. Point-of-Service uses this attribute during a sale or return to prompt for item size. | Default to false for Oracle Retail Merchandising System imports. |
| Itemizing | POS Suite assumes item data is interpreted as local time. File creation has the local Oracle Retail Merchandising System time, but no timezone info. | Assume all Timestamps are relative to GMT. |
| Localization | Oracle Retail Merchandising System data file does not contain localized data for a store. | Accepts one localized text from Oracle Retail Merchandising System and use as all three: stores, user, customer. |

[Table 7–6](#) is a list of functionality gaps that exist for the Merchandise Hierarchy import.

Table 7–6 Functionality Gaps for Merchandise Hierarchy Data Import

| POS Suite Attribute | Identified Functionality Gap | Suggested Resolution |
|----------------------------|--|---|
| Merchant ID | Oracle Retail Merchandising System does not specify a merchant ID with any of the merchandise classification records sent with the Merchandise Hierarchy download. | Gap to remain unchanged for this release. |

[Table 7–7](#) is a list of functionality gaps that exist for the Store Hierarchy import.

Table 7–7 Functionality Gaps for Store Hierarchy Data Import

| POS Suite Attributes | Identified Functionality Gap | Suggested Resolution |
|-----------------------------|---|---|
| Store Class | POS Suite does not accept class. | Gap to remain unchanged for this release. |
| Store Class Description | POS Suite does not accept class description. | Gap to remain unchanged for this release. |
| Store Format | POS Suite does not accept format as part of the data import. | Gap to remain unchanged for this release. |
| Format Name | Store does not accept format name as part of the data import. | Gap to remain unchanged for this release. |

Data Import Field Width Maximums

Some fields can potentially overflow at the database level because the fields are not specifically limited in length by the Data Import XSDs. The following table lists the XML elements that are affected.

Table 7–8 Affected XML Elements

| Import | Elements | Maximum Column Size |
|---------------|---|----------------------------|
| Currency | CurrencyImport/Currency@IssuingCountryCode | VARCHAR(4) |
| | CurrencyImport/Currency@IssuingCountryCode | VARCHAR(4) |
| | CurrencyImport/Currency@ISOCODE | VARCHAR(3) |
| | CurrencyImport/Currency@Name | VARCHAR(250) |
| | CurrencyImport/Currency@IssuingCountryNationality | VARCHAR(120) |
| Customer | CustomerImport/Customer@ID | VARCHAR(14) |
| | CustomerImport/Customer@EmployeeID | VARCHAR(10) |
| | CustomerImport/Customer@PreferredLanguage | VARCHAR(10) |
| | CustomerImport/Customer@PreferredCountry | |
| | CustomerImport/Customer@TaxID | VARCHAR(16) |
| | CustomerImport/BusinessCustomer@CompanyName | VARCHAR(120) |
| | CustomerImport/BusinessCustomer@TaxExemptionCertificate | VARCHAR(30) |
| | CustomerImport/BusinessCustomer@ExceptionReason | VARCHAR(30) |
| | CustomerImport/Customer@LastName | VARCHAR(120) |
| | CustomerImport/Customer@FirstName | VARCHAR(120) |
| | CustomerImport/Customer@MiddleName | VARCHAR(120) |
| | CustomerImport/Customer@Salutation | VARCHAR(120) |
| | CustomerImport/Customer@Suffix | VARCHAR(120) |
| | CustomerImport/Customer@BirthDate | VARCHAR(30) |
| | CustomerImport/BusinessCustomer@CompanyName | VARCHAR(120) |
| | CustomerImport/Customer/Address@Type | VARCHAR(30) |
| | CustomerImport/Customer/Address@Address1 | VARCHAR(240) |
| | CustomerImport/Customer/Address@Address2 | VARCHAR(240) |
| | CustomerImport/Customer/Address@Address3 | VARCHAR(240) |
| | CustomerImport/Customer/Address@City | VARCHAR(120) |
| | CustomerImport/Customer/Address@State | VARCHAR(30) |
| | CustomerImport/Customer/Address@PostalCode | VARCHAR(30) |
| | CustomerImport/Customer/Address@Territory | VARCHAR(120) |
| | CustomerImport/Customer/Address@Country | VARCHAR(30) |
| | CustomerImport/Customer/Telephone@Type | VARCHAR(30) |
| | CustomerImport/Customer/Telephone@Ext | VARCHAR(30) |
| | CustomerImport/Customer/Email@Address | VARCHAR(64) |
| | CustomerImport/Customer@ID | VARCHAR(14) |
| | CustomerImport/CustomerGroup/Name | VARCHAR(120) |
| | CustomerImport/CustomerGroup/Description | VARCHAR(250) |

Table 7–8 (Cont.) Affected XML Elements

| Import | Elements | Maximum Column Size |
|-----------------------|---|---------------------|
| | CustomerImport/CustomerGroup/Name or Description@Language | VARCHAR(10) |
| | CustomerImport/CustomerGroup/Name or Description@Country | |
| | CustomerImport/CustomerGroup/Name | VARCHAR(120) |
| | CustomerImport/CustomerGroup/Description | VARCHAR(250) |
| | CustomerImport/PricingGroup/LocalizedName@Name | VARCHAR(120) |
| | CustomerImport/PricingGroup/LocalizedName@Description | VARCHAR(250) |
| | CustomerImport/PricingGroup/LocalizedName@Language | VARCHAR(10) |
| | CustomerImport/PricingGroup/LocalizedName@Country | |
| | CustomerImport/PricingGroup/LocalizedName@Name | VARCHAR(120) |
| | CustomerImport/PricingGroup/LocalizedName@Description | VARCHAR(250) |
| Employee | Employee > EmployeeFullName | VARCHAR(250) |
| | Employee > EmployeeLastName | VARCHAR(120) |
| | Employee > EmployeeFirstName | VARCHAR(120) |
| | Employee > EmployeeMiddleName | VARCHAR(120) |
| Item | Item > RetailStoreItem > POSIdentity @SupplierID | VARCHAR(20) |
| | PreloadData > Color@Code | VARCHAR(20) |
| | Item@Color | VARCHAR(20) |
| | PreloadData > Size@Code | VARCHAR(10) |
| | Item@Size | VARCHAR(10) |
| Merchandise Hierarchy | PreloadData > MerchandiseGroup > Description | VARCHAR(250) |
| | PreloadData > POSDepartment > POSDepartmentID | VARCHAR(14) |
| | PreloadData > POSDepartment > ParentPOSDepartmentID | VARCHAR(14) |
| | HierarchyList > Hierarchy@Name | VARCHAR(250) |
| | HierarchyList > Hierarchy > LevelList > Level@Name | VARCHAR(120) |
| | HierarchyList > Hierarchy > NodeList > Node@ParentNodeID | VARCHAR(14) |
| | HierarchyList > Hierarchy > NodeList > Node@ID | VARCHAR(14) |
| Pricing | PricingImport > PriceChange @ID | VARCHAR(20) |
| | PricingImport > PriceChange > Item @ID | VARCHAR(14) |
| | PricingImport > PriceChange > Item @TemplateType | VARCHAR(8) |
| | PricingImport > PriceChange @TemplateType | VARCHAR(8) |
| | PricingImport > PricePromotion @ID | VARCHAR(20) |
| | PricingImport > PricePromotion @TemplateType | VARCHAR(8) |
| | PricingImport > PricePromotion @TemplateType | VARCHAR(8) |
| | DiscountRule > Sources > Source @ID | VARCHAR(14) |
| | DiscountRule > Targets > Target @ID | VARCHAR(14) |
| Store Hierarchy | PreloadData > StoreRegion > RegionID | VARCHAR(14) |
| | PreloadData > StoreRegion > RegionName | VARCHAR(120) |
| | PreloadData > StoreDistrict > DistrictID | VARCHAR(14) |
| | PreloadData > StoreDistrict > RegionID | VARCHAR(14) |
| | PreloadData > RetailStore > GeoCode | VARCHAR(10) |

Table 7–8 (Cont.) Affected XML Elements

| Import | Elements | Maximum Column Size |
|---------------|--|----------------------------|
| | PreloadData > StoreDistrict > DistrictName | VARCHAR(120) |
| | PreloadData > RetailStore > LocationName | VARCHAR(150) |
| | PreloadData > RetailStore > DistrictID | VARCHAR(14) |
| | PreloadData > RetailStore > RegionID | VARCHAR(14) |
| | PreloadData > RetailStore > GeoCode | VARCHAR(10) |
| | PreloadData > RetailStore > Address > AddressLine1 | VARCHAR(240) |
| | PreloadData > RetailStore > Address > AddressLine2 | VARCHAR(240) |
| | PreloadData > RetailStore > Address > AddressLine3 | VARCHAR(240) |
| | PreloadData > RetailStore > Address > City | VARCHAR(120) |
| | PreloadData > RetailStore > Address > State | VARCHAR(30) |
| | PreloadData > RetailStore > Address > PostalCode | VARCHAR(30) |
| | PreloadData > RetailStore > Address > Territory | VARCHAR(120) |
| | PreloadData > RetailStore > Address > Country | VARCHAR(30) |
| | PreloadData > RetailStore > Address > TelephoneCountryCode | VARCHAR(30) |
| | PreloadData > RetailStore > Address > TelephoneAreaCode | VARCHAR(3) |
| | PreloadData > RetailStore > Address > TelephoneLocalNumber | VARCHAR(30) |
| | HierarchyList > Hierarchy@Name | VARCHAR(120) |
| | HierarchyList > Hierarchy > LevelList > Level@Name | VARCHAR(120) |
| | HierarchyList > Hierarchy > NodeList > Node@Name | VARCHAR(120) |
| | HierarchyList > Hierarchy > NodeList > Node@Description | VARCHAR(250) |
| Tax | GEOCode > GeoCodeID | VARCHAR(10) |
| | GEOCode > TaxJurisdictionName | VARCHAR(120) |
| | GEOTaxJurisdiction > GeoCodeID | VARCHAR(10) |
| | TaxAuthority > TaxAuthorityName | VARCHAR(120) |
| | TaxAuthority > GeoCodeID | VARCHAR(10) |
| | TaxableGroup > TaxGroupName | VARCHAR(120) |
| | TaxableGroup > TaxGroupDescription | VARCHAR(250) |
| | TaxAuthority > AddressLine | VARCHAR(240) |
| | TaxAuthority > City | VARCHAR(120) |
| | TaxAuthority > State | VARCHAR(30) |
| | TaxAuthority > PostalCode | VARCHAR(30) |
| | TaxAuthority > CountryCode | VARCHAR(30) |
| | TaxGroupRule > TaxTypeName | VARCHAR(30) |
| | TaxGroupRule > TaxRuleName | VARCHAR(120) |
| | TaxGroupRule > TaxRuleDescription | VARCHAR(250) |

Known Integration Gaps

The following are known gaps in the Oracle Retail POS Suite to merchandising products integration:

Bank Deposit Details

The RTLog does not deliver bank deposit details. Currently ORPOS sends it as Nosale.

Branded Debit Card Transactions

Currently the integration for branded debit card transactions fail between Stores and a sales audit application.

CatchWeight Item in RTLog

Oracle Retail Point-of-Service does not support the CatchWeight attribute for items, so the value of the field will always be set to **false** by Oracle Retail Point-of-Service.

Character Restrictions for UOMs

Retailers are restricted to only creating and using items with 2 character UOMs (Unit of Measure) as part of this integration.

Oracle Retail Merchandising System transforms EA (Each) to UN (Unit) for the UOM in Item extracts to POS Suite.

POS Suite does not transform any other UOM in RTLogs to Oracle Retail Merchandising System.

Oracle Retail Point-of-Service translates UN back to EA for the RTLog.

CTILL Records in the RTLog

Oracle Retail Point-of-Service will send two CTILL records to the RTLog for Till Close:

- n one for the reconciliation activity
- n one for the close activity

Data Mismatches in Data Import

Note: See [Appendix C, Appendix: XSD Files and Data Element Definition Tables](#) for more information about mapping the exported XML files to the import XSDs. This appendix contains tables that call out the maximum bytes for any column.

Character Restrictions for ContactAddressCity

For the Store Hierarchy Address attribute, Oracle Retail Merchandising System extracts 240 characters while DIMP accepts only 120 characters.

Character Restrictions for External Event ID

For Pricing External Event ID, Oracle Retail Price Management extracts 11 characters while DIMP accepts only 10 characters.

DIMP can only accept $2^{32}-1$ maximum value for External Event ID. For example, a value of 9999999999, which fits in a NUMBER(10) datatype, is too big for an integer in Java.

HPQC 190

Character Restrictions for Item Cost/Unit Cost

Oracle Retail Merchandising System extracts number(20,4) while DIMP accepts only number(13,4).

HPQC 166, 168

Character Restrictions for PriceOverrideAmount

For Pricing PriceOverrideAmount, Oracle Retail Price Management extracts absolute of (20,4) while DIMP accepts only up to (13,2).

HPQC 198, 204

Character Restrictions for Pricing Coupon

For Pricing Coupon, Oracle Retail Price Management extracts 250 characters while DIMP accepts only 160 characters.

HPQC 180

Character Restrictions for Pricing Discount Percent, Discount Amount and New Price

For Pricing Discount Percent, Discount Amount and New Price, Oracle Retail Price Management extracts an absolute of (20,4) while DIMP accepts only up to (10,4).

HPQC 201, 202, 211

Character Restrictions for PricingGroupID

DIMP can only accept $2^{32}-1$ maximum value for PricingGroupID. For example, a value of 9999999999, which fits in a NUMBER(10) datatype, is too big for an integer in Java.

HPQC 151, 206

Character Restrictions for Pricing Promo Description and Promo Name

Promo Description: Oracle Retail Price Management can extract up to 640 characters, while Oracle Retail Point-of-Service accepts only 250 characters.

Promo Name: Oracle Retail Price Management can extract up to 160 characters, while Oracle Retail Point-of-Service accepts only 120 characters.

HPQC 199, 200

Character Restrictions for UPC

DIMP accepts only 14 characters for UPC.

HPQC 179

Data Information for UOM

For the Item Import Preload UOM element, Oracle Retail Merchandising System currently uses and displays data code rather than data description in some places.

HPQC 105

Geocode Data Missing

Oracle Retail Point-of-Service crashes if Geocodes are missing, and Geocodes do not exist in the XML from Oracle Retail Merchandising System.

HPQC 177, 178

DepartmentDefaultTaxGroup

When integrated with Oracle Retail Merchandising System, the `PreloadData/POSDepartment/DepartmentDefaultTaxGroup` field in the `MerchandiseHierarchyImport` is defaulted to 0 (zero). It is the responsibility of the implementation team to update this value in the bundle with a real `TaxGroup` ID for the department in question before the bundle reaches POS Suite. Otherwise, a primary key violation might occur if zero is not an actual `TaxGroup` ID in the UDM.

Discountable Attribute from Oracle Retail Merchandising System

The Discountable attribute for an item imported from Oracle Retail Merchandising System is always set to **true**.

Empty Item Classes Lists for DIMP

In Oracle Retail Back Office, **Available Classes** and **Assigned Classes** lists are empty for an item.

The menu is empty in a merchandising products-integrated environment. The retailer must define these.

Geocode Tag Missing For Store

Oracle Retail Merchandising System does not send `GeoCode` information to Oracle Retail Point-of-Service and will leave this element intentionally missing. If the `GeoCode` is missing during import, DIMP will default the store's `GeoCode` to the `PostalCode` if the country is **US** or **USA**. Else, the `GeoCode` will default to the `CountryCode`.

See *Oracle Retail Merchandising System Operations Guide - Batch Overviews and Designs - Volume 1 Release 12.0.7* for more information.

Gift Card Error

Items associated with giftcards are not sent from Oracle Retail Merchandising System. It is the retailer's responsibility to insert gift card associated item data in the item master to use gift card functionality in Oracle Retail Point-of-Service.

There can be one item number for each card denomination and one for an open amount gift card.

IGTAX Records in RTLog

Point-of-Service sends IGTAX records for both VAT and Sales Tax. A sales audit application has been modified to recognize transactions in which VAT has been charged. It does not include tax in the transaction balancing calculation.

Item Export: VATCode Datatype Mismatch

XML extracts varchar2(6) while XSD accepts number(38).

Layaway Deletion Fee

Layaway Deletion Fee is sent to a sales audit application as Non-Merchandise-Item which is not accepted by a sales audit application.

A sales audit application expects **Layaway Deletion Fee** to be delivered as a record type TTEND. Instead, it is sent as a record type TITEM.

A non-merchandise-item (nmitem) may be created for this fee and mapped in ORPOS.

Missing Encryption Key For Saencrypt.pc

It is assumed that clients will generate their key. So a key file is not part of the release. POS Suite generates the key (file) and Oracle Retail Merchandising System reads the key from the file.

For more information about keys see [Extending the RTLog Encryption Model](#) in chapter 5.

NM ITEM Codes in a Sales Audit Application

A sales audit application expects NM ITEM codes for the NM ITEMS sent for cases similar to the following:

- Layaway fee
- Layaway delete fee
- Shipping charges
- Item restocking fee

The RTLogFormat.xml file should be modified so that the following lines are modified to contain the Item ID defined in Oracle Retail Merchandising System for each of these types of items:

```
<FIELD_FORMAT name="NonMerchandiseItem" type="char" length="25" value="LAYAWAY
CREATE FEE ITM ID"/>
<FIELD_FORMAT name="NonMerchandiseItem" type="char" length="25" value="LAYAWAY
DELETE FEE ITM ID"/>
<FIELD_FORMAT name="NonMerchandiseItem" type="char" length="25" value="SHIPPING
CHARGE"/>
<FIELD_FORMAT name="NonMerchandiseItem" type="char" length="25" value="RESTOCKING
FEE"/>
```

POSDepartmentID

When an item is imported without a POSDepartmentID, that particular item not associated with a POSDepartment. When the item is viewed in Back Office, the POSDepartment list defaults its selection to the first department in the list.

Postal Code

POS Suite permits a store postal code up to 30 characters. But POS Suite expects a US postal code to be a five digit number.

Validation in the POS Suite backend is done to ensure that US postal code is a five digit number.

Any data created in Oracle Retail Merchandising System that does not satisfy these conditions causes the POS Suite uploads to fail.

Predefined Store ID

Store IDs reflect physical store locations. The integration infrastructure must route data objects from Oracle Retail Merchandising System to the appropriate physical store location servers using Store ID.

Data created in Oracle Retail Merchandising System using store IDs that are not configured as Stores in the POS Suite results in this data being ignored by POS Suite.

Price Changes and Price Promotions

Default Value when integrating Oracle Retail Back Office with Oracle Retail Price Management:

Table 7–9 Default Value when integrating Oracle Retail Back Office with Oracle Retail Price Management

| Attribute | Default Value |
|---------------------------------|--|
| Start Time | 0:00 AM |
| End Time | 11:59 PM |
| Status | This field is deprecated. The status will be determined by the effective and expiration dates. |
| Template Type | Default |
| Source Threshold | None |
| Source Limit | None |
| Target Threshold | None |
| Target Limit | None |
| Number of Times Per Transaction | 1 |
| Accounting Method | Discount |
| Allow Source to Repeat | Yes |
| Deal Distribution | Target |
| Target Quantity | 1 |

Pricing Extract: Start Date and End Date Mismatch

XML extracts varchar2(30) while XSD accepts timestamp(9).

Pricing Extract: Store ID Datatype Mismatch

XML extracts 10 chars while XSD accepts only 5 chars.

Pricing Group ID: Data Mismatch

XML extracts only number(10) while XSD accepts upto number(22).

Right now, the java data type is int (2^32) and cannot take values greater than 4294967295 (NUMBER 10 in the database).

Reason Codes for Discount Rules

All reason codes for discount rules are imported from Oracle Retail Price Management with a value of -1.

When new discount rules are created using Back Office, reason codes are generated using the TypeCode ID, which have a value between 1 and 13. The TypeCode ID is translated into a different attribute value during an RTLog extract to a sales audit application. For example, because Back Office inserts the TypeCode ID into the ReasonCode column, a typecode of **BuyNoOfXGetYAtZ%Off** will cause ID 4 to be inserted as a ReasonCode for a new rule. During RTLog extract, a 4 is translated as **ORRCMS**.

Third-party Tax and Employee Information

Currently, all third-party Tax and Employee information must be presented in a specific file format for consumption by Central Office.

Implementation team need to be aware of this file format.

Tax and Employee files each have an XML Schema Definition just like other DIMPs. For more information about Tax and Employee XML Schema Definitions, see [Appendix C, Appendix: XSD Files and Data Element Definition Tables](#).

Till Opening and Closing

The integration with a sales audit application requires that tills are only opened and closed once per business day.

Total ID in the RTLog

The same Total ID is used for more than one till. This causes the following error message in a sales audit application:

```
Duplicate declaration: this total id has already been used by another transaction  
xxxxx.
```

UTF-8

UTF-8 is a required character set for the database. DIMP supports multi-byte characters in the XML and puts this data into the database as UTF-8 character set.

Appendix: Discount Rules – Any or All

During import of a DiscountRule, a quantity must be specified when an Any qualifier is given for either the source or target. These two new quantities are added as columns to the PriceDerivationRule (RU_PRDV) table:

QU_AN_SRC
QU_AN_TGT

When the Any quantities for source or target are **zero** or less, Oracle Retail Point-of-Service considers this to mean that all sources or targets are required. Otherwise, when the Any quantities for source or target are **one** or greater, that quantity is the minimum required for the source or target to activate the discount.

When left unspecified during import, sources and targets are imported as **Any 1**. The Any quantity should not be confused with the quantity specified by the source or target. For example, the Any quantity can be set to **1**, but the source quantity can be set to **3**. Three items that match the source criteria must exist before that one source will meet the Any 1 qualification..

When a discount rule contains the **Any** option, and the number of available choices of sources or targets exceed the any quantity, the system must determine how to sort the items in order to know which items participate in the discount rule. The sorting algorithm varies based on the discount rule and whether or not the items participate as both sources and targets within that rule (that is, whether the sources are discounted):

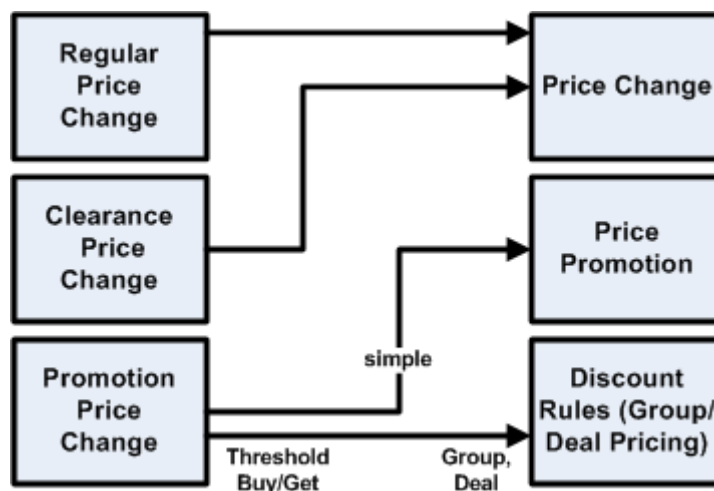
- When the same items participate as both sources items and targets (that is, whether the sources receive the discount), the system sorts the source items from most expensive to least expensive to determine which source items should participate in the discount rule.
- When the same items do not participate as both sources and targets, the system sorts the source items from least expensive to most expensive and chooses the first options until the any quantity is met.
- Targets are always sorted and chosen from most expensive to least expensive and chosen in order, unless the rule specifies `BuyNoFXgetLowestPricedXatZ%off`, in which case the least expensive target items are chosen first.

Appendix: Pricing Rules

The following are assumptions about the behavior of a price management system with regard to Pricing Rules:

- The price management system supports promotions that are against regular retails, clearance retails, or both.
- The price management system allows for overlapping promotions where multiple discounts can apply. The price management system is not restrictive to a best-deal.
- Discounts are applied to individual items, not the entire transaction.
- The price management system does not have item attributes that define if an item is eligible for discounts or markdowns.

Figure B-1 The Price Management System to Strategic Stores Solutions Pricing Map



The following are price management system definitions related to Pricing Rules:

- Regular Price Change – Permanent change in retail selling price for an item. Begins on effective date, but does not define an expiration date. New price is explicitly defined, not defined in terms of amount or percent off.
- Clearance Price Change – Change in retail selling price for an item for the purposes of inventory clearance. Begins on effective date, but does not define an expiration date. New price is explicitly defined, not defined in terms of amount or percent off.

- n Promotion Price Change – Definition of pricing rules to enable a retail promotional, or temporary, price. There are three available options:
 - Simple – get **Z%** off **X**
 - Threshold – buy **N** of **X** get **Z%** off **X**
 - Buy/Get – buy **N** of **X** get **Y** at **Z%** off
- n Threshold – minimum dollar amount or quantity of the source to buy in order to trigger the discount; **N** in the promotion definition.

The following are Strategic Stores Solutions definitions related to Pricing Rules:

- n Price Change – Permanent change in retail selling price. Begins on effective date, but does not define an expiration date. New price is explicitly defined, not defined in terms of amount or percent off.
- n Price Promotion – Temporary change in retail selling price. Begins on effective date; ends on expiration date. Can be expressed in terms of amount off, percent off, or new price.
- n Discount Rules – Definition of pricing rules to enable a retail promotional, or temporary, price. There are two available options:
 - Group pricing – buy **N** of **X** get **Z%** off **X**
 - Deal pricing – buy **N** of **X** get **Y** at **Z%** off
- n Threshold – The minimum price allowed for a source or target to be part of a promotion. This is a separate concept from the source quantity, **N**.
- n Limit – The maximum price allowed for a source or target to be part of a promotion.

Buy/Get

Price Management System Buy/Get Assumptions

- n If **Y** is a group of items, only one item in the group qualifies for the discount even if the customer purchased multiple items in the **Y** target group.
- n Funding of promotion applies only to the item in the **Y** target group that received the discount.
- n The price management system and merchandising system do not spread the discount out to items in **Y** and **X** groups at the time of the sale. The Deal Distribution Indicator is always set to **Target**.
- n **X** and **Y** can be the same items. Buy/Get Cycles Indicator and Allow Repeating Sources Indicator are two separate entities:
 - Buy Get Cycles Indicator -- when items in the buy list (**X**) are the same items in the Get list (**Y**)
 - Allow Repeating Sources Indicator -- specifies that the same item cannot be used to qualify the buy list (**N** of **X**), for example, if you buy two pairs of jeans, and get a sweater for free, the jeans purchased must be different items. The price management system promotions would always have an Allow Repeating Sources Indicator set to **Y**.

The following is true for [Table B-1](#):

- n N = quantity or value
- n X = Source items or items in a list
- n Y = Target item or item in a list of items
- n Z = price or discount

Table B-1 Buy/Get

| Promotion Type | Example | The Price Management System Promotion Type | The Price Management System Setup | Compatible | Comments | Resolution to Make Compatible |
|--|---|--|---|------------|--|-------------------------------|
| Buy N of X , Get Y at $Z\%$ off regular Price. | Buy two pairs of jeans, get a sweater at 50% off. | Multi-Buy | Buy Type = Qty, Reward %off, Buy Value = N | Yes | | |
| Buy N of X , Get Y at $Z\$$ off regular Price. | Buy two pairs of jeans, get \$10 off of a sweater. | Multi-Buy | Buy Type = Qty, Reward Amount off, Buy Value = N | Yes | | |
| Buy N of X , Get Lowest Priced Y at $Z\%$ off. | Buy two pairs of jeans and two or more sweaters, get 10% off the lowest-priced sweater. | Multi-Buy | Buy Type = Qty, Reward %off, Buy Value = N | No | | |
| Buy $\$N$ of X , Get $\$Y$ for free. | Buy one pair of jeans at regular price over \$45 and get a T-Shirt regular priced at \$25 or less for free. | Multi-Buy | Buy Type = Qty, Reward Amount off, Buy Value = N | No | This same scenario could be executed by building specific item lists and selecting them for the buy and get scenarios within ORPM. | |
| Buy N of X , Get Y at $Z\$$. | Buy two pairs of jeans, get a sweater for \$20. | Multi-Buy | Buy Type = Qty, Reward Fixed Amount, Buy Value = N | Yes | Oracle Retail Price Management can change the selling UOM when discount is fixed amount. | |
| Buy $\$N$ of X , Get Y at $Z\%$ off regular Price. | Buy \$40 worth of jeans, get a sweater at 50% off. | Multi-Buy | Buy Type = Amount, Reward % Off, Buy Value = N | Yes | | |
| Buy $\$N$ of X , Get Y at $Z\$$ off regular Price. | Buy \$40 worth of jeans, get \$10 off of a sweater. | Multi-Buy | Buy Type = Amount, Reward Amount Off, Buy Value = N | Yes | | |

Table B-1 Buy/Get

| Promotion Type | Example | The Price Management System Promotion Type | The Price Management System Setup | Compatible | Comments | Resolution to Make Compatible |
|---|---|--|---|------------|---|-------------------------------|
| Buy \$N of X, Get Y at Z\$. | Buy \$40 worth of jeans, get a sweater for \$20. | Multi-Buy | Buy Type = Amount, Reward Fixed Price, Buy Value = N | Yes | | |
| Buy N of A and N of B, Get Y at Z% off | Buy a cap and a glove, get a scarf 10% off. The buy and reward lists may use a combination of AND and OR conditions. | Multi-Buy | Buy Type = Qty, Reward %off, Buy Value = N | Yes | | |
| Buy N of A and N of B, Get Y at \$Z off | Buy a cap and a glove, get a scarf \$2 off. The buy and reward lists may use a combination of AND and OR conditions. | Multi-Buy | Buy Type = Qty, Reward Amount off, Buy Value = N | Yes | | |
| Buy N of A and N of B, Get Y for \$Z. | Buy a cap and a glove, get a scarf for \$10.00. The buy and reward lists may use a combination of AND and OR conditions. | Multi-Buy | Buy Type = Qty, Reward Fixed Amount, Buy Value = N | Yes | RPM can change the selling UOM when discount is fixed amount. | |
| Buy N of X, get the cheapest free. | Buy four pair of shoes, get the cheapest pair free | Multi-Buy | Buy Type = Qty, Reward Cheapest Free, Buy Value = N | Yes | | |
| Buy N of A and N of B, get the cheapest free. | Buy a shirt and a tie, get the cheapest item free. | Multi-Buy | Buy Type = Qty AND Qty, Reward Cheapest Free, Buy Value = N | Yes | | |

Threshold

Threshold assumptions

For example, if you buy six pairs of jeans, you get 10% off. The discount applies to all items if six or more are purchased. The customer does not need to purchase twelve items to get the discount on items seven through twelve.

The following is true for [Table B-2](#):

- N = quantity or value
- X = Source items or items in a list
- Y = Target item or item in a list of items
- Z = price or discount

Table B-2 Threshold

| Promotion Type | Example | The Price Management System Promotion Type | The Price Management System Setup | Compatible |
|--|--|--|---|------------|
| Buy N of X , get $Z\%$ off. | Buy six pairs of jeans, get 10% off each of the jeans. | Threshold | Qualification Type = Threshold Level Threshold Type = Quantity Discount Type = % off | No |
| Buy N of X , Get $\$Z$ off. | Buy six pairs of jeans, get \$10 off each of the jeans. | Threshold | Qualification Type = Threshold Level Threshold Type = Quantity Discount Type = Amount off | No |
| Buy N of X , Get items for $\$Z$. | Buy two pairs of jeans and get them for \$45 each. | Threshold | Qualification Type = Threshold Level Threshold Type = Quantity Discount Type = Fixed Amount | No |
| Buy $\$N$ of X , get $Z\%$ off. | Buy \$100 worth of jeans, get 10% off each pair of jeans. | Threshold | Qualification Type = Threshold Level Threshold Type = Amount Discount Type = % off | No |
| Buy $\$N$ of X , Get $\$Z$ off. | Buy \$100 worth of jeans, get \$10 off each pair of jeans. | Threshold | Qualification Type = Threshold Level Threshold Type = Amount Discount Type = Amount off | No |
| Buy $\$N$ of X , get items for $\$Z$ | Buy \$100 worth of jeans and get them for \$45 each. | Threshold | Qualification Type = Threshold Level Threshold Type = Amount Discount Type = Fixed Amount | No |
| Buy N of X , get $Z\%$ off. | Buy six pairs of jeans, get 10% off each of the jeans. Each item on the promotion must meet the threshold to have the discount applied. | Threshold | Qualification Type = Item Level Threshold Type = Quantity Discount Type = % off | No |

Table B–2 Threshold

| Promotion Type | Example | The Price Management System Promotion Type | The Price Management System Setup | Compatible |
|---|--|--|--|------------|
| Buy <i>N</i> of X , get \$ Z off. | Buy six pairs of jeans, get \$10 off each of the jeans. Each item on the promotion must meet the threshold to have the discount applied. | Threshold | Qualification Type = Item Level Threshold Type = Quantity Discount Type = Amount off | No |
| Buy <i>N</i> of X , get items for \$ Z | Buy two pairs of jeans and get them for \$45 each. Each item on the promotion must meet the threshold to have the discount applied. | Threshold | Qualification Type = Item Level Threshold Type = Quantity Discount Type = Fixed Amount | No |
| Buy \$ <i>N</i> of X , get Z % off. | Buy \$100 worth of jeans, get 10% off each pair of jeans. Each item on the promotion must meet the threshold to have the discount applied. | Threshold | Qualification Type = Item Level Threshold Type = Amount Discount Type = % off | No |
| Buy \$ <i>N</i> of X , Get \$ Z off. | Buy \$100 worth of jeans, get \$10 off each pair of jeans. Each item on the promotion must meet the threshold to have the discount applied. | Threshold | Qualification Type = Item Level Threshold Type = Amount Discount Type = Amount off | No |
| Buy \$ <i>N</i> of X , Get items for \$ Z . | Buy \$100 worth of jeans and get them for \$45 each. Each item on the promotion must meet the threshold to have the discount applied. | Threshold | Qualification Type = Item Level Threshold Type = Amount Discount Type = Fixed Amount | No |

Simple

The following is true for [Table B–3](#):

- *N* = quantity or value
- **X** = Source items or items in a list
- **Y** = Target item or item in a list of items
- **Z** = price or discount

Table B–3 Simple

| Promotion Type | Example | The Price Management System Promotion Type | The Price Management System Setup | Compatible |
|----------------|---|--|-----------------------------------|------------|
| Fixed Price | Buy X , get X for \$15. | Simple | Fixed Amount | Yes |
| Percent Off | Buy X , get X for 10% off. | Simple | % off | Yes |
| Amount Off | Buy X , get \$10 off of X . | Simple | Amount off | No |

Kits

The following is true for [Table B-4](#):

- N = quantity or value
- X = Source items or items in a list
- Y = Target item or item in a list of items
- Z = price or discount

Table B-4 Kits

| Promotion Type | Example | The Price Management System Promotion Type | The Price Management System Setup | Compatible |
|--|--|--|--|------------|
| Buy N of $X1$, N of $X2$, N of $X3$ for a flat price $\$Z$. | Buy hamburger, Coke and fries for 5.00 | Multi-buy | Qualification Type = Multi-buy Multi-buy = Quantity (with AND connector) Reward Type = Fixed Price | No |
| Buy N of $X1$, N of $X2$, N of $X3$ for $\$Z$ off of purchase. | Buy hamburger, Coke and fries, receive 1.00 off purchase | Multi-buy | Qualification Type = Multi-buy Multi-buy = Quantity (with AND connector) Reward Type = Amount Off | No |
| Buy N of $X1$, N of $X2$, N of $X3$ for $Z\%$ off of purchase. | Buy hamburger, Coke and fries, save 15% off purchase | Multi-buy | Qualification Type = Multi-buy Multi-buy = Quantity (with AND connector) Reward Type = % off | No |

Finance Promotion

The following is true for [Table B-5](#):

- N = quantity or value
- X = Source items or items in a list
- Y = Target item or item in a list of items
- Z = price or discount

Table B-5 Finance

| Promotion Type | Example | The Price Management System Promotion Type | The Price Management System Setup | Compatible |
|--|--|--|--|------------|
| Buy N of X with promoted card, get promotional interest % for Z duration | Purchase \$1,000 of Electronics using Visa and receive promotion percentage of 0%, with a duration of 18 months (for no interest payments if paid in full within 18 months). | Finance | Card Details Threshold Amount \$ Promotion Amount % Duration in Months Items | No |

Appendix: XSD Files and Data Element Definition Tables

This appendix provides the XML Schema Definitions (XSD) of the following Data Import data types:

- Currency Import
- Customer Import
- Employee Import
- Item Import
- Merchandise Hierarchy Import
- Pricing Import
- Store Hierarchy Import
- Tax Import

The XSD defines the rules for which external systems may interface with Stores applications through Data Import. An XSD specifies the format for XML documents that are sent to Data Import.

Note: The XML file names must begin with the following for DIMP to know which import function is being accessed and what translator to use:

- **Currency** for Currency Import
 - **Customer** for Customer Import
 - **Employee** for Employee Import
 - **Item** for Item Import
 - **Merchandise** for Merchandise Hierarchy Import
 - **Pricing** for Pricing Import
 - **Store** for Store Hierarchy Import
 - **Tax** for Tax Import
-
-

Any XML that is imported through Data Import is expected to validate successfully against the appropriate XSD for its type. Data Import does not perform a validity check. It is the responsibility of the sending party to send proper, conforming data. Invalid XML is not parsed correctly and either the invalid parts are ignored or a parsing exception is generated.

Note: For more information about the tables presented in this appendix, see the following documents:

- n Oracle Retail POS Suite Entity Relationship Diagrams, Volume 1 - Subject Areas
- n Oracle Retail POS Suite Entity Relationship Diagrams, Volume 2 - Overviews

Currency Import

Table C-1 identifies the XSD elements in the CurrencyImport.xsd file.

