

# **Oracle Utilities Operational Device Management**

Configuration Guide

Release 2.0.1 Service Pack 1

**E35354-03**

June 2013

Oracle Utilities Operational Device Management Configuration Guide, Release 2.0.1 Service Pack 1

E35354-03

Copyright © 2000,2013, Oracle and/or its affiliates. All rights reserved.

Primary Author: TUGBU Documentation

Contributing Author: TUGBU Documentation

Contributor: TUGBU Documentation

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this software or related documentation is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

#### U.S. GOVERNMENT RIGHTS

Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, duplication, disclosure, modification, and adaptation shall be subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License (December 2007).

Oracle America, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications which may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information on content, products and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third party content, products and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third party content, products or services.

---

---

# Contents

## Chapter 1

<b>Overview .....</b>	<b>1-1</b>
Other Documentation .....	1-2
User Documentation .....	1-2
Embedded Help	
Online Help	
Administrative Guides.....	1-2
Oracle Utilities Application Framework User Guides.....	1-3
Supplemental Documentation.....	1-3
Demonstration Examples .....	1-3
Application Overview .....	1-4
Oracle Utilities Application Framework Configuration Tools.....	1-4
“Lite” Business Objects	
Data Areas	
Algorithms	
Entity Naming Conventions	
Configuration Process Overview .....	1-6
Design Business Objects.....	1-6
Create Business Objects.....	1-6
Create Portals and Zones (as needed).....	1-7
Configure General System Settings.....	1-7
Create Data.....	1-7

## Chapter 2

<b>Data Configuration .....</b>	<b>2-1</b>
Setup Sequence .....	2-2
Administration Data Setup.....	2-3
Business Object Setup.....	2-3
Assets and Components	
Asset Replication	
Completion Event Types	
Service History Types	
Specifications and Child Specifications	
Extendable Lookups	
Extending Asset Statuses	
Application Framework Setup .....	2-4
Administrative Data Setup.....	2-5
Master Data Setup .....	2-6

## Chapter 3

<b>System Objects in Detail.....</b>	<b>3-1</b>
Oracle Utilities Application Framework Objects .....	3-2
Feature Configuration .....	3-2
Installation Options .....	3-2

---

Base Time Zone	
Installation Algorithms	
Master Configuration.....	3-4
Hijri to Gregorian Date Mapping	
Master Data Synchronization Configuration	
Seeder Sync Master Configuration	
Status Reason .....	3-4
Time Zone.....	3-5
To-Do Role and To Do Type .....	3-5
Master Data Objects .....	3-6
Activity Objects.....	3-6
Activity Configuration Notes	
Asset Replication Activity Configuration	
Activity Maintenance Object Details	
Base Package Activity Business Objects	
Example Activity - W1-LocalActivityCore	
Asset Objects .....	3-8
Asset Configuration Notes	
Asset Maintenance Object Details	
Base Package Asset Business Objects	
Example Asset - W1-InOutSvcAsset	
Bucket Configuration Objects.....	3-10
Bucket Configuration Maintenance Object Details	
Base Package Bucket Configuration Business Objects	
Example Bucket Configuration - W1-AssetAgeBktConfig	
Child Specification Objects .....	3-12
Child Specification Maintenance Object Details	
Base Package Child Specification Business Objects	
Example Child Specification - W1-ChildSpecPhysicalBO	
Completion Event Objects.....	3-12
Completion Event Configuration Notes	
Completion Event Maintenance Object Details	
Base Package Completion Event Business Objects	
Example Completion Event - W1-CompletionEventRoot	
Communication In Objects .....	3-14
Inbound Communication Configuration Notes	
Inbound Communication Maintenance Object Details	
Base Package Inbound Communication Business Objects	
Example Inbound Communication	
Configuration Objects.....	3-16
Configuration Notes	
Configuration Maintenance Object Details	
Base Package Configuration Business Objects	
Example Configuration - W1-Config	
Configuration Report Objects.....	3-18
Configuration Report Maintenance Object Details	
Base Package Configuration Report Business Objects	
Example Configuration Report - W1-ConfigReport	
Contact Objects.....	3-19
Contact Configuration Notes	
Contact Maintenance Object Details	
Base Package Contact Business Objects	
Example Contact- W1-Person	
Manufacturer Objects.....	3-20
Manufacturer Configuration Notes	
Manufacturer Maintenance Object Details	
Base Package Manufacturer Business Objects	

Example Manufacturer- W1-Manufacturer	
Node Objects.....	3-21
Node Configuration Notes	
Node Maintenance Object Details	
Base Package Node Business Objects	
Example Node- W1-AssetLocation	
Outbound Message Objects .....	3-22
Outbound Message Configuration Notes	
Outbound Message Maintenance Object Details	
Base Package Outbound Message Business Objects	
Example Outbound Message- W1-NdAsAttToAsOutboundMessage	
Specifications Objects .....	3-23
Specification Configuration Notes	
Specification Maintenance Object Details	
Base Package Specification Business Objects	
Example Specification - W1-Specification	
Service History Objects.....	3-25
Service History Configuration Notes	
Service History Maintenance Object Details	
Base Package Service History Business Objects	
Example Service History - W1-ServiceHistory	
Work Order Objects.....	3-26
Work Order Configuration Notes	
Work Order Maintenance Object Details	
Base Package Work Order Business Objects	
Example Work Order - W1-BasicWorkOrder	
Administrative Data Objects .....	3-28
Activity Type Objects.....	3-29
Base Package Activity Type Business Objects	
Example Activity Type - W1-BasicActivityType	
Asset Type Objects.....	3-30
Base Package Asset Type Business Objects	
Example Asset Type - W1-AssetType	
Completion Event Type Objects.....	3-31
Base Package Completion Event Type Business Objects	
Example Completion Event Type- W1-ActivityCompletionEventType	
Communication Type Objects.....	3-32
Base Package Communication Type Business Objects	
Example Communication Type- W1-GeneralCommunicationType	
Configuration Type Objects.....	3-34
Base Package Configuration Type Business Objects	
Example Configuration Type- W1-ConfigType	
Contact Type Objects.....	3-35
Base Package Contact Type Business Objects	
Example Contact Type- W1-ContactType	
Node Type Objects.....	3-36
Base Package Node Type Business Objects	
Example Node Type- W1-AssetLocationType	
Service History Type Objects.....	3-37
Base Package Service History Business Objects	
Example Service History Type - W1-ServiceHistoryType	
Base Package Data Areas.....	3-38
Base Package Extendable Lookups.....	3-43

## Chapter 4

Integrating with Other Systems.....	4-1
About Integrations .....	4-2

---

Integrated Functionality .....	4-2
Defining the External System .....	4-3
Data Synchronization .....	4-3
Types of Requests	
Initial Synchronization Requests	
Ongoing Synchronization Requests	
Composite Synchronization Requests	
Base Package Synchronization Request Business Objects	
Master Configurations	
Batch Controls	
Batch Scheduling	
XAI Inbound Services	
Understanding Synchronization Request Processing	
Specific Product Integrations.....	4-12
Integration with Oracle Utilities Meter Data Management .....	4-12
Integration with Oracle Utilities Advanced Spatial Analytics .....	4-12
<b>Appendix A</b>	
<b>Batch Controls .....</b>	<b>A-1</b>
About Monitors .....	A-2
Non-Timed Monitors .....	A-2
Timed Monitors.....	A-2
Synchronization Requests .....	A-2
Base Package Batch Controls.....	A-3
<b>Appendix B</b>	
<b>Configuration Migration Assistant .....</b>	<b>B-1</b>
Migration Requests.....	B-2
Data that Cannot be Exported	
Migration Plans .....	B-3

# Chapter 1

---

## Overview

This guide is intended for implementers and system administrators responsible for configuration and initial setup of the application. The purpose of this guide is to present conceptual information on how the system works and how the various configuration options affect system functionality. Implementers and system administrators should plan data setup and design customizations based on this information.

Please refer to the user's guide for detailed information on the functionality related to the configuration objects described in this guide.

When you are ready to implement your design, use [Chapter 2: Data Configuration](#) to guide you through the setup process. This chapter lists each object that can be configured, defines any prerequisites for configuration, and lists objects referenced by or associated to the object being configured.

This section includes the following:

- [Other Documentation](#)
- [Application Overview](#)
- [Configuration Process Overview](#)

## Other Documentation

The documentation available for this release includes user documentation and admin documentation. The following sections describe these guides.

This section includes the following:

- [User Documentation](#)
- [Administrative Guides](#)
- [Oracle Utilities Application Framework User Guides](#)
- [Supplemental Documentation](#)

## User Documentation

User documentation provides conceptual information and procedures related to working with the various objects used in the system, and includes the following:

- *Oracle Utilities Operational Device Management Application User Guide*

### Embedded Help

The application includes extensive internal documentation, such as:

- **System Objects** - Detailed descriptions of system objects are included in the maintenance portals for those objects.
- **Lifecycles** - The lifecycle of each business object is described on the **Lifecycle** tab and depicted in flow diagrams on the **Summary** tab. This information is extremely useful for implementers and system administrators.
- **Functional Help** - Embedded help is provided for all non-obvious fields at the UI map section level. The help content can be customized during implementation by adding custom help to the Override Help Text attribute. If a field on a UI map has associated help text, a ? icon appears next to the field when the UI map is displayed. When the user clicks this icon, the contents of the Help Text attribute (or the Override Help Text attribute, if populated) is displayed in a pop-up window.

### Online Help

The application includes context-sensitive help for all user interface screens within the system. Online help contains conceptual information and procedures related to working with the various objects used in the system.

The online help is divided into the following sections:

- Oracle Utilities Application Framework: Describes the features and functions of the application framework.
- Oracle Utilities Operational Device Management: Describes the features and functions provided in the main application.

## Administrative Guides

The administrative guides provide installation, configuration and administration guidance.

- *Oracle Utilities Operational Device Management Quick Install Guide*
- *Oracle Utilities Operational Device Management Installation Guide*
- *Oracle Utilities Operational Device Management Database Administrator's Guide*



## Oracle Utilities Application Framework User Guides

The Oracle Utilities Application Framework user guides provide information on working with the configuration tools and other Oracle Utilities Application Framework related processes needed for implementation.

- *Oracle Utilities Application Framework Business Process Guide*
- *Oracle Utilities Application Framework Administration Guide*

## Supplemental Documentation

Supplemental documentation provides technical information related to system administration tasks and include the following documents:

- *Oracle Utilities Operational Device Management Server Administration Guide*
- *Oracle Utilities Operational Device Management Batch Server Administration Guide*

## Demonstration Examples

The demonstration environment shipped with the base product provides setup examples that may be helpful as you implement your system. Please refer to the *Oracle Utilities Operational Device Management Database Administrator's Guide* for more information.

# Application Overview

The application provides functionality to handle large volumes of assets and to manage the receipt, installation, maintenance, tracking and removal of those assets. It is comprised of two functional components which are built on top of the Oracle Utilities Application Framework:

- Oracle Utilities Asset Management Base  
Provides the repository for asset information to be used by all current and future Oracle Utilities Asset Management applications.
- Oracle Utilities Operational Device Management

This section includes the following:

- [Oracle Utilities Application Framework Configuration Tools](#)

## Oracle Utilities Application Framework Configuration Tools

The Oracle Utilities Application Framework configuration tools can be used to create and customize system entities, such as business objects, portals, zones and UI maps. Refer to the *Oracle Utilities Application Framework Administration Guide* for instructions on using tools such as:

- Configuration Process Overview
- Data Areas
- Algorithms

Rather than duplicating concepts and procedures presented in the *Oracle Utilities Application Framework Administration Guide*, this documentation identifies Oracle Utilities Asset Management Base and Oracle Utilities Operational Device Management specific objects that can be configured and customized using that tool, as well as application parameters and objects that can be managed within the application components themselves.

As a configuration prerequisite, all individuals responsible for system configuration and implementation should be familiar with Oracle Utilities Application Framework and should have completed training on this tool.

The following sections provide high level descriptions on some of the key configuration tools.

### “Lite” Business Objects

When a business object is read, the Framework dynamically constructs a SQL statement to retrieve the rows and columns associated with the business object's schema. If a process only needs a small subset of the elements from a business object, a “lite” business object that only references these elements can be used.

These lite business objects are used by the business processes (typically the construction of info strings) that only need a small subset of elements. Lite business objects are configured to never allow instances. In other words, they are only used to read existing instances of other business objects.

### Data Areas

As described in the Oracle Utilities Application Framework documentation, data areas provide a common schema location for re-used schema structures. Data areas exist to help eliminate redundant element declaration. For example, if you have multiple schemas that share a common structure, you can set up a stand-alone data area schema for the common elements and then include it in each of the other schemas.

Many of the base package schemas make use of use data areas, and Oracle recommends that you take advantage of data areas where possible to avoid redundant data definition.

## Algorithms

Many functions in the system are performed using user-defined algorithms (also referred to as plug-ins). For example, user-defined algorithms can be used to perform custom validation, editing, and estimation logic, or retrieve characteristic values for factors.

Custom algorithms allow implementers to modify how the system responds to certain system events. Refer to the following for related information:

- For a list of all related system events supported in the base package refer to [Chapter 3: System Objects in Detail](#).
- For instructions on creating custom algorithms, refer to the Oracle Utilities Application Framework documentation.
- To view information about specific algorithms provided with the base system, use the **Application Viewer** (also described in the Oracle Utilities Application Framework documentation). The **Application Viewer** provides information about the base logic, inputs, and outputs of each algorithm entity or plug-in spot.

## Entity Naming Conventions

Certain naming conventions are used to identify and distinguish entities that belong to different Oracle applications. These conventions can help you locate entities and understand their context.

Each base product prefixes its entities with its 2-character owner code. For example:

- All Oracle Utilities Application Framework entities start with “F1”
- All Oracle Utilities Asset Management Base entities start with “W1”
- All Oracle Utilities Operational Device Management entities start with “W2”
- Custom entities should be prefaced with “CM”

Oracle recommends that you develop your own set of conventions for the entities you create. If you create new entities, DO NOT use these prefixes; use the prefix “CM” to identify entities that have been customized.

# Configuration Process Overview

This section provides a high-level and simplified overview of the configuration and implementation steps. For detailed steps, refer to [Chapter 2: Data Configuration](#).

This section includes the following:

- [Design Business Objects](#)
- [Create Business Objects](#)
- [Create Portals and Zones \(as needed\)](#)
- [Configure General System Settings](#)
- [Create Data](#)

## Design Business Objects

A large part of configuration is centered around the creation of business objects. Nearly every object or set of data used by the system is defined in a business object, including assets, locations, activities, and so on.

Given the prominent role that business objects play, one of the most important implementation steps is identifying the business objects you will need to create to meet the requirements of your implementation. At a high level, this includes the following:

1. Identify the data to be defined by each business object.

This step defines the maintenance object to be used with the business object, and the data elements to include in the business object's schema. Leverage data areas where possible to minimize redundant data definition.

2. Identify the processing to be performed by each business object.

This step determines the specific algorithms/algorithm types, and business services (and related scripts and service programs) that will perform the processing required by your business objects.

3. Identify how users will access and work with each business object (if applicable).

This defines the portals, zones, navigation options, BPA scripts, etc. you will need to develop to allow users access to your business objects.

## Create Business Objects

After identifying the above information, the next step is to create the business objects used in your implementation. At a high level, this includes the following steps:

1. Create configuration objects.

Before you can create business objects, you must first create the various configuration objects used by each business object, including:

- Application Services
- UI Maps (display and maintenance)
- Navigation Options
- Service Scripts
- Algorithm Types/Algorithms
- BPA Scripts/Business Service

- Other business objects
- Etc.

Where possible, leverage base package objects instead of creating your own to minimize data redundancy.

## 2. Create the business object.

Once the configuration objects used by the business object are in place, you can create the actual business object itself using the **Business Object** portal, referencing the configuration objects created in step 1 as appropriate.

Refer to the following sections for examples of base package business objects provided with the system and how to use them:

- [Chapter 3: System Objects in Detail](#)

These are provided to illustrate how the base package objects were designed, and to serve as the basis for the business objects you create as part of your implementation.

