Oracle® Retail Plan

Operations Guide

Release 12.1

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Oracle® Retail Plan Operations Guide, Release 12.1

Value-Added Reseller (VAR) Language

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Preface

Audience

This document is intended for administrators of the Oracle Retail Plan application.

Related Documents

For more information, see the following documents in the Oracle Retail Plan documentation set:

- *Oracle Retail Plan Installation Guide*
- *Oracle Retail Plan Configuration Guide*
- *Oracle Retail Plan User Guide*
- *Oracle Retail Plan Administration Guide*
- *Oracle Retail Plan Online Help*
- *Oracle Retail Plan Release Notes*

Customer Support

- https://metalink.oracle.com

When contacting Customer Support, please provide:

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

Review Patch Documentation

For a base release (".0" release, such as 12.0), Oracle Retail strongly recommends that you read all patch documentation before you begin installation procedures. Patch documentation can contain critical information related to the base release, based on new information and code changes that have been made since the base release.

Oracle Retail Documentation on the Oracle Technology Network

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

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

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

Conventions

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.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1

Introduction

This chapter contains the following:

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About the Plan Operations Guide

The Plan Operations Guide provides information about the standard interface and the standard load. This information is necessary to understand in order to load business data into the Plan database.

What's in This Book

The Plan Operations Guide addresses the following topics:

- Chapter 1 - Introduction - lists what can be found in the Plan Operations Guide.
- Chapter 2 - Standard Interface - Plan standard interface specifications.
- Chapter 3 - Standard Load - standard load procedures, dependencies, and error handling.

2

Standard Interface

This chapter contains the following:

Introduction

An important part of getting Plan up and running in a production environment is the gathering and loading of enterprise data. Plan requires historical and weekly data to be loaded into the Plan database. The data must be provided in a standard format, as specified in the standard interface specification. The data can then be loaded according to the standard load procedure.

This chapter is divided into two sections. The first section describes the details of each standard interface. The second section provides the contains the detailed data specifications in tabular form for each standard interface that is loaded into Plan.

Plan Standard Interface Descriptions

This section details the data interface to the Plan application. Plan requires that customer data be provided in flat files containing pipe-delimited data organized so that the data can be loaded into Plan database tables that follow the formats specified here.

For Oracle, the terminal pipe delimiter is optional, but recommended.

The standard interface includes the following:

Table 2–1   Interface Specifications

Interface Specification	Required/Optional
Budget Plan (STAGE_BUDGET_PLAN_TBL)	Required
Calendar (ASH_CAL_TBL)	Required
Demand Parameters (STAGE_APC_PARAMETER_ TBL and STAGE_APC_ESCALATION_TBL)	Required
Location Hierarchy (ASH_LH_TBL)	Required
Location Hierarchy Rename (ASH_LHRENAME_ TBL)	Required
Location Hierarchy CDAs (ASH_LH_CDA_TBL)	Required
Location Attributes (Store)	Required
Locked Company Planned Receipts (LOCKED_ COMPANY_PLAN)	Required
Locked Store Planned Receipts (LOCKED_STORE_ PLAN)	Required

Table 2–1 (Cont.) Interface Specifications

Interface Specification	Required/Optional
Markdowns Taken (ASH_MDTAKEN_TBL)	Required
Merchandise Hierarchy (ASH_MH_TBL)	Required
Merchandise Hierarchy Rename (ASH_MHRENAME_RENAME)	Required
Merchandise Hierarchy CDAs (ASH_MH_CDA_TBL)	Required
Merchandise Hierarchy Attributes (STAGE_MH_ATTRS_TBL)	Required
Pack Contents (ASH_PACK_CONTENTS_TBL)	Required
Pack Hierarchy (ASH_PH_TBL)	Required
Plan Period Ranks (STAG_PLAN_PERIOD_RANKS_TBL)	Required
Planned Chain Promotions - Traffic (PLANNED_CHAIN_PROMOS_TBL_STAGE)	Required
Planned Promotions (STAGE_PLANNED_PROMOS)	Required
PPO Prepack (STAGE_PPO_PREPACK and STAGE_PPO_ESCALATION)	Required
Promotion Base Lift Escalation (STAGE_BASE__LIFT_ESCALATION_TBL)	Required
Promotion Base Lift (STAGE_BASE_LIFT_TBL)	Required
Promotion Relative Lift Escalation (STAGE_RELATIVE_ESCALATION_TBL)	Required
Promotion Relative Lift (STAGE_RELATIVE_LIFT_TBL)	Required
Seasonality Mapping (ASH_SEASONALITY_MAPS)	Required
Seasonality Values (ASH_SEASONALITY_VALUES)	Required
Size Ranges (STAGE_SIZE_RANGE)	Required
SPO Size Profiles (STAGE_SPO_SIZE_PROFILE and STAGE_SPO_ESCALATION)	Required
Store Eligibility (STORE_ELIGIBILITY)	Required
Store Transit Times (STAGE_OUTER_DC_MAPS_TBL)	Required
Store Weights LSD (STAGE_SWO_LSD and STAGE_SWO_ESCALATION)	Required
Weekly Historic Sales and Inventory (WK_HIST_SALES_INV)	Required

Budget Plan Standard Interface

The normalized store budget distribution at the department level is generated from budget plan data at the Chain level, store eligibility information, along with AS-generated store grades.

Calendar Standard Interface

The calendar interface describes a retailer's fiscal calendar. Each record in the file corresponds to a single fiscal week. This is generally a one-time data feed, with data generated by the customer.

Data Fields

Seven fields describe each calendar record, which represents a fiscal week:

- EOP_CALENDAR_DT - the last day of the fiscal week, which is usually Saturday.
- FISCAL_YR - the number of the fiscal year for the record.
- FISCAL_QTR - the number of the fiscal quarter for the record.
- FISCAL_MO - the number of the fiscal month for the record.
- FISCAL_WK - the number of the fiscal week for the record.
- CALENDAR_WK - an alternative number for the calendar week for the record.
- SEASON - the number identifying the season associated with the calendar week.

An Example

The following table shows sample data for five weeks of a fiscal calendar.

Table 2–2   Sample Calendar Data

EOP Calendar Date	Fiscal Year	Fiscal Quarter	Fiscal Month	Fiscal Week	Calendar Week	Season
2004-02-07	2004	1	1	1	1	1
2004-02-14	2004	1	1	2	2	1
2004-02-21	2004	1	1	3	3	1
2004-02-28	2004	1	1	4	4	1
2004-03-06	2004	1	2	5	1	1

Technical Notes

The following list provides details to consider regarding the calendar data.

- The calendar must include all weeks, beginning with the earliest historical sales record and extending at least two years into the future.
- Each year included in the data must contain 52 - 53 weeks.
- The calendar file can be sent weekly or loaded all at once during the initial configuration of the application. If provided all at once, it should contain all the historic data and extend at least three years into the future.
- Retailers can use the SEASON field to designate different seasons within the fiscal year. For example, a retailer might divide the fiscal year into two seasons. The season could then be used in the application metrics.

Demand Parameters Standard Interface

Demand parameters are provided by Analytical Services and includes inventory effect, price elasticity, and Bayesian parameters. Demand parameters are used in forecasting.

The demand parameters standard interface consists of two files from Analytical Services, a data file (STAGE_APC_PARAMETER_TBL) and an escalation file (STAGE_APC_ESCALATION), that the AS Mapper uses to create normalized data that is then loaded as part of the standard load. For more information on the AS Mapper, see the Standard Load chapter.

Location Hierarchy Standard Interface

The location hierarchy interface describes how a retailer categorizes locations. The location hierarchy begins with the highest level, such as company or chain, and typically extends to the lowest level, the store. For example, a three-level location hierarchy might consist of Company, Region, and Store. Each entry (row) in the location hierarchy standard interface describes a specific location.

Data Fields

The location hierarchy can have up to twelve levels. Each level in the location hierarchy, just like the merchandise hierarchy, is described by three fields:

- HIERARCHY_ID - an identifier or value for the hierarchy level that is meaningful to the end-user. It may be displayed in the UI. It does not have to be unique.

- HIERARCHY_KEY - a key used to identify the location level that is unique across the chain for that level. The key may not be displayed in the UI; however, it is used to reference the location in other data files.

- HIERARCHY_DESC - a description for the level that describes that level in the location hierarchy.

These three fields are required for each level of the location hierarchy that is used. For example, if a retailer's location hierarchy contains three levels, then the location hierarchy file will contain nine required fields. Any unused fields in the location hierarchy file should be present in the file as NULL (that is, consecutive delimiters) when the file is sent in delimited file format.

Location Hierarchy Rename Standard Interface

The location hierarchy rename interface facilitates moving locations within the location hierarchy. You can rename any node in the hierarchy by supplying the old node name, the new node name, and the level in the hierarchy. You cannot do this through the Location Hierarchy Standard Interface.

Location Hierarchy CDAs Standard Interface

The Location Hierarchy CDA interface provides 32 additional optional attributes

Location Attributes Standard Interface

The Location Attributes interface provides store-level attributes for stores the have been defined in the Location Hierarchy standard interface. It also provides the definition and attributes for distribution centers. Plan uses the information to create store sets and to view history by store attributes.

Locked Company Planned Receipts Standard Interface

The Locked Company Plan standard interface provides a snapshot of a retailer's financial plan in units and in dollars at the appropriate merchandise hierarchy level

for a fiscal year or a fiscal period. The company financial plan is an aggregation of the financial budgets of all stores from the Locked Store Plan tables.

Locked Store Planned Receipts Standard Interface

The Locked Store Plan standard interface provides a snapshot of the planned inventory for each store in units and in dollars, based on budgets that have been defined by the business. Store financial information is provided at the appropriate merchandise level for a fiscal year or a fiscal period.

Users can either apply the locked plan or use the most current store budget data available in the application.

Plan uses these metrics to provide users with context for their top-down budget constraints.

Markdowns Taken Standard Interface

The markdowns taken interface describes permanent markdowns, past, present, or future, that have been entered into a retailer's price change execution system.

Data Fields

Eleven fields describe each entry in the markdowns taken data. Note, however, that only the Price application uses ACCOUNTING_TYPE and only the Plan and Place applications use MARKDOWN_TYPE.

- MERCHANDISE_KEY - in combination with the location key, identifies the item being marked down.

- MERCHANDISE_LEVEL - the hierarchy level of the merchandise. The only values permitted are STYLE and COLOR.

- LOCATION_KEY - in combination with the merchandise key, identifies the item being marked down. This attribute is required only by the Price application. this attribute is ignored by Plan and Place. For these applications, a value of CHAIN is assumed (i.e., markdowns apply to all stores).

- LOCATION_LEVEL - the hierarchy level of the location. This attribute is required only by the Price application. this attribute is ignored by Plan and Place. For these applications, a value of CHAIN is assumed (i.e., markdowns apply to all stores).

- EFFECTIVE_DATE - the expected store execution date of the markdown.

- PRICE_VALUE_TYPE - Prices are expressed as either Percentage Off Original Retail Price (PO), Percentage Off Ticketed Price (PT), Amount Off Original Retail Price (AO), Amount Off Ticket Price (AT), or Price Point (PP).

- ACCOUNTING_TYPE - The accounting type for the markdown can be either Permanent (PERM) or Temporary (TEMP). This attribute is used only by Price.

- PRICE_POINT - If PRICE_VALUE_TYPE is PP, then this contains the price point values. Either PRICE_POINT of PRICE_PCT_OFF must be not null, depending on the value in PRICE_VALUE_TYPE.

- PRICE_PCT_OFF - If PRICE_VALUE_TYPE is PO, then this contains the percentage off (a value between 0 and 1). If PRICE_VALUE_TYPE is AO or AT, then this contains the amount off. Either PRICE_POINT of PRICE_PCT_OFF must be not null, depending on the value in PRICE_VALUE_TYPE.

- CLIENT_LADDER_ID - Unique identifier for the price ladder (i.e., unique per price ladder string)

- MARKDOWN_TYPE - the custom description of the markdown. The value of this attribute should match one of the markdown types in PRICING_TYPES_TBL. This attribute is used only by Plan and Place.

Technical Notes

The following list provides details to consider regarding the markdowns taken data.

- The records for markdowns taken must be supplied at the level used for forecasting and optimization (COLOR and STYLE). The markdowns provided at the COLOR level are used for the corresponding COLOR level merchandise forecasting. The markdowns provided at the STYLE level are used for the corresponding STYLE level merchandise forecasting. Only the CHAIN location level is supported.

- Retailers typically aggregate markdowns-taken data from lower levels. The markdowns-taken aggregation should be consistent with the CURRENT_RETAIL aggregation in the SALES interface. Because of this, a retailer should generate a markdown-taken record whenever a change occurs in the most frequently occurring value of CURRENT_RETAIL.

Merchandise Hierarchy Standard Interface

The merchandise hierarchy interface describes how a retailer categorizes merchandise. The merchandise hierarchy begins with the highest level, such as company or division, and typically extends to the style-color level. For example, a five-level merchandise hierarchy might consist of Division, Department, Class, Style, and Color. Each entry (row) in the merchandise hierarchy standard interface describes the hierarchy for a specific piece of merchandise. In the example of a merchandise hierarchy shown in Table 2–3 on page 9, the merchandise is an item of a specific color, and each row in the file describes the Division, Department, Class, and Style to which the specific color belongs.

Data Fields

The merchandise hierarchy can have up to fifteen levels. Each level in the merchandise hierarchy is described by three fields:

- HIERARCHY_ID - an identifier or value for the hierarchy level that is meaningful to the application end user. It may be displayed in the application UI. It does not have to be unique.

- HIERARCHY_KEY - a key used to identify the merchandise level that is unique across the chain for that level. The key may not be displayed in the UI; however, it is used to reference the merchandise in other data files.

- HIERARCHY_DESC - a description for the level that describes that level in the merchandise hierarchy.

These three fields are required for each level of the merchandise hierarchy that is used. For example, if a retailer's merchandise hierarchy contains five levels, then the merchandise hierarchy file will contain fifteen required fields. Any unused fields in the merchandise hierarchy file should be present in the file as NULL (that is, consecutive delimiters) when the file is sent in delimited file format.

An Example

The following table shows sample data for a five-level hierarchy that consists of Division, Department, Class, Style, and Color. (The hierarchy descriptions are not included here):

Table 2–3   Merchandise Hierarchy Sample Data

Hierarchy 1 (Division)		Hierarchy 2 (Dept.)		Hierarchy 3 (Class)		Hierarchy 4 (Style)		Hierarchy 5 (Color)	
ID	Key	ID	Key	ID	Key	ID	Key	ID	Key
1	1	10	10	20	1020	1234	101234	9	101234509
1	1	10	10	20	1020	1234	101234	12	101234512
6	6	60	60	20	6020	1234	601234	12	601234512

In this example, the class, style, and color levels all have ID values that are not unique across the chain. Because of this, the Key values for these three levels cannot be the same as the ID values. The unique Key values for these three levels were created by combining values from higher levels in the hierarchy. The Key for the Class level was created by appending the Class ID to the Department Key. The Key for the Style level was created by appending the Style ID to the Department Key.

Technical Notes

The following list provides details to consider regarding the merchandise hierarchy data.

- The best way to create a unique Key for each level in the merchandise hierarchy depends on the retailer's hierarchy data. Whenever possible, the hierarchy Keys should not be dependent on higher levels in the hierarchy. In this way, the application can automatically detect and handle hierarchy moves without additional data. For more information on how the application manages merchandise hierarchy changes, see "Merchandise Hierarchy Rename Standard Interface" on page 2-9.

- The merchandise hierarchy file must contain a record for each product that is referenced in any other of a given week's data files.

- The merchandise hierarchy must be described consistently throughout the data file: each hierarchy node must have the same hierarchy ancestors for all records in the file that describes the hierarchy node. In the example shown in Table 2–3 on page 9, the first two records describe the hierarchy above Style 101234 in an identical way. Note that this consistency requirement applies to all three of the hierarchy fields (Key, ID, and Desc). Inconsistent values for hierarchy descriptions are a common reason why some merchandise hierarchy records fail to load.

- Each node in a hierarchy can only have one parent node.

Merchandise Hierarchy Rename Standard Interface

The merchandise hierarchy rename interface facilitates reclassifying and moving merchandise within the merchandise hierarchy. Any node in the hierarchy can be renamed by supplying the old node name, the new node name, and the level in the hierarchy. This cannot be done through the Merchandise Hierarchy Standard Interface.

Merchandise Hierarchy CDA Standard Interface

The merchandise hierarchy cda interface provides 32 additional optional attributes.

Merchandise Hierarchy Attributes Standard Interface

The MH Attributes standard interface provides information about merchandise attributes at various levels in the MH, principally lot/color/line/sku. This information is used to provide context for merchandise during planning and allocation.

Pack Contents Standard Interface

The Pack Contents standard interface provides information on the ordering hierarchy of merchandise at the SKU level. An individual item can be a member of more than one pack configuration. It includes all sizes associated with the ordering lot/line and all components associated with each ordering lot/line/size. The information is used to optimize selling quantities into prepacks or ordering configurations.