Table C-1 Currency Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|---------------------------|------------------------------|----------------------|---------------|---|--|
| Currency CO_CNY | CurrencyID | ID_CNY_ICD | INTEGER | | This ID will be generated by the system. |
| | IssuingCountryCode | LU_CNY_ISSG_CY | VARCHAR(4) | CurrencyImport/Currency@IssuingCountryCode | |
| | ISOCountryCode | CD_CNY_ISO | VARCHAR(3) | CurrencyImport/Currency@ISOCODE | |
| | CurrencyDescription | DE_CNY | VARCHAR(250) | CurrencyImport/Currency@Name | The length here is defined as the length of a single byte string. If multibyte characters are used, the max length should be 250/4 = 60. |
| | IssuingCountryNationality | DE_DNY_ISSG_NAT | VARCHAR(120) | CurrencyImport/Currency@IssuingCountryNationality | The length here is defined as the length of a single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | CurrencyBaseFlag | FL_CNY_BASE | CHAR(1) | CurrencyImport/Currency@IsBaseCurrency | |
| | CurrencyScale | QU_CNY_SCLE | INTEGER | CurrencyImport/Currency@Scale | |
| | CurrencyPriority | AI_CNY_PRI | INTEGER | CurrencyImport/Currency@Priority | |
| | FinancialNetworkCurrencyCode | CD_CNY_FN_NET | VARCHAR(20) | No mapping available | |
| ExchangeRate CO_RT_EXC | ExchangeRateEffectiveDate | DC_RT_EXC_EF | DATE | CurrencyImport/ExchangeRate@EffectiveDate | |
| | ExchangeRateExpirationDate | DC_RT_EXC_EP | DATE | CurrencyImport/ExchangeRate@ExpirationDate | |
| | CurrencyID | ID_CNY_ICD | INTEGER | CurrencyImport/ExchangeRate@CurrencyCode | The CurrencyID is determined by matching the ISOCODE in the Currency table. |
| | MinimumCurrencyAmount | LL_CNY_EXC | DECIMAL(13,2) | CurrencyImport/ExchangeRate@MinimumAmount | |

Table C-1 (Cont.) Currency Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|------------------|----------------------|---------------|--|-------|
| | ToBuyAmount | MO_RT_TO_BUY | DECIMAL(13,6) | CurrencyImport/ExchangeRate@ToBuyAmount | |
| | ToSellAmount | MO_RT_TO_SL | DECIMAL(13,6) | CurrencyImport/ExchangeRate@ToSellAmount | |
| | ServiceFeeAmount | MO_FE_SV_EXC | DECIMAL(13,2) | CurrencyImport/ExchangeRate@ServiceFeeAmount | |

Example C-1 CurrencyImport.xsd

```

<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
  elementFormDefault="qualified">

  <xs:annotation><xs:documentation>
    Currency Import Schema. Copyright 2008 Oracle. All rights reserved.
  </xs:documentation></xs:annotation>

  <xs:include schemaLocation="../../../common.xsd"></xs:include>
  <xs:element name="CurrencyImport" type="CurrencyImport_type">
    <xs:annotation><xs:documentation>
      Top-level element holding a collection of Currency and
      ExchangeRate elements.
    </xs:documentation></xs:annotation>
  </xs:element>

  <xs:complexType name="CurrencyImport_type">
    <xs:sequence>
      <xs:element name="Currency" type="Currency_type" minOccurs="0"
        maxOccurs="unbounded" />
      <xs:element name="ExchangeRate" type="ExchangeRate_type" minOccurs="0"
        maxOccurs="unbounded" />
    </xs:sequence>
    <xs:attribute name="FillType" type="FillType_subtype" use="required" />
    <xs:attribute name="CreationDate" type="xs:dateTime" />
    <xs:attribute name="ExpirationDate" type="xs:dateTime" />
    <xs:attribute name="Version" type="xs:string" />
    <xs:attribute name="Priority" type="xs:int" />
    <xs:attribute name="Batch" type="xs:int" />
  </xs:complexType>

  <xs:complexType name="Currency_type">
    <xs:annotation><xs:documentation>
      Represents a single currency's information. Note that IssuingCountryCode
      and Priority are required for new adds.
    </xs:documentation></xs:annotation>
    <xs:attribute name="ChangeType" type="ChangeType_type" default="ADD"/>
    <xs:attribute name="ISOCODE" type="CurrencyCode_type" use="required"/>
    <xs:attribute name="IssuingCountryCode" type="Code_type"/>
    <xs:attribute name="Name" type="Description_type"/>
    <xs:attribute name="IssuingCountryNationality" type="Name_type"/>
    <xs:attribute name="IsBaseCurrency" type="xs:boolean" default="false"/>
    <xs:attribute name="Scale" type="xs:int" default="2"/>
    <xs:attribute name="Priority" type="xs:int"/>
  </xs:complexType>

```

```

</xs:complexType>

<xs:complexType name="ExchangeRate_type">
<xs:annotation><xs:documentation>
Represents a single exchange rate information. Note that EffectiveDate
and ExpirationDate are required for new adds. Because of the way exchange rate is
queried, the expiration date must be the day after expiration.
</xs:documentation></xs:annotation>
<xs:attribute name="ChangeType" type="ChangeType_type" default="ADD"/>
<xs:attribute name="CurrencyCode" type="CurrencyCode_type" use="required"/>
<xs:attribute name="MinimumAmount" type="Amount_type"/>
<xs:attribute name="EffectiveDate" type="xs:date"/>
<xs:attribute name="ExpirationDate" type="xs:date"/>
<xs:attribute name="ToBuyAmount" type="Rate_type"/>
<xs:attribute name="ToSellAmount" type="Rate_type"/>
<xs:attribute name="ServiceFeeAmount" type="Amount_type"/>
</xs:complexType>

<xs:simpleType name="Rate_type">
<xs:restriction base="xs:decimal">
<xs:totalDigits value="13"/>
<xs:fractionDigits value="6"/>
</xs:restriction>
</xs:simpleType>

<xs:simpleType name="Code_type">
  <xs:annotation><xs:documentation>
ISO-3166 based four character code denoting which country issues
the Currency.
</xs:documentation></xs:annotation>
<xs:restriction base="xs:string">
<xs:maxLength value="4"/>
</xs:restriction>
</xs:simpleType>

<xs:simpleType name="FillType_subtype">
<xs:restriction base="xs:string">
<xs:enumeration value="KillAndFill" />
<xs:enumeration value="FullIncremental" />
</xs:restriction>
</xs:simpleType>

</xs:schema>

```

The following is an example CurrencyImport XML file:

Example C-2 CurrencyImport.xml

```

<?xml version="1.0" encoding="UTF-8"?>
<CurrencyImport xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="CurrencyImport.xsd" Priority="0"
FillType="FullIncremental" Version="1.0" Batch="1"
CreationDate="2001-12-17T09:30:47.0Z"
ExpirationDate="2027-12-17T09:30:47.0Z">

<!-- Example of deleting a currency by ISO code. -->
<Currency
ChangeType="DEL"
ISOCCode="USD"/>

```



```
<!-- Example of adding a Currency. -->
<Currency
  ChangeType="ADD"
  ISOCODE="USD"
  IssuingCountryCode="US"
  Name="USD"
  IssuingCountryNationality="U.S."
  IsBaseCurrency="true"
  Scale="2"
  Priority="0"/>

<!-- Example of updating a Currency. -->
<Currency
  ChangeType="UPD"
  ISOCODE="CAD"
  IssuingCountryCode="CA"
  Name="CAD"
  IssuingCountryNationality="Canadian"
  IsBaseCurrency="false"
  Scale="2"
  Priority="1"/>

<!-- An example of deleting all rates for Canadian Dollars -->
<ExchangeRate
  ChangeType="DEL"
  CurrencyCode="CAD"/>

<!-- An example of deleting a specific rate for Canadian
Dollars. The dates are part of the primary key. -->
<ExchangeRate
  ChangeType="DEL"
  CurrencyCode="CAD"
  EffectiveDate="2008-05-26"
  ExpirationDate="2008-06-02"/>

<!-- An example of adding buy/sell rates for Canadian Dollars
assuming base currency is USD. 1 USD=1.00598 USD. -->
<ExchangeRate
  ChangeType="ADD"
  CurrencyCode="CAD"
  MinimumAmount="0.00"
  EffectiveDate="2008-05-26"
  ExpirationDate="2008-06-02"
  ToBuyAmount="0.994053"
  ToSellAmount="0.994053"
  ServiceFeeAmount="0.00"/>

<!-- An example of updating buy/sell rates for Euros
assuming base currency is USD. 1 EUR=1.554 USD. -->
<ExchangeRate
  ChangeType="UPD"
  CurrencyCode="EUR"
  MinimumAmount="0.00"
  EffectiveDate="2008-05-26"
  ExpirationDate="2008-06-02"
  ToBuyAmount="0.643459"
  ToSellAmount="0.643459"
  ServiceFeeAmount="0.00"/>

</CurrencyImport>
```

Customer Import

Table C–2 identifies the XSD elements in the CustomerImport.xsd file.

Table C–2 Customer Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|-----------------------------|----------------------------|----------------------|---------------|---|---|
| Party PA_PRTY | PartyID | ID_PRTY | INTEGER | | Generated by system for each insert of new customer. |
| | PartyLegalOrganizationCode | LU_ORG_LG | VARCHAR (20) | No mapping available | |
| | PartyTypeCode | TY_PRTY | VARCHAR (20) | | CUST |
| Customer PA_CT | CustomerID | ID_CT | VARCHAR (14) | CustomerImport/Customer@ID | |
| | PartyID | ID_PRTY | INTEGER | | PartyID generated above. |
| | CustomerFullName | NM_CT | VARCHAR (250) | | Created by system by appending last name to first name. |
| | EmployeeID | ID_EM | VARCHAR (10) | CustomerImport/Customer@EmployeeID | Should be null if this customer is not an employee of the company. |
| | CustomerStatusCode | STS_CT | INTEGER | CustomerImport/Customer@Status | n Inactive=0 n Active=1 n Deleted=2 |
| | EncryptedAccountNumber | ID_NCRPT_ACTN_CRD | VARCHAR (250) | CustomerImport/Customer@EncryptedHouseAccountNumber | The XML value should be a hexadecimal string of the encrypted byte array. |
| | HashedAccountNumber | ID_HSH_ACNT | VARCHAR (80) | No mapping available | |
| | MaskedAccountNumber | ID_MSK_ACNT_CRD | VARCHAR (20) | No mapping available | |
| | CustomerLocale | LCL | VARCHAR (10) | CustomerImport/Customer@PreferredLanguage CustomerImport/Customer@PreferredCountry | The combined XML values should be a string parsable by java.lang.Locale |
| | CustomerTaxID | ID_TAX | VARCHAR (16) | CustomerImport/Customer@TaxID | |
| | CustomerPricingGroup | ID_PRCGP | INTEGER | CustomerImport/Customer@PricingGroupID | Maximum field size for INTEGER is typically NUMBER(10) to support Java INT datatype in application. |
| | CustomerBatchID | ID_CT_BTCH | INTEGER | No mapping available | |
| BusinessCustomer ORGN_CT | OrganizationID | ID_ORGN | INTEGER | | PartyID generated above. |
| | PartyID | ID_PRTY | INTEGER | | PartyID generated above. |

Table C-2 (Cont.) Customer Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|-------------------------|----------------------|---------------|---|--|
| | Organization Name | ORGN_NAME | VARCHAR (120) | CustomerImport/BusinessCustomer@CompanyName | The length here is defined as the length of a single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | TaxExemptionCertificate | TX_EXM_CF | VARCHAR (30) | CustomerImport/BusinessCustomer@TaxExemptionCertificate | |
| | ExceptionReason | EXM_RSN | VARCHAR (30) | CustomerImport/BusinessCustomer@ExceptionReason | |
| Contact PA_CNCT | ContactID | ID_CNCT | INTEGER | | PartyID generated above. |
| | ContactType Code | TY_CNCT | VARCHAR (20) | | CUST |
| | PartyID | ID_PRTY | INTEGER | | PartyID generated above. |
| | ContactLastName | LN_CNCT | VARCHAR (120) | CustomerImport/Customer@LastName | The length here is defined as the length of a single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | ContactFirstName | FN_CNCT | VARCHAR (120) | CustomerImport/Customer@FirstName | The length here is defined as the length of a single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | ContactMiddleName | MD_CNCT | VARCHAR (120) | CustomerImport/Customer@MiddleNameString | The length here is defined as the length of a single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | ContactFullName | NM_CNCT | VARCHAR (250) | | Created by system by appending last name to first name. |
| | ContactSalutation | LU_CNCT_SLN | VARCHAR (120) | CustomerImport/Customer@SalutationString | For example: n Mr n Mrs n Ms |
| | ContactSuffix | NM_CNCT_SFX | VARCHAR (120) | CustomerImport/Customer@SuffixString | For example: n Jr n III |
| | ContactBirth Date | DC_CNCT | VARCHAR (30) | CustomerImport/Customer@BirthDateDate | |
| | ContactGender | GNDR_CNCT | INTEGER | CustomerImport/Customer@Gender | n Unspecified= 0 n Female= 1 n Male= 2 |
| | ContactCompanyName | CO_NM_CNCT | VARCHAR (120) | CustomerImport/BusinessCustomer@CompanyName | The length here is defined as the length of a single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |

Table C-2 (Cont.) Customer Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|---------------------|----------------------|--------------|--|--|
| | ContactMailFlag | NO_MAIL_CNCT | CHAR(1) | CustomerImport/Customer@ContactByMail | |
| | ContactPhoneFlag | NO_PHN_CNCT | CHAR(1) | CustomerImport/Customer@ContactByPhone | |
| | ContactEmailFlag | NO_EML_CNCT | CHAR(1) | CustomerImport/Customer@ContactByEmail | |
| | ContactFunctionCode | LU_FNC_CNCT | VARCHAR(20) | | No mapping available. |
| Address LO_ADS | AddressID | ID_ADS | INTEGER | CustomerImport/Customer/Address@Type | n Unspecified=-1 n Home=0 n Work=1 n Other=2 n Mail=3 |
| | AddressTypeCode | TY_ADS | VARCHAR(30) | CustomerImport/Customer/Address@Type | n Unspecified=-1 n Home=0 n Work=1 n Other=2 n Mail=3 |
| | PartyID | ID_PRTY | INTEGER | | PartyID generated above. |
| | AddressLine1 | A1_CNCT | VARCHAR(240) | CustomerImport/Customer/Address@Address1 | The length here is defined as the length of a single byte string. If multibyte characters are used, the max length should be 240/4 = 60. |
| | AddressLine2 | A2_CNCT | VARCHAR(240) | CustomerImport/Customer/Address@Address2 | The length here is defined as the length of a single byte string. If multibyte characters are used, the max length should be 240/4 = 60. |
| | AddressLine3 | A3_CNCT | VARCHAR(240) | CustomerImport/Customer/Address@Address3 | The length here is defined as the length of a single byte string. If multibyte characters are used, the max length should be 240/4 = 60. |
| | AddressCity | CI_CNCT | VARCHAR(120) | CustomerImport/Customer/Address@City | The length here is defined as the length of a single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | AddressState | ST_CNCT | VARCHAR(30) | CustomerImport/Customer/Address@State | |
| | AddressPostalCode | PC_CNCT | VARCHAR(30) | CustomerImport/Customer/Address@PostalCode | |
| | AddressTerritory | TE_CNCT | VARCHAR(120) | CustomerImport/Customer/Address@Territory | |

Table C-2 (Cont.) Customer Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------------------|---------------------------------|----------------------|--------------|--|---|
| | AddressCountry | CO_CNCT | VARCHAR (30) | CustomerImport/Customer/Address@Country | |
| Telephone PA_PHN | PhoneID | ID_PHN | INTEGER | CustomerImport/Customer/Telephone@Type | n Unspecified=-1 n Home=0 n Work=1 n Mobile=2 n Fax=3 n Pager=4 n Other=5 |
| | PartyID | ID_PRTY | INTEGER | | PartyID generated above. |
| | PhoneType | TY_PHN | VARCHAR (30) | CustomerImport/Customer/Telephone@Type | n Unspecified=-1 n Home=0 n Work=1 n Mobile=2 n Fax=3 n Pager=4 n Other=5 |
| | ContactArea TelephoneCode | TA_PHN | VARCHAR (30) | | No mapping available. |
| | ContactLocal TelephoneNumber | TL_CNCT | VARCHAR (30) | CustomerImport/Customer/Telephone@Number | |
| | ContactExtension | EXT_CNCT | VARCHAR (30) | CustomerImport/Customer/Telephone@Ext | |
| EmailAddress LO_EML_ADS | PartyID | ID_PRTY | INTEGER | | PartyID generated above. |
| | EmailAddressType | TY_EM_ADS | INTEGER | CustomerImport/Customer/Email@Type | n Unspecified=-1 n Home=0 n Work=1 n Other=2 |
| | EmailAddresses | EM_ADS | VARCHAR (64) | CustomerImport/Customer/Email@Address | |
| CustomerAffiliation CO_CTAF | CustomerID | ID_CT | VARCHAR (14) | CustomerImport/Customer@ID | |
| | CustomerGroupID | ID_GP_ID | INTEGER | CustomerImport/Customer/CustomerGroupID | |
| | IdentityVerifyRequiredFlag | FL_IDN_CTAF_VR_RQ | CHAR(1) | CustomerImport/Customer/CustomerGroupID@IdentityVerificationRequired | |

Table C-2 (Cont.) Customer Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|-----------------------------------|--------------------------|----------------------|---------------|---|---|
| CustomerGroup PA_GP_CT | CustomerGroupID | ID_GP_ID | INTEGER | CustomerImport/CustomerGroup@ID | Maximum field size for INTEGER is typically NUMBER(10) to support Java INT datatype in application. |
| | CustomerGroupName | NM_GP | VARCHAR (120) | CustomerImport/CustomerGroup/Name | Populate if no locale specified. |
| | CustomerGroupDescription | DE_GP_CT | VARCHAR (250) | CustomerImport/CustomerGroup/DescriptionString250 | Populate if no locale specified. |
| CustomerGroupI18N PA_GP_CT_I18 | CustomerGroupID | ID_GP_ID | INTEGER | CustomerImport/CustomerGroup@IDInt | |
| | Locale | LCL | VARCHAR (10) | CustomerImport/CustomerGroup/Name or Description@Language CustomerImport/CustomerGroup/Name or Description@Country | |
| | CustomerGroupName | NM_GP | VARCHAR (120) | CustomerImport/CustomerGroup/Name | The length here is defined as the length of a single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | CustomerGroupDescription | DE_GP_CT | VARCHAR (250) | CustomerImport/CustomerGroup/Description | The length here is defined as the length of a single byte string. If multibyte characters are used, the max length should be 250/4 = 60. |
| PricingGroup CO_PRCGP | PricingGroupID | ID_PRCGP | INTEGER | CustomerImport/PricingGroup@ID | This ID is sent from Oracle Retail Merchandising System. Maximum field size for INTEGER is typically NUMBER(10) to support Java INT datatype in application. |
| | Name | NM_PRCGP | VARCHAR (120) | CustomerImport/PricingGroup/LocalizedName@Name | |
| | Description | DE_PRCGRP | VARCHAR (250) | CustomerImport/PricingGroup/LocalizedName@Description | |
| PricingGroupI18 CO_PRCGP_I18 | PricingGroupID | ID_PRCGP | INTEGER | CustomerImport/PricingGroup@ID | |

Table C–2 (Cont.) Customer Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|-------------|----------------------|---------------|---|--|
| | Locale | LCL | VARCHAR (10) | "CustomerImport/PricingGroup/LocalizedName@Language CustomerImport/PricingGroup/LocalizedName@Country" | |
| | Name | NM_PRCGP | VARCHAR (120) | CustomerImport/PricingGroup/LocalizedName@Name | The length here is defined as the length of a single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | Description | DE_PRCGRP | VARCHAR (250) | CustomerImport/PricingGroup/LocalizedName@Description | The length here is defined as the length of a single byte string. If multibyte characters are used, the max length should be 250/4 = 60. |

Example C–3 CustomerImport.xsd

```

<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
  elementFormDefault="qualified">

  <xs:annotation><xs:documentation>
    Customer Import Schema. Copyright 2008 Oracle. All rights reserved.

    Use this schema in conjunction with a Oracle Store Systems Data Dictionary
    and the relations between the element and attribute names should be
    apparent.
  </xs:documentation></xs:annotation>

  <xs:include schemaLocation="../../../common.xsd" />
  <xs:element name="CustomerImport" type="CustomerImport_type">
    <xs:annotation><xs:documentation>
      Top-level element holding a collection of Customer elements.
    </xs:documentation></xs:annotation>
  </xs:element>

  <xs:complexType name="CustomerImport_type">
    <xs:sequence>
      <xs:element name="CustomerGroup" type="CustomerGroup_type" minOccurs="0"
        maxOccurs="unbounded"/>
        <xs:element name="PricingGroup" type="PricingGroup_type" minOccurs="0"
          maxOccurs="unbounded"/>
      <xs:element name="Customer" type="Customer_type" minOccurs="0"
        maxOccurs="unbounded"/>
      <xs:element name="BusinessCustomer" type="BusinessCustomer_type" minOccurs="0"
        maxOccurs="unbounded"/>
    </xs:sequence>
    <xs:attribute name="FillType" type="FillType_type" use="required"/>
    <xs:attribute name="CreationDate" type="xs:dateTime"/>
    <xs:attribute name="ExpirationDate" type="xs:dateTime"/>
    <xs:attribute name="Version" type="xs:string"/>
    <xs:attribute name="Priority" type="xs:int"/>
    <xs:attribute name="Batch" type="xs:int"/>
  </xs:complexType>

```

```

<xs:complexType name="CustomerGroup_type">
  <xs:annotation><xs:documentation>
  Represents a group of customers that can be marketed to,
  e.g. seniors, teachers, etc. These groups are typically used
  to trigger transaction-level discounts.
  </xs:documentation></xs:annotation>
  <xs:sequence>
    <xs:element name="LocalizedNameDescription" type="LocalizedNameDescription_type"
    minOccurs="1" maxOccurs="unbounded"/>
  </xs:sequence>
  <xs:attribute name="ChangeType" type="ChangeType_type" use="required"/>
  <xs:attribute name="ID" type="xs:int" use="required"/>
</xs:complexType>

  <xs:complexType name="PricingGroup_type">
    <xs:choice>
      <xs:element name="LocalizedName" type="LocalizedNameDescription_
      type" minOccurs="0" maxOccurs="unbounded"/>
      <xs:element name="Name" type="NameDescription_type" minOccurs="1"
      maxOccurs="1"/>
    </xs:choice>
    <xs:attribute name="ID" type="xs:int" />
    <xs:attribute name="ChangeType" type="ChangeType_type" default="ADD"/>
  </xs:complexType>

<xs:complexType name="Customer_type">
  <xs:annotation><xs:documentation>
  Represents a single customer's information. Each Address, Telephone
  and Email should have a different Type because the Type becomes
  part of the primary key for that record.
  </xs:documentation></xs:annotation>
  <xs:sequence>
    <xs:element name="Address" type="Address_type" minOccurs="0" maxOccurs="5"/>
    <xs:element name="Telephone" type="Telephone_type" minOccurs="0" maxOccurs="7"/>
    <xs:element name="Email" type="Email_type" minOccurs="0" maxOccurs="4"/>
    <xs:element name="CustomerGroupID" type="CustomerGroupID_type" minOccurs="0"
    maxOccurs="unbounded"/>
  </xs:sequence>
  <xs:attribute name="ChangeType" type="ChangeType_type" use="required"/>
  <xs:attribute name="ID" type="ID_type" use="required"/>
  <xs:attribute name="FirstName" type="xs:string"/>
  <xs:attribute name="LastName" type="xs:string"/>
  <xs:attribute name="MiddleName" type="xs:string"/>
  <xs:attribute name="Salutation" type="xs:string"/>
  <xs:attribute name="Suffix" type="xs:string"/>
  <xs:attribute name="BirthDate" type="xs:date"/>
  <xs:attribute name="Gender" type="Gender_type"/>
  <xs:attribute name="ContactByMail" type="xs:boolean"/>
  <xs:attribute name="ContactByPhone" type="xs:boolean"/>
  <xs:attribute name="ContactByEmail" type="xs:boolean"/>
  <xs:attribute name="EmployeeID" type="EmployeeID_type"/>
  <xs:attribute name="Status" type="Status_type"/>
  <xs:attribute name="EncryptedHouseAccountNumber" type="xs:string"/>
  <xs:attribute name="PricingGroupID" type="xs:int"/>
  <xs:attribute name="PreferredLanguage" type="Language_type"/>
  <xs:attribute name="PreferredCountry" type="Country_type"/>
  <xs:attribute name="TaxID" type="xs:string"/>
</xs:complexType>

<xs:complexType name="BusinessCustomer_type">

```



```

<xs:annotation><xs:documentation>
Represents a single business's information. In this case, setting
any person attributes, like FirstName would be for the company's
contact.
</xs:documentation></xs:annotation>
<xs:complexContent>
<xs:extension base="Customer_type">
<xs:attribute name="CompanyName" type="xs:string" use="required" />
<xs:attribute name="TaxExemptionCertificate" type="xs:string" />
<xs:attribute name="ExceptionReason" type="xs:string" />
</xs:extension>
</xs:complexContent>
</xs:complexType>

<xs:complexType name="CustomerGroupID_type">
  <xs:annotation><xs:documentation>
    Its only necessary to specify a ChangeType when updating a customer
    and deleting the specified customer group.
  </xs:documentation></xs:annotation>
  <xs:simpleContent>
  <xs:extension base="xs:int">
    <xs:attribute name="ChangeType" type="xs:string" use="optional"
default="DEL"/>
  <xs:attribute name="IdentityVerificationRequired" type="xs:boolean" />
  </xs:extension>
</xs:simpleContent>
</xs:complexType>

<xs:complexType name="Address_type">
<xs:annotation><xs:documentation>
Its only necessary to specify a ChangeType when updating a customer
and deleting the specified address.
</xs:documentation></xs:annotation>
<xs:attribute name="ChangeType" type="xs:string" use="optional" default="DEL"/>
<xs:attribute name="Type" type="AddressType_type" use="required"/>
<xs:attribute name="Address1" type="xs:string" use="required"/>
<xs:attribute name="Address2" type="xs:string" use="optional"/>
<xs:attribute name="Address3" type="xs:string" use="optional"/>
<xs:attribute name="City" type="xs:string" use="required"/>
<xs:attribute name="State" type="xs:string"/>
<xs:attribute name="PostalCode" type="xs:string"/>
<xs:attribute name="Territory" type="xs:string"/>
<xs:attribute name="Country" type="xs:string"/>
</xs:complexType>

<xs:complexType name="Telephone_type">
<xs:annotation><xs:documentation>
Its only necessary to specify a ChangeType when updating a customer
and deleting the specified telephone.
</xs:documentation></xs:annotation>
<xs:attribute name="ChangeType" type="xs:string" use="optional" default="DEL"/>
<xs:attribute name="Type" type="TelephoneType_type" use="required"/>
<xs:attribute name="Number" type="xs:string" use="required"/>
<xs:attribute name="Ext" type="xs:string"/>
</xs:complexType>

<xs:complexType name="Email_type">
<xs:annotation><xs:documentation>
Its only necessary to specify a ChangeType when updating a customer
and deleting the specified email.

```

```
</xs:documentation></xs:annotation>
<xs:attribute name="ChangeType" type="xs:string" use="optional" default="DEL"/>
<xs:attribute name="Type" type="EmailType_type" use="required"/>
<xs:attribute name="Address" type="xs:string" use="required"/>
</xs:complexType>

<xs:simpleType name="Gender_type">
<xs:restriction base="xs:string">
<xs:enumeration value="Unspecified"/>
<xs:enumeration value="Female"/>
<xs:enumeration value="Male"/>
</xs:restriction>
</xs:simpleType>

<xs:simpleType name="EmployeeID_type">
<xs:restriction base="xs:string">
<xs:maxLength value="10"/>
</xs:restriction>
</xs:simpleType>

<xs:simpleType name="Status_type">
<xs:restriction base="xs:string">
<xs:enumeration value="Inactive"/>
<xs:enumeration value="Active"/>
<xs:enumeration value="Deleted"/>
</xs:restriction>
</xs:simpleType>

<xs:simpleType name="AddressType_type">
<xs:restriction base="xs:string">
<xs:enumeration value="Unspecified"/>
<xs:enumeration value="Home"/>
<xs:enumeration value="Work"/>
<xs:enumeration value="Other"/>
<xs:enumeration value="Mail"/>
</xs:restriction>
</xs:simpleType>

<xs:simpleType name="TelephoneType_type">
<xs:restriction base="xs:string">
<xs:enumeration value="Unspecified"/>
<xs:enumeration value="Home"/>
<xs:enumeration value="Work"/>
<xs:enumeration value="Mobile"/>
<xs:enumeration value="Fax"/>
<xs:enumeration value="Pager"/>
<xs:enumeration value="Other"/>
</xs:restriction>
</xs:simpleType>

<xs:simpleType name="EmailType_type">
<xs:restriction base="xs:string">
<xs:enumeration value="Unspecified"/>
<xs:enumeration value="Home"/>
<xs:enumeration value="Work"/>
<xs:enumeration value="Other"/>
</xs:restriction>
</xs:simpleType>

</xs:schema>
```

The following is an example CustomerImport XML file:

Example C-4 CustomerImport.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<CustomerImport xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="CustomerImport.xsd"
    Priority="0"
    FillType="FullIncremental"
    Version="1.0"
    Batch="1"
    CreationDate="2001-12-17T09:30:47.0Z"
    ExpirationDate="2027-12-17T09:30:47.0Z">

  <CustomerGroup ID="0" ChangeType="DEL"/>

  <CustomerGroup ID="0" ChangeType="ADD">
    <Name Language="en">Group0 Name</Name>
    <Description Language="en">Customer Group 0 description</Description>
  </CustomerGroup>

  <CustomerGroup ID="1" ChangeType="ADD">
    <Name Language="en">Group1 Name</Name>
    <Name Language="fr">Grouper le Nom</Name>
    <Description Language="en">Customer Group 1 description</Description>
    <Description Language="fr">Ceci est un groupe clientèle importé</Description>
  </CustomerGroup>

  <CustomerGroup ID="2" ChangeType="ADD">
    <Name Language="en">Group2 Name</Name>
    <Description Language="en">Customer Group 2 description</Description>
  </CustomerGroup>

  <CustomerGroup ID="2" ChangeType="UPD">
    <Name Language="fr">Grouper le Nom</Name>
    <Description Language="fr">Ceci est un groupe clientèle importé</Description>
  </CustomerGroup>

  <Customer ChangeType="DEL" ID="04241990" />

  <Customer
    ChangeType="ADD"
    ID="04241990"
    FirstName="Joe"
    LastName="Smith"/>

  <Customer
    ChangeType="UPD"
    ID="04241990"
    FirstName="Joe"
    LastName="Smith"
    MiddleName="P"
    Salutation="Mr"
    Suffix="Jr"
    BirthDate="1970-01-01"
    Gender="Male"
    ContactByMail="true"
    ContactByPhone="true"
    ContactByEmail="true"
```

```
EmployeeID="20027"
Status="Active"
EncryptedHouseAccountNumber="cWD4aIA1E4/LyabIBBlJ6+oMDSGhsdBj+DnzjVwr6Pk="
PricingGroupID="2"
TaxID="4444"
PreferredLanguage="en"
PreferredCountry="US">
<Address Type="Home" Address1="1234 River Rd" Address2="Apt 12" City="Round
Rock" State="TX" PostalCode="7878799" Country="US" />
<Address Type="Work" Address1="1111 Potomac Ave" Address2="Suite F"
City="Austin" State="TX" PostalCode="78756" Country="US" />
<Telephone Type="Work" Number="5125551234" Ext="4444" />
<Telephone Type="Home" Number="5125551235" />
<Telephone Type="Mobile" Number="5125551236" />
<Email Type="Home" Address="joe.smith@gmail.com" />
<Email Type="Work" Address="joe.smith@acme.com" />
<CustomerGroupID IdentityVerificationRequired="true">1</CustomerGroupID>
<CustomerGroupID IdentityVerificationRequired="true">2</CustomerGroupID>
</Customer>

<BusinessCustomer
ChangeType="ADD"
ID="04241991"
CompanyName="Acme Inc"
TaxExemptionCertificate="0123456789"
ExceptionReason="1234567890">
<Address Type="Work" Address1="1234 River Rd" Address2="Suite F" City="Austin"
State="TX" PostalCode="78756" Country="US" />
<Telephone Type="Mobile" Number="7125558989" />
</BusinessCustomer>
<BusinessCustomer
ChangeType="ADD"
ID="04241992"
CompanyName="Gizmos Inc"
TaxExemptionCertificate="01234567891"
ExceptionReason="01234567891"
FirstName="Jane"
LastName="Doe"
MiddleName="X"
Salutation="Mrs"
BirthDate="1971-10-10"
Gender="Female"
ContactByMail="true"
ContactByPhone="true"
ContactByEmail="false"
Status="Active"
EncryptedHouseAccountNumber="cWD4aIA1E4/LyabIBBlJ6+oMDSGhsdBj+DnzjVwr6Pk="
PricingGroupID="2"
PreferredLanguage="fr"
PreferredCountry="FR"
TaxID="55555">
<Address Type="Work" Address1="101 Congress Ave" City="Austin" State="TX"
PostalCode="78701" Country="US" />
<Telephone Type="Mobile" Number="7125558989" />
<Email Type="Work" Address="info@gizmos.com" />
<CustomerGroupID IdentityVerificationRequired="true">1</CustomerGroupID>
<CustomerGroupID IdentityVerificationRequired="false">2</CustomerGroupID>
</BusinessCustomer>

</CustomerImport>
```

Employee Import

Table C–3 identifies the XSD elements in the EmployeeImport.xsd file.

Table C–3 Employee Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|-----------------------------------|------------------------|----------------------|--------------------------|---|---|
| Employee PA_EM | EmployeeID | ID_EM | VARCHAR(10) | Employee/EmployeeID | |
| | PartyID | ID_PRTY | INTEGER | Employee/PartyID | Link to PA_PRTY not required by application. |
| | EmployeeLoginID | ID_LOGIN | VARCHAR(120) | Employee/EmployeeAccess/EmployeeLoginID | |
| | EmployeeAlternateID | ID_ALT | VARCHAR(120) | Employee/EmployeeAccess/EmployeeAltID | |
| | EmployeeAccessPassword | PW_ACS_EM | VARCHAR(250) | Employee/EmployeeAccess/AccessPassword | |
| | EmployeeName | NM_EM | VARCHAR(250) | Employee/EmployeeFullName | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be $250/4 = 60$. |
| | EmployeeLastName | LN_EM | VARCHAR(120) | Employee/EmployeeLastName | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be $120/4 = 30$. |
| | EmployeeFirstName | FN_EM | VARCHAR(120) | Employee/EmployeeFirstName | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be $120/4 = 30$. |
| | EmployeeMiddleName | MD_EM | VARCHAR(120) | Employee/EmployeeMiddleName | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be $120/4 = 30$. |
| | EmployeeRole | ROLE_EM | VARCHAR(120) | Employee/EmployeeRole | |
| | SocialSecurityNumber | UN_NMB_SCL_SCTY | CHAR(9) | Employee/EmployeeSSN | |
| | EmployeeStatusCode | SC_EM | VARCHAR(20) | Employee/StatusCode | |
| | WorkGroupID | ID_GP_WRK | INTEGER | Employee/EmployeeAccess/WorkGroupID | |
| | EmployeeLocale | LCL | VARCHAR(10) | Employee/Locale | |
| NumberOfDaysValidForTempEmployees | NUMB_DYS_VLD | INTEGER | Employee/NumberDaysValid | Only applies to temporary employees. | |

Table C-3 (Cont.) Employee Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|---|--------------------------------|----------------------|--------------|---|---|
| | ExpirationTimeForTempEmployees | DC_EXP_TMP | DATE | Employee/TempEmployee/ExpirationDate | Only applies to temporary employees. |
| | EmployeeType | TYPE_EMP | INTEGER | Employee/EmployeeType | 0 means Standard employee. 1 means Temporary employee. |
| | EmployeeStoreAssignment | ID_STR_RT | VARCHAR(5) | Employee/EmployeeStoreOrHierarchyAssn/EmployeeStoreID | |
| | NewPasswordRequiredFlag | FL_PW_NW_REQ | CHAR(1) | Employee/EmployeeAccess/NewPasswordRequired | |
| | PasswordCreatedDate | TS_CRT_PW | TIMESTAMP | Employee/EmployeeAccess/PasswordCreationDate | If date is not specified, a new date is used. |
| | NumberOfFailedPasswords | NUMB_FLD_PW | INTEGER | 0 | No failed passwords inserted as it is calculated by each application. |
| Employee Password History MA_HST_PW_EM | EmployeeID | ID_EM | VARCHAR(10) | Employee/EmployeeID | |
| | PasswordCreatedDate | TS_CRT_PW | TIMESTAMP | Employee/EmployeeAccess/PasswordHistoryEntry/PasswordCreationDate | If date is not specified, a new date is used. |
| | EmployeeAccessPassword | PW_ACS_EM | VARCHAR(250) | Employee/EmployeeAccess/PasswordHistoryEntry/AccessPassword | |
| Employee Hierarchy Association EMPLOYEE_HIERARCHY_ASSN | LoginID | ID_LOGIN | VARCHAR(120) | Employee/EmployeeAccess/EmployeeLoginID | |

Table C-3 (Cont.) Employee Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|------------|----------------------|-------------|--|-------|
| | FunctionID | ID_STRGP_FNC | INTEGER | Employee/EmployeeStoreOrHierarchyAssn/EmployeeHierarchyAssn/StoreGroupFunctionID | |
| | GroupID | ID | VARCHAR(10) | Employee/EmployeeStoreOrHierarchyAssn/EmployeeHierarchyAssn/NodeID | |
| | GroupType | TYPE | VARCHAR(10) | Employee/EmployeeStoreOrHierarchyAssn/EmployeeHierarchyAssn/NodeType | |

Example C-5 EmployeeImport.xsd

```

<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
  elementFormDefault="qualified">

  <xs:annotation><xs:documentation>
    Employee Import Schema. Copyright 2006 Oracle. All rights reserved.
  </xs:documentation></xs:annotation>

  <xs:include schemaLocation="../common.xsd"></xs:include>
  <xs:element name="EmployeeImport" type="EmployeeImport_type">
  <xs:annotation><xs:documentation>
    Top-level element holding a collection of Employee elements.
  </xs:documentation></xs:annotation>
  </xs:element>

  <xs:complexType name="EmployeeImport_type">
  <xs:sequence>
  <xs:element name="Employee" type="Employee_type" minOccurs="1"
    maxOccurs="unbounded" />
  </xs:sequence>
  <xs:attribute name="FillType" type="FillType_type" use="required"/>
  <xs:attribute name="CreationDate" type="xs:dateTime"/>
  <xs:attribute name="ExpirationDate" type="xs:dateTime"/>
  <xs:attribute name="Version" type="xs:string"/>
  <xs:attribute name="Priority" type="xs:int"/>
  <xs:attribute name="Batch" type="xs:int"/>
  </xs:complexType>

  <xs:complexType name="Employee_type">
  <xs:annotation><xs:documentation>
    Represents a single employee's information.
  </xs:documentation></xs:annotation>
  <xs:sequence>
  <xs:element name="ChangeType" type="ChangeType_type" default="ADD" minOccurs="1"
    maxOccurs="1" />
  <xs:element name="EmployeeID" type="EmployeeID_type" minOccurs="1" maxOccurs="1"
    />
  </xs:sequence>

```

```

<xs:element name="EmployeeFirstName" type="xs:string" minOccurs="0" maxOccurs="1"
/>
<xs:element name="EmployeeLastName" type="xs:string" minOccurs="0" maxOccurs="1"
/>
<xs:element name="EmployeeMiddleName" type="xs:string" minOccurs="0" maxOccurs="1"
/>
<xs:element name="EmployeeFullName" type="xs:string" minOccurs="0" maxOccurs="1"
/>
<xs:element name="EmployeeSSN" type="SSN_type" minOccurs="0" maxOccurs="1" />
<xs:element name="EmployeeRole" type="xs:string" minOccurs="0" maxOccurs="1" />
<xs:element name="PartyID" type="xs:int" minOccurs="0" maxOccurs="1" />
<xs:element name="StatusCode" type="StatusCode_type" minOccurs="0" maxOccurs="1"
/>
<xs:element name="Locale" type="ID_type" minOccurs="0" maxOccurs="1" />
<xs:element name="EmployeeAccess" type="EmployeeAccess_type" minOccurs="0"
maxOccurs="1" />
<xs:element name="EmployeeType" type="StatusCode_type">
<xs:annotation><xs:documentation>
0 means 'Standard' employee, 1 means Temporary employee
</xs:documentation></xs:annotation>
</xs:element>
<xs:element name="NumberDaysValid" type="xs:int" minOccurs="0" maxOccurs="1">
<xs:annotation><xs:documentation>
Only applies to temporary employee
</xs:documentation></xs:annotation>
</xs:element>
<xs:element name="TempEmployeeExpirationDate" type="xs:date" minOccurs="0"
maxOccurs="1">
<xs:annotation><xs:documentation>
Only applies to temporary employee
</xs:documentation></xs:annotation>
</xs:element>
<xs:element name="EmployeeStoreOrHierarchyAssn"
type="EmployeeStoreOrHierarchyAssn_type" minOccurs="0" maxOccurs="unbounded" />
</xs:sequence>
</xs:complexType>

<xs:simpleType name="EmployeeID_type">
<xs:restriction base="xs:string">
<xs:maxLength value="10" />
</xs:restriction>
</xs:simpleType>

<xs:simpleType name="SSN_type">
<xs:restriction base="xs:string">
<xs:maxLength value="9" />
</xs:restriction>
</xs:simpleType>

<xs:simpleType name="StatusCode_type">
<xs:restriction base="xs:string">
<xs:enumeration value="0" />
<xs:enumeration value="1" />
</xs:restriction>
</xs:simpleType>

<xs:complexType name="EmployeeAccess_type">
<xs:annotation><xs:documentation>
Holds all information regarding access to the system.
</xs:documentation></xs:annotation>

```



```

<xs:sequence>
  <xs:element name="EmployeeLoginID" type="xs:string" />
  <xs:element name="AccessPassword" type="xs:string" />
  <xs:element name="WorkGroupID" type="xs:int" />
  <xs:element name="EmployeeAltID" type="xs:string" minOccurs="0" maxOccurs="1" />
  <xs:element name="NewPasswordRequired" type="xs:boolean" />
  <xs:element name="PasswordCreationDate" type="xs:dateTime" />
  <xs:element name="PasswordHistory" type="PasswordHistory_type" minOccurs="0"
maxOccurs="1">
</xs:element>
</xs:sequence>
</xs:complexType>

<xs:complexType name="PasswordHistory_type">
  <xs:sequence>
    <xs:element name="PasswordHistoryEntry" type="PasswordHistoryEntry_type"
minOccurs="1" maxOccurs="unbounded" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="PasswordHistoryEntry_type">
  <xs:annotation><xs:documentation>
  Holds a single password history entry.
  </xs:documentation></xs:annotation>
  <xs:sequence>
    <xs:element name="PasswordCreationDate" type="xs:dateTime" />
    <xs:element name="AccessPassword" type="xs:string" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="EmployeeStoreOrHierarchyAssn_type">
  <xs:annotation><xs:documentation>
  Holds an employee association to a store and/or a hierarchy node. Generally, only
  one of the
  enclosed elements is provided; however, there may be cases where an employee needs
  both a store
  association and a hierarchy association, so a sequence with optional elements is
  used instead of
  a choice.
  </xs:documentation></xs:annotation>
  <xs:sequence>
    <xs:element name="EmployeeStoreID" type="RetailStoreId_type" minOccurs="0"
maxOccurs="1" />
    <xs:element name="EmployeeHierarchyAssn" type="EmployeeHierarchyAssn_type"
minOccurs="0" maxOccurs="1" />
  </xs:sequence>
</xs:complexType>

<xs:complexType name="EmployeeHierarchyAssn_type">
  <xs:sequence>
    <xs:element name="NodeID" type="xs:string" minOccurs="1" maxOccurs="1" />
    <xs:element name="NodeType" type="xs:string" minOccurs="1" maxOccurs="1" />
    <xs:element name="StoreGroupFunctionID" type="xs:int" minOccurs="1" maxOccurs="1"
/>
  </xs:sequence>
</xs:complexType>

</xs:schema>

```

The following is an example Employee Import XML file.

Example C-6 EmployeeImport.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<EmployeeImport xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="EmployeeImport.xsd"
Priority="0"
FillType="FullIncremental"
Version="1.0"
Batch="1"
CreationDate="2001-12-17T09:30:47.0Z"
ExpirationDate="2027-12-17T09:30:47.0Z">

  <Employee>
    <ChangeType>DEL</ChangeType>
    <EmployeeID>20027</EmployeeID>
  </Employee>

  <Employee>
    <ChangeType>ADD</ChangeType>
    <EmployeeID>20027</EmployeeID>
    <EmployeeFirstName>Guest</EmployeeFirstName>
    <EmployeeLastName>User</EmployeeLastName>
    <EmployeeMiddleName>P</EmployeeMiddleName>
    <EmployeeFullName>Guest User</EmployeeFullName>
    <EmployeeSSN>172372777</EmployeeSSN>
    <EmployeeRole>Administrator</EmployeeRole>
    <PartyID>1</PartyID>
    <StatusCode>1</StatusCode>
    <Locale>en_US</Locale>
    <EmployeeAccess>
      <EmployeeLoginID>pos</EmployeeLoginID>

      <AccessPassword>cWD4aIA1E4/LyabIBB1J6+oMDSGhsdBj+DnzjVvr6Pk=</AccessPassword>
      <WorkGroupID>3</WorkGroupID>
      <EmployeeAltID>pos</EmployeeAltID>
      <NewPasswordRequired>true</NewPasswordRequired>
      <PasswordCreationDate>2001-12-31T12:00:00</PasswordCreationDate>
      <PasswordHistory>
        <PasswordHistoryEntry>
          <PasswordCreationDate>2001-12-31T12:00:00</PasswordCreationDate>

        </PasswordHistoryEntry>
      </PasswordHistory>
    </EmployeeAccess>
    <EmployeeType>0</EmployeeType>
    <EmployeeStoreOrHierarchyAssn>
      <EmployeeStoreID>04241</EmployeeStoreID>
      <EmployeeHierarchyAssn>
        <NodeID>04241</NodeID>
        <NodeType>store</NodeType>
        <StoreGroupFunctionID>1</StoreGroupFunctionID>
      </EmployeeHierarchyAssn>
    </EmployeeStoreOrHierarchyAssn>
  </Employee>
</EmployeeImport>
```

Item Import

Table C-4 identifies the PreloadData element mapping for the ItemImport.xsd file.