## Create Portals and Zones (as needed)

In most cases the base package portals and zones should be sufficient to meet your implementation requirements, however, you may want or need to create your own to allow users to work with your business objects. This can include creating any of the following:

- Context Menus
- Menus and Menu Items
- Navigation Keys
- Navigation Options
- Portals
- Zones

## Configure General System Settings

General system settings such as time zone, to do types and roles, feature and master configurations must be configured prior to creating data.

## Create Data

The actual core data used by the application includes the various entities used in your implementation, such as assets, locations, completion events, and so on. This data must be created in the system before you can process any activities or receive and track assets.

As mentioned, refer to [Chapter 2: Data Configuration](#) for a checklist of data to create.

Creating this data includes the following steps:

### 1. Create admin “type” data.

Most of the objects used within the system have corresponding admin “type” objects that are used to define attributes common to instances of that type of object. For example, completion even types define attributes common to completion events in a certain category such as replicating assets or creating service history.

One of the most important attributes defined by an admin “type” object is the business object that will be used for instances of the object of that type. For example, completion events created from a completion event type that references the “W1-

ServiceHistTypeCmpEvtTyp” business object will be based on that business object to create service history.

2. Create instances of the data.

Once the admin “type” data is in place, you can create the instances of the master data objects used in your implementation. These instances are the individual assets, locations, contacts, activities, etc.

# Chapter 2

---

## Data Configuration

This section provides a check list of the primary data that must be configured as part of your implementation including:

- Descriptions of all objects that must be defined as part of the setup process
- Identification of the order in which objects should be defined and any prerequisites for setup
- Identification of all objects associated with or referenced by each setup object  
This provides a useful map of the relationship between objects in the system.

For detailed information on the system objects referenced in this section, refer to [Chapter 3: System Objects in Detail](#).

This section includes the following:

- [Setup Sequence](#)
- [Administration Data Setup](#)
- [Master Data Setup](#)

---

## Setup Sequence

The sequence in which you configure system objects is very important. By following this sequence carefully, you can streamline the configuration process and reduce the amount of time required for setup.

In the setup tables that follow, the **Sequence** column displays the following codes:

- **L1** = Object has no setup prerequisites and should be defined before L2-L6 objects
- **L2** = Object has some L1 prerequisites and should be defined after all L1 objects have been defined and before L3 objects
- **L3** = Object should be defined after all L1 and L2 objects have been defined
- **L4** = Object should be defined after all L1, L2, and L3 objects have been defined
- **L5** = Object should be defined after all L1, L2, L3, and L4 objects have been defined



# Administration Data Setup

These setup tasks are typically performed by an admin user and are accessed from the admin menu. The objects are defined at implementation and then updated only as needed when system configuration or foundation data changes.

Please refer to the *Oracle Utilities Application Framework Administration Guide* for more details on using these features. For more detailed information on the functionality related to the objects described, refer to the “User Documentation” section in the online help or printed user’s guide.

This section includes the following:

- [Business Object Setup](#)
- [Application Framework Setup](#)
- [Administrative Data Setup](#)

## Business Object Setup

Most implementations will configure custom business objects for most entities throughout the system. As indicated in the [Configuration Process Overview](#) these business objects must be created and configured prior to creating system data so that they can be used as part of the parameters on other objects. This section provides highlights on particular business objects that should be given special consideration.

### Assets and Components

The application provides a number of utilities specific business objects that can generally be used to create assets and components for specific purposes. However, your implementation will likely require several business objects to define assets and components of other types.

### Asset Replication

Specific configuration steps must be completed to configure asset replication activities. Refer to the section titled [Asset Replication Activity Configuration](#) in [Chapter 3: System Objects in Detail](#).

### Completion Event Types

The base package completion event type business objects can be used out of the box, however, it is likely that your implementation will want to configure special business objects to capture specific system events. It is also important to note where there are optional completion event types might need to be used to capture incidental or unexpected events such as:

- Create follow-up activity
- Create service history
- Create attachment (asset and/or location)

Your implementation may want to carefully consider these types of events and possibly add them as optional on every completion event type where they might be needed.

### Service History Types

The base package service history business objects can be used out of the box, however it is likely that your implementation will want to configure special business objects to capture specific service history events.

### Specifications and Child Specifications

The base package specifications provide a general starting point for your specification set-up. Specifications can include a wide variety of possible fields, so the definitions of your specifications should be considered carefully. Child Specifications must also be configured, in particular to capture firmware and firmware versions.

## Extendable Lookups

Extendable lookups can be used to store values or data requirements that are not handled by the base package lookup tables. Use the **Extendable Lookup** portal to create and maintain extendable lookups.

## Extending Asset Statuses

If your implementation needs to create a new Asset Lifecycle BO with a status which differs from the base package, you can choose to create them by extending **W1-AssetDisposition**. With this extension, note the following:

- ‘assetRelationship’ on the Asset Disposition has 3 values: **Installed**, **Attached** and **Not Installed**. Installed is applicable to assets when they are installed in service.
- **Attached** is applicable to components when they are attached to an asset.
- **Not Installed** is applicable when assets or components are in other statuses (in store, in receipt, in repair, rejected or retired).
- Since the assetRelationship is in a clob, the base package uses a naming convention using the asset disposition code. The first two characters should be ‘IN’ for installed, ‘AT’ for attached and ‘NI’ for not installed.

## Application Framework Setup

These setup tasks provide general global configuration for the entire application and all users. These objects are “owned” by Oracle Utilities Application Framework, and are therefore described in more detail in the *Oracle Utilities Application Framework Administration Guide*.

Seq	Object	Functional Menu	Description	Prerequisites
L1	Country	General	Your organization's country	None
L1	Currency	Financial	Your organization's native currency	None
L1	Display Profile	General	Controls how dates, times, and numbers displayed	None
L1	Language	General	The language to use for this implementation	None
L1	Time Zone	General	Your organization's base time zone	None
L1	To Do Role	General	Used to associate users with To Do entries	None
L1	Work Calendar	General	The work calendar for your organization, which identifies your public holidays	None
L2	Feature Configuration	General	Add a feature configuration of feature type ‘Schema Constants’ and set the value for ‘Default Country’	Country
L2	Installation Options	System	Control various aspects of the system. You must set up ‘Address Information’ and ‘Global Context’ algorithms	Time Zone, Language, Currency
L2	Master Configuration	System	Enables an implementation to capture various types of information in the system	
L2	To Do Type	General	Used to define types of To Do Entries	To Do Role

Seq	Object	Functional Menu	Description	Prerequisites
L2	User	Security	Defines a user's user groups, data access roles, portal preferences, default values, and To Do roles	Language, Display Profile, To Do Roles
L2	User Group	Security	A group of users who have the same degree of security access	User

## Administrative Data Setup

These setup tasks establish base information related to the objects accessed from the Admin menu in the application. This information establishes the “types” upon which the master data objects are based. For more detailed information on the functionality related to the objects described, refer to the “System Administration” section in the online help or printed user's guide.

Seq	Object	Prerequisites	Associated with / Referenced by
L1	Contact Type	None	Locations
L1	Organization Type	None	Locations
L1	Asset Location Type	None	Asset Type
L1	Storage Location Type	None	Asset Type
L1	Service History Type	None	Asset Type
L1	Completion Event Type	None	Activity Type
L2	Asset Type	Location Type Service History Type	Asset
L2	Activity Type	Completion Event Type	Activity
L2	Communication Type	None	Inbound Communication
L2	Inbound Communication	Communication Type	
L2	Attachment	Attachment BO	Specification Asset Activity Completion Event
L2	Configuration Type	Configuration Type BOs	Configurations Asset
L3	BI Configuration	BI Configuration BO	BI Integration
L3	Bucket Configuration	Bucket Configuration BO	BI Integration

## Master Data Setup

These setup tasks are typically performed by a planner and are accessed from the main menu. The objects, which include assets, contacts, locations, activities and work orders are defined during initial system setup and updated regularly as new assets are added or updates are needed.

For more detailed information on the functionality related to the objects described, refer to the “User Documentation” section in the online help or printed user’s guide.

**Note:** All basic Framework setup, including system and database setup and any modifications or extensions to base business objects, must have been completed before beginning these setup tasks.

To access the maintenance portals for the following objects, select **Main Menu** >[*object name*].

Seq	Object	Prerequisite	Associated with / Referenced By
L3	Contact	Contact Type	Location (optional)
L3	Asset Location	Asset Location Type	Assets
L3	Storage Location	Storage Location Type	Assets
L4	Asset	Asset Type	Activities, Work Order
L4	Manufacturer	Manufacturer BO	Asset
L4	Specification	Specification BO Asset Type	Asset Configurations
L4	Configuration	Configuration Type	Asset
L5	Configuration Report	Configuration Report BOs	
L5	Activity	Activity Type Completion Event Type (as applicable)	
L5	Work Order		Activity

# Chapter 3

---

## System Objects in Detail

This section provides detailed descriptions of the objects that must be configured.

This section includes the following:

- [Oracle Utilities Application Framework Objects](#)
- [Master Data Objects](#)
- [Administrative Data Objects](#)
- [Base Package Data Areas](#)
- [Base Package Extendable Lookups](#)

# Oracle Utilities Application Framework Objects

The following sections provide details about the foundation objects that must be configured to establish base system functionality.

This section includes the following:

- [Feature Configuration](#)
- [Installation Options](#)
- [Master Configuration](#)
- [Status Reason](#)
- [Time Zone](#)
- [To-Do Role and To Do Type](#)

## Feature Configuration

A limited number of the system's features are configured by populating options on a "feature configuration".

The following features must be defined:

Feature	Description
Default Country	Add a feature configuration of feature type 'Schema Constants' and set the value for 'Default Country'.
UI Hints	F1_LAF - Custom Look and Feel F1_MODULECFG - Module Configuration

Navigate to **Admin > Feature Configuration** to configure these options.

This portal is part of Oracle Utilities Application Framework and is described in detail in the Oracle Utilities Application Framework documentation.

Please refer to the section titled "Defining Feature Configurations" in the *Oracle Utilities Application Framework Administration Guide* for more details on using feature configurations.

## Installation Options

Installation options define the individual applications installed on your system and identify algorithms used to implement core system functions. These options also define global parameters such as the administrative menu style (alphabetical or functional), the country, language, currency code and the base time zone to use for this implementation. Take note of the following details regarding installation options:

- Installation options are stored in the installation record for your system.
- Navigate to **Admin > Installation Options > Framework** to configure these options. This portal is part of Oracle Utilities Application Framework and is described in detail in the Oracle Utilities Application Framework documentation.

Please refer to the section titled "Defining Installation Options" in the *Oracle Utilities Application Framework Administration Guide* for more details on using installation options.

### Base Time Zone

The date/time attributes for all time-sensitive application entities, including start and end dates, are stored in the server application time zone in standard time and displayed in that time zone's legal time, which is the standard time adjusted for any seasonal shift.

The server time zone, also referred to as the **Base Time Zone**, must be correctly specified on the installation options record.

**Note:** The installation record does not dictate the server time zone, but rather must match it.

The date/time attributes for all time-sensitive application entities, including tasks and shifts, are stored in the server application time zone in standard time (i.e. they are independent of any seasonal time shifting adjustments, if applicable, in that time zone).

The system also allows data to be entered and displayed in a different time zone in legal time (i.e. adjusted for seasonal time shifting, managing the conversion back and forth between the data entry and the storage time zones).

Entities associated with a geographic location such as activities, crew shifts and meetings, are entered and displayed in their corresponding time zone. The rest of the application uses the user's preferred time zone to display date and time information.

The server time zone, also referred to as the **Base Time Zone**, must be correctly specified on the installation options record. A user specific time zone can be specified in user preferences.

**Note:** The installation record does not dictate the server time zone, but rather must match it.

## Installation Algorithms

Installation algorithms implement global system functions and can be customized for each implementation. The base package supports the following installation options for system events:

- **Address Information:** Responsible for formatting address information for display throughout the system on the server.
- **Geocoding Service:** Responsible for geocoding an address (converting an address to a geocode latitude/longitude pair).
- **Global Context:** Sets global contexts (displayed in the **Global Context Dashboard** zone) based on the value of existing global contexts. For example, if a service point is specified, this algorithm sets the asset by finding the most recently installed asset on the service point.  
For the 360 degree view, the application provides the following global context fields: Asset ID, Node ID and Contact ID. If any of these context fields is set, the Global Context algorithm is responsible for populating the other context fields accordingly.
- **LDAP Import** - A special XAI service that reads the information from the LDAP store and creates the appropriate security entries by calling standard XAI services to maintain users and groups. The entire import process may be more appropriately called synchronize because groups, users, and the connections between them are synchronized between the LDAP store and your product.
- **Next ToDo Assignment** - Customize the next assignment plug-in on the installation options to follow your organization's work distribution rules. For example, when a user asks for the next assignment, business rules may be used to only consider To Do entries the user has the proper skills to resolve, prioritizing them based age, impacted dollar amount, etc. If this is configured it appears on the **ToDo Dashboard** zone.
- **Reporting Tool** - If you use a third-party reporting tool such as Oracle Utilities Business Intelligence, you must add an entry here to indicate the algorithm created when you configure the reporting system.
- **SMS Receive Service:** Responsible for processing incoming SMS messages sent from a crew.
- **SMS Send Service:** Responsible for processing outgoing SMS messages.

- **To Do Information** - Defines the basic information that appears throughout the system to describe a To Do entry.
- **To Do Pre-Creation:** Responsible for making To Do Entries searchable by linking them to their related entity via a characteristic.

## Master Configuration

Master Configuration defines additional global parameters that control core system functions. This record must be set up for the system to properly operate. See **Admin Setup Reference Tables** on page 3-7 for more information on when to set up this record.

Key concepts related to Master Configuration are discussed in this section. Refer to the embedded help for descriptions of the settings on the **Master Configuration** page.

Please refer to the section titled “Defining Master Configurations” in the *Oracle Utilities Application Framework Administration Guide* for more details on using master configurations.

### Hijri to Gregorian Date Mapping

The Hijri to Gregorian Date Mapping option is used to define the relationship between Hijri dates and Gregorian dates for each year.

### Master Data Synchronization Configuration

The Master Data Synchronization Configuration option is used to define all foreign key references that need resolution. Each foreign key reference references the view that contains the external key / production key cross-reference. For entities that undergo both the initial and the ongoing synchronization, two views are specified. For entities that undergo the ongoing synchronization, an external system / ID type mapping is specified to cater for entities that might be synchronizing from more than one external system.

### Seeder Sync Master Configuration

The Seeder Sync Master Configuration is used to define the maintenance objects (device, device configuration, etc.) that require synchronization. Each maintenance object references the synchronization business object that needs to be instantiated when processing a synchronization request for that maintenance object. For maintenance objects that undergo both initial and the ongoing synchronization, two business objects are specified.

## Status Reason

Some asset status changes require a status reason to complete processing. Base processing provides status reasons and the associated statuses for the business objects indicated below. Navigate to **Admin Menu > Status Reason** to review or modify these status reasons.

Business Object	Description	Statuses where Reason is Required
W1-ActivityGenerator	Activity Generator Lifecycle	Canceled
W1-AdHocActivityCore	Ad Hoc Activity	Completed, Discarded
W1-CompletionEventRoot	Completion Event Root	Executed, Discarded
W1-InOutSvcAsset	In/Out of Service Asset	Out of Service
W1-InOutSvcComponent	In/Out Service Component	Out of Service
W1-InboundCommunicationRoot	Inbound Communication Root	Completed, Discarded



Business Object	Description	Statuses where Reason is Required
W1-LocalActivityCore	Local Activity	Completed, Discarded
W1-OutboundActivityCore	Outbound Activity	Executed, Completed, Discarded
W1-TrackedAsset	Tracked Asset	Retired, Rejected
W1-TrackedComponent	Tracked Component	Retired, Rejected

Please refer to the section titled “Maintaining Status Reasons” in the *Oracle Utilities Application Framework Administration Guide* for more details on using this feature.

## Time Zone

Defines the time zones that are applicable within the entire system. Once this is set, the base time zone can be entered in **Installation Options**.

Please refer to the section titled “Defining Time Zones” in the *Oracle Utilities Application Framework Administration Guide* for more details on using this feature.

## To-Do Role and To Do Type

As events occur within the system, messages are triggered to describe work that requires attention. These messages, or To Do entries, are created based upon To Do Types and are assigned to users according to their To Do Roles. Configure to do Types and Roles by navigating to each of these options on the admin menu.