Pack Hierarchy Standard Interface

The pack hierarchy interface describes how a retailer categorizes packs. The pack hierarchy begins with the highest level and typically extends to the lowest level.

Plan Period Ranks Standard Interface

The Plan Period Ranks standard interface is used by the volume groups generator, along with budget information and AS-generated store clusters, to generate volume groups (when a client does not provide volume group information).

Planned Chain Promotions (Traffic) Standard Interface

The Planned Chain Promotions standard interface provides information about promotions that occur at the company level. It includes data on like events from history so that Plan can determine the traffic lift that should be applied to all relevant items. In combination with information from planned promotions, this data provides a holistic promotional plan for each item being forecasted.

Planned Promotions Standard Interface

The Planned Promotions standard interface provides information on planned promotions provided at the item or color level. It is used to derive more accurate forecasts, by adjusting the forecast generated by the CE for expected lift in sales that result from a promotion, and to provide context to users.

PPO Prepack Standard Interface

The Prepack standard interface consists of two files from Analytical Services, a data file (STAGE_PPO_PREPACK) and an escalation file (STAGE_PPO_ESCALATION), that the AS Mapper uses to create normalized data that is then loaded as part of the standard load. For more information on the AS Mapper, see the Standard Load chapter.

Prepacks are configured groups of items that are ordered and shipped under a single item ID. Different prepack configurations may be available, so an individual item may be a member of more than one prepack. The items themselves are sold individually.

Promotion Base Lift Standard Interface

A base promotional lift measures increases in sales as a result of a promotion. The lift value is qualified by the historical promo ID.

The Promotion Base Lift standard interface consists of two files from Analytical Services, a data file (STAGE_BASE_LIFT_TBL) and an escalation file (STAGE_BASE_LIFT_ESCALATION_TBL), that the AS Mapper uses to create normalized data that is then loaded as part of the standard load. For more information on the AS Mapper, see the Standard Load chapter.

Promotion Relative Lift Standard Interface

A relative promotional lift measures increases in sales as a result of the particular promotion for an item. The lift value is qualified by other promotional attributes.

The Promotion Relative Lift standard interface consists of two files from Analytical Services, a data file (STAGE_RELATIVE_LIFT_TBL) and an escalation file (STAGE_RELATIVE_ESCALATION_TBL), that the AS Mapper uses to create normalized data that is then loaded as part of the standard load. For more information on the AS Mapper, see the Standard Load chapter.

Seasonalities Standard Interface

The seasonalities standard interface describes the seasonality values (effects related to the time of year) provided by Analytical Services that are used by the application to calculate markdowns and forecasts.

Data Fields

Eight fields describe a seasonality map record:

- PRIORITY - the search priority for the seasonality.

- SEASONALITY_ID - the ID for the seasonality.

- MERCHANDISE_LEVEL - description of the level of the merchandise hierarchy.

- MERCHANDISE_KEY - key for the merchandise hierarchy level.

- LOCATION_LEVEL - description of the level of the location hierarchy.

- LOCATION_KEY - key for the location hierarchy level.

- ATTRIBUTE_VALUE_MASK - the search mask that specifies the season code and, optionally, the item attributes of the seasonality curves.

- AS_VERSION - the version number for the current run. Set by Analytical Parameter Calculator (APC) and used to track run versions.

Six fields describe a seasonality values record:

- SEASONALITY_ID - the ID for the seasonality.

- CALENDAR_DT - the date for the seasonality.

- SEAS_INDX - the value for the seasonality for the date.

- SEAS_ERR - for future use. Set to 0.

- AS_PARAMETER_ID - a number that uniquely identifies the current record and that is used for tracking.

- AS_VERSION - the version number for the current run. Set by APC and used to track run versions.

Size Ranges Standard Interface

The Size Ranges standard interface describes groupings of sizes for various items. For example, S-XL; S,M,L,XL; 5-13; 5,6,7,9,11,13;5,5.5,6,6.5...13. This information is used during pack generation to compute the proper distribution of sizes within a pack.

SPO Size Profiles Standard Interface

Size profiles specify the optimal size distributions that should be carried across merchandise types, locations, and size ranges. Size profiles can be computed down to the store level and have the ability to incorporate item attributes such as color and fabric. Size profiles are used pre-season to spread the forecast down to size. In addition, size profiles are used in the allocation of prepacks and the creation of purchase order recommendations.

The SPO Size Profiles standard interface consists of two files from Analytical Services, a data file (STAGE_SPO_SIZE_PROFILE) and an escalation file (STAGE_SPO_ESCALATION), that the AS Mapper uses to create normalized data that is then loaded as part of the standard load. For more information on the AS Mapper, see the Standard Load chapter.

Store Eligibility Standard Interface

Store eligibility indicates whether a particular item (location/class) is carried by a particular store during a particular time period. An eligibility indicator of Y indicates that the store is eligible to receive a particular category of merchandise during a particular time period. The information is used to derive Store Sets. Eligibility is dynamic from one fiscal period to the next.

Store Transit Times Standard Interface

The Store Transit Time refers to the number of days that a given piece of merchandise takes to travel from the distribution center to the store. This standard interface requires DIST_CENTERS_TBL.

Store Weights Standard Interface

The Store Weights standard interface is used to spread chain-level budgets down to stores.

The Store Weights standard interface consists of two files from Analytical Services, a data file (STAGE_SWO_LSD) and an escalation file (STAGE_SWO_ESCALATION), that the AS Mapper uses to create normalized data that is then loaded as part of the standard load. For more information on the AS Mapper, see the Standard Load chapter.

Weekly Historic Sales and Inventory Standard Interface

Metrics are used by Plan to perform forecasting calculations, provide context around like items, analysis of historic data in order to determine future plans. Net metrics describes sales, including returns. Gross metrics describe sales, excluding returns.

Plan Interface Specifications

The following tables provide ordered lists of the contents of each of the Plan interface specifications.

Budget Plan Specification (STAGE_BUDGET_PLAN_TBL)

Table 2–4   Budget Plan Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
LOCATION_KEY	Unique identifier for location hierarchy.	String	50	N
LOCATION_LEVEL	Level within the location hierarchy.	String	50	N
MERCHANDISE_KEY	Unique identifier for merchandise hierarchy.	String	50	N
MERCHANDISE_LEVEL	Level within the merchandise hierarchy.	String	50	N
FISCAL_YEAR	Number of the fiscal year.	Integer	4	N
FISCAL_MONTH	Number of the fiscal month.	Integer	2	N
BOP_INV_AMT	Beginning inventory $.	Integer	11	Y
BOP_INV_QTY	Beginning inventory units.	Integer	11	Y
RCPT_AMT	Receipt $.	Integer	11	Y
RCPT_QTY	Receipt units.	Integer	11	Y
SLS_AMT	Planned sales $.	Integer	11	Y
SLS_QTY	Planned sales units.	Integer	11	Y
MKDN_AMT	Markdown $.	Integer	11	Y

Calendar Specification (ASH_CAL_TBL)

Table 2–5   Calendar Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
EOP_CALENDAR_DT	Ending calendar date of the fiscal week (which is usually a Saturday).	Date in format YYYY-MM-DD	10	N
FISCAL_YR	Number of the fiscal year.	Integer	4	N
FISCAL_QTR	Number of fiscal quarter.	Integer	1	N
FISCAL_MO	Number of the fiscal month.	Integer	2	N

Table 2–5 (Cont.) Calendar Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
FISCAL_WK	Number of the fiscal week (1 - 53).	Integer	2	N
CALENDAR_WK	An alternative number for the calendar week (optional) (1 - 53).	Integer	2	Y
SEASON	Season number associated with the week.	Integer	2	N

Demand Parameters Specification (STAGE_APC_PARAMETER_TBL)

Table 2–6 Demand Parameters Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
MERCHANDISE_LEVEL	Level within the merchandise hierarchy.	String	20	Y
MERCHANDISE_KEY	Unique identifier for merchandise hierarchy.	String	25	Y
LOCATION_LEVEL	Level within the location hierarchy.	String	20	Y
LOCATION_KEY	Unique identifier for location hierarchy.	String	25	Y
ITEM_ATTRIBUTE	Parameter attribute.	String	100	Y
PARAMETER_NAME	The scalar for the demand engine.	String	50	Y
PARAMETER_VALUE	The value for the parameter.	String	25	Y
AS_PARAMETER_ID	ID for the parameter.	Integer	32	Y
AS_VERSION	The version of analytical services data.	String	20	Y

Demand Parameters Escalation Specification (STAGE_APC_ESCALATION_TBL)

Table 2–7 Demand Parameters Escalation Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
ORDER_SQC	The order number to apply matching.	Integer	32	Y
MERCHANDISE_LEVEL	Level within the merchandise hierarchy.	String	20	Y
LOCATION_LEVEL	Level within the location hierarchy.	String	20	Y
ATTRIBUTE_MASK	The attribute mask used for.	String	1,000	Y
AS_VERSION	The version of analytical services data.	String	20	Y

Location Hierarchy Specification (ASH_LH_TBL)

Table 2–8   Location Hierarchy Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
HIERARCHY1_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY1_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY1_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY2_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY2_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY2_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY3_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY3_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY3_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY4_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY4_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY4_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY5_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY5_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY5_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY6_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY6_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY6_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY7_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY7_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY7_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY8_ID	ID for this level of the hierarchy.	String	25	Y

Table 2–8   (Cont.) Location Hierarchy Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
HIERARCHY8_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY8_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY9_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY9_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY9_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY10_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY10_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY10_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY11_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY11_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY11_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY12_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY12_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY12_DESC	Description of this level of the hierarchy.	String	50	Y

LH Rename Specification (ASH_LHRENAME_TBL)

Table 2–9   Location Hierarchy Rename Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
OLD_LOCATION_KEY	Old unique identifier for location hierarchy.	String	25	N
NEW_LOCATION_KEY	New unique identifier for location hierarchy.	String	25	N
LOCATION_LEVEL	Level within the location hierarchy.	String	50	N

LH CDA Specification (ASH_LH_CDA_TBL)

Table 2–10   Location Hierarchy CDA Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
LOCATION_KEY	Unique identifier for location hierarchy.	String	25	N
LOCATION_LEVEL	Level within the location hierarchy.	String	50	N
ATTRIBUTE1		String	100	Y
ATTRIBUTE2		String	100	Y
ATTRIBUTE3		String	100	Y
ATTRIBUTE4		String	100	Y
ATTRIBUTE5		String	100	Y
ATTRIBUTE6		String	100	Y
ATTRIBUTE7		String	100	Y
ATTRIBUTE8		String	100	Y
ATTRIBUTE1_DATE		Date in format YYYY-MM-DD	10	Y
ATTRIBUTE2_DATE		Date in format YYYY-MM-DD	10	Y
ATTRIBUTE3_DATE		Date in format YYYY-MM-DD	10	Y
ATTRIBUTE4_DATE		Date in format YYYY-MM-DD	10	Y
ATTRIBUTE5_DATE		Date in format YYYY-MM-DD	10	Y
ATTRIBUTE6_DATE		Date in format YYYY-MM-DD	10	Y
ATTRIBUTE7_DATE		Date in format YYYY-MM-DD	10	Y
ATTRIBUTE8_DATE		Date in format YYYY-MM-DD	10	Y
ATTRIBUTE1_NUMBER		Decimal	31,3	Y
ATTRIBUTE2_NUMBER		Decimal	31,3	Y
ATTRIBUTE3_NUMBER		Decimal	31,3	Y
ATTRIBUTE4_NUMBER		Decimal	31,3	Y
ATTRIBUTE5_NUMBER		Decimal	31,3	Y
ATTRIBUTE6_NUMBER		Decimal	31,3	Y
ATTRIBUTE7_NUMBER		Decimal	31,3	Y
ATTRIBUTE8_NUMBER		Decimal	31,3	Y
ATTRIBUTE9		String	100	Y
ATTRIBUTE10		String	100	Y
ATTRIBUTE11		String	100	Y

Table 2–10   (Cont.) Location Hierarchy CDA Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
ATTRIBUTE12		String	100	Y
ATTRIBUTE13		String	100	Y
ATTRIBUTE14		String	100	Y
ATTRIBUTE15		String	100	Y
ATTRIBUTE16		String	100	Y

[1] For Decimal, the requirement is a number of a certain defined length and with a certain number of decimal places. For example, (22,2) is a number that can be up to 22 digits long and that can have two digits after the decimal point.

Location Attributes Specification (STORE)

Table 2–11   Location Attributes Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
LOCATION_KEY	Unique identifier for location hierarchy.	String	25	N
LOCATION_LEVEL	Level within the location hierarchy.	String	50	N
LOCATION_MARKET	Market name.	String	10	Y
LOCATION_CITY	City.	String	20	Y
LOCATION_STATE	State.	String	2	Y
LOCATION_TYPE	Store class.	Integer	2	Y
LOCATION_NAME	Store name.	String	20	Y
LOCATION_POSTAL_CODE	Zip or other postal code.	String	20	Y
NSLS_SQFT	Net square footage.	Integer	6	Y
GRSS_SQFT	Gross square footage.	Integer	6	Y
OPEN_DT	Open date.	Date in format YYYY-MM-DD	10	Y
CLOSE_DT	Close date.	Date in format YYYY-MM-DD	10	Y
STORE_CLIMATE	Climate code.	String	1	Y
STORE_FASHION_SEGMENT	Fashion segment code.	String	1	Y
STORE_AD_GROUP	Ad designation.	String	2	Y
STORE_SSC	Store service center (DC) number.	Integer	4	Y
STORE_CLSS_IND	Store class size.	String	3	Y
SSC_IND	Store service center indicator.	String	1	Y
STORE_CHST_1	Store characteristic 1.	String	20	Y
STORE_CHST_2	Store characteristic 2.	String	20	Y
STORE_CHST_3	Store characteristic 3.	String	20	Y

Table 2–11 (Cont.) Location Attributes Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
PRICING_GROUP	Pricing group.	String	20	Y
COMBO_STORE	Combo stores.	String	20	Y
TAXABILITY	Taxability.	String	20	Y

Locked Company Planned Receipts Specification (LOCKED_COMPANY_PLAN)

Table 2–12 Locked Company Planned Receipts Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
MERCHANDISE_KEY	Unique identifier for merchandise hierarchy.	String	25	Y
MERCHANDISE_LEVEL	The merchandise level - Subdivision or Class.	String	50	Y
FISC_YEAR	Number of fiscal year.	Integer	4	Y
FISC_PERIOD	Number of fiscal period.	Integer	2	Y
GROSS_PROFIT_AMT	Gross profit dollars.	Integer	9	Y
GROSS_PROFIT_PCT	Gross profit percent.	Decimal	8,2	Y
INIT_MARKUP_PCT	Initial markup percent.	Decimal	8,2	Y
GPROI	Gross profit return on investment.	Decimal	8,2	Y
RCPT_AUR	Average unit retail receipt.	Decimal	8,2	Y
P2_MKDN_AMT	P2 markdown dollars.	Integer	9	Y
P4_MKDN_AMT	P4 markdown dollars.	Integer	9	Y
P5_MKDN_AMT	P5 markdown dollars.	Integer	9	Y
SHRINK_PCT	Shrink percent.	Decimal	8,2	Y
FREIGHT_PCT	Freight percent.	Decimal	8,2	Y
CHARGE_PCT	Merchandise charge percent.	Decimal	8,2	Y

[1] For Decimal, the requirement is a number of a certain defined length and with a certain number of decimal places. For example, (22,2) is a number that can be up to 22 digits long and that can have two digits after the decimal point.