Table C-4 Item Import XSD PreloadData Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|----------------------------|-----------------------------------|----------------------|--------------|--|---|
| ItemColor CO_CLR | ColorCode | ED_CLR | VARCHAR(20) | PreloadData/Color@Code | |
| | ColorNames | NM_CLR | VARCHAR(120) | PreloadData/Color@Names | Contains a short list of names given to this color. |
| | Description | DE_CLR | VARCHAR(250) | PreloadData/Color@Description | |
| | RecordCreatedTimestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordLastModifiedTimestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| ItemColorI18N CO_CLR_I8 | ColorCode | ED_CLR | VARCHAR(20) | PreloadData/Color@Code | |
| | Locale | LCL | VARCHAR(10) | No mapping available | System Supported Locales |
| | LocalizedColor Name | NM_CLR | VARCHAR(120) | PreloadData/Color/LocalizedNameDescription@Name | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be $120/4 = 30$. |
| | LocalizedColor Description | DE_CLR | VARCHAR(250) | PreloadData/Color/LocalizedNameDescription@Description | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be $250/4 = 60$. |
| ItemSize CO_SZ | SizeCode | ED_SZ | VARCHAR(10) | PreloadData/Size@Code | |
| | ActualSize Proportion Description | DE_PRPTN_ACT_SZ | VARCHAR(250) | PreloadData/Size@ProportionDesc | |
| | ActualSize Type Description | DE_TYP_ACT_SZ | VARCHAR(250) | PreloadData/Size@TypeDesc | |
| | ActualSize Code | ED_SZ_ACT | VARCHAR(20) | PreloadSize/Size@ActualSizeCode | |
| | TableName | NM_TB_SZ | VARCHAR(120) | PreloadSize/Size@TableName | |
| | TableCode | ED_TB_SZ | VARCHAR(20) | PreloadSize/Size@TableCode | |
| | Table Description | DE_TB_SZ | VARCHAR(250) | PreloadSize/Size@TableDesc | |

Table C-4 (Cont.) Item Import XSD PreloadData Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|-----------------------------|--|----------------------|--------------|---|--|
| | RecordCreatedTimestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordLast Modified Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| ItemSizeI18N CO_SZ_I8 | SizeCode | ED_SZ | VARCHAR(10) | PreloadData/Size@Code | |
| | Locale | LCL | VARCHAR(10) | No mapping available | System Supported Locales |
| | LocalizedActual SizeProportion Description | DE_PRPTN_ACT_SZ | VARCHAR(250) | PreloadData/Size/LocalizedSizeData@ProportionDesc | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 250/4 = 60. |
| | LocalizedActual SizeTypeDescription | DE_TYP_ACT_SZ | VARCHAR(250) | PreloadData/Size/LocalizedSizeData@TypeDesc | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 250/4 = 60. |
| | LocalizedTableName | NM_TB_SZ | VARCHAR(120) | PreloadData/Size/LocalizedSizeData@TableName | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | LocalizedTable Description | DE_TB_SZ | VARCHAR(250) | PreloadData/Size/LocalizedSizeData@TableDesc | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 250/4 = 60. |
| ItemStyle CO_STYL | StyleCode | LU_STYL | VARCHAR(4) | PreloadData/Style@Code | |
| | StyleName | NM_STYL | VARCHAR(120) | PreloadData/Style@Name | Contains a short list of names given to this color. |
| | Description | DE_STYL | VARCHAR(250) | PreloadData/Style@Description | |
| | RecordCreatedTimestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordLast Modified Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| ItemStyleI18N CO_STYL_I8 | StyleCode | LU_STYL | VARCHAR(4) | PreloadData/Style@Code | |
| | Locale | LCL | VARCHAR(10) | No mapping available | System Supported Locales |

Table C-4 (Cont.) Item Import XSD PreloadData Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------------------|----------------------------|----------------------|--------------|--|--|
| | LocalizedStyle Name | NM_STYL | VARCHAR(120) | PreloadData/Style/LocalizedNameDescription@Name | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | LocalizedStyle Description | DE_STYL | VARCHAR(250) | PreloadData/Style/LocalizedNameDescription@Description | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 250/4 = 60. |
| UnitOf Measure CO_UOM | UnitOf MeasureCode | LU_UOM | VARCHAR(2) | PreloadData/UOM@Code | |
| | UnitOf MeasureTypeCode | TY_UOM | VARCHAR(2) | PreloadData/UOM@TypeCode | |
| | EnglishMetricFlag | FL_UOM_ENG_MC | CHAR(1) | PreloadData/UOM@System | "Metric" = 1 |
| | Name | NM_UOM | VARCHAR(120) | PreloadData/UOM@Name | |
| | Description | DE_UOM | VARCHAR(250) | PreloadData/UOM@Description | |
| | DefaultUnitOf MeasureFlag | FL_DFLT_UOM | CHAR(1) | PreloadData/UOM@IsDefault | |
| | DefaultEntry Code | FL_CD_ENT_DFLT | CHAR(1) | PreloadData/UOM@DefaultEntryCode | |
| | EnabledFlag | FL_CD_ENT_ENAB | CHAR(1) | PreloadData/UOM@Enabled | |
| | ListSortIndex | CD_ENT_SRT | SMALLINT | PreloadData/UOM@SortIndex | |
| UnitOfMeasureI18N CO_UOM_I8 | UnitOfMeasure Code | LU_UOM | VARCHAR(2) | PreloadData/UOM@Code | |
| | Locale | LCL | VARCHAR(10) | No mapping available | System Supported Locales |
| | UnitOfMeasure Name | NM_UOM | VARCHAR(120) | PreloadData/UOM/LocalizedNameDescription@Name | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | UnitOfMeasure Description | DE_UOM | VARCHAR(250) | PreloadData/UOM/LocalizedNameDescription@Description | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 250/4 = 60. |

Table C-4 (Cont.) Item Import XSD PreloadData Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--|--|----------------------|-------------------------|---|--|
| Manufacturer PA_MF | ManufacturerID | ID_MF | VARCHAR(22) | PreloadData/Manufacturer@ID | |
| | Name | NM_MF | VARCHAR(120) | PreloadData/Manufacturer@Name | |
| | PartyID | ID_PRTY | Null value to be stored | | |
| | RecordCreatedTimestamp | TS_CRT_RCRD | TIMESTAMP | | |
| | RecordLastModifiedTimestamp | TS_MDF_RCRD | TIMESTAMP | | |
| Manufacturer18N PA_MF_I8 | ManufacturerID | ID_MF | VARCHAR(22) | PreloadData/Manufacturer@ID | |
| | Locale | LCL | VARCHAR(10) | No mapping available | System Supported Locales |
| | LocalizedName | NM_MF | VARCHAR(120) | PreloadData/Manufacturer/LocalizedName@Name | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| Merchandise Classification Code LU_CD_STRC_MR | Merchandise Classification Code | ID_STRC_MR_CD | VARCHAR(10) | PreloadData/Merchandise Classification@Code | |
| | Merchandise Classification Code Description | DE_STRC_MR_CD | VARCHAR(250) | PreloadData/Merchandise Classification@Description | |
| | RecordCreatedTimestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordLast Modified Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| | Merchandise Classification Code | ID_STRC_MR_CD | VARCHAR(10) | PreloadData/Merchandise Classification@Code | |
| Merchandise Classification Code18N LU_CD_STRC_MR_I8 | Locale | LCL | VARCHAR(10) | No mapping available | System Supported Locales |
| | LocalizedMerchandise Classification Code Description | DE_UOM | VARCHAR(250) | PreloadData/Merchandise Classification/LocalizedDescription@Description | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 250/4 = 60. |

Table C-4 (Cont.) Item Import XSD PreloadData Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|------------------------------|------------------------------------|----------------------|--------------|---|--|
| Supplier PA_SPR | Supplier | ID_SPR | VARCHAR(20) | PreloadData/Supplier@ID | |
| | DUNSNumber | DU_SPR | VARCHAR(9) | PreloadData/Supplier@DUNSNumber | |
| | Name | NM_SPR | VARCHAR(120) | PreloadData/Supplier@Name | |
| | SupplierIs Manufacturer Flag | FL_MF_SPR_ IS | CHAR(1) | PreloadData/Supplier@IsManufacturer | |
| | PartyRoleTypeC ode | TY_RO_PRTY | VARCHAR(20) | No Mapping Found | Null value is entered. Column is not used in database. |
| | PartyID | ID_PRTY | INTEGER | No Mapping Found | Null value is entered. Column is used in database. |
| SupplierI18N PA_SPR_I8 | Supplier | LU_UOM | VARCHAR(20) | PreloadData/Supplier@ID | |
| | Locale | LCL | VARCHAR(10) | No mapping available | System Supported Locales |
| | LocalizedName | NM_SPR | VARCHAR(120) | PreloadData/Supplier/LocalizedName@Name | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| DO_MSG | Message ID | ID_MSG | INTEGER | PreloadData/Message@ID | Maximum field size for INTEGER is typically NUMBER(10) to support Java INT datatype in application. |
| ItemMessageI18N DO_MSG_I8 | Message ID | ID_MSG | INTEGER | PreloadData/Message@ID | |
| | Locale | LCL | VARCHAR(10) | PreloadData/Message/MsgText@Language | |
| | MessageDisplay Name | NM_MSG_ DPLY | VARCHAR(120) | PreloadData/Message/MsgText@Name | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | MessageDisplay Text | NA_MSG_ DPLY | CLOB | PreloadData/Message/MsgText | |

Table C-5 identifies the item element mapping for the ItemImport.xsd file.

Table C-5 Item Import XSD Item Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|---------------------------------|----------------------|--------------|---|---|
| Item | ItemID | ID_ITM | VARCHAR(14) | Item @ID | |
| AS_ITM | ItemProductID | ID_ITM_PDT | VARCHAR(14) | No Mapping | |
| | DiscountFlag | FL_ITM_DSC | CHAR(1) | Item @Discountable | true = 1 , false= 0 |
| | Damage DiscountFlag | FL_ITM_DSC_DMG | CHAR(1) | Item @Damage Discountable | true = 1 , false= 0 |
| | ItemSize RequiredFlag | FL_ITM_SZ_REQ | CHAR(1) | Item @SizeRequired | true = 1 , false= 0 |
| | POS DepartmentID | ID_DPT_POS | VARCHAR(14) | Item @POS DepartmentID | |
| | AuthorizedForSaleFlag | FL_AZN_FR_SLS | CHAR(1) | Item @Authorized ForSale | true = 1 , false= 0 |
| | TaxExempt Code | LU_EXM_TX | VARCHAR(20) | Item @Taxable | true = 1 , false= 0 |
| | Description | DE_ITM | VARCHAR(250) | Item/Description | |
| | Abbreviated Description | DE_ITM_SHRT | VARCHAR(120) | Item/ShortName | Based on the default locale. The ShortName specific to the locale is inserted into the column. When application is i81N aware, locale-specific data is inserted into the locale table. |
| | TypeCode | TY_ITM | VARCHAR(20) | Item @Type | Stock=STCK Service=SRVC Coupon=SCPN |
| | KitSetCode | LU_KT_ST | VARCHAR(20) | Item @KitSetCode | 0 (Default Value) means item is not part of a kit. 1 means it is a kit and this item is the header of the kit. 2 means this item is one of the component of the kit. |
| | Merchandise StructureID | ID_STRC_MR | INTEGER | Item/Merchandise Hierarchy @StructureID | Notes: Some question as to whether we are actually using this. |
| | Merchandise Hierarchy LevelCode | LU_HRC_MR_LV | VARCHAR(4) | Item/Merchandise Hierarchy @Level | |
| | Merchandise HierarchyID | ID_MRHRC_GP | VARCHAR(14) | Item/Merchandise Hierarchy | |

Table C-5 (Cont.) Item Import XSD Item Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|-----------------------------------|----------------------|--------------|--|---|
| | TaxGroupID | ID_GP_TX | INTEGER | <ul style="list-style-type: none"> • RetailStoreItem@VatCode • RetailStoreItem@TaxGroup • Item@TaxGroup | If the vatcode or the taxgroup attributes are given in the retailstoreitem tag the corresponding value only will be inserted in the ID_GP_TX column. If both of the vatcode and taxgroup attributes are not provided, the Item@taxgroup attribute is considered; otherwise it is ignored. |
| | Activation RequiredFlag | FL_ACTVN_RQ | CHAR(1) | Item@ActivationRequired | true = 1, false= 0 |
| | Registry EligibleFlag | FL_ITM_RGSTRY | CHAR(1) | Item@RegistryEligible | true = 1, false= 0 |
| | Merchandise Classification Code00 | ID_STRC_MR_CD0 | VARCHAR(10) | Item@Classification1 | |
| | Merchandise Classification Code01 | ID_STRC_MR_CD1 | VARCHAR(10) | Item@Classification2 | |
| | Merchandise Classification Code02 | ID_STRC_MR_CD2 | VARCHAR(10) | Item@Classification3 | |
| | Merchandise Classification Code03 | ID_STRC_MR_CD3 | VARCHAR(10) | Item@Classification4 | |
| | Merchandise Classification Code04 | ID_STRC_MR_CD4 | VARCHAR(10) | Item@Classification5 | |
| | Merchandise Classification Code05 | ID_STRC_MR_CD5 | VARCHAR(10) | Item@Classification6 | |
| | Merchandise Classification Code06 | ID_STRC_MR_CD6 | VARCHAR(10) | Item@Classification7 | |
| | Merchandise Classification Code07 | ID_STRC_MR_CD7 | VARCHAR(10) | Item@Classification8 | |
| | Merchandise Classification Code08 | ID_STRC_MR_CD8 | VARCHAR(10) | Item@Classification9 | |
| | Merchandise Classification Code09 | ID_STRC_MR_CD9 | VARCHAR(10) | Item@Classification10 | |
| | PriceAudit Flag | FL_ADT_ITM_PRC | CHAR(1) | No Mapping | Null value to be entered. |
| | UsageCode | LU_ITM_USG | VARCHAR(20) | No Mapping | Null value to be entered. |
| | Name | NM_ITM | VARCHAR(120) | No Mapping | Null value to be entered. |
| | Substitute IdentifiedFlag | FL_ITM_SBST_IDN | CHAR(1) | No Mapping | Default value of 0. |

Table C-5 (Cont.) Item Import XSD Item Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|-------------------------|---------------------------------|----------------------|--------------|--|--|
| | Order Collection Code | LU_CLN_ORD | VARCHAR(20) | No Mapping | Null value to be entered. |
| | PriceLineID | ID_LN_PRC | INTEGER | No Mapping | Null value to be entered. |
| | BrandName | NM_BRN | VARCHAR(120) | No Mapping | Null value to be entered. |
| | SeasonCode | LU_SN | VARCHAR(20) | No Mapping | Null value to be entered. |
| | FiscalYear | FY | VARCHAR(4) | No Mapping | Null value to be entered. |
| | Subseason Code | LU_SBSN | VARCHAR(20) | No Mapping | Null value to be entered. |
| | RecordCreatedTimestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordLast Modified Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| | ManufacturerID | ID_MF | INTEGER | | |
| ItemI18N AS_ITM_I8 | ItemID | ID_ITM | VARCHAR(14) | Item@ID | |
| | Locale | LCL | VARCHAR(10) | No mapping available | System SupportedLocale |
| | Description | DE_ITM | VARCHAR(250) | Item/LocalizedName Description@Description | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 250/4 = 60. |
| | ItemName | NM_ITM | VARCHAR(120) | No mapping available | |
| | AbbreviatedDescription | DE_ITM_SHRT | VARCHAR(120) | Item/LocalizedName Description@Name | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | BrandName | NM_BRN | VARCHAR(120) | No mapping available | |
| StockItem AS_ITM_STK | ItemID | ID_ITM | VARCHAR(14) | Item @ID | |
| | StockItemSaleUnitOf MeasureCode | LU_UOM_SLS | VARCHAR(20) | Item @UOMCode | Default to UN for units is not specified. |
| | ColorCode | ED_CLR | VARCHAR(20) | Item @Color | |
| | SizeCode | ED_SZ | VARCHAR(10) | Item @Size | |
| | StyleCode | LU_STYL | VARCHAR(4) | Item @Style | |
| | SupplierID | ID_SPR | VARCHAR(20) | Item/RetailStoreItem /POIdentity @SupplierID | |

Table C-5 (Cont.) Item Import XSD Item Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|---|----------------------|--------------|----------------------------|--------------------|
| | PackItem WeightCount | QW_ITM_PCK | DECIMAL(9,2) | Item @PackItemWeightCount | |
| | SerializedItemValidationFlag | FL_VLD_SRZ_ITM | CHAR(1) | Item @SerializedItem | true = 1, false= 0 |
| | RestockingFeeFlag | FL_FE_RSTK | CHAR(1) | Item @RestockingFee | true = 1, false= 0 |
| | Record Creation Timestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordLast Modified Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | No mapping available | |
| | ShelfItemConsumerPackageHeight | QL_HT_PCKG_CNS | DECIMAL(9,2) | No mapping available | |
| | SerializedItem ModelNumber | NM_NMB_SRZ_ITM_MDL | VARCHAR(40) | No mapping available | |
| | ShelfItemConsumerPackageWidth | QL_UOM_WD_PCKG_CNS | DECIMAL(9,2) | No mapping available | |
| | BulkToSellingUnitWasteTypeCode | TY_WST_BLK_SLS | VARCHAR(20) | No mapping available | |
| | SerializedItem ModelYear | CY_MDL_SRZ_ITM | VARCHAR(4) | No mapping available | |
| | ShelfItemsHeld CapacityCount | QU_CPC_HLD | DECIMAL(9,2) | No mapping available | |
| | UnitOfMeasure Code | LU_UOM | VARCHAR(2) | No mapping available | |
| | DisplayUnitType Code | TY_UN_DPLY | VARCHAR(20) | No mapping available | |
| | PackItemCubeCount | QU_CB_PCK_ITM | DECIMAL(9,2) | No mapping available | |
| | ShelfItemConsumerPackageDepth | QL_PCKG_CNS | DECIMAL(9,2) | No mapping available | |
| | SerializedItem ManufacturerColorDescription | DE_CLR_MF_SRZ_ITM | VARCHAR(250) | No mapping available | |
| | StockItemType Code | TY_ITM_STK | VARCHAR(20) | No mapping available | |
| | BulkToSellingUnitWasteFactorPercent | PE_WST_BLK_SLS | DECIMAL(5,2) | No mapping available | |

Table C-5 (Cont.) Item Import XSD Item Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|--|----------------------|--------------|----------------------------|-------|
| | ShelfItemConsumerPackageDimensionUnitOfMeasureCode | LU_UOM_PCKG_CNS_DMN | VARCHAR(20) | No mapping available | |
| | StockItemSaleUnitPrimaryMeasurementSystemCode | LU_SYS_PRMRY_MS | VARCHAR(20) | No mapping available | |
| | SerializedItemManufacturerSizeDescription | DE_SZ_MF_SRZ_ITM | VARCHAR(250) | No mapping available | |
| | PackItemUnitNumberCount | QU_UN_PCK_ITM | DECIMAL(9,2) | No mapping available | |
| | DisplayUnitSetUpDate | DC_UN_DPLY_ST_UP | DATE | No mapping available | |
| | SerializedItemManufacturerWarrantyDescriptionCode | LU_WRTY_MF_SRZ_ITM | VARCHAR(20) | No mapping available | |
| | ShelfItemConsumerPackageWeight | QW_WT_PCKG_CNS | DECIMAL(9,2) | No mapping available | |
| | DisplayUnitTakeDownDate | DC_UN_DPLY_TK_DWN | DATE | No mapping available | |
| | FabricDescription | DE_FBRC | VARCHAR(250) | No mapping available | |
| | DisplayUnitDispositionCode | DP_UN_DPLY | VARCHAR(20) | No mapping available | |
| | StockItemSaleWeightOrUnitCountCode | LU_CNT_SLS_WT_UN | VARCHAR(20) | No mapping available | |
| | SerializedItemStoreWarrantyDescriptionCode | LU_WRTY_STR_SRZ | VARCHAR(20) | No mapping available | |
| | ShelfItemConsumerPackageWeightUnitOfMeasureCode | LU_UOM_WT_PCKG_CNS | VARCHAR(20) | No mapping available | |
| | StockItemCustomerPickupTypeCode | TY_PKP_CT_STK_ITM | VARCHAR(20) | No mapping available | |
| | ShelfItemConsumerPackageSizeUnitOfMeasureCode | LU_UOM_SZ_PCKG_CNS | VARCHAR(20) | No mapping available | |
| | SilhouetteDescription | DE_SLH | VARCHAR(250) | No mapping available | |
| | StockItemUnitPriceFactor | FA_PRC_UN_STK_ITM | DECIMAL(9,2) | No mapping available | |

Table C-5 (Cont.) Item Import XSD Item Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|---|----------------------|--------------|----------------------------|-------|
| | ShelfItemDsdAuthorizedFlag | FL_DSD_AZN | CHAR(1) | No mapping available | |
| | StockItemShelfLifePeriodDayCount | DI_PRD_SH_LF | DECIMAL(3) | No mapping available | |
| | ShelfItemShelfLifeDayCount | DI_LF_SH | DECIMAL(3) | No mapping available | |
| | ShelfItemBreakerID | ID_BRKR | INTEGER | No mapping available | |
| | StockItemAvailableForSaleDate | DC_AVLB_FR_SLS | DATE | No mapping available | |
| | ShelfItemStaplePerishableTypeCode | TY_ITM_STPL_PRSH | VARCHAR(20) | No mapping available | |
| | StockItemEnvironmentTypeCode | TY_ENV_STK_ITM | VARCHAR(20) | No mapping available | |
| | ShelfItemAisleLocation | NM_LCN_ASL | VARCHAR(250) | No mapping available | |
| | StockItemSecurityRequiredTypeCode | TY_SCTY_RQ | VARCHAR(20) | No mapping available | |
| | ShelfItemShelfLocation | NM_LCN_SH | VARCHAR(250) | No mapping available | |
| | ShelfItemSideLocation | NM_LCN_SID | VARCHAR(250) | No mapping available | |
| | StockItemHazardousMaterialTypeCode | TY_MTR_HZ_STK_ITM | VARCHAR(20) | No mapping available | |
| | ShelfItemFacingCount | QU_FCG | DECIMAL(9,2) | No mapping available | |
| | StockItemSellUnitLastReceivedBaseCostAmount | CP_UN_SL_LS_RCV_BS | DECIMAL(7,3) | No mapping available | |
| | StockItemSellUnitLastReceivedNetCostAmount | CP_CST_NT_LS_RCV | DECIMAL(7,3) | No mapping available | |
| | StockItemSellUnitLandedCostAmount | CP_UN_SL_LND | DECIMAL(7,3) | No mapping available | |
| | StockItemSellUnitLastReceivedCostsEstablishedDate | DC_CST_EST_LS_RCV | DATE | No mapping available | |
| | StockItemShrinkFlag | FL_SHRK_SH_ITM | CHAR(1) | No mapping available | |
| | StockItemSwellFlag | FL_SWL_SH_ITM | CHAR(1) | No mapping available | |

Table C-5 (Cont.) Item Import XSD Item Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|-----------------------------------|------------------------------------|----------------------|--------------|---|--|
| | ShelfItemUnitPricingRequiredFlag | FL_RQ_UN_PRC | CHAR(1) | No mapping available | |
| | DispositionCodeID | ID_DPSN_CD | INTEGER | No mapping available | |
| | SerializedItemType | TY_SRZ_ITM | VARCHAR(40) | ItemImport/Item@UINTypeString | |
| | SerializedItemLabelID | ID_SRZ_ITM_LB | INTEGER | | |
| | SerialNumberCaptureTimeCode | CD_SRZ_CPT_TM | VARCHAR(20) | ItemImport/Item@UINCaptureTime | |
| | ExternalSerialNumberCreateFlag | FL_SRZ_CRT | CHAR(1) | ItemImport/Item@ExternalSystemCreateUIN | true = 1, false= 0 |
| RetailStoreItem AS_ITM_RTL_STR | RetailStoreID | ID_STR_RT | VARCHAR(5) | ItemImport/Item/RetailStoreItem/RetailStoreID | This value can be different from the bundle's metadata, that is, the bundle file name or manifest.mf property. |
| | ItemID | ID_ITM | VARCHAR(14) | Item @ID | |
| | TaxGroupID | ID_GP_TX | INTEGER | Item/RetailStoreItem@TaxGroup Item/RetailStoreItem@VatCode | If VatCode is not provided, then only ID_GP_TX will be filled with the value of the taxgroup attribute. The VatCode will be the VAT Code Name. VatCode will have to be translated from some String (xs:string) to an Integer. The VatCode should match a name specified in RU_TX_GP.NM_RU_TX. The ID_GP_TX of the name will be the ID used to insert into AS_ITM_RTL_STR.ID_GP_TAX for the incoming VatCode. |
| | PermanentSaleUnitRetailPriceAmount | RP_PR_SLS | DECIMAL(8,2) | Item/RetailStoreItem/RegularPrice@PermanentPrice | |
| | CompareAtSaleUnitRetailPriceAmount | RP_PRC_CMPR_AT_SLS | DECIMAL(8,2) | Item/RetailStoreItem/RegularPrice@CompareAtPrice | |
| | SalesAgeRestrictionIdentifier | IDN_SLS_AG_RST | INTEGER | Item/RetailStoreItem@AgeRestrictionID | |
| | LabelTemplateID | ID_TMPLT_LB | VARCHAR(8) | Item/RetailStoreItem@TemplateID | |
| | RecordCreationTimestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |

Table C-5 (Cont.) Item Import XSD Item Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|----------------------|---|----------------------|--------------|---|--|
| | RecordLast Modified Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| | UpdateStockOnHandFlag | FL_STK_UPT_ON_HD | CHAR(1) | No mapping available | |
| | SellingStatusCodeEffectiveDate | DC_ITM_SLS | DATE | No mapping available | |
| | SellingStatusCode | SC_ITM_SLS | VARCHAR(2) | No mapping available | |
| | ManufacturerSaleUnitRecommendedRetailPriceEffectiveDate | DC_PRC_MF_REC_RT | DATE | No mapping available | |
| | ManufacturerSaleUnitRecommendedRetailPriceAmount | RP_PRC_MF_REC_RT | DECIMAL(8,2) | No mapping available | |
| | CurrentSaleUnitRetailPriceExpirationDate | DC_PRC_SLS_EP_CRT | DATE | No mapping available | |
| | CurrentSaleUnitRetailPriceEffectiveDate | DC_PRC_SLS_EF_CRT | DATE | No mapping available | |
| | CurrentSaleUnitRetailPricePointAllowedFlag | FL_PRC_RT_PNT_ALW | CHAR(1) | No mapping available | |
| | CurrentSaleUnitRetailPriceTypeCode | TY_PRC_RT | VARCHAR(2) | No mapping available | |
| | CurrentSaleUnitRetailPriceAmount | RP_SLS_CRT | DECIMAL(8,2) | No mapping available | |
| | PermanentRetailPriceEffectiveDate | DC_PRC_EF_PRN_RT | DATE | No mapping available | |
| | PermanentRetailPricePermanentMarkdownCount | QU_MKD_PRC_PR | DECIMAL(7,3) | No mapping available | |
| | PermanentSaleUnitRetailPriceOriginalMarkdownFlag | FL_MKD_ORGL_PRC_PR | CHAR(1) | No mapping available | |
| | StatusCode | SC_ITM | VARCHAR(2) | No mapping available | |
| POIdentity ID_IDN_PS | RetailStoreID | ID_STR_RT | VARCHAR(5) | ItemImport/Item/RetailStoreItem/RetailStoreID | This value can be different from the bundle's metadata, that is, the bundle file name or manifest.mf property. |

Table C-5 (Cont.) Item Import XSD Item Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|---|----------------------------|--------------|---|-------------------------------------|
| | POSItemID | ID_ITM_POS | VARCHAR(14) | ItemImport/Item/RetailStoreItem/POSIdentity@POSItemID | |
| | ItemID | ID_ITM | VARCHAR(14) | ItemImport/Item@ID | |
| | ItemDescription | DE_ITM_POS | VARCHAR(250) | No mapping available | |
| | CurrentSaleUnit POSRetailPrice Amount | RP_SLS_POS_ CRT | DECIMAL(8,2) | No mapping available | |
| | FrequentShopperPointsEligibleFlag | FL_PNT_FQ_ SHPR_EL | CHAR(1) | No mapping available | |
| | ManufacturerID | ID_MF | INTEGER | ItemImport/Item/RetailStoreItem/POSIdentity@ManufacturerID | |
| | ManufacturerUPC | ID_ITM_MF_ UPC | VARCHAR(14) | ItemImport/Item/RetailStoreItem/POSIdentity@UPC | |
| | ReturnAgentID | ID_AGNT_ RTN | INTEGER | No mapping available | |
| | CustomerAffiliationDiscountAllowedFlag | FL_DSC_AF_ DSC_ALW | CHAR(1) | No mapping available | |
| | CouponValueCode | LU_VT_PS_ CPN | CHAR(2) | No mapping available | |
| | CouponEndOfferDate | DT_END_PS_ CPN_OFR | VARCHAR(4) | No mapping available | |
| | MinimumSaleUnitCount | QU_UN_BLK_ MNM | DECIMAL(5,2) | ItemImport/Item/RetailStoreItemImport/Item/POSIdentity@MinimumSaleUnitCount | |
| | MaximumSaleUnitCount | QU_UN_BLK_ MXM | DECIMAL(5,2) | ItemImport/Item/RetailStoreItemImport/Item/POSIdentity@MaximumSaleUnitCount | |
| | MarketBasketDiscountAllowedFlag | FL_DSC_ MRK_BSK_ ALW | CHAR(1) | No mapping available | |
| | CustomerAccountDiscountAllowedFlag | FL_DSC_CT_ ACNT_ALW | CHAR(1) | No mapping available | |
| | EmployeeDiscountAllowedFlag | FL_DSC_EM_ ALW | CHAR(1) | ItemImport/Item/RetailStoreItem/POSIdentity@EmployeeDiscountAllowed | true = 1 false = 0 |

Table C-5 (Cont.) Item Import XSD Item Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|----------------------------|----------------------|--------------|---|--|
| | AllowCouponMultiplyFlag | FL_CPN_ALW_MULTY | CHAR(1) | ItemImport/Item/RetailStoreItemImport/Item/POSIdentity@AllowCouponMultiply | true = 1 false= 0 |
| | AllowFoodStampFlag | FL_FD_STP_ALW | CHAR(1) | No mapping available | |
| | ElectronicCouponFlag | FL_CPN_ELNTC | CHAR(1) | ItemImport/Item/RetailStoreItemImport/Item/POSIdentity@ElectronicCoupon | true = 1 false= 0 |
| | CouponRestrictedFlag | FL_CPN_RST | CHAR(1) | ItemImport/Item/RetailStoreItemImport/Item/POSIdentity@CouponRestricted | true = 1 false= 0 |
| | PriceEntryRequiredFlag | FL_ENTR_PRC_RQ | CHAR(1) | ItemImport/Item/RetailStoreItem/POSIdentity@PriceEntryRequired | true = 1 false= 0 |
| | WeightEntryRequiredFlag | FL_QR_ENR_WT | CHAR(1) | No mapping available | |
| | QuantityKeyProhibitFlag | FL_KY_PRH_QTY | CHAR(1) | ItemImport/Item/RetailStoreItem/POSIdentity@QuantityModifiable | QuantityModifiable will have values Optional , Required and Prohibited . For Optional and Required we have to set a value of 0 which means that Quantity modification is allowed. For Prohibited we set a value of 1 which means that quantity modification is not allowed. |
| | ProhibitReturnFlag | FL_RTN_PRH | CHAR(1) | ItemImport/Item/RetailStoreItemImport/Item/POSIdentity@Returnable | true = 1 false= 0 |
| | GiveawayFlag | FL_ITM_GWY | CHAR(1) | No mapping available | |
| | WICFlag | FL_ITM_WIC | CHAR(1) | No mapping available | |
| | VisualVerifyPriceFlag | FL_PRC_VS_VR | CHAR(1) | No mapping available | |
| | ProhibitRepeatKeyFlag | FL_KY_PRH_RPT | CHAR(1) | No mapping available | |
| | SpecialOrderEligibleFlag | FL_SPO_ITM | CHAR(1) | ItemImport/Item/RetailStoreItemImport/Item/POSIdentity@SpecialOrderEligible | true = 1 false= 0 |
| | FrequentShopperPointsCount | QU_PNT_FQ_SHPR | DECIMAL(9,2) | No mapping available | |

Table C-5 (Cont.) Item Import XSD Item Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|---|---------------------------------|----------------------|---------------|--|--|
| | ItemTenderRestrictionGroupCode | LU_GP_TND_RST | VARCHAR(20) | No mapping available | |
| | ManufacturerFamilyCode | FC_FMY_MF | VARCHAR(3) | No mapping available | |
| | PriceModifiable Flag | FL_MDFR_RT_PRC | CHAR(1) | ItemImport/Item/RetailStoreItemImport/Item/POSIdentity@PriceModifiable | true = 1 false = 0 |
| | PromotionID | ID_PRM | INTEGER | No mapping available | |
| | PromotionComponentID | ID_PRM_CMP | INTEGER | No mapping available | |
| | PromotionComponentDetailID | ID_PRM_CMP_DTL | INTEGER | No mapping available | |
| | RecordCreation Timestamp | TS_CRT_RCRD | TIMESTAMP | | Now() |
| | RecordLastModifiedTimestamp | TS_MDF_RCRD | TIMESTAMP | | Now() |
| SupplierItemCatalogBaseCostBreak CO_BRK_SPR_ITM_BS | SupplierID | ID_SPR | VARCHAR(20) | Item/RetailStoreItem/POSIdentity@SupplierID | Note that SupplierID is required for deleting items. |
| | SupplierItemID | ID_ITM_SPR | VARCHAR(20) | Item @ID | |
| | SupplierItemCostPerUnitTypeCode | TY_UN_CST | VARCHAR(3) | | SLU |
| | SupplierItemUnitBreakPointCount | QU_PNT_UND_BRK | DECIMAL(9,2) | | 0 |
| | CostPerUnitAmount | CP_PNT_BRK_BS_CST | DECIMAL(13,4) | Item @ItemCost | |
| | Record Creation Timestamp | TS_CRT_RCRD | TIMESTAMP | | Now() |
| | RecordLast Modified Timestamp | TS_MDF_RCRD | TIMESTAMP | | Now() |
| PermanentPrice Change TR_CHN_PRN_PRC | EventID | ID_EV | INTEGER | | |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | ItemImport/Item/RetailStoreItem/RetailStoreID | This value can be different from the bundle's metadata, that is, the bundle file name or manifest.mf property. |
| | SaleUnitAmount | MO_CHN_PRN_UN_PRC | DECIMAL(10,4) | Item/RetailStoreItem/RegularPrice | |

Table C-5 (Cont.) Item Import XSD Item Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--|-----------------------------|----------------------|--------------|---|---|
| | SaleUnitAmountTypeCode | TY_CHN_PRN_UN_PRC | VARCHAR(20) | | |
| | RecordCreatedTimestamp | TS_CRT_RCRD | TIMESTAMP | | |
| | RecordLastModifiedTimestamp | TS_CRT_RCRD | TIMESTAMP | | |
| ItemImage AS_ITM_IMG | ItemID | ID_ITM | VARCHAR(14) | Item@ID | |
| | ImageLocation | ITM_IMG_LOC | VARCHAR(200) | Item@ImageLocation | This location should be a valid URL to retrieve the item information. |
| | ImageFileName | ITM_DET_IMG | BLOB | Item@ImageFileName | This file name is specified in the XML if an image file is present in the bundle. |
| ItemMessageAssociation AS_ITM_ASCTN_MSG | ItemID | ID_ITM | VARCHAR(14) | Item@ID | |
| | MessageID | ID_MSG | INTEGER | Item/DisplayMessage/ItemMsgAscn@ID | |
| | UsageTransactionType | TY_TRN_USG | INTEGER | Item/DisplayMessage/ItemMsgAscn@TransactionType | Allowable values are "Sale"=21, "Return"=22 |
| | DisplayLocationType | TY_DPLY_LOC | INTEGER | Item/DisplayMessage/ItemMsgAscn@MessageType | Allowable values are "Screen"=1, "Receipt"=2, "Footer"=3, "Rebate"=4. |
| SerializedItemLabel AS_ITM_SRZ_LB | SerializedItemLabelID | ID_SRZ_ITM_LB | INTEGER | | This ID is generated by the system |
| | SerializedItemLabelName | NM_SRZ_ITM_LB | VARCHAR(120) | ItemImport/Item/UILabel@Name | |
| SerializedItemLabelI8 AS_ITM_SRZ_LB_I8 | SerializedItemLabelID | ID_SRZ_ITM_LB | INTEGER | | This ID is generated by the system |
| | Locale | LCL | VARCHAR(10) | ItemImport/Item/UILabel/LocalizedName@Language | |
| | SerializedItemLabelName | NM_SRZ_ITM_LB | VARCHAR(120) | ItemImport/Item/UILabel/LocalizedName@Name | |

The following is an example Item Import XSD file.