Please refer to the section titled “To Do Lists” in the *Oracle Utilities Application Framework Administration Guide* for more details on using this feature.

# Master Data Objects

The following sections provide details on the Oracle Utilities Operational Device Management and Oracle Utilities Asset Management Base specific data that must be configured.

This information illustrates how the base package objects were designed, and can serve as the basis for any custom objects you create as part of your implementation.

Use the **Maintenance Object** portal and the **Application Viewer** to view more details about maintenance objects. Use the **Business Object** portal to view additional details concerning these business objects.

Please refer to the section titled “Configuration Tools” in the *Oracle Utilities Application Framework Administration Guide* for more details on using these features. For more detailed information on the functionality related to the objects described, refer to the “User Documentation” section in the online help or printed user’s guide.

This section includes the following:

- [Activity Objects](#)
- [Asset Objects](#)
- [Bucket Configuration Objects](#)
- [Child Specification Objects](#)
- [Completion Event Objects](#)
- [Communication In Objects](#)
- [Configuration Objects](#)
- [Configuration Report Objects](#)
- [Contact Objects](#)
- [Manufacturer Objects](#)
- [Node Objects](#)
- [Outbound Message Objects](#)
- [Specifications Objects](#)
- [Service History Objects](#)
- [Work Order Objects](#)

## Activity Objects

Activities provide a record of work done against assets or components.

### Activity Configuration Notes

Custom activity business objects can reference any one of the base package business objects as their parent.

### Asset Replication Activity Configuration

Asset Replication is a type of activity that copies information from existing assets to create new assets. The following configuration steps must be completed to successfully set up asset replication:

1. Create a completion event type using the Replication Completion Event Type business object (W1-ReplicationComplEventType). On the completion event type, choose the General Asset

Replication Completion Event business object (W1-AssetReplicationComplEvent) as the transaction BO.

2. Create an activity type using Basic Activity Type business object (W1-BasicActivityType). Set 'Category' to W1RE – Replication. Define the completion event type created above as the only completion event type and as required. Choose the General Asset Replication Activity business object (W1-AssetReplicationActivity) as the transaction BO.

Note that the base General Asset Replication Activity business object (W1-AssetReplicationActivity) only allows users to change the badge number and/or serial number when replicating assets and everything else are kept the same as the template asset. If your implementation needs to override other information, you need to extend the business object.

## Activity Maintenance Object Details

Option/Field	Description
Maintenance Object	W1-ACT
Description	Activity
Service Name	W1-ACT (Activity Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_ACTIVITY (Activity) - Primary</li> <li>W1_ACTIVITY_ATTACHMENT (Activity Attachment) - Child</li> <li>W1_ACTIVITY_CHAR (Activity Characteristic)- Child</li> <li>W1_ACTIVITY_IDENTIFIER (Activity Identifier) - Child</li> <li>W1_ACTIVITY_LOG (Activity Log) - Child</li> <li>W1_ACTIVITY_LOG_PARM (Activity Log Parameter) - Child</li> <li>W1_ACTIVITY_REL_OBJ (Activity Related Object) - Child</li> </ul>

## Base Package Activity Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-AdHocActivityCore	Ad Hoc Activity Core	Allow new instances
W1-AssetReplicationActivity	General Asset Replication Activity	Allow new instances
W1-LocalActivityCore	Local Activity Core	Allow new instances
W1-OutboundActivityCore	Outbound Activity Core	Allow new instances

## Example Activity - W1-LocalActivityCore

This business object includes the following details:

Option/Field	Description
Business Object	W1-LocalActivityCore
Description	Local Activity Core
Maintenance Object	W1-ACT (Activity)
Application Service	W1-LOCALACTCRBOAS (Local Activity BO)
Instance Control	Allow new instances

Option/Field	Description
Options	<ul style="list-style-type: none"> <li>• Display UI Map: W1-LocalActivityCoreDisp (Local Activity Core - Display)</li> <li>• Portal Navigation Option: w1actTabMenu (Activity)</li> <li>• Pre-Processing Service Script: W1-ActPre (Activity Maintenance Pre-Processing)</li> <li>• Display Map Service Script: W1-LoActDtl (Local Activity - Retrieve Details for Display)</li> <li>• Maintenance UI Map: W1-LocalActivityCoreMaint (Local Activity Core - Maintenance)</li> </ul>
Algorithms	<ul style="list-style-type: none"> <li>• Information: W1-ACT-INFO (Activity Information)</li> <li>• Pre-Processing: W1-DF-ACT-TY (Set Schedules Defaults from Activity Type)</li> <li>• Pre-Processing: W1-DFNDAST (Default Location from Asset)</li> <li>• Validation: W1-DEL-ALLWD (Delete Allowed)</li> </ul>
Lifecycle	<ul style="list-style-type: none"> <li>• Pending</li> <li>• Validated</li> <li>• Validation Error</li> <li>• Work in Progress</li> <li>• Execute Completion Events</li> <li>• Completion Error</li> <li>• Completed</li> <li>• Discarded</li> </ul>

## Asset Objects

Assets are the base devices or commodities owned by an organization. They must be received, inspected, worked on, installed and otherwise handled.

### Asset Configuration Notes

Custom asset business objects can reference any one of the base package business objects as their parent.

## Asset Maintenance Object Details

Option/Field	Description
Maintenance Object	W1-ASSET
Description	Asset
Service Name	W1-ASSET (Asset Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_ASSET (Asset) - Primary</li> <li>W1_ASSET_ATTACHMENT (Asset Attachment) - Child</li> <li>W1_ASSET_CHAR (Asset Characteristic)- Child</li> <li>W1_ASSET_IDENTIFIER (Asset Identifier) - Child</li> <li>W1_ASSET_LOG (Asset Log) - Child</li> <li>W1_ASSET_LOG_PARM (Asset Log Parameter) - Child</li> <li>W1_ASSET_NODE (Asset Location) - Child</li> </ul>

## Base Package Asset Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-AssetDisposition	Asset Disposition	Allow New Instances
W1-AssetDposHistInstallations	Asset Disposition History - Installations	Allow New Instances
W1-AssetDispositionHistory	Asset Disposition History	Does Not Allow New Instances
W1-AssetLite	Asset LITE	Does Not Allow New Instances
W1-InOutSvcAsset	In/Out of Service Asset	Does Not Allow New Instances
W1-InOutSvcComponent	In/Out Service Component	Does Not Allow New Instances
W1-TrackedAsset	Tracked Asset	Does Not Allow New Instances
W1-TrackedComponent	Tracked Component	Does Not Allow New Instances
W1-MDMAsset	MDM Asset	Allow New Instances
W1-AssetDposHistInStoreMvmnts	Asset Disposition History - In Store Moves	Allow new instances
W1-AssetDposHistInstallations	Asset Disposition History - Installations	Allow new instances
W2-CommunicationComponent	Communication Component	Allow new instances
W2-CommunicationRelay	Communication Relay	Allow new instances
W2-FirmwareVersion	Firmware Version	Allow new instances

Business Object	Description	Instance Control
W2-ManualMeter	Manual Meter	Allow new instances
W2-SmartMeter	Smart Meter	Allow new instances
W2-SmartTest	Smart Device Test	Allow new instances

### Example Asset - W1-InOutSvcAsset

This business object includes the following details:

Option/Field	Description
Business Object	W1-InOutSvcAsset
Description	In/Out of Service Asset
Maintenance Object	W1-ASSET(Asset)
Application Service	W1-IOSASSETBOAS (In/Out of Service Asset BO)
Instance Control	Do not allow new instances
Options	<ul style="list-style-type: none"> <li>Portal Navigation Option: w1assetTabMenu (Asset)</li> <li>Asset Class: W1AS</li> </ul>
Algorithms	<ul style="list-style-type: none"> <li>Audit: W1-ASTDPNAUD (Asset Current Disposition Validation)</li> <li>Information: W1-ASSETINFO (Asset Information)</li> <li>Pre-Processing: W1-ASTDPNDEF (Assign Default Disposition of an Asset)</li> </ul>
Lifecycle	<ul style="list-style-type: none"> <li>In Service</li> <li>Out of Service</li> </ul>

## Bucket Configuration Objects

Bucket configurations define age ranges used in the Oracle Utilities Business Intelligence integration.

The following types of ranges can be defined:

- Asset age
- Asset installation age
- Asset in storage age

## Bucket Configuration Maintenance Object Details

Option/Field	Description
Maintenance Object	W1-BKTCONFIG
Description	Bucket Configuration
Service Name	W1-BKTCONFIG (Bucket Configuration Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_BKT_CONFIG (Bucket Configuration) - Primary</li> <li>W1_BKT_CONFIG_L (Bucket Configuration Language) - Child</li> <li>W1_BKT_CONFIG_REL_OBJ (Bucket Configuration Related Object) - Child</li> <li>W1_BKT_CONFIG_VAL (Bucket Configuration Value) - Child</li> <li>W1_BKT_CONFIG_VAL_L (Bucket Configuration Value Language) - Child</li> </ul>

## Base Package Bucket Configuration Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-AssetAgeBktConfig	Asset Age Bucket Configuration	Allow new instances
W1-AssetInstallAgeBktConfig	Asset Install Age Bucket Configuration	Allow new instances
W1-AssetInstoreAgeBktConfig	Asset In Storage Age Bucket Configuration	Allow new instances
W1-BktCfgBundlingAddBO	Bundling Add BO for Bucket Configuration	Do not allow new instances
W1-BktConfigPhysicalBO	Physical BO for Bucket Configuration	Do not allow new instances

## Example Bucket Configuration - W1-AssetAgeBktConfig

This business object includes the following details:

Option/Field	Description
Business Object	W1-AssetType
Description	Asset Age Bucket Configuration
Maintenance Object	W1-BKTCONFIG
Application Service	W1-BKTCONFIG
Instance Control	Allow new instances
Options	<ul style="list-style-type: none"> <li>Portal Navigation Option: w1bktcfgTabMenu (Bucket Configuration)</li> <li>Post-Processing Service Script: W1-BktCfgPos (<a href="#">Bucket Configuration Post Processing</a>)</li> </ul>

## Child Specification Objects

Child specifications are referenced on specifications to indicate valid firmware versions.

### Child Specification Maintenance Object Details

Option/Field	Description
Maintenance Object	W1-CHILDSPEC
Description	Child Specification
Service Name	W1-CHILDSPEC (Child Specification Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_CHILD_SPEC (Child Specification) - Primary</li> <li>W1_CHILD_SPEC_CHAR (Child Specification Characteristic) - Child</li> <li>W1_CHILD_SPEC_IDENTIFIER (Child Specification Identifier) - Child</li> <li>W1_CHILD_SPEC_L (Child Specification Language) - Child</li> <li>W1_CHILD_SPEC_LOG (Child Specification Log) - Child</li> <li>W1_CHILD_SPEC_LOG_PARM (Child Specification Log Parameter) - Child</li> </ul>

### Base Package Child Specification Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-ChildSpecBundlingAddBO	Bundling Add BO for Child Specification	Do not allow new instances
W1-ChildSpecPhysicalBO	Physical BO for Child Specification	Allow new instances

### Example Child Specification - W1-ChildSpecPhysicalBO

This business object includes the following details:

Option/Field	Description
Business Object	W1-ChildSpecPhysicalBO
Description	Physical BO for Child Specification
Maintenance Object	W1-CHILDSPEC
Application Service	W1-CHILDSPEC
Instance Control	Allow new instances
Options	<ul style="list-style-type: none"> <li>Portal Navigation Option: w1chspecTabMenu (Specification Detail Maintenance)</li> </ul>

## Completion Event Objects

Completion events are used to create or update data to reflect the effect of an activity or command. Completion events are created upon successful receipt of inbound communications related to an activity or command.

Attributes used to define completion device events include the following:



- **Activity:** the activity (command) that initiated the completion event.
- **Sequence:** defines the relative order by which completion events for the activity are executed (in the event that more than one completion event is created for an activity).
- **Inbound Communication:** the inbound communication that triggered the completion event.
- **Event Date/Time:** the date and time of the completion event.

### Completion Event Configuration Notes

Custom completion event business objects must reference W1-CompletionEventRoot as their parent business object.

### Completion Event Maintenance Object Details

Option/Field	Description
Maintenance Object	W1-CEVT
Description	Completion Event
Service Name	W1-CEVT (Activity Maintenance)
Tables	<ul style="list-style-type: none"> <li>• W1_CMPL_EVT (Completion Event) - Primary</li> <li>• W1_CMPL_EVT_CHAR (Completion Event Characteristic) - Child</li> <li>• W1_CMPL_EVT_LOG (Completion Event Log) - Child</li> <li>• W1_CMPL_EVT_LOG_PARM (Completion Event Log Parameter) - Child</li> <li>• W1_CMPL_EVT_REL_OBJ (Completion Event Related Object) - Child</li> </ul>

### Base Package Completion Event Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-CompletionEventRoot	Completion Event Root	Do not allow new instances
W1-CreActivityPayCmpEvt	Create Activity Using Payload Compl Event	Allow new instances
W1-CreAssetAttachCmpEvt	Create Asset Attachment Completion Event	Allow new instances
W1-CreAssetPayCmpEvt	Create Asset Using Payload Cmpl Evt	Allow new instances
W1-CreNodeAttachCmpEvt	Create Location Attachment Completion Evt	Allow new instances
W1-CreServiceHistoryAttCmpEvt	Create Service History Attachment Cmpl Evt	Allow new instances
W1-CreServiceHistoryPayCmpEvt	Create Svc Hist Using Payload Cmpl Evt	Allow new instances

Business Object	Description	Instance Control
W1-AssetReplicationComplEvent	General Asset Replication Completion Event	Allow new instances
W1-TrnAssetCmpEvent	Transition Asset Completion Event	Allow new instances
W1-UpdAssetPayCmpEvt	Update Asset Using Payload Cmpl Evt	Allow new instances
W1-UpdNodePayCmpEvt	Update Location Using Payload Cmpl Evt	Allow new instances

### Example Completion Event - W1-CompletionEventRoot

This business object includes the following details:

Option/Field	Description
Business Object	W1-CompletionEventRoot
Description	Completion Event Root
Maintenance Object	W1-CEVT(Completion Event)
Application Service	W1-CMPLEVTROOTBOAS (Completion Event Root BO)
Instance Control	Do not allow new instances
Options	Portal Navigation Option: w1cevtTabMenu (Completion Event)
Algorithms	<ul style="list-style-type: none"> <li>Information: W1-CEVT-INFO (Completion Event Information)</li> <li>Pre-Processing: W1-DFFRCEVT (Default Information from Completion Event Type)</li> <li>Validation: W1-DEL-ALLWD (Delete Allowed)</li> <li>Validation: W1-VAL-ACTNF (Validate Activity Not Finalized)</li> </ul>
Lifecycle	<ul style="list-style-type: none"> <li>Pending</li> <li>Executed</li> <li>Discarded</li> </ul>

## Communication In Objects

Inbound Communications represent messages sent from an external system and are typically sent in to complete an activity.

### Inbound Communication Configuration Notes

An inbound communication business object must be created for each type of message to be received from an external system. For most external systems, this is based on the types of messages the system is designed to send.

You must also create an XAI Inbound Service for each type of message to be received from an external system. XAI inbound services define the details of how messages are received from an external system, including the inbound communication business object (or business service or service script) to be invoked when the response message is received. As in the case of inbound

communication business objects, the set of XAI inbound services you need to create is based on the types of messages the system is designed to send.

