

ORACLE FIELD SERVICE CONFIGURATIONS

FOR

ORACLE WORK AND ASSET CLOUD SERVICE INTEGRATION TO ORACLE FIELD SERVICE

(ALSO APPLICABLE TO ORACLE UTILITIES WORK
AND ASSET MANAGEMENT)

SETUP GUIDE

RELEASE 22A



Oracle Field Service Configurations for Oracle Work and Asset Cloud Service Integration to Oracle Field Service, Setup Guide 22A

April 2022

[Copyright © 2020, 2022, Oracle and/or its affiliates.](#)

Table of Contents

PREFACE	5
AUDIENCE	5
DOCUMENTATION AND ACCESSIBILITY	5
ABBREVIATIONS	5
CHAPTER 1: ACCELERATOR OVERVIEW	6
CONFIGURATION OVERVIEW	6
ACCELERATOR PACKAGE	6
ACCELERATOR ACTIVITY TYPES	6
CHAPTER 2: INSTALLING THE BASIC ACCELERATOR PACKAGE	7
ORDER OF IMPORTING THE PACKAGE	7
ACTIVITY TYPES	7
PROPERTIES	8
GLOSSARY	8
FORMS AND PLUGINS	9
CHAPTER 3: ADDITIONAL OFS CONFIGURATIONS	22
SYNC MOBILE CONTROL DATA INFORMATION FROM WACS TO OFS	22
ORGANIZATION	25
WORK ZONES	26
RESOURCE AND BUCKET INFO	27
APPLICATIONS	28
CREW CONFIGURATION	29
OFFLINE VS ONLINE MODE	33
CREW TIME	33
INVENTORY TYPES	34
TIMESHEET/ OTHER DIRECT CHARGES FLAG	37
TIMEOUT SECONDS	38
CHECKLIST	39
CHAPTER 4: USER OPERATIONS	40

CHAPTER 5: CUSTOMIZATIONS **69**

ADDING NEW FIELDS TO FIELD ACTIVITY	69
ADDING CUSTOM BUSINESS OBJECTS	72
PLUGINS RENDERING DATA	73
VALIDATION FOR COMPLETION	76

CHAPTER 6: HOSTING PLUG-INS IN OFS **77**

Preface

Welcome to the Oracle Field Service Setup Guide for Oracle Utilities Work and Asset Cloud Service Integration to Oracle Field Service 22A.

This document focuses on the Oracle Field Service configurations and administration information required for this integration. The preface includes the following:

- [Audience](#)
- [Documentation and Accessibility](#)
- [Abbreviations](#)

Audience

This document is intended for anyone implementing the Oracle Utilities Integration for Work and Asset Cloud Service and Oracle Field Service.

Documentation and Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

Oracle customers have access to electronic support for the hearing impaired. Visit:

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or
<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs>

Abbreviations

Term	Expanded Form
OFS	Oracle Field Service
WAM	Oracle Utilities Work and Asset Management
OIC	Oracle Integration Cloud Service
WACS	Oracle Utilities Work and Asset Cloud Service

Chapter 1: Accelerator Overview

This chapter focuses on the software requirements for Oracle Field Service and provides an overview of the configuration. It includes the following sections:

- [Configuration Overview](#)
- [Accelerator Package](#)
- [Accelerator Activity Types](#)

Configuration Overview

This section covers basic Oracle Field Service configurations, such as Activity Types, User Types, Properties, UI screens, validations for these UIs, plugins, and resource configurations.

Accelerator Package

The accelerator package includes various user types, properties, and plugins. This document explains the configurations for other elements such as activity types, work zones, work skills, work conditions and outbound channel.

The package helps customers to configure and set up Oracle Field Service to be used in the Oracle Utilities Work and Asset Cloud Service integration to Oracle Field Service as the package contains only Oracle Utilities Work and Asset Cloud Service and Oracle Integration Cloud configuration files and instructions. It is used in addition to the integration package that provides a complete end-to-end set up for the integration.

The contents of the package are:

- **User Types:** Define layouts and UI screens. Refer to the [User Types](#) section for more details.
- **Properties:** Create layouts and mapping. Refer to the [Properties](#) section for more information.
- **Plugins:** The plugins that are part of this integration are measurements, service history, planned service history, resource usage, assetComponentInstallExchangeUndo, pick up work, lock unlock, materials and validate completion. Refer to the [Forms and Plugins](#) section for more information.

Accelerator Activity Types

This accelerator is a sample and supports a few Activity Types in this release. More activity types can be added based on the requirement.

Chapter 2: Installing the Basic Accelerator Package

This chapter focuses on importing the files that come as a part of the package and configuring them in the Oracle Field Service environment for the integration to run successfully. Make sure to follow the same sequence for successful configuration.

- [Order of Importing the Package](#)
- [Activity Types](#)
- [Properties](#)
- [Glossary](#)
- [Forms and Plugins](#)
- [User Types](#)

Order of Importing the Package


Make sure to follow the order mentioned below during the package import.

- Properties
- Glossary
- Measurements Plugin
- ResourceUsage Plugin
- ServiceHistory Plugin
- ValidateCompletion Plugin
- PlannedServiceHistory Plugin
- Asset Component Install Exchange Undo Plugin
- Lock Unlock Activity Plugin
- Pick Up Work Plugin
- Materials Plugin
- WACS OFS User Type
- WACS OFS Dispatcher User Type

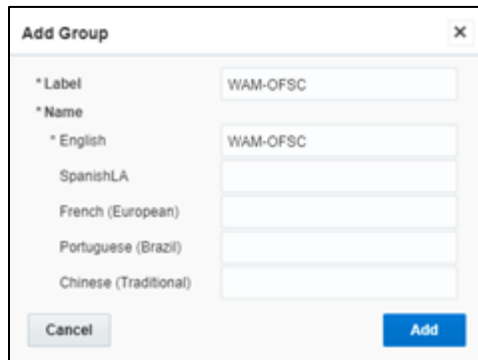
Activity Types

Activity types define the categories of the activity supported by Oracle Field Service (in this case, Oracle Utilities Work and Asset Cloud Service Integration to Oracle Field Service). Activity types are synced part of admin data from Oracle Utilities Work and Asset Cloud Service to Oracle Field Service. As a pre-requisite, before running Admin Sync, perform **any** of the following steps.

To create an Activity Type Group:

1. Login to Oracle Field Service with valid credentials.
2. Click the  icon on left of the Home page.
3. Navigate to **Configuration > Resources, Activities, Inventories > Activity Types**.

4. Click **Add Group**.
5. Enter “WAM-OFSC”.



The screenshot shows a dialog box titled "Add Group" with a close button (X) in the top right corner. The dialog contains the following fields and buttons:

- * Label: WAM-OFSC
- * Name: (empty)
- * English: WAM-OFSC
- SpanishLA: (empty)
- French (European): (empty)
- Portuguese (Brazil): (empty)
- Chinese (Traditional): (empty)
- Buttons: Cancel (grey), Add (blue)

Properties

Properties enable the integration specific UIs create and map the Oracle Field Service UI element with a property. Each property is classified into types such as field, integer, enumeration, string on the basis of requirements and should be addressed using this property.