Example C-7 ItemImport.xsd

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
elementFormDefault="qualified">
  <xs:annotation><xs:documentation>
    Item Import Schema. Copyright 2007 Oracle Inc. All rights reserved.

    Use this schema in conjunction with a Oracle Store Systems Data Dictionary
    and the relations between the element and attribute names should be
    apparent.
  </xs:documentation> </xs:annotation>

  <xs:include schemaLocation="../common.xsd"></xs:include>
  <xs:element name="ItemImport">
    <xs:annotation><xs:documentation>
      Top-level element holding a collection of Item records.
    </xs:documentation></xs:annotation>
    <xs:complexType>
      <xs:sequence>
        <xs:element name="PreloadData" type="PreloadData_type"
minOccurs="0" maxOccurs="1"/>
        <xs:element name="Item" type="Item_type" minOccurs="0"
maxOccurs="unbounded"/>
      </xs:sequence>
      <xs:attribute name="FillType" type="FillType_type" use="required"/>
      <xs:attribute name="CreationDate" type="xs:dateTime"/>
      <xs:attribute name="ExpirationDate" type="xs:dateTime"/>
      <xs:attribute name="Version" type="xs:string"/>
      <xs:attribute name="Priority" type="xs:int"/>
      <xs:attribute name="Batch" type="xs:int"/>
    </xs:complexType>
  </xs:element>

  <xs:complexType name="PreloadData_type">
    <xs:sequence>
      <xs:element name="Color" type="Color_type" minOccurs="0"
maxOccurs="unbounded"/>
      <xs:element name="Size" type="Size_type" minOccurs="0"
maxOccurs="unbounded"/>
      <xs:element name="Style" type="Style_type" minOccurs="0"
maxOccurs="unbounded"/>
      <xs:element name="UOM" type="UOM_type" minOccurs="0"
maxOccurs="unbounded"/>
      <xs:element name="Manufacturer" type="Manufacturer_type" minOccurs="0"
maxOccurs="unbounded"/>
      <xs:element name="MerchandiseClassification"
type="MerchandiseClassification_type" minOccurs="0" maxOccurs="unbounded"/>
      <xs:element name="Supplier" type="Supplier_type" minOccurs="0"
maxOccurs="unbounded"/>
      <xs:element name="Message" type="DisplayMessage_type" minOccurs="0"
maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>

  <xs:complexType name="DisplayMessage_type">
    <xs:annotation>
      <xs:documentation>Multiple Item Level Messages based on the type of
```

```

Transaction</xs:documentation>
  </xs:annotation>
  <xs:sequence>
    <xs:element name="MsgText" type="LocalizedMessageDescription_type"
minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
  <xs:attribute name="ID" type="xs:int" use="required"/>
  <xs:attribute name="ChangeType" type="PreLoadChangeType_type"
default="UPS"/>
</xs:complexType>

<xs:complexType name="Color_type">
  <xs:sequence>
    <xs:annotation><xs:documentation>
      A list of names and descriptions in different locale to this
color.
      If attributes Name/Description are defined simultaneously with
LocalizedNameDescription, they will be ignored.
      The Names and Description attributes are deprecated for 13.1.
    </xs:documentation></xs:annotation>
    <xs:element name="LocalizedNameDescription"
type="LocalizedNameDescription_type" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
  <xs:attribute name="ChangeType" type="PreLoadChangeType_type"
default="UPS"/>
  <xs:attribute name="Code" type="Code_type" use="required"/>
  <xs:attribute name="Description" type="Description_type"/>
  <xs:attribute name="Names" type="Name_type"/>
</xs:complexType>

<xs:complexType name="Size_type">
  <xs:sequence>
    <xs:annotation><xs:documentation>
      A list of names and descriptions in different locale to this size.
      If attributes TableName, TableDesc, TypeDesc and ProportionDesc
are defined simultaneously with localizedSizeDescription, they
will be ignored.
      The TableName,TableDesc, TypeDesc and ProportionDesc are
deprecated for 13.1.
    </xs:documentation></xs:annotation>
    <xs:element name="LocalizedSizeData"
type="LocalizedItemSizeDescription_type" minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
  <xs:attribute name="ChangeType" type="PreLoadChangeType_type"
default="UPS"/>
  <xs:attribute name="Code" use="required">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:maxLength value="10"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="ProportionDesc" type="Description_type"/>
  <xs:attribute name="TypeDesc" type="Name_type"/>
  <xs:attribute name="ActualSizeCode">
    <xs:simpleType>
      <xs:annotation><xs:documentation>
        This simple code type is restricted to only accepted values
        from 1 to 20 digits long. See NRF Size code documents
      </xs:documentation></xs:annotation>

```

```

        <xs:restriction base="Code_type">
            <xs:pattern value="\d+"></xs:pattern>
        </xs:restriction>
    </xs:simpleType>
</xs:attribute>
<xs:attribute name="TableName" type="Name_type"/>
<xs:attribute name="TableCode">
    <xs:simpleType>
        <xs:annotation><xs:documentation>
            Use zero "0" for in-house size codes. See NRF Size code
            documents for valid size table values.
        </xs:documentation></xs:annotation>
        <xs:restriction base="xs:string">
            <xs:length value="1"></xs:length>
            <xs:pattern value="\d"></xs:pattern>
        </xs:restriction>
    </xs:simpleType>
</xs:attribute>
<xs:attribute name="TableDesc" type="Description_type"/>
</xs:complexType>

<xs:complexType name="Style_type">
    <xs:annotation><xs:documentation>
        A list of names and descriptions in different locale to this style.
        If attributes Name/Description are defined simultaneously with
        LocalizedNameDescription, they will be ignored.
        The TableName,TableDesc, TypeDesc and ProportionDesc are deprecated
for 13.1.
    </xs:documentation></xs:annotation>
    <xs:sequence>
        <xs:element name="LocalizedNameDescription"
type="LocalizedNameDescription_type" minOccurs="0" maxOccurs="unbounded"/>
    </xs:sequence>
    <xs:attribute name="ChangeType" type="PreLoadChangeType_type"
default="UPS"/>
    <xs:attribute name="Code" use="required">
        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:maxLength value="4"/>
            </xs:restriction>
        </xs:simpleType>
    </xs:attribute>
    <xs:attribute name="Name" type="Name_type"/>
    <xs:attribute name="Description" type="Description_type"/>
</xs:complexType>

<xs:complexType name="UOM_type">
    <xs:sequence>
        <xs:annotation><xs:documentation>
            A list of names and descriptions in different locale to this uom.
            If attributes Name/Description are defined simultaneously with
            LocalizedNameDescription, they will be ignored.
            The Names and Description attributes are deprecated for 13.1.
        </xs:documentation></xs:annotation>
        <xs:element name="LocalizedNameDescription"
type="LocalizedNameDescription_type" minOccurs="0" maxOccurs="unbounded"/>
    </xs:sequence>
    <xs:attribute name="ChangeType" type="PreLoadChangeType_type"
default="UPS"/>
    <xs:attribute name="Code" use="required">

```

```

        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:maxLength value="2"/>
            </xs:restriction>
        </xs:simpleType>
    </xs:attribute>
    <xs:attribute name="TypeCode">
        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:maxLength value="2"/>
            </xs:restriction>
        </xs:simpleType>
    </xs:attribute>
    <xs:attribute name="System">
        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:enumeration value="Standard"/>
                <xs:enumeration value="Metric"/>
                <!-- xs:enumeration value="Imperial"/ -->
            </xs:restriction>
        </xs:simpleType>
    </xs:attribute>
    <xs:attribute name="Name" type="Name_type"/>
    <xs:attribute name="Description" type="Description_type"/>
    <xs:attribute name="IsDefault" type="xs:boolean" default="false"/>
    <xs:attribute name="DefaultEntryCode" type="xs:boolean" default="false"/>
    <xs:attribute name="Enabled" type="xs:boolean" default="true"/>
    <xs:attribute name="SortIndex" type="xs:int" use="required"/>
</xs:complexType>

<xs:complexType name="Manufacturer_type">
    <xs:sequence>
        <xs:annotation><xs:documentation>
            A list of localized names defined here. The Description attribute
            is not used.
            The Names attribute is deprecated for 13.1.
        </xs:documentation></xs:annotation>
        <xs:element name="LocalizedName" type="LocalizedNameDescription_type"
            minOccurs="0" maxOccurs="unbounded"/>
    </xs:sequence>
    <xs:attribute name="ChangeType" type="PreLoadChangeType_type"
        default="UPS"/>
    <xs:attribute name="ID" type="Code_type" use="required"/>
    <xs:attribute name="Name" type="Name_type"/>
</xs:complexType>

<xs:complexType name="MerchandiseClassification_type">
    <xs:sequence>
        <xs:annotation><xs:documentation>
            A list of localized descriptions defined here. The Name attribute
            is not used.
            The Description attribute is deprecated for 13.1.
        </xs:documentation></xs:annotation>
        <xs:element name="LocalizedDescription"
            type="LocalizedNameDescription_type" minOccurs="0" maxOccurs="unbounded"/>
    </xs:sequence>
    <xs:attribute name="ChangeType" type="PreLoadChangeType_type"
        default="UPS"/>
    <xs:attribute name="Code" type="Class_type" use="required"/>
    <xs:attribute name="Description" type="Description_type"/>

```

```

</xs:complexType>

<xs:complexType name="Supplier_type">
  <xs:sequence>
    <xs:annotation><xs:documentation>
      A list of localized names defined here. The Description attribute
is not used.
      The Name attribute is deprecated for 13.1.
    </xs:documentation></xs:annotation>
    <xs:element name="LocalizedName" type="LocalizedNameDescription_type"
minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
  <xs:attribute name="ChangeType" type="PreLoadChangeType_type"
default="UPS"/>
  <xs:attribute name="ID" type="Code_type" use="required"/>
  <xs:attribute name="DUNSNumber">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:maxLength value="9"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="Name" type="Name_type"/>
  <xs:attribute name="IsManufacturer" type="xs:boolean" default="false"/>
</xs:complexType>

<xs:complexType name="UINLabel_type">
  <xs:annotation><xs:documentation>
    A list of Unique Identifier labels.
  </xs:documentation></xs:annotation>
  <xs:sequence>
    <xs:annotation><xs:documentation>
      A list of localized names defined here. The Description attribute
is not used.
      The Name attribute is deprecated for 13.1.
    </xs:documentation></xs:annotation>
    <xs:element name="LocalizedName" type="LocalizedNameDescription_type"
minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>
  <xs:attribute name="Name" type="Name_type"/>
</xs:complexType>

<xs:complexType name="Item_type">
  <xs:annotation><xs:documentation>
    Upper level item information. This element requires a child element
to specify which store it belongs to. This element can be repeated
if this item should belong to multiple stores. The
LocalizedNameDescription
elements may also be repeated with the intention that each
specifies a different language or country.
  </xs:documentation></xs:annotation>
  <xs:sequence>
    <xs:annotation><xs:documentation>
      This element holds localized ShortName and LongDescription.
      The ShortName and LongDescription elements are deprecated for 13.1
    </xs:documentation></xs:annotation>
    <xs:element name="ShortName" type="LocalizedName_type" minOccurs="0"
maxOccurs="unbounded"/>
    <xs:element name="LongDescription" type="LocalizedDescription_type"
minOccurs="0" maxOccurs="unbounded"/>
  </xs:sequence>

```



```

        <xs:element name="LocalizedNameDescription"
type="LocalizedNameDescription_type" minOccurs="0" maxOccurs="unbounded"/>
        <xs:element name="MerchandiseHierarchy" type="MerchandiseHierarchy_
type" minOccurs="0"/>
        <xs:element name="RetailStoreItem" type="RetailStoreItem_type"
maxOccurs="unbounded"/>
        <xs:element name="DisplayMessage" type="ItemLevelMessages_type"
minOccurs="0" maxOccurs="unbounded"/>
        <xs:element name="UINLabel" type="UINLabel_type" minOccurs="0"
maxOccurs="unbounded"/>
    </xs:sequence>
    <xs:attribute name="ChangeType" type="ChangeType_subtype" default="ADD"/>
    <xs:attribute name="ID" type="ID_type" use="required"/>
    <xs:attribute name="Type">
        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:enumeration value="Stock"/>
                <xs:enumeration value="Service"/>
                <xs:enumeration value="Coupon"/>
            </xs:restriction>
        </xs:simpleType>
    </xs:attribute>
    <xs:attribute name="POSDepartmentID" type="Class_type"/>
    <xs:attribute name="ItemCost" type="Amount_type"/>
    <xs:attribute name="KitSetCode" type="Code_type" default="0"/>
    <xs:attribute name="UOMCode" type="Code_type"/>
    <xs:attribute name="PackItemWeightCount" type="xs:decimal"/>
    <xs:attribute name="Size">
        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:maxLength value="10"/>
            </xs:restriction>
        </xs:simpleType>
    </xs:attribute>
    <xs:attribute name="Color" type="Code_type"/>
    <xs:attribute name="Style">
        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:maxLength value="4"/>
            </xs:restriction>
        </xs:simpleType>
    </xs:attribute>
    <xs:attribute name="Classification1" type="Class_type"/>
    <xs:attribute name="Classification2" type="Class_type"/>
    <xs:attribute name="Classification3" type="Class_type"/>
    <xs:attribute name="Classification4" type="Class_type"/>
    <xs:attribute name="Classification5" type="Class_type"/>
    <xs:attribute name="Classification6" type="Class_type"/>
    <xs:attribute name="Classification7" type="Class_type"/>
    <xs:attribute name="Classification8" type="Class_type"/>
    <xs:attribute name="Classification9" type="Class_type"/>
    <xs:attribute name="Classification10" type="Class_type"/>
    <xs:attribute name="TaxGroup" type="xs:int"/>
    <xs:attribute name="Taxable" type="xs:boolean" default="true"/>
    <xs:attribute name="Discountable" type="xs:boolean" default="true"/>
    <xs:attribute name="DamageDiscountable" type="xs:boolean" default="true"/>
    <xs:attribute name="RegistryEligible" type="xs:boolean"/>
    <xs:attribute name="AuthorizedForSale" type="xs:boolean"/>
    <xs:attribute name="RestockingFee" type="xs:boolean"/>
    <xs:attribute name="SerializedItem" type="xs:boolean"/>

```

```

<xs:attribute name="UINType" type="xs:string"/>
<xs:attribute name="UINCaptureTime">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="20"/>
      <xs:enumeration value="Sale"/>
      <xs:enumeration value="StoreReceiving"/>
    </xs:restriction>
  </xs:simpleType>
</xs:attribute>
<xs:attribute name="ExternalSystemCreateUIN" type="xs:boolean"
default="true"/>
<xs:attribute name="SizeRequired" type="xs:boolean"/>
<xs:attribute name="ActivationRequired" type="xs:boolean"/>
<xs:attribute name="ImageFileName" type="xs:string">
  <xs:annotation><xs:documentation>
    A file name specified here is expected to be a JPG or other
    image file existing in the same bundle as the XML file. The
    image will be imported as a blob into the database.
  </xs:documentation></xs:annotation>
</xs:attribute>
<xs:attribute name="ImageLocation" type="xs:string">
  <xs:annotation><xs:documentation>
    This locations should be a valid url for use by the application
    in retrieving images.
  </xs:documentation></xs:annotation>
</xs:attribute>
</xs:complexType>

<xs:complexType name="ItemLevelMessages_type">
  <xs:annotation><xs:documentation>
    Associates Item with a Preloaded Message.
  </xs:documentation></xs:annotation>
  <xs:sequence>
    <xs:element name="ItemMsgAscnc" type="Message_type" minOccurs="0"
maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="Message_type">
  <xs:annotation><xs:documentation>
    Identifying a particular message and attach it to an item
  </xs:documentation></xs:annotation>
  <xs:attribute name="ID" type="xs:int" use="required"/>
  <xs:attribute name="MessageType" use="required">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="Screen"/>
        <xs:enumeration value="Receipt"/>
        <xs:enumeration value="Rebate"/>
        <xs:enumeration value="Footer"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="TransactionType" use="required">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="Sale"/>
        <xs:enumeration value="Return"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>

```

```

    </xs:simpleType>
  </xs:attribute>
</xs:complexType>

<xs:complexType name="RetailStoreItem_type">
  <xs:annotation><xs:documentation>
    Item-location information. This element requires a child element to
    specify a store id. This element can be repeated if this same info
    should belong to multiple stores. The price element may be repeated
    to support foreign currency by specifying differnt currency codes.

    Even though RegularPrice can be defined with different currency code,
    Currently only the price in base currency is supported. If a list of
    RRegularPrice elements used, the very last one will be picked up.
  </xs:documentation></xs:annotation>
  <xs:sequence>
    <xs:element name="RetailStoreID" type="RetailStoreId_type"
maxOccurs="unbounded"/>
    <xs:element name="RegularPrice" type="RegularPrice_type" minOccurs="0"
maxOccurs="unbounded"/>
    <xs:element name="POSIdentity" type="POSIdentity_type" minOccurs="0"
maxOccurs="unbounded"/>
  </xs:sequence>
  <xs:attribute name="ChangeType" type="ChangeType_subtype" default="ADD"/>
  <xs:attribute name="TaxGroup" type="xs:int" use="optional"/>
  <xs:attribute name="VatCode" type="Code_type"/>
  <xs:attribute name="AgeRestrictionId" type="xs:int"/>
  <xs:attribute name="TemplateId" default="*DEFAULT">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:maxLength value="8"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
</xs:complexType>

<xs:complexType name="POSIdentity_type">
  <xs:annotation><xs:documentation>
    Multiple POSIdentity elements may be specified when different
    UPCs apply to the same item.
  </xs:documentation></xs:annotation>
  <xs:attribute name="ChangeType" type="ChangeType_subtype" default="ADD"/>
  <xs:attribute name="POSItemID" type="ID_type" use="required"/>
  <xs:attribute name="UPC" type="ID_type"/>
  <xs:attribute name="SupplierID" type="xs:string"/>
  <xs:attribute name="ManufacturerID" type="xs:int"/>
  <xs:attribute name="QuantityModifiable" default="Optional">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="Required"/>
        <xs:enumeration value="Prohibited"/>
        <xs:enumeration value="Optional"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="Returnable" type="xs:boolean"/>
  <xs:attribute name="PriceEntryRequired" type="xs:boolean"
default="false"/>
  <xs:attribute name="PriceModifiable" type="xs:boolean"/>
  <xs:attribute name="AllowCouponMultiply" type="xs:boolean"/>

```

```

        <xs:attribute name="ElectronicCoupon" type="xs:boolean"/>
        <xs:attribute name="CouponRestricted" type="xs:boolean"/>
        <xs:attribute name="SpecialOrderEligible" type="xs:boolean"/>
        <xs:attribute name="EmployeeDiscountAllowed" type="xs:boolean"
default="true"/>
        <xs:attribute name="MinimumSaleUnitCount" type="xs:decimal"
default="1.0"/>
        <xs:attribute name="MaximumSaleUnitCount" type="xs:decimal"
default="-1.0"/>
    </xs:complexType>

<xs:complexType name="MerchandiseHierarchy_type">
    <xs:annotation><xs:documentation>
        This is the ID of the group in the MerchandiseHierarchy that this
        item belongs to. Usually this is a class or subclass.
    </xs:documentation></xs:annotation>
    <xs:simpleContent>
        <xs:extension base="xs:string">
            <xs:attribute name="StructureID" type="xs:string" default="-1">
                <xs:annotation><xs:documentation>
                    Merchandise Structure ID.
                </xs:documentation></xs:annotation>
            </xs:attribute>
            <xs:attribute name="Level" default="UNDF">
                <xs:annotation><xs:documentation>
                    Merchandise Hierarchy Level Code.
                </xs:documentation></xs:annotation>
                <xs:simpleType>
                    <xs:restriction base="xs:string">
                        <xs:maxLength value="4"/>
                    </xs:restriction>
                </xs:simpleType>
            </xs:attribute>
        </xs:extension>
    </xs:simpleContent>
</xs:complexType>

<xs:complexType name="RegularPrice_type">
    <xs:annotation><xs:documentation>
        The regular price is the initial permanent price for a new item.
        This price will effectively become amount of the first
        PermanentPriceChange for this item. Do not attempt to change the
        regular price afterwards through this element. Instead see
        PermanentPriceChange in the PricingImport.xsd. Any effective
        promotions or discounts will override, but not replace, the regular
        price.
    </xs:documentation></xs:annotation>
    <xs:simpleContent>
        <xs:extension base="CurrencyAmount_type">
            <xs:attribute name="CompareAtPrice" type="Amount_type"/>
            <xs:attribute name="IncludesTax" type="xs:boolean"
default="false">
                <xs:annotation><xs:documentation>
                    Attribute reserved for future use. To be implemented at
                    a future date.
                </xs:documentation></xs:annotation>
            </xs:attribute>
        </xs:extension>
    </xs:simpleContent>
</xs:complexType>

```

```

<xs:simpleType name="Class_type">
  <xs:restriction base="xs:string">
    <xs:maxLength value="10"/>
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="Code_type">
  <xs:restriction base="xs:string">
    <xs:maxLength value="20"/>
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="ChangeType_subtype">
  <xs:restriction base="xs:string">
    <xs:enumeration value="ADD"/>
    <xs:enumeration value="UPD"/>
    <xs:enumeration value="DEL"/>
    <xs:enumeration value="UPS"/>
  </xs:restriction>
</xs:simpleType>

<xs:simpleType name="PreLoadChangeType_type">
  <xs:annotation><xs:documentation>
    UPSERT and DELETE are the only operations supported for
    Preload data. If "DEL" is not specified as ChangeType,
    Then "UPS" is assumed.
  </xs:documentation></xs:annotation>
  <xs:restriction base="xs:string">
    <xs:enumeration value="UPS"/>
    <xs:enumeration value="DEL"/>
  </xs:restriction>
</xs:simpleType>

</xs:schema>

```

The following is an example Item Import XML file.

Example C-8 ItemImport.xml

```

<?xml version="1.0" encoding="UTF-8"?>
<ItemImport
Priority="0"
FillType="FullIncremental"
Version="1.0"
Batch="1"
CreationDate="2001-12-17T09:30:47.0Z"
ExpirationDate="2027-12-17T09:30:47.0Z"
xsi:noNamespaceSchemaLocation="ItemImport.xsd"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<PreloadData>
<Color
ChangeType="UPS"
Names="Red"
Description="Red Description"
Code="203"/>
<Size
ChangeType="UPS"
ProportionDesc="XSProportionDesc"
TableName="Basic"

```

```
TableCode="BA"
ActualSizeCode="XS"
TableDesc="xsmall"
TypeDesc="XSTypeDesc"
Code="0000"/>
<Style
ChangeType="UPS"
Name="Classic"
Description="Classic"
Code="CLSC"/>
<UOM
ChangeType="UPS"
TypeCode="CD"
IsDefault="false"
Name="Kilograms"
SortIndex="0"
Description="Kilograms description"
System="Metric"
DefaultEntryCode="false"
Code="KG"
Enabled="true"/>
<!--<Product
ChangeType="ADD"
ID="902"
ManufacturerID="-1"
Description="Nails"/>-->
<MerchandiseClassification
ChangeType="UPS"
Description="Sporting Goods"
Code="SPGD"/>
<Supplier
ChangeType="UPS"
ID="0002"
Name="Gizmos Inc."
IsManufacturer="true"
DUNSNumber="123456789"/>
</PreloadData>
<Item
ChangeType="ADD"
ID="1234"
Type="Stock"
ItemCost="5.12"
Taxable="true"
TaxGroup="100"
POSDepartmentID="1"
KitSetCode="0"
Size="null"
Color="null"
Style="null"
ActivationRequired="false"
RegistryEligible="true"
SizeRequired="false"
AuthorizedForSale="true"
SerializedItem="false"
UINType="Serial"
UINCaptureTime="Sale"
ExternalSystemCreateUIN="true"
Discountable="true"
DamageDiscountable="true"
PackItemWeightCount="1.0"
```

```

RestockingFee="true"
UOMCode="UN"
Classification1="null"
Classification2="null"
Classification3="null"
Classification4="null"
Classification5="null"
Classification6="null"
Classification7="null"
Classification8="null"
Classification9="null"
Classification10="null">
<ShortName Language="en" Country="US">CoolBox</ShortName>
<ShortName Language="fr" Country="CA">Boîte Chouette</ShortName>
<LongDescription Language="en" Country="US">Like a toolbox but
cooler</LongDescription>
<MerchandiseHierarchy
StructureID="1"
Level="DIV">1234</MerchandiseHierarchy>
<RetailStoreItem
TemplateId="SALTEMPL"
TaxGroup="100"
VatCode="A"
AgeRestrictionId="0">
<RetailStoreID>04241</RetailStoreID>
<RetailStoreID>01291</RetailStoreID>
<RegularPrice
CurrencyCode="EUR"
CompareAtPrice="12.00"
IncludesTax="false">9.99</RegularPrice>
<RegularPrice
CurrencyCode="CAD"
CompareAtPrice="13.00"
IncludesTax="false">109.99</RegularPrice>
<POSIdentity
POSItemID="1234"
UPC="12340000000000"
ManufacturerID="0"
SupplierID="0"
MinimumSaleUnitCount="1"
MaximumSaleUnitCount="-1"
QuantityModifiable="Optional"
PriceEntryRequired="false"
PriceModifiable="true"
SpecialOrderEligible="true"
Returnable="false"
EmployeeDiscountAllowed="true"
AllowCouponMultiply="true"
ElectronicCoupon="true"
CouponRestricted="false"/>
</RetailStoreItem>
<UINLabel Name="SERIAL NUMBER">
<LocalizedName Country="US" Language="en" Name="In en SERIAL NUMBER"/>
</UINLabel>
</Item>
</ItemImport>

```

Merchandise Hierarchy Import

Table C–6 identifies the PreloadData element mapping for the MerchandiseHierarchyImport.xsd file.

Table C–6 Merchandise Hierarchy Import XSD PreloadData Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|---|------------------------------|----------------------|--------------|--|--|
| Merchandise HierarchyGroup CO_MRHRC_GP | Merchandise HierarchyGroupID | ID_MRHRC_GP | VARCHAR(14) | PreloadData/MerchandiseGroup/ID | |
| | Merchant | ID_PST | INTEGER | PreloadData/MerchandiseGroup/MerchantID | |
| | Name | NM_MRHRC_GP | VARCHAR(120) | PreloadData/MerchandiseGroup/Name | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | Description | DE_MRHRC_GP | VARCHAR(250) | PreloadData/MerchandiseGroup/Description | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 250/4 = 60. |
| | RecordCreate Timestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordModify Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| POSDepartment ID_DPT_PS | POSDepartmentID | ID_DPT_POS | VARCHAR(14) | PreloadData/POSDepartment/POSDepartmentID | |
| | ParentPOS DepartmentID | ID_DPT_POS_PRNT | VARCHAR(14) | PreloadData/POSDepartment/ParentPOS DepartmentID | |
| | Name | NM_DPT_POS | VARCHAR(120) | PreloadData/POSDepartment/POSDepartment Name @Text | |
| | TaxGroupID | ID_GP_TX | INTEGER | PreloadData/POSDepartment/Department DefaultTaxGroup | |
| POSDepartment I18N ID_DPT_PS_I8 | POSDepartmentID | ID_DPT_POS | VARCHAR(14) | PreloadData/POSDepartment/POSDepartmentID | |

Table C-6 (Cont.) Merchandise Hierarchy Import XSD PreloadData Element Mapping

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|---|--------------------|----------------------|--------------|---|--|
| | Locale | LCL | VARCHAR(10) | PreloadData/POSDepartment/POSDepartmentName @LanguageCode PreloadData/POSDepartment/POSDepartmentName @CountryCode | Concatenate Lower (Language Code)+ " "+Upper (Country Code) |
| | POSDepartment Name | NM_DPT_POS | VARCHAR(120) | PreloadData/POSDepartment/POSDepartmentName @Text | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| RetailStorePOS Department LO_DPT_POS_ RTL_STR | RetailStoreID | ID_STR_RT | VARCHAR(5) | PreloadData/POSDepartment/RetailStorePOS Department/RetailStoreID | |
| | POSDepartmentID | ID_DPT_POS | VARCHAR(14) | PreloadData/POSDepartment/POSDepartmentID | |
| | DefaultEntryCode | FL_CD_ENT_DFLT | CHAR(1) | PreloadData/POSDepartment/RetailStorePOS Department/DefaultEntryCode | |
| | EnabledFlag | FL_CD_ENT_ENAB | CHAR(1) | PreloadData/POSDepartment/RetailStorePOS Department/EnabledFlag | |
| | ListSortIndex | CD_ENT_SRT | SMALLINT | PreloadData/POSDepartment/RetailStorePOS Department/ListSortIndex | |

Table C-7 identifies the element mapping for the MerchandiseHierarchyImport.xsd file.

Table C-7 Merchandise Hierarchy Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|---|--|----------------------|--------------|--|---|
| Merchandise HierarchyFunction CO_MRHRC_FNC | Merchandise Hierarchy FunctionID | ID_MRHRC_FNC | INTEGER | HierarchyList/Hierarchy@FunctionID | Maximum field size for INTEGER is typically NUMBER(10) to support Java INT datatype in application. |
| | Name | NM_MRHRC_FNC | VARCHAR(250) | HierarchyList/Hierarchy@Name | |
| | RecordCreate Timestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordModify Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| Merchandise HierarchyLevel CO_MRHRC_LV | Merchandise Hierarchy FunctionID | ID_MRHRC_FNC | INTEGER | HierarchyList/Hierarchy@FunctionID | |
| | Merchandise Hierarchy LevelCode | ID_MRHRC_LV | INTEGER | HierarchyList/Hierarchy/LevelList/Level@ID | Maximum field size for INTEGER is typically NUMBER(10) to support Java INT datatype in application. |
| | Parent Merchandise Hierarchy LevelID. Merchandise Hierarchy LevelCode | ID_MRHRC_LV_PRNT | INTEGER | HierarchyList/Hierarchy/LevelList/Level@ParentID | |
| | Name | NM_MRHRC_LV | VARCHAR(120) | HierarchyList/Hierarchy/LevelList/Level@Name | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be $120/4 = 30$. |
| | RecordCreate Timestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordModify Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| Merchandise Hierarchy Association ST_ASCTN_MRHRC | Merchandise Hierarchy FunctionID | ID_MRHRC_FNC | INTEGER | HierarchyList/Hierarchy@FunctionID | |
| | Parent Merchandise Hierarchy GroupID | ID_MRHRC_GP_PRNT | VARCHAR(14) | HierarchyList/Hierarchy/NodeList/Node@ParentNodeID | |
| | Child Merchandise Hierarchy GroupID | ID_MRHRC_GP_CHLD | VARCHAR(14) | HierarchyList/Hierarchy/NodeList/Node@ID | |

Table C-7 (Cont.) Merchandise Hierarchy Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|--------------------------------------|----------------------|-----------|---|-------|
| | Parent Merchandise Hierarchy LevelID | ID_MRHRC_LV | INTEGER | HierarchyList/Hierarchy/NodeList/Node@LevelID | |
| | RecordCreate Timestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordModify Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |

The following is an example Merchandise Hierarchy Import XSD file.

Example C-9 MerchandiseHierarchyImport.xsd

```
<?xml version="1.0" encoding="UTF-8"?>
<!--
/* =====
* Copyright (c) 2009, 2010, Oracle and/or its affiliates. All rights reserved.
* =====
* $Header:
rgbustores/internal/DIMP/MerchandiseHierarchy/MerchandiseHierarchyImport.xsd
/main/8 2010/01/04 17:53:31 abondala Exp $
* =====
* NOTES
* <other useful comments, qualifications, etc.>
*
* MODIFIED (MM/DD/YY)
* abondala 01/02/10 - Update Header date
*
* =====
*/
-->
<!--
/* =====
* Copyright (c) 2008, 2010, Oracle and/or its affiliates. All rights reserved.
* =====
* $Header:
rgbustores/internal/DIMP/MerchandiseHierarchy/MerchandiseHierarchyImport.xsd
/main/8 2010/01/04 17:53:31 abondala Exp $
* =====
* NOTES
* <other useful comments, qualifications, etc.>
*
* MODIFIED (MM/DD/YY)
* blarsen 08/13/09 - Renamed ChangeType_type to ChangeType_subtype and
* renamed FillType_type to FillType_subtype to avoid
* collisions with common.xsd.
* glwang 02/18/09 - add LocalizedName element
* cgreene 11/19/08 - migrate common types to ../common.xsd
*
* =====
*/
-->
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
```

```

<xs:include schemaLocation="../../../common.xsd"/></xs:include>
<xs:annotation><xs:documentation>
Merchandise Hierarchy Import Schema. Copyright 2006 Oracle.
All rights reserved.
</xs:documentation></xs:annotation>

<xs:element name="MerchandiseHierarchy">
<xs:annotation><xs:documentation>
Top level element containing the hierarchy and the data that must be
preloaded before the hierarchy.
</xs:documentation></xs:annotation>
<xs:complexType>
<xs:sequence>
<xs:element name="PreloadData" type="PreloadData_type" minOccurs="0"
maxOccurs="1">
<xs:annotation><xs:documentation>
The data that must be preloaded into the datasource before
the actual hierarchy is persisted. Consists of departments
and merchandise groups.
</xs:documentation></xs:annotation>
</xs:element>
<xs:element name="HierarchyList" type="HierarchyList_type" minOccurs="0"
maxOccurs="unbounded">
<xs:annotation><xs:documentation>
The actual merchandise hierarchy data being imported.
Contains a grouping (list) of hierarchies.
</xs:documentation></xs:annotation>
</xs:element>
</xs:sequence>
<xs:attribute name="FillType" type="FillType_subtype" use="required"
fixed="KillAndFill"/>
<xs:attribute name="CreationDate" type="xs:dateTime"/>
<xs:attribute name="ExpirationDate" type="xs:dateTime"/>
<xs:attribute name="Version" type="xs:string"/>
<xs:attribute name="Priority" type="xs:int"/>
<xs:attribute name="Batch" type="xs:int"/>
</xs:complexType>
</xs:element>

<xs:complexType name="PreloadData_type">
<xs:sequence>
<xs:element name="POSDepartment" type="POSDepartment_type" minOccurs="0"
maxOccurs="unbounded" />
<xs:element name="MerchandiseGroup" type="MerchandiseGroup_type" minOccurs="0"
maxOccurs="unbounded" />
</xs:sequence>
</xs:complexType>

<xs:complexType name="MerchandiseGroup_type">
<xs:sequence>
<xs:element name="ChangeType" type="ChangeType_subtype" minOccurs="1"
maxOccurs="1" />
<xs:element name="ID" type="xs:string" minOccurs="1" maxOccurs="1" />
<xs:element name="Name" minOccurs="0" maxOccurs="1">
<xs:simpleType>
<xs:restriction base="xs:string">
<xs:maxLength value="120"/></xs:maxLength>
</xs:restriction>
</xs:simpleType>
</xs:element>

```

```

<xs:element name="MerchantID" type="xs:int" minOccurs="0" maxOccurs="1" />
<xs:element name="Description" type="xs:string" minOccurs="0" maxOccurs="1" />
<xs:element name="LocalizedNameDescription" type="LocalizedNameDescription_type"
minOccurs="0" maxOccurs="unbounded" />
</xs:sequence>
</xs:complexType>

<xs:complexType name="POSDepartment_type">
<xs:sequence>
<xs:element name="ChangeType" type="ChangeType_subtype" minOccurs="1"
maxOccurs="1" />
<xs:element name="POSDepartmentID" type="xs:string" minOccurs="1" maxOccurs="1" />
<xs:element name="ParentPOSDepartmentID" type="xs:string" minOccurs="0"
maxOccurs="1" />
<xs:choice>
<xs:annotation><xs:documentation>
POSDepartmentName is deprecated as 13.1
</xs:documentation></xs:annotation>
<xs:element name="POSDepartmentName" type="LocalizedPOSDepartmentName_type"
minOccurs="0" maxOccurs="unbounded" />
<xs:element name="LocalizedName" type="LocalizedNameDescription_type"
minOccurs="0" maxOccurs="unbounded" />
</xs:choice>
<xs:element name="DepartmentDefaultTaxGroup" type="xs:int" minOccurs="1"
maxOccurs="1" />
<xs:element name="RetailStorePOSDepartment" type="RetailStorePOSDepartment_type"
minOccurs="0" maxOccurs="unbounded" />
</xs:sequence>
</xs:complexType>

<xs:complexType name="LocalizedPOSDepartmentName_type">
<xs:attribute name="Text" type="Name_type" />
<xs:attribute name="LanguageCode" type="Language_type"/>
<xs:attribute name="CountryCode" type="Country_type"/>
</xs:complexType>

<xs:complexType name="RetailStorePOSDepartment_type">
<xs:sequence>
<xs:element name="ChangeType" type="ChangeType_subtype" minOccurs="1"
maxOccurs="1" />
<xs:element name="RetailStoreId" type="RetailStoreId_type" minOccurs="1"
maxOccurs="1" />
<xs:element name="DefaultEntryCode" type="xs:string" minOccurs="1" maxOccurs="1"
/>
<xs:element name="EnabledFlag" type="xs:boolean" minOccurs="1" maxOccurs="1" />
<xs:element name="ListSortIndex" type="xs:int" minOccurs="1" maxOccurs="1" />
</xs:sequence>
</xs:complexType>

<xs:complexType name="HierarchyList_type">
<xs:sequence>
<xs:element name="Hierarchy" type="Hierarchy_type" minOccurs="0"
maxOccurs="unbounded" />
</xs:sequence>
</xs:complexType>

<xs:complexType name="Hierarchy_type">
<xs:sequence>
<xs:element name="LevelList" type="LevelList_type" minOccurs="0" maxOccurs="1" />
<xs:element name="NodeList" type="NodeList_type" minOccurs="0" maxOccurs="1" />

```

```
</xs:sequence>
<xs:attribute name="FunctionID" type="xs:int" use="required" />
<xs:attribute name="Name" type="xs:string"/>
</xs:complexType>

<xs:complexType name="LevelList_type">
<xs:sequence>
<xs:element name="Level" type="Level_type" minOccurs="0" maxOccurs="unbounded" />
</xs:sequence>
</xs:complexType>

<xs:complexType name="NodeList_type">
<xs:sequence>
<xs:element name="Node" type="Node_type" minOccurs="0" maxOccurs="unbounded" />
</xs:sequence>
</xs:complexType>

<xs:complexType name="Level_type">
<xs:sequence>
<xs:element name="LocalizedName" type="LocalizedNameDescription_type"
minOccurs="0" maxOccurs="unbounded" />
</xs:sequence>
<xs:attribute name="ID" type="xs:int" use="required" />
<xs:attribute name="Name" type="xs:string" />
<xs:attribute name="ParentID" type="xs:int">
<xs:annotation><xs:documentation>
If the parent id is missing, this is assumed to be the root.
</xs:documentation></xs:annotation>
</xs:attribute>
</xs:complexType>

<xs:complexType name="Node_type">
<xs:attribute name="ID" type="xs:string" use="required" />
<xs:attribute name="Name" type="xs:string" />
<xs:attribute name="LevelID" type="xs:int" use="required" />
<xs:attribute name="ParentNodeID" type="xs:string" />
</xs:complexType>

<xs:simpleType name="ChangeType_subtype">
<xs:restriction base="xs:string">
<xs:enumeration value="ADD" />
</xs:restriction>
</xs:simpleType>

<xs:simpleType name="FillType_subtype">
<xs:restriction base="xs:string">
<xs:enumeration value="KillAndFill"/>
</xs:restriction>
</xs:simpleType>