### Inbound Communication Maintenance Object Details

Option/Field	Description
Maintenance Object	W1-COMIN
Description	Communication In
Service Name	W1-COMIN (Communication In Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_COMM_IN (Communication In) - Primary</li> <li>W1_COMM_IN_CHAR (Communication In Characteristic) - Child</li> <li>W1_COMM_IN_IDENTIFIER (Communication In Identifier) - Child</li> <li>W1_COMM_IN_LOG (Communication In Log) - Child</li> <li>W1_COMM_IN_LOG_PARM (Communication In Log Parameter) - Child</li> <li>W1_COMM_IN_REL_OBJ (Communication In Related Object)</li> </ul>

### Base Package Inbound Communication Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-ActivityComplInboundComm	Activity Completion Inbound Communication	Allow new instances
W1-CreateActivityInboundComm	Create Activity Inbound Communication	Allow new instances
W1-CreComActivityInboundComm	Create and Complete Activity Inbound Comm	Allow new instances
W1-InboundCommunicationRoot	Inbound Communication Root	Do not allow new instances

### Example Inbound Communication

This business object includes the following details:

Option/Field	Description
Business Object	W1-ActivityComplInboundComm
Description	Activity Completion Inbound Communication
Maintenance Object	W1-COMIN(Communication In)
Application Service	W1-ACTCMLINCOMMBOAS (Activity Completion Inbound Communication BO)
Instance Control	Allow new instances

Option/Field	Description
Options	<ul style="list-style-type: none"> <li>• Related Administration BO: W1-GeneralCommunicationType (General Communication Type)</li> <li>• Display UI Map: W1-CommInboundDisp (Inbound Communication - Display)</li> <li>• Portal Navigation Option: w1cominTabMenu (Inbound Communication)</li> <li>• Pre-Processing Service Script: W1-CommInPre (Inbound Communication Maintenance Pre-Processing)</li> <li>• Display Map Service Script: W1-UpdComDtl (Activity Completion Communication In - Retrieve Details for Display)</li> <li>• Maintenance UI Map: W1-CommInboundMaint (Inbound Communication - Maintenance)</li> </ul>
Algorithms	<ul style="list-style-type: none"> <li>• Information: W1-COMMININF (Inbound Communication Information)</li> <li>• Pre-Processing: W1-DFCEVTID (Default Completion Event Identifier Details from Raw Message)</li> <li>• Validation: W1-DEL-ALLWD (Delete Allowed)</li> </ul>
Lifecycle	<ul style="list-style-type: none"> <li>• Pending</li> <li>• Validated</li> <li>• Validation Error</li> <li>• Create Completion Events</li> <li>• Completed</li> <li>• Discarded</li> </ul>

## Configuration Objects

An asset or component may have many parameters with only certain combinations of parameter values are allowed or supported by an organization. Likewise, multiple assets or components might work together as a group, but only certain combinations of settings are allowed or supported in these groupings. Device configuration settings manage these combinations so that they can be recorded and used for assets and components.

For example, in a sample utility a gas meter might send a reading to an electric meter which then sends both electric and gas readings to the head-end system. The meters, communication cards, firmware, and systems will all need to adhere to a specific configuration for the communications to work successfully.

### Configuration Notes

For every configuration class there is a base package configuration report business object, a configuration work order business object and a configuration business object that defines the valid configuration.

## Configuration Maintenance Object Details

Option/Field	Description
Maintenance Object	W1-CONFIG
Description	Configuration
Service Name	W1-CONFIG (Configuration Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_CONFIG (Configuration) - Primary</li> <li>W1_CONFIG_CHAR (Configuration Characteristics) - Child</li> <li>W1_CONFIG_IDENTIFIER (Configuration Identifier) - Child</li> <li>W1_CONFIG_LOG (Configuration Log) - Child</li> <li>W1_CONFIG_LOG_PARM (Configuration Log Parameter) - Child</li> </ul>

## Base Package Configuration Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-Config	Configuration	Do Not Allow New Instances
W1-AssetCompConfig	Asset/Component Configuration	Allow New Instances
W1-AssetCompToAssetCompConfig	Asset/Component to Asset/Component Configuration	Allow New Instances
W1-AssetCompToAssetConfig	Asset/Component to Asset Configuration	Allow New Instances
W1-AssetToAssetCompConfig	Asset to Asset/Component Configuration	Allow New Instances
W1-AssetToAssetConfig	Asset to Asset Configuration	Allow New Instances
W1-SingleAssetConfig	Single Asset Configuration	Allow New Instances

## Example Configuration - W1-Config

This business object includes the following details:

Option/Field	Description
Business Object	W1-Config
Description	Configuration
Maintenance Object	W1-CONFIG
Application Service	W1-CONFIGBOAS
Instance Control	Do not allow new instances
Options	Portal Navigation Option: w1cfgTabMenu (Configuration)

## Configuration Report Objects

Configuration reports provide a summary of any currently installed configurations and provide details about the entities that make up the configuration. You may want to create base configuration reports as part of your implementation, or else create them as need arises after configurations are defined. In most business practices, configuration reports will be generated by batch processing after being submitted.

### Configuration Report Maintenance Object Details

Option/Field	Description
Maintenance Object	W1-CFGRPT
Description	Configuration Report
Service Name	W1-CFGRPT (Configuration Report Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_CONFIG_RPT (Configuration Report) - Primary</li> <li>W1_CONFIG_RPT_CHAR (Configuration Report Characteristic) - Child</li> <li>W1_CONFIG_RPT_IDENTIFIER (Configuration Report Identifier) - Child</li> <li>W1_CONFIG_RPT_LOG (Configuration Report Log) - Child</li> <li>W1_CONFIG_RPT_LOG_PARM (Configuration Report Specification) - Child</li> <li>W1_CONFIG_RPT_SPECIFICATION (Configuration Report Specification) - Child</li> </ul>

### Base Package Configuration Report Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-AssetToAssetCfgRpt	Asset to Asset Configuration Report	Allow new instances
W1-AssetToAssetCompCfgRpt	Asset to Asset/Comp Configuration Report	Allow new instances
W1-AssetCompToAssetCfgRpt	Asset/Comp to Asset Configuration Report	Allow new instances
W1-AssetCompToAssetCompCfgRpt	Asset/Comp to Asset/Comp Config Report	Allow new instances
W1-AssetCompCfgRpt	Asset/Component Configuration Report	Allow new instances
W1-ConfigReport	Configuration Report	Do Not Allow New Instances
W1-SingleAssetCfgRpt	Single Asset Configuration Report	Allow new instances

## Example Configuration Report - W1-ConfigReport

This business object includes the following details:

Option/Field	Description
Business Object	W1-ConfigReport
Description	Configuration Report
Maintenance Object	W1-CFGRPT
Application Service	W1-CFGRPTBOAS
Instance Control	Do not allow new instances
Options	Portal Navigation Option: w1cgrptTabMenu (Configuration Report)

## Contact Objects

Contacts establish a business or individual point of contact for locations.

### Contact Configuration Notes

Custom contact business objects can reference any one of the base package business objects as their parent.

### Contact Maintenance Object Details

Option/Field	Description
Maintenance Object	W1-CONTACT
Description	Contact
Service Name	W1-CONTACT (Contact Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_CONTACT (Contact) - Primary</li> <li>W1_CONTACT_CHAR (Contact Characteristics) - Child</li> <li>W1_CONTACT_EMAIL (Contact E-mail) - Child</li> <li>W1_CONTACT_IDENTIFIER (Contact Identifier) - Child</li> <li>W1_CONTACT_NAME (Contact Name) - Child</li> <li>W1_CONTACT_PHONE (Contact Phone) - Child</li> </ul>

### Base Package Contact Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-Business	Business	Allow new instances
W1-Person	Person	Allow new instances
W1-SynchronizationAddContact	Contact Synchronization Add	Allow new instances

## Example Contact- W1-Person

This business object includes the following details:

Option/Field	Description
Business Object	W1-Person
Description	Person
Maintenance Object	W1-CONTACT(Contact)
Application Service	W1-CONTACT(Contact MO)
Instance Control	Allow new instances
Options	Portal Navigation Option: w1contctTabMenu (Contact)
Algorithms	Information: W1-PERS-INFO (Person Contact Information)

## Manufacturer Objects

Manufacturers define attributes for product manufacturers and reference specifications.

### Manufacturer Configuration Notes

Custom manufacturer business objects must reference W1-Manufacturer as their parent business object.

### Manufacturer Maintenance Object Details

Option/Field	Description
Maintenance Object	W1-MANUF
Description	Manufacturer
Service Name	W1-MANUF (Manufacturer Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_MANUFACTURER (Manufacturer) - Primary</li> <li>W1_MANUFACTURER_CHAR (Manufacturer Characteristics) - Child</li> <li>W1_MANUFACTURER_IDENTIFIER (Manufacturer Identifier) - Child</li> <li>W1_MANUFACTURER_L (Manufacturer Language) - Child</li> </ul>

### Base Package Manufacturer Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-ManufacturerBundlingAddBO	Bundling Add BO for Manufacturer	Do not allow new instances
W1-Manufacturer	Manufacturer	Allow new instances



Business Object	Description	Instance Control
W1-ManufacturerPhysicalBO	Physical BO for Manufacturer	Do not allow new instances

### Example Manufacturer- W1-Manufacturer

This business object includes the following details:

Option/Field	Description
Business Object	W1-Manufacturer
Description	Manufacturer
Maintenance Object	W1-MANUF (Manufacturer)
Application Service	W1-MANUFACTURER (Manufacturer MO)
Instance Control	Allow new instances
Options	Portal Navigation Option: w1manufTabMenu (Manufacturer)

## Node Objects

Nodes establish locations where assets and components are stored, installed, repaired, etc.

### Node Configuration Notes

Custom node business objects can reference any one of the base package business objects as their parent.

### Node Maintenance Object Details

Option/Field	Description
Maintenance Object	W1-NODE
Description	Node
Service Name	W1-NODE (Contact Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_NODE (Location/Organization) - Primary</li> <li>W1_NODE_ATTACHMENT (Location/Organization Attachment) - Child</li> <li>W1_NODE_CHAR (Location/Organization Characteristic) - Child</li> <li>W1_NODE_CONTACT (Location/Organization Contact) - Child</li> <li>W1_NODE_IDENTIFIER (Location/Organization Identifier) - Child</li> <li>W1_NODE_LOG (Location/Organization Log) - Child</li> <li>W1_NODE_LOG_PARM (Location/Organization Log Parameter) - Child</li> <li>W1_PEER_NODE (Peer Location/Organization) - Child</li> </ul>

## Base Package Node Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-AssetLocation	Asset Location	Allow new instances
W1-NodeLite	Location LITE	Do not allow new instances
W1-Organization	Organization This business object describes the structure and business rules common to a business unit in an organization's hierarchy.	Allow new instances
W1-StorageLocation	Storage Location This business object describes the structure and business rules common to storage locations.	Allow new instances
W2-ServicePoint	Service Point	Allow new instances
W2-Vehicle	Vehicle	Allow new instances
W2-SynchronizationAddSP	SP Synchronization Add	Allow new instances

## Example Node- W1-AssetLocation

This business object includes the following details:

Option/Field	Description
Business Object	W1-AssetLocation
Description	Asset Location
Maintenance Object	W1-NODE (Node)
Application Service	W1-ASSETLOCBOAS (Asset Location BO)
Instance Control	Allow new instances
Options	<ul style="list-style-type: none"> <li>Display UI Map: W1-AssetLocationDisp (Asset Location - Display)</li> <li>Portal Navigation Option: w1astlocTabMenu (Asset Location)</li> <li>Maintenance UI Map: W1-AssetLocationMaint (Asset Location - Maintenance)</li> </ul>
Algorithms	<ul style="list-style-type: none"> <li>Audit: W1-NODELOG (Audit Criticality)</li> <li>Information: W1-NODEINFO (Node Information)</li> </ul>

## Outbound Message Objects

Outbound messages represent communications sent to external systems.

## Outbound Message Configuration Notes

An outbound message type must also be created for each type of message to be sent to an external system.

## Outbound Message Maintenance Object Details

Option/Field	Description
Maintenance Object	F1-OUTMSG
Description	Outbound Message
Service Name	FWLXOUTP (Outbound Message)
Tables	<ul style="list-style-type: none"> <li>F1_OUTMSG (Outbound Message)- Primary</li> <li>F1_OUTMSG_ERRPARM (Outbound Message Error Message Parameters) - Child</li> </ul>

## Base Package Outbound Message Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-NdAsAttToAsOutboundMessage	Location, Asset, and Atch To Asset Out Msg	Allow new instances

## Example Outbound Message- W1-NdAsAttToAsOutboundMessage

This business object includes the following details:

Option/Field	Description
Business Object	W1-NdAsAttToAsOutboundMessage
Description	Location, Asset, and Atch To Asset Out Msg
Maintenance Object	F1-OUTMSG (Outbound Message)
Application Service	FWLXOUTP (Outbound Message)
Instance Control	Allow new instances
Algorithms	<ul style="list-style-type: none"> <li>Pre-Processing: W1-PP-ACTTYP (Populate Activity Type Info)</li> <li>Pre-Processing: W1-PP-ND-INF (Populate Location Info)</li> <li>Pre-Processing: W1-PP-CT-INF (Populate Contact Info)</li> <li>Pre-Processing: W1-PP-ASINF (Populate Asset Info)</li> <li>Pre-Processing: W1-PPATASINF (Populate Attached to Asset Info)</li> </ul>

## Specifications Objects

Specifications help define details about assets or components. Since specifications include such a wide variety of possible fields, there are no base package business objects that can be used to create new specifications. You must configure custom business objects indicating the fields required by your implementation.

## Specification Configuration Notes

Custom specification business objects must reference W1-Specification as their parent business object.

## Specification Maintenance Object Details

Option/Field	Description
Maintenance Object	W1-SPEC
Description	Specification
Service Name	W1-SPEC (Specification Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_SPECIFICATION (Specification) - Primary</li> <li>W1_SPECIFICATION_ATTACHMENT (Specification Attachment) - Child</li> <li>W1_SPECIFICATION_CHAR (Specification Characteristic) - Child</li> <li>W1_SPECIFICATION_IDENTIFIER (Specification Identifier) - Child</li> <li>W1_SPECIFICATION_L (Specification Language) - Child</li> </ul>

## Base Package Specification Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-SpecificationBundlingAddBO	Bundling Add BO for Specification	Do not allow new instances
W1-Specification	Specification	Do not allow new instances
W1-SpecificationPhysicalBO	Physical BO for Specification	Do not allow new instances
W1-PeerSpecification	Peer Specification	Do not allow new instances
W2-CommunicationComponentSpec	Communication Component Specification	Allow new instances
W2-CommunicationRelaySpec	Communication Relay Specification	Allow new instances
W2-ManualMeterSpecification	Manual Meter Specification	Allow new instances
W2-SmartMeterSpecification	Smart Meter Specification	Allow new instances
W2-FirmwareSpecification	Firmware Specification	Allow new instances

## Example Specification - W1-Specification

This business object includes the following details:

Option/Field	Description
Business Object	W1-Specification
Description	Specification
Maintenance Object	W1-SPEC (Specification)
Application Service	W1-SPECIFICATION (Specification MO)
Instance Control	Do not allow new instances

Option/Field	Description
Options	Portal Navigation Option: w1specTabMenu (Specification)

## Service History Objects

Service history provides a log or record of service, inspection, or other tasks performed on assets or components.

### Service History Configuration Notes

Custom service history business objects must reference W1-ServiceHistory as their parent business object.

### Service History Maintenance Object Details

Option/Field	Description
Maintenance Object	W1-SVCHST
Description	Service History
Service Name	W1-SVCHST (Service History Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_SVC_HIST (Service History) - Primary</li> <li>W1_SVC_HIST_ATTACHMENT (Service History Attachment) - Child</li> <li>W1_SVC_HIST_CHAR (Service History Characteristic) - Child</li> <li>W1_SVC_HIST_IDENTIFIER (Service History Identifier) - Child</li> <li>W1_SVC_HIST_LOG (Service History Log) - Child</li> <li>W1_SVC_HIST_LOG_PARM (Service History Log Parameter) - Child</li> <li>W1_SVC_HIST_REL_OBJ (Service History Related Object) - Child</li> </ul>

### Base Package Service History Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-BasicTest	Basic Test	Allow new instances
W1-ServiceHistory	Service History	Allow new instances

### Example Service History - W1-ServiceHistory

This business object includes the following details:

Option/Field	Description
Business Object	W1-ServiceHistory
Description	Service History
Maintenance Object	W1-SVCHST (Service History)
Application Service	W1-SVCHST (Service History MO)

Option/Field	Description
Instance Control	Allow new instances
Options	Portal Navigation Option: w1svchsTabMenu (Service History)
Algorithms	Information: W1-SVCHSINFO (Service History Information)

## Work Order Objects

Work orders are used to organize activities.

### Work Order Configuration Notes

Custom work order business objects can reference any one of the base package business objects as their parent.