Locked Store Planned Receipts Specification (LOCKED_STORE_PLAN)

Table 2–13   Locked Store Planned Receipts Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
LOCATION_KEY	Unique identifier for location hierarchy.	String	25	Y
MERCHANDISE_KEY	Unique identifier for merchandise hierarchy.	String	25	Y
MERCHANDISE_LEVEL	The merchandise level - Subdivision or Class.	String	50	Y
FISC_YEAR	Number of fiscal year.	Integer	4	Y
FISC_PERIOD	Number of fiscal period.	Integer	12	Y
BOP_INV_AMT	Beginning inventory $.	Integer	11	Y
BOP_INV_QTY	Beginning inventory units.	Integer	11	Y
RCPT_AMT	Receipt $.	Integer	11	Y
RCPT_QTY	Receipt units.	Integer	11	Y
SLS_AMT	Planned sales $.	Integer	11	Y
SLS_QTY	Planned sales units.	Integer	11	Y
MKDN_AMT	Markdown $.	Integer	11	Y

Markdowns Taken Specification (ASH_MDTAKEN_TBL)

Table 2–14   Markdowns Taken Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
MERCHANDISE_KEY	In combination with the location key, identifies the item being marked down.	String	25	N
MERCHANDISE_LEVEL	Hierarchy level of the merchandise. Only the values STYLE and COLOR are allowed.	String	25	N
LOCATION_KEY	In combination with the merchandise key, identifies the item being marked down. This attribute is required only for Price. For Plan and Place this attribute is ignored and CHAIN level of LOCATION is assumed (i.e., markdowns apply to all stores).	String	25	Y
LOCATION_LEVEL	Hierarchy level of the location. Only the values STYLE and COLOR are allowed. For Plan and Place this attribute is ignored and CHAIN level of LOCATION is assumed (i.e., markdowns apply to all stores).	String	25	Y
EFFECTIVE_DATE	Effective date of the retail price change.	Date in format YYYY-MM-DD	10	N
PRICE_VALUE_TYPE	Percentage Off Original Retail Price (PO), Percentage Off Ticketed Price (PT), Amount Off Original Retail Price (AO), Amount Off Ticket Price (AT), or Price Point (PP).	String	2	N
ACCOUNTING_TYPE	The accounting type for the markdown can be either Permanent (PERM) or Temporary (TEMP). This attribute is required only for Price. For Plan and Place, use MARKDOWN_TYPE instead.	String	4	N

Table 2–14 (Cont.) Markdowns Taken Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
PRICE_POINT	If PRICE_VALUE _TYPE is PP, then this contains the price point values. A value must be provided for either PRICE_POINT or PRICE_PCT_OFF.	Decimal	7,2	Y
PRICE_PCT_OFF	If PRICE_VALUE _TYPE is PO or PT, then this contains the percentage off (a value between 0 and 1). If PRICE_VALUE_TYPE is AO or AT, then this contains the amount off. A value must be provided for either PRICE_POINT or PRICE_PCT_OFF.	Decimal	3,2	Y
CLIENT_LADDER_ID	Unique identifier for the price ladder (i.e., unique per price ladder string).	Integer	22	Y
MARKDOWN_TYPE	Custom description of the markdown. This value should match one of the markdown types in PRICING_ TYPES_TBL (a configuration point). For Plan and Place only.	String	20	N

[1] For Decimal, the requirement is a number of a certain defined length and with a certain number of decimal places. For example, (22,2) is a number that can be up to 22 digits long and that can have two digits after the decimal point.

Merchandise Hierarchy Specification (ASH_MH_TBL)

Table 2–15 Merchandise Hierarchy Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
HIERARCHY1_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY1_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY1_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY2_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY2_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY2_DESC	Description of this level of the hierarchy.	String	50	Y

Table 2–15   (Cont.) Merchandise Hierarchy Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
HIERARCHY3_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY3_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY3_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY4_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY4_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY4_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY5_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY5_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY5_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY6_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY6_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY6_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY7_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY7_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY7_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY8_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY8_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY8_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY9_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY9_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY9_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY10_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY10_KEY	Key for this level of the hierarchy.	String	25	Y

Table 2–15   (Cont.) Merchandise Hierarchy Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
HIERARCHY10_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY11_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY11_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY11_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY12_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY12_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY12_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY13_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY13_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY13_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY14_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY14_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY14_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY15_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY15_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY15_DESC	Description of this level of the hierarchy.	String	50	Y

MH Rename Specification (ASH_MHRENAME_TBL)

Table 2–16   Merchandise Hierarchy Rename Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
OLD_MERCHANDISE_KEY	Old unique identifier for merchandise hierarchy.	String	25	N
NEW_MERCHANDISE_KEY	New unique identifier for merchandise hierarchy.	String	25	N
MERCHANDISE_LEVEL	Level within the merchandise hierarchy.	String	50	N

MH CDA Specification (ASH_MH_CDA_TBL)

Table 2–17   Merchandise Hierarchy CDA Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
MERCHANDISE_KEY	Unique identifier for merchandise hierarchy.	String	25	N
MERCHANDISE_LEVEL	Level within the merchandise hierarchy.	String	50	N
ATTRIBUTE1		String	100	Y
ATTRIBUTE2		String	100	Y
ATTRIBUTE3		String	100	Y
ATTRIBUTE4		String	100	Y
ATTRIBUTE5		String	100	Y
ATTRIBUTE6		String	100	Y
ATTRIBUTE7		String	100	Y
ATTRIBUTE8		String	100	Y
ATTRIBUTE1_DATE		Date in format YYYY-MM-DD	10	Y
ATTRIBUTE2_DATE		Date in format YYYY-MM-DD	10	Y
ATTRIBUTE3_DATE		Date in format YYYY-MM-DD	10	Y
ATTRIBUTE4_DATE		Date in format YYYY-MM-DD	10	Y
ATTRIBUTE5_DATE		Date in format YYYY-MM-DD	10	Y
ATTRIBUTE6_DATE		Date in format YYYY-MM-DD	10	Y
ATTRIBUTE7_DATE		Date in format YYYY-MM-DD	10	Y
ATTRIBUTE8_DATE		Date in format YYYY-MM-DD	10	Y
ATTRIBUTE1_NUMBER		Decimal	31,3	Y
ATTRIBUTE2_NUMBER		Decimal	31,3	Y
ATTRIBUTE3_NUMBER		Decimal	31,3	Y
ATTRIBUTE4_NUMBER		Decimal	31,3	Y
ATTRIBUTE5_NUMBER		Decimal	31,3	Y
ATTRIBUTE6_NUMBER		Decimal	31,3	Y
ATTRIBUTE7_NUMBER		Decimal	31,3	Y
ATTRIBUTE8_NUMBER		Decimal	31,3	Y
ATTRIBUTE9		String	100	Y
ATTRIBUTE10		String	100	Y
ATTRIBUTE11		String	100	Y

Table 2–17   (Cont.) Merchandise Hierarchy CDA Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
ATTRIBUTE12		String	100	Y
ATTRIBUTE13		String	100	Y
ATTRIBUTE14		String	100	Y
ATTRIBUTE15		String	100	Y
ATTRIBUTE16		String	100	Y

[1] For Decimal, the requirement is a number of a certain defined length and with a certain number of decimal places. For example, (22,2) is a number that can be up to 22 digits long and that can have two digits after the decimal point.

Merchandise Hierarchy Attributes Specification (STAGE_MH_ATTRS_TBL)

Table 2–18   MH Attributes Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
MERCHANDISE_KEY	Unique identifier for merchandise hierarchy.	String	25	Y
MERCHANDISE_LEVEL	Level within the merchandise hierarchy.	String	50	Y
BRAND	ID of the brand.	String	50	Y
BRAND_DESC	Description of the brand.	String	50	Y
VENDOR	Number of the supplier. Contains the manufacturer number when the supplier is set as a warehouse.	String	50	Y
VENDOR_DESC	Description of the supplier.	String	50	Y
ITEM_SIZE	Physical size.	String	50	Y
CATEGORY	Category.	String	50	Y
CATEGORY_DESC	Category description.	String	50	Y
REPORT_CLIENT_ID	Client ID associated with report.	String	50	Y
START_DT	Beginning of plan.	Date in format YYYY-MM-DD	10	Y
FIRST_CREATE_DT	Date Merchandise first introduced.	Date in format YYYY-MM-DD	10	Y
LAST_MODIFIED_DT	Time stamp of last modification.	Date in format YYYY-MM-DD	10	Y
PROD_LEVEL	Product level.	Integer	32	Y
COST	Wholesale cost.	Decimal	22,2	Y
RETAIL	Retail price.	Decimal	22,2	Y
PACK_SIZE	Pack size (inner).	Integer	22	Y

Table 2–18   (Cont.) MH Attributes Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
SIZE_RANGE_DESC	Description of size range.	String	50	Y
DISP_CODE	Disposition code.	String	2	Y
PURCH_TYPE	Basic (B); Fashion (F); Key (K).	String	1	Y
GRP_IN	Group indicator.	String	1	Y
PROD_TYPE	Product type.	String	30	Y
BRAND_NAME	Brand name.	String	50	Y
CNTL_RKL	Control RKL.	String	2	Y
COLL_ID	ID of collection.	Integer	6	Y
COLL_NAME	Name of collection.	String	30	Y
MSTR_COLL_IND	Master collection indicator.	String	1	Y
ORIG_IND	Origin indicator (Domestic/Import).	String	1	Y
WEIGHT	Weight.	Decimal	7,2	Y
COLOR_CNT	Number of colors per style.	Integer	2	Y
SIZE_GRP_DESC	Description of size group.	String	5	Y
LINE_PCT	Line percent.	Integer	3	Y
OOS_DATE	Season out-of-stock date.	Date in format YYYY-MM-DD	10	Y
VENDOR_STYLE	Vendor style number.	String	30	Y
ALLOC_FLAG	Allocate flag (RAP).	String	1	Y
FIRST_EFF_DT	Not used.	Date in format YYYY-MM-DD	10	Y
LAST_EFF_DT	Not used.	Date in format YYYY-MM-DD	10	Y
BRAND_TYPE	Not used.	String	1	Y
PROMO_EXCLUSION	Not used.	String	1	Y
MERCHANDISE_SUBTYPE	Season code.	String	20	Y
SIZE_RANGE_KEY	ID of size range.	String	25	Y
SIZE_KEY	ID of size.	String	25	Y
MERCHANDISE_FLOOR_SET	Subset of a season used to describe when an item is introduced to the floor.	String	20	Y
COLOR_FAMILY	Color family.	String	50	Y

[1]   For Decimal, the requirement is a number of a certain defined length and with a certain number of decimal places. For example, (22,2) is a number that can be up to 22 digits long and that can have two digits after the decimal point.

Pack Contents Specification (ASH_PACKS_CONTENTS_TBL)

Table 2–19   Pack Contents Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
SOURCE_ID	AS or customer, as source of prepack.	Integer	1	Y
PACK_KEY	The key from the Pack Hierarchy for the item.	String	25	Y
MERCHANDISE_KEY	Unique identifier for merchandise hierarchy.	String	25	Y
INSIDE_UNITS	Units in pack - amount.	Integer	22	Y
EACH_FLAG	Bins (1); Packs (0).	Integer	1	Y

Pack Hierarchy Specification (ASH_PH_TBL)

Table 2–20   Pack Hierarchy Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
HIERARCHY1_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY1_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY1_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY2_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY2_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY2_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY3_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY3_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY3_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY4_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY4_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY4_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY5_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY5_KEY	Key for this level of the hierarchy.	String	25	Y

Table 2–20   (Cont.) Pack Hierarchy Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
HIERARCHY5_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY6_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY6_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY6_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY7_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY7_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY7_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY8_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY8_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY8_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY9_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY9_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY9_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY10_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY10_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY10_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY11_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY11_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY11_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY12_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY12_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY12_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY13_ID	ID for this level of the hierarchy.	String	25	Y

Table 2–20   (Cont.) Pack Hierarchy Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
HIERARCHY13_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY13_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY14_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY14_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY14_DESC	Description of this level of the hierarchy.	String	50	Y
HIERARCHY15_ID	ID for this level of the hierarchy.	String	25	Y
HIERARCHY15_KEY	Key for this level of the hierarchy.	String	25	Y
HIERARCHY15_DESC	Description of this level of the hierarchy.	String	50	Y

Plan Period Ranks Specification (STAG_PLAN_PERIOD_RANKS_TBL)

Table 2–21   Plan Period Ranks Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
MERCHANDISE_KEY	Unique identifier for merchandise hierarchy.	String	25	N
MERCHANDISE_LEVEL	Level within the merchandise hierarchy.	String	50	N
RANK_NUM	Identifies the grade that the store is assigned to. The grade for the largest volume is 1.	String	50	N
RANK_FLOOR	The lower end of the range.	Integer	12	N
RANK_CEILING	The upper end of the range.	Integer	12	N
PLAN_PERIOD_FROM_FY	Beginning fiscal year of plan period.	Integer	4	N
PLAN_PERIOD_FROM_FM	Beginning fiscal month of plan period.	Integer	2	N
PLAN_PERIOD_TO_FY	Ending fiscal year of plan period.	Integer	4	N
PLAN_PERIOD_TO_FM	Ending fiscal month of plan period.	Integer	2	N
AGGR_PERIOD_FROM_FY	Beginning fiscal year to aggregate budgets to determine rank.	Integer	4	N

Table 2–21   (Cont.) Plan Period Ranks Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
AGGR_PERIOD_FROM_FM	Beginning fiscal month to aggregate budgets to determine rank.	Integer	2	N
AGGR_PERIOD_TO_FY	Ending fiscal year to aggregate budgets to determine rank.	Integer	4	N
AGGR_PERIOD_TO_FM	Ending fiscal month to aggregate budgets to determine rank.	Integer	2	N

Planned Chain Promotions (Traffic) Specification (PLANNED_CHAIN_PROMOS_TBL_STAGE)

Table 2–22   Planned Chain Promotions Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
PLANNED_PROMO_ID	The ID for the promotion.	Integer	38	N
PROMO_TYPE	The type of promotion.	String	20	Y
PROMO_DESC	A description of the promotion.	String	50	Y
PROMO_START_DT	The start date of the promotion.	Date in format YYYY-MM-DD	10	Y
PROMO_END_DT	The end date of the promotion.	Date in format YYYY-MM-DD	10	Y
AD_START_DT	The start date of the ad.	Date in format YYYY-MM-DD	10	Y
AD_END_DT	The end date of the ad.	Date in format YYYY-MM-DD	10	Y
PROMO_WEEK	The week number for the promotion.	Integer	2	Y
SCALE_FACTOR	Used to adjust the forecast for item being promoted based on history.	Integer	38	Y
HISTORIC_PROMO_ID	ID of last year's promotion that is used to link new promotion to historical promotion for forecasting.	Integer	38	Y
LAST_MODIFIED_DT	Date of most recent changes.	Date in format YYYY-MM-DD	10	Y
MERCHANDISE_ID	MH ID.	Integer	50	N

Planned Promotions Specification (STAGE_PLANNED_PROMOS)

Table 2–23   Planned Promotions Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
MERCHANDISE_KEY	Unique identifier for merchandise hierarchy.	String	25	Y
MERCHANDISE_LEVEL	The merchandise level - Lot or Color.	String	50	Y
PROMO_START_DT	The start date of the promotion.	Date in format YYYY-MM-DD	10	N
PROMO_END_DT	The end date of the promotion.	Date in format YYYY-MM-DD	10	N
AD_START_DT	The start date of the ad.	Date in format YYYY-MM-DD	10	N
AD_END_DT	The end date of the ad.	Date in format YYYY-MM-DD	10	N
STORE_AD_GRP	The store type in terms of advertising strategy.	String	5	Y
PROMO_LVL_IND	The promotion level indicator.	String	1	Y
PROMO_TYPE	The type of promotion. Closeout (CO), Multiple Incentive (MIP), Price Break (PB).	String	5	Y
PROMO_PCNT_OFF	The percent off the item price with the promotion.	Decimal	4,2	Y
PROMO_PRICE	The end retail price for item on promotion during the event.	Decimal	8,2	Y
PROMO_WEEK	The week number for the promotion.	Integer	2	Y
MEDIA_TYPE	The type of media used for the promotion. Newspaper (NPP); circulars (CI); direct mail (DM); television (TV); magazine (MAG); internet (WEB); run of press (ROP).	String	5	Y
EMPHASIS	Amount of emphasis for item in ad. High, Med, Low, Null.	String	3	Y
PAGE_NUM	Where in circular an ad appears. F, B, I, Null.	String	1	Y
PROMO_NAME	The promotion name.	String	50	Y
EFF_DT	The effective date.	Date in format YYYY-MM-DD	10	Y
EVENT_TYPE	The type of event.	String	1	Y
REG_PCNT_OFF	Not used.	Decimal	4,2	Y

Table 2–23   (Cont.) Planned Promotions Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
REG_PRICE	Not used.	Decimal	8,2	Y
SALES_PCNT_OFF	Not used.	Decimal	4,2	Y
SALES_PRICE	Not used.	Decimal	8,2	Y
CLEARANCE_PCNT_OFF	Not used.	Decimal	4,2	Y
CLEARANCE_PRICE	Not used.	Decimal	8,2	Y
USE_PCNT_OFF	Not used.	Decimal	4,2	Y
USE_PRICE	Not used.	Decimal	8,2	Y

[1] For Decimal, the requirement is a number of a certain defined length and with a certain number of decimal places. For example, (22,2) is a number that can be up to 22 digits long and that can have two digits after the decimal point.