</xs:schema>
```

The following is an example Merchandise Hierarchy Import XML file.

Example C-10 MerchandiseHierarchyImport.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<MerchandiseHierarchy xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation="MerchandiseHierarchyImport.xsd"
  Priority="0"
  FillType="KillAndFill"
  Version="1.0"
  Batch="1"
  CreationDate="2001-12-17T09:30:47.0Z"
  ExpirationDate="2027-12-17T09:30:47.0Z">
  <PreloadData>
    <POSDepartment>
      <ChangeType>ADD</ChangeType>
      <POSDepartmentID>1</POSDepartmentID>
      <ParentPOSDepartmentID>0</ParentPOSDepartmentID>
      <POSDepartmentName Text="Miscellaneous"/>
      <!--This is the old format to define POS department name.-->
      <!--deprecated as 13.1-->
      <POSDepartmentName CountryCode="PR" LanguageCode="es" Text="es_PR
Miscellaneous"/>
      <POSDepartmentName CountryCode="CA" LanguageCode="fr" Text="fr_CA
Miscellaneous"/>
      <DepartmentDefaultTaxGroup>0</DepartmentDefaultTaxGroup>
      <RetailStorePOSDepartment>
        <ChangeType>ADD</ChangeType>
        <RetailStoreId>01291</RetailStoreId>
        <DefaultEntryCode>>false</DefaultEntryCode>
        <EnabledFlag>>true</EnabledFlag>
        <ListSortIndex>0</ListSortIndex>
      </RetailStorePOSDepartment>
      <RetailStorePOSDepartment>
        <ChangeType>ADD</ChangeType>
        <RetailStoreId>04241</RetailStoreId>
        <DefaultEntryCode>>false</DefaultEntryCode>
        <EnabledFlag>>true</EnabledFlag>
        <ListSortIndex>0</ListSortIndex>
      </RetailStorePOSDepartment>
      <RetailStorePOSDepartment>
        <ChangeType>ADD</ChangeType>
        <RetailStoreId>CORP</RetailStoreId>
        <DefaultEntryCode>>false</DefaultEntryCode>
        <EnabledFlag>>true</EnabledFlag>
        <ListSortIndex>0</ListSortIndex>
      </RetailStorePOSDepartment>
    </POSDepartment>
    <POSDepartment>
      <ChangeType>ADD</ChangeType>
      <POSDepartmentID>2</POSDepartmentID>
      <ParentPOSDepartmentID>0</ParentPOSDepartmentID>
      <!--This is what we should use to define POS department names as 13.1
-->
      <LocalizedName Country="US" Language="en" Name="Sporting Goods"/>
      <LocalizedName Country="PR" Language="es" Name="es_PR Sporting
Goods"/>
      <LocalizedName Country="CA" Language="fr" Name="fr_CA Sporting
Goods"/>
      <DepartmentDefaultTaxGroup>0</DepartmentDefaultTaxGroup>
```

```

    <RetailStorePOSDepartment>
      <ChangeType>ADD</ChangeType>
      <RetailStoreId>01291</RetailStoreId>
      <DefaultEntryCode>>false</DefaultEntryCode>
      <EnabledFlag>>true</EnabledFlag>
      <ListSortIndex>0</ListSortIndex>
    </RetailStorePOSDepartment>
  </RetailStorePOSDepartment>
  <RetailStorePOSDepartment>
    <ChangeType>ADD</ChangeType>
    <RetailStoreId>04241</RetailStoreId>
    <DefaultEntryCode>>false</DefaultEntryCode>
    <EnabledFlag>>true</EnabledFlag>
    <ListSortIndex>0</ListSortIndex>
  </RetailStorePOSDepartment>
  <RetailStorePOSDepartment>
    <ChangeType>ADD</ChangeType>
    <RetailStoreId>CORP</RetailStoreId>
    <DefaultEntryCode>>false</DefaultEntryCode>
    <EnabledFlag>>true</EnabledFlag>
    <ListSortIndex>0</ListSortIndex>
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</POSDepartment>
<POSDepartment>
  <ChangeType>ADD</ChangeType>
  <POSDepartmentID>3</POSDepartmentID>
  <ParentPOSDepartmentID>0</ParentPOSDepartmentID>
  <POSDepartmentName CountryCode="US" LanguageCode="en" Text="Garden"/>
  <POSDepartmentName CountryCode="PR" LanguageCode="es" Text="In es_PR
Garden"/>
  <POSDepartmentName CountryCode="CA" LanguageCode="fr" Text="In fr_CA
Garden"/>
  <DepartmentDefaultTaxGroup>0</DepartmentDefaultTaxGroup>
  <RetailStorePOSDepartment>
    <ChangeType>ADD</ChangeType>
    <RetailStoreId>01291</RetailStoreId>
    <DefaultEntryCode>>false</DefaultEntryCode>
    <EnabledFlag>>true</EnabledFlag>
    <ListSortIndex>0</ListSortIndex>
  </RetailStorePOSDepartment>
  <RetailStorePOSDepartment>
    <ChangeType>ADD</ChangeType>
    <RetailStoreId>04241</RetailStoreId>
    <DefaultEntryCode>>false</DefaultEntryCode>
    <EnabledFlag>>true</EnabledFlag>
    <ListSortIndex>0</ListSortIndex>
  </RetailStorePOSDepartment>
  <RetailStorePOSDepartment>
    <ChangeType>ADD</ChangeType>
    <RetailStoreId>CORP</RetailStoreId>
    <DefaultEntryCode>>false</DefaultEntryCode>
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    <ListSortIndex>0</ListSortIndex>
  </RetailStorePOSDepartment>
</POSDepartment>
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  <ChangeType>ADD</ChangeType>
  <POSDepartmentID>4</POSDepartmentID>
  <ParentPOSDepartmentID>0</ParentPOSDepartmentID>
  <POSDepartmentName CountryCode="US" LanguageCode="en" Text="Music"/>
  <POSDepartmentName CountryCode="PR" LanguageCode="es" Text="In es_PR

```



```

Music"/>
    <POSDepartmentName CountryCode="CA" LanguageCode="fr" Text="In fr_CA
Music"/>
    <DepartmentDefaultTaxGroup>0</DepartmentDefaultTaxGroup>
    <RetailStorePOSDepartment>
        <ChangeType>ADD</ChangeType>
        <RetailStoreId>01291</RetailStoreId>
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        <ListSortIndex>0</ListSortIndex>
    </RetailStorePOSDepartment>
    <RetailStorePOSDepartment>
        <ChangeType>ADD</ChangeType>
        <RetailStoreId>04241</RetailStoreId>
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    <RetailStorePOSDepartment>
        <ChangeType>ADD</ChangeType>
        <RetailStoreId>CORP</RetailStoreId>
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</POSDepartment>
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    <ChangeType>ADD</ChangeType>
    <POSDepartmentID>5</POSDepartmentID>
    <ParentPOSDepartmentID>0</ParentPOSDepartmentID>
    <POSDepartmentName CountryCode="US" LanguageCode="en"
Text="Hardware"/>
    <POSDepartmentName CountryCode="PR" LanguageCode="es" Text="In es_PR
Hardware"/>
    <POSDepartmentName CountryCode="CA" LanguageCode="fr" Text="In fr_CA
Hardware"/>
    <DepartmentDefaultTaxGroup>0</DepartmentDefaultTaxGroup>
    <RetailStorePOSDepartment>
        <ChangeType>ADD</ChangeType>
        <RetailStoreId>01291</RetailStoreId>
        <DefaultEntryCode>>false</DefaultEntryCode>
        <EnabledFlag>>true</EnabledFlag>
        <ListSortIndex>0</ListSortIndex>
    </RetailStorePOSDepartment>
    <RetailStorePOSDepartment>
        <ChangeType>ADD</ChangeType>
        <RetailStoreId>04241</RetailStoreId>
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        <ListSortIndex>0</ListSortIndex>
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    <RetailStorePOSDepartment>
        <ChangeType>ADD</ChangeType>
        <RetailStoreId>CORP</RetailStoreId>
        <DefaultEntryCode>>false</DefaultEntryCode>
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        <ListSortIndex>0</ListSortIndex>
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</POSDepartment>
<POSDepartment>

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    <ChangeType>ADD</ChangeType>
    <POSDepartmentID>6</POSDepartmentID>
    <ParentPOSDepartmentID>0</ParentPOSDepartmentID>
    <POSDepartmentName CountryCode="US" LanguageCode="en" Text="Office"/>
    <POSDepartmentName CountryCode="PR" LanguageCode="es" Text="In es_PR
Office"/>
    <POSDepartmentName CountryCode="CA" LanguageCode="fr" Text="In fr_CA
Office"/>
    <DepartmentDefaultTaxGroup>0</DepartmentDefaultTaxGroup>
    <RetailStorePOSDepartment>
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      <ListSortIndex>0</ListSortIndex>
    </RetailStorePOSDepartment>
    <RetailStorePOSDepartment>
      <ChangeType>ADD</ChangeType>
      <RetailStoreId>04241</RetailStoreId>
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      <ListSortIndex>0</ListSortIndex>
    </RetailStorePOSDepartment>
    <RetailStorePOSDepartment>
      <ChangeType>ADD</ChangeType>
      <RetailStoreId>CORP</RetailStoreId>
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      <EnabledFlag>>true</EnabledFlag>
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  </POSDepartment>
</POSDepartment>
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  <POSDepartmentID>7</POSDepartmentID>
  <ParentPOSDepartmentID>0</ParentPOSDepartmentID>
  <POSDepartmentName CountryCode="US" LanguageCode="en" Text="Toys"/>
  <POSDepartmentName CountryCode="PR" LanguageCode="es" Text="In es_PR
Toys"/>
  <POSDepartmentName CountryCode="CA" LanguageCode="fr" Text="In fr_CA
Toys"/>
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  <RetailStorePOSDepartment>
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    <RetailStoreId>CORP</RetailStoreId>
    <DefaultEntryCode>>false</DefaultEntryCode>
    <EnabledFlag>>true</EnabledFlag>
  </RetailStorePOSDepartment>

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    <POSDepartmentName CountryCode="PR" LanguageCode="es" Text="In es_PR
Infant"/>
    <POSDepartmentName CountryCode="CA" LanguageCode="fr" Text="In fr_CA
Infant"/>
    <DepartmentDefaultTaxGroup>0</DepartmentDefaultTaxGroup>
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    <RetailStorePOSDepartment>
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    <RetailStorePOSDepartment>
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</POSDepartment>
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    <ChangeType>ADD</ChangeType>
    <POSDepartmentID>9</POSDepartmentID>
    <ParentPOSDepartmentID>0</ParentPOSDepartmentID>
    <POSDepartmentName CountryCode="US" LanguageCode="en" Text="Women
Apparel"/>
    <POSDepartmentName CountryCode="PR" LanguageCode="es" Text="es_PR
Women Apparel"/>
    <POSDepartmentName CountryCode="CA" LanguageCode="fr" Text="fr_CA
Women Apparel"/>
    <DepartmentDefaultTaxGroup>0</DepartmentDefaultTaxGroup>
    <RetailStorePOSDepartment>
        <ChangeType>ADD</ChangeType>
        <RetailStoreId>01291</RetailStoreId>
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        <EnabledFlag>>false</EnabledFlag>
        <ListSortIndex>0</ListSortIndex>
    </RetailStorePOSDepartment>
    <RetailStorePOSDepartment>
        <ChangeType>ADD</ChangeType>
        <RetailStoreId>04241</RetailStoreId>
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        <EnabledFlag>>false</EnabledFlag>
        <ListSortIndex>0</ListSortIndex>
    </RetailStorePOSDepartment>

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    <RetailStorePOSDepartment>
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      <RetailStoreId>CORP</RetailStoreId>
      <DefaultEntryCode>>false</DefaultEntryCode>
      <EnabledFlag>>true</EnabledFlag>
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  </POSDepartment>
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    <POSDepartmentID>10</POSDepartmentID>
    <ParentPOSDepartmentID>0</ParentPOSDepartmentID>
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Text="Electronics"/>
    <POSDepartmentName CountryCode="PR" LanguageCode="es" Text="In es_PR
Electronics"/>
    <POSDepartmentName CountryCode="CA" LanguageCode="fr" Text="In fr_CA
Electronics"/>
    <DepartmentDefaultTaxGroup>0</DepartmentDefaultTaxGroup>
  <RetailStorePOSDepartment>
    <ChangeType>ADD</ChangeType>
    <RetailStoreId>01291</RetailStoreId>
    <DefaultEntryCode>>false</DefaultEntryCode>
    <EnabledFlag>>false</EnabledFlag>
    <ListSortIndex>0</ListSortIndex>
  </RetailStorePOSDepartment>
  <RetailStorePOSDepartment>
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    <RetailStoreId>04241</RetailStoreId>
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    <ListSortIndex>0</ListSortIndex>
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  <RetailStorePOSDepartment>
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    <EnabledFlag>>true</EnabledFlag>
    <ListSortIndex>0</ListSortIndex>
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</POSDepartment>
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  <ChangeType>ADD</ChangeType>
  <POSDepartmentID>11</POSDepartmentID>
  <ParentPOSDepartmentID>0</ParentPOSDepartmentID>
  <POSDepartmentName CountryCode="US" LanguageCode="en" Text="Outdoor"/>
  <POSDepartmentName CountryCode="PR" LanguageCode="es" Text="In es_PR
Outdoor"/>
  <POSDepartmentName CountryCode="CA" LanguageCode="fr" Text="In fr_CA
Outdoor"/>
  <DepartmentDefaultTaxGroup>0</DepartmentDefaultTaxGroup>
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    <RetailStoreId>01291</RetailStoreId>
    <DefaultEntryCode>>false</DefaultEntryCode>
    <EnabledFlag>>false</EnabledFlag>
    <ListSortIndex>0</ListSortIndex>
  </RetailStorePOSDepartment>
  <RetailStorePOSDepartment>
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        <RetailStoreId>04241</RetailStoreId>
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        <EnabledFlag>>false</EnabledFlag>
        <ListSortIndex>0</ListSortIndex>
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    <RetailStorePOSDepartment>
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        <RetailStoreId>CORP</RetailStoreId>
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        <EnabledFlag>>true</EnabledFlag>
        <ListSortIndex>0</ListSortIndex>
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    <POSDepartmentID>1414</POSDepartmentID>
    <ParentPOSDepartmentID>0</ParentPOSDepartmentID>
    <POSDepartmentName CountryCode="US" LanguageCode="en" Text="ReSA Dept
1"/>

    <DepartmentDefaultTaxGroup>0</DepartmentDefaultTaxGroup>
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        <ChangeType>ADD</ChangeType>
        <RetailStoreId>04241</RetailStoreId>
        <DefaultEntryCode>>false</DefaultEntryCode>
        <EnabledFlag>>false</EnabledFlag>
        <ListSortIndex>0</ListSortIndex>
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</POSDepartment>
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    <ChangeType>ADD</ChangeType>
    <POSDepartmentID>1221</POSDepartmentID>
    <ParentPOSDepartmentID>0</ParentPOSDepartmentID>
    <POSDepartmentName CountryCode="US" LanguageCode="en" Text="ReSA Dept
2"/>

    <DepartmentDefaultTaxGroup>0</DepartmentDefaultTaxGroup>
    <RetailStorePOSDepartment>
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        <RetailStoreId>04241</RetailStoreId>
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        <EnabledFlag>>false</EnabledFlag>
        <ListSortIndex>0</ListSortIndex>
    </RetailStorePOSDepartment>
</POSDepartment>
<POSDepartment>
    <ChangeType>ADD</ChangeType>
    <POSDepartmentID>99</POSDepartmentID>
    <ParentPOSDepartmentID>0</ParentPOSDepartmentID>
    <POSDepartmentName CountryCode="US" LanguageCode="en" Text="Tax Test
Department"/>
    <POSDepartmentName CountryCode="PR" LanguageCode="es" Text="es_PR Tax
Test Dept"/>
    <POSDepartmentName CountryCode="CA" LanguageCode="fr" Text="fr_CA Tax
Test Dept"/>
    <DepartmentDefaultTaxGroup>0</DepartmentDefaultTaxGroup>
    <RetailStorePOSDepartment>
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        <RetailStoreId>04241</RetailStoreId>
        <DefaultEntryCode>>false</DefaultEntryCode>
        <EnabledFlag>>false</EnabledFlag>
        <ListSortIndex>0</ListSortIndex>

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```

        </RetailStorePOSDepartment>
    </POSDepartment>
    <POSDepartment>
        <ChangeType>ADD</ChangeType>
        <POSDepartmentID>8888602</POSDepartmentID>
        <ParentPOSDepartmentID>0</ParentPOSDepartmentID>
        <POSDepartmentName CountryCode="US" LanguageCode="en" Text="VAT Dept
8888640"/>
        <POSDepartmentName CountryCode="PR" LanguageCode="es" Text="[es_PR]
VAT Dept"/>
        <DepartmentDefaultTaxGroup>8888640</DepartmentDefaultTaxGroup>
        <RetailStorePOSDepartment>
            <ChangeType>ADD</ChangeType>
            <RetailStoreId>01291</RetailStoreId>
            <DefaultEntryCode>>false</DefaultEntryCode>
            <EnabledFlag>>false</EnabledFlag>
            <ListSortIndex>0</ListSortIndex>
        </RetailStorePOSDepartment>
        <RetailStorePOSDepartment>
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            <RetailStoreId>04241</RetailStoreId>
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            <ListSortIndex>0</ListSortIndex>
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    </POSDepartment>
    <POSDepartment>
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        <POSDepartmentID>8888603</POSDepartmentID>
        <ParentPOSDepartmentID>0</ParentPOSDepartmentID>
        <POSDepartmentName CountryCode="US" LanguageCode="en" Text="VAT Dept
8888670"/>
        <POSDepartmentName CountryCode="PR" LanguageCode="es" Text="[es_PR]
VAT Dept"/>
        <DepartmentDefaultTaxGroup>8888670</DepartmentDefaultTaxGroup>
        <RetailStorePOSDepartment>
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            <ListSortIndex>0</ListSortIndex>
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    </POSDepartment>
    <POSDepartment>
        <ChangeType>ADD</ChangeType>
        <POSDepartmentID>8888604</POSDepartmentID>
        <ParentPOSDepartmentID>0</ParentPOSDepartmentID>
        <POSDepartmentName CountryCode="US" LanguageCode="en" Text="VAT
Dept"/>
        <POSDepartmentName CountryCode="PR" LanguageCode="es" Text="[es_PR]
VAT Dept"/>
        <DepartmentDefaultTaxGroup>8888999</DepartmentDefaultTaxGroup>
        <RetailStorePOSDepartment>

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        <EnabledFlag>>false</EnabledFlag>
        <ListSortIndex>0</ListSortIndex>
    </RetailStorePOSDepartment>
    <RetailStorePOSDepartment>
        <ChangeType>ADD</ChangeType>
        <RetailStoreId>04241</RetailStoreId>
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        <EnabledFlag>>false</EnabledFlag>
        <ListSortIndex>0</ListSortIndex>
    </RetailStorePOSDepartment>
</POSDepartment>
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    <ID>0</ID>
    <Name>Root</Name>
</MerchandiseGroup>
<MerchandiseGroup>
    <ChangeType>ADD</ChangeType>
    <ID>1</ID>
    <Name>Gardening</Name>
</MerchandiseGroup>
<MerchandiseGroup>
    <ChangeType>ADD</ChangeType>
    <ID>2</ID>
    <Name>Multi-Media</Name>
</MerchandiseGroup>
<MerchandiseGroup>
    <ChangeType>ADD</ChangeType>
    <ID>3</ID>
    <Name>Music</Name>
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<MerchandiseGroup>
    <ChangeType>ADD</ChangeType>
    <ID>4</ID>
    <Name>DVD</Name>
</MerchandiseGroup>
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    <ID>5</ID>
    <Name>CD</Name>
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    <ID>6</ID>
    <Name>Movies</Name>
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    <ID>7</ID>
    <Name>DVD</Name>
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    <ChangeType>ADD</ChangeType>
    <ID>8</ID>
    <Name>Video</Name>
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<MerchandiseGroup>

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        <ChangeType>ADD</ChangeType>
        <ID>9</ID>
        <Name>Equipment</Name>
    </MerchandiseGroup>
</MerchandiseGroup>
<MerchandiseGroup>
    <ChangeType>ADD</ChangeType>
    <ID>45</ID>
    <Name>Hardware</Name>
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</MerchandiseGroup>
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    <Name>Building Materials</Name>
</MerchandiseGroup>
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    <ChangeType>ADD</ChangeType>
    <ID>12</ID>
    <Name>Tools</Name>
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    <ID>13</ID>
    <Name>Office Supplies</Name>
</MerchandiseGroup>
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    <ChangeType>ADD</ChangeType>
    <ID>14</ID>
    <Name>Furniture</Name>
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    <ID>15</ID>
    <Name>Equipment</Name>
</MerchandiseGroup>
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    <ID>16</ID>
    <Name>Computers</Name>
</MerchandiseGroup>
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    <ID>17</ID>
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    <ChangeType>ADD</ChangeType>
    <ID>18</ID>
    <Name>Sporting Goods</Name>
</MerchandiseGroup>
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<MerchandiseGroup>
    <ChangeType>ADD</ChangeType>
    <ID>19</ID>
    <Name>Board Games</Name>
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    <ID>20</ID>
    <Name>Balls</Name>
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        <ID>21</ID>
        <Name>Camping & Hunting</Name>
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    <ID>10</ID>
    <Name>Camping</Name>
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    <ID>22</ID>
    <Name>Firearms</Name>
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<MerchandiseGroup>
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    <ID>24</ID>
    <Name>Bicycles</Name>
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    <ID>49</ID>
    <Name>Cycling Jerseys</Name>
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    <ChangeType>ADD</ChangeType>
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</MerchandiseGroup>

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        <ID>63</ID>
        <Name>Chains & Guides</Name>
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        <ChangeType>ADD</ChangeType>
        <ID>64</ID>
        <Name>Brakes, Pads & Shoes</Name>
    </MerchandiseGroup>
    <MerchandiseGroup>
        <ChangeType>ADD</ChangeType>
        <ID>65</ID>
        <Name>Handlebars & Grips</Name>
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    <MerchandiseGroup>
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        <Name>Lights</Name>
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        <Name>Seats</Name>
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    <Level ID="2" Name="Division" ParentID="1"/>
    <Level ID="3" Name="Group" ParentID="2"/>
    <Level ID="4" Name="Department" ParentID="3"/>
    <Level ID="5" Name="Class" ParentID="4"/>
    <Level ID="6" Name="SubClass" ParentID="5"/>
  </LevelList>
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    <Node ID="1202" LevelID="2" ParentNodeID="1201" />
    <Node ID="1221" LevelID="3" ParentNodeID="1202" />
    <Node ID="1414" LevelID="3" ParentNodeID="1202" />
  </NodeList>
</Hierarchy>
</HierarchyList>
</MerchandiseHierarchy>

```

Pricing Import

Table C–8 identifies the PriceChange element mapping for the PricingImport.xsd file.

Table C–8 Pricing Import XSD PriceChange Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|------------------------------|----------------------|--------------|---|--|
| Event CO_EV | EventID | ID_EV | INTEGER | Generated at Stores | Generated at Stores. Maximum field size for INTEGER is typically NUMBER(10) to support Java INT datatype in application. |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | PricingImport/PriceChange/StoreID | |
| | External EventID | ID_EV_EXT | INTEGER | PricingImport/PriceChange @ID | This value is used as an external index. Oracle Retail Price Management prepends a 1 for regular price changes or a 2 for clearance price changes when sending price change IDs. |
| | Name | NM_EV | VARCHAR(120) | PricingImport/PriceChange/Description | |
| | TypeCode | TY_EV | VARCHAR(20) | PricingImport/PriceChange @Type | PPC = Permanent Price Change IPC = Immediate Price Change Default value = PPC for Permanent Price Change. |
| | PlanStartTime | TS_EV_PL_EF | TIMESTAMP | PricingImport/PriceChange @StartDate | |
| | StatusCode | SC_EV | VARCHAR(20) | Derived from PricingImport/PriceChange @StartDate | Default = PENDING |
| | Description | DE_EV | VARCHAR(250) | No mapping available | |
| | StoreOrHomeOfficeControlCode | CC_EV | VARCHAR(20) | No mapping available | |
| | OwnerName | NM_EV_OWNER | VARCHAR(120) | No mapping available | |
| | ScheduledStartDate | DC_DY_BSN_SS | VARCHAR(10) | No mapping available | |
| | ScheduledEndDate | DC_DY_BSN_SE | VARCHAR(10) | No mapping available | |
| | ActualStartDate | DC_DY_BSN_AS | VARCHAR(10) | No mapping available | |
| | ActualEndDate | DC_DY_BSN_AE | VARCHAR(10) | No mapping available | |

Table C-8 (Cont.) Pricing Import XSD PriceChange Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--|-----------------------------|----------------------|---------------|---|--|
| | PlanEndTimeStamp | TS_EV_PL_EP | TIMESTAMP | No mapping available | |
| | ActualStartTimeStamp | TS_EV_ACT_EF | TIMESTAMP | No mapping available | |
| | ActualEndTimeStamp | TS_EV_ACT_EP | TIMESTAMP | No mapping available | |
| | RecordCreatedTimestamp | TS_CRT_RCRD | TIMESTAMP | No mapping available | |
| | RecordLastModifiedTimestamp | TS_CRT_RCRD | TIMESTAMP | No mapping available | |
| EventI18N CO_EV_I8 | EventID | ID_EV | INTEGER | Generated at Stores | |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | PricingImport/PriceChange/StoreID | |
| | Locale | LCL | VARCHAR(10) | No mapping available | System Supported Locales |
| | LocalizedName | NM_EV | VARCHAR(120) | PricingImport/PriceChange/LocalizedDescription@Name | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | LocalizedDescription | DE_EV | VARCHAR(250) | No mapping available | Not populated |
| Permanent PriceChange Item MA_ITM_PRN_PRC_ITM | EventID | ID_EV | INTEGER | Generated at Stores | Same ID as Event table |
| | ItemID | ID_ITM | VARCHAR(14) | PricingImport/PriceChange/Item @ID | |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | PricingImport/PriceChange/StoreID | |
| | PriceOverride Amount | MO_OVRD_PRC | DECIMAL(13,2) | PricingImport/PriceChange/Item/Price | |
| | Label TemplateID | ID_TMPLT_LB | VARCHAR(8) | PricingImport/PriceChange/Item @TemplateType | |
| | RecordCreatedTimestamp | TS_CRT_RCRD | TIMESTAMP | | |
| | RecordLastModifiedTimestamp | TS_CRT_RCRD | TIMESTAMP | | |
| ItemPrice Maintenance MA_PRC_ITM | EventID | ID_EV | INTEGER | Generated at Stores | Same ID as Event table |
| | Retail StoreID | ID_STR_RT | VARCHAR(5) | PricingImport/PriceChange/StoreID | |

Table C-8 (Cont.) Pricing Import XSD PriceChange Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------------------|-----------------------------|----------------------|--------------|---|--|
| | Label TemplateID | ID_TMPLT_LB | VARCHAR(8) | PricingImport/PriceChange @TemplateType | |
| | TypeCode | TY_PRC_MNT | VARCHAR(20) | No mapping available | PPC = Permanent Price Change IPC = Immediate Price Change |
| | EventPriority | UN_PRI_EV | INTEGER | No mapping available | |
| | PriceLastDigit | UN_DG_LS_PRC | CHAR(1) | No mapping available | |
| | PricingGroupID | ID_PRCGP | INTEGER | No mapping available | |
| | RecordCreatedTimestamp | TS_CRT_RCRD | TIMESTAMP | | |
| | RecordLastModifiedTimestamp | TS_CRT_RCRD | TIMESTAMP | | |
| Maintenance Event CO_EV_MNT | EventID | ID_EV | INTEGER | Generated at Stores | Same ID as Event table. |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | PricingImport/PriceChange/StoreID | |
| | Name | NM_EV_MNT | VARCHAR(120) | PricingImport/PriceChange/Description @Text | |
| | TypeCode | TY_EV | VARCHAR(20) | No mapping available | PPC = Permanent Price Change IPC = Immediate Price Change |
| | EffectiveDateTimestamp | TS_EV_MNT_EF | TIMESTAMP | PricingImport/PriceChange @StartDate | |
| | StatusCode | SC_EV_MNT | VARCHAR(20) | Derived from PricingImport/PriceChange @StartDate | Default = PENDING |
| | Description | DE_EV_MNT | VARCHAR(250) | No mapping available | |
| | ExpirationDateTimestamp | TS_EV_MNT_EP | TIMESTAMP | No mapping available | |
| | ReasonCode | RC_EV_MNT | VARCHAR(20) | No mapping available | |
| | OriginTypeCode | TY_EV_MNT_ORG | VARCHAR(20) | No mapping available | |
| | EmployeeID | ID_EM | VARCHAR(10) | No mapping available | |
| | CompetitorID | ID_CMP | INTEGER | No mapping available | |
| | CreateDateTimestamp | TS_EV_MNT_CRT | TIMESTAMP | No mapping available | |

Table C-8 (Cont.) Pricing Import XSD PriceChange Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|---|--------------------------------------|----------------------|--------------|---|--|
| | AppliedTimestamp | TS_EV_MNT_APLY | TIMESTAMP | No mapping available | |
| | JobStartID | ID_JOB_ST | VARCHAR(12) | No mapping available | |
| | JobEndID | ID_JOB_END | VARCHAR(12) | No mapping available | |
| | MaintenanceEventEffectiveStatusCode | SC_EV_MNT_EF | VARCHAR(20) | No mapping available | |
| | MaintenanceEventExpirationStatusCode | SC_EV_MNT_EP | VARCHAR(20) | No mapping available | |
| | RecordCreatedTimestamp | TS_CRT_RCRD | TIMESTAMP | | |
| | RecordLastModifiedTimestamp | TS_CRT_RCRD | TIMESTAMP | | |
| MaintenanceEvent18N CO_EV_MNT_18 | EventID | ID_EV | INTEGER | Generated at Stores | Same ID as Event table |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | PricingImport/PriceChange/StoreID | |
| | Locale | LCL | VARCHAR(10) | No mapping available | System Supported Locales |
| | LocalizedName | NM_EV_MNT | VARCHAR(120) | PricingImport/PriceChange/LocalizedDescription@Name | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | LocalizedDescription | DE_EV_MNT | VARCHAR(250) | No mapping available | |
| Item Maintenance Event CO_MNT_ITM | EventID | ID_EV | INTEGER | Generated at Stores | Same ID as Event table. |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | PricingImport/PriceChange/StoreID | |
| | FunctionCode | LU_EV_ITM_MNT | VARCHAR(20) | No mapping available | Default = PRICE CHANGE |
| | RecordCreatedTimestamp | TS_CRT_RCRD | TIMESTAMP | | |
| | RecordLastModifiedTimestamp | TS_CRT_RCRD | TIMESTAMP | | |
| Permanent PriceChange TR_CHN_PRN_PRC | EventID | ID_EV | INTEGER | Generated at Stores | Same ID as Event table. |

Table C–8 (Cont.) Pricing Import XSD PriceChange Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|-----------------------------|----------------------|---------------|-----------------------------------|-------|
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | PricingImport/PriceChange/StoreID | |
| | SaleUnitAmount | MO_CHN_PRN_UN_PRC | DECIMAL(10,4) | No mapping available | |
| | SaleUnitAmount TypeCode | TY_CHN_PRN_UN_PRC | VARCHAR(20) | No mapping available | |
| | RecordCreatedTimestamp | TS_CRT_RCRD | TIMESTAMP | | |
| | RecordLastModifiedTimestamp | TS_CRT_RCRD | TIMESTAMP | | |

Table C–9 identifies the Price Promotion element mapping for the PricingImport.xsd file.

Table C–9 Pricing Import XSD Price Promotion Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|---------------------|----------------------|------------|--------------------------------------|---|
| Event CO_EV | EventID | ID_EV | INTEGER | | The Promotion ID in this column is the Stores Promotion ID that is created in the import process. Oracle Retail Price Management promotion ID is not updated in this column. |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | PricingImport/PricePromotion/StoreID | |
| | External EventID | ID_EV_EXT | INTEGER | PricingImport/PricePromotion/@ID | Oracle Retail Price Management promotion ID will be used to derive the stores promotion ID. Stores DB will be altered to accommodate Oracle Retail Price Management promotion ID. Field size is NUMBER(10), or Java int. Oracle Retail Price Management pass through value. |

Table C-9 (Cont.) Pricing Import XSD Price Promotion Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|-----------------------|-------------------------------|----------------------|--------------|---|---|
| | Name | NM_EV | VARCHAR(160) | PricingImport/PricePromotion/Name | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be $120/4 = 30$. |
| | Description | DE_EV | VARCHAR(640) | PricingImport/PricePromotion/Description | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be $250/4 = 60$. |
| | PlanStartDateTimestamp | TS_EV_PL_EF | TIMESTAMP | PricingImport/PricePromotion/@StartDateTime | |
| | PlanEndDateTimestamp | TS_EV_PL_EP | TIMESTAMP | PricingImport/PricePromotion/@EndDateTime | |
| | StatusCode | SC_EV | VARCHAR(20) | No mapping found | Derived from Start Date. |
| | TypeCode | TY_EV | VARCHAR(20) | No mapping found | Default value = TPC (Temporary PriceChange) |
| | RecordCreationTimestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordLast Modified Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| | StoreOrHomeOfficeControlCode | CC_EV | VARCHAR(20) | No mapping available | |
| | OwnerName | NM_EV_OWNER | VARCHAR(120) | No mapping available | |
| | ScheduledStartDate | DC_DY_BSN_SS | VARCHAR(10) | No mapping available | |
| | ScheduledEndDate | DC_DY_BSN_SE | VARCHAR(10) | No mapping available | |
| | ActualStartDate | DC_DY_BSN_AS | VARCHAR(10) | No mapping available | |
| | ActualEndDate | DC_DY_BSN_AE | VARCHAR(10) | No mapping available | |
| EventI18N CO_EV_I8 | EventID | ID_EV | INTEGER | Generated at Stores | Same ID as Event table |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | PricingImport/PricePromotion/StoreID | |

Table C-9 (Cont.) Pricing Import XSD Price Promotion Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------------------|-------------------------------|----------------------|--------------|---|--|
| | Locale | LCL | VARCHAR(10) | | System Supported Locales |
| | LocalizedName | NM_EV | VARCHAR(120) | PricingImport/PricePromotion/LocalizedNameDescription@Name | |
| | LocalizedDescription | DE_EV | VARCHAR(250) | PricingImport/PricePromotion/LocalizedNameDescription@Description | |
| Maintenance Event CO_EV_MNT | EventID | ID_EV | INTEGER | Generated at Stores | Same ID as Event table. |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | PricingImport/PricePromotion/StoreID | |
| | Promotion Name | NM_EV_MNT | VARCHAR(120) | PricingImport/PricePromotion/Name | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | PromotionDescription | DE_EV_MNT | VARCHAR(250) | PricingImport/PricePromotion/Description | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 250/4 = 60. |
| | EffectiveDateTimestamp | TS_EV_MNT_EF | TIMESTAMP | PricingImport/PricePromotion@StartDateTime | |
| | ExpirationDateTimestamp | TS_EV_MNT_EP | TIMESTAMP | PricingImport/PricePromotion@EndDateTime | If left null, will default to 2009-12-31 23:59:59.000 |
| | StatusCode | SC_EV_MNT | VARCHAR(20) | No mapping found | Derived from start date. |
| | TypeCode | TY_EV_MNT | VARCHAR(20) | No mapping found | Default value = TPC for Temporary PriceChange |
| | RecordCreationTimestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordLast Modified Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| | ReasonCode | RC_EV_MNT | VARCHAR(20) | No mapping available | |
| | OriginTypeCode | TY_EV_MNT_ORG | VARCHAR(20) | No mapping available | |

Table C-9 (Cont.) Pricing Import XSD Price Promotion Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------------------------|--------------------------------------|----------------------|--------------|---|-------------------------------------|
| | EmployeeID | ID_EM | VARCHAR(10) | No mapping available | |
| | CompetitorID | ID_CMP | INTEGER | No mapping available | |
| | CreateDateTimestamp | TS_EV_MNT_CRT | TIMESTAMP | No mapping available | |
| | AppliedTimestamp | TS_EV_MNT_APLY | TIMESTAMP | No mapping available | |
| | JobStartID | ID_JOB_ST | VARCHAR(12) | No mapping available | |
| | JobEndID | ID_JOB_END | VARCHAR(12) | No mapping available | |
| | MaintenanceEventEffectiveStatusCode | SC_EV_MNT_EF | VARCHAR(20) | No mapping available | |
| | MaintenanceEventExpirationStatusCode | SC_EV_MNT_EP | VARCHAR(20) | No mapping available | |
| MaintenanceEvent18N CO_EV_MNT_I8 | EventID | ID_EV | INTEGER | Generated at Stores | |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | PricingImport/PricePromotion/StoreID | |
| | Locale | LCL | VARCHAR(10) | No mapping available | |
| | LocalizedName | NM_EV_MNT | VARCHAR(120) | PricingImport/PricePromotion/LocalizedNameDescription@Name | |
| | LocalizedDescription | DE_EV_MNT | VARCHAR(250) | PricingImport/PricePromotion/LocalizedNameDescription@Description | |
| Item Maintenance Event CO_MNT_ITM | EventID | ID_EV | INTEGER | Generated at Stores | Same ID as Event table. |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | PricingImport/PricePromotion/StoreID | |
| | FunctionCode | LU_EV_ITM_MNT | VARCHAR(20) | No mapping found | Default value = PRICE CHANGE |
| | RecordCreationTimestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordLast Modified Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |

Table C-9 (Cont.) Pricing Import XSD Price Promotion Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes | |
|--|--------------------------------------|----------------------|---------------|--|---|-------------------------|
| Temporary Price Change TR_CHN_TMP_PRC | EventID | ID_EV | INTEGER | Generated at Stores | Same ID as Event table. | |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | PricingImport/PricePromotion/StoreID | | |
| | SaleUnit Amount | MO_UN_TMP_PRC_CHN | DECIMAL(10,4) | PricingImport/PricePromotion/DiscountPercent PricingImport/PricePromotion/DiscountAmount PricingImport/PricePromotion/NewPrice | It can be any of the following: n Discount amount n Discount percent n New price | |
| | SaleUnit Amount Type Code | TY_UN_TMP_PRC_CHN | VARCHAR(20) | PricingImport/PricePromotion @Type | Indicator to denote: n 0= AmountOff n 1= PercentOff n 2= New Price | |
| | RecordCreationTimestamp | TS_CRT_RCRD | TIMESTAMP | Now() | | |
| | RecordLast Modified Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | | |
| | Item Price Maintenance MA_PRC_ITM | EventID | ID_EV | INTEGER | Generated at Stores | Same ID as Event table. |
| | | RetailStoreID | ID_STR_RT | VARCHAR(5) | PricingImport/PricePromotion/StoreID | |
| | | EventPriority | UN_PRI_EV | INTEGER | PricingImport/PricePromotion @Priority | |
| LabelTemplateID | | ID_TMPLT_LB | VARCHAR(8) | PricingImport/PricePromotion @TemplateType | "DEFAULT" | |
| TypeCode | | TY_PRC_MNT | VARCHAR(20) | No mapping found | Default value = TPC for Temporary Price Change | |
| PriceLastDigit | | UN_DG_LS_PRC | CHAR(1) | No mapping found | | |
| PricingGroupID | | ID_PRCGP | INTEGER | PricingImport/PricePromotion @PricingGroupID | Maximum allowable value is Number(10) | |
| RecordCreationTimestamp | | TS_CRT_RCRD | TIMESTAMP | Now() | | |
| RecordLast Modified Timestamp | | TS_MDF_RCRD | TIMESTAMP | Now() | | |

Table C-9 (Cont.) Pricing Import XSD Price Promotion Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--|-------------------------------|----------------------|---------------|--|--|
| TemporaryPriceChangeItem MA_ITM_TMP_PRC_CHN | EventID | ID_EV | INTEGER | Generated at Stores | Same ID as Event table. |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | PricingImport/PricePromotion/StoreID | |
| | Item ID | ID_ITM | VARCHAR(14) | PricingImport/PricePromotion/Item @ID | Here Item ID is required, but Item occurrence can be zero , in this case the promotion details are stored without storing the item details. |
| | LabelTemplateID | ID_TMPLT_LB | VARCHAR(8) | PricingImport/PricePromotion @TemplateType | Default value = DEFAULT |
| | Price Override Amount | MO_OVRD_PRC | DECIMAL(13,2) | PricingImport/PricePromotion/Item/Price/Amount | |
| | PromotionID | ID_PRM | INTEGER | PricingImport/PricePromotion @ID | Price management system pass through value - max allowed value is Number(10). |
| | Promotion ComponentID | ID_PRM_CMP | INTEGER | PricingImport/PricePromotion @PromoCompID | Price management system pass through value - max allowed value is Number(10). Defaults to Zero . |
| | Promotion Component DetailID | ID_PRM_CMP_DTL | INTEGER | PricingImport/PricePromotion @PromoComp DetlID | Price management system pass through value - max allowed value is Number(10). Defaults to Zero . |
| | RecordCreationTimestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordLast Modified Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |

Table C–10 identifies the Discount Rule element mapping for the PricingImport.xsd file.