To import the property file included in the accelerator package:

1. On the **Configuration** page, select **Resources, Activities, Inventories > Properties**.
2. Click **Import**.
3. Browse to the location of the file to be imported and click **Import**.
4. Verify the successful import of the file. The **Successfully Imported** message with number of properties imported is displayed. Make sure the **Imported with warnings** and **Not imported** count is 0.

Glossary

Glossary is used for cosmetic changes in label names. This function provides the flexibility to change labels based on the business needs.

To use the glossary function:

1. On the **Configuration** page, click **Glossary** in the **Displays** section.
2. Click **Import** to import the file provided as part of the package.
3. Click **Browse** and select the file. Click **Import**.
Make sure the file imports successfully.
4. As part of the package, the following labels are changed. Change the labels based on the preference.


```

Category (ctg),Identifier (id),Type (tp),ID/Label (lbl),User Types (ut),English (en-US)
"Glossary: mobile_shared, wap_inventory",glossary,translation,10109,,Assets/Equipment
Glossary: mobile_shared,glossary,translation,10865,,Assets/Equipment
Glossary: mobile_shared,glossary,translation,10767,,Asset/Equipment Details
Glossary: wap_inventory,glossary,translation,10111,,Existing
"Screen Configuration - Mobility: Edit/View activity",fae3e1febea180ba048eb3f1b0c011f029dfd5e",layout",list_inventories",C2M OFSC",Equipment"
"Screen Configuration - Mobility: Edit/View activity",9bcdc924764e5ac57bf15c4e166282c8a3189de",layout",list_inventories",WAM OFSC",Assets"

```

Category (ctg)	Identifier (id)	Type (tp)	ID/Label (lbl)	User Types (ut)	English (en-US)
Glossary: mobile_shared, wap_inventory	glossary	translation	10109		Assets/Equipment
Glossary: mobile_shared	glossary	translation	10865		Assets/Equipment
Glossary: mobile_shared	glossary	translation	10767		Asset/Equipment Details
Glossary: wap_inventory	glossary	translation	10111		Existing
Glossary: mobile_shared, reports_gps_alerts, wap_inventory	glossary	translation	10114		Resource Inventory
Screen Configuration - Mobility: Edit/View activity	fae3e1febea180ba048eb3f1b0c011f029dfd5e	layout	list_inventories	C2M OFSC	Equipment
Screen Configuration - Mobility: Edit/View activity	9bcdc924764e5ac57bf15c4e166282c8a3189de	layout	list_inventories	WAM OFSC	Assets

Example: To change the **Asset** label, change the Asset in the given file. You can add more values to the existing values.

Forms and Plugins

Plugins are used to make changes to screen and data based on their type and status of target and parent object. They are also used to enter measurements, record time/materials/equipment used while completing an activity, populate service history information, install/replace/remove/attach/exchange of assets, using truck inventories and validate completion information before actually sending the information to verify if the message is accepted by Oracle Utilities Work and Asset Cloud Service.

Plug-ins in Oracle Field Service Cloud perform actions not found in the standard solution. They appear as selectable links on the application. They open a new window, tab, or frame in a browser where an external HTML5 application is executed.

For more information on Oracle Field Service Cloud plugin framework refer to latest Oracle Field Service Cloud documentation at:

<https://docs.oracle.com/en/cloud/saas/field-service/22a/fapcf/overview-of-the-plug-in-api.html#overview-of-the-plug-in-api>


Each plugin contains a JavaScript file that has the main business logic required for functionality of the plugin. The data required for each plugin is available through the properties that are added for the plugin. XML data obtained through properties is parsed and appropriate XSL is applied to it to render each UI.

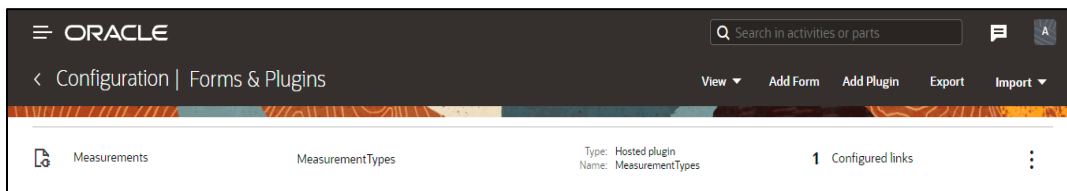
Measurement Plugin

Measurements manage the asset operational and runtime data collected and tracked for assets. Asset measurements include mileage, hours of uptime, number of start-stops, and more.

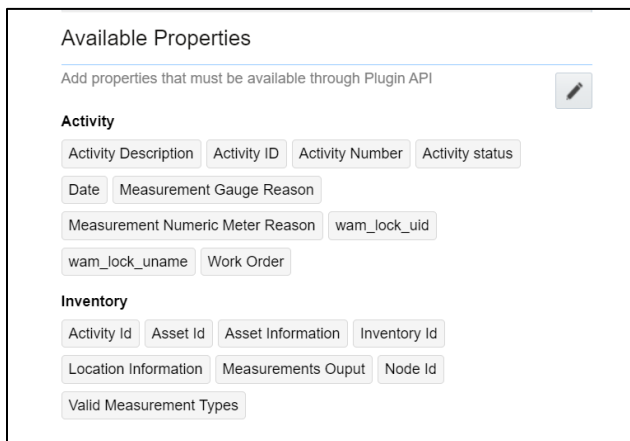
Since they almost entirely depend on the usage of the related asset, readings cannot be calculated or predicted accurately by the system. Instead, readings must be collected and entered into the system, either manually by a user or imported as the result of activity completion.

To import plugins:

1. Login to Oracle Field Service with valid credentials.
2. Click the  icon on left of the Home page.
3. Navigate to **Configuration > Displays > Forms and Plugins**.
4. Click the **Import** drop-down list and select **Plugins**.
5. Click the **Drag and Drop** field to select measurement plugin. Click **Validate**.
Oracle Field Service validates the plugin and the number of valid items should be 1.
6. Click **Import**. Ensure the “Number of valid items” is 1 and “Number of not valid items” is 0.
After the successful import of plugin, Oracle Field Service displays the details as shown below.



7. Make sure the **Available Properties** tab is populated with all properties.



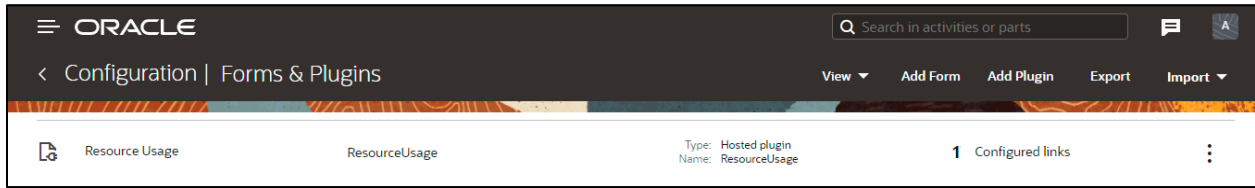
Resource Usage Plugin

Timesheets are used to record the amount of time that workers (labor resources) spend on activities or work orders. Once charges are entered, processing allows employees to receive proper compensation for their work and labor charges are applied to the appropriate cost buckets.