PPO Prepack Specification (STAGE_PPO_PREPACK)

Table 2–24   PPO Prepack Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
MERCHANDISE_LEVEL	Level within the merchandise hierarchy.	String	20	N
MERCHANDISE_KEY	Unique identifier for merchandise hierarchy.	String	25	N
BRAND_DESC	Brand description.	String	50	Y
PRODUCT_TYPE_DESC	Product type description.	String	50	Y
SIZE_RANGE_KEY	Size range identifier.	String	25	Y
SIZE_RANGE_DESC	Size range description.	String	50	Y
SIZE_RANGE_ID	Size range identifier.	String	25	Y
SIZE_RANGE_LENGTH	Number of sizes in size range.	Integer	12	Y
SEASON_CODE	Season code.	String	50	Y
ATTRIBUTE1		String	100	Y
ATTRIBUTE2		String	100	Y
ATTRIBUTE3		String	100	Y
ATTRIBUTE4		String	100	Y
ATTRIBUTE5		String	100	Y
SALES_LEVEL_RANK	Numbered rank.	Integer	2	Y
SALES_LEVEL_MIN_UNITS	Lower bound of the level.	Integer	12	Y
SALES_LEVEL_MAX_UNITS	Upper bound of the level.	Integer	12	Y
SALES_LEVEL_DESC	Description of the level.	String	50	Y
FEASIBLE_PREPACK_NUMBER	Number.	Integer	12	N

Table 2–24   (Cont.) PPO Prepack Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
FEASIBLE_PREPACK_DESC	Description.	String	50	Y
PREPACK_NUMBER	Pack ID in a pack option.	Integer	12	N
PREPACK_DESC	Prepack description.	String	50	Y
PACK_OPTION_KEY	Pack option identifier.	String	20	Y
PACK_OPTION_NUMBER	Pack ID in a pack option.	Integer	32	Y
SIZE_KEY	Size ID.	String	25	N
SIZE_DESC	Size description.	String	50	Y
SIZE_ID	Size ID.	String	25	N
SIZE_RANK	Size rank.	Integer	2	Y
SIZE_UNITS	Number of units for a size.	Integer	12	N
AS_VERSION	The version of analytical services data.	String	20	Y

PPO Escalation Specification (STAGE_PPO_ESCALATION)

Table 2–25   PPO Escalation Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
ORDER_SQC	The order number to apply matching.	Integer	32	N
MERCHANDISE_LEVEL	Level within the merchandise hierarchy.	String	20	N
ATTRIBUTE_MASK	The attribute mask to use for constructing attribute values.	String	1,000	N
AS_VERSION	The version of analytical services data.	String	20	N

Promotion Base Lift Specification (STAGE_BASE_LIFT_TBL)

Table 2–26   Promotion Base Lift Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
MERCHANDISE_LEVEL	Level within the merchandise hierarchy.	String	20	Y
MERCHANDISE_KEY	Unique identifier for merchandise hierarchy.	String	25	Y
LOCATION_LEVEL	Level within the location hierarchy.	String	20	Y
LOCATION_KEY	Unique identifier for location hierarchy.	String	25	Y

Table 2–26   (Cont.) Promotion Base Lift Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
HISTORIC_PROMO_KEY	The key that identifies the historic promotion.	String	25	Y
DAILY_LIFT_IDX	The calculated lift factor/index. The promotional lift per day.	Decimal	15,5	Y
DAILY_LIFT_ERR	The calculated error factor/index.	Decimal	15,5	Y
AS_VERSION	The version of analytical services data.	String	20	Y

[1]   For Decimal, the requirement is a number of a certain defined length and with a certain number of decimal places. For example, (22,2) is a number that can be up to 22 digits long and that can have two digits after the decimal point.

Promotion Base Lift Escalation Specification (STAGE_BASE_LIFT_ESCALATION_TBL)

Table 2–27   Promotion Base Lift Escalation Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
ORDER_SQC	The order number to apply matching.	Integer	32	Y
MERCHANDISE_LEVEL	Level within the merchandise hierarchy.	String	20	Y
LOCATION_LEVEL	Level within the location hierarchy.	String	20	Y
ATTRIBUTE_MASK	The attribute mask used for constructing attribute values.	String	1,000	Y
AS_VERSION	The version of analytical services data.	String	20	Y

Promotion Relative Escalation Specification (STAGE_RELATIVE_ESCALATION_TBL)

Table 2–28   Promotion Relative Escalation Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
ORDER_SQC	The order number to apply matching.	Integer	32	Y
MERCHANDISE_LEVEL	Level within the merchandise hierarchy.	String	20	Y
LOCATION_LEVEL	Level within the location hierarchy.	String	20	Y
ATTRIBUTE_MASK	The attribute mask used for constructing attribute values.	String	1,000	Y
AS_VERSION	The version of analytical services data.	String	20	Y

Promotion Relative Lift Specification (STAGE_RELATIVE_LIFT_TBL)

Table 2–29   Promotion Relative Lift Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
MERCHANDISE_LEVEL	Level within the merchandise hierarchy.	String	20	Y
MERCHANDISE_KEY	Unique identifier for merchandise hierarchy.	String	25	Y
LOCATION_LEVEL	Level within the location hierarchy.	String	20	Y
LOCATION_KEY	Unique identifier for location hierarchy.	String	25	Y
ATTRIBUTE1		String	100	Y
ATTRIBUTE2		String	100	Y
ATTRIBUTE3		String	100	Y
ATTRIBUTE4		String	100	Y
ATTRIBUTE5		String	100	Y
ATTRIBUTE6		String	100	Y
ATTRIBUTE7		String	100	Y
ATTRIBUTE8		String	100	Y
ATTRIBUTE9		String	100	Y
ATTRIBUTE10		String	100	Y
RELATIVE_LIFT_IDX	The relative lift value - a per day value.	Decimal	15,5	Y
RELATIVE_LIFT_ERR	The error in the relative lift value.	Decimal	15,5	Y
AS_VERSION	The version of analytical services data.	String	20	Y

[1]   For Decimal, the requirement is a number of a certain defined length and with a certain number of decimal places. For example, (22,2) is a number that can be up to 22 digits long and that can have two digits after the decimal point.

Seasonalities Specification (ASH_SEASONALITY_MAPS_TBL and ASH_ SEASONALITY_VALUES_TBL)

The seasonalities interface populates two tables in Plan.

Table 2–30   Seasonalities (Maps) Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
PRIORITY	The search priority for the seasonality.	Integer	38	N
SEASONALITY_ID	The ID for the seasonality.	Integer	38	N
MERCHANDISE_LEVEL	Description of this level of the merchandise hierarchy.	String	50	N

Table 2–30   (Cont.) Seasonalities (Maps) Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
MERCHANDISE_KEY	Key for this level of the merchandise hierarchy.	String	25	N
LOCATION_LEVEL	Description of this level of the location hierarchy.	String	50	N
LOCATION_KEY	Key for this level of the location hierarchy.	String	25	N
ATTRIBUTE_MASK	The search mask that specifies the season code and, optionally, the item attributes of the seasonality curves.	String	50	Y
AS_VERSION	The version number for the current run. Set by APC and used to track run versions.	String	20	Y

Table 2–31   Seasonalities (Values) Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
SEASONALITY_ID	The ID for the seasonality.	Integer	38	N
CALENDAR_DT	The date for the seasonality.	Date in format YYYY-MM-DD	10	N
SEAS_INDX	The value of the seasonality for the date.	Decimal	11,4	Y
SEAS_ERR	For future use - set to 0.	Decimal	11,4	Y
AS_PARAMETER_ID	A number that uniquely identifies the current record and that is used for tracking.	Integer	38	Y
AS_VERSION	The version number for the current run - set by APC and used to track run versions.	String	20	Y

[1]   For Decimal, the requirement is a number of a certain defined length and with a certain number of decimal places. For example, (22,2) is a number that can be up to 22 digits long and that can have two digits after the decimal point.

Size Ranges Specification (STAGE_SIZE_RANGE)

Table 2–32   Size Ranges Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
SIZE_RANGE_KEY	The key for the size range for the SKU.	String	25	Y
SIZE_RANGE_DESC	The size range description (e.g., XS - XL).	String	50	Y
SIZE_RANGE_ID	The client ID for the size range.	String	20	Y
SIZE_KEY	The key value for the size.	String	25	Y
SIZE_DESC	The size description.	String	25	Y
SIZE_ID	The client ID for the size.	String	25	Y
SIZE_RANK	The rank order for the size.	Integer	9	Y

SPO Escalation Specification (STAGE_SPO_ESCALATION)

Table 2–33   SPO Escalation Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
ORDER_SQC	The order number to apply matching.	Integer	32	N
MERCHANDISE_LEVEL	Level within the merchandise hierarchy.	String	20	N
LOCATION_LEVEL	Level within the location hierarchy.	String	20	Y
ATTRIBUTE_MASK	The attribute mask used for constructing attribute values.	String	1,000	N
AS_VERSION	The version of analytical services data.	String	20	Y

SPO Size Profiles Specification (STAGE_SPO_SIZE_PROFILE)

Table 2–34   SPO Size Profile Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
MERCHANDISE_LEVEL	Level within the merchandise hierarchy.	String	20	N
MERCHANDISE_KEY	Unique identifier for merchandise hierarchy.	String	25	N
BRAND_DESC	Brand description.	String	50	Y
PRODUCT_TYPE_DESC	Product type description.	String	50	Y

Table 2–34   (Cont.) SPO Size Profile Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
SIZE_RANGE_DESC	Size range description.	String	50	Y
SIZE_RANGE_ID	Size range identifier.	String	25	Y
SIZE_RANGE_KEY	Size range identifier.	String	25	Y
SIZE_RANGE_LENGTH	Number of sizes in size range.	Integer	12	Y
LOCATION_KEY	Unique identifier for location hierarchy.	String	25	Y
LOCATION_LEVEL	Level within location hierarchy.	String	20	Y
SEASON_CODE	Season code.	String	50	Y
ATTRIBUTE1		String	100	Y
ATTRIBUTE2		String	100	Y
ATTRIBUTE3		String	100	Y
ATTRIBUTE4		String	100	Y
ATTRIBUTE5		String	100	Y
CLUSTER_NUMBER	Number of cluster.	Integer	5	Y
CLUSTER_DESC	Cluster description.	String	50	Y
SIZE_KEY	Size identifier.	String	25	N
SIZE_DESC	Size description.	String	50	N
SIZE_ID	Size identifier.	String	25	N
SIZE_RANK	Size rank.	Integer	2	N
SIZE_PROFILE_UNITS_PCT	Size profile percent.	Decimal	6,3	N
SIZE_PROFILE_UNITS	Size profile units.	Integer	12	Y
SIZE_PROFILE_UNIT_REL_ERR	Size profile error.	Decimal	22,4	N
AS_VERSION	The version of analytical services data.	String	20	Y

[1]   For Decimal, the requirement is a number of a certain defined length and with a certain number of decimal places. For example, (22,2) is a number that can be up to 22 digits long and that can have two digits after the decimal point.

Store Eligibility Specification (STORE_ELIGIBILITY)

Table 2–35   Store Eligibility Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
LOCATION_KEY	The key for the Store level in the location hierarchy.	String	25	Y
MERCHANDISE_KEY	The key for the Planning level in the merchandise hierarchy.	String	25	Y
FISC_YEAR	The year when the store is eligible.	Integer	4	Y

Table 2–35 (Cont.) Store Eligibility Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
FISC_PERIOD	The period during the year when the store is eligible.	Integer	2	Y
ELIGIBLE_IND	A value of Y indicates that the indicated Store is eligible to sell the indicated Class of merchandise during the time period specified.	String	1	Y
LIKE_LOCATION_KEY	The key for the Like Store level in the location hierarchy.	String	25	Y

Store Transit Times Specification (STAGE_OUTER_DC_MAPS_TBL)

Table 2–36 Store Transit Times Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
MERCHANDISE_KEY	Unique identifier for merchandise hierarchy.	String	25	Y
MERCHANDISE_LEVEL	Level within the merchandise hierarchy.	String	50	Y
LOCATION_KEY	Unique identifier for location hierarchy.	String	25	Y
LOCATION_LEVEL	Level within the location hierarchy.	String	50	Y
DIST_CENTER_KEY	DC identifier.	String	25	Y
TRANSIT_NUM_DAYS	The number of days required for delivery from DC to store.	Integer	32	Y

Store Weights Escalation Specification (STAGE_SWO_ESCALATION)

Table 2–37 Store Weights Escalation Standard Interface Specification

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
ORDER_SQC	The order number to apply matching.	Integer	32	N
MERCHANDISE_LEVEL	Level within the merchandise hierarchy.	String	20	N
LOCATION_LEVEL	Level within the location hierarchy.	String	20	N
ATTRIBUTE_MASK	The attribute mask used for constructing attribute values.	String	1,000	N
AS_VERSION	The version of analytical services data.	String	20	N

Store Weights LSD Specification (STAGE_SWO_LSD)

Table 2–38   Store Weights LSD Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
MERCHANDISE_LEVEL	Level within the merchandise hierarchy.	Integer	20	N
MERCHANDISE_KEY	Unique identifier for merchandise hierarchy.	Integer	25	N
LOCATION_LEVEL	Level within the location hierarchy.	Integer	20	Y
LOCATION_KEY	Unique identifier for merchandise hierarchy.	Integer	25	Y
SEASON_CODE	Season code.	Integer	50	Y
AS_VERSION	The version of analytical services data.	Integer	20	Y
ATTRIBUTE1		Integer	100	Y
ATTRIBUTE2		Integer	100	Y
ATTRIBUTE3		Integer	100	Y
ATTRIBUTE4		Integer	100	Y
ATTRIBUTE5		Integer	100	Y
LSD_WEIGHT	Store weight.	Decimal	22,20	N

[1] For Decimal, the requirement is a number of a certain defined length and with a certain number of decimal places. For example, (22,2) is a number that can be up to 22 digits long and that can have two digits after the decimal point.

Weekly Historic Sales and Inventory Specification (WK_HIST_SALES_INV)

Table 2–39   Weekly Historic Sales and Inventory Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
MERCHANDISE_KEY	The key for the SKU level in the merchandise hierarchy.	String	25	Y
LOCATION_KEY	The key for the Store level in the location hierarchy.	String	25	Y
FISCAL_YR	Number of the fiscal year.	Integer	4	Y
FISCAL_WK	Number of the fiscal week.	Integer	2	Y
END_OH_QTY	Ending on hand inventory.	Integer	16	Y
END_OO_QTY	Ending on order quantity.	Integer	16	Y
UNIT_RTL	Current ticket.	Decimal	7,2	Y
UNIT_CST	PDB cost.	Decimal	7,2	Y
INIT_RTL	PDB initial retail.	Decimal	7,2	Y

Table 2–39   (Cont.) Weekly Historic Sales and Inventory Standard Interface Specification[1]

Attribute Name	Attribute Description	Data Type	Maximum Length	Nullable Y/N
RECEIPT_QTY	Receipts.	Integer	16	Y
GRSS_SLS_QTY	Gross sales quantity.	Integer	16	Y
GRSS_SLS_AMT	Gross sales amount	Decimal	16,2	Y
NET_SLS_QTY	Net sales quantity (sales quantity - return quantity).	Integer	16	Y
NET_SLS_AMT	Net sales amount (sales $ - return $).	Decimal	16,2	Y
TOT_DSC_AMT	Total discount amount.	Decimal	16,2	Y
PROMO_MKDN_DSC_AMT	Promotional markdown discount.	Decimal	16,2	Y
SELLIT_MKDN_DSC_AMT	Sell it markdown discount.	Decimal	16,2	Y
CLR_DSC_AMT	Clearance discount amount.	Decimal	16,2	Y
FREIGHT	Freight cost.	Decimal	16,2	Y
GRSS_PROFIT_AMT	Gross profit $.	Decimal	16,2	Y

[1]   For Decimal, the requirement is a number of a certain defined length and with a certain number of decimal places. For example, (22,2) is a number that can be up to 22 digits long and that can have two digits after the decimal point.

3

Standard Load

This chapter contains the following:

Introduction

This chapter describes the process to execute the standard load procedure, which transforms and loads retail data into the target databases. It also includes a list of the standard load error messages and information about setting error thresholds.

Standard Load Process

Plan provides a set of scripts that stage, transform, and load data into the target database tables in the Plan database. The data must be provided in flat files that meet the standard interface specifications. The variable length data in the files should be pipe-delimited. The files should be named to correspond to the names of the matching specification tables. For example, the calendar file should be named in a meaningful way (such as cal.dat) to correspond to ASH_CAL_TBL.

Note: No specific file extension is required for the input files.

Script Name	Function
Java procedures	
pl_stage_file.sh	Stages data from flat files into ASH staging tables.

Script Name	Function
pl_load_data.sh	Loads the data from the ASH staging tables into the database.
pl_stage_lib.sh	Library of functions.
Weekly sales procedures with enforced parallelism	
pl_elm_load_data.sh	Loads weekly sales into the database.
pl_elm_stage_lib.sh	Library of functions.

Each script contains options that can be customized. You can customize the options in the following ways (which are listed in order of precedence, with the command line having the highest precedence):

- Using the command line options

- Setting the customization values as environment variables in env.sh

- Setting the customization values in the user's environment

Staging Script: pl_stage_file.sh

Usage: pl_stage_file.sh *[OPTION]... [FILE]...*
Loads the files into the database.