### Work Order Maintenance Object Details

Option/Field	Description
Maintenance Object	W1-WORKORDER
Description	Work Order
Service Name	W1-WORKORDER (Work Order Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_WO (Work Order) - Primary</li> <li>W1_WO_CHAR (Work Order Characteristics) - Child</li> <li>W1_WO_IDENTIFIER (Work Order Identifier) - Child</li> <li>W1_WO_LOG (Work Order Log) - Child</li> <li>W1_WO_LOG_PARM (Work Order Log Parameters) - Child</li> </ul>

### Base Package Work Order Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-ActivityGenerator	Activity Generator Lifecycle	Allow new instances
W1-AssetToAssetCompCfgWO	Config Criteria Asset to Asset/Comp	Allow new instances
W1-AssetCompCfgWO	Config Criteria Asset/Comp	Allow new instances
W1-AssetCompToAssetCfgWO	Config Criteria Asset/Comp to Asset	Allow new instances
W1-AssetCompToAssetCompCfgWO	Config Criteria Asset/Comp to Asset/Comp	Allow new instances
W1-AssetToAssetCfgWO	Config Criteria Asset to Asset	Allow new instances
W1-AssetCriteriaActGenerator	Asset Criteria	Allow new instances

Business Object	Description	Instance Control
W1-AssetListActGenerator	Asset List	Allow new instances
W1-CompnCriteriaActGenerator	Component Criteria	Allow new instances
W1-CompnAssetListActGenerator	Component List	Allow new instances
W1-NodeCriteriaActGenerator	Location Criteria	Allow new instances
W1-BasicWorkOrder	Basic Work Order	Allow new instances
W1-SingleAssetCfgWO	Config Criteria - Single Asset	Allow new instances

### Example Work Order - W1-BasicWorkOrder

This business object includes the following details:

Option/Field	Description
Business Object	W1-BasicWorkOrder
Description	Basic Work Order
Maintenance Object	W1-WORKORDER (Work Order)
Application Service	W1-BASICWOBOAS (Basic Work Order BO)
Instance Control	Allow new instances
Options	<ul style="list-style-type: none"> <li>Display UI Map: W1-BasicWODisplay (Basic Work Order - Display)</li> <li>Portal Navigation Option: w1woTabMenu (Work Order)</li> <li>Display Map Service Script: W1-BasWODts (Basic WO: Retrieve Details for Display)</li> <li>Maintenance UI Map: W1-BasicWOMaint (Basic Work Order - Maintenance)</li> </ul>
Algorithms	Validation: W1-BASWOINFO (Basic Work Order Information)

# Administrative Data Objects

Administrative data objects establish the “types” upon which the master data objects are based. In most cases, custom business objects do not need to be created for administrative data objects, however the maintenance object and business object details for these types is provided below for reference.

Please refer to the section titled “Configuration Tools” in the *Oracle Utilities Application Framework Administration Guide* for more details on using these features. For more detailed information on the functionality related to the objects described, refer to the “System Administration” section in the online help or printed user’s guide.

This section includes the following:

- [Activity Type Objects](#)
- [Asset Type Objects](#)
- [Completion Event Type Objects](#)
- [Communication Type Objects](#)
- [Configuration Type Objects](#)
- [Contact Type Objects](#)
- [Node Type Objects](#)
- [Service History Type Objects](#)



## Activity Type Objects

Option/Field	Description
Maintenance Object	W1-ACTTY
Description	Activity Type
Service Name	W1-ACTTY (Activity Type Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_ACTIVITY_TYPE (Activity Type) - Primary</li> <li>W1_ACTIVITY_TYPE_ATTACHMENT (Activity Type Attachment) - Child</li> <li>W1_ACTIVITY_TYPE_CEVT_TYPE (Activity Type Completion Event Type) - Child</li> <li>W1_ACTIVITY_TYPE_CHAR (Activity Type Characteristic) - Child</li> <li>W1_ACTIVITY_TYPE_IDENTIFIER (Activity Type Identifier) - Child</li> <li>W1_ACTIVITY_TYPE_L (Activity Type Language) - Child</li> <li>W1_ACTIVITY_TYPE_OUTMSG_TYPE (Activity Type Outbound Message Type) - Child</li> </ul>

### Base Package Activity Type Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-BasicActivityType	Basic Activity Type	Allow new instances
W1-ActivityTypeBundlingAddBO	Bundling Add BO for Activity Type	Do not allow new instances
W1-OutboundActivityType	Outbound Activity Type	Allow new instances
W1-ActivityTypePhysicalBO	Physical BO for Activity Type	Do not allow new instances
W1-ScheduledActivityType	Scheduled Activity Type	Allow new instances

### Example Activity Type - W1-BasicActivityType

This business object includes the following details:

Option/Field	Description
Business Object	W1-BasicActivityType
Description	Basic Activity Type
Maintenance Object	W1-ACTTY (Activity)
Application Service	W1-ACTTY (Activity Type MO)
Instance Control	Allow new instances

Option/Field	Description
Options	<ul style="list-style-type: none"> <li>Display UI Map: W1-BasicActTypeDisplay (Basic Activity Type - Display)</li> <li>Portal Navigation Option: w1acttyTabMenu (Activity Type)</li> <li>Maintenance UI Map: W1-BasicActTypeMaint (Basic Activity Type - Maintenance)</li> </ul>
Algorithms	Validation: W1-EXCHNDVAL (Exception Handling Validation)

## Asset Type Objects

Option/Field	Description
Maintenance Object	W1-ASSETTYPE
Description	Asset Type
Service Name	W1-ASSETTYPE (Asset Type Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_ASSET_TYPE (Asset Type) - Primary</li> <li>W1_ASSET_TYPE_CHAR (Asset Type Characteristics) - Child</li> <li>W1_ASSET_TYPE_L(Asset Type Language) - Child</li> <li>W1_ASSET_TYPE_NODE_TYPE (Valid Asset Type Location Type) - Child</li> <li>W1_ASSET_TYPE_SVC_HIST_ TYPE (Asset Type Service History Type) - Child</li> </ul>

### Base Package Asset Type Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-AssetType	Asset Type	Allow new instances
W1-AssetTypeBundlingAddBo	Bundling Add BO for Asset Type	Do not allow new instances
W1-ComponentType	Component Type	Allow new instances
W1-AssetTypePhysicalBO	Physical BO for Asset Type	Do not allow new instances

### Example Asset Type - W1-AssetType

This business object includes the following details:

Option/Field	Description
Business Object	W1-AssetType
Description	Asset Type
Maintenance Object	W1-ASSETTYPE(Asset Type)
Application Service	W1-ASSETTYPE (Asset Type MO)
Instance Control	Allow new instances

Option/Field	Description
Options	<ul style="list-style-type: none"> <li>Display UI Map: W1-AssetTypeDisp (Asset Type Display)</li> <li>Portal Navigation Option: w1asttypTabMenu (Asset Type)</li> <li>Pre-Processing Service Script: W1-AstTyPre (Asset Type Maintenance Pre-Processing)</li> <li>Maintenance UI Map: W1-AssetTypeMaint (Asset Type Maintenance)</li> </ul>

## Completion Event Type Objects

Option/Field	Description
Maintenance Object	W1-CEVTT
Description	Completion Event Type
Service Name	W1-CEVTT (Completion Event Type)
Tables	<ul style="list-style-type: none"> <li>W1_CMPL_EVT_TYPE (Completion Event Type) - Primary</li> <li>W1_ACTIVITY_TYPE_CEVT_TYPE (Activity Type Completion Event Type) - Child</li> <li>W1_CMPL_EVT_TYPE_CHAR (Completion Event Type Characteristic) - Child</li> <li>W1_CMPL_EVT_TYPE_IDENTIFIER (Completion Event Type Identifier) - Child</li> <li>W1_CMPL_EVT_TYPE_L (Completion Event Type Language) - Child</li> </ul>

### Base Package Completion Event Type Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-ActivityCompletionEventType	Activity Completion Event Type	Allow new instances
W1-AssetCompletionEventType	Asset Completion Event Type	Allow new instances
W1-AssetDposCmpEvtType	Asset Disposition Completion Event Type	Allow new instances
W1-ComplEventTypeBundlingAddBO	Bundling Add BO for Completion Event Type	Do not allow new instances
W1-DataAreaCmpEvtType	Data Area Completion Event Type	Allow new instances
W1-GeneralCompletionEventType	General Completion Event Type	Allow new instances
W1-ComplEventTypePhysicalBO	Physical BO for Completion Event Type	Do not allow
W1-ReplicationComplEventType	Replication Completion Event Type	Allow new instances

Business Object	Description	Instance Control
W1-ServiceHistTypeCmpEvtType	Service History Completion Event Type	Allow new instances

### Example Completion Event Type- W1-ActivityCompletionEventType

This business object includes the following details:

Option/Field	Description
Business Object	W1-ActivityCompletionEventType
Description	Activity Completion Event Type
Maintenance Object	W1-CEVTT(Completion Event Type)
Application Service	W1-CEVTT (Completion Event Type MO)
Instance Control	Allow new instances
Options	<ul style="list-style-type: none"> <li>Display UI Map: W1-ActivityCmplEvtTypeDisplay (Activity Completion Event Type - Display)</li> <li>Portal Navigation Option: w1cevtTabMenu (Completion Event Type)</li> <li>Maintenance UI Map: W1-ActivityCmplEvtTypeMaint (Activity Completion Event Type - Maint)</li> <li>Information Required: 01</li> </ul>
Algorithms	<ul style="list-style-type: none"> <li>Validation: W1-VALATTILST (Validate Attachment List)</li> <li>Validation: W1-CEVTTXPVL (Completion Event Type XPath Validation)</li> </ul>

## Communication Type Objects

Option/Field	Description
Maintenance Object	W1-COMTY
Description	Communication Type
Service Name	W1-COMTY (Communication Type Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_COMM_TYPE (Communication Type) - Primary</li> <li>W1_COMM_TYPE_CHAR (Communication Type Characteristic) - Child</li> <li>W1_COMM_TYPE_L (Communication Type Language) - Child</li> </ul>

### Base Package Communication Type Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-CommTypeBundlingAddBO	Bundling Add BO for Communication Type	Do not allow new instances

Business Object	Description	Instance Control
W1-GeneralCommunicationType	General Communication Type	Allow new instances
W1-CommunicationTypePhysicalBO	Physical BO for Communication Type	Do not allow new instances

### Example Communication Type- W1-GeneralCommunicationType

This business object includes the following details:

Option/Field	Description
Business Object	W1-GeneralCommunicationType
Description	General Communication Type
Maintenance Object	W1-COMTY(Communication Type)
Application Service	W1-COMTY (Communication Type MO)
Instance Control	Allow new instances
Options	<ul style="list-style-type: none"> <li>Display UI Map: W1-GeneralCommTypeDisp (General Communication Type - Display)</li> <li>Portal Navigation Option: w1comtyTabMenu (Communication Type)</li> <li>Maintenance UI Map: W1-GeneralCommTypeMaint (General Communication Type - Maintenance)</li> </ul>
Algorithms	<ul style="list-style-type: none"> <li>Validation: W1-EXCHNDVAL (Exception Handling Validation)</li> <li>Validation: W1-COMTYTXPV (Communication Type Target XPaths Validation)</li> </ul>

## Configuration Type Objects

Option/Field	Description
Maintenance Object	W1-CONFIGTYP
Description	Configuration Type
Service Name	W1-CONFIGTYP (Configuration Type Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_CONFIG_TYPE (Configuration Type) - Primary</li> <li>W1_CONFIG_TYPE_CHAR (Configuration Type Characteristics) - Child</li> <li>W1_CONFIG_TYPE_IDENTIFIER (Configuration Type Identifier) - Child</li> <li>W1_CONFIG_TYPE_L (Configuration Type Language) - Child</li> </ul>

### Base Package Configuration Type Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-ConfigType	Configuration Type	Allow new instances
W1-ConfigTypeBundlingAddBO	Bundling Add BO for Configuration Type	Do not allow new instances
W1-ConfigTypePhysicalBO	Physical BO for Configuration Type	Do not allow new instances

### Example Configuration Type- W1-ConfigType

This business object includes the following details:

Option/Field	Description
Business Object	W1-ConfigType
Description	ConfigurationType
Maintenance Object	W1-CONFIGTYP (Configuration Type)
Application Service	W1-CONFIGTYP (Configuration Type MO)
Instance Control	Allow new instances
Options	Portal Navigation Option: w1cfgtypTabMenu (Configuration Type)

## Contact Type Objects

Option/Field	Description
Maintenance Object	W1-CONTACTTYPE
Description	Contact Type
Service Name	W1-CONTACTTYPE (Contact Type Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_CONTACT_TYPE (Contact Type) - Primary</li> <li>W1_CONTACT_TYPE_CHAR (Contact Type Characteristics) - Child</li> <li>W1_CONTACT_L (Contact Type Language) - Child</li> </ul>

### Base Package Contact Type Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-ContactTypeBundlingAddBO	Bundling Add BO for Contact Type	Do not allow new instances
W1-ContactType	Contact Type	Allow new instances
W1-ContactTypePhysicalBO	Physical BO for Contact Type	Do not allow new instances

### Example Contact Type- W1-ContactType

This business object includes the following details:

Option/Field	Description
Business Object	W1-ContactType
Description	ContactType
Maintenance Object	W1-CONTACTTYPE(Contact Type)
Application Service	W1-CONTACTTYPE(Contact Type MO)
Instance Control	Allow new instances
Options	Portal Navigation Option: w1conttyTabMenu (Contact Type)

## Node Type Objects

Option/Field	Description
Maintenance Object	W1-NODETYPE
Description	Node Type
Service Name	W1-NODETYPE (Node Type Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_NODE_TYPE (Location/Organization Type) - Primary</li> <li>W1_NODE_TYPE_CHAR (Location/Organization Type Characteristics) - Child</li> <li>W1_NODE_TYPE_L (Location/Organization Type Language) - Child</li> <li>W1_PARENT_NODE_TYPE (Parent Location/Organization Type) - Child</li> <li>W1_PEER_NODE_TYPE (Peer Location/Organization Type) - Child</li> </ul>

### Base Package Node Type Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-AssetLocationType	Asset Location Type	Allow new instances
W1-NodeTypeBundlingAddBO	Bundling Add BO for Node Type	Do not allow new instances
W1-OrganizationType	Organization Type	Allow new instances
W1-NodeTypePhysicalBO	Physical BO for Node Type	Do not allow new instances
W1-StorageLocationType	Storage Location Type	Allow new instances

### Example Node Type- W1-AssetLocationType

This business object includes the following details:

Option/Field	Description
Business Object	W1-AssetLocationType
Description	Asset Location Type
Maintenance Object	W1-NODETYPE (Node Type)
Application Service	W1-ASSETLOCTYPEBOAS (Asset Location Type BO)
Instance Control	Allow new instances
Options	Portal Navigation Option: w1aslotyTabMenu (Asset Location Type)



## Service History Type Objects

Option/Field	Description
Maintenance Object	W1-SVCHSTTY
Description	Service History Type
Service Name	W1-SVCHST (Service History Type Maintenance)
Tables	<ul style="list-style-type: none"> <li>W1_SVC_HIST_TYPE (Service History Type) - Primary</li> <li>W1_SVC_HIST_TYPE_CHAR (Service History Type Characteristic) - Child</li> <li>W1_SVC_HIST_TYPE_L (Service History Type Language) - Child</li> <li>W1_SVC_SCHED (Service Schedule) - Child</li> </ul>

### Base Package Service History Business Objects

The base package includes the following business objects:

Business Object	Description	Instance Control
W1-SvcHstTypeBundlingAddBO	Bundling add BO for Service History Type	Do Not Allow New Instances
W1-SvcHstTypePhysicalBO	Physical BO for Service History Type	Do Not Allow New Instances
W1-ServiceHistoryType	Service History Type	Allow New Instances

### Example Service History Type - W1-ServiceHistoryType

This business object includes the following details:

Option/Field	Description
Business Object	W1-ServiceHistoryType
Description	Service History Type
Maintenance Object	W1-SVCHSTTY (Service History Type)
Application Service	W1-SVCHSTTY (Service History Type MO)
Instance Control	Allow new instances
Options	<ul style="list-style-type: none"> <li>Display UI Map: W1-ServiceHistoryTypeDisp (Service History Type - Display)</li> <li>Portal Navigation Option: w1svhstyTabMenu (Service History Type)</li> <li>Maintenance UI Map: W1-ServiceHistoryTypeMaint (Service History Type - Maintenance)</li> </ul>
Algorithms	Validation: W1-SVCSCHVAL (Service History Work Order Creation Interval Validation)

## Base Package Data Areas

Data areas provide a common schema location for re-used schema structures. The table below lists the available base package data areas.