Generally, only each individual and the person designated as the supervisor on that individual's crew can access timesheet information for that person. Supervisor can enter individual timesheet for himself if the secure parameter “ofsc_sup_in_team “ is set to ‘true/yes’.

To import the plugin:

1. Repeat steps 1 to 5 from [Measurement Plugin](#).
2. Click the **Import** drop-down list and select **Plugins** to import the resource usage plugin provided in the package.



3. Select the resource plugin and enter the following details:
 - oic_url: https://OIC_host:OIC_port/ic/api/integration/v1/flows/rest/OUTL-BA-OFSC_WACS_RES_USAGE_SEND/1.0/resourceUsage
 - oic_uname/oic_password: OIC username/password


Oracle Field Service users should configure the following:

- ofsc_uname: clientID@instance ID
- ofsc_password: client secret key
- ofsc_siteAddress : instance ID
- ofsc_bucket: External ID of bucket configured in your environment
- ofsc_sup_in_team : true/false or yes/no

oic_url	Value	-
oic_uname	Value	-
oic_password	Value	-
ofsc_uname	Value	-
ofsc_password	Value	-
ofsc_bucket	Value	-
ofsc_siteAddress	Value	-
ofsc_sup_in_team	Value	-
		+

4. Make sure the **Available Properties** tab is populated with properties as shown below.

Available Properties

Add properties that must be available through Plugin API 

Activity

Activity Description Activity ID Activity Number Activity Status

Craft Crew Shift Type Date End Equipment Type Job Order

Labor Earning Type Other Resource Type Overtime Type

Resource Unit of Measure Resource Usage Flag SLA End

SLA Start Start Time Slot Timeout Traveling Time

WAM Resource Usage Output Work Order Work Skill

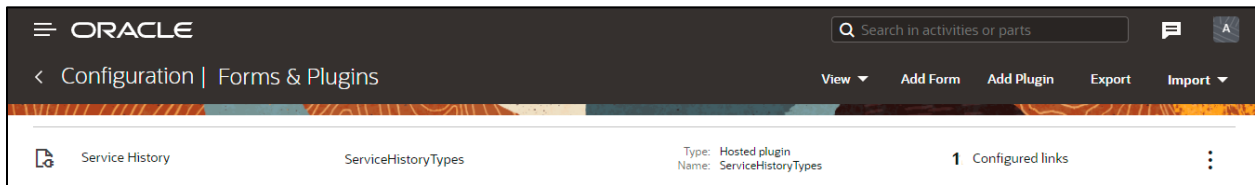
Resource

External ID Name Resource type Type

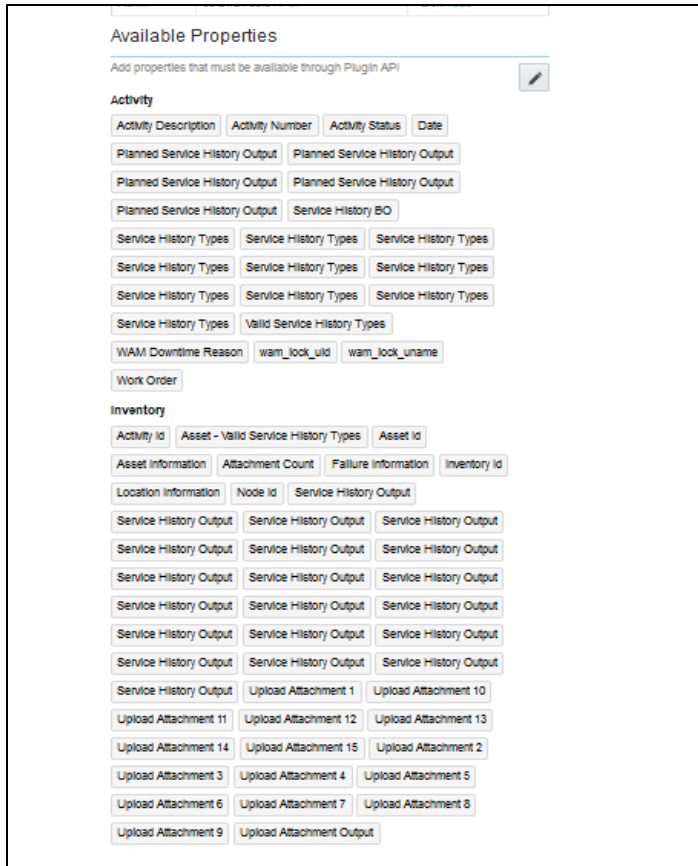
Service History Plugin

Service history is information about some type of service or maintenance performed on an asset. Information typically associated with service history include record inspection feedback, pass/fail details, downtime, parts failure information, maintenance or service logs, or other information regarding service on the asset.

1. Repeat steps 1 to 5 from [Measurement Plugin](#).
2. Click the **Import** drop-down list and select **Plugins** to import the service history plugin provided in the package.



3. Make sure the **Available Properties** tab is populated with the properties as shown below.



Validate Completion Plugin

This plugin helps crew to validate the eligibility to the activity to complete. If the activity is not yet eligible, the plugin displays corresponding error message if the eligibility is success crew navigates to end activity screen to complete the activity.

1. Repeat steps 1 to 5 from the [Measurement Plugin](#) section.
2. Click **Import Validate Completion Plugin** to import the validate completion plugin provided in the package.



3. Make sure that the **Available Properties** tab is populated with the properties as shown below.

Available Properties

Add properties that must be available through Plugin API ✎

Activity

Activity ID | Date | Material Usage | Pickup Type

Planned Service History Output | Planned Service History Output

Planned Service History Output | Planned Service History Output

Planned Service History Output | Valid Service History Types

validate flag | warn consolidated inventories | warn_lock_uid

warn_lock_uname | Work Order

Inventory

Activity Id | Asset - Valid Service History Types | Asset Action Taken

Asset Id | Asset installed in OFSC | Asset May Be Left in Place

Asset Or Component | Asset Type | Asset Worked | Attached To Asset

Attached To Asset | Attached To Asset Id | Deinstall Status

Effective Date Time | Inventory Id | Inventory pool | Inventory Type

Location Information | Material Storeroomid | Measurements Output

Node Id | Quantity | Resource Id | Service History Output

Service History Output | Service History Output | Service History Output

Service History Output | Service History Output | Service History Output

Service History Output | Service History Output | Service History Output

Service History Output | Service History Output | Service History Output

Service History Output | Service History Output | Service History Output

Service History Output | Service History Output | Service History Output

Service History Output | Stock Item Detail Id | Stock Item Detail Id

WAM Activity Id

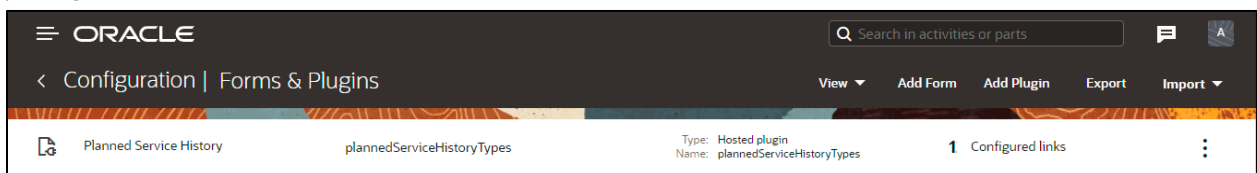
Resource

External ID | ID | Name

Planned Service History Plugin

Planned Service history is information regarding some type of service or maintenance performed on an asset. Information typically associated with service history include record inspection feedback, pass/fail details, downtime, parts failure information, maintenance or service logs, or other information regarding service on the asset.