Table C–10 Pricing Import XSD Discount Rule Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------------------|---------------------------------|----------------------|--------------|--|--|
| PriceDerivationRule RU_PRDV | PriceDerivationRuleID | ID_RU_PRDV | INTEGER | | ID from the stores system. This is not the Oracle Retail Price Management promotion ID |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | DiscountRule/PricingRule/StoreID | |
| | PromotionID | ID_PRM | INTEGER | DiscountRule/PricingRule @ID | Price management system pass through value - max allowed value is Number(10) |
| | PromotionComponentID | ID_PRM_CMP | INTEGER | DiscountRule/PricingRule @PromoCompID | Price management system pass through value - max allowed value is Number(10) |
| | Promotion Component DetailID | ID_PRM_CMP_DTL | INTEGER | DiscountRule/PricingRule @PromoCompDetID | Price management system pass through value - max allowed value is Number(10) |
| | EffectiveDate | DC_RU_PRDV_EF | TIMESTAMP | DiscountRule/PricingRule @StartDateTime | |
| | ExpirationDate | DC_RU_PRDV_EP | TIMESTAMP | DiscountRule/PricingRule @EndDateTime | If left null, will default to 2009-12-31 23:59:59.000 |
| | Description | DE_RU_PRDV | VARCHAR(250) | DiscountRule/PricingRule @Type | |
| | Assignment BasisCode | CD_BAS_PRDV | INTEGER | DiscountRule/Sources @Type | 3=Coupon 2=Other Default it to 2 |
| | Source Comparison BasisCode | CD_BAS_CMP_SRC | VARCHAR(20) | DiscountRule/Sources @Type | 0=Item 1=Department 2=Class 3=Coupon. Default it to 0. |
| | Target Comparison BasisCode | CD_BAS_CMP_TGT | VARCHAR(20) | DiscountRule/Targets @Type | 0=Item, 1=Department, 2=Class. Default it to 0. |
| | Application Limit | QU_LM_APLY | SMALLINT | DiscountRule/PricingRule @NbrTimesPerTrans | |
| | Department LedgerStock Modifier | DP_LDG_STK_MDFR | VARCHAR(20) | DiscountRule/PricingRule @AccountingMethod | 1 = Markdown, 0 = Discount |

Table C-10 (Cont.) Pricing Import XSD Discount Rule Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|-------------------------------|----------------------|---------------|---|--|
| | AllowRepeatingSourcesFlag | FL_ALW_RPT_SRC | CHAR(1) | DiscountRule/PricingRule @AllowSourceToRepeat | 0= false, 1= true |
| | Deal Distribution Flag | FL_DL_DST | CHAR(1) | DiscountRule/PricingRule @DealDistribution | 1=SourceTarget, 0=Target |
| | PriceDerivationRuleName | NM_RU_PRDV | VARCHAR(160) | DiscountRule/PricingRule/Name | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | Source Threshold Amount | MO_TH_SRC | DECIMAL(13,2) | DiscountRule/PricingRule/SourceThreshold | |
| | Source Limit Amount | MO_LM_SRC | DECIMAL(13,2) | DiscountRule/PricingRule/SourceLimit | |
| | Target Threshold Amount | MO_TH_TGT | DECIMAL(13,2) | DiscountRule/PricingRule/TargetThreshold | |
| | Target Limit Amount | MO_LM_TGT | DECIMAL(13,2) | DiscountRule/PricingRule/TargetLimit | |
| | SourceAnyQuantity | QU_AN_SRC | SMALLINT | DiscountRule/Sources @Qty | The Any Quantity is only populated if Sources@Qualifier is set to Any . |
| | TargetAnyQuantity | QU_AN_TGT | SMALLINT | DiscountRule/Targets @Qty | The Any Quantity is only populated if Targets@Qualifier is set to Any . |
| | RecordCreationTimestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordLast Modified Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| | TransactionControlBreakCode | LU_CBRK_PRDV_TRN | VARCHAR(2) | No mapping available | |
| | StatusCode | SC_RU_PRDV | VARCHAR(20) | No mapping available | |
| | TypeCode | TY_RU_PRDV | VARCHAR(2) | No mapping available | |
| | EventID | ID_EV | INTEGER | No mapping available | |
| | PriceDerivationRuleName | NM_RU_PRDV | VARCHAR(120) | No mapping available | |
| | ReasonCode | RC_RU_PRDV | INTEGER | No mapping available | |
| | AdvancedDealAppliedFlag | FL_DL_ADVN_APLY | CHAR(1) | No mapping available | |

Table C-10 (Cont.) Pricing Import XSD Discount Rule Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--|----------------------------------|----------------------|---------------|---|--|
| | ScopeCode | CD_SCP_PRDV | INTEGER | PricingImport/DiscountRule/PricingRule@Scope | Transaction = 0, Item = 1, Group = 2 |
| | MethodCode | CD_MTH_PRDV | INTEGER | No mapping available | |
| | DefaultEntryCode | FL_CD_ENT_DFLT | CHAR(1) | No mapping available | |
| | ListSortIndex | CD_ENT_SRT | SMALLINT | No mapping available | |
| | PriceDerivationThresholdTypeCode | CD_TY_TH_PRDV | VARCHAR(4) | No mapping available | |
| | DiscountTypeID | ID_TY_DISC | INTEGER | No mapping available | |
| | PricingGroupID | ID_PRCGP | INTEGER | PricingImport/DiscountRule/PricingRule@PricingGroupID | Maximum allowable value is Number(10) |
| PriceDerivationRule18N RU_PRDV_I8 | RetailStoreID | ID_RU_PRDV | INTEGER | ID from the stores system | This will not be Oracle Retail Price Management promotion ID |
| | PriceDerivationRuleID | ID_STR_RT | VARCHAR(5) | PricingImport/DiscountRule/PricingRule/StoreID | |
| | Locale | LCL | VARCHAR(10) | No mapping available | System supported locale |
| | LocalizedName | NM_RU_PRDV | VARCHAR(120) | PricingImport/DiscountRule/PricingRule/LocalizedName@Name | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| ItemPrice Derivation RuleEligibility CO_EL_PRDV_ITM | ItemID | ID_ITM | VARCHAR(14) | DiscountRule/Sources/Source @ID | |
| | PriceDerivationRuleEligibilityID | ID_RU_PRDV | INTEGER | DiscountRule/PricingRule @ID | |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | DiscountRule/PricingRule/StoreID | |
| | Threshold Quantity | QU_TH | INTEGER | DiscountRule/Sources/Source @Qty | |
| | Threshold Amount | MO_TH | DECIMAL(13,2) | DiscountRule/Sources/Source/SourceAmount | |

Table C-10 (Cont.) Pricing Import XSD Discount Rule Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--|-------------------------------|----------------------|---------------|---|-------|
| | EffectiveDateTimestamp | TS_RU_DRVN_EF | TIMESTAMP | DiscountRule/PricingRule @StartDateTime | |
| | ExpirationDateTimestamp | TS_RU_DRVN_EP | TIMESTAMP | DiscountRule/PricingRule @EndDateTime | |
| | RecordCreationTimestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordLastModifiedTimestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| | StoreFinancialLedgerAccountID | ID_ACTN_LDG | INTEGER | No mapping available | |
| | EventID | ID_EV | INTEGER | No mapping available | |
| | AccountingDispositionCode | DP_RU_PRC_DRVN | VARCHAR(4) | No mapping available | |
| | QuantityLimit | QU_UL | DECIMAL(9,2) | No mapping available | |
| | AmountLimit | MO_UL | DECIMAL(13,2) | No mapping available | |
| MixAndMatch PriceDerivation Item TR_ITM_MXMH_PRDV | PriceDerivationRuleID | ID_RU_PRDV | INTEGER | DiscountRule/PricingRule @ID | |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | DiscountRule/PricingRule/StoreID | |
| | Promotional ProductID | ID_PRM_PRD | VARCHAR(14) | DiscountRule/Targets/Target @ID | |
| | Reduction Monetary Amount | MO_RDN_PRC_MXMH | DECIMAL(13,2) | DiscountRule/Targets/DiscountAmount | |
| | Reduction Percent | PE_RDN_PRC_MXMH | DECIMAL(5,2) | DiscountRule/Targets/DiscountPercent | |
| | Reduction Price Point | PNT_PRC_RDN_MXMH | DECIMAL(13,2) | DiscountRule/Targets/NewPrice | |
| | MixAndMatch LimitCount | QU_LM_MXMH | INTEGER | DiscountRule/Targets/Target @Qty | |
| | RecordCreationTimestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordLastModifiedTimestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| | ComparisonBasis Code | CD_BAS_CMP | VARCHAR(20) | No mapping available | |
| ItemPrice Derivation CO_PRDV_ITM | RetailStoreID | ID_STR_RT | VARCHAR(5) | DiscountRule/PricingRule/StoreID | |

Table C-10 (Cont.) Pricing Import XSD Discount Rule Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|---|---------------------------------|----------------------|---------------|--|---|
| | PriceDerivationRuleID | ID_RU_PRDV | INTEGER | DiscountRule/PricingRule @ID | |
| | Reduction Amount | MO_UN_ITM_PRDV | DECIMAL(13,2) | DiscountRule/Targets/DiscountAmount | |
| | Reduction Percent | PE_UN_ITM_PRDV | DECIMAL(5,2) | DiscountRule/Targets/DiscountPercent | |
| | DiscountPrice Point | PNT_PRC_UN_ITM_PRDV | DECIMAL(13,2) | DiscountRule/Targets/NewPrice | |
| | RecordCreationTimestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordLast Modified Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| MixAndMatch PriceDerivation Rule RU_PRDV_MXMH | RetailStoreID | ID_STR_RT | VARCHAR(5) | DiscountRule/PricingRule/StoreID | |
| | PriceDerivationRuleID | ID_RU_PRDV | INTEGER | DiscountRule/PricingRule @ID | |
| | MixAndMatch LimitCount | QU_LM_MXMH | INTEGER | DiscountRule/Targets/Target @Qty | |
| DepartmentPriceDerivation RuleEligibility CO_EL_PRDV_DPT Populated only if DiscountRule/Sources/Source @type is Department | POSDepartmentID | ID_DPT_POS | VARCHAR(14) | DiscountRule/Sources/Source @ID | Might be derived from the table ID_DPT_PS column ID_DPT_POS |
| | PriceDerivationRuleID | ID_RU_PRDV | INTEGER | No mapping available | ID from the stores system. This is not the Oracle Retail Price Management promotion ID. |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | DiscountRule/PricingRule/StoreID | |
| | StoreFinancial Ledger AccountID | ID_ACTN_LDG | INTEGER | No mapping available | |
| | EventID | ID_EV | INTEGER | No mapping available | |
| | Accounting Disposition Code | DP_ACNT_DPT_PRDV | VARCHAR(4) | No mapping available | |
| | Threshold Amount | MO_TH | DECIMAL(13,2) | DiscountRule/Sources/Source/SourceAmount | |

Table C-10 (Cont.) Pricing Import XSD Discount Rule Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--|---------------------------------|----------------------|---------------|--|--|
| | Threshold Quantity | QU_TH | INTEGER | DiscountRule/Sources/Source @Qty | |
| | LimitQuantity | QU_UL | DECIMAL(9,2) | No mapping available | |
| | LimitAmount | MO_UL | DECIMAL(13,2) | No mapping available | |
| | Effective Timestamp | TS_RU_MRST_EF | TIMESTAMP | DiscountRule/Pricing Rule @StartDateTime | |
| | Expiration Timestamp | TS_RU_MRST_EP | TIMESTAMP | DiscountRule/Pricing Rule @EndDateTime | |
| | RecordCreated Timestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordLast Modified Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| Merchandise StructurePrice Derivation RuleEligibility CO_EL_MRST_PRDV Populated only if DiscountRule/Sources/Source @type is "Class" | PriceDerivationRuleID | ID_RU_PRDV | INTEGER | ID from the stores system. | This is not the Oracle Retail Price Management promotion ID. |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | Store ID | |
| | Merchandise Classification Code | ID_STRC_MR_CD | VARCHAR(10) | DiscountRule/Sources/Source @ID | Might be derived from the table LU_CD_STRC_MR column ID_STRC_MR_CD |
| | StoreFinancial Ledger AccountID | ID_ACTN_LDG | INTEGER | No mapping available | |
| | EventID | ID_EV | INTEGER | No mapping available | |
| | EffectiveDate Timestamp | TS_RU_MRST_EF | TIMESTAMP | DiscountRule/Pricing Rule @StartDateTime | |
| | ExpirationDateTimestamp | TS_RU_MRST_EP | TIMESTAMP | DiscountRule/Pricing Rule @EndDateTime | |
| | Accounting Disposition Code | DP_ACNT_MRST | VARCHAR(4) | No mapping available | |
| | Threshold Amount | MO_TH | DECIMAL(13,2) | DiscountRule/Sources/Source/SourceAmount | |
| | Quantity Threshold | QU_TH | INTEGER | DiscountRule/Sources/Source @Qty | |

Table C-10 (Cont.) Pricing Import XSD Discount Rule Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|-------------------------------|----------------------|---------------|----------------------------|-------|
| | AmountLimit | MO_UL | DECIMAL(13,2) | No mapping available | |
| | QuantityLimit | QU_UL | DECIMAL(9,2) | No mapping available | |
| | RecordCreated Timestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordLast Modified Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |

The following is an example Pricing Import XSD file.

Example C-11 PricingImport.xsd

```
<?xml version="1.0" encoding="UTF-8"?>
<!--
/* =====
* Copyright (c) 2008, 2010, Oracle and/or its affiliates. All rights reserved.
* =====
* $Header: rgbustores/internal/DIMP/Pricing/PricingImport.xsd /main/13 2010/01/04
21:35:18 abondala Exp $
* =====
* NOTES
* <other useful comments, qualifications, etc.>
*
* MODIFIED (MM/DD/YY)
* abondala 01/04/10 - fix header
* cgreene 12/18/09 - per Eatal reqs, default template to DEFAULT
* masahu 03/17/09 - Pricing Group import moved to Customer imports
* vikini 03/06/09 - Adding a choice between Name and LocalizedName for
PricingGroup_type
* glwang 02/13/09 - DIMP doc updates
* npoola 02/04/09 - removed the Name attribute from added the
localization for PricingGroup
* npoola 02/04/09 - refreshed with the base line
* npoola 02/04/09 - PricingGroup Dimp localization added
* npoola 01/30/09 - Pricing Group Localization
* lslepeti 01/29/09 - change co.id_ev_ext to int
* cgreene 11/19/08 - migrate common types to ../common.xsd
*
* =====
*/
-->
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
elementFormDefault="qualified">

<xs:annotation><xs:documentation>
Pricing Import Schema. Copyright 2007 Oracle Inc. All rights reserved.

Use this schema in conjunction with a Oracle Store Systems Data Dictionary
and the relations between the element and attribute names should be
apparent.
</xs:documentation></xs:annotation>
```

```

<xs:include schemaLocation=" ../common.xsd"></xs:include>
<xs:element name="PricingImport">
<xs:annotation><xs:documentation>
Top-level element holding a collection of Price records.
</xs:documentation></xs:annotation>
<xs:complexType>
<xs:sequence>
<xs:element name="PriceChange" type="PriceChange_type" minOccurs="0"
maxOccurs="unbounded"/>
<xs:element name="PricePromotion" type="PricePromotion_type" minOccurs="0"
maxOccurs="unbounded"/>
<xs:element name="DiscountRule" type="DiscountRule_type" minOccurs="0"
maxOccurs="unbounded"/>
</xs:sequence>
<xs:attribute name="FillType" type="FillType_type" use="required"/>
<xs:attribute name="CreationDate" type="xs:dateTime"/>
<xs:attribute name="ExpirationDate" type="xs:dateTime"/>
<xs:attribute name="Version" type="xs:string"/>
<xs:attribute name="Priority" type="xs:int"/>
<xs:attribute name="Batch" type="xs:int"/>
</xs:complexType>
</xs:element>

<xs:complexType name="PriceChange_type">
<xs:sequence>
  <xs:choice>
    <xs:element name="Description" type="LocalizedDescription_type"
minOccurs="0" maxOccurs="1"/>
    <xs:element name="LocalizedDescription" type="LocalizedNameDescription_type"
minOccurs="0" maxOccurs="unbounded"/>
  </xs:choice>
  <xs:element name="Item" type="ItemAndPrice_type" minOccurs="1"
maxOccurs="unbounded" />
  <xs:element name="StoreID" type="RetailStoreId_type" minOccurs="0"
maxOccurs="unbounded"/>
</xs:sequence>
<xs:attribute name="ChangeType" type="ChangeType_type" default="ADD"/>
<xs:attribute name="ID" type="xs:int" use="required"/>
<xs:attribute name="StartDate" type="xs:date" use="required"/>
<xs:attribute name="TemplateType" default="*DEFAULT">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="8"/>
    </xs:restriction>
  </xs:simpleType>
</xs:attribute>
</xs:complexType>

<xs:complexType name="ItemAndPrice_type">
<xs:sequence>
<xs:element name="Price" type="CurrencyAmount_type" minOccurs="1"
maxOccurs="unbounded" />
</xs:sequence>
<xs:attribute name="ID" type="xs:string" use="required"/>
<xs:attribute name="TemplateType" default="*DEFAULT">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="8"/>
    </xs:restriction>
  </xs:simpleType>

```

```

        </xs:attribute>
    </xs:complexType>

    <xs:group name="DiscountTypeChoice">
    <xs:choice>
    <xs:element name="DiscountPercent" type="xs:decimal"/>
    <xs:element name="DiscountAmount" type="CurrencyAmount_type"/>
    <xs:element name="NewPrice" type="CurrencyAmount_type"/>
    </xs:choice>
    </xs:group>

    <xs:attributeGroup name="PromotionComponentAttributes">
    <xs:attribute name="PromoCompID" type="xs:int" use="optional"/>
    <xs:attribute name="PromoCompDetlID" type="xs:int" use="optional"/>
    </xs:attributeGroup>

    <xs:complexType name="PricePromotion_type">
    <xs:sequence>
    <xs:choice>
    <xs:sequence>
    <xs:element name="Name" type="LocalizedName_type" minOccurs="1"
maxOccurs="1"/>
    <xs:element name="Description" type="LocalizedDescription_type" minOccurs="0"
maxOccurs="1"/>
    </xs:sequence>
    <xs:element name="LocalizedNameDescription" type="LocalizedNameDescription_type"
minOccurs="0" maxOccurs="unbounded"/>
    </xs:choice>
    <xs:group ref="DiscountTypeChoice" minOccurs="0" maxOccurs="1"/>
    <xs:element name="Item" type="ItemAndPrice_type" minOccurs="0"
maxOccurs="unbounded" />
    <xs:element name="StoreID" type="RetailStoreId_type" minOccurs="0"
maxOccurs="unbounded"/>
    </xs:sequence>
    <xs:attribute name="ChangeType" type="ChangeType_type" default="ADD"/>
    <xs:attribute name="ID" type="xs:int" use="required"/>
    <xs:attributeGroup ref="PromotionComponentAttributes"/>
    <xs:attribute name="StartDateTime" type="xs:dateTime" use="required"/>
    <xs:attribute name="EndDateTime" type="xs:dateTime" use="optional">
    <xs:annotation><xs:documentation>
    If the EndDateTime is not specified, it will be assumed that it
    was intentionally left blank to denote an never-ending
    pricing rule. The value will then be persisted as
    '2099-12-31 11:59:59.000'
    </xs:documentation></xs:annotation>
    </xs:attribute>
    <xs:attribute name="Type" type="PricePromotionType_type" use="required"/>
    <xs:attribute name="Priority" type="xs:int" default="0"/>
    <xs:attribute name="TemplateType" default="*DEFAULT">
    <xs:simpleType>
    <xs:restriction base="xs:string">
    <xs:maxLength value="8"/>
    </xs:restriction>
    </xs:simpleType>
    </xs:attribute>
    <xs:attribute name="PricingGroupID" type="xs:int"/>
    </xs:complexType>

    <xs:simpleType name="PricePromotionType_type">
    <xs:restriction base="xs:string">

```

```

<xs:enumeration value="AmountOff"/>
<xs:enumeration value="PercentOff"/>
<xs:enumeration value="NewPrice"/>
</xs:restriction>
</xs:simpleType>

<xs:complexType name="DiscountRule_type">
<xs:sequence>
<xs:element name="PricingRule" type="PricingRule_type" minOccurs="1"
maxOccurs="1"/>
<xs:element name="Sources" type="Sources_type" minOccurs="1" maxOccurs="1"/>
<xs:element name="Targets" type="Targets_type" minOccurs="1" maxOccurs="1"/>
</xs:sequence>
</xs:complexType>

<xs:complexType name="PricingRule_type">
<xs:sequence>
  <xs:choice>
    <xs:element name="Name" type="LocalizedName_type" minOccurs="1"
maxOccurs="1"/>
    <xs:element name="LocalizedName" type="LocalizedNameDescription_type"
minOccurs="0" maxOccurs="unbounded"/>
  </xs:choice>
  <xs:element name="SourceThreshold" type="CurrencyAmount_type" minOccurs="0"
maxOccurs="unbounded"/>
  <xs:element name="SourceLimit" type="CurrencyAmount_type" minOccurs="0"
maxOccurs="unbounded"/>
  <xs:element name="TargetThreshold" type="CurrencyAmount_type" minOccurs="0"
maxOccurs="unbounded"/>
  <xs:element name="TargetLimit" type="CurrencyAmount_type" minOccurs="0"
maxOccurs="unbounded"/>
  <xs:element name="StoreID" type="RetailStoreId_type" minOccurs="0"
maxOccurs="unbounded"/>
</xs:sequence>
<xs:attribute name="ChangeType" type="ChangeType_type" default="ADD"/>
<xs:attribute name="ID" type="xs:int" use="required"/>
<xs:attributeGroup ref="PromotionComponentAttributes"/>
<xs:attribute name="StartDateTime" type="xs:dateTime" use="required"/>
<xs:attribute name="EndDateTime" type="xs:dateTime" use="optional">
<xs:annotation><xs:documentation>
If the EndDateTime is not specified, it will be assumed that it
was intentionally left blank to denote an never-ending
pricing rule. The value will then be persisted as
'2099-12-31 11:59:59.000'
</xs:documentation></xs:annotation>
</xs:attribute>
<xs:attribute name="Type" type="RuleType_type" use="required"/>
<xs:attribute name="NbrTimesPerTrans" type="xs:int" default="-1"/>
<xs:attribute name="AccountingMethod" type="AccountingMethodType_type"
default="Discount" />
<xs:attribute name="AllowSourceToRepeat" type="xs:boolean" default="true"/>
<xs:attribute name="DealDistribution" type="DealDistributionType_type"
default="Target"/>
<xs:attribute name="Scope" type="ScopeType_type" default="Item" />
<xs:attribute name="PricingGroupID" type="xs:int"/>
</xs:complexType>

<xs:attributeGroup name="SourceTargetAttributes">
<xs:attribute name="Type" type="SourceTargetType_type" default="Item" />
<xs:attribute name="Qualifier" type="QualifierType_type" default="Any">

```



```

<xs:annotation><xs:documentation>
If not specified, it is assumed that the Qualifier is Any.
</xs:documentation></xs:annotation>
</xs:attribute>
<xs:attribute name="Qty" type="xs:int" default="1">
<xs:annotation><xs:documentation>
It is only necessary to specify Qty if Qualifier has been
set to Any. If not specified, it is assumed that Qty for
Any is one (1).
</xs:documentation></xs:annotation>
</xs:attribute>
</xs:attributeGroup>

<xs:complexType name="Sources_type">
<xs:sequence>
<xs:element name="Source" minOccurs="1" maxOccurs="unbounded">
<xs:complexType>
<xs:sequence>
<xs:element name="SourceAmount" type="CurrencyAmount_type" minOccurs="0"
maxOccurs="unbounded" />
</xs:sequence>
<xs:attribute name="ID" type="xs:string" use="required" />
<xs:attribute name="Qty" type="xs:int" use="required" />
</xs:complexType>
</xs:element>
</xs:sequence>
<xs:attributeGroup ref="SourceTargetAttributes"/>
</xs:complexType>

<xs:complexType name="Targets_type">
<xs:sequence>
<xs:group ref="DiscountTypeChoice" minOccurs="1" maxOccurs="1"/>
<xs:element name="Target" minOccurs="0" maxOccurs="unbounded">
<xs:complexType>
<xs:attribute name="ID" type="xs:string" use="required"/>
<xs:attribute name="Qty" type="xs:int" default="1"/>
</xs:complexType>
</xs:element>
</xs:sequence>
<xs:attributeGroup ref="SourceTargetAttributes"/>
</xs:complexType>

<xs:simpleType name="RuleType_type">
<xs:restriction base="xs:string">
<xs:enumeration value="BuyNofXgetYatZ%off"/>
<xs:enumeration value="BuyNofXgetYatZ$off"/>
<xs:enumeration value="BuyNofXgetYatZ$"/>
<xs:enumeration value="BuyNofXgetHighestPricedXatZ%off"/>
<xs:enumeration value="BuyNofXgetLowestPricedXatZ%off"/>
<xs:enumeration value="Buy$NorMoreOfXgetYatZ$off"/>
<xs:enumeration value="Buy$NorMoreOfXgetYatZ%off"/>
<xs:enumeration value="Buy$NorMoreOfXgetYatZ$"/>
<xs:enumeration value="BuyNofXforZ$"/>
<xs:enumeration value="BuyNofXforZ%off"/>
<xs:enumeration value="BuyNofXforZ$off"/>
<xs:enumeration value="BuyNorMoreOfXforZ%off"/>
<xs:enumeration value="BuyNorMoreOfXforZ$Each"/>
</xs:restriction>
</xs:simpleType>

```

```

<xs:simpleType name="AccountingMethodType_type">
<xs:restriction base="xs:string">
<xs:enumeration value="Discount"/>
<xs:enumeration value="Markdown"/>
</xs:restriction>
</xs:simpleType>

<xs:simpleType name="DealDistributionType_type">
<xs:restriction base="xs:string">
<xs:enumeration value="Target"/>
<xs:enumeration value="SourceTarget"/>
</xs:restriction>
</xs:simpleType>

<xs:simpleType name="ScopeType_type">
<xs:restriction base="xs:string">
<xs:enumeration value="Item"/>
<xs:enumeration value="Group"/>
<xs:enumeration value="Transaction"/>
</xs:restriction>
</xs:simpleType>

<xs:simpleType name="SourceTargetType_type">
<xs:restriction base="xs:string">
<xs:enumeration value="Item"/>
<xs:enumeration value="Coupon"/>
<xs:enumeration value="Class"/>
<xs:enumeration value="Department"/>
</xs:restriction>
</xs:simpleType>

<xs:simpleType name="QualifierType_type">
<xs:annotation><xs:documentation>
Used to qualify a list whereby Any element in the list must be
used versus requiring All elements in the list.
</xs:documentation></xs:annotation>
<xs:restriction base="xs:string">
<xs:enumeration value="Any"></xs:enumeration>
<xs:enumeration value="All"></xs:enumeration>
</xs:restriction>
</xs:simpleType>

</xs:schema>

```

The following is an example Pricing Import XML file.

Example C-12 PricingImport.xml

```

<?xml version="1.0" encoding="UTF-8"?>
<PricingImport
  Priority="0"
  FillType="FullIncremental"
  Version="1.0"
  Batch="1"
  CreationDate="2001-12-17T09:30:47.0Z"
  ExpirationDate="2027-12-17T09:30:47.0Z"
  xsi:noNamespaceSchemaLocation="PricingImport.xsd"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

  <!-- Price Change, multiple stores -->

```

```

<PriceChange
ChangeType="ADD"
ID="40000859"
StartDate="2007-01-28"
TemplateType="Default">
<Description>Board Games</Description>
<Item ID="20020002"
TemplateType="Default">
<Price>199.99</Price>
<Price CurrencyCode="CAD">299.99</Price>
</Item>
<Item ID="40040004"
TemplateType="Default">
<Price>299.99</Price>
<Price CurrencyCode="CAD">399.99</Price>
</Item>
<StoreID>04241</StoreID>
<StoreID>04242</StoreID>
<StoreID>04243</StoreID>
</PriceChange>

<PriceChange
ChangeType="ADD"
StartDate="2007-01-28"
ID="40000860"
TemplateType="Default">
<Description>Board Games</Description>
  <Item ID="40020002"
    TemplateType="Default">
      <Price>199.99</Price>
      <Price CurrencyCode="CAD">299.99</Price>
    </Item>
  <Item ID="80080008"
    TemplateType="Default">
      <Price>299.99</Price>
      <Price CurrencyCode="CAD">399.99</Price>
    </Item>
  <StoreID>04241</StoreID>
  <StoreID>04242</StoreID>
</PriceChange>

<!-- Promotion - Percent Off -->

<PricePromotion
ChangeType="ADD"
ID="40000113"
PromoCompID="123"
PromoCompDetlID="456"
StartDateTime="2007-09-10T00:00:00"
EndDateTime="2007-09-24T23:59:50"
Type="PercentOff"
Priority="1"
TemplateType="Default">
  <Name>Boy's Polo's</Name>
  <Description>BTS - All PK and knit boy's polos on promo</Description>
  <DiscountPercent>15</DiscountPercent>
  <Item ID="1234">
    <Price>4.25</Price>
    <Price CurrencyCode="CAD">5.25</Price>
  </Item>
</PricePromotion>

```

```

        </Item>
        <Item ID="3333"
            TemplateType="Default">
            <Price>4.99</Price>
        </Item>
        <StoreID>04241</StoreID>
        <StoreID>04242</StoreID>
        <StoreID>04243</StoreID>
    </PricePromotion>

<!-- Promotion - Amount Off -->

<PricePromotion
    ChangeType="ADD"
    ID="40000113"
    PromoCompID="123"
    PromoCompDetlID="456"
    StartDateTime="2007-09-10T00:00:00"
    EndDateTime="2007-09-24T23:59:50"
    Type="AmountOff"
    Priority="1"
    TemplateType="Default">
    <Name>Boy's Polo's</Name>
    <Description>BTS - All PK and knit boy's polos on promo</Description>
    <DiscountAmount>10.00</DiscountAmount>
    <Item ID="1234">
        <Price>4.25</Price>
        <Price CurrencyCode="CAD">5.25</Price>
    </Item>
    <Item ID="3333"
        TemplateType="Default">
        <Price>4.99</Price>
    </Item>
    <StoreID>04241</StoreID>
    <StoreID>04242</StoreID>
    <StoreID>04243</StoreID>
</PricePromotion>

<!-- Promotion - New Price -->

<PricePromotion
    ChangeType="ADD"
    ID="40000113"
    PromoCompID="123"
    PromoCompDetlID="456"
    StartDateTime="2007-09-10T00:00:00"
    EndDateTime="2007-09-24T23:59:50"
    Type="NewPrice"
    Priority="1"
    TemplateType="Default">
    <Name>Boy's Polo's</Name>
    <Description>BTS - All PK and knit boy's polos on promo</Description>
    <Item ID="1234"
        TemplateType="Default">
        <Price>4.25</Price>
        <Price CurrencyCode="CAD">5.25</Price>
    </Item>
    <StoreID>04241</StoreID>
    <StoreID>04242</StoreID>
    <StoreID>04243</StoreID>

```

```

</PricePromotion>

<!-- Discount Rules -->

<!-- BuyNofXgetYatZ%off - Multiple source items, multiple target items. -->
<DiscountRule>
  <PricingRule
    ChangeType="ADD"
    ID="11150335"
    PromoCompID="123"
    PromoCompDetlID="456"
    StartDateTime="2007-01-28T00:00:00"
    EndDateTime="2007-01-28T23:59:59"
    Type="BuyNofXgetYatZ%off"
    NbrTimesPerTrans="1"
    AccountingMethod="Discount"
    AllowSourceToRepeat="true"
    DealDistribution="Target">
    <Name>Bootcut Jean/Sweater Rule</Name>
    <SourceThreshold>5.00</SourceThreshold>
    <SourceLimit>100.00</SourceLimit>
    <TargetThreshold>5.00</TargetThreshold>
    <TargetLimit>100.00</TargetLimit>
    <StoreID>04241</StoreID>
    <StoreID>04242</StoreID>
    <StoreID>04243</StoreID>
  </PricingRule>
  <Sources
    Type="Item">
    <Source ID="1234"
      Qty="2"/>
    <Source ID="4567"
      Qty="2"/>
  </Sources>
  <Targets
    Type="Item">
    <DiscountPercent>10</DiscountPercent>
    <Target ID="1234"
      Qty="1"/>
    <Target ID="20020002"
      Qty="1"/>
  </Targets>
</DiscountRule>

<!-- BuyNofXgetYatZ$off - Multiple source items, multiple target items. -->
<DiscountRule>
  <PricingRule
    ChangeType="ADD"
    ID="11150335"
    PromoCompID="123"
    PromoCompDetlID="456"
    StartDateTime="2007-01-28T00:00:00"
    EndDateTime="2007-01-28T23:59:59"
    Type="BuyNofXgetYatZ$off"
    NbrTimesPerTrans="1"
    AccountingMethod="Discount"
    AllowSourceToRepeat="true"
    DealDistribution="Target">
    <Name>Bootcut Jean/Sweater Rule</Name>
    <SourceThreshold>5.00</SourceThreshold>

```

```

        <SourceLimit>100.00</SourceLimit>
        <TargetThreshold>5.00</TargetThreshold>
        <TargetLimit>100.00</TargetLimit>
        <StoreID>04241</StoreID>
        <StoreID>04242</StoreID>
        <StoreID>04243</StoreID>
    </PricingRule>
</Sources>
<Sources>
    Type="Item">
    <Source ID="1234"
        Qty="2"/>
    <Source ID="4567"
        Qty="2"/>
</Sources>
<Targets>
    Type="Item">
    <DiscountAmount>1.00</DiscountAmount>
    <Target ID="1234"
        Qty="1"/>
    <Target ID="20020002"
        Qty="1"/>
</Targets>
</DiscountRule>

<!-- BuyNofXgetYatZ$ - One source item, one target item. -->
<DiscountRule>
    <PricingRule
        ChangeType="ADD"
        ID="11150335"
        PromoCompID="123"
        PromoCompDetlID="456"
        StartDateTime="2007-01-28T00:00:00"
        EndDateTime="2007-01-28T23:59:59"
        Type="BuyNofXgetYatZ$"
        NbrTimesPerTrans="1"
        AccountingMethod="Discount"
        AllowSourceToRepeat="true"
        DealDistribution="Target">
        <Name>Bootcut Jean/Sweater Rule</Name>
        <SourceThreshold>5.00</SourceThreshold>
        <SourceLimit>100.00</SourceLimit>
        <TargetThreshold>5.00</TargetThreshold>
        <TargetLimit>100.00</TargetLimit>
    </PricingRule>
    <Sources>
        <Source ID="1234"
            Qty="2"/>
    </Sources>
    <Targets>
        <NewPrice>10.00</NewPrice>
        <Target ID="5678"
            Qty="1"/>
    </Targets>
</DiscountRule>

<!-- BuyNofXgetLowestPricedXatZ%off - Multiple source items -->
<DiscountRule>
    <PricingRule
        ChangeType="ADD"
        ID="11150335"

```

```

        PromoCompID="123"
        PromoCompDetlID="456"
        StartDateTime="2007-01-28T00:00:00"
        EndDateTime="2007-01-28T23:59:59"
        Type="BuyNofXgetLowestPricedXatZ%off"
        NbrTimesPerTrans="1"
        AccountingMethod="Discount"
        AllowSourceToRepeat="true"
        DealDistribution="Target">
            <Name>Bootcut Jean/Sweater Rule</Name>
            <SourceThreshold>5.00</SourceThreshold>
            <SourceLimit>100.00</SourceLimit>
        </PricingRule>
    </Sources>
    <Sources>
        <Source ID="1234"
            Qty="2"/>
        <Source ID="20020002"
            Qty="2"/>
    </Sources>
    <Targets>
        <DiscountPercent>10</DiscountPercent>
    </Targets>
</DiscountRule>

<!-- BuyNofXgetHighestPricedXatZ%off - Multiple source items -->
<DiscountRule>
    <PricingRule
        ChangeType="ADD"
        ID="11150335"
        PromoCompID="123"
        PromoCompDetlID="456"
        StartDateTime="2007-01-28T00:00:00"
        EndDateTime="2007-01-28T23:59:59"
        Type="BuyNofXgetHighestPricedXatZ%off"
        NbrTimesPerTrans="1"
        AccountingMethod="Discount"
        AllowSourceToRepeat="true"
        DealDistribution="Target">
            <Name>Bootcut Jean/Sweater Rule</Name>
            <SourceThreshold>5.00</SourceThreshold>
            <SourceLimit>100.00</SourceLimit>
        </PricingRule>
    <Sources
        Type="Item">
        <Source ID="1234"
            Qty="2"/>
        <Source ID="20020002"
            Qty="2"/>
    </Sources>
    <Targets>
        <DiscountPercent>10</DiscountPercent>
    </Targets>
</DiscountRule>

<!-- BuyNofXforZ%off - Multiple source items. -->
<DiscountRule>
    <PricingRule
        ChangeType="ADD"
        ID="11150335"
        PromoCompID="123"

```

```

        PromoCompDetlID="456"
        StartDateTime="2007-01-28T00:00:00"
        EndDateTime="2007-01-28T23:59:59"
        Type="BuyNofXforZ$off"
        NbrTimesPerTrans="1"
        AccountingMethod="Discount"
        AllowSourceToRepeat="true"
        DealDistribution="Target">
        <Name>Bootcut Jean/Sweater Rule</Name>
        <SourceThreshold>5.00</SourceThreshold>
        <SourceLimit>100.00</SourceLimit>
</PricingRule>
<Sources>
    <Source ID="1234"
        Qty="2"/>
    <Source ID="20020002"
        Qty="2"/>
</Sources>
<Targets>
    <DiscountPercent>10</DiscountPercent>
</Targets>
</DiscountRule>

<!-- BuyNofXforZ$off - Multiple source items. -->
<DiscountRule>
    <PricingRule
        ChangeType="ADD"
        ID="11150335"
        PromoCompID="123"
        PromoCompDetlID="456"
        StartDateTime="2007-01-28T00:00:00"
        EndDateTime="2007-01-28T23:59:59"
        Type="BuyNofXforZ$off"
        NbrTimesPerTrans="1"
        AccountingMethod="Discount"
        AllowSourceToRepeat="true"
        DealDistribution="Target">
        <Name>Bootcut Jean/Sweater Rule</Name>
        <SourceThreshold>5.00</SourceThreshold>
        <SourceLimit>100.00</SourceLimit>
    </PricingRule>
    <Sources>
        <Source ID="1234"
            Qty="2"/>
        <Source ID="20020002"
            Qty="2"/>
    </Sources>
    <Targets>
        <DiscountAmount>2.00</DiscountAmount>
    </Targets>
</DiscountRule>

<!-- BuyNofXforZ$ - Multiple source items. -->
<DiscountRule>
    <PricingRule
        ChangeType="ADD"
        ID="11150335"
        PromoCompID="123"
        PromoCompDetlID="456"
        StartDateTime="2007-01-28T00:00:00"

```



```

        EndDateTime="2007-01-28T23:59:59"
        Type="BuyNofXforZ$"
        NbrTimesPerTrans="1"
        AccountingMethod="Discount"
        AllowSourceToRepeat="true"
        DealDistribution="Target">
            <Name>Bootcut Jean/Sweater Rule</Name>
            <SourceThreshold>5.00</SourceThreshold>
            <SourceLimit>100.00</SourceLimit>
        </PricingRule>
    <Sources>
        <Source ID="1234"
            Qty="2"/>
        <Source ID="20020002"
            Qty="2"/>
    </Sources>
    <Targets>
        <NewPrice>2.00</NewPrice>
    </Targets>
</DiscountRule>

<!-- Buy$NorMoreOfXgetYatZ$off - Single department source, single item target
-->
<DiscountRule>
    <PricingRule
        ChangeType="ADD"
        ID="11150335"
        PromoCompID="123"
        PromoCompDetlID="456"
        StartDateTime="2007-01-28T00:00:00"
        EndDateTime="2007-01-28T23:59:59"
        Type="Buy$NorMoreOfXgetYatZ$off"
        NbrTimesPerTrans="1"
        AccountingMethod="Discount"
        AllowSourceToRepeat="true"
        DealDistribution="Target">
            <Name>Bootcut Jean/Sweater Rule</Name>
            <SourceThreshold>5.00</SourceThreshold>
            <SourceLimit>100.00</SourceLimit>
            <TargetThreshold>5.00</TargetThreshold>
            <TargetLimit>100.00</TargetLimit>
        </PricingRule>
    <Sources
        Type="Department">
        <Source ID="Women's Apparel" Qty="1">
            <SourceAmount>100.00</SourceAmount>
        </Source>
    </Sources>
    <Targets>
        <DiscountAmount>10.00</DiscountAmount>
        <Target ID="1234"
            Qty="1"/>
    </Targets>
</DiscountRule>

<!-- Buy$NorMoreOfXgetYatZ%off - Single class source, single item target -->
<DiscountRule>
    <PricingRule
        ChangeType="ADD"
        ID="11150335"

```

```

    PromoCompID="123"
    PromoCompDetlID="456"
    StartDateTime="2007-01-28T00:00:00"
    EndDateTime="2007-01-28T23:59:59"
    Type="Buy$NorMoreOfXgetYatZ%off"
    NbrTimesPerTrans="1"
    AccountingMethod="Discount"
    AllowSourceToRepeat="true"
    DealDistribution="Target">
      <Name>Bootcut Jean/Sweater Rule</Name>
      <SourceThreshold>5.00</SourceThreshold>
      <SourceLimit>100.00</SourceLimit>
      <TargetThreshold>5.00</TargetThreshold>
      <TargetLimit>100.00</TargetLimit>
</PricingRule>
<Sources
  Type="Class">
    <Source ID="Jeans" Qty="1">
      <SourceAmount>100.00</SourceAmount>
    </Source>
</Sources>
<Targets>
  <DiscountPercent>10</DiscountPercent>
  <Target ID="1234"
    Qty="1"/>
</Targets>
</DiscountRule>

<!-- Buy$NorMoreOfXgetYatZ$ - Single class source, single item target -->
<DiscountRule>
  <PricingRule
    ChangeType="ADD"
    ID="11150335"
    PromoCompID="123"
    PromoCompDetlID="456"
    StartDateTime="2007-01-28T00:00:00"
    EndDateTime="2007-01-28T23:59:59"
    Type="Buy$NorMoreOfXgetYatZ$"
    NbrTimesPerTrans="1"
    AccountingMethod="Discount"
    AllowSourceToRepeat="true"
    DealDistribution="Target">
      <Name>Bootcut Jean/Sweater Rule</Name>
      <SourceThreshold>5.00</SourceThreshold>
      <SourceLimit>100.00</SourceLimit>
      <TargetThreshold>5.00</TargetThreshold>
      <TargetLimit>100.00</TargetLimit>
</PricingRule>
<Sources
  Type="Class">
    <Source ID="Jeans" Qty="1">
      <SourceAmount>100.00</SourceAmount>
    </Source>
</Sources>
<Targets>
  <NewPrice>10.00</NewPrice>
  <Target ID="1234"
    Qty="1"/>

```

```

    </Targets>
  </DiscountRule>

</PricingImport>

```

Store Hierarchy Import

Table C-11 identifies the PreloadData element mapping for the StoreHierarchyImport.xsd file.