Options:

-a DIR	--logdir_archive=DIR	directory to archive old log files
-c DIR	--controldir=DIR	directory with data control files
-e NUM	--errorthreshold=NUM	number of errors to allow in load (for DB2, it is a warning threshold)
-l DIR	--logdir=DIR	directory to store logs
-r DIR	--configroot=DIR	configuration root directory
-h	--help	displays help and exits

Load Script: pl_load_data.sh

Usage: pl_load_data.sh *[OPTION]... [LOADPROCEDURE]...*
Runs the load procedures in the database.

Options:

-a DIR	--logdir_archive=DIR	directory to archive old log files
-e NUM	--errorthreshold=NUM	number of errors to allow in load (overwrites the procedure's default limit)
-l DIR	--logdir=DIR	directory to store logs
-r DIR	--configroot=DIR	configuration root directory
-h	--help	displays help and exits

Environment Customization File

Here is an example of the environment customization file (env.sh):

```
#This is the environment customization file.
#Please define all customization values here.

#The mail client and address to send all messages to:
#MAIL=mailx
#REPORT_ADDRESS=error_mail@your_domain.com

#Number of parallel processes to run load procedures:
PARALLEL=2

#Directory with data control files:
#CONTROLDIR=/ASHschema/controlfiles

#Directory to store logs:
#LOGDIR=/tmp/load_logs

#Directory to move old logs to.
#If this variable is not set, the logs will be overwritten.
This folder is not required to exist and will be created at the time
#of archiving the logs.
#
#If all old logs should be preserved, it is possible to
#archive the files into a new unique folder, such as:
#LOGDIR_ARCHIVE=
#/tmp/load_logs/archived_logs_'date +%Y%m%d_%H%M_%S'
#
#If only the archive of the previous run is important, then
#archive the files into the same folder, such as:
#LOGDIR=/tmp/load_logs/archived_logs

#Number of errors to allow during load
ERROR_THRESHOLD=50
```

Analytical Insights Data

Prior to the standard load, data that has been provided by Analytical Services is normalized by an AS Mapper. An AS Mapper is provided for each of the following analytical insights:

- Prepacks (PPO)

- Store Weights/LSDs (SWO)

- Size Profiles (SPO)

- Corporate (Base) Promotion Lifts

- Item (Relative) Promotion Lifts

- Demand Parameters (Inventory Effect, Price Elasticity, and Bayesian Effects)

The Seasonality demand parameters come from the output of the Parameter Export Tool. The files are renamed and loaded as part of the Standard Load. No mapper is used.

Each mapper takes a data file and an escalation mapping information file as inputs. The mapper outputs a file containing normalized data (Config or Maps and Values), which can then be loaded as part of the standard load.

The following table details the inputs and outputs for each AS mapper.

Table 3–1 AS Mapper Inputs and Outputs

AS Mapper Name	AS Mapper Procedure	AS Mapper Data File	AS Mapper Escalation File	AS Mapper Output File(s)	Standard Load Procedure
Prepack (PPO) Mapper	RunPP Mapper	STAGE_PPO_ PREPACK	STAGE_PPO_ ESCALATION	STAGE_PREPACK_ MAPS_TBL STAGEPREPACK_ VALUES_TBL	LoadPre Packs
Store Weights (SWO) Mapper	RunLSD Mapper	STAGE_SWO_LSD	STAGE_SWO_ ESCALATION	STAGE_LSD_ CONFIG	LoadLSDs
Size Profiles (SPO) Mapper	RunSP Mapper	STAGE_SPO_SIZE_ PROFILE_TBL	STAGE_SPO_ ESCALATION_TBL	STAGE_SIZE_ PROF_MAPS_TBL STAGE_SIZE_ PROF_CURVES_ TBL	LoadSize Profiles
Base Promo Lift Mapper	RunPromo BaseLift Mapper	STAGE_BASE_ LIFT_TBL	STAGE_SPO_ ESCALATION_TBL	STAGE_BASE_ LIFT_CONFIG_TBL	LoadPromo Lift
Relative Promo Lift Mapper	RunPromo RelativeLift Mapper	STAGE_ RELATIVE_LIFT_ TBL	STAGE_ RELATIVE_ ESCALATION_TBL	STAG_RELATIVE_ LIFT_CFG_TBL	LoadPromo AttrLift
Demand Parameters Mapper	RunAPC Mapper	STAGE_APC_ PARAMETER	STAGE_APC_ ESCALATION	STAG_APC_ PARAMETER_ CFG_TBL	LoadDemand Parameters
Seasonalities (No Mapper)	AS Parameter Export Tool	N/A	N/A	STAGE_APC_ SEAS_MAPS_TBL STAGE_APC_ SEAS_VALUES_ TBL	Load Seasonalities

Load Procedures

The following table contains an ordered list of the Plan load procedures, including the names of the source tables and the target tables.

Table 3–2 Plan Load Procedures - In the Order to be Called

No.	Load Script	Source Table(s)	Target Table(s)	Freq.
Group A: Calendars, Hierarchies, and Attributes				
1	com.profitlogic.db.birch.LoadCalendars	ASH_CAL_TBL	PERIODS_TBL	Daily
2	com.profitlogic.db.birch.LoadLH KeyRename	ASH_LHRENAME_TBL	LOCATION _HIERARCHY_TBL	
3	com.profitlogic.db.birch.LoadLocation Hierarchy	ASH_LH_TBL ASH_LH_CDA_TBL	LOCATION _HIERARCHY_TBL LOCATION_ATTR_TBL	Daily
4	com.profitlogic.db.birch.LoadLHTbl	LOCATION _HIERARCHY_TBL	LOCATION_TBL	Daily
5	com.profitlogic.db.birch.LoadLTCLOSE	LOCATION _HIERARCHY_TBL	LTCLOSE_TBL	Daily

Table 3–2   (Cont.) Plan Load Procedures - In the Order to be Called

No.	Load Script	Source Table(s)	Target Table(s)	Freq.
6	load_location_hierarchy	STORE	LOCATION _HIERARCHY_TBL	Daily
7	com.profitlogic.db.birch.LoadMH KeyRename	ASH_MHRENAME_ TBL	MERCHANDISE _HIERARCHY_TBL	
8	com.profitlogic.db.birch.LoadMerchandise Hierarchy	ASH_MH_TBL ASH_MH_CDA_TBL	MERCHANDISE _HIERARCHY_TBL MERCH_ATTR_TBL	Daily
9	com.profitlogic.db.birch.LoadMHTbl	MERCHANDISE _HIERARCHY_TBL	MERCHANDISE_TBL	Daily
10	com.profitlogic.db.birch.LoadTCLOSE	MERCHANDISE _HIERARCHY_TBL	TCLOSE_TBL	Daily
11	update_merchandise_hierarchy	STAGE_MH_ATTRS_ TBL	MERCHANDISE _HIERARCHY_TBL	Daily
12	load_size_ranges.full_load	STAGE_SIZE_RANGE	SIZE_RANGES_TBL SIZE_RANGE_VALUES _TBL	Daily
Group B: Plan Data				
13	load.store_elib	STORE_ELIGIBILITY	BASE1$ELIGIBILITY _PLANS_TBL or BASE2$ELIGIBILITY _PLANS_TBL	Daily
13a	switch.store_elib	N/A	N/A	Daily
14	RunLSDMapper	STAGE_SWO_LSD STAGE_SWO _ESCALATION	STAGE_LSD_CONFIG _TBL	Daily
15	com.profitlogic.db.birch.LoadLSDs	STAGE_LSD_CONFIG _TBL	LSD_CONFIG_TBL	On Demand by AS
16	com.profitlogic.db.birch.generator.SBD Generator	STAGE_BUDGET_ PLAN _TBL	LOCKED_STORE_ PLAN	Daily
17	load.store_plan_lock	LOCKED_STORE_ PLAN	BASE1$STORE_ LOCKED_PLANS_TBL or BASE2$STORE_ LOCKED_PLANS_TBL	Daily
18	switch.store_plan_lock	N/A	N/A	Daily
19	load.cp_store_locked_to_current	LOCKED_STORE_ PLAN	CURRENT_STORE_ PLAN	
20	load.current._plan_lock	CURRENT_STORE_ PLAN	BASE1$STORE _CURRENT_PLANS_ TBL or BASE2$STORE _CURRENT_PLANS_ TBL	Daily
21	switch.store_plan_cur	N/A	N/A	Daily

Table 3–2 (Cont.) Plan Load Procedures - In the Order to be Called

No.	Load Script	Source Table(s)	Target Table(s)	Freq.
22	com.profitlogic.db.birch.generator.Vol GrpGenerator	LOCKED_STORE_ PLAN STAG_PLAN_PERIOD _RANKS_TBL	VOLUME_GRPS	Daily
23	load.volume_groups	VOLUME_GRPS	VOLUME_GROUPS VOLUME_GROUP _LOCATIONS_TBL VOLUME_GROUP _SETS_TBL VOLUME_GROUP _SET_PERIODS_TBL	Daily
24	load.company_plan_lock	LOCKED_COMPANY_ PLAN	COMPANY_PLANS_ TBL	Daily
25	com.profitlobic.db.birch.LoadOuterDC Mappings	STAGE_OUTER_DC _MAPS_TBL	OUTER_DC_ MAPPINGS _TBL	Daily
Group C: Promotions				
26	load.load_coevents	PLANNED_CHAIN _PROMOS_TBL_STAGE	PLANNED_CHAIN_ PROMOS_TBL	Daily
27	load.promo_prep	N/A	N/A	Daily
28	load.load_planned_promo_tbl	STAGE_PLANNED _PROMOS	BASE1$PLANNED _PROMOS_TBL BASE2$PLANNED _PROMOS_TBL	Daily
29	load.promo_merch1	STAGE_PLANNED _PROMOS	BASE1$PLANNED _PROMOS_MERCHS _TBL BASE2$PLANNED _PROMOS_MERCHS _TBL	
30	load.promo_conclude	N/A	N/A	
31	switch.promos	N/A	N/A	
32	load.hist_promos	STAGE_PLANNED _PROMOS	HISTORIC_PROMOS _TBL	Daily
Group D: Demand Parameters				
33	RunAPCMapper	STAGE_APC _PARAMETER_TBL STAGE_APC _ESCALATION_TBL	STAG_APC _PARAMETER_CFG_ TBL	On Demand by AS
34	com.profitlogic.db.birch.LoadDemand Parameters	STAGE_APC _PARAMETER_CFG_ TBL	DEMAND_ PARAMETER_ CONFIG_TBL	On Demand by AS
35	RunPromoBaseLiftMapper	STAGE_BASE_LIFT_ TBL STAGE_BASE_LIFT _ESCALATION	STAGE_BASE_LIFT _CONFIG_TBL	On Demand by AS
36	com.profitlogic.db.birch.LoadPromo CorpLift	STAGE_BASE_LIFT _CONFIG_TBL	PROMO_ATTR_LIFT _CONFIG_TBL	On Demand by AS

Table 3–2   (Cont.) Plan Load Procedures - In the Order to be Called

No.	Load Script	Source Table(s)	Target Table(s)	Freq.
37	RunPromoRelativeLiftMapper	STAGE_RELATIVE _LIFT_TBL STAGE_RELATIVE _ESCALATION	STAG_RELATIVE_LIFT _CFG_TBL	On Demand by AS
38	com.profitlogic.db.birch.LoadPromoAttrLift	STAG_RELATIVE_LIFT _CFG_TBL	PROMO_ATTR_LIFT _CONFIG_TBL	On Demand by AS
39	com.profitlogic.db.birch.LoadSeasonalities	ASH_SEASONALITIES _MAPS_TBL ASH_SEASONALITIES _VALUES_TBL	SEASONALITIES_ MAPS _TBL SEASONALITIES _VALUES_TBL	On Demand by AS
Group E: Sizes and Packs				
40	RunSPMapper	STAGE_SPO_SIZE _PROFILE STAGE_SPO _ESCALATION	STAGE_SIZE_PROF _MAPS_TBL STAGE_SIZE_PROF _CURVES_TBL	On Demand by AS
41	com.profitlogic.db.birch.LoadSizeProfiles	STAGE_SIZE_PROF _MAPS_TBL STAGE_SIZE_PROF _CURVES_TBL	SIZE_PROF_MAPS_TBL SIZE_PROF_CURVES _TBL	On Demand by AS
42	com.profitlogic.db.birch.generator.Size ProfileGenerator	ELIGIBILITY_PLANS _TBL SIZE_PROF_MAPS_TBL	SIZE_PROF_MAPS_ CACHE_TBL	On Demand by AS
43	RunPPMapper	STAGE_PPO_PREPACK STAGE_PPO _ESCALATION	STAGE_PREPACK_ MAPS_TBL STAGE_PREPACK _VALUES_TBL	On Demand by AS
44	com.profitlogic.db.birch.LoadPrePacks	STAGE_PREPACK_ MAPS_TBL STAGE_PREPACK _VALUES_TBL	PREPACK_MAPS_TBL PREPACK_VALUES_ TBL	On Demand by AS
45	RunPPGenerator(NULL)	PREPACK_VALUES_ TBL PREPACK_MAPS_TBL	PREPACK_HASHMAPS _TBL ASH_PH_TBL ASH_PACK_ CONTENTS _TBL STAGE_PH_ATTRS_ TBL AS_VERSION_TBL	On Demand by AS
46	com.profitlogic.db.birch.LoadPack Hierarchy	ASH_PH_TBL	PACKS_TBL	On Demand by Client
47	com.profitlogic.db.birch.LoadPackContents	ASH_PACK_ CONTENTS _TBL	PACK_CONTENTS_ TBL	On Demand by Client
48	com.profitlogic.db.birch.LoadPHTbl	PACKS_TBL	PACK_FLATTENED_ TBL	On Demand by Client

Table 3–2 (Cont.) Plan Load Procedures - In the Order to be Called

No.	Load Script	Source Table(s)	Target Table(s)	Freq.
49	com.profitlogic.db.birch.LoadPTCLOSE	PACKS_FLATTENED_TBL	PTCLOSE_TBL	On Demand by Client
Group F: Sales				
50	pl_elm_load_data.sh Argument: load_weekly_history_data.load_at_all_levels	WK_HIST_SALES_INV	act_hist_tbl_lvl_0 act_hist_tbl_lvl_1 act_hist_tbl_lvl_2 act_hist_tbl_lvl_3	Weekly
51	Load_Weekly_Agg_Data.load_all	HD_STORE_COLORS_TBL	HD_CHAIN_LOTS_TBL	Weekly
52	LOAD_STORE_COLORS_AGGR.LOAD_STORE_COLORS_AGG_CURR_WK()	HD_STORE_COLORS_TBL	HD_STORE_COLORS_AGGR_TBL	Weekly
53	InSeasonUpdate This stored procedure occurs *after* the weekly sales load procedure loop (which re-loads the data from the week prior to last week and then the data from last week) and is used to update existing plan data with the actual in-season data. This procedure does not have a staging table. No pre-load or post-load verifications and no validations are performed.		The following tables are updated by this procedure: - ACTUAL_IN_STORE_TBL - ITEM_LOCATION_PERIODS_TBL - ITEM_SETS_TBL LOCATION_-PLANNED_ITEMS_TBL - PLANNED_ITEM_EVENT_DATES_TBL - FORECAST_EVENTS_TBL	Weekly
54	Update_Weekly_EOH This procedure updates future EOH, based on the actual receipts and sales loaded by the weekly sales load. This procedure does not have a staging table. No pre-load or post-load verifications and no validations are performed.		ITEM_LOCATIONS_PERIODS_TBL	Weekly

Standard Load Dependencies

The Standard Load for Plan consists of an ordered series of procedures. The order provided in "Load Procedures" on page 3-4 is the recommended order. However, you can modify the order as long as you adhere to the dependencies detailed in the following series of diagrams.

These diagrams graphically explain the prerequisites and dependencies among the Plan load procedures. The procedures are organized into six logical groups, as shown in Table 3–2 on page 4. The procedures in Group A must be completed before the procedures in all the other groups. The procedures in each group must be completed in the order specified.