Navigate to **Admin Menu > Data Areas** to view more details concerning these data areas.

Data Area	Description
W1-ActCmpInboundCommMain	Activity Completion Inbound Comm Main
W1-ActCmplInboundCommCore	Activity Completion Inbound Comm Core
W1-ActivityCore	Activity Core
W1-ActivityInfo	Activity Info
W1-ActivityScheduleDetails	Activity Schedule Details
W1-ActivityTypeCommon	Activity Type Common
W1-ActivityTypeCore	Activity Type Core
W1-ActivityTypeIdentifier	Activity Type Identifier
W1-ActivityTypeInfo	Activity Type Info
W1-ActivityTypeMain	Activity Type Main
W1-ActivityTypeOutboundInfo	Activity Type Outbound Info
W1-ActivityTypeScheduleInfo	Activity Type Schedule Info
W1-AssetCfgDtl	Common Asset Configuration Detail
W1-AssetCommonAssetNodeDetail	Common Asset Node fields
W1-AssetCompCfgDtl	Asset Detail for Asset/Component Config
W1-AssetCompToAssetCfgDtl	Asset Detail for Asset/Comp to Ast Config
W1-AssetCompToAssetCompCfgDtl	Ast Detail for Ast/Comp to Ast/Comp Config
W1-AssetDposHistoryInboundSync	Asset Disposition History - Inbound Sync
W1-AssetDposHistoryNoFKRefs	Asset Disposition History - No FK Refs
W1-AssetDposHistoryNoNode	Asset Disposition History - No Node
W1-AssetIdentifier	Asset Identifier
W1-AssetIdentifierAlt1	Asset Identifier Alt1
W1-AssetIdentifierAlt2	Asset Identifier Alt2
W1-AssetIdentifierAlt3	Asset Identifier Alt3
W1-AssetInfo	Asset Info
W1-AssetListData	Common Asset List Data
W1-AssetLocationMain	Asset Location Main
W1-AssetLocationTypeMain	Asset Location Type Main
W1-AssetMain	Asset - Main
W1-AssetRepActAssets	Asset Replication Activity Assets
W1-AssetRepActMain	Asset Replication Activity Main

Data Area	Description
W1-AssetRepControl	Asset Replication Activity Asset Control
W1-AssetToAssetCfgDtl	Asset Detail for Asset to Asset Config
W1-AssetToAssetCompCfgDtl	Asset Detail for Asset to Ast/Comp Config
W1-AssetTypeMain	Asset Type - Main
W1-AttachedToAssetIdentifier	Attached To Asset Identifier
W1-AttachedToAssetInfo	Attached To Asset Info
W1-AttachmentDataMover	Attachment Data Mover
W1-AttachmentSuppression	Attachment Suppression
W1-BusinessMain	Business Main
W1-CmnAdminExceptionHandling	Common Admin Exception Handling Information
W1-CommonActivityInfo	Common Activity Information
W1-CommonAddressInfo	Common Address Information
W1-CommonAssetCriteria	Common Asset Criteria
W1-CommonAssetDetail	Common Asset Detail
W1-CommonAssetDposDetail	Common Disposition Detail for Asset
W1-CommonAssetInfo	Common Asset Information
W1-CommonAstDposHistDposDetail	Disposition Detail for Historical Records
W1-CommonBktCfg	Common Bucket Configuration
W1-CommonBktCfgMain	Common Bucket Configuration Main
W1-CommonBktRangeVal	Common Bucket Range Values
W1-CommonCompletionEvent	Completion Event Common
W1-CommonCompnCriteria	Common Component Criteria
W1-CommonComponentDetail	Common Component Detail
W1-CommonComponentDposDetail	Common Disposition Detail for Component
W1-CommonConfigNodeInfo	Common Location Information
W1-CommonExtendLookupDetail	Common Detail of Extendable Lookup BOs
W1-CommonGeneratorData	Common Generator Data
W1-CommonNodeCriteria	Common Location Criteria
W1-CommonNodeInfo	Common Location Information
W1-CommonNodeType	Common Node Type
W1-CommonRelationship	Relationship Common
W1-CommonServiceHistory	Common Service History
W1-CommonServiceHistoryType	Common Service History Type
W1-CommonSnapshotLocation	Common for Snapshot Location

Data Area	Description
W1-CommonSyncReqInDtlDisplay	Common for Sync Request Details Display
W1-CommonSyncRequestAsset	Common for Sync Request Asset
W1-CommonSyncRequestAssetNode	Common for Sync Request Asset-Node
W1-CommonSyncRequestContact	Common for Sync Request Contact
W1-CommonSyncRequestInData	Sync Request Inbound Common Data
W1-CommonTestResults	Common Test Results
W1-CommonWorkOrderData	Common Work Order Data
W1-CompCfgDtl	Common Component Configuration Detail
W1-CompletionEventDataMover	Completion Event Data Mover
W1-CompletionEventList	Completion Event List
W1-CompletionEventMain	Completion Event Main
W1-CompletionEventRoot	Completion Event Root
W1-CompletionEventTypeMain	Completion Event Type Main
W1-CompletionEventTypeRoot	Completion Event Type Root
W1-ComponentTypeMain	Component Type - Main
W1-ConfigMain	Configuration - Main
W1-ConfigReportCriteria	Common Configuration Report Criteria
W1-ConfigReportMain	Configuration Report - Main
W1-ConfigTypeMain	Configuration Type - Main
W1-ConfigWOAdditionalCriteria	Configuration WO Additional Criteria
W1-ContactInfo	Contact Info
W1-ContactTypeMain	Contact Type Main
W1-CrePayloadCmplEvtCommon	Create Payload Completion Event Common
W1-DataMover	Data Mover
W1-DataMoverServiceScriptInfo	Data Mover Service Script
W1-ErrorInfoData	Error Information Data
W1-GenericPayload	Generic Payload
W1-InboundCommTypeCore	Inbound Communication Type Core
W1-InboundCommunicationCore	Inbound Communication Core
W1-InboundCommunicationMain	Inbound Communication Main
W1-LocationIdentifierAlt1	Location Identifier Alt1
W1-LocationInfo	Location Address Info
W1-ManufacturerMain	Manufacturer Main
W1-MDM2AssetSnapshot	MDM2 Asset Snapshot

Data Area	Description
W1-MDMAssetSnapshot	MDM Asset Snapshot
W1-MessageValidation	Message Validation
W1-NodeContacts	Node Contacts
W1-NodeCriticality	Node Criticality details
W1-NodeFieldInfo	Node Field Information
W1-NodeIdentifier	Location Identifier
W1-NodeInfo	Location Info
W1-NodeLocation	Location Address Information
W1-ObjectsCreated	Objects Created
W1-OrganizationMain	Organization Main
W1-OrganizationTypeMain	Organization Type Main
W1-OutboundMessageCore	Outbound Message Core
W1-PayloadDataMover	Payload Data Mover
W1-PeerSpecCommon	Common Elements For Peer Specification BOs
W1-PersonMain	Person Main
W1-RetryDetails	Retry Details
W1-ServiceHistoryExclusionInfo	Service History Exclusion Information
W1-ServiceHistoryMain	Service History Main
W1-ServiceHistoryTypeMain	Service History Type Main
W1-SingleAssetCfgDtl	Asset Detail for Single Asset Config
W1-SpecificationCommon	Common elements for specification BOs
W1-StorageLocationMain	Storage Location Main
W1-StorageLocationTypeMain	Storage Location Type Main
W1-SyncConstructSnapshot	Sync Construct Snapshot
W1-UICreationPayloadDataMover	UI Creation Payload Data Mover
W1-UpdPayloadCmplEvtCommon	Update Payload Completion Event Common
W1-ValidCommToNodeTypes	Valid Communicate-To Location Types
W1-ValidParentNodeTypes	Valid Parent Node Types Details
W1-WorkOrderCore	Work Order Core
W1-WorkOrderData	Common Work Order Data
W2-CommonFirmwareReleaseDetail	Common Firmware Release Detail
W2-CommonSnapshotSP	Common for Snapshot Service Point
W2-FirmwareUpdate	Completion Event Fragment to Update Firmware
W2-MetrologyFirmwareUpdate	Completion Event Fragment to Update Metrology Firmware

---

Data Area	Description
W2-NICFirmwareUpdate	Completion Event Fragment to Update NIC Firmware
W2-ServicePointContacts	Service Point Contacts
W2-ServicePointFieldInfo	Service Point Field Information
W2-ServicePointLifeSupport	Service Point Life Support
W2-ServicePointMain	Service Point Main
W2-VehicleContacts	Vehicle Contacts
W2-VehicleMain	Vehicle Main

## Base Package Extendable Lookups

These extendable lookups use the following as a basis:

- **Maintenance Object:** F1-EXT LKUP(Extendable Lookup)
- **Application Service:** F1LEXTLKUP (Extendable Lookup Value MO)
- **Options:** Portal Navigation Option: flexlkpTabMenu (Extendable Lookup)
- **Instance Control:** Allow new instances

Business Object	Description	Additional Information
W1-AssetDisposition	Asset Disposition	Validation Algorithm: W1-ASTDPNVAL (Asset Disposition Validation)
W1-ConfigClass	Configuration Class	
W1-DSIIDentifierMap	DSI Identifier Map	Validation Algorithm: W1-DSIIDVAL (Validate Data Source Indicator)
W2-CommunicationComponentCfg	Communication Component Measurement Configuration	
W2-Key	Key	
W2-ManualMeterConfiguration	Manual Meter Configuration	
W2-ServicePointInstruction	Service Point Instruction	
W2-ServicePointWarning	Service Point Warning	
W2-SmartMeterConfiguration	Smart Meter Configuration	
W2-SiteLocation	Site Location	

# Chapter 4

---

## Integrating with Other Systems

This chapter provides information related to integrating with other applications.

This section includes the following:

- [About Integrations](#)
- [Defining the External System](#)
- [Specific Product Integrations](#)



## About Integrations

The application integrates with external systems such as Oracle Utilities Meter Data Management through inbound and outbound messaging, or communications. Communications are records of messages sent between the source system and an external system and are most often created as a result of an activity.

In a typical integration, the following apply:

- Oracle Utilities Operational Device Management is typically the “system of record” for asset data.
- Once devices, or assets, are received and inspected in Oracle Utilities Operational Device Management, the object lifecycle sends data about the device to the external system.
- Service points and any associated contact information is sent as an inbound communication to Oracle Utilities Operational Device Management from the external system.
- Activity completion information, such as device installation or removal, is sent to Oracle Utilities Operational Device Management from the external system to keep location data up to date.

## Integrated Functionality

The following list provides some of the possible functionality that can be completed in an integration between Oracle Utilities Operational Device Management and a meter data management system:

- Moving new devices into the Oracle Utilities Operational Device Management asset register, resulting in outbound sync to the external system
- Retiring devices in Oracle Utilities Operational Device Management (**Retired** status in lifecycle)
- Changing device attributes in Oracle Utilities Operational Device Management (such as serial number change)
- Creating new service points in the external system, triggering an outbound sync to Oracle Utilities Operational Device Management
- Changing key service point information (address, geo location, related contacts) in the external system, triggering an outbound sync to Oracle Utilities Operational Device Management
- Deactivation of a service point in the external system, triggering an outbound sync to Oracle Utilities Operational Device Management
- Installation of physical devices in the external system, triggering an outbound sync to Oracle Utilities Operational Device Management
- Removing physical devices in the external system, triggering an outbound sync to Oracle Utilities Operational Device Management

## Defining the External System

You must create an External System for each external system to which Oracle Utilities Operational Device Management will communicate. Each external system defines a set of outbound message types that will be sent to that system. Each external system outbound message type also specifies the following:

- The processing method used to send the message (Batch, XAI, or Real-time)
- The corresponding XAI senders
- Batch Control (if Processing Method is set to Batch)
- Message XSL, W3C Schema, and Response XSL (as applicable)

## Data Synchronization

In most integrations synchronization of data between the two systems is supported through a set of business objects, master configurations, batch controls, and pre-configured XAI Inbound Services.

### Types of Requests

Data synchronization is performed via synchronization requests sent from the external system via a middleware integration component. The application supports three types of synchronization requests:

#### Initial Synchronization Requests

Initial synchronization requests are used during the initial configuration of the integration. They facilitate import of data that synchronizes service points, locations, and contact information.

#### Ongoing Synchronization Requests

Ongoing synchronization requests are used when updating existing data in Oracle Utilities Operational Device Management based on changes in corresponding data in the external system. Ongoing synchronization requests can be used to update locations, assets or components and to send activity completion information.

#### Composite Synchronization Requests

Composite synchronization requests are requests that contain synchronization requests for multiple types of data within a single request. For example, a composite request could contain requests to update a location, and complete an activity. This supports situations where multiple types of data must be updated based on a single change in the external system.

### Base Package Synchronization Request Business Objects

Navigate to **Admin > Business Object** and search for “W1%sync%” to locate these objects.

The table below lists the base package synchronization request business objects:

Business Object	Description	Based on
W1-InitialSyncRequestAsset	Asset Initial Sync Request	F1-SYNCREQIN Inbound Sync Request
W1-InitialSyncRequestContact	Contact Initial Sync Request  Provides synchronization of contact information	F1-SYNCREQIN Inbound Sync Request
W1-InitialSyncRequestLocation	Location Initial Sync Request	F1-SYNCREQIN Inbound Sync Request

Business Object	Description	Based on
W1-MDMAssetSyncReqOutMsg	MDM Asset Sync Request Outbound Message	F1-OUTMSG Outbound Message
W1-MDMAssetSyncRequest	<p>MDM Asset Synchronization Request</p> <p>Defines the behavior of an outbound sync request for Oracle Utilities Meter Data Management. The schema elements define information required by Oracle Utilities Meter Data Management to maintain devices and support other processes in Oracle Utilities Meter Data Management.</p> <p>The external system and outbound message type used for message creation are defined in the Oracle Utilities Meter Data Management Integration Master Configuration BO (W1-MDMIntegrationMasterConfig). The base package supplies the To Do Type W1-SYRQO for use with this process.</p>	F1-SYNC REQ Sync Request
W1-OngoingSyncRequestAssetNode	<p>Asset-Node Ongoing Sync Request</p> <p>Defines the behavior of an ongoing sync request. The schema elements define information required to maintain the Asset-Node information in Oracle Utilities Operational Device Management.</p> <p>As part of sync request processing, an acknowledgement message is sent to the external system (either positive or negative). The "Outbound Message Type" BO option contains a reference to the outbound message BO to use for this purpose. The base package includes BO W1-OutboundAcknowledgeMessage to be used on the outbound message type configuration. Refer to Defining Outbound Message Types in the user documentation for more information.</p> <p>The base package also supplies the To Do Type W1-SYRQI for use with this process.</p>	F1-SYNCREQIN Inbound Sync Request

Business Object	Description	Based on
W1-OngoingSyncRequestContact	<p>Contact Ongoing Sync Request</p> <p>This business object defines the behavior of an ongoing sync request. The schema elements define information required to maintain the contact in Oracle Utilities Operational Device Management.</p> <p>As part of sync request processing, an acknowledgement message is sent to the external system (either positive or negative). The "Outbound Message Type" BO option contains a reference to the outbound message BO to use for this purpose. The base package includes BO W1-OutboundAcknowledgeMessage to be used on the outbound message type configuration. Refer to Defining Outbound Message Types in the user documentation for more information.</p> <p>The base package also supplies the To Do Type W1-SYRQI for use with this process.</p>	F1-SYNCREQIN Inbound Sync Request
W1-OngoingSyncRequestLocation	<p>Location Ongoing Sync Request</p> <p>Defines the behavior of an ongoing sync request. The schema elements define information required to maintain the Location in Oracle Utilities Operational Device Management.</p> <p>As part of sync request processing, an acknowledgement message is sent to the external system (either positive or negative). The "Outbound Message Type" BO option contains a reference to the outbound message BO to use for this purpose. The base package includes BO W1-OutboundAcknowledgeMessage to be used on the outbound message type configuration. Refer to Defining Outbound Message Types in the user documentation for more information.</p> <p>The base package also supplies the To Do Type W1-SYRQI for use with this process.</p>	F1-SYNCREQIN Inbound Sync Request

Business Object	Description	Based on
W1-OutboundAcknowledgeMessage	Outbound Acknowledgement Message	F1-OUTMSG Outbound Message
W1-SeederSyncReqMasterConfig	Seeder Sync Request Master Configuration	F1-MSTCFG Master Configuration
W1-SyncRequestSeeder	<p>Synchronization Request Seeder</p> <p>Defines the behavior of a seeder sync request. Its schema contains elements common to all sync requests and has placeholders for the sync request details that vary for each individual sync request. It contains a pre-processing algorithm that determines the sync request BO to instantiate based on the incoming external system, MO and initial load indicator on the sync request (see also algorithm type W1-DETSYNRBO and BO W1-SeederSyncMasterConfig). The seeder sync request only persists in the database if the correct sync request BO cannot be determined by the pre-processing algorithm.</p> <p>The seeder sync request is used on the XAI inbound service W1-SyncRequestInbound. The existence of the seeder simplifies the interface with the integration layer as the same service is invoked regardless of which master data object the sync request is for (an exception is the asset-node sync, which has its own unique schema).</p>	F1-SYNCREQIN Inbound Sync Request

## Master Configurations

Master configurations are used to define aspects of the synchronization process, including resolution of foreign keys and the type of synchronization business objects to use for each type of data being synchronized. Navigate to **Admin > Master Configuration** to review or modify this information.