Table C-11 Store Hierarchy Import XSD Preload Data Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|-----------------------------------|------------------------|---------------------------------------|--------------|--|--|
| StoreRegions LO_STR_RGN | RegionID | ID_STR_RGN(LO_STR_DSTRCT, PA_STR_RTL) | VARCHAR(14) | PreloadData/StoreRegion/RegionID | |
| | RegionName | NM_STR_RGN | VARCHAR(120) | PreloadData/StoreRegion/RegionName PreloadData/StoreRegion/LocalizedRegionName@Name | NM_* is either <*Name> or <Localized*Name@Name>. If a <Localized*Name@Name> element is not found for a supported language (locale), the last <Localized*Name@Name> in the list is used for that language. |
| | RecordCreate Timestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordModify Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| StoreRegionsI18N LO_STR_RGN_I8 | RegionID | ID_STR_RGN | VARCHAR(14) | PreloadData/StoreRegion/RegionID | |
| | Locale | LCL | VARCHAR(10) | PreloadData/StoreRegion/LocalizedRegionName@Language | LCL is a supported language in the system, for example, "en" or "en_US". If an exact match is not found in the <Localized*Name> list, the best match, or last value in the list is used. |

Table C-11 (Cont.) Store Hierarchy Import XSD Preload Data Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|---|------------------------|----------------------|--------------|--|---|
| | RegionName | NM_STR_RGN | VARCHAR(120) | PreloadData/StoreRegion/RegionName PreloadData/StoreRegion/LocalizedRegionName@Name | NM_* is either <*Name> or <Localized*Name@Name> If a <Localized*Name@Name> element is not found for a supported language (locale), the last <Localized*Name@Name> in the list is used for that language. The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| StoreDistricts LO_STR_DSTRCT | DistrictID | ID_STR_DISTRICT | VARCHAR(14) | PreloadData/StoreDistrict/DistrictID | |
| | RegionID | ID_STR_RGN | VARCHAR(14) | PreloadData/StoreDistrict/RegionID | |
| | DistrictName | NM_STR_DSTRCT | VARCHAR(120) | PreloadData/StoreDistrict/DistrictName PreloadData/StoreDistrict/LocalizedDistrictName@Name | NM_* is either <*Name> or <Localized*Name@Name> If a <Localized*Name@Name> element is not found for a supported language (locale), the last <Localized*Name@Name> in the list is used for that language. |
| | RecordCreate Timestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordModify Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| StoreDistrictsI18N LO_STR_DSTRCT_I18 | DistrictID | ID_STR_DISTRICT | VARCHAR(14) | PreloadData/StoreDistrict/DistrictID | |
| | Locale | LCL | VARCHAR(10) | PreloadData/StoreDistrict/LocalizedDistrictName@Language | LCL is a supported language in the system, for example, en or en_US. If an exact match is not found in the <Localized*Name> list, the best match, or last value in the list is used. |

Table C-11 (Cont.) Store Hierarchy Import XSD Preload Data Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|-----------------------------------|------------------------|----------------------|--------------|--|---|
| | DistrictName | NM_STR_DSTRCT | VARCHAR(120) | PreloadData/StoreDistrict/DistrictName PreloadData/StoreDistrict/LocalizedDistrictName@Name | NM_* is either <*Name> or <Localized*Name@Name> If a <Localized*Name@Name> element is not found for a supported language (locale), the last <Localized*Name@Name> in the list is used for that language. The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| RetailStore PA_STR_RTL | RetailStoreID | ID_STR_RT | VARCHAR(5) | PreloadData/RetailStore/RetailStoreID | |
| | LocationName | NM_LOC | VARCHAR(150) | PreloadData/RetailStore/LocationName PreloadData/RetailStore/LocalizedLocationName@Name | NM_* is either <*Name> or <Localized*Name@Name> If a <Localized*Name@Name> element is not found for a supported language (locale), the last <Localized*Name@Name> in the list is used for that language. |
| | DistrictID | ID_STR_DSTRCT | VARCHAR(14) | PreloadData/RetailStore/DistrictID | |
| | RegionID | ID_STR_RGN | VARCHAR(14) | PreloadData/RetailStore/RegionID | |
| | GeoCode | ID_CD_GEO | VARCHAR(10) | PreloadData/RetailStore/GeoCode | |
| | RecordCreate Timestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordModify Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| RetailStoreI18N PA_STR_RTL_I18 | RetailStoreID | ID_STR_RT | VARCHAR(5) | PreloadData/RetailStore/RetailStoreID | |

Table C-11 (Cont.) Store Hierarchy Import XSD Preload Data Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|--------------------------|----------------------|--------------|---|--|
| | Locale | LCL | VARCHAR(10) | PreloadData/RetailStore/LocalizedLocationName@Language | LCL is a supported language in the system, for example, en or en_US. If an exact match is not found in the <Localized*Name> list, the best match, or last value in the list is used. |
| | LocationName | NM_LOC | VARCHAR(150) | PreloadData/RetailStore/LocationName PreloadData/RetailStore/LocalizedLocationName | NM_* is either <*Name> or <Localized*Name@Name>. If a <Localized*Name@Name> element is not found for a supported language (locale), the last <Localized*Name@Name> in the list is used for that language. The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| Address LO_ADS | AddressID | ID_ADS | INTEGER | PreloadData/RetailStore/Address/AddressID | |
| | AddressType Code | TY_ADS | VARCHAR(30) | PreloadData/RetailStore/Address/AddressTypeCode | Home=0 Work=0 Mail=3 Other=2 |
| | PartyID | ID_PRTY | INTEGER | | Derive from TY_ADS |
| | ContactAddressLine1 | A1_CNCT | VARCHAR(240) | PreloadData/RetailStore/Address/AddressLine1 | |
| | ContactAddressLine2 | A2_CNCT | VARCHAR(240) | PreloadData/RetailStore/Address/AddressLine2 | |
| | ContactAddressLine3 | A3_CNCT | VARCHAR(240) | PreloadData/RetailStore/Address/AddressLine3 | |
| | ContactAddressCity | CI_CNCT | VARCHAR(120) | PreloadData/RetailStore/Address/City | |
| | ContactAddressState | ST_CNCT | VARCHAR(30) | PreloadData/RetailStore/Address/State | |
| | ContactAddressPostalCode | PC_CNCT | VARCHAR(30) | PreloadData/RetailStore/Address/PostalCode | |

Table C–11 (Cont.) Store Hierarchy Import XSD Preload Data Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|-----------------------------|----------------------|--------------|--|-------|
| | ContactAddressTerritory | TE_CNCT | VARCHAR(120) | PreloadData/RetailStore/Address/Territory | |
| | ContactAddressCountry | CO_CNCT | VARCHAR(30) | PreloadData/RetailStore/Address/Country | |
| | ContactTelephoneCountryCode | CC_CNCT | VARCHAR(30) | PreloadData/RetailStore/Address/TelephoneCountryCode | |
| | ContactTelephoneAreaCode | TA_CNCT | VARCHAR(3) | PreloadData/RetailStore/Address/TelephoneAreaCode | |
| | ContactTelephoneLocalNumber | TL_CNCT | VARCHAR(30) | PreloadData/RetailStore/Address/TelephoneLocalNumber | |

Table C–12 identifies the element mapping for the StoreHierarchyImport.xsd file.

Table C–12 Store Hierarchy Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--|------------------------------|----------------------|--------------|--|---|
| RetailStoreGroupFunction CO_STRGP_FNC | RetailStoreGroupFunctionID | ID_STRGP_FNC | INTEGER | HierarchyList/Hierarchy@FunctionID | |
| | RetailStoreGroupFunctionName | NM_STRGP_FNC | VARCHAR(120) | HierarchyList/Hierarchy@Name HierarchyList/Hierarchy/LocalizedName@Name | NM_STRGP_FNC is either <Hierarchy@Name> or <LocalizedName@Name>; <LocalizedName@Name> takes precedence. If a <LocalizedName@Name> element is not found for a supported language (locale), the last <LocalizedName@Name> in the list is used for that language. |
| | MultipleStoreGroupParentCode | CD_STRGP_MULT_PRNT | INTEGER | No mapping available | |
| | RecordCreateTimestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordModifyTimestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |

Table C-12 (Cont.) Store Hierarchy Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--|------------------------------|----------------------|--------------|--|---|
| RetailStoreGroupFunctionI18N CO_STRGP_FNC_I18 | RetailStoreGroupFunctionID | ID_STRGP_FNC | INTEGER | HierarchyList/Hierarchy@FunctionID | |
| | Locale | LCL | VARCHAR(10) | HierarchyList/Hierarchy/LocalizedName@Language | LCL is a supported language in the system, e.g., "en" or "en_US". If an exact match is not found in the <Localized*Name> list, the best match, or last value in the list is used. |
| | RetailStoreGroupFunctionName | NM_STRGP_FNC | VARCHAR(120) | HierarchyList/Hierarchy@Name HierarchyList/Hierarchy/LocalizedName@Name | NM_STRGP_FNC is either <Hierarchy@Name> or <LocalizedName@Name>; <LocalizedName@Name> takes precedence. If a <LocalizedName@Name> element is not found for a supported language (locale), the last <LocalizedName@Name> in the list is used for that language. The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| RetailStoreGroupLevel CO_STRGP_LV | RetailStoreGroupFunctionID | ID_STRGP_FNC | INTEGER | HierarchyList/Hierarchy@FunctionID | |
| | StoreHierarchyLevelID | ID_STRGP_LV | INTEGER | HierarchyList/Hierarchy/LevelList/Level@ID | |
| | RetailStoreGroupLevelParent | ID_STRGP_LV_PRNT | INTEGER | HierarchyList/Hierarchy/LevelList/Level@ParentID | |
| | RetailStoreGroupLevelName | NM_STRGP_LV | VARCHAR(120) | HierarchyList/Hierarchy/LevelList/Level@Name HierarchyList/Hierarchy/LevelList/Level/LocalizedName@Name | NM_STRGP_LV is either <Level@Name> or <LocalizedName@Name>; <LocalizedName@Name> takes precedence. If a <LocalizedName@Name> element is not found for a supported language (locale), the last <LocalizedName@Name> in the list is used for that language. |
| | RecordCreateTimestamp | TS CRT_RCRD | TIMESTAMP | Now() | |

Table C-12 (Cont.) Store Hierarchy Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--|---------------------------------|----------------------|-------------|--|-------|
| | RecordModify Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| AssociatedRetail StoreGroup ST_ASCTN_STRGP | RetailStore Group FunctionID | ID_STRGP_FNC | INTEGER | HierarchyList/Hierarchy@FunctionID | |
| | RetailStore GroupParentID | ID_STRGP_PRNT | VARCHAR(14) | HierarchyList/Hierarchy/NodeList/Node@ParentNodeID | |
| | RetailStore GroupChildID | ID_STRGP_CHLD | VARCHAR(14) | HierarchyList/Hierarchy/NodeList/Node@ID | |
| | RecordCreate Timestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordModify Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| AssociatedRetail StoreStoreGroup ST_ASCTN_STRGP_STR | RetailStoreID | ID_STR_RT | VARCHAR(5) | HierarchyList/Hierarchy/NodeList/RetailStoreID | |
| | RetailStore GroupID | ID_STRGP | VARCHAR(14) | HierarchyList/Hierarchy/NodeList/Node@ID | |
| | RetailStore Group FunctionID | ID_STRGP_FNC | INTEGER | HierarchyList/Hierarchy@FunctionID | |
| | RecordCreate Timestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordModify Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| RetailStoreGroup CO_STRGP | RetailStore GroupID | ID_STRGP | VARCHAR(14) | HierarchyList/Hierarchy/NodeList/Node@ID | |
| | RetailStore Group FunctionID | ID_STRGP_FNC | INTEGER | HierarchyList/Hierarchy@FunctionID | |
| | ParentStore Hierarchy LevelID | ID_STRGP_LV | INTEGER | HierarchyList/Hierarchy/NodeList/Node@LevelID | |

Table C–12 (Cont.) Store Hierarchy Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|---------------------------|-------------------------------|----------------------|--------------|---|---|
| | RetailStore GroupName | NM_STRGRP | VARCHAR(120) | HierarchyList/Hierarchy/NodeList/Node@Name HierarchyList/Hierarchy/NodeList/Node/LocalizedNameDescription@Name | NM_STRGRP is either <Node@Name> or <LocalizedDescriptionName@Name>; <LocalizedDescriptionName@Name> takes precedence. If a <LocalizedDescriptionName@Name> element is not found for a supported language (locale), the last <LocalizedDescriptionName@Name> in the list is used for that language. |
| | RetailStore Group Description | DE_STRGRP | VARCHAR(250) | HierarchyList/Hierarchy/NodeList/Node@Description | |
| | RecordCreate Timestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordModify Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |
| StoreHierarchy ST_STR_HRY | StoreHierarchyGroupID | ID_STRGRP | VARCHAR(14) | HierarchyList/Hierarchy/NodeList/Node@ID | |
| | RetailStoreID | ID_STR_RT | VARCHAR(5) | HierarchyList/Hierarchy/NodeList/RetailStoreID | |
| | RecordCreate Timestamp | TS_CRT_RCRD | TIMESTAMP | Now() | |
| | RecordModify Timestamp | TS_MDF_RCRD | TIMESTAMP | Now() | |

The following is an example Store Hierarchy Import XSD file.

Example C–13 StoreHierarchyImport.xsd

```
<?xml version="1.0" encoding="UTF-8" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
elementFormDefault="qualified">

<xs:annotation><xs:documentation>
Store Hierarchy Import Schema. Copyright 2008 Oracle Inc. All rights reserved.

Use this schema in conjunction with a Oracle Store Systems Data Dictionary
and the relations between the element and attribute names should be
apparent.
</xs:documentation></xs:annotation>

<xs:include schemaLocation="../common.xsd"/>

<xs:element name="StoreHierarchy">
<xs:annotation><xs:documentation>
Top level element containing the hierarchy and the data that must be
```

```

preloaded before the hierarchy.
</xs:documentation></xs:annotation>
<xs:complexType>
<xs:sequence>
<xs:element name="PreloadData" type="PreloadData_type" minOccurs="0"
maxOccurs="1">
<xs:annotation>
<xs:documentation>
The data that must be preloaded into the datasource
before the actual hierarchy is persisted.
Consists of regions, districts and stores.
</xs:documentation>
</xs:annotation>
</xs:element>
<xs:element name="HierarchyList" type="HierarchyList_type" minOccurs="0"
maxOccurs="unbounded">
<xs:annotation>
<xs:documentation>
The actual store hierarchy data being imported. Contains
a grouping (list) of hierarchies.
</xs:documentation>
</xs:annotation>
</xs:element>
</xs:sequence>
<xs:attribute name="FillType" type="FillType_subtype" use="required"/>
<xs:attribute name="CreationDate" type="xs:dateTime"/>
<xs:attribute name="ExpirationDate" type="xs:dateTime"/>
<xs:attribute name="Version" type="xs:string"/>
<xs:attribute name="Priority" type="xs:int"/>
<xs:attribute name="Batch" type="xs:int"/>
</xs:complexType>
</xs:element>

<xs:complexType name="PreloadData_type">
<xs:sequence>
<xs:element name="StoreRegion" type="StoreRegion_type" minOccurs="0"
maxOccurs="unbounded" />
<xs:element name="StoreDistrict" type="StoreDistrict_type" minOccurs="0"
maxOccurs="unbounded" />
<xs:element name="RetailStore" type="RetailStore_type" minOccurs="0"
maxOccurs="unbounded" />
</xs:sequence>
</xs:complexType>

<xs:complexType name="StoreRegion_type">
<xs:sequence>
<xs:element name="ChangeType" type="ChangeType_type" maxOccurs="1" minOccurs="1"
/>
<xs:element name="RegionID" type="xs:string" maxOccurs="1" minOccurs="1"/>
<xs:choice>
<xs:element name="RegionName" type="xs:string" maxOccurs="1" minOccurs="0"/>
<xs:element name="LocalizedRegionName" type="LocalizedNameDescription_type"
maxOccurs="unbounded" minOccurs="0"/>
</xs:choice>
</xs:sequence>
</xs:complexType>

<xs:complexType name="StoreDistrict_type">
<xs:sequence>

```

```

<xs:element name="ChangeType" type="ChangeType_type" maxOccurs="1" minOccurs="1"
/>
<xs:element name="DistrictID" type="xs:string" maxOccurs="1" minOccurs="1"/>
<xs:element name="RegionID" type="xs:string" maxOccurs="1" minOccurs="1"/>
<xs:choice>
<xs:element name="DistrictName" type="xs:string" maxOccurs="1" minOccurs="0"/>
<xs:element name="LocalizedDistrictName" type="LocalizedNameDescription_type"
maxOccurs="unbounded" minOccurs="0"/>
</xs:choice>
</xs:sequence>
</xs:complexType>

<xs:complexType name="RetailStore_type">
<xs:sequence>
<xs:element name="ChangeType" type="ChangeType_type" maxOccurs="1" minOccurs="1"
/>
<xs:element name="RetailStoreID" type="RetailStoreId_type" maxOccurs="1"
minOccurs="1"/>
<xs:choice>
<xs:element name="LocationName" type="xs:string" maxOccurs="1" minOccurs="0"/>
<xs:element name="LocalizedLocationName" type="LocalizedNameDescription_type"
maxOccurs="unbounded" minOccurs="0"/>
</xs:choice>
<xs:element name="DistrictID" type="xs:string" maxOccurs="1" minOccurs="0"/>
<xs:element name="RegionID" type="xs:string" maxOccurs="1" minOccurs="0"/>
<xs:element name="GeoCode" type="xs:string" maxOccurs="1" minOccurs="0"/>
<xs:element name="Address" type="Address_type" maxOccurs="1" minOccurs="0" />
</xs:sequence>
</xs:complexType>

<xs:complexType name="Address_type">
<xs:sequence>
<xs:element name="AddressID" type="xs:int" maxOccurs="1" minOccurs="1"/>
<xs:element name="AddressTypeCode" maxOccurs="1" minOccurs="1">
<xs:simpleType>
<xs:restriction base="xs:string">
<xs:enumeration value="Home"></xs:enumeration>
<xs:enumeration value="Work"></xs:enumeration>
<xs:enumeration value="Mail"></xs:enumeration>
<xs:enumeration value="Other"></xs:enumeration>
</xs:restriction>
</xs:simpleType>
</xs:element>
<xs:element name="AddressLine1" type="xs:string" maxOccurs="1" minOccurs="1"/>
<xs:element name="AddressLine2" type="xs:string" maxOccurs="1" minOccurs="0"/>
<xs:element name="AddressLine3" type="xs:string" maxOccurs="1" minOccurs="0"/>
<xs:element name="City" type="xs:string" maxOccurs="1" minOccurs="1"/>
<xs:element name="State" type="xs:string" maxOccurs="1" minOccurs="0"/>
<xs:element name="PostalCode" type="xs:string" maxOccurs="1" minOccurs="1"/>
<xs:element name="Territory" type="xs:string" maxOccurs="1" minOccurs="0"/>
<xs:element name="Country" type="xs:string" maxOccurs="1" minOccurs="0"/>
<xs:element name="TelephoneCountryCode" type="xs:string" maxOccurs="1"
minOccurs="0"/>
<xs:element name="TelephoneAreaCode" type="xs:string" maxOccurs="1"
minOccurs="0"/>
<xs:element name="TelephoneLocalNumber" type="xs:string" maxOccurs="1"
minOccurs="0"/>
</xs:sequence>
</xs:complexType>

```

```

<xs:complexType name="HierarchyList_type">
<xs:sequence>
<xs:element name="Hierarchy" type="Hierarchy_type" minOccurs="0"
maxOccurs="unbounded" />
</xs:sequence>
</xs:complexType>

<xs:complexType name="Hierarchy_type">
<xs:sequence>
  <xs:element name="LocalizedName" type="LocalizedNameDescription_type"
maxOccurs="unbounded" minOccurs="0"/>
<xs:element name="LevelList" type="LevelList_type" minOccurs="0" maxOccurs="1" />
<xs:element name="NodeList" type="NodeList_type" minOccurs="0" maxOccurs="1" />
</xs:sequence>
<xs:attribute name="FunctionID" type="xs:int" use="required" />
<xs:attribute name="Name" type="xs:string"/>
</xs:complexType>

<xs:complexType name="LevelList_type">
<xs:sequence>
<xs:element name="Level" type="Level_type" minOccurs="0" maxOccurs="unbounded" />
</xs:sequence>
</xs:complexType>

<xs:complexType name="NodeList_type">
<xs:sequence>
<xs:element name="Node" type="Node_type" minOccurs="0" maxOccurs="unbounded" />
</xs:sequence>
</xs:complexType>

<xs:complexType name="Level_type">
<xs:sequence>
<xs:element name="LocalizedName" type="LocalizedNameDescription_type"
minOccurs="0" maxOccurs="unbounded" />
</xs:sequence>
<xs:attribute name="ID" type="xs:int" use="required">
<!--
=====
RESTRICTION 1:
The following restriction may be imposed if we want to limit the number of level
IDs in the store
hierarchy. The enumeration will contain the level IDs starting from zero, and will
correspond with
the number of levels within the store hierarchy.
=====
<xs:simpleType>
<xs:restriction base="xs:NMTOKEN">
<xs:enumeration value="0"/>
<xs:enumeration value="1"/>
<xs:enumeration value="2"/>
<xs:enumeration value="3"/>
</xs:restriction>
</xs:simpleType>
-->
</xs:attribute>
<xs:attribute name="Name" type="xs:string">
<!--
=====
RESTRICTION 2:
The following restriction may be imposed if we want to limit the number of levels

```

in the store hierarchy. The enumeration will contain the store hierarchy level names, which should have a corresponding level ID in the attribute, above.

```

=====
<xs:simpleType>
<xs:restriction base="xs:NMTOKEN">
<xs:enumeration value="Level1"/>
<xs:enumeration value="Level2"/>
<xs:enumeration value="Level3"/>
<xs:enumeration value="root"/>
</xs:restriction>
</xs:simpleType>
-->
</xs:attribute>
<xs:attribute name="ParentID" type="xs:int">
<xs:annotation><xs:documentation>
If the parent id is missing, this is assumed to be the root.
</xs:documentation></xs:annotation>
<!--
=====

```

RESTRICTION 3:
The following restriction may be imposed to tie a specific parent level to the current node within the store hierarchy. Ensure that the IDs defined in RESTRICTION 1 will correspond to the IDs defined in the enumeration of this restriction.

```

=====
<xs:simpleType>
<xs:restriction base="xs:NMTOKEN">
<xs:enumeration value="0"/>
<xs:enumeration value="1"/>
<xs:enumeration value="2"/>
</xs:restriction>
</xs:simpleType>
-->
</xs:attribute>
</xs:complexType>

```

```

<xs:complexType name="Node_type">
<xs:sequence>
<xs:element name="LocalizedNameDescription" type="LocalizedNameDescription_type"
minOccurs="0" maxOccurs="unbounded" />
<xs:element name="RetailStoreId" type="RetailStoreId_type" minOccurs="0"
maxOccurs="unbounded" />
</xs:sequence>
<xs:attribute name="ID" type="xs:int" use="required" />
<xs:attribute name="Name" type="xs:string" />
<xs:attribute name="Description" type="xs:string" />
<xs:attribute name="LevelID" type="xs:int" use="required">
<!--
=====

```

RESTRICTION 4:
The following restriction may be imposed if we want to limit the number of levels within the store hierarchy. The number of levels should correspond with the number of level IDs imposed by RESTRICTION 1.

```

=====
<xs:simpleType>

```

```

<xs:restriction base="xs:NMTOKEN">
<xs:enumeration value="0"/>
<xs:enumeration value="1"/>
<xs:enumeration value="2"/>
<xs:enumeration value="3"/>
</xs:restriction>
</xs:simpleType>
-->
</xs:attribute>
<xs:attribute name="ParentNodeID" type="xs:int"/>
</xs:complexType>

<xs:simpleType name="FillType_subtype">
<xs:restriction base="xs:string">
<xs:enumeration value="KillAndFill"/>
<xs:enumeration value="FullIncremental">
<xs:annotation><xs:documentation>
Usage of FullIncremental with a StoreHierarchyImport is
strictly restricted to the PreloadData elements. This means
only Regions, Districts and Stores can be ADDED, UPDATED
or DELETED via FullIncremental. No HierarchyList elements
may be processed in this way.
</xs:documentation></xs:annotation>
</xs:enumeration>
</xs:restriction>
</xs:simpleType>

</xs:schema>

```

The following is an example Store Hierarchy Import XML file.

Example C-14 StoreHierarchyImport.xml

```

<?xml version="1.0" encoding="UTF-8"?>
<StoreHierarchy xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="StoreHierarchyImport.xsd"
Priority="0"
FillType="KillAndFill"
Version="1.0"
Batch="1"
CreationDate="2001-12-17T09:30:47.0Z"
ExpirationDate="2027-12-17T09:30:47.0Z">
<PreloadData>
<StoreRegion>
<ChangeType>ADD</ChangeType>
<RegionID>00001</RegionID>
<RegionName>Texas</RegionName>
</StoreRegion>
<StoreRegion>
<ChangeType>ADD</ChangeType>
<RegionID>00002</RegionID>
<LocalizedRegionName Name="in zh Florida" Description="in zh Florida desc"
Language="zh" Country="CH"/>
<LocalizedRegionName Name="in fr Florida" Language="fr" Country="FR"/>
</StoreRegion>
<StoreRegion>
<ChangeType>ADD</ChangeType>
<RegionID>00003</RegionID>
<LocalizedRegionName Name="in en Louisiana" Language="en" Country="US"/>
<LocalizedRegionName Name="in zh Louisiana" Language="zh" Country="CH"/>

```

```
<LocalizedRegionName Name="in fr Louisiana" Language="fr" Country="FR"/>
</StoreRegion>
<StoreRegion>
<ChangeType>ADD</ChangeType>
<RegionID>00004</RegionID>
<LocalizedRegionName Name="in en New Mexico" Language="en" Country="US"/>
<LocalizedRegionName Name="in zh New Mexico" Language="zh" Country="CH"/>
<LocalizedRegionName Name="in fr New Mexico" Language="fr" Country="FR"/>
</StoreRegion>
<StoreDistrict>
<ChangeType>ADD</ChangeType>
<DistrictID>00001</DistrictID>
<RegionID>00001</RegionID>
<DistrictName>Round Rock</DistrictName>
</StoreDistrict>
<StoreDistrict>
<ChangeType>ADD</ChangeType>
<DistrictID>00002</DistrictID>
<RegionID>00001</RegionID>
<LocalizedDistrictName Name="in zh Austin" Description="in zh Austin desc"
Language="zh" Country="CH"/>
<LocalizedDistrictName Name="in fr Austin" Language="fr" Country="FR"/>
</StoreDistrict>
<StoreDistrict>
<ChangeType>ADD</ChangeType>
<DistrictID>00003</DistrictID>
<RegionID>00001</RegionID>
<LocalizedDistrictName Name="in en Cedar Park" Language="en" Country="US"/>
<LocalizedDistrictName Name="in zh Cedar Park" Language="zh" Country="CH"/>
<LocalizedDistrictName Name="in fr Cedar Park" Language="fr" Country="FR"/>
</StoreDistrict>
<StoreDistrict>
<ChangeType>ADD</ChangeType>
<DistrictID>00004</DistrictID>
<RegionID>00002</RegionID>
<LocalizedDistrictName Name="in en Boca Raton" Language="en" Country="US"/>
<LocalizedDistrictName Name="in zh Boca Raton" Language="zh" Country="CH"/>
<LocalizedDistrictName Name="in fr Boca Raton" Language="fr" Country="FR"/>
</StoreDistrict>
<StoreDistrict>
<ChangeType>ADD</ChangeType>
<DistrictID>00005</DistrictID>
<RegionID>00002</RegionID>
<LocalizedDistrictName Name="in en Boynton Beach" Language="en" Country="US"/>
<LocalizedDistrictName Name="in zh Boynton Beach" Language="zh" Country="CH"/>
<LocalizedDistrictName Name="in fr Boynton Beach" Language="fr" Country="FR"/>
</StoreDistrict>
<StoreDistrict>
<ChangeType>ADD</ChangeType>
<DistrictID>00006</DistrictID>
<RegionID>00004</RegionID>
<LocalizedDistrictName Name="in en Lea" Language="en" Country="US"/>
<LocalizedDistrictName Name="in zh Lea" Language="zh" Country="CH"/>
<LocalizedDistrictName Name="in fr Lea" Language="fr" Country="FR"/>
</StoreDistrict>
<StoreDistrict>
<ChangeType>ADD</ChangeType>
<DistrictID>00007</DistrictID>
<RegionID>00004</RegionID>
<LocalizedDistrictName Name="in en Eddy" Language="en" Country="US"/>
```



```

<LocalizedDistrictName Name="in zh Eddy" Language="zh" Country="CH"/>
<LocalizedDistrictName Name="in fr Eddy" Language="fr" Country="FR"/>
</StoreDistrict>
<StoreDistrict>
<ChangeType>ADD</ChangeType>
<DistrictID>00008</DistrictID>
<RegionID>00004</RegionID>
<LocalizedDistrictName Name="in en Chaves" Language="en" Country="US"/>
<LocalizedDistrictName Name="in zh Chaves" Language="zh" Country="CH"/>
<LocalizedDistrictName Name="in fr Chaves" Language="fr" Country="FR"/>
</StoreDistrict>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>04241</RetailStoreID>
<LocationName>Lakeline Mall</LocationName>
<DistrictID>00003</DistrictID>
<RegionID>00001</RegionID>
<Address>
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>8876 Piney Point</AddressLine1>
<AddressLine2>Suite 220A</AddressLine2>
<City>Austin</City>
<State>TX</State>
<PostalCode>78729</PostalCode>
<Country>USA</Country>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>04242</RetailStoreID>
<LocalizedLocationName Name="in zh Barton Creek Square Mall" Description="in zh
BCS Mall desc" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr Barton Creek Square Mall" Language="fr"
Country="FR"/>
<DistrictID>00002</DistrictID>
<RegionID>00001</RegionID>
<Address>
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>2901 S. Capitol of Texas Hwy</AddressLine1>
<AddressLine2>Suite 60</AddressLine2>
<City>Austin</City>
<State>TX</State>
<PostalCode>78746-8100</PostalCode>
<Country>USA</Country>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>01291</RetailStoreID>
<LocalizedLocationName Name="in en Cactus Shopping Emporium" Language="en"
Country="US"/>
<LocalizedLocationName Name="in zh Cactus Shopping Emporium" Language="zh"
Country="CH"/>
<LocalizedLocationName Name="in fr Cactus Shopping Emporium" Language="fr"
Country="FR"/>
<DistrictID>00001</DistrictID>
<RegionID>00001</RegionID>
<Address>

```

```

<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>1201 Second Avenue</AddressLine1>
<AddressLine2>Suite 201</AddressLine2>
<City>Notrees</City>
<State>TX</State>
<PostalCode>79759-0002</PostalCode>
<Country>USA</Country>
<TelephoneAreaCode>915</TelephoneAreaCode>
<TelephoneLocalNumber>2701200</TelephoneLocalNumber>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>01232</RetailStoreID>
<LocalizedLocationName Name="in en Rattlesnake Mall" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh Rattlesnake Mall" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr Rattlesnake Mall" Language="fr" Country="FR"/>
<DistrictID>00003</DistrictID>
<RegionID>00001</RegionID>
<Address>
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>1305 Pecos Highway</AddressLine1>
<City>Pyote</City>
<State>TX</State>
<PostalCode>79777-2783</PostalCode>
<Country>USA</Country>
<TelephoneAreaCode>915</TelephoneAreaCode>
<TelephoneLocalNumber>4313501</TelephoneLocalNumber>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>01445</RetailStoreID>
<LocalizedLocationName Name="in en Gaines Square Mall" Language="en"
Country="US"/>
<LocalizedLocationName Name="in zh Gaines Square Mall" Language="zh"
Country="CH"/>
<LocalizedLocationName Name="in fr Gaines Square Mall" Language="fr"
Country="FR"/>
<DistrictID>00002</DistrictID>
<RegionID>00001</RegionID>
<Address>
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>10200 Airline Road</AddressLine1>
<City>Odessa</City>
<State>TX</State>
<PostalCode>79761-0302</PostalCode>
<Country>USA</Country>
<TelephoneAreaCode>915</TelephoneAreaCode>
<TelephoneLocalNumber>2732000</TelephoneLocalNumber>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>01502</RetailStoreID>
<LocalizedLocationName Name="in en Horsehead Center" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh Horsehead Center" Language="zh" Country="CH"/>

```

```

<LocalizedLocationName Name="in fr Horsehead Center" Language="fr" Country="FR"/>
<DistrictID>00004</DistrictID>
<RegionID>00002</RegionID>
<Address>
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>1235 Main Street</AddressLine1>
<City>Odessa</City>
<State>TX</State>
<PostalCode>79760-0552</PostalCode>
<Country>USA</Country>
<TelephoneAreaCode>915</TelephoneAreaCode>
<TelephoneLocalNumber>2734100</TelephoneLocalNumber>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>02991</RetailStoreID>
<LocalizedLocationName Name="in en Courthouse Square" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh Courthouse Square" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr Courthouse Square" Language="fr" Country="FR"/>
<DistrictID>00001</DistrictID>
<RegionID>00001</RegionID>
<Address>
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>1207 Avenue B</AddressLine1>
<City>North Zulch</City>
<State>TX</State>
<PostalCode>77872-0001</PostalCode>
<Country>USA</Country>
<TelephoneAreaCode>409</TelephoneAreaCode>
<TelephoneLocalNumber>2990100</TelephoneLocalNumber>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>01234</RetailStoreID>
<LocalizedLocationName Name="in en La Frontera" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh La Frontera" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr La Frontera" Language="fr" Country="FR"/>
<DistrictID>00001</DistrictID>
<RegionID>00001</RegionID>
<Address>
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>null</AddressLine1>
<City>null</City>
<State>TX</State>
<PostalCode>null</PostalCode>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>01235</RetailStoreID>
<LocalizedLocationName Name="in en Lake Creek Plaza" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh Lake Creek Plaza" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr Lake Creek Plaza" Language="fr" Country="FR"/>
<DistrictID>00001</DistrictID>
<RegionID>00001</RegionID>

```

```
<Address>
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>>null</AddressLine1>
<City>>null</City>
<State>TX</State>
<PostalCode>>null</PostalCode>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>01236</RetailStoreID>
<LocalizedLocationName Name="in en Gateway Plaza" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh Gateway Plaza" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr Gateway Plaza" Language="fr" Country="FR"/>
<DistrictID>00002</DistrictID>
<RegionID>00001</RegionID>
<Address>
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>>null</AddressLine1>
<City>>null</City>
<State>TX</State>
<PostalCode>>null</PostalCode>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>01237</RetailStoreID>
<LocalizedLocationName Name="in en The Arboretum" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh The Arboretum" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr The Arboretum" Language="fr" Country="FR"/>
<DistrictID>00002</DistrictID>
<RegionID>00001</RegionID>
<Address>
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>>null</AddressLine1>
<City>>null</City>
<State>TX</State>
<PostalCode>>null</PostalCode>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>01238</RetailStoreID>
<LocalizedLocationName Name="in en The Crossings" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh The Crossings" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr The Crossings" Language="fr" Country="FR"/>
<DistrictID>00002</DistrictID>
<RegionID>00001</RegionID>
<Address>
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>>null</AddressLine1>
<City>>null</City>
<State>TX</State>
<PostalCode>>null</PostalCode>
</Address>
</RetailStore>
```

```

<RetailStore>
  <ChangeType>ADD</ChangeType>
  <RetailStoreID>02345</RetailStoreID>
  <LocalizedLocationName Name="in en Town Centre" Language="en" Country="US"/>
  <LocalizedLocationName Name="in zh Town Centre" Language="zh" Country="CH"/>
  <LocalizedLocationName Name="in fr Town Centre" Language="fr" Country="FR"/>
  <DistrictID>00003</DistrictID>
  <RegionID>00001</RegionID>
  <Address>
    <AddressID>0</AddressID>
    <AddressTypeCode>Other</AddressTypeCode>
    <AddressLine1>null</AddressLine1>
    <City>null</City>
    <State>TX</State>
    <PostalCode>null</PostalCode>
  </Address>
</RetailStore>
<RetailStore>
  <ChangeType>ADD</ChangeType>
  <RetailStoreID>02346</RetailStoreID>
  <LocalizedLocationName Name="in en Palmetto Mall" Language="en" Country="US"/>
  <LocalizedLocationName Name="in zh Palmetto Mall" Language="zh" Country="CH"/>
  <LocalizedLocationName Name="in fr Palmetto Mall" Language="fr" Country="FR"/>
  <DistrictID>00003</DistrictID>
  <RegionID>00001</RegionID>
  <Address>
    <AddressID>0</AddressID>
    <AddressTypeCode>Other</AddressTypeCode>
    <AddressLine1>null</AddressLine1>
    <City>null</City>
    <State>TX</State>
    <PostalCode>null</PostalCode>
  </Address>
</RetailStore>
<RetailStore>
  <ChangeType>ADD</ChangeType>
  <RetailStoreID>02347</RetailStoreID>
  <LocalizedLocationName Name="in en Boynton Mall" Language="en" Country="US"/>
  <LocalizedLocationName Name="in zh Boynton Mall" Language="zh" Country="CH"/>
  <LocalizedLocationName Name="in fr Boynton Mall" Language="fr" Country="FR"/>
  <DistrictID>00004</DistrictID>
  <RegionID>00002</RegionID>
  <Address>
    <AddressID>0</AddressID>
    <AddressTypeCode>Other</AddressTypeCode>
    <AddressLine1>null</AddressLine1>
    <City>null</City>
    <State>FL</State>
    <PostalCode>null</PostalCode>
  </Address>
</RetailStore>
<RetailStore>
  <ChangeType>ADD</ChangeType>
  <RetailStoreID>02348</RetailStoreID>
  <LocalizedLocationName Name="in en Buena Vista Plaza" Language="en" Country="US"/>
  <LocalizedLocationName Name="in zh Buena Vista Plaza" Language="zh" Country="CH"/>
  <LocalizedLocationName Name="in fr Buena Vista Plaza" Language="fr" Country="FR"/>
  <DistrictID>00004</DistrictID>
  <RegionID>00002</RegionID>
  <Address>