The first diagram shows the relationship between the six groups:
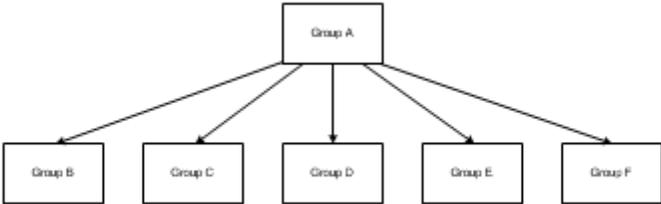
The second diagram shows the procedures in Group A: Calendars, Hierarchies, and Attributes:
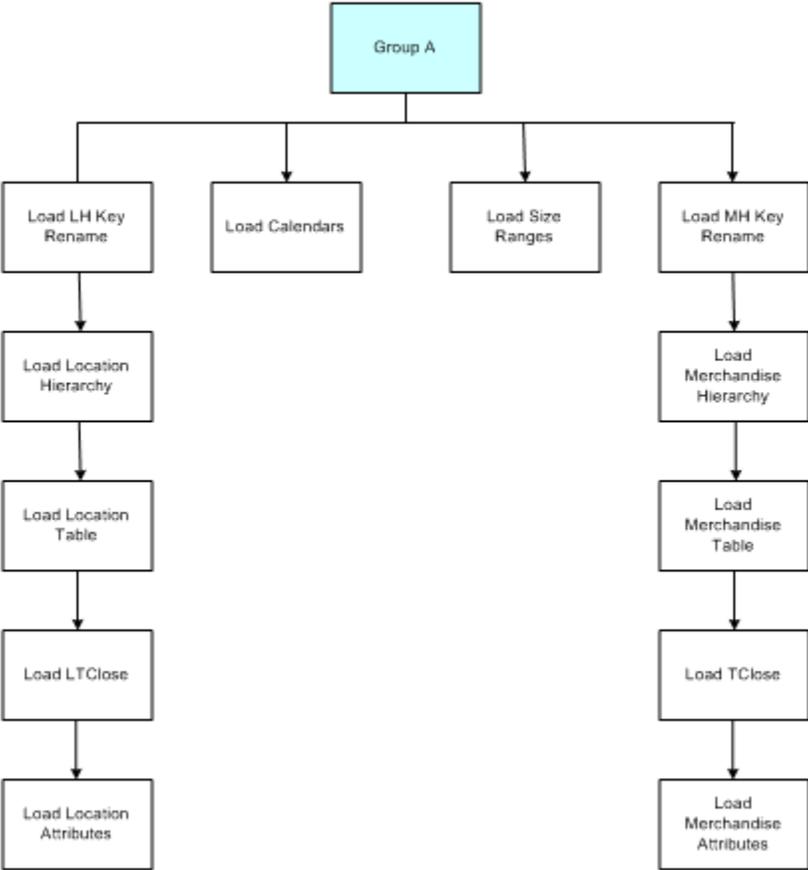
The third diagram shows the procedures in Group B: Plan Data. Note that the procedures in Group B require that the procedures in Group A be completed first.
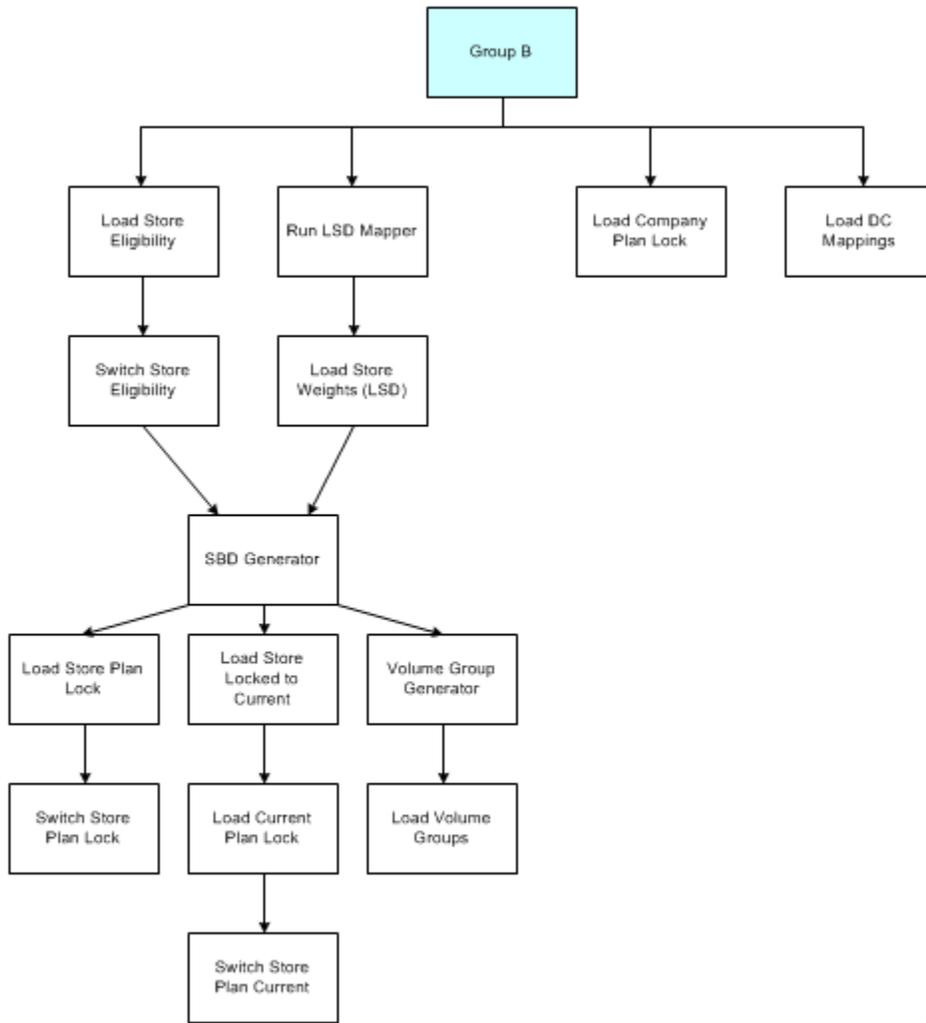
The fourth diagram shows the procedures in Group C: Promotions. Note that the procedures in Group C require that the procedures in Group A be completed first.

```
        ┌─────────────┐
        │   Group C   │
        └─────────────┘
               │
               ▼
        ┌─────────────┐
        │ Load Coevents│
        └─────────────┘
               │
               ▼
        ┌─────────────┐
        │Load Promo Prep│
        └─────────────┘
               │
               ▼
        ┌─────────────┐
        │ Load Planned │
        │  Promos TBL  │
        └─────────────┘
               │
               ▼
        ┌─────────────┐
        │  Load Promo  │
        │    Merch1    │
        └─────────────┘
               │
               ▼
        ┌─────────────┐
        │  Load Promo  │
        │   Conclude   │
        └─────────────┘
               │
               ▼
        ┌─────────────┐
        │ Switch Promos│
        └─────────────┘
               │
               ▼
        ┌─────────────┐
        │ Load Historic│
        │    Promos    │
        └─────────────┘
```
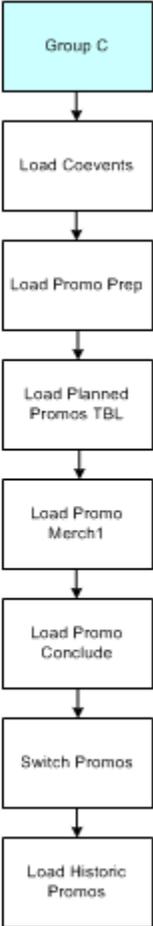
The fifth diagram shows the procedures in Group D: Demand Parameters. Note that the procedures in Group D require that the procedures in Group A be completed first.
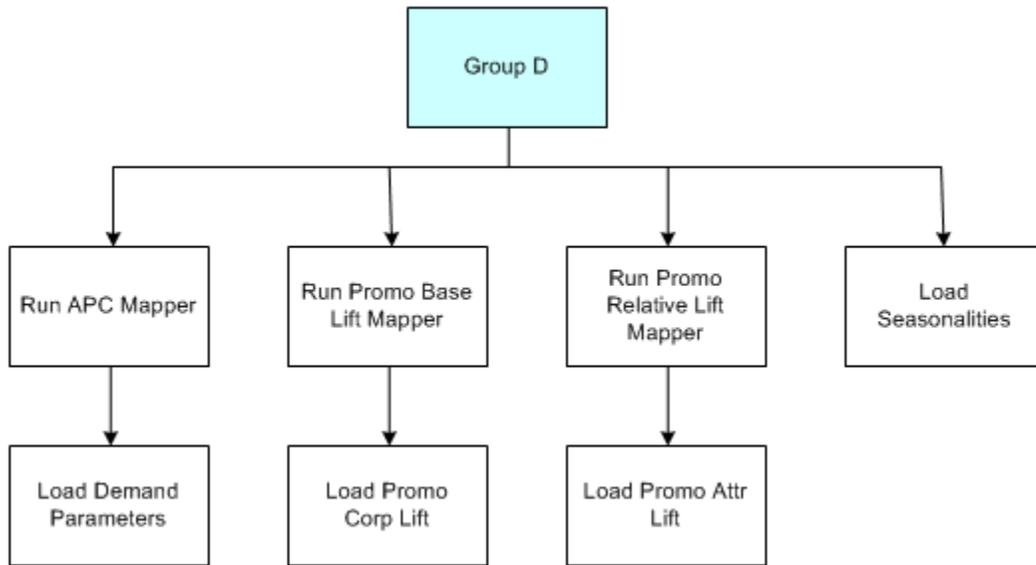
The sixth diagram shows the procedures in Group E: Sizes and Packs. Note that the procedures in Group E require that the procedures in Group A be completed first.
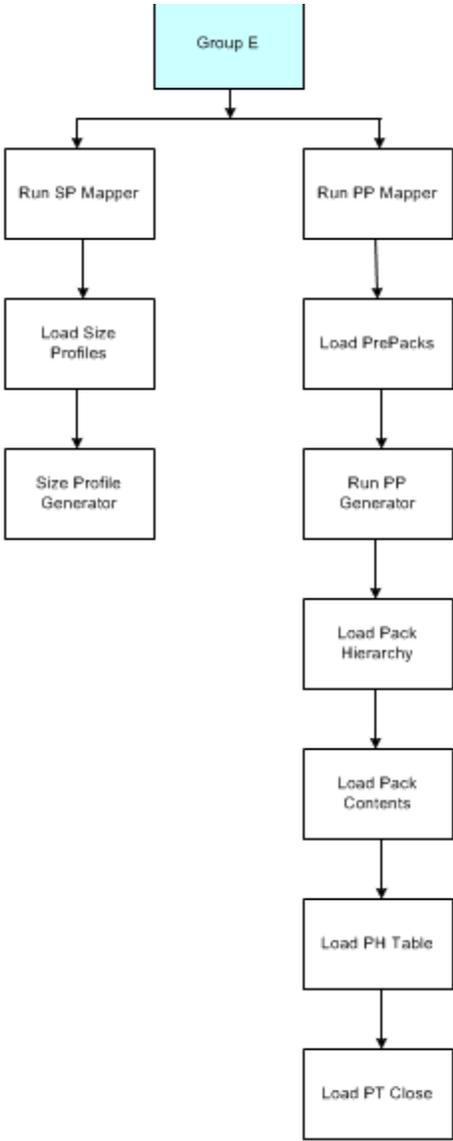
The seventh diagram shows the procedures in Group F: Sales. Note that the procedures in Group F require that the procedures in Group A be completed first.
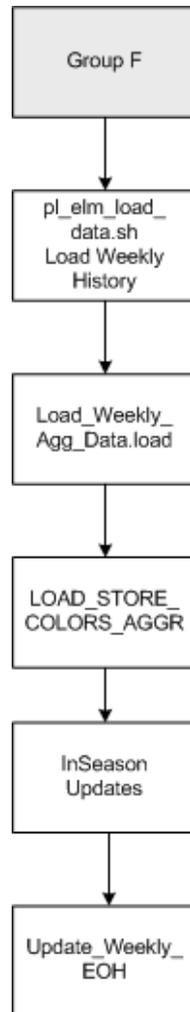
Standard Load Steps

Each Java procedure consists of the following sub-procedures:

1. Setup

2. Pre-load Verification. All n processes are run in parallel.

3. Finish Pre-load Verification.

4. Load. All n processes are run in parallel.

5. Post-load Verification. All n processes are run in parallel.

6. Finish Post-load Verification.

7. Tear-down.

Standard Load Error Handling

The Standard Load verifies the records in each staging table. Each record that fails the verification is removed from the staging table and placed in another table so that the load can continue and so that the failed records can be reviewed.

Note: If a load procedure fails and the threshold is exceeded, you will see the message "The specified error threshold has been exceeded for this load procedure." If this occurs, you should correct the existing data problem and re-run the load procedure as well as any child load procedures.

The table containing the failed records is assigned a name that corresponds to the associated staging table. For example:

Table 3–3   Failed Records Table Names

Staging Table	Failed Record Table
ASH_LHRENAME_TBL	ASH_LHRENAME_TBL_BAD
ASH_MH_TBL	ASH_MH_TBL_BAD

The "BAD" table into which the failed records are inserted has the same structure as the corresponding staging table with the addition of the following four columns:

Table 3–4   Table Columns for "BAD" Table

Column Name	Description	Data Type	Max. Length	Nullable (Y/N)
ERROR_ROWID	The row ID that corresponds to the row ID in the staging table	Row ID		N
ERROR_CODE	The code for the verification	Integer		N
ERROR_DESC	Description of the error	String	1000	
ERROR_TIME	The time the error occurred	Timestamp		N

It is possible to place a threshold on the number of failed records in any staging table that will trigger a termination of the load. The default threshold values are hard-coded into Plan. In order to customize the threshold values, you must create a properties file and load it into Plan.

Error Handling Properties File

You can configure the threshold values for error handling in the properties file, dbError.properties. The values you set in this file override the corresponding Plan default values. The default value for the threshold of records failed is 100%. The default value for the total record threshold is 0%. Threshold values are expressed as a percentage. Note that the percentage symbol should not be included. Once you have created this file (which should be stored in com/profitlogic/db/common/resources/dbError.properties and called as a argument from there), you need to load it into the database schema using the procedure described on the next page.

Here is a sample dbError.properties file:

```
##############################################################################
##
#This properties file contains all error customizations
#
#Note:all thresholds should be satisfied in order for the load procedure to
succeed
#
##############################################################################
##
#LoadPromotions error customizations
```

```
#
#Total error threshold is set to 0% of all records (default is 0%):
LoadPromotions.total.threshold=0
#
#Threshold of records failed with error 1205 should not exceed 100% (default is
100%):
LoadPromotions.1205.threshold=100
#
#Threshold of records failed with error 1207 should not exceed 100% (default is
100%):
LoadPromotions.1207.threshold=100
################################################################################
########
```

In the dbError.properties file, you can set the total error threshold as well as a separate threshold for specific verifications. When configuring the error threshold for specific verifications, you use the error message number, as shown in Table 3–6, " Standard Load Error Messages," to indicate which verification you are setting the error threshold for. The sum of all the individual thresholds cannot exceed the total threshold.

Loading the dbError.properties File

Once you have created the dbError.properties file, you can load it, as follows:

dbpropertiesinstaller.sh <config_root> conf/com/profitlogic/db/common/resources/dbError.properties, where config_root is the root directory of the Plan configuration files.

The format for the file <db_connections_properties> is as follows:

For Oracle:

db.type=oracle
db.driver=oracle.jdbc.OracleDriver
db.url=jdbc:oracle:thin:@<db_host>:<db_port>:<db_SID>
db.password=<db_password>

Custom Errors

As part of the dbError.properties file, you can create custom verifications. Custom error codes have a reserved range of 50001 to 50100. You need to provide the text of the error message and a query that defines the verification. The pre-load verification (error messages 50000 and 50001 in the following sample) is run during the pre-load verification step. The post-load verification (error message 50002 in the following sample) is run during the post-load verification step. (For a list of the steps in the load procedure, see See "Standard Load Steps" on page 14.

Once you have modified the dbError.properties file to include custom verifications, you must load it into the database schema using the above command.