The maintenance object for all of these configurations is F1-MSTCFG.

The table below lists the master configurations used in data synchronization processing.

Master Configuration	Description
Asset Search Master Configuration	<p>BO: W1-AssetSearchMasterConfig</p> <p>This master configuration sets parameters for retrieving asset identifier types to identify which assets should be included on an Asset Criteria work order when the work order is created to complete firmware version updates. When generating the work order the system reads the Asset Search Master Configuration business object and performs the following:</p> <ul style="list-style-type: none"> <li>Retrieves the list of identifier types defined for Asset on the asset record.</li> <li>Compares the identifier types on the asset to the values in the Firmware Asset Identifier Types list in the master configuration</li> <li>Includes the valid work order the firmware versions based upon the matches found.</li> </ul> <p>For example, any asset or component with the Asset Identifier Type defined here and with the "Applicable to Asset" or "Applicable to Component" value set to "Yes" will be included on the work order.</p> <p>This master configuration can be configured with any of the valid asset identifier types that will be included in these work orders.</p> <p>Note: If the identifier is configured as 'Yes' for <b>Applicable to Asset</b>, the firmware identifiers will be shown on the <b>Asset Criteria</b> work order. If it is configured as 'Yes' for <b>Applicable to Component</b>, the firmware identifiers will be shown on the <b>Component Criteria</b> work order.</p> <p>If no identifier types are configured or if the property is set to "No," the <b>Firmware Identifiers</b> section on the work order is not shown. Instead, all of the identifiers will be shown in the general <b>Identifiers</b> section on the work order.</p> <p>When specifications are added using a firmware specification business object, this master configuration also determines the valid values that are included in the Asset Identifier Type drop down.</p> <p>If the master configuration is not populated, the system retrieves values from the Asset_ID_TYPE_FLG lookup.</p>
BI Extract Parameters Configuration	<p>BO: W1-BIExtractParameters</p> <p>This business object is used to configure extract parameters used with business intelligence. If this is left blank, Oracle Utilities Business Intelligence will not be able to extract firmware information from Oracle Utilities Operational Device Management.</p> <p>Please refer to the Oracle Utilities Business Intelligence documentation for more information.</p>

Master Configuration	Description
Generic BI Configuration	<p>BO: F1-BIGeneralMasterConfig</p> <p>Contains configurations needed for interfacing with Business Intelligence.</p>
Master Data Synchronization Configuration	<p>F1-SyncCfgBO</p> <p>Lists all foreign key references that need resolution. Each one should reference the view that contains the external key / production key cross-reference. For entities that undergo both the initial and the ongoing sync, two views are specified. For entities that undergo the ongoing sync, an external system / ID type mapping is specified to cater for entities that might be synchronizing from more than one external system.</p>
MDM Integration Master Configuration	<p>W1-MDMIntegrationMasterConfig</p> <p>This master configuration business object contains information necessary for the integration with Oracle Utilities Meter Data Management. The external system for Oracle Utilities Meter Data Management as defined within Oracle Utilities Operational Device Management, as well as its URL are captured here. The external system contains the Outbound Message Types and their corresponding configuration for communicating with the external system. The base package includes the message XSL W1-ODMMDMRequestAddNamespace.xsl and W1-ODMMDMResponseAddNamespace.xsl. Refer to External Systems in the user documentation for more information. The parameter that defines the length of time Oracle Utilities Operational Device Management waits for a response from Oracle Utilities Meter Data Management is also defined here. Refer to algorithm W1-EXTSYSRST for information on how this parameter is used.</p>
Migration Assistant Configuration	<p>F1-MigrationAssistantConfig</p> <p>The functionality related to this master configuration allows an implementation to migrate all of their system configuration data from one environment to another. Objects such as business objects, algorithms, scripts, rates, units of measure, ect, can be migrated.</p> <p>The Export directory is the directory name, as seen from the batch executer, where the export file will be written to.</p> <p>The Import directory is the directory name, as seen from the batch executer, where the import file will be read from.</p> <p>The File Suffix (for example a file type like "txt") will be appended to the file name if the file does not already have a suffix.</p>

Master Configuration	Description
Seeder Sync Request Master Configuration	<p>W1-SeederSyncReqMasterConfig</p> <p>This master configuration business object contains the information necessary for the seeder sync request (see W1-SyncRequestSeeder BO) to determine the correct sync request BO to create. It is keyed off of external system, maintenance object and the value of the initialLoad indicator on the sync request (i.e., whether or not an initial or ongoing sync request is being processed). See also algorithm type W1-DETSYNRBO for details on how this information is used.</p> <p>This business object also contains the ongoing sync key reference views used by ongoing sync processing to check for the existence of a particular record prior to adding it to Oracle Utilities Operational Device Management. See also algorithm type W1-SR-PREADD for details on how this information is used.</p>

## Batch Controls

Batch controls perform processing for initial synchronization requests such as allocating keys to data, resolving foreign keys, and loading data (instantiating business objects representing entities such as devices, measuring components, etc).

“Initial Sync Request - Resolve Keys XXX” batch controls invoke a generic maintenance object transition process to invoke the “Resolve Keys - Initial Sync” algorithm for synchronization requests of the appropriate type. Parameters used by “resolve keys” batch controls include:

- **Maintenance Object:** (Required) the maintenance object (device, device configuration etc.) to be processed. This must be set to the Sync Request maintenance object for the batch control (device for device synchronization requests, service point for service point synchronization requests, etc).
- **Restrict By Batch Code:** Restricts processing to synchronization requests whose current state is linked to this batch code.
- **Restrict By Business Object:** Restricts processing to synchronization requests linked to this business object.
- **Restrict By Status Code:** Restricts processing to synchronization requests of this status (default: KEY\_ALLOCATD).
- **Max Errors:** Specifies the maximum number of errors allowed before the process exits.

“Initial Sync Request - Load Data XXX” batch controls load data (created new instances of business objects) for requests of the appropriate type (device, measuring component, etc). Parameters used by “load data” batch controls include:

- **Maintenance Object:** (Required) the maintenance object (device, device configuration, etc) to be processed. This must be set to the Sync Request maintenance object for the batch control (device for device synchronization requests, service point for service point synchronization requests, etc).
- **Restrict By Batch Code:** Restricts processing to synchronization requests whose current state is linked to this batch code.
- **Restrict By Business Object:** Restricts processing to synchronization requests linked to this business object.
- **Max Errors:** Specifies the maximum number of errors allowed before the process exits.



Refer to [Appendix A: Batch Controls](#) for a list of these synchronization batch controls.

### Batch Scheduling

The following sequence indicates the order in which the batch controls on the Initial Sync Request BO life cycle should be executed.

1. Transformation / Schema Validation Job
2. Key Allocation Job
3. Foreign Key Resolution / BO Validation Job (dependent on ALL Key Allocation Jobs finishing)
4. Load Job

### XAI Inbound Services

XAI inbound services are used to facilitate invoking the Sync Request Seeder business object by the middleware components upon receipt of a synchronization request.

The table below lists the pre-configured XAI Inbound Services used to process synchronization requests.

XAI Inbound Service	Description	Schema Name
W1-CompnCriteriaActGenerator	Component Criteria Activity Generator	W1-CompnCriteriaActGenerator
W1-SyncRequestInbound	Sync Request Inbound	W1-SyncRequestSeeder

### Understanding Synchronization Request Processing

This section provides an overview of the processing that takes place when a synchronization request is sent. For each step in the process, the table below provides a brief description of the processing that takes place, and lists the specific objects involved.

Step	Process	Objects
1.	The external system sends a synchronization request to the middleware integration layer.  For example, consider a request to update information about an asset installation.	
2.	The middleware components transform the request from the external system to the format, to the format used by Oracle Utilities Operational Device Management (this format is based on the business object schemas of the synchronization request business objects).	
3.	The middleware component invoked the appropriate XAI Inbound Service, and sends the transformed request.	XAI Inbound Service: W1-SyncRequestInbound (mapped to the W1-SyncRequestSeeder business object)
4.	The XAI Inbound Service invokes the Sync Request Seeder business object, which in turn, determines which synchronization request business object to create (based on the type of data in the synchronization request and the Seeder Sync Master Configuration).	Synchronization Request BO: W1-SyncRequestSeeder

Step	Process	Objects
5.	<p>For initial synchronization requests, background processing creates master data for each synchronization request, including the following steps:</p> <ul style="list-style-type: none"><li>• Data Transformation / Schema Validation</li><li>• Allocate Keys</li><li>• Resolve Foreign Keys / Validate Business Object</li><li>• Load Data</li></ul>	

## Specific Product Integrations

Integrations with other Oracle Utilities applications helps to provide clients with a complete applicationsolution. This section identifies the specific product integrations that include Oracle Utilities Operational Device Management, including:

- [Integration with Oracle Utilities Meter Data Management](#)
- [Integration with Oracle Utilities Advanced Spatial Analytics](#)

### Integration with Oracle Utilities Meter Data Management

The Oracle Utilities Operational Device Management integration with Oracle Utilities Meter Data Management is referred to as the “Oracle Utilities Integration for Device Operations”. This integration is focused on the following key areas:

- Asset - Device synchronization
- SP - Location synchronization
- Contact synchronization
- Install Event - Asset Location synchronization

Refer to the *Oracle Utilities Integration for Device Operations Implementation Guide* for details on the integration and configuration guidelines.

### Integration with Oracle Utilities Advanced Spatial Analytics

Oracle Utilities Business Intelligence provides analysis of and data from various applications using Oracle Business Intelligence Enterprise Edition built-in metaphors. Non-spatial analytics, information that is not tied to geography, is represented in a series of dashboards showing tables, bar graphs, pie charts, and gauges. Spatial analytics, or information that is geographically related, use integrated Oracle Map Viewer technology to represent events, weather data, map data, and other geographical information.

Please refer to the *Oracle Utilities Advanced Spatial Analytics* documentation for more detailed information.

# Appendix A

---

## Batch Controls

This appendix describes the base package batch processes. Use the **Batch Control** portal and **Application Viewer** for more details about these batch processes.

This section includes the following:

- [About Monitors](#)
- [Base Package Batch Controls](#)

## About Monitors

The main batch controls that might require configuration are the monitors. Monitors determine when an event has taken place within the system and they trigger another event in response. These may or may not require modification to the interval, or frequency of doing a status check on events and launching triggers.

As a general rule, all monitors are executed the first time an entity enters a given state. After that event, the system relies upon the batch process configuration to determine when the process is called again.

This section includes the following:

- [Non-Timed Monitors](#)
- [Timed Monitors](#)
- [Synchronization Requests](#)

## Non-Timed Monitors

Monitor type batch controls can be configured with no defined timer interval so that they can be run whenever required. Typically, organizations that use a third-party software to manage monitoring and batch triggers would configure monitors in this way.

## Timed Monitors

Monitor type batch controls that do not have third-party software to trigger the processes can use the simple processing in base package batch controls to launch the batches at whatever time interval is set as the timer interval.

## Synchronization Requests

Monitors used for data synchronization load data for requests of the type indicated by the description or they invoke a maintenance object transition process.

## Base Package Batch Controls

This section lists the batch controls that are provided in the base package. These are all untimed monitors.

Batch	Description
W1-ACT	Activity MO Periodic Monitor Process
W1-ASCDU	Asset Current Disposition Update
W1-ASSET	Asset Monitor
W1-CEVT	Completion Event MO Periodic Monitor Process
W1-CFG	Configuration Periodic Monitor Process
W1-CFGRP	Configuration Report MO Periodic Monitor Process
W1-COMIN	Communication Inbound MO Periodic Monitor Process
W1-SIIER	Initial Sync Request - Error
W1-SIKAS	Initial Sync Request - Resolve Keys Asset
W1-SIKCN	Initial Sync Request-Resolve Keys Contact
W1-SIKSP	Initial Sync Request - Resolve Keys SP
W1-SILAS	Initial Sync Request-Load Data Asset
W1-SILCN	Initial Sync Request - Load Data Contact
W1-SILDD	Initial Sync Request - Loaded
W1-SILSP	Initial Sync Request - Load Data SP
W1-SIOER	Ongoing Sync Request - Error
W1-SIOPE	Ongoing Sync Request - Pending
W1-SRSER	Sync Request Seeder - Error
W1-SSWO	Service Schedule WO MO Periodic Monitor Process
W1-SVHST	Service History MO Periodic Monitor Process
W1-SYRQI	Inbound Sync Request MO Monitor Process
W1-WO	Work Order MO Periodic Monitor Process

### Verifying the status of a Batch Process

To verify the status of a batch process you can check the Batch Job Submission portal and search for the related batch control. For example, if you have scheduled activities to created by batch processing from a work order, you would search for **W1-WO**.

1. Navigate to **Main Menu > Batch > Batch Job Submission**.
2. Search for the appropriate batch control to find out the status of a job.

# Appendix B

---

## Configuration Migration Assistant

The Configuration Migration Assistant (CMA) provides customers with a flexible, extensible facility for migrating configuration data from one environment to another e.g., from a development environment to a production environment. Data is exported from the source system to a file. The file can then be checked in to a version control system for reuse, or can be immediately imported into the target system and applied.

At a high level, migrating data involves the following steps:

1. Create a structured **Migration Plan** and specify business objects one or more to migrate.
2. Create a **Migration Request** to specify one or more Migration Plans for export and the specific objects to export using that plan.
3. Create a **Migration Data Set Export** object to register the intent to export specified requests.
4. Create a **Migration Data Set Import** object to register the intent to import completed exports.

Please read and review the “Configuration Migration Assistant” section in the *Oracle Utilities Application Framework Administration Guide* before attempting to use this functionality.

The following sections provide a reference to the information needed to configure objects and criteria for migration, including the following:

- [Migration Requests](#)
- [Migration Plans](#)

# Migration Requests

Migration Requests are unordered lists of Migration Plans that are to be migrated together. Algorithms, SQL statements, or specific keys are used to specify the set of objects you want to export. When complete, the request describes the complete data set that is extracted to the migration export file when the request is executed.

The base package migration request provided can be used as a basis for custom requests.

1. Navigate to **Admin Menu > Migration > Migration Request**.
2. Search for "**W1-OdmAdminData**" to see of the delivered request for admin objects.

This request includes all of the base package migration plans. SQL statements can be used to filter out objects by criteria.