```

```
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>>null</AddressLine1>
<City>>null</City>
<State>FL</State>
<PostalCode>>null</PostalCode>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>04332</RetailStoreID>
<LocalizedLocationName Name="in en Red Crow Center" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh Red Crow Center" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr Red Crow Center" Language="fr" Country="FR"/>
<DistrictID>00006</DistrictID>
<RegionID>00004</RegionID>
<Address>
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>>null</AddressLine1>
<City>>null</City>
<State>NM</State>
<PostalCode>>null</PostalCode>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>04335</RetailStoreID>
<LocalizedLocationName Name="in en Buckeye Mall" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh Buckeye Mall" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr Buckeye Mall" Language="fr" Country="FR"/>
<DistrictID>00006</DistrictID>
<RegionID>00004</RegionID>
<Address>
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>>null</AddressLine1>
<City>>null</City>
<State>NM</State>
<PostalCode>>null</PostalCode>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>04337</RetailStoreID>
<LocalizedLocationName Name="in en Monument Center" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh Monument Center" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr Monument Center" Language="fr" Country="FR"/>
<DistrictID>00006</DistrictID>
<RegionID>00004</RegionID>
<Address>
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>>null</AddressLine1>
<City>>null</City>
<State>NM</State>
<PostalCode>>null</PostalCode>
</Address>
</RetailStore>
<RetailStore>
```

```

<ChangeType>ADD</ChangeType>
<RetailStoreID>04339</RetailStoreID>
<LocalizedLocationName Name="in en Caverns Center" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh Caverns Center" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr Caverns Center" Language="fr" Country="FR"/>
<DistrictID>00007</DistrictID>
<RegionID>00004</RegionID>
<Address>
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>>null</AddressLine1>
<City>>null</City>
<State>NM</State>
<PostalCode>>null</PostalCode>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>04343</RetailStoreID>
<LocalizedLocationName Name="in en Yucca Crossing" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh Yucca Crossing" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr Yucca Crossing" Language="fr" Country="FR"/>
<DistrictID>00007</DistrictID>
<RegionID>00004</RegionID>
<Address>
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>>null</AddressLine1>
<City>>null</City>
<State>NM</State>
<PostalCode>>null</PostalCode>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>04349</RetailStoreID>
<LocalizedLocationName Name="in en Chaparral Mall" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh Chaparral Mall" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr Chaparral Mall" Language="fr" Country="FR"/>
<DistrictID>00007</DistrictID>
<RegionID>00004</RegionID>
<Address>
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>>null</AddressLine1>
<City>>null</City>
<State>NM</State>
<PostalCode>>null</PostalCode>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>04350</RetailStoreID>
<LocalizedLocationName Name="in en Coyote Place" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh Coyote Place" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr Coyote Place" Language="fr" Country="FR"/>
<DistrictID>00008</DistrictID>
<RegionID>00004</RegionID>
<Address>
<AddressID>0</AddressID>

```

```
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>null</AddressLine1>
<City>null</City>
<State>NM</State>
<PostalCode>null</PostalCode>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>04352</RetailStoreID>
<LocalizedLocationName Name="in en Goddard Mall" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh Goddard Mall" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr Goddard Mall" Language="fr" Country="FR"/>
<DistrictID>00008</DistrictID>
<RegionID>00004</RegionID>
<Address>
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>null</AddressLine1>
<City>null</City>
<State>NM</State>
<PostalCode>null</PostalCode>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>04357</RetailStoreID>
<LocalizedLocationName Name="in en Artesia" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh Artesia" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr Artesia" Language="fr" Country="FR"/>
<DistrictID>00008</DistrictID>
<RegionID>00004</RegionID>
<Address>
<AddressID>0</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>null</AddressLine1>
<City>null</City>
<State>NM</State>
<PostalCode>null</PostalCode>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>03233</RetailStoreID>
<LocalizedLocationName Name="in en NorthCross Mall" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh NorthCross Mall" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr NorthCross Mall" Language="fr" Country="FR"/>
<DistrictID>00003</DistrictID>
<RegionID>00001</RegionID>
<Address>
<AddressID>1</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>null</AddressLine1>
<City>null</City>
<State>TX</State>
<PostalCode>78729</PostalCode>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
```



```

<RetailStoreID>03234</RetailStoreID>
<LocalizedLocationName Name="in en Hidden Cove Plaza" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh Hidden Cove Plaza" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr Hidden Cove Plaza" Language="fr" Country="FR"/>
<DistrictID>00003</DistrictID>
<RegionID>00001</RegionID>
<Address>
<AddressID>1</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>null</AddressLine1>
<City>null</City>
<State>TX</State>
<PostalCode>78729</PostalCode>
</Address>
</RetailStore>
<RetailStore>
<ChangeType>ADD</ChangeType>
<RetailStoreID>03235</RetailStoreID>
<LocalizedLocationName Name="in en Limestone Court" Language="en" Country="US"/>
<LocalizedLocationName Name="in zh Limestone Court" Language="zh" Country="CH"/>
<LocalizedLocationName Name="in fr Limestone Court" Language="fr" Country="FR"/>
<DistrictID>00003</DistrictID>
<RegionID>00001</RegionID>
<Address>
<AddressID>1</AddressID>
<AddressTypeCode>Other</AddressTypeCode>
<AddressLine1>null</AddressLine1>
<City>null</City>
<State>TX</State>
<PostalCode>78729</PostalCode>
</Address>
</RetailStore>
</PreloadData>
<HierarchyList>
<Hierarchy FunctionID="1" Name="Default Hierarchy Group" >
<LevelList>
<Level ID="0">
<LocalizedName Name="in en root" Description="in en root desc" Language="en"
Country="US"/>
<LocalizedName Name="in zh root" Language="zh" Country="CH"/>
<LocalizedName Name="in fr root" Language="fr" Country="FR"/>
</Level>
<Level ID="1" Name="Corporate" ParentID="0">
</Level>
<Level ID="2" Name="Region" ParentID="1">
<LocalizedName Name="in en Region" Language="en" Country="US"/>
<LocalizedName Name="in zh Region" Language="zh" Country="CH"/>
<LocalizedName Name="in fr Region" Language="fr" Country="FR"/>
</Level>
<Level ID="3" Name="District" ParentID="2">
<LocalizedName Name="in en District" Language="en" Country="US"/>
<LocalizedName Name="in zh District" Language="zh" Country="CH"/>
<LocalizedName Name="in fr District" Language="fr" Country="FR"/>
</Level>
<Level ID="4" Name="City" ParentID="3">
<LocalizedName Name="in en City" Language="en" Country="US"/>
<LocalizedName Name="in zh City" Language="zh" Country="CH"/>
<LocalizedName Name="in fr City" Language="fr" Country="FR"/>
</Level>
</LevelList>

```

```
<NodeList>
<Node ID="1" LevelID="0" Name="360Commerce Hierarchy" Description="360C H desc">
</Node>
<Node ID="2" LevelID="1" Name="360Enterprise" ParentNodeID="1" >
<LocalizedNameDescription Name="in en 360Enterprise" Description="in en
Description" Language="en" Country="US"/>
<LocalizedNameDescription Name="in zh 360Enterprise" Description="in zh
Description" Language="zh" Country="CH"/>
<LocalizedNameDescription Name="in fr 360Enterprise" Description="in fr
Description" Language="fr" Country="FR"/>
</Node>
<Node ID="3" LevelID="2" Name="North" ParentNodeID="2">
<LocalizedNameDescription Name="in en North" Description="in en Description"
Language="en" Country="US"/>
<LocalizedNameDescription Name="in zh North" Description="in zh Description"
Language="zh" Country="CH"/>
<LocalizedNameDescription Name="in fr North" Description="in fr Description"
Language="fr" Country="FR"/>
<RetailStoreId>04242</RetailStoreId>
</Node>
<Node ID="4" LevelID="2" Name="South" ParentNodeID="2" >
<LocalizedNameDescription Name="in en South" Description="in en Description"
Language="en" Country="US"/>
<LocalizedNameDescription Name="in zh South" Description="in zh Description"
Language="zh" Country="CH"/>
<LocalizedNameDescription Name="in fr South" Description="in fr Description"
Language="fr" Country="FR"/>
</Node>
<Node ID="5" LevelID="3" Name="New York" ParentNodeID="3" >
<LocalizedNameDescription Name="in en New York" Description="in en Description"
Language="en" Country="US"/>
<LocalizedNameDescription Name="in zh New York" Description="in zh Description"
Language="zh" Country="CH"/>
<LocalizedNameDescription Name="in fr New York" Description="in fr Description"
Language="fr" Country="FR"/>
</Node>
<Node ID="6" LevelID="3" Name="Texas" ParentNodeID="4" >
<LocalizedNameDescription Name="in en Texas" Description="in en Description"
Language="en" Country="US"/>
<LocalizedNameDescription Name="in zh Texas" Description="in zh Description"
Language="zh" Country="CH"/>
<LocalizedNameDescription Name="in fr Texas" Description="in fr Description"
Language="fr" Country="FR"/>
</Node>
<Node ID="7" LevelID="4" Name="Austin" ParentNodeID="6">
<LocalizedNameDescription Name="in en Austin" Description="in en Description"
Language="en" Country="US"/>
<LocalizedNameDescription Name="in zh Austin" Description="in zh Description"
Language="zh" Country="CH"/>
<LocalizedNameDescription Name="in fr Austin" Description="in fr Description"
Language="fr" Country="FR"/>
<RetailStoreId>04241</RetailStoreId>
</Node>
<Node ID="8" LevelID="4" Name="Dallas" ParentNodeID="6">
<LocalizedNameDescription Name="in en Dallas" Description="in en Description"
Language="en" Country="US"/>
<LocalizedNameDescription Name="in zh Dallas" Description="in zh Description"
Language="zh" Country="CH"/>
<LocalizedNameDescription Name="in fr Dallas" Description="in fr Description"
Language="fr" Country="FR"/>
```

```

<RetailStoreId>01291</RetailStoreId>
</Node>
</NodeList>
</Hierarchy>
</HierarchyList>
</StoreHierarchy>

```

Tax Import

Table C–13 identifies the element mapping for the TaxImport.xsd file.

Table C–13 Tax Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|-----------------------------------|----------------------|----------------------|--------------|---|--|
| GeoCode CD_GEO | GeoCodeID | ID_CD_GEO | VARCHAR(10) | GEOCode/GeoCodeID | |
| | TaxJurisdiction Name | NM_TX_JUR | VARCHAR(120) | GEOCode/TaxJurisdiction Name | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| GeoTax Jurisdiction GEO_TX_JUR | GeoCodeID | ID_CD_GEO | VARCHAR(10) | GEOTax Jurisdiction/GeoCodeID | |
| | PostalCode | TS_CRT_PW | VARCHAR(30) | GEOTax Jurisdiction/PostalCode | |
| TaxAuthority PA_ATHY_TX | TaxAuthorityID | ID_ATHY_TX | INTEGER | TaxAuthority/TaxAuthorityID | Maximum field size for INTEGER is typically NUMBER(10) to support Java INT datatype in application. |
| | PartyRole TypeCode | TY_RO_PRTY | VARCHAR(20) | <null> | could be CITY, STATE, VAT |
| | PartyID | ID_PRTY | INTEGER | select ID_CNT_GEN from CO_ID_GEN where NM_CNT_GEN = PA_PRTY | |
| | TaxAuthorityName | NM_ATHY_TX | VARCHAR(120) | TaxAuthority/TaxAuthorityName | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | RoundingCode | SC_RND | INTEGER | TaxAuthority/RoundingCode | |

Table C-13 (Cont.) Tax Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--|-------------------------------|----------------------|--------------|--------------------------------------|--|
| | RoundingDigits Quantity | QU_DGT_RND | DECIMAL(9,3) | TaxAuthority/RoundingDigits Quantity | |
| | RecordCreation Timestamp | TS_CRT_RCRD | TIMESTAMP | NOW() | |
| | RecordLast Modified Timestamp | TS_MDF_RCRD | TIMESTAMP | NOW() | |
| TaxJurisdictionAuthorityLink CO_TX_JUR_ATHY_LNK | GeoCodeID | ID_CD_GEO | VARCHAR(10) | TaxAuthority/GeoCodeID | |
| | TaxAuthorityID | ID_ATHY_TX | INTEGER | TaxAuthority/TaxAuthorityID | |
| TaxableGroup CO_GP_TX_ITM | TaxGroupID | ID_GP_TX | INTEGER | TaxableGroup/TaxGroupID | Maximum field size for INTEGER is typically NUMBER(10) to support Java INT datatype in application. |
| | TaxGroupName | NM_GP_TX | VARCHAR(120) | TaxableGroup/TaxGroupName | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | ReceiptPrintCode | CD_RCV_PRT | INTEGER | TaxableGroup/ReceiptPrintCode | |
| | TaxGroup Description | DE_GP_TX | VARCHAR(250) | TaxableGroup/TaxGroup Description | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 250/4 = 60. |
| | RecordCreation Timestamp | TS_CRT_RCRD | TIMESTAMP | NOW() | |
| | RecordLast Modified Timestamp | TS_MDF_RCRD | TIMESTAMP | NOW() | |
| Party PA_PRTY | PartyID | ID_PRTY | INTEGER | TaxAuthority.PartyID | Same value from select statement above. |
| | PartyLegal OrganizationCode | LU_ORG_LG | VARCHAR(20) | Tax | |
| | PartyTypeCode | TY_PRTY | VARCHAR(20) | "JURISDICTION" | |

Table C-13 (Cont.) Tax Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------------|---------------------|----------------------|--------------|----------------------------------|--|
| Address LO_ADS | AddressID | ID_STR_RT | INTEGER | 0 | |
| | AddressTypeCode | ID_DPT_POS | VARCHAR(30) | TAX ADDRESS | |
| | PartyID | ID_PRTY | INTEGER | TaxAuthority. PartyID | Same value from select statement above. |
| | AddressLine1 | A1_CNCT | VARCHAR(240) | TaxAuthority/AddressLine | |
| | AddressLine2 | A2_CNCT | VARCHAR(240) | No mapping available | |
| | AddressLine3 | A3_CNCT | VARCHAR(240) | No mapping available | |
| | City | CI_CNCT | VARCHAR(30) | TaxAuthority/City | |
| | State | ST_CNCT | VARCHAR(30) | TaxAuthority/State | |
| | PostalCode | PC_CNCT | VARCHAR(30) | TaxAuthority/Postal Code | |
| | Country | CO_CNCT | VARCHAR(30) | TaxAuthority/CountryCode | |
| TaxType PA_TY_TX | TaxTypeID | TY_TX | INTEGER | TaxGroupRule/TaxTypeID | |
| | TaxTypeName | NM_TY_TX | VARCHAR(30) | TaxGroupRule/TaxTypeName | |
| TaxGroupRule RU_TX_GP | TaxAuthorityID | ID_ATHY_TX | INTEGER | TaxGroupRule/TaxAuthorityID | |
| | TaxGroupID | ID_GP_TX | INTEGER | TaxGroupRule/TaxGroupID | |
| | TaxType | TY_TX | INTEGER | TaxGroupRule/TaxTypeID | |
| | TaxHolidayFlag | FLG_TX_HDY | CHAR(1) | TaxGroupRule/TaxHolidayFlag | false=0, true=1 |
| | TaxRuleName | NM_RU_TX | VARCHAR(120) | TaxGroupRule/TaxRuleName | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 120/4 = 30. |
| | TaxRule Description | DE_RU_TX | VARCHAR(250) | TaxGroupRule/TaxRule Description | The length here is defined as the length of single byte string. If multibyte characters are used, the max length should be 250/4 = 60. |

Table C-13 (Cont.) Tax Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|-------------------------|-------------------------------|----------------------|--------------|--|--|
| | Compound Sequence Number | AI_CMPND | SMALLINT | TaxGroupRule/CompoundRateSequenceNumber | |
| | TaxOnGross AmountFlag | FL_TX_GS_AMT | CHAR(1) | TaxGroupRule/TaxOnGrossAmountFlag | false=0, true=1 |
| | CalculationMethodCode | CD_CAL_MTH | INTEGER | TaxGroupRule/CalculationMethodCode | LineItem=1 Transaction=2 |
| | TaxRateRuleUsageCode | CD_TX_RT_RU_USG | INTEGER | TaxGroupRule/TaxRateRuleUsageCode | PercentageOrAmount=1 DeriveFromTaxTable=2 UseThresholdAmount=3 |
| | InclusiveTaxFlag | FL_TX_INC | CHAR(1) | TaxGroupRule/InclusiveTaxFlag | |
| | RecordCreation Timestamp | TS_CRT_RCRD | TIMESTAMP | NOW() | |
| | RecordLast Modified Timestamp | TS_MDF_RCRD | TIMESTAMP | NOW() | |
| TaxRateRule RU_TX_RT | TaxAuthorityID | ID_ATHY_TX | INTEGER | TaxGroupRule/TaxAuthorityID | |
| | TaxGroupID | ID_GP_TX | INTEGER | TaxGroupRule/TaxGroupID | |
| | TaxType | TY_TX | INTEGER | TaxGroupRule/TaxTypeID | |
| | TaxHolidayFlag | FLG_TX_HDY | CHAR(1) | TaxGroupRule/TaxHolidayFlag | |
| | TaxRateRuleSequenceNumber | AI_TX_RT_RU | SMALLINT | Element position (First element = 1). If not specified, defaults to 1. | |
| | TypeCode | CD_TYP | INTEGER | TaxGroupRule/TaxRateRule/RateTypeCode | Percentage=1 Amount=2 |
| | TaxPercentage | PE_TX | DECIMAL(8,5) | TaxGroupRule/TaxRateRule/TaxPercentageRate | |
| | TaxAmount | MO_TX | DECIMAL(8,2) | TaxGroupRule/TaxRateRule/TaxAmount | |
| | TaxAbove Threshold AmountFlag | FL_TX_ABV_TH_MO | CHAR(1) | TaxGroupRule/TaxRateRule/TaxAboveThresholdAmountFlag | TaxAboveThresholdAmount=0 TaxEntireAmount=1 |
| | TaxThreshold Amount | MO_TX_TH | DECIMAL(8,2) | TaxGroupRule/TaxRateRule/ThresholdAmount | |

Table C-13 (Cont.) Tax Import XSD Element Mapping Table

| Log/Physical table | Target | Physical Column Name | Data Type | XSD Element/Attribute Path | Notes |
|--------------------|-----------------------------|----------------------|--------------|---|-------|
| | Minimum Taxable Amount | MO_TXBL_MIN | DECIMAL(8,2) | TaxGroupRule/TaxRateRule/MinimumTaxableAmount | |
| | MaximumTaxableAmount | MO_TXBL_MAX | DECIMAL(8,2) | TaxGroupRule/TaxRateRule/MaximumTaxableAmount | |
| | TaxRateEffectiveTimestamp | TS_RT_TX_EF | TIMESTAMP | TaxGroupRule/TaxRateRule/TaxRateEffectiveTimestamp | |
| | TaxRateExpirationTimestamp | TS_RT_TX_EP | TIMESTAMP | TaxGroupRule/TaxRateRule/TaxRateExpirationTimestamp | |
| | RecordCreationTimestamp | TS_CRT_RCRD | TIMESTAMP | NOW() | |
| | RecordLastModifiedTimestamp | TS_MDF_RCRD | TIMESTAMP | NOW() | |

The following is an example Tax Import XSD file.

Example C-15 TaxImport.xsd

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">

  <xs:include schemaLocation="../common.xsd"></xs:include>
  <xs:element name="TaxImport" type="TaxImport_type">
    <xs:annotation><xs:documentation>
      Copyright (c) 2006, 2010, Oracle and/or its affiliates. All rights reserved.
      XML Schema for data import of Tax Information. For Oracle Retail Store and
      Enterprise Applications.
      Contains Tax Authorities, Taxable Groups, Tax Rules and Rates data.
    </xs:documentation></xs:annotation>
  </xs:element>

  <xs:complexType name="TaxImport_type">
    <xs:sequence>
      <xs:element name="GEOCode" type="GEOCode_type" minOccurs="0"
        maxOccurs="unbounded"/>
      <xs:element name="GEOJurisdiction" type="GEOJurisdiction_type" minOccurs="0"
        maxOccurs="unbounded"/>
      <xs:element name="TaxAuthority" type="TaxAuthority_type" minOccurs="0"
        maxOccurs="unbounded"/>
      <xs:element name="TaxableGroup" type="TaxableGroup_type" minOccurs="0"
        maxOccurs="unbounded"/>
      <xs:element name="TaxGroupRule" type="TaxGroupRule_type" minOccurs="0"
        maxOccurs="unbounded"/>
    </xs:sequence>
    <xs:attribute name="FillType" type="FillType_subtype" use="required"
      fixed="KillAndFill"/>
    <xs:attribute name="CreationDate" type="xs:dateTime"/>
    <xs:attribute name="ExpirationDate" type="xs:dateTime"/>
    <xs:attribute name="Version" type="xs:string"/>
    <xs:attribute name="Priority" type="xs:int"/>
  </xs:complexType>
</xs:schema>
```

```

<xs:attribute name="Batch" type="xs:int"/>
</xs:complexType>

<xs:complexType name="TaxAuthority_type">
<xs:sequence>
<xs:element name="TaxAuthorityID" type="xs:integer"/>
<xs:element name="TaxAuthorityName" type="xs:string"/>
<xs:element name="RoundingCode">
<xs:simpleType>
<xs:restriction base="xs:integer">
<xs:minInclusive value="1"/>
</xs:restriction>
</xs:simpleType>
</xs:element>
<xs:element name="RoundingDigitsQuantity" type="xs:integer" minOccurs="0"/>
<xs:element name="AddressLine" type="xs:string"/>
<xs:element name="City" type="xs:string"/>
<xs:element name="State" type="xs:string"/>
<xs:element name="PostalCode" type="xs:string"/>
<xs:element name="CountryCode" type="xs:string"/>
<xs:element name="GeoCodeID" type="xs:string" maxOccurs="unbounded"/>
<xs:element name="JurisdictionTypeCode" type="xs:string">
  <xs:annotation><xs:documentation>
    When a store is set up to use US Sales Tax and the Oracle
    Merchandising
    Application, JurisdictionTypeCode with be sent to ReSA as the TaxCode.
  </xs:documentation></xs:annotation>
</xs:element>
</xs:sequence>
</xs:complexType>

<xs:complexType name="TaxableGroup_type">
<xs:sequence>
<xs:element name="TaxGroupID" type="xs:integer"/>
<xs:element name="TaxGroupName" type="xs:string" minOccurs="1" maxOccurs="1"/>
<xs:element name="TaxGroupDescription" type="xs:string"/>
<xs:element name="ReceiptPrintCode" type="xs:integer" minOccurs="0"/>
<xs:element name="LocalizedTaxGroupNameDescription"
type="LocalizedNameDescription_type" minOccurs="0" maxOccurs="unbounded" />
</xs:sequence>
</xs:complexType>

<xs:complexType name="TaxGroupRule_type">
<xs:sequence>
<xs:element name="TaxAuthorityID" type="xs:integer"/>
<xs:element name="TaxGroupID" type="xs:string"/>
<xs:element name="TaxTypeID" type="xs:integer"/>
<xs:element name="TaxTypeName" type="xs:string" minOccurs="0">
  <xs:annotation><xs:documentation>
    When a store is set up to use VAT and the Oracle Merchandising
    Application, TaxTypeName with be sent to ReSA as the TaxCode.
  </xs:documentation></xs:annotation>
</xs:element>
<xs:element name="TaxHolidayFlag" type="xs:boolean"/>
<xs:element name="TaxRuleName" type="xs:string"/>
<xs:element name="TaxRuleDescription" type="xs:string"/>
<xs:element name="CompoundRateSequenceNumber" type="xs:integer" minOccurs="0"/>
<xs:element name="TaxOnGrossAmountFlag" type="xs:boolean" minOccurs="0"/>
<xs:element name="CalculationMethodCode" minOccurs="0">
<xs:simpleType>

```



```

<xs:restriction base="xs:NMTOKEN">
<xs:enumeration value="LineItem"/>
<xs:enumeration value="Transaction"/>
</xs:restriction>
</xs:simpleType>
</xs:element>
<xs:element name="TaxRateRuleUsageCode">
<xs:simpleType>
<xs:restriction base="xs:NMTOKEN">
<xs:enumeration value="PercentageOrAmount"/>
<xs:enumeration value="DeriveFromTaxTable"/>
<xs:enumeration value="UseThresholdAmount"/>
</xs:restriction>
</xs:simpleType>
</xs:element>
<xs:element name="InclusiveTaxFlag" type="xs:boolean"/>
<xs:element name="TaxRateRule" type="TaxRateRule_type" maxOccurs="unbounded"/>
</xs:sequence>
</xs:complexType>

<xs:complexType name="TaxRateRule_type">
<xs:sequence>
<xs:element name="RateTypeCode" minOccurs="0">
<xs:simpleType>
<xs:restriction base="xs:NMTOKEN">
<xs:enumeration value="Percentage"/>
<xs:enumeration value="Amount"/>
</xs:restriction>
</xs:simpleType>
</xs:element>
<xs:choice>
<xs:element name="TaxAmount" type="Amount_type"/>
<xs:element name="TaxPercentageRate">
<xs:simpleType>
<xs:restriction base="xs:decimal">
<xs:fractionDigits value="5"/>
</xs:restriction>
</xs:simpleType>
</xs:element>
</xs:choice>
<xs:element name="TaxAboveThresholdAmountFlag" minOccurs="0">
<xs:simpleType>
<xs:restriction base="xs:NMTOKEN">
<xs:enumeration value="TaxAboveThresholdAmount"/>
<xs:enumeration value="TaxEntireAmount"/>
</xs:restriction>
</xs:simpleType>
</xs:element>
<xs:element name="ThresholdAmount" type="Amount_type" minOccurs="0"/>
<xs:element name="TaxRateEffectiveTimestamp" type="xs:dateTime" minOccurs="0"/>
<xs:element name="TaxRateExpirationTimestamp" type="xs:dateTime" minOccurs="0"/>
<xs:element name="MinimumTaxableAmount" type="Amount_type" minOccurs="0"/>
<xs:element name="MaximumTaxableAmount" minOccurs="0">
<xs:simpleType>
<xs:restriction base="xs:decimal">
<xs:fractionDigits value="2"/>
</xs:restriction>
</xs:simpleType>
</xs:element>
</xs:sequence>

```

```

</xs:complexType>

<xs:complexType name="GEOCode_type">
<xs:sequence>
<xs:element name="GeoCodeID" type="xs:string"/>
<xs:element name="TaxJurisdictionName" type="xs:string"/>
</xs:sequence>
</xs:complexType>

<xs:complexType name="GEOTaxJurisdiction_type">
<xs:sequence>
<xs:element name="GeoCodeID" type="xs:string"/>
<xs:element name="PostalCode" type="xs:string"/>
</xs:sequence>
</xs:complexType>

<xs:simpleType name="FillType_subtype">
<xs:restriction base="xs:string">
<xs:enumeration value="KillAndFill"/>
</xs:restriction>
</xs:simpleType>
</xs:schema>

```

The following is an example Tax Import XML file.

Example C-16 TaxImport.xml

```

<?xml version="1.0" encoding="UTF-8"?>
<TaxImport
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation="TaxImport.xsd"
  Priority="0"
  FillType="KillAndFill"
  Version="1.0"
  Batch="1"
  CreationDate="2001-12-17T09:30:47.0Z"
  ExpirationDate="2027-12-17T09:30:47.0Z">

  <GEOCode>
    <GeoCodeID>0015</GeoCodeID>
    <TaxJurisdictionName>Austin Tax Jurisdiction</TaxJurisdictionName>
  </GEOCode>

  <GEOTaxJurisdiction>
    <GeoCodeID>0015</GeoCodeID>
    <PostalCode>78759</PostalCode>
  </GEOTaxJurisdiction>

  <TaxAuthority>
    <TaxAuthorityID>4440</TaxAuthorityID>
    <TaxAuthorityName>Updated Bubba's Tax Authority</TaxAuthorityName>
    <RoundingCode>4</RoundingCode>
    <RoundingDigitsQuantity>3</RoundingDigitsQuantity>
    <AddressLine>Updated 2538 Elm St.</AddressLine>
    <City>Updated Houston</City>
    <State>Updated Texas</State>
    <PostalCode>78777</PostalCode>
    <CountryCode>USA</CountryCode>
    <GeoCodeID>0015</GeoCodeID>
    <JurisdictionTypeCode>CITY</JurisdictionTypeCode>

```

```
</TaxAuthority>

<TaxableGroup>
  <TaxGroupID>444</TaxGroupID>
  <TaxGroupName/>
  <TaxGroupDescription>Tax Group 444 description</TaxGroupDescription>
</TaxableGroup>

<!-- Sample Tax Group Rule using Tax Percentage Rate -->
<TaxGroupRule>
  <TaxAuthorityID>4440</TaxAuthorityID>
  <TaxGroupID>444</TaxGroupID>
  <TaxTypeID>111</TaxTypeID>
  <TaxTypeName>Tax Type 111</TaxTypeName>
  <TaxHolidayFlag>false</TaxHolidayFlag>
  <TaxRuleName>Updated Cigarette Tax Rule</TaxRuleName>
  <TaxRuleDescription>Updated Cigarette Tax Rule</TaxRuleDescription>
  <CompoundRateSequenceNumber>0</CompoundRateSequenceNumber>
  <TaxOnGrossAmountFlag>false</TaxOnGrossAmountFlag>
  <CalculationMethodCode>LineItem</CalculationMethodCode>
  <TaxRateRuleUsageCode>PercentageOrAmount</TaxRateRuleUsageCode>
  <InclusiveTaxFlag>true</InclusiveTaxFlag>
  <TaxRateRule>
    <RateTypeCode>Percentage</RateTypeCode>
    <TaxPercentageRate>10.99</TaxPercentageRate>
  </TaxRateRule>
</TaxGroupRule>
</TaxImport>
```

Appendix: Default Tax Handling

The DefaultTaxAmount in the application.xml file is the fourth choice from which to get the tax rule information. Here is the order in which the application gets the tax rule information. Once the application finds one or more tax rules, it stops looking:

1. Retrieves tax rules as defined by the Tax Group ID associated with Item, and Tax Authority IDs associated with sale location (usually the store).
2. Retrieves tax rules as defined by the Tax Group ID associated with Item's Department, and Tax Authority ID associated with sale location (usually the store).
3. Retrieves tax rule as defined by the Default Tax Group ID parameter and the Default Tax Authority ID parameter.
4. Creates tax rule based on the Default Tax Rate Parameter

The defaults for the Tax Group ID and Tax Authority ID are:

- DefaultTaxAuthorityID = 11111111
- DefaultTaxGroupID = -1

The application uses these two parameters to read the default tax rule from the database. This works offline because the Derby database (which resides on the client) contains the tax rules.

The Default Tax Rate

The first choice for the default tax rate now resides in the Tax Rate Rule Table (RU_TX_RT). When you query this table (where Auth ID = 11111111), you receive the following:

Table D-1 Tax Rate Rule Table

| | |
|-----------------|-------------|
| ID_ATHY_TX | 11111111 |
| ID_GP_TX | -1 |
| TY_TX | 0 |
| FLG_TX_HDY | 0 |
| AI_TX_RT_RU | 1 |
| CD_TYP | 1 |
| PE_TX | 8.25 |
| MO_TX | (null) |
| FL_TX_ABV_TH_MO | 0 |
| MO_TX_TH | 0 |

Table D-1 (Cont.) Tax Rate Rule Table

| | |
|-------------|--------|
| MO_TXBL_MIN | (null) |
| MO_TXBL_MAX | (null) |

The tax rate in this file is 8.25 percent.

The Default Tax Type Indicator (VAT)

For VAT, the tax type comes from the Tax Rule Group Table (RU_TX_GP) and resides in the Tax Rule Name (NM_RU_TX) column. When you query this table (where Auth ID = 11111111), you receive the following:

Table D-2 Tax Rule Group Table

| | |
|-----------------|-------------|
| ID_ATHY_TX | 11111111 |
| ID_GP_TX | -1 |
| TY_TX | 0 |
| FLG_TX_HDY | 0 |
| NM_RU_TX | T |
| DE_RU_TX | Default Tax |
| AI_CMPND | 0 |
| FL_TX_GS_AMT | 0 |
| CD_CAL_MTH | 1 |
| CD_TX_RT_RU_USG | 1 |
| FL_TX_INC | 1 |

The default tax type indicator for VAT items is **T**.

Glossary

Batch

A collection of data operations that are processed during import at one time. The size is determined by a configurable parameter.

Bundle

A collection of import files, one file per data type, stored as a compressed archive containing a manifest. It is expected that the retailer or implementation team is responsible for delivering to the Store the bundle along with manifest for all data feeds to the Store. MOM applications can package the bundle but do not provide delivery functions.

Corporate

Used interchangeably with *enterprise*. The enterprise environment of the retailer where enterprise applications are deployed. Oracle Retail Central Office is deployed in the enterprise.

Data Access Object (DAO)

A Java class that can retrieve and persist data to and from a data source. DAO is well-known JEE development pattern.

Data Distribution Infrastructure (DDI)

The infrastructure and application components that are responsible for distributing seed data from enterprise applications to Store applications, ODS at Corporate (or enterprise), and Store Database at the stores.

Data Transfer Object (DTO)

A class that contains data records from a received payload. The DTO's attributes are populated with the parsed data.

DIMP

Data Import

Incremental

There are two types of update operation, full incremental and delta incremental. Full incremental assumes that all the fields for a data type are supplied in the XML. A delta incremental import contains only the fields that are being changed.

ISP

In-Store-Processor

JEE/J2EE

Java Enterprise Edition (formerly Java 2 Enterprise Edition) is a set of APIs designed to support tier 1 type business models.

Java Database Connectivity (JDBC)

An API used to communicate with relational databases.

Kill And Fill

Kill And Fill refers to a data operation where all the existing data in a table is deleted (kill) and then replaced with new data (fill).

Limit (discount rule)

The maximum price allowed for a source or target to be part of a deal. Used most often when the source or target is a classification or department where many different priced items exist.

Manifest

A file within a bundle that lists the data files in the bundle and their interdependencies.

Minimum Data

Minimum Data is defined as the minimum set of data necessary to support the deployment of Stores applications only.

If the user attempts to select any function or log in, an error may occur in the application without Sample Data loaded. See [Sample Data](#).

Operational Data Store (ODS)

The corporate data repository that services Oracle Retail Central Office.

ORBO

Oracle Retail Back Office

ORCO

Oracle Retail Central Office

ORLT

Oracle Retail Labels and Tags

ORPOS

Oracle Retail Point-of-Service

ORRM

Oracle Retail Returns Management

ORSIM

Oracle Retail Store Inventory Management

POS Suite

The Oracle Retail business unit that assumes responsibility for applications running in the Store environment.

ReSA

Oracle Retail Sales Audit

RMS

Oracle Retail Merchandising System

RPM

Oracle Retail Price Management

RTLog

Retail Transaction Log

Sample Data

A set of data used to demonstrate application features.

Store Applications

Oracle Retail applications that run in the store environment. This includes:

- n Oracle Retail Back Office
- n Oracle Retail Point-of-Service
- n Oracle Retail POS Suite
- n Oracle Retail Labels and Tags
- n Oracle Retail Store Inventory Management
- n Oracle Retail Central Office
- n Oracle Retail Returns Management.

It must be noted that even though Oracle Retail Central Office runs in the corporate environment, it is classified as a store application.

Store Database (SDB)

The data repository for store applications.

Threshold (discount rule)

The minimum price allowed for a source or target to be part of a deal. Used most often when the source or target is a classification or department where many different priced items exist.

Index

A

archive file
format, 3-5

C

capacity planning, 4-1
customization, 5-1

D

data import
dependencies, 1-5
dimplogger.properties, 3-5
error handling, 2-3
exception flow, 2-5
extension points and development, 5-1
import adapter and translator, 5-2
ImportControllerIfc, 5-6
manually editing generated code, 5-3
metadata, 5-5
SAXParserGenerator, 5-3
feed methods, 1-4
field width maximums, 7-5
generic data import flow, 1-3
import status logging, 2-4
logic, 2-4
reprocessing a bundle, 2-5
logging, 2-7
Oracle Retail Merchandising System and Oracle Retail
Price Management, 1-1
spring configuration, 3-1
spring.properties, 3-4
discount rules, A-1, B-1

F

functionality gaps, 7-1
Oracle Retail Merchandising System, 7-3
Oracle Retail Price Management, 7-1

G

glossary, Glossary-1

I

implementation configuration, 3-1
integration architecture, 2-1
data import, 2-2
POS Suite to Oracle Retail Sales Audit, 2-1
integration overview
Oracle Retail Merchandising System to Oracle Retail
POS Suite, 1-7
Oracle Retail POS Suite to Oracle Retail Sales
Audit, 1-8
preconditions, 1-10
Oracle Retail POS Suite to sales audit
system flow description, 1-11
Oracle Retail Price Management to Oracle Retail POS
Suite, 1-6

K

known integration gaps, 7-8
known issues, 6-1
authorized for sale, 6-1
bank deposit details, 7-8
branded debit card transactions, 7-8
catchweight Item in RTLog, 7-8
character restrictions for UOMs, 7-8
clearance pricing, 6-1
CTILL records in the RTLog, 7-8
currency.xml import restart, 6-1
data import, 6-1
data import field width maximums, 6-1
data mismatches in data import, 7-8
DepartmentDefaultTaxGroup, 7-10
discountable attribute from Oracle Retail Merchandising
System, 7-10
empty item classes lists for DIMP, 7-10
geocode tag missing for store, 7-10
gift card error, 7-10
hardcoded attributes consumed from Oracle Retail
Merchandising System, 6-2
IGTAX records in RTLog, 7-11
item cost attribute consumed from Oracle Retail
Merchandising System, 6-2
jar extract, 6-2
layaway deletion fee, 7-11
missing encryption key for Saencrypt.pc, 7-11

- multiple regular price, 6-3
- need to escape special characters in XML file, 6-3
- NM ITEM codes in a Sales Audit Application, 7-11
- POSlog, 6-3
- postal code, 7-12
- predefined store id, 7-12
- preload section of ItemImport, 6-3
- price changes and price promotions, 7-12
- price management price promotion endDateTime in Pricing Import XSD, 6-3
- pricing group ID data mismatch, 7-13
- reason codes for discount rules, 7-13
- reason codes for price discount, 6-3
- registryEligible field, 6-3
- retail price field size limitation, 6-4
- special order eligible coupons, 6-4
- start date and end date mismatch, 7-12
- store ID datatype mismatch, 7-12
- store ID maximum length, 6-4
- third-party tax and employee information, 7-13
- till opening and closing, 7-13
- total ID in the RTLog, 7-13
- transaction-level items, 6-4
- UTF-8, 7-13
- VATCode datatype mismatch, 7-11

O

- Oracle Retail Merchandising System
 - configuration, 3-8
- Oracle Retail Price Management
 - configuration, 3-9
- overview, 1-1
 - Oracle Retail POS Suite, 1-8
 - sales audit application, 1-9

P

- POS Suite to Oracle Retail Sales Audit
 - configuration
 - entity reader configuration file, 5-13
 - export format configuration file, 5-13
 - mapping configuration file, 5-14
 - store server conduit file, 5-12
 - development and testing tools, 5-15
 - classes, 5-15
 - executables in the bin directory, 5-16
 - extension points and development
 - adding data elements to the RTLog format, 5-6
 - creating a new fixed length export record format, 5-7
 - exporting a non-fixed-length record format, 5-9
 - object factories, 5-9
 - DomainObjectFactory, 5-10
 - EntityMappingObjectFactory, 5-11
 - ExtractorObjectFactory, 5-11
 - RecordFormatObjectFactory, 5-12
 - RTLogMappingConfig.xml, 5-11
 - StoreServerConduit.xml, 5-9
- POS Suite to sales audit

- configuration, 5-12
- extension points and development, 5-6

R

- RTLog
 - adding data elements to the RTLog format, 5-6
 - extending the RTLog encryption model, 5-17
 - mapping and translation, 2-7
 - Oracle Retail POS Suite RTLog Files, 1-8
 - RTLog batch generator, 2-1
 - maximum interactions, 2-2
 - sales audit, 2-2
 - sleep interval, 2-2

T

- transport middleware, 1-9
- troubleshooting, 6-1

X

- XSD files and data element definition tables, C-1
 - currency import, C-2
 - customer import, C-6
 - employee import, C-17
 - item import, C-23
 - merchandise hierarchy import, C-52
 - pricing import, C-81
 - store hierarchy import, C-111
 - tax import, C-135