Here is a sample:

```
################################################################################
#Define custom PRE_LOAD verification errors with code 50000 and 50001
#(list of error codes separated by white spaces)
LoadPromotions.pre-load.custom-errors=50000 50001

#Error message:
LoadPromotions.pre-load.50000=Table ASH_CP_TBL is missing OPTIMIZATION levels
#Threshold (default is 100%):
#Note: the threshold affects only INSERT statements! If the statement is defined as a
```

```
#       SELECT, then the error will be triggered only if the query returns at least one row.
#       For any other type of statement amount of rows affected is not checked.
LoadPromotions.pre-load.50000.threshold=0
#INSERT statement should populate the "bad records" table with failed rows
#Note: in cases when the threshold is less than 100%, the INSERT statement should end
#       with a non-empty WHERE clause because the statement will be appended by an
#       additional condition.
LoadPromotions.pre-load.50000.query=                                             \
    SELECT 1 FROM %{YA_DUAL}%                                                     \
     WHERE not exists (SELECT 1 FROM ash_cp_tbl                                   \
                         WHERE intersect name = 'OPTIMIZATION')


#Error message:
LoadPromotions.pre-load.5000=No promotion is allowed after 01/01/2050
#Threshold (default is 100%):
#Note: the threshold affects only INSERT statements!
#       If the statement is defined as a SELECT, then the error will be
#       triggered only if the query returns at least one row.
#       For any other type of statement the number of rows is not checked.
LoadPromotions.pre-load.50001.threshold=0
#INSERT statement should populate the "bad records" table with failed rows
#Note: in cases when the threshold is less than 100%, the INSERT statement should end
#       with a non-empty WHERE clause because the statement will be appended by an
#       additional condition.
LoadPromotions.pre-load.50001.query=                                               \
   INSERT INTO ash_promo_tbl_bad                                                    \
        (ERROR_ROWID, ERROR_CODE, ERROR DESC, ERROR_TIMESTAMP, merchandise_key,     \
         merchandise_level, location_key, location_level, promotion_key,            \
       promo_start_date, promo_end_date, promo_price, promo_perc_off,               \
        promo_desc, promo_type, prono_excl_fg, promo_number, attribute1,            \
        attribute2, attribute3, attribute4, attribute5)                            \
   SELECT ROWID, 50001, 'Promo after 01/01/2050', %{YA_SYSDATE_AS_TIMESTAMP}%,      \
        merchandise_key,merchandise_level, location_key, location_level, promotion_key,\
       promo_start_date, promo_end_date, promo_price, promo_perc_off,               \
        promo_desc, promo_type, prono_excl_fg, promo_number, attribute1,            \
        attribute2, attribute3, attribute4, attribute5)                            \
     FROM ash_promo_tbl                                                             \
    WHERE promo_end_date >= %{YA_TODATE/'2050-01-01'/'YYYY-MM-DD'}%

##############################################################################
# Define a custom POST_LOAD verification error with code 50002
# (list of error codes separated by spaces)
LoadPromotions.post-load.custom-errors=50002
LoadPromotions.post-load.50002=No promotion is allowed after 01/01/2050
#Note: If the statement is defined as a SELECT, then the error will be
#      triggered only if the query returns at least one row.
#      For any other type of statement the number of rows affected is not checked.
LoadPromotions.post-load.50002.query=                                               \
    SELECT 1 FROM %{YA_DUAL}%                                                        \
    WHERE exists (SELECT 1 FROM planned_promos_tbl                                   \
                   WHERE end_dt >= %{YA_TO_DATE/'2050-01-01'/'YYYY-MM-DD'}%)
```

Error Handling Report

The standard load validates the data prior to loading the data into the target tables.

A customizable view, pl_load_status_vw, provides a report on the status of data validations. This view has the following default attributes:

Attribute	Description
LOAD_PROCEDURE	The specific load procedure used
SOURCE	The staging table
DATA_VALIDATION_STATUS	Success - The number of failed records is less than the threshold set or Failure - The number or failed records exceeds the threshold set
NUM_BAD_RECORDS	The number of failed records in the failed record table

Here is an excerpt from a sample validation report:

Table 3–5   Sample Standard Load Data Validation Report - Excerpt

LOAD_PROCEDURE	SOURCE	DATA_VALIDATION_STATUS	NUM_BAD_RECORDS
LoadLocationHierarchyTbl	ASH_LH_TBL	Success	0
LoadCalendars	ASH_CAL_TBL	Success	0
LoadLocationHierarchy	ASH_LH_CDA_TBL	Success	0
LoadMerchandiseHierarchy	ASH_MH_CDA_TBL	Success	0
LoadLHKeyRename	ASH_LHRENAME_TBL	Success	0
LoadMHKeyRename	ASH_MHRENAME_TBL	Failure	20

To generate an output file that can be emailed to interested users or integrated into production scripts, use the following script. The script writes to the standard output, which can be redirected to a file. Note that the optional WHERE clause, including the WHERE keyword itself, should be enclosed in quotes.

bash pl_load_status.sh -r *<configroot>* **-w** *<whereclause>*

where

-r DIR	--configroot=DIR	The configuration root directory
-w WHERE	--whereclause=WHERE	An optional clause used to filter specific information in the report
-h	--help	Displays help and exits

Standard Load Error Messages

The following are the error messages that may be generated during the standard load procedure.

Table 3–6   Standard Load Error Messages

Number	Error Message
System Errors	
0	The program has completed successfully.
10	An unspecified error has occurred.

Table 3–6   (Cont.) Standard Load Error Messages

Number	Error Message
20	An SQL exception has occurred.
30	A Java exception has occurred.
40	The exception limit has been exceeded.
50	The specified error threshold has been exceeded in this load procedure.
Common Errors	
100	At least one node in the hierarchy has more than one parent.
101	The number of levels in the levels table does not match the data from the source table.
102	The CHAIN level does not exist in the target table.
104	The levels table is empty.
105	The sequence for the CHAIN level should be defined as 1 in the levels table.
106	At least one node in the hierarchy has more than one hierarchy ID or description.
Incremental Batch Multi Operation Errors	
111	More than one operation is specified on a node.
JDBCHelper Errors	
150	STATOPER password was not registered in the application.
151	Failed to decrypt STATOPER password.
152	At least one table being requested for RUNSTATS does not exist.
153	RUNSTATS failed against at least one table.
Load CH Levels Errors	
200	The cross-products information table (ASH_CP_TBL) does not have all the required records.
201	Mandatory columns in the cross-products information table (ASH_CP_TBL) contain null values.
202	A duplicate INTERSECT_NAME has been found in the cross-products information table (ASH_CP_TBL).
203	Invalid attribute values have been found in the cross-products information table (ASH_CP_TBL).
204	The cross-products information table (ASH_CP_TBL) is empty.
205	In the cross-products information table (ASH_CP_TBL), at least one merchandise level has a value of NULL. A merchandise level cannot have a value of NULL.
206	In the cross-products information table (ASH_CP_TBL), at least one location level has a value of NULL. A location level cannot have a value of NULL.
Load Calendars Errors	
1000	In the calendar table (ASH_CAL_TBL), at least one fiscal year does not have between 52 and 53 weeks.
1001	In the calendar table (ASH_CAL_TBL), at least one fiscal year does not include twelve fiscal months.

Table 3–6   (Cont.) Standard Load Error Messages

Number	Error Message
1002	In the calendar table (ASH_CAL_TBL), at least one fiscal week has an End of Period (EOP) that is not Saturday.
1003	In the calendar table (ASH_CAL_TBL), at least one fiscal month is not in the range 1 - 12.
1004	In the calendar table (ASH_CAL_TBL), at least one fiscal week is not in the range 1 -53.
1005	In the calendar table (ASH_CAL_TBL), at least one fiscal year has a value of NULL. A fiscal year cannot have a value of NULL.
1006	In the calendar table (ASH_CAL_TBL), at least one fiscal month has a value of NULL. A fiscal month cannot have a value of NULL.
1007	In the calendar table (ASH_CAL_TBL), at least one fiscal week has a value of NULL. A fiscal week cannot have a value of NULL.
1008	In the calendar table (ASH_CAL_TBL), at least one fiscal season has a value of NULL. A fiscal season cannot have a value of NULL.
1009	In the calendar table (ASH_CAL_TBL), at least one End of Period (EOP) has a value of NULL. A End of Period (EOP) cannot have a value of NULL.
1010	In the calendar table (ASH_CAL_TBL), at least one fiscal quarter has a value of NULL. A fiscal quarter cannot have a value of NULL.
1011	In the calendar table (ASH_CAL_TBL), at least one week end day does not match the existing week end day.
1012	Week End Day is NULL.
1013	Week Begin Day is NULL.
Load Markdowns Taken Errors	
1100	In the markdowns taken table (ASH_MDTAKEN_TBL), if price value type is 'PO' or 'PT', then the price percent off value has to be a non-negative fraction and the price point value has to be null. If the price value type is 'PP', then the price point value has to be a non-negative number and the price percent off value has to be null.
1101	In the markdowns taken table (ASH_MDTAKEN_TBL), only one markdown can be loaded for a unique combination of merchandise, location, and effective date.
1102	In the markdowns taken table (ASH_MDTAKEN_TBL), at least one merchandise key has a value of NULL. A merchandise key cannot have a value of NULL.
1103	In the markdowns taken table (ASH_MDTAKEN_TBL), at least one location key has a value of NULL. A location key cannot have a value of NULL.
1104	In the markdowns taken table (ASH_MDTAKEN_TBL), at least one effective date has a value of NULL. An effective date cannot have a value of NULL.
1105	In the markdowns taken table (ASH_MDTAKEN_TBL), at least one accounting type is either null or has a value that is not allowed. Acceptable values are TEMP or PERM.
1106	In the markdowns taken table (ASH_MDTAKEN_TBL), at least one price value type is either null or has a value that is not allowed. Acceptable values are PT, PO, or PP.
1107	The MERCHANDISE_KEY in the markdowns taken table (ASH_MDTAKEN_TBL) is not at the optimization level.

Table 3–6   (Cont.) Standard Load Error Messages

Number	Error Message
1108	The LOCATION_KEY in the markdowns taken table (ASH_MDTAKEN_TBL) is not at the optimization level.
1109	In the markdowns taken table (ASH_MDTAKEN_TBL), at least one MARKDOWN_TYPE has a value of NULL. Markdown Type cannot have a value of NULL.
1110	The MERCHANDISE_KEY in the markdowns taken table (ASH_MDTAKEN_TBL) is not at the required level (COLOR of STYLE).
1111	In the markdowns taken table (ASH_MDTAKEN_TBL), at least on price value type is either NULL or has a value that is not allowed. Acceptable values are PP, PT, PO, AT, or AO.
1112	In the markdowns taken table (ASH_MDTAKEN_TBL), at least one merchandise level has a value of NULL. A merchandise level cannot have a value of NULL.
Load Location Hierarchy Errors	
1500	In the location hierarchy CDA staging table (ASH_LH_CDA_TBL), at least one location key has a value of NULL. A location key cannot have a value of NULL.
1501	In the location hierarchy CDA staging table (ASH_LH_CDA_TBL), at least one location level has a value of NULL. A location level cannot have a value of NULL.
1502	In the location hierarchy levels table (ASH_LHL_TBL), at least one location level has a value of NULL. A location level cannot have a value of NULL.
1503	In the location hierarchy levels table (ASH_LHL_TBL), at least one level sequence level has a value of NULL. A level sequence cannot have a value of NULL.
1504	In the location hierarchy levels table (ASH_LHL_TBL) the entries in LEVEL_SQC are not sequential.
1505	The location hierarchy levels table (ASH_LHL_TBL) should have sequence starting with 1.
1506	In the location hierarchy levels table (ASH_LHL_TBL), CHAIN is not assigned a sequence value (LEVEL_SQC) of 1.
1507	In the merchandise hierarchy table (ASH_MH_TBL), null values were detected in the hierarchy stage key columns.
Load Location Hierarchy Key Rename Errors	
1600	In the location hierarchy rename table (ASH_LHRENAME_TBL), at least one old location key has a value of NULL. A location key cannot have a value of NULL.
1601	In the location hierarchy rename table (ASH_LHRENAME_TBL), at least one new location key has a value of NULL. A location key cannot have a value of NULL.
1602	In the location hierarchy rename table (ASH_LHRENAME_TBL), at least one location level has a value of NULL. A location level cannot have a value of NULL.
1603	The old location key in the location hierarchy rename table (ASH_LHRENAME_TBL) contains duplicate values.
1604	The new location key in the location hierarchy rename table (ASH_LHRENAME_TBL) contains duplicate values.

Table 3–6   (Cont.) Standard Load Error Messages

Number	Error Message
1605	The new location key in the location hierarchy rename table (ASH_LHRENAME_TBL) is already present in the location hierarchy.
Load Pack Hierarchy Errors	
1700	In the pack hierarchy table (ASH_PH_TBL), null values were detected in the hierarchy stage key columns.
1701	While an incremental feed was being processed, a record for an existing pack was found in the pack hierarchy table (ASH_PH_TBL).
1702	Empty pack found.
Load Pack Hierarchy Levels Errors	
1800	In the pack hierarchy levels table (ASH_PHL_TBL), at least one pack level has a value of NULL. A pack level cannot have a value of NULL.
1801	In the pack hierarchy levels table (ASH_PHL_TBL), at least one level sequence has a value of NULL. A level sequence cannot have a value of NULL.
1802	In the pack hierarchy levels table (ASH_PHL_TBL) the entries in LEVEL_SQC are not sequential.
1803	The pack hierarchy levels table (ASH_PHL_TBL) should have a sequence starting with 1.
1804	In the pack hierarchy levels table (ASH_PHL_TBL), CHAIN is not assigned a sequence value (LEVEL_SQC) of 1.
Load Pack Contents Errors	
1900	In the pack contents table (ASH_PACK_CONTENTS_TBL), at least one INSIDE_UNITS has a negative value. An INSIDE_UNITS cannot have a negative value.
1901	In the pack contents table (ASH_PACK_CONTENTS_TBL), at least one merchandise key has a value of NULL. A merchandise key cannot have a value of NULL.
1902	In the pack contents table (ASH_PACK_CONTENTS_TBL), at least one pack key has a value of NULL. A pack key cannot have a value of NULL.
1903	In the pack contents table (ASH_PACK_CONTENTS_TBL), at least one INSIDE_UNITS has a value of NULL. An INSIDE_UNITS cannot have a value of NULL.
1904	In the pack contents table (ASH_PACK_CONTENTS_TBL), at least one EACH_FLAG has a value of NULL. An EACH_FLAG cannot have a value of NULL.
1905	A record in the pack contents table (ASH_PACK_CONTENTS_TBL) contains merchandise that is not found on the lowest level of the merchandise hierarchy.
1906	A record in the pack contents table (ASH_PACK_CONTENTS_TBL) contains a pack that is not found on the lowest level of the pack hierarchy.
1907	After the data was processed, at least one merchandise record does not have a pack assigned to it.
1908	During the processing of an incremental feed, a record for an existing pack was found in the pack contents table (ASH_PACK_CONTENTS_TBL).

Table 3–6   (Cont.) Standard Load Error Messages

Number	Error Message
Load Merchandise Hierarchy Errors	
2001	NOT NULL has already been set for the merchandise hierarchy table (ASH_MH_TBL) stage key columns.
2002	In the merchandise hierarchy table (ASH_MH_TBL), an error dropping the unique index occurred.
2501	In the merchandise hierarchy table (ASH_MH_TBL), null values were detected in the hierarchy stage key columns.
2502	The merchandise hierarchy levels table (ASH_MHL_TBL) is empty.
2503	In the merchandise hierarchy levels table (ASH_MHL_TBL) the entries in LEVEL_SQC are not sequential.
2504	The merchandise hierarchy levels table (ASH_MHL_TBL) contains an entry for LEVEL_SQC with a value < 1.
2505	In the merchandise hierarchy levels table (ASH_MHL_TBL), CHAIN is not assigned a sequence value (LEVEL_SQC) of 1.
2506	The merchandise hierarchy staging table contains duplicate values at the lowest key level.
2507	The merchandise hierarchy table (ASH_MH_TBL) contains a child node with more than one parent node.
2508	The merchandise hierarchy cda staging table (ASH_MH_CDA_TBL) contains at least one combination of MERCHANDISE_KEY and MERCHANDISE_LEVEL that is not unique.
2509	In the merchandise hierarchy CDA staging table (ASH_MH_CDA_TBL), at least one merchandise key has a value of NULL. A merchandise key cannot have a value of NULL.
2510	The merchandise hierarchy rename table (ASH_MHRENAME_TBL) contains duplicate values for OLD_MERCHANDISE_KEY.
2511	In the merchandise hierarchy levels table (ASH_MHL_TBL), at least one merchandise level has a value of NULL. A merchandise level cannot have a value of NULL.
2512	In the merchandise hierarchy levels table (ASH_MHL_TBL), at least one level sequence level has a value of NULL. a level sequence cannot have a value of NULL.
Load Client Hierarchy Actions Errors	
2513	In the client hierarchy actions table (CLIENT_HIERARCHY_ACTIONS_TBL), CHAIN is not present in ACTION_NAME for HIER1_LEVEL_SQC = 1 and HIER1_TYPE = 'MERCHANDISE'.
2514	In the client hierarchy actions table (CLIENT_HIERARCHY_ACTIONS_TBL), CHAIN is not present in ACTION_NAME for HIER2_LEVEL_SQC = 1 and HIER2_TYPE =' LOCATION'.
2515	In the client hierarchy actions table (CLIENT_HIERARCHY_ACTIONS_TBL), CHAIN is not present in ACTION_NAME for HIER3_LEVEL_SQC = 1 and HIER3_TYPE =' PERIOD'.
2516	In the client hierarchy actions table (CLIENT_HIERARCHY_ACTIONS_TBL), CHAIN is not present in ACTION_NAME for HIER4_LEVEL_SQC = 1 and HIER4_TYPE =' PACK'.
Merchandise Incremental Load Errors	
2550	The merchandise hierarchy table (ASH_MH_TBL) contains a node that has been reclassified.