## Data that Cannot be Exported

The CMA cannot export the following due to the attached transactional data:

- Activity types with attachments in W1\_ACTIVITY\_TYPE\_ATTACHMENT
- Specifications with attachments in W1\_SPECIFICATION\_ATTACHMENT
- Service history types with service schedules

The following SQL statements are used to filter out these objects:

Migration Plan	SQL	Purpose
Activity Type	NOT EXISTS SELECT 1 FROM W1_ACTIVITY_TYPE_ATTACHMENT ATT WHERE ATT.ACT_TYPE_CD = THIS.ACT_TYPE_CD	Filters out activity types with existing activity type attachments in the source environment.
Service History Type	NOT EXISTS SELECT 1 FROM W1_SVC_SCHED SCHED WHERE SCHED.SVC_HIST_TYPE_CD = THIS.SVC_HIST_TYPE_CD	Filters out specifications with existing service schedules in the source environment.
Specification	NOT EXISTS SELECT 1 FROM W1_SPECIFICATION_ATTACHMENT ATT WHERE ATT.SPECIFICATION_CD = THIS.SPECIFICATION_CD	Filters out specifications with existing specification attachments in the source environment.



# Migration Plans

Migration Plans comprise a group or groups of objects to migrate as a set of related objects. Essentially a set of instructions describing how the data to be exported is structured, plans allow objects to be migrated together as a logical unit to ensure consistency and completeness.

Base package migration plans are provided which can be used as a basis for custom plans.

1. Navigate to **Admin Menu > Migration > Migration Plan**.
2. Search for "**W1%**" to see all of the delivered plans.

The following table provides some details about the base package migration plans:

Migration Plan	Name	Business Object	Description
W1-ActivityType  <b>Next Migration Plan:</b> W1-CompletionEventType	Activity Type	W1-ActivityTypePhysicalBO	<p>Migrates activity types including completion event types, characteristics and outbound message types.</p> <p><b>Subordinate:</b> W1-CompletionEventTypePhysicalBO</p> <p>Activity Type/Completion Event Type foreign key reference to the Completion Event Type table (W1C239R02).</p>
W1-AssetType  <b>Next Migration Plan:</b> W1-NodeType	Asset Type	W1-AssetTypePhysicalBO	<p>Migrates asset types including valid location types, valid attached to asset types, valid service history types and characteristic types.</p> <p><b>Subordinate:</b> W1-NodeTypePhysicalBO</p> <p>Asset Type/Node Type foreign key reference to the Node Type table (W1C004R02).</p>
W1-ChildSpecification  <b>Next Migration Plan:</b> W1-Specification	Child Specification	W1-ChildSpecPhysicalBO	<p>Migrates child specifications including characteristic types.</p> <p><b>Subordinate:</b> W1-SpecificationPhysicalBO</p> <p>Child Specification foreign key reference to the Specification table (W1C278R01).</p>

Migration Plan	Name	Business Object	Description
W1-CommunicationType  <b>Next Migration Plan:</b> F1-CharacteristicType	Communication Type	W1-CommunicationTypePhysicalBO	<p>Migrates communication types including characteristic types.</p> <p><b>Subordinate:</b> F1-CharacteristicType</p> <p>Communication Type/ Characteristic foreign key reference to the Characteristic Type table (W1C264R02).</p>
W1-CompletionEventType  <b>Next Migration Plan:</b> F1-CharacteristicType	Completion Event Type	W1-ComplEventTypePhysicalBO	<p>Migrates completion event types including characteristic types.</p> <p><b>Subordinate:</b> F1-CharTypePhysicalBO</p> <p>Completion Event Type/ Characteristic foreign key reference to the Characteristic Type table (W1C256R02).</p>
W1-ContactType  <b>Next Migration Plan:</b> F1-CharacteristicType	Contact Type	W1-ContactTypePhysicalBO	<p>Migrates contact types including characteristic types.</p> <p><b>Subordinate:</b> F1-CharTypePhysicalBO</p> <p>Contact Type/Characteristic foreign key reference to the Characteristic Type table (W1C221R02).</p>
W1-Manufacturer  <b>Next Migration Plan:</b> F1-CharacteristicType	Manufacturer	W1-ManufacturerPhysicalBO	<p>Migrates manufacturers including characteristic types.</p> <p><b>Subordinate:</b> F1-CharTypePhysicalBO</p> <p>Manufacturer/Characteristic foreign key reference to the Characteristic Type table (W1C226R02).</p>
W1-NodeType  <b>Next Migration Plan:</b> W1-NodeType	Node Type	W1-NodeTypePhysicalBO	<p>Migrates node types including parent node types, peer node types and characteristic types.</p> <p><b>Subordinate:</b> W1-NodeTypePhysicalBO</p> <p>Node Type/Parent Node Type foreign key reference to the Node Type table (W1C202R02).</p>

Migration Plan	Name	Business Object	Description
W1-ServiceHistoryType  <b>Next Migration Plan:</b> F1-CharacteristicType	Service History Type	W1-SvcHstTypePhysicalBO	<p>Migrates service history types including characteristic types.</p> <p><b>Subordinate:</b> F1-CharTypePhysicalBO</p> <p>Service History Type/ Characteristic foreign key reference to the Characteristic Type table (W1C276R02).</p>
W1-Specification  <b>Next Migration Plan:</b> W1-Manufacturer	Specification	W1-SpecificationPhysicalBO	<p>Migrates specifications including manufacturer, asset type, peer specification and characteristic types.</p> <p><b>Subordinate:</b> W1-ManufacturerPhysicalBO</p> <p>Specification foreign key reference to the Manufacturer table (W1C227R03).</p>

---

# Index

## A

### Activity

- business objects 3-6
- maintenance object 3-6

### Activity Type

- business objects 3-29
- maintenance object 3-29

### Address Geocoding algorithm 3-3

### Algorithms 3-3

### Asset

- business objects 3-8
- maintenance object 3-8
- overview 2-3

### Asset Replication

- overview 2-3

### Asset Type

- business objects 3-30
- maintenance object 3-30

## B

### base time zone 3-3

### batch controls A-1

### Bucket Configuration

- business objects 3-10
- maintenance object 3-10

### Business Objects

- overview 2-3
- W1-ActivityCompletionEventType 3-31
- W1-ActivityComplInboundComm 3-15
- W1-ActivityGenerator 3-26
- W1-ActivityTypeBundlingAddBO 3-29
- W1-ActivityTypePhysicalBO 3-29
- W1-AdHocActivityCore 3-7
- W1-AssetAgeBktConfig 3-11
- W1-AssetCompCfgRpt 3-18
- W1-AssetCompCfgWO 3-26
- W1-AssetCompConfig 3-17
- W1-AssetCompletionEventType 3-31
- W1-AssetCompToAssetCfgRpt 3-18
- W1-AssetCompToAssetCfgWO 3-26
- W1-AssetCompToAssetCompCfgRpt 3-18
- W1-AssetCompToAssetCompCfgWO 3-26
- W1-AssetCompToAssetCompConfig 3-17
- W1-AssetCompToAssetConfig 3-17
- W1-AssetCriteriaActGenerator 3-26

- W1-AssetDisposition 3-9, 3-43
- W1-AssetDispositionHistory 3-9
- W1-AssetDposCmpEvtType 3-31
- W1-AssetDposHistInstallations 3-9
- W1-AssetDposHistInStoreMvmnts 3-9
- W1-AssetInstallAgeBktConfig 3-11
- W1-AssetInstoreAgeBktConfig 3-11
- W1-AssetListActGenerator 3-27
- W1-AssetLite 3-9
- W1-AssetLocation 3-22
- W1-AssetLocationType 3-36
- W1-AssetReplicationActivity 3-7
- W1-AssetReplicationComplEvent 3-14
- W1-AssetToAssetCfgRpt 3-18
- W1-AssetToAssetCfgWO 3-26
- W1-AssetToAssetCompCfgRpt 3-18
- W1-AssetToAssetCompCfgWO 3-26
- W1-AssetToAssetCompConfig 3-17
- W1-AssetToAssetConfig 3-17
- W1-AssetType 3-11, 3-30
- W1-AssetTypeBundlingAddBo 3-30
- W1-AssetTypePhysicalBO 3-30
- W1-BasicActivityType 3-29
- W1-BasicTest 3-25
- W1-BasicWorkOrder 3-27
- W1-BktCfgBundlingAddBO 3-11
- W1-BktConfigPhysicalBO 3-11
- W1-Business 3-19
- W1-ChildSpecBundlingAddBO 3-12
- W1-ChildSpecPhysicalBO 3-12
- W1-CommTypeBundlingAddBO 3-32
- W1-CommunicationTypePhysicalBO 3-33
- W1-CompletionEventRoot 3-13
- W1-ComplEventTypeBundlingAddBO 3-31
- W1-ComplEventTypePhysicalBO 3-31
- W1-CompnAssetListActGenerator 3-27
- W1-CompnCriteriaActGenerator 3-27
- W1-ComponentType 3-30
- W1-Config 3-17
- W1-ConfigClass 3-43
- W1-ConfigReport 3-18
- W1-ConfigType 3-34
- W1-ConfigTypeBundlingAddBO 3-34
- W1-ConfigTypePhysicalBO 3-34
- W1-ContactType 3-35
- W1-ContactTypeBundlingAddBO 3-35

- W1-ContactTypePhysicalBO 3-35
- W1-CreActivityPayCmpEvt 3-13
- W1-CreAssetAttachCmpEvt 3-13
- W1-CreAssetPayCmpEvt 3-13
- W1-CreateActivityInboundComm 3-15
- W1-CreComActivityInboundComm 3-15
- W1-CreNodeAttachCmpEvt 3-13
- W1-CreServiceHistoryAttCmpEvt 3-13
- W1-CreServiceHistoryPayCmpEvt 3-13
- W1-DataAreaCmpEvtType 3-31
- W1-DSIdentifierMap 3-43
- W1-GeneralCommunicationType 3-33
- W1-GeneralCompletionEventType 3-31
- W1-InboundCommunicationRoot 3-15
- W1-InitialSyncRequestAsset 4-3
- W1-InitialSyncRequestContact 4-3
- W1-InitialSyncRequestLocation 4-3
- W1-InOutSvcAsset 3-9
- W1-InOutSvcComponent 3-9
- W1-LocalActivityCore 3-7
- W1-Manufacturer 3-20
- W1-ManufacturerBundlingAddBO 3-20
- W1-ManufacturerPhysicalBO 3-21
- W1-MDMAAsset 3-9
- W1-MDMAAssetSyncReqOutMsg 4-4
- W1-MDMAAssetSyncRequest 4-4
- W1-MDMIIntegrationMasterConfig 4-8
- W1-NdAsAttToAsOutboundMessage 3-23
- W1-NodeCriteriaActGenerator 3-27
- W1-NodeLite 3-22
- W1-NodeTypeBundlingAddBO 3-36
- W1-NodeTypePhysicalBO 3-36
- W1-OngoingSyncRequestAssetNode 4-4
- W1-OngoingSyncRequestContact 4-5
- W1-OngoingSyncRequestLocation 4-5
- W1-Organization 3-22
- W1-OrganizationType 3-36
- W1-OutboundAcknowledgeMessage 4-6
- W1-OutboundActivityCore 3-7
- W1-OutboundActivityType 3-29
- W1-PeerSpecification 3-24
- W1-Person 3-19
- W1-ReplicationCompEvtType 3-31
- W1-ScheduledActivityType 3-29
- W1-SeederSyncReqMasterConfig 4-6, 4-9
- W1-ServiceHistory 3-25
- W1-ServiceHistoryType 3-37
- W1-ServiceHistTypeCmpEvtType 3-32
- W1-SingleAssetCfgRpt 3-18
- W1-SingleAssetCfgWO 3-27
- W1-SingleAssetConfig 3-17
- W1-Specification 3-24
- W1-SpecificationBundlingAddBO 3-24
- W1-SpecificationPhysicalBO 3-24
- W1-StorageLocation 3-22
- W1-StorageLocationType 3-36
- W1-SvcHstTypeBundlingAddBO 3-37
- W1-SvcHstTypePhysicalBO 3-37
- W1-SynchronizationAddContact 3-19
- W1-SyncRequestSeeder 4-6
- W1-TrackedAsset 3-9
- W1-TrackedComponent 3-9

- W1-TrnAssetCmpEvent 3-14
- W1-UpdAssetPayCmpEvt 3-14
- W1-UpdNodePayCmpEvt 3-14
- W2-CommunicationComponent 3-9
- W2-CommunicationComponentCfg 3-43
- W2-CommunicationComponentSpec 3-24
- W2-CommunicationRelay 3-9
- W2-CommunicationRelaySpec 3-24
- W2-FirmwareSpecification 3-24
- W2-FirmwareVersion 3-9
- W2-Key 3-43
- W2-ManualMeter 3-10
- W2-ManualMeterConfiguration 3-43
- W2-ManualMeterSpecification 3-24
- W2-ServicePoint 3-22
- W2-ServicePointInstruction 3-43
- W2-ServicePointWarning 3-43
- W2-SiteLocation 3-43
- W2-SmartMeter 3-10
- W2-SmartMeterConfiguration 3-43
- W2-SmartMeterSpecification 3-24
- W2-SmartTest 3-10
- W2-SynchronizationAddSP 3-22
- W2-Vehicle 3-22

## C

- Child Specification
  - business objects 3-12
  - maintenance object 3-12
- Child Specifications
  - overview 2-3
- Communication Type
  - business objects 3-32
  - maintenance object 3-32
- Completion Event
  - business objects 3-12
  - maintenance object 3-12
- Completion Event Type
  - business objects 3-31
  - maintenance object 3-31
- Completion Event Types
  - overview 2-3
- Component
  - overview 2-3
- Configuration
  - business objects 3-16
  - maintenance object 3-16
- Configuration Report
  - business objects 3-18
  - maintenance object 3-18
- Configuration Type
  - business objects 3-34
  - maintenance object 3-34
- Contact
  - business objects 3-19
  - maintenance object 3-19
- Contact Type
  - business objects 3-35
  - maintenance object 3-35

## D

Data Areas 3-38  
demonstration environment 1-3

## E

Extendable Lookup  
    W1-AssetDisposition 3-43  
    W1-ConfigClass 3-43  
    W1-DSIdentifierMap 3-43  
    W2-CommunicationComponentCfg 3-43  
    W2-Key 3-43  
    W2-ManualMeterConfiguration 3-43  
    W2-ServicePointInstruction 3-43  
    W2-ServicePointWarning 3-43  
    W2-SiteLocation 3-43  
    W2-SmartMeterConfiguration 3-43  
Extendable Lookups  
    base package 3-43  
    overview 2-4

## F

feature configuration 3-2

## I

Inbound Communication  
    business objects 3-14  
    maintenance object 3-14  
Installation Options 3-2

## L

legal time zone 3-3

## M

Maintenance Objects  
    F1-OUTMSG 3-23  
    W1-ACT 3-7  
    W1-ACTTY 3-29  
    W1-ASSET 3-9  
    W1-ASSETTYPE 3-30  
    W1-BKTCONFIG 3-11  
    W1-CEVT 3-13  
    W1-CEVTY 3-31  
    W1-CFGRPT 3-18  
    W1-CHILDSPEC 3-12  
    W1-COMIN 3-15  
    W1-COMTY 3-32  
    W1-CONFIG 3-17  
    W1-CONFIGTYP 3-34  
    W1-CONTACT 3-19  
    W1-CONTTYPE 3-35  
    W1-MANUF 3-20  
    W1-NODE 3-21  
    W1-NODETYPE 3-36  
    W1-SPEC 3-24  
    W1-SVCHST 3-25  
    W1-SVCHSTTY 3-37  
    W1-WORKORDER 3-26  
Manufacturer  
    business objects 3-20

    maintenance object 3-20

Master Configuration 3-4

monitors A-2

## N

naming conventions 1-5  
Node  
    business objects 3-21  
    maintenance object 3-21  
Node Type  
    business objects 3-36  
    maintenance object 3-36

## O

Outbound Message  
    business objects 3-22  
    maintenance object 3-22  
Overview 1-1

## R

Resource Scheduling and Planning 1-4

## S

Service History  
    business objects 3-25  
    maintenance object 3-25  
Service History Types  
    overview 2-3  
setup sequence 2-2  
SMS Receive algorithm 3-3  
SMS Send algorithm 3-3  
Specifications  
    overview 2-3  
Status Reason 3-4

## T

Time Zone 3-2  
    overview 3-5  
To Do Type  
    overview 3-5  
To-Do Role  
    overview 3-5  
tools 1-4

## W

Work Order  
    business objects 3-26  
    maintenance object 3-26