1. Repeat steps 1 to 5 from the [Measurement Plugin](#) section.
2. Click on **Import** dropdown and click **Plugins** to import the Planned Service History plugin provided in the package.



3. Make sure the **Available Properties** tab is populated with the properties as shown below.

Available Properties

Add properties that must be available through Plugin API

Activity

- Activity Description
- Activity ID
- Activity Number
- Activity Status
- Date
- Pickup Type
- Planned Service History Output
- Planned Service History Output
- Planned Service History Output
- Planned Service History Output
- Planned Service History Output
- Service History BO
- Service History Types
- Service History Types
- Service History Types
- Service History Types
- Service History Types
- Service History Types
- Service History Types
- Service History Types
- Valid Service History Types
- WAM Downtime Reason
- wam_lock_uid
- wam_lock_uname
- Work Order

Inventory

- Activity Id
- Asset - Valid Service History Types
- Inventory pool
- WAM Activity Id

Asset Component Install Exchange Undo Plugin

Handle operations on Install, Uninstall and Replace actions for the assets and components in a work activity. Information associated with the components used for the assets on completion of the activity is handled.

1. Repeat steps 1 to 5 from the [Measurement Plugin](#) section.
2. Click the **Import** drop-down box and select **Plugins** to import the Asset Component Install Exchange Undo plugin provided in the package.

ORACLE

Search in activities or parts

< Configuration | Forms & Plugins

View Add Form Add Plugin Export Import

Asset Component Install Exchange Undo assetComponentInstallExchangeUndo

Type: Hosted plugin
Name: assetComponentInstallExchangeUndo

1 Configured links

3. Select the **Asset Component Install Exchange Undo** plugin and enter the details:
 - oic_url: https://OIC_host:OIC_port/ic/api/integration/v1/flows/rest/OUTL-BA-OFSC_WACS_ASSET_QUERY/1.0/assetQueryDetails
 - oic_uname/oic_password: OIC username/password
 - ofsc_multiDay_act_ibls: The Activity type of the Multi-Day activity created in OFSC. If there are more than one use '|' separator.
Example: Act1|Act2|Act3
 - ofsc_uname: OFSC username - applicationid@instanceid (application should have access to all the apis)
 - ofsc_password: OFSC password
 - ofsc_siteAddress: instance id of OFSC

4. Make sure the **Available Properties** tab is populated with the properties as shown below.

Available Properties

Add properties that must be available through Plugin API ✎

Activity

Activity Description Activity ID Activity Number Activity Type

Pickup Type Service History Types Service History Types

Service History Types Service History Types Service History Types

Service History Types Service History Types Service History Types

Service History Types Service History Types Work Order

Inventory

Activity Id Asset - Valid Service History Types Asset Action Taken

Asset Description Asset Id Asset Information

Asset Installed In OFSC Asset May Be Left In Place

Asset Or Component Asset Sequence Asset Type

Asset Worked Attach To Asset Attached To Asset

Attached To Asset Id Badge Number Building Deinstall Status

Effective Date Time Exchanged Inventory Id Failure Information

Inventory Id Inventory pool Inventory Type Is Asset Location

Item Number Location Information Lot Id Material Id

Material Invid Material Is Component Material StoreroomId

Material Unit of Measure Node Id Point ID Quantity

Resource Id Room Run To Failure Serial Number

Service Area Site Location Stock Code Stock Item Category

Stock Item Description Stock Item Detail Id Stock Item Id

Stock Item Information Stock Item Detail Id

Valid Measurement Types WAM Activity Id

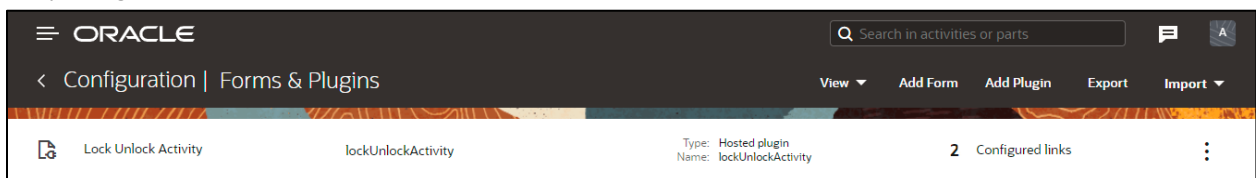
Resource

ID

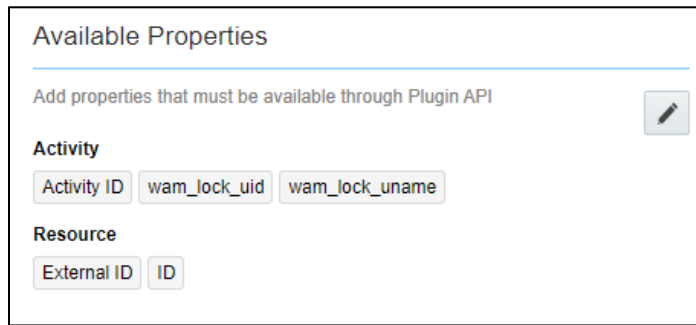
Lock Unlock Activity Plugin

Handle operations lock or unlocking of an activity for a crew so that he can work on it.

1. Repeat steps 1 to 5 from the [Measurement Plugin](#) section.
2. Click the **Import** drop-down box and select **Plugins** to import the Lock Unlock Activity Plugin provided in the package.



3. Make sure the **Available Properties** tab is populated with properties as shown below.



Available Properties

Add properties that must be available through Plugin API

Activity

Activity ID wam_lock_uid wam_lock_uname

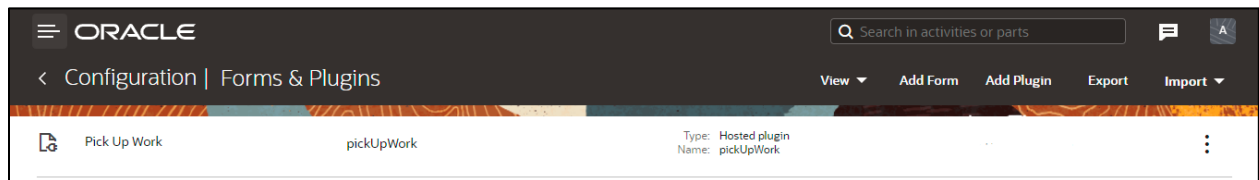
Resource

External ID ID

Pick Up Work Plugin

This plugin helps the crew to create Work order, Work Request of types Asset related or non-Asset related from Oracle Field Service application itself. It can be a follow up to existing activity or a new work which is unrelated pickup.

1. Repeat steps 1 to 5 from the [Measurement Plugin](#) section.



2. Select the **Pick Up Work** plugin and enter the following details:
 - oic_url: https://OIC_host:OIC_port/ic/api/integration/v1/flows/rest/OUTL-BA-OFSC_WACS_ASSET_QUERY/1.0/assetQuery
 - oic_url1 : https://OIC_host:OIC_port/ic/api/integration/v1/flows/rest/OUTL-BA-OFSC_WACS_ASSET_QUERY/1.0/assetQueryDetailsPickup
 - oic_uname/oic_password: OIC username/password
 - ofsc_uname: clientID@instance ID
 - ofsc_password: client secret key
 - ofsc_siteAddress : instance ID
 - groupLabel : OFSC group label
 - bucket_for_nonScheduled : External ID of the bucket

ofsc_username	Value	...	—
ofsc_password	Value	...	—
ofsc_siteAddress	Value	...	—
groupLabel	Value	...	—
oic_url	Value	...	—
oic_username	Value	...	—
oic_password	Value	...	—
oic_url1	Value	...	—
bucket_for_nonSche	Value	...	—

3. Click the **Import** drop-down box and select **Plugins** to import the Pick Up Work Plugin provided in the package.

Available Properties

Add properties that must be available through Plugin API

Activity

Activity Description | Activity ID | Activity Location Information

Activity Long Description | Activity Number | Activity Type

Activity Type Description | Activity Type To PSH | Pickup Asset Details

Pickup Asset Id | Pickup Asset Node Id | Pickup Downtime Date Time

Pickup Emergency | Pickup Guild | Pickup Location Type

Pickup Related Activity Information | Pickup Related Appointment Number

Pickup Related Location Information

Pickup Related Work Order Description | Pickup Type

Pickup Work Category | Pickup work class

Pickup Work Class Description | Pickup Work It | Pickup Work Priority

Pickup Work Type | Required By Date | Service History Types

Service History Types | Service History Types | Service History Types

Service History Types | Service History Types | Service History Types

Service History Types | Service History Types | Service History Types

Timeout | Valid Service History Types | Work Order

Work Order Description

Inventory

Activity Id | Asset - Valid Service History Types | Asset Action Taken

Asset Description | Asset Id | Asset Information

Asset Installed In OFSC | Asset May Be Left In Place

Asset Or Component | Asset Sequence | Asset Type | Asset Worked

Attach To Asset | Attached To Asset | Attached To Asset

Attached To Asset Id | Badge Number | Building | Effective Date Time

Failure Information | Inventory Id | Inventory pool | Inventory Type

Is Asset Location | Item Number | Location information | Node Id

Point ID | Room | Run To Failure | Serial Number | Service Area

Site Location | Valid Measurement Types

Resource

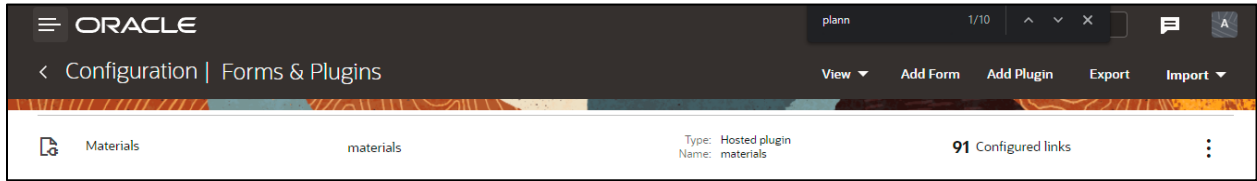
External ID | ID

Materials Plugin

This plugin handles the operations related to mobile storerooms in Oracle Field Service Cloud including reporting the use of materials. The operations includes Use/Undo Use Item, Install/Undo Install Asset, and Attach/Undo Attach component from truck inventories. Oracle Field Service Cloud can request an update of a mobile storeroom passing date/time of the last snapshot.

To import the plugin:

1. Repeat steps 1 to 5 from the [Measurement Plugin](#) section.
2. After the successful import of plugin, Oracle Field Service displays the details as shown below.



3. Select the **Materials** plugin and enter the details:
 - oic_storeroom_sync_url: https://OIC_host:OIC_port/ic/api/integration/v1/flows/rest/OUTL-BA-OFSC_WACS_STOREROOM_SYNC/1.0/syncStoreroom
 - oic_uname/oic_password: OIC username/password
 - oic_assetQueryDetails_url: https://OIC_host:OIC_port/ic/api/integration/v1/flows/rest/OUTL-BA-OFSC_WACS_ASSET_QUERY/1.0/assetQueryDetails
 - oic_activityUpdate_url: https://OIC_host:OIC_port/ic/api/integration/v1/flows/rest/OUTL-BA-OFSC_WACS_ACTV_UPDT_PULL/1.0/retrieveUpdates

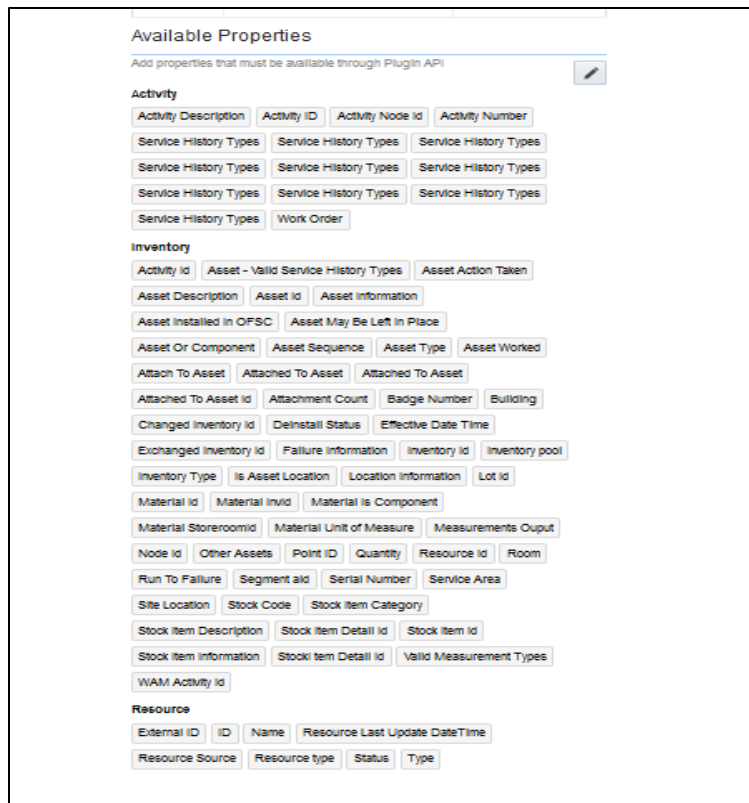
Oracle Field Service Cloud users should to configure the following:

- ofsc_uname: clientID@instance ID
- ofsc_password: client secret key
- ofsc_siteAddress: instance ID

Duplicate names are not allowed. Overall size should not exceed 5 KB.

oic_storeroom_sync_	Value	-
oic_uname	Value	-
oic_password	Value	-
ofsc_uname	Value	-
ofsc_password	Value	-
ofsc_siteAddress	Value	-
oic_assetQueryDetail	Value	-
oic_activityUpdate_ur	Value	-
		+

4. Make sure the **Available Properties** tab is populated with all properties.



User Types

The user types are used to manage permissions for all the users. Each user type has a profile that defines security and display permissions, such as the user's login method, the ability to use certain functions, and access to menu items and properties. Screen-configuration settings define the screens, windows, pop-up windows and other elements visible to a certain user type. They also support the context layout editor, in which the content, arrangement, and visibilities of each context are set.

Use the user types to create custom screen context layouts for Oracle Work and Asset Cloud Service integration to Oracle Field Service Cloud for utilities by accessing the screen configuration settings in specific user types created.

The user types that are part of this integration are:

- WACS_OFSC_Dispatcher_User_Type
- WACS_OFSC_User_Type

To setup user types:

Important! Make sure to load the Properties, Activity Types, and Plugins before proceeding.

1. Login to Oracle Field Service.
2. Click  on the **Home** page.
3. Navigate to **Configuration** page > **Users, Security, Integrations** > **User Types**.

4. Click **Import** to import the user types.
5. On the **Choose file** field, click **Browse** to select WACS_OFSC_User_Type.
6. Click **Import** and verify the import is successful. Ensure that there are no “Imported with warnings” and “Not Imported”.
7. Click **Import** ‘WACS_OFSC_Dispatcher_User_Type’. Ensure that there are no “Imported with warnings” and “Not Imported”.

After the Dispatcher user type is set up, perform the following:

1. Make sure the Dispatcher user type import is successful without warnings.
2. Navigate to resources search for admin user. Note the user type configured in your environment.
3. Navigate to **Configuration > User types > WAM OFSC Dispatch Administrator**.
4. On the **General** tab, configure the display profile as ‘WAM OFSC Dispatch Administrator’ and the profile that was configured to admin user.
5. Navigate to **Resources search** for admin and click **Edit**.
6. Set the user type as ‘WAM OFSC Dispatch Administrator’.
7. Enter the password and click **Submit**.

Make sure that the **Access** settings are selected for both the user types.

General		Screen configuration	Restrictions and Filters
User type info		Access settings	
* Label	WAM OFSC	<input checked="" type="checkbox"/> Allow access via web application	
* Name	WAM OFSC	<input checked="" type="checkbox"/> Allow access via installed application for Android	
Active	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Allow access via installed application for IOS	
Login Policy	Default policy	Permissions	
		<input checked="" type="checkbox"/> Maps	

General		Screen configuration	Restrictions and Filters
User type info		Access settings	
* Label	wam_ofsc_dispatch_administrator	<input checked="" type="checkbox"/> Allow access via web application	
* Name	WAM OFSC Dispatch Administrator	<input checked="" type="checkbox"/> Allow access via installed application for Android	
Active	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Allow access via installed application for IOS	
Login Policy	Default policy	Permissions	
		<input checked="" type="checkbox"/> Maps	

Chapter 3: Additional OFS Configurations

This chapter elaborates on the additional configuration of organization, work zones, outbound channel and UI validations in user types. It includes the following:

- [Sync Mobile Control Data Information from WACS to OFSC](#)
- [Organization](#)
- [Work Zones](#)
- [Resource and Bucket Info](#)
- [Applications](#)
- [Crew Configuration](#)
- [Offline vs Online Mode](#)
- [Crew Time](#)
- [Inventory Types](#)
- [Timesheet/ Other Direct Charges Flag](#)
- [Timeout Seconds](#)
- [Checklist](#)

Sync Mobile Control Data Information from WACS to OFS

Information from Oracle Utilities Work and Asset Cloud Service has to be replicated to Oracle Field Service to provide the drop-down information used in the Oracle Field Service mobile application. Create work skills, work skill properties, and work skill conditions in Oracle Field Service to match activities with resources and for crew tracking.

As part of this accelerator, Oracle Utilities WACS OFS Admin Data Sync deployed on Oracle Integration Cloud (OIC) is provided to create these configurations automatically making migration of data easier and get rid of tedious manual work.

Oracle Utilities WACS OFS Admin Data Sync needs to be run on initial installation or on a need to basis when new control data from Oracle Utilities Work and Asset Cloud Service or work skill related configurations needs to be created or updated in Oracle Field Service.

This sync integration process is manually run in Oracle Integration for Cloud by scheduling the integration process to run on a scheduled date or selecting **Submit Now** from the menu of the activated sync integration process to initiate an instance of the integration. An optional language parameter can be entered, it should be an ISO 2 letter language code, to determine the description to retrieve from Oracle Utilities Work and Asset Cloud Service and in what language code the property name should be created in Oracle Field Service Cloud. If the language is not populated or blank, it is defaulted to English (en).

Refer to the Business Flows chapter in *Oracle Utilities Work and Asset Management Integration to Oracle Field Service Configuration Guide* at <https://docs.oracle.com/en/industries/utilities/integrations-index.html>.

The following configurations are created/updated by the Sync Process:

- Create/update the enumeration values of the Oracle Field Service properties.

OFSC Property label	Synced WACS Information
wam_craft	Craft
wam_crew_shift_type	Crew Shift Type
wam_downtime_reason	Downtime Reason
wam_equipment_type	Equipment Type
wam_labor_earning_type	Labor Earning Type
wam_measurement_gauge_reason	Measurement Gauge Reason
wam_measurement_meter_reason	Measurement Meter Reason
wam_other_resource_type	Other Resource Type
wam_overtime_type	Overtime Type
wam_resource_uom	Unit of Measure-Resource
wam_material_uom	Material Unit of Measure
wam_material_stockitemCategory	Stock Item Category
wam_pickup_location_type	Pickup Location Type
wam_work_priority	Pickup Work Priority
wam_work_type	Pickup Work Type
wam_work_category	Pickup Work Category
wam_work_class	Pickup work class
wam_actType_psh	Activity Type To PSH

To verify the information that is synchronized from Oracle Utilities Work and Asset Cloud Service to Oracle Field Service, navigate to the respective property and check the enumeration values. Click **Modify**.

Note:

- After a resource is created in Oracle Utilities Work and Asset Cloud Service, the resource code (craft code, equipment code and other resource code) cannot be changed. The sync integration process uses these resource codes to create the enumeration values for equipment type, craft and other resource type property in Oracle Field Service Cloud. Slash (/) should not be included in the resource code and special characters like &, >, and < should not be included in Craft code
- The sync integration process cannot delete enumeration values added to a property in Oracle Field Service Cloud; the OFSC REST API that updates the enumeration values of a property does not allow it. The only way to delete an enumeration value(s) in a property is by deleting the property, recreate the property and run the sync to get the latest values.

- Work Skill related configurations

1. A work skill is created in Oracle Field Service for each craft synchronized from Oracle Utilities Work and Asset Cloud Service. Work skill is a job-specific skill and is used as a criteria to match activities with the resources. The label format for Work Skill created in Oracle Field Service is:

- **W_ + WACS craftcode**

Example: Work Skill created in Oracle Field Service

Edit work skill: "Carpenter"

* Name

* English

SpanishLA

French (European)

Portuguese (Brazil)

Chinese (Traditional)

* Label

Sharing of the skill in teamwork ▼

Active

2. A work skill property on the activity level is created in Oracle Field Service for each craft synced from Oracle Utilities Work and Asset Cloud Service. This property will contain information about how many people with the particular work skill is needed for the activity. The label format for Work Skill property created in Oracle Field Service is:

- **W_ + WAM craftcode + _Nd**

Example: Work Skill Property created in OFSC

Modify Property

Property type

* Property name

* English

SpanishLA

French (European)

Portuguese (Brazil)

Chinese (Traditional)

* Property Label

Property hint

English

SpanishLA

French (European)

Portuguese (Brazil)

Chinese (Traditional)

Entity

3. Work Skill Conditions are created in Oracle Field Service based on the craft and the configuration property value of `workSkillCond.actvtySameSkillMaxWorker.default` obtained from `WAMOFSC_ConfigProps` lookup defined in Oracle Integration Cloud. This configuration property value contains the maximum number of people with the same work skill allowed to work simultaneously in an activity.

In this example: For work skill = Carpenter and `workSkillCond.actvtySameSkillMaxWorker.default` = 3, these are the work skill conditions created.

Example: Work Skill Conditions created for Work Skill Carpenter in Oracle Field Service

ID	Name	Status	Work skill conditions	Actions
27175	Carpenter(1/1)	✓	Carpenter needed in 1	Modify
27176	Carpenter(2/2)	✓	Carpenter needed in 2	Modify
27177	Carpenter(3/3)	✓	Carpenter needed in 3	Modify

These configuration are used to track teams (crews) consisting of people with different work skills and make sure that activities that require several people simultaneously is assigned to the right team.

Organization

An organization can have buckets, organization units (Org Units), field resources, tools or vehicle associations. Create an organization before adding any type of resource.

To create an organization:

1. Navigate to **Configuration > Users, Security, Integrations > Organization**.
2. Click **Add New** to add a new organization.



3. Enter the name of the organization and click **Submit** to save the details.

Add Organization ✕

* English

French (European)

Portuguese (Brazil)

SpanishLA

Chinese (Traditional)

* Label

Type

Work Zones

Work zones are used to divide area in different zones for better scheduling of crews. Use the work zone keys to provide the ZIP/postal code to facilitate the division through the Service Point information that comes from Oracle Utilities Work and Asset Cloud Service.

To add a work zone:

1. Navigate to **Configuration > General > Work Zones**.
2. Make sure the **Work Zone Key** (top left corner) is ZIP/Postal Code.

ID	Status	Work zone name	Work Zone Keys	Actions	Shapes
1	✓	ALTAMONTE SPRINGS	32701, 32714, 44702, 44720	Modify	Shape
14	✓	ANAHEIM	92802, 92806, 92807	Modify	Shape

3. On the **Work Zone** page, click **Add new** to add the required postal codes in the **Work Zone Keys** field.

* Work zone name	Stark
* Work zone label	Stark
Status	Active ▼
Delimiter	new line ▼
Travel Area	Sunrise Entx ▼
Work Zone Keys	32704 44720

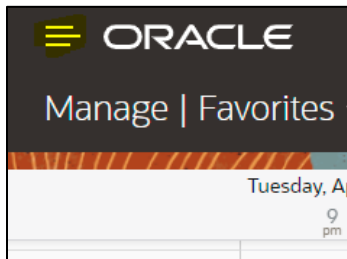
4. Click **Add** to save the new work zone.

Resource and Bucket Info

Oracle Field Service Cloud uses bucket and resources to categorize the resources. In this integration, use the bucket as a resource type to route the entire meter service tasks to workers. In the bucket, create two resources (field workers) who are assigned field activities coming from Oracle Utilities Work and Asset Cloud Service.

To create resources in the bucket:

1. On the Oracle Field Service Home page, click the three lines on the top-left corner.



2. Click **Resources** and select the resource to view its information.
3. Click the four lines at top right and select **Add child resource**.

The screenshot shows the 'Resource Info' page for 'Sunrise HVAC'. The page has a search bar at the top right and a navigation menu on the left. The main content area is divided into two sections: 'Resources' and 'Information'.

Resources: A grid of resource cards is displayed. The cards include: CA, USA; FL, USA; HVAC Contractor; Projects; Utilities; NMSUSER12; NMSUSER13; NMSUSER14; and NMSUSER7.

Information: A table of key-value pairs for the resource:

External ID	SUNRISE
Name	Sunrise HVAC
Status	Active
Resource type	Organization Unit
Time zone	Eastern
Time format	24-hour
Date format	mm/dd/yy
Organization	Sunrise HVAC

4. Select **Bucket** to add a new bucket in the **Resource type** drop-down list.

The screenshot shows the 'Add Resource' form with the following fields and values:

- Resource Type: Bucket
- External ID: (empty)
- Name*: (empty)
- Email Address: (empty)
- Phone: (empty)
- Status: Active
- Org Unit/Bucket*: Sunrise HVAC
- Organization: (empty)
- Time Format: 24-hour
- Date Format: mm/dd/yy
- Message Language: English
- Time Zone: Eastern
- Gender: Female, Male

5. Enter the required details and click **Submit**.
6. Click on the four lines at top right and select **Add child resource** and select **Field Technician** from the **Resource type** drop-down list.
7. Enter the required details and click **Submit**.
8. To add work skills to this Technician, click the four lines at top-right corner and select **Work Skills**.
9. Click the **+** icon.
10. Select the required work skills to this Technician. Click **Submit**.

The screenshot shows the 'Add work skill' form with the following fields and values:

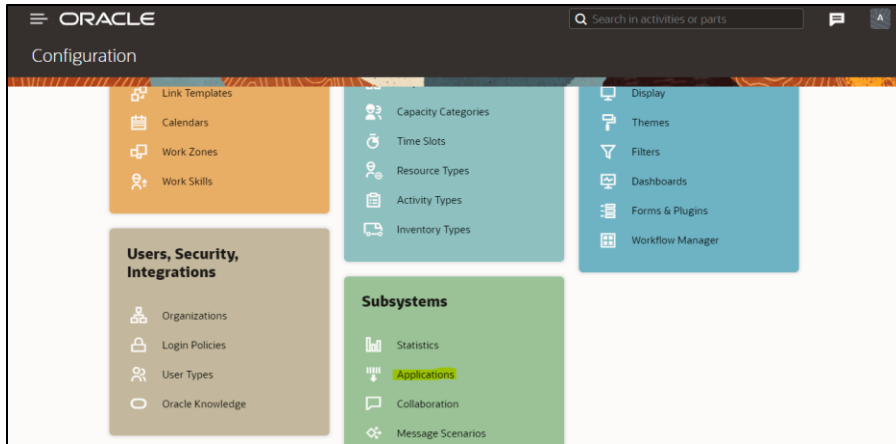
- Work Skills*: Carpenter
- Ratio*: 100
- Temporary
- Start date*: 04/06/22
- End date: (empty)

Applications

This element is used to create a channel to communicate with Oracle Utilities Work and Asset Cloud Service through Oracle Integration Cloud. Various channel types can be chosen, but since Oracle Work and Asset Cloud Service integration to Oracle Field Service is through Oracle Integration Cloud, it is used as the channel type.

To add an application:

1. Navigate to the **Configuration** page > **Subsystems** > **Applications** icon.



2. Click **Add Application**. Enter the required details and click **OK**.

Application Name: Name of your choice (Ex: OIC)

Host: your OIC host name

User Name: OIC user name













Password: OIC password

Confirm Password: OIC password

Crew Configuration

To configure a crew:

1. Navigate to **Configuration** page and click **Resources, Activities, Inventories > Resource Types**.
2. Click **Add Resource Type**.

ID	Resource type name ^	Status	Label	Role	Icons	Actions
3	Bucket	✓	BK	Bucket	  	Modify
6	Contractor	✓	CO	Field resource	  	Modify
9	Crew	✓	CR	Field resource	  	Modify
1	Crew Member	✓	PR	Field resource	  	Modify

3. Enter the required details and make sure the crew has 'PR' as the label. Click on **Add**.

Add Resource Type
✕

Resource Type Info

Name:

* English:

Spanish/LA:

French (European):

Portuguese (Brazil):

Chinese (Traditional):

* Label:

Active:

Features

Role: Field resource   

Resource is a Contingent Worker

Resource can participate in team

Resource can be a teamholder

Share inventory in teamwork

Share geolocation in teamwork

Share work skills in teamwork (team-member only)

Used for Quota management

Routing can assign activities

Enable 'Not activated in time' alert and trigger

Load threshold

Units of measurement: number of activities

Full load: if resource has or more activities

Empty: if resource has or less activities

Cancel
Add

Adding Crew and Crew Member

To create resources for the crew member and crew itself:

1. Navigate to the **Configuration** page > **Resources, Activities, Inventories** > **Resources Types**.
2. Click **Add Resource Type**.
3. Populate the required information and click **Add**.

Add Resource Type

Resource Type Info

Name

* English

SpanishLA

Portuguese (Brazil)

French (European)

* Label

Active

Features

Role

Resource is a Contingent Worker

Resource can participate in team

Resource can be a teamholder

Share inventory in teamwork

Share geolocation in teamwork

Share work skills in teamwork (team-member only)

Used for Quota management

Routing can assign activities

Enable 'Not activated in time' alert and trigger

Load threshold

Units of measurement

Full load If resource has or more activities

Empty If resource has or less activities

Travel Allowance

Start of Day Travel

Working Time does not include the Travel Time to the first activity

Working Time includes the Travel Time to the first activity

Working Time includes up to minutes of the Travel Time to the first activity

End of Day Travel

Working Time does not include the Travel Time from the last activity to the Resources End Location

Working Time includes the Travel Time from the last activity to the Resources End Location

Working Time includes up to minutes of the Travel Time from the last activity to the Resources End Location

Statistic Parameters

Personalize the estimation of activity duration

Use data reported to enhance company-wide estimations

Do not consider reported data of the first working days, for statistic estimations

4. Repeat steps 2 and 3 to create resource types for crew members.

Adding Truck Resource Type

To add a truck resource type:

1. Repeat steps 1 and 2 in the [Crew Configuration](#) section.
2. Populate the required information and make sure the Truck has 'TR' in the label. Click **Add**.

Edit Resource Type

Resource Type Info		Features	
Name		Role	Vehicle
* English	Truck	<input checked="" type="checkbox"/> Share inventory in teamwork	
SpanishLA	Carro	<input checked="" type="checkbox"/> Share geolocation in teamwork	
Portuguese (Brazil)	Caminhão	<input type="checkbox"/> Share work skills in teamwork (team-member only)	
French (European)		<input type="checkbox"/> Working time includes first travel to activity	
* Label	TR	<input type="checkbox"/> Working time includes travel to final location (if defined)	
Active	<input checked="" type="checkbox"/>		
Load threshold			
Units of measurement	number of activities		
Full load	If resource has 10 or more activities		
Empty	If resource has 2 or less activities		

Travel Allowance

Start of Day Travel

Working Time does not include the Travel Time to the first activity

Working Time includes the Travel Time to the first activity

Working Time includes up to _____ minutes of the Travel Time to the first activity

End of Day Travel

Working Time does not include the Travel Time from the last activity to the Resources End Location

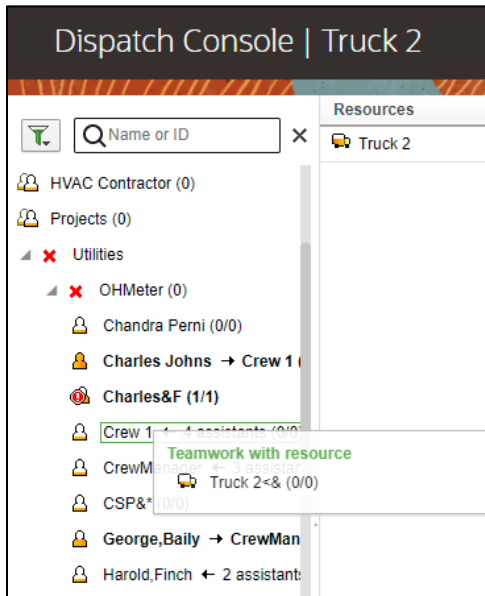
Working Time includes the Travel Time from the last activity to the Resources End Location

Working Time includes up to _____ minutes of the Travel Time from the last activity to the Resources End Location

Assigning Resources

To add multiple resources to a crew so that they can assist it in the completion of work:

1. Navigate to the **Activities** page and observe various resources.
2. Drag and drop the resources to the crew so as they can assist.



3. On successful drag and drop, add activities to the crew.

4. Populate the required information and click **Submit**.

Offline vs Online Mode

When the crew is enroute to perform an activity in the field there is a possibility that the location does not have network (offline mode); if the network exists, the mode is online. When online, crew can perform the work, validate the completion of the activity, and submit the activity for completion. But, when offline, though the crew can validate and complete the activity, this completion information will be synched to server and message is sent out of Oracle Field Service Cloud only when it comes online.

Note: No offline support is currently provided when adding attachments to a service history. If crew time is entered offline, supervisor has to open the **Resource Usage** page when online before going offline. This make sure all relevant crew member information needed is available on local storage before going offline.

Timesheets/equipment/others can be entered in offline mode, but cannot be completed. All individual **Complete** buttons and **CompleteAll** button will be disabled in offline mode.

The crew should open all plugins once when online before starting the work in offline mode to sync required information in local storage.

Crew Time

As part of the crew time sheet functionality, from the plugin, there is an invocation call to OFS REST API to configure the crew members under Crew.

To call OFS REST API from the plugin, set up cross-origin resource sharing (CORS) in Oracle Field Service as follows:

1. Navigate to **Configuration > Application > Additional Resources**.

2. Select **Allow Cross-origin resource sharing (CORS)** from the following web domains and provide the Oracle Field Service domain.

If the domain details are unknown, enter '*'. For the actual Oracle Field Service domain, contact the Oracle Field Service support team.

Additional restrictions

Allow access only to certain resources

Allow access only for certain IP-addresses

Allow Cross-origin resource sharing (CORS) from the following web domains

*Each line should contain one domain name.
Example:
https://www.example.com
https://best.customer.com
https://bestcust.com*

*
https://plugin-hosting-yui-pod1.etadirect.com
https://demo-usdc6.etadirect.com

Inventory Types

The inventory types (such as asset, material, etc) are stored in Oracle Field Service.

To add an inventory type:

1. Navigate to **Configuration > Resources, Activities, Inventories > Inventory Types**. Click **Add New**.

ID	Name	Label	Unit	Model Property	Status	Non-serialized
1	2T Trane A/C	NT		Model	✓	