Table 3–6   (Cont.) Standard Load Error Messages

Number	Error Message
Load MH Key Rename Errors	
2600	In the merchandise hierarchy rename table (ASH_MHRENAME_ TBL), at least one old merchandise key has a value of NULL. A merchandise key cannot have a value of NULL.
2601	In the merchandise hierarchy rename table (ASH_MHRENAME_ TBL), at least one new merchandise key has a value of NULL. A merchandise key cannot have a value of NULL.
2602	In the merchandise hierarchy rename table (ASH_MHRENAME_ TBL), at least one merchandise level has a value of NULL. A merchandise level cannot have a value of NULL.
2603	The old merchandise key in the merchandise hierarchy rename table (ASH_MHRENAME_TBL) contains duplicate values.
2604	The new merchandise key in the merchandise hierarchy rename table (ASH_MHRENAME_TBL) contains duplicate values.
2605	The new merchandise key in the merchandise hierarchy rename table (ASH_MHRENAME_TBL) is already present in the merchandise hierarchy.
Load Size Profiles Errors	
2700	In the size profiles table (STAGE_SIZE_PROF_MAPS_TBL), at least one merchandise key has a value of NULL. A merchandise key cannot have a value of NULL.
2701	In the size profiles table (STAGE_SIZE_PROF_MAPS_TBL), at least one merchandise level has a value of NULL. A merchandise level cannot have a value of NULL.
2702	In the size profiles table (STAGE_SIZE_PROF_MAPS_TBL), at least one location key has a value of NULL. A location key cannot have a value of NULL.
2703	In the size profiles table (STAGE_SIZE_PROF_MAPS_TBL), at least one location level has a value of NULL. A location level cannot have a value of NULL.
2704	In the size profiles table (STAGE_SIZE_PROF_MAPS_TBL), at least one order sequence has a value of NULL. An order sequence cannot have a value of NULL.
2705	A record in the size profiles table (STAGE_SIZE_PROF_MAPS_TBL) contains merchandise that is not found in the merchandise hierarchy.
2706	A record in the size profiles table (STAGE_SIZE_PROF_MAPS_TBL) contains a location that is not found in the location hierarchy.
2707	A record in the size profiles table (STAGE_SIZE_PROF_MAPS_TBL) contains a curve ID that is not found in the curve definition table (STAGE_SIZE_PROF_CURVES_TBL).
2708	In the size profiles table (STAGE_SIZE_PROF_MAPS_TBL), at least one curve ID has a value of NULL. A curve ID cannot have a value of NULL.
2709	After the data was processed, at least one merchandise/location intersection was found without a Size Profile Curve.
2710	The loading of the locations in the size profiles table (STAGE_SIZE_ PROF_MAPS_TBL) was not completed.
Load Size Range Errors	

Table 3–6 (Cont.) Standard Load Error Messages

Number	Error Message
2750	In the size range table (STAGE_SIZE_RANGE), a least one size range key has a value of NULL. A size range key cannot have a value of NULL.
2751	In the size range table (STAGE_SIZE_RANGE), a least one size key key has a value of NULL. A size key cannot have a value of NULL.
2752	In the size range table (STAGE_SIZE_RANGE), a least one size range desc has a value of NULL. A size range desc cannot have a value of NULL.
2753	In the size range table (STAGE_SIZE_RANGE), a least one size desc has a value of NULL. A size desc cannot have a value of NULL.
2754	In the size range table (STAGE_SIZE_RANGE), a least one size ID has a value of NULL. A size ID cannot have a value of NULL.
2755	In the size range table (STAGE_SIZE_RANGE), a least one size rank has a value of NULL. A size rank cannot have a value of NULL.
Load Size Range Intraday Errors	
2756	Null value found in STAGE_SIZE_RANGE for key not null columns in this set.
2757	Size range key already present in SIZE_RANGES_TBL.
2758	Size rank column has duplicate values in this set.
Load LSDs Errors	
2800	In the location spread distribution table (STAGE_LSD_CONFIG_TBL), at least one merchandise key has a value of NULL. A merchandise key cannot have a value of NULL.
2801	In the location spread distribution table (STAGE_LSD_CONFIG_TBL), at least one merchandise level has a value of NULL. A merchandise level cannot have a value of NULL.
2802	In the location spread distribution table (STAGE_LSD_CONFIG_TBL), at least one location key has a value of NULL. A location key cannot have a value of NULL.
2803	In the location spread distribution table (STAGE_LSD_CONFIG_TBL), at least one location level has a value of NULL. A location level cannot have a value of NULL.
2804	In the location spread distribution table (STAGE_LSD_CONFIG_TBL), at least one order sequence has a value of NULL. An order sequence cannot have a value of NULL.
2805	A record in the location spread distribution table (STAGE_LSD_CONFIG_TBL) contains merchandise that is not found in the merchandise hierarchy.
2806	A record in the location spread distribution table (STAGE_LSD_CONFIG_TBL) contains a location that is not found in the location hierarchy.
2807	After the data was processed, at least one merchandise/location intersection without an LSD weight was found.
2808	The loading of the locations in the location spread distribution table (STAGE_LSD_CONFIG_TBL) was not completed.

Table 3–6   (Cont.) Standard Load Error Messages

Number	Error Message
Load Prepack Errors	
2900	In the prepack table (STAGE_PREPACK_MAPS_TBL), at least one merchandise key has a value of NULL. A merchandise key cannot have a value of NULL.
2901	In the prepack table (STAGE_PREPACK_MAPS_TBL), at least one merchandise level has a value of NULL. A merchandise level cannot have a value of NULL.
2902	In the prepack table (STAGE_PREPACK_MAPS_TBL), at least one order sequence has a value of NULL. An order sequence cannot have a value of NULL
2903	A record in the prepack table (STAGE_PREPACK_MAPS_TBL) contains merchandise that is not found in the merchandise hierarchy.
2904	A record in the prepack table (STAGE_PREPACK_MAPS_TBL) contains a configuration ID that is not found in the configuration definition table (STAGE_PREPACK_VALUES_TBL).
2905	In the prepack table (STAGE_PREPACK_MAPS_TBL), at least one configuration ID has a value of NULL. A configuration ID cannot have a value of NULL
Load Volume Groups Errors	
3200	In STG_VOLUME_GRPS_TBL, the merchandise key and the merchandise level do not exist.
3201	In STG_VOLUME_GRPS_TBL, the location key does not exist.
3202	In STG_VOLUME_GRPS_TBL, there are duplicate locations under a primary VG set.
3203	In STG_VOLUME_GRPS_TBL, there are duplicate locations under a current VG set.
3204	In STG_VOLUME_GRPS_TBL, the current volume group has a duplicate set description.
3205	In STG_VOLUME_GRPS_TBL, multiple primary volume group sets exist.
3206	In STG_VOLUME_GRPS_TBL, the primary volume group set is defined at the wrong level.
3207	In STG_VOLUME_GRPS_TBL, the number of volume groups in the primary volume group set is not the same.
	In STG_VOLUME_GRPS_TBL, some primary volume group sets have an overlapping plan period.
3209	In STG_VOLUME_GRPS_TBL, some primary volume group sets have an aggregation period that is not in the range of the plan period.
3210	In STG_VOLUME_GRPS_TBL, a primary volume group set has different aggregation periods.
3211	In STG_VOLUME_GRPS_TBL, the current volume group set has vg_set_desc as NULL.
Store Budget Generation Errors	
3450	In STAGE_BUDGET_PLAN_TBL, a least one merchandise key combined with level description is invalid.

Table 3–6   (Cont.) Standard Load Error Messages

Number	Error Message
3451	In STAGE_BUDGET_PLAN_TBL, at least one location key combined with level description is invalid.
3452	In STAGE_BUDGET_PLAN_TBL, at least one fiscal year and month does not exist in PERIODS_TBL.
3453	There is no matched store ratio.
Load BRM Rules Errors	
3801	The BRM_RULE_DEFINITION_TBL is empty and needs to be populated.
Load BR Instances Errors	
4100	A business rule cannot have more than one value definition (BRM_VALUE_DEFINITIONS_TBL) defined. Multi-valued business rules are not supported.
4101	A business rule key (RULE_NAME, MERCHANDISE_LEVEL, LOCATION_LEVEL, ATTRIB1_VALUE, ATTRIB2_VALUE) in the business rules staging table (ASH_BRM_INSTANCE_TBL) is not legal.
4102	A business rule value (RULE_VALUE) in the business rules staging table (ASH_BRM_INSTANCE_TBL) is not in the permissible range.
4103	A business rule value (RULE_VALUE) in the business rules staging table (ASH_BRM_INSTANCE_TBL) is not in the permissible enumeration.
4104	No business rule definitions exist in table (BRM_RULE_DEFINITION_TBL).
4105	In the business rule staging table (ASH_BRM_INSTANCE_TBL), at least one merchandise key has a value of NULL. A merchandise key cannot have a value of NULL.
4106	In the business rule staging table (ASH_BRM_INSTANCE_TBL), at least one merchandise level has a value of NULL. A merchandise level cannot have a value of NULL.
4107	In the business rule staging table (ASH_BRM_INSTANCE_TBL), at least one location key has a value of NULL. A location key cannot have a value of NULL.
4108	In the business rule staging table (ASH_BRM_INSTANCE_TBL), at least one location level has a value of NULL. A location level cannot have a value of NULL.
4109	In the business rule staging table (ASH_BRM_INSTANCE_TBL), at least one rule name has a value of NULL. A rule name cannot have a value of NULL.
4110	A record in the business rule staging table (ASH_BRM_INSTANCE_TBL) contains merchandise that is not found in the merchandise hierarchy.
4111	A record in the business rule staging table (ASH_BRM_INSTANCE_TBL) contains a location that is not found in the location hierarchy.
4112	A record in the business rule staging table (ASH_BRM_INSTANCE_TBL) contains merchandise that is not found in the merchandise hierarchy.
Load MHTbl Errors	
3541	MERCHANDISE_HIERARCHY_TBL is empty - reuse.

Table 3–6   (Cont.) Standard Load Error Messages

Number	Error Message
6101	The MERCHANDISE_HIERARCHY_TBL table has no CHAIN record (where PARENT_MERCHANDISE_ID is NULL).
6102	The MERCHANDISE_HIERARCHY_TBL table has more than one record with PARENT_MERCHANDISE_ID = NULL (multiple CHAIN records).
Load Plan APC Demand Parameters Errors	
8151	Merchandise key in STAG_APC_PARAMETER_CFG_TBL cannot be NULL.
8152	Merchandise level in STAG_APC_PARAMETER_CFG_TBL cannot be NULL.
8153	Location key in STAG_APC_PARAMETER_CFG_TBL cannot be NULL.
8154	Location level in STAG_APC_PARAMETER_CFG_TBL cannot be NULL.
8155	Attribute mask in STAG_APC_PARAMETER_CFG_TBL cannot be NULL.
8156	Parameter name in STAG_APC_PARAMETER_CFG_TBL cannot be NULL.
8157	Merchandise found in STAG_APC_PARAMETER_CFG_TBL does not exist in MERCHANDISE_HIERARCHY_TBL.
8158	Location found in STAG_APC_PARAMETER_CFG_TBL does not exist in LOCATION_HIERARCHY_TBL.
Load Seasonalities Errors	
8301	Merchandise key in ASH_SEASONALITY_MAPS_TBL cannot be NULL.
8302	Merchandise level in ASH_SEASONALITY_MAPS_TBL cannot be NULL.
8303	Location key in ASH_SEASONALITY_MAPS_TBL cannot be NULL.
8304	Location level in ASH_SEASONALITY_MAPS_TBL cannot be NULL.
8305	Merchandise found in ASH_SEASONALITY_MAPS_TBL that does not exist in MERCHANDISE_HIERARCHY_TBL.
8306	Location found in ASH_SEASONALITY_MAPS_TBL that does not exist in LOCATION_HIERARCHY_TBL.
8307	NULL priority found.
8308	NULL seasonality ID found in maps.
8309	NULL seasonality ID found in values.
8310	NULL calendar date found.
Load Optimized History Errors	
9700	MERCHANDISE_KEY in OPT_HISTORY_STAGE_TBL cannot be NULL.
9701	MERCHANDISE_LEVEL in OPT_HISTORY_STAGE_TBL cannot be NULL.
9702	LOCATION_KEY in OPT_HISTORY_STAGE_TBL cannot be NULL.

Table 3–6   (Cont.) Standard Load Error Messages

Number	Error Message
9703	LOCATION_LEVEL in OPT_HISTORY_STAGE_TBL cannot be NULL.
9704	FISCAL_YR in OPT_HISTORY_STAGE_TBL cannot be NULL.
9705	FISCAL_WK in OPT_HISTORY_STAGE_TBL cannot be NULL.
9706	MERCHANDISE_KEY in OPT_HISTORY_STAGE_TBL is not a valid key.
9707	LOCATION_KEY in OPT_HISTORY_STAGE_TBL is not a valid key.
9708	FISCAL_YR and FISCAL_WK data in OPT_HISTORY_STAGE_TBL is not valid.
Load Promotion Corporate Lift Errors	
9801	Merchandise key in STAGE_BASE_LIFT_CONFIG_TBL cannot be NULL.
9802	Merchandise level in STAGE_BASE_LIFT_CONFIG_TBL cannot be NULL.
9803	Location key in STAGE_BASE_LIFT_CONFIG_TBL cannot be NULL.
9804	Location level in STAGE_BASE_LIFT_CONFIG_TBL cannot be NULL.
9805	Attribute mask in STAGE_BASE_LIFT_CONFIG_TBL cannot be NULL.
9806	Historic PROMO_ID found in STAGE_BASE_LIFT_CONFIG_TBL that does not exist in PLANNED_CHAIN_PROMOS_TBL.
9807	Merchandise found in STAGE_BASE_LIFT_CONFIG_TBL that does not exist in MERCHANDISE_HIERARCHY_TBL.
9808	Location found in STAGE_BASE_LIFT_CONFIG_TBL that does not exist in LOCATION_HIERARCHY_TBL.
Load Promotion Attribute Lift Errors	
9851	Merchandise key in STAGE_RELATIVE_LIFT_CONFIG_TBL cannot be NULL.
9852	Merchandise level in STAGE_RELATIVE_LIFT_CONFIG_TBL cannot be NULL.
9853	Location key in STAGE_RELATIVE_LIFT_CONFIG_TBL cannot be NULL.
9854	Location level in STAGE_RELATIVE_LIFT_CONFIG_TBL cannot be NULL.
9855	Attribute mask in STAGE_RELATIVE_LIFT_CONFIG_TBL cannot be NULL.
9856	Merchandise found in STAGE_RELATIVE_LIFT_CONFIG_TBL that does not exist in MERCHANDISE_HIERARCHY_TBL.
9857	Location found in STAGE_RELATIVE_LIFT_CONFIG_TBL that does not exist in LOCATION_HIERARCHY_TBL.
Load Outer DC Mapping Errors	
9900	A record in STAGE_OUTER_DC_MAPPINGS_TBL contains a distribution center that is not found in DIST_CENTERS_TBL.

Table 3–6   (Cont.) Standard Load Error Messages

Number	Error Message
9901	A record in STAGE_OUTER_DC_MAPPINGS_TBL contains merchandise that is not found in the merchandise hierarchy at the planning level.
9902	A record in STAGE_OUTER_DC_MAPPINGS_TBL contains a location that is not found in the location hierarchy at the store level.
9903	More than one record in STAGE_OUTER_DC_MAPPINGS_TBL has the same combination of merchandise, location, and distribution center.
Load Volume Group Generator Errors	
9910	MERCHANDISE_KEY in STAG_PLAN_PERIOD_RANKS_TBL is not valid.
9911	FISCAL_MO_FROM an/or FISCAL_MO_TO in STAG_PLAN_ PERIOD_RANKS_TBL is not valid.

Standard Dataset

The Plan standard dataset is a set of raw data provided in 38 flat files with Plan that

- is shipped with Plan and is copied into the installation directory

- is not loaded by default

- cannot be modified

- contains only valid data, so no validation errors should occur during the standard load

- provides data that is sufficient to verify the installation of the application, to support demonstration and customer training on the application, and to be used as the smoke-test dataset for automation

- provides data that can be loaded using the standard load procedures

- provides data sufficient to permit the launching of the Plan application and invoke the Plan UI without any additional configuration

- does not provide any error conditions

- uses the default error threshold settings for data validation. This permits the dataset to fail on any validation error. All invalidated rows are store in appropriate "BAD" staged table.

- requires that an empty schema be created before the data is loaded (part of the standard installation)

- the loading of the sample dataset requires that Plan.sh be executed after the empty schema is created.

- dataset data is validated using published load validations

Sample Dataset Data

The data in the sample dataset consists of two divisions. Each division contains eight departments. The departments include 300 SKUs in the merchandise hierarchy and 25 stores in the location hierarchy. Full merchandise and location hierarchies are built: CHAIN through SKU for merchandise and CHAIN through STORE for location. The hierarchy structure is not configurable.

The sample dataset includes historical sales data that is loaded by default. It contains 118 weeks of historical data. The load scripts also load historical sales information for additional weeks between the last week of sales in wk_hist_sales_inv.dat and the current week. This ensures that historical sales are up-to-date and results in more relevant and useful forecast results from the sample dataset.

Optimized historical data is also included but is not installed by default. The user is prompted to install the optimized history.

The RDM data is not loaded by default.

For information about loading the sample dataset, see the *Plan Installation Guide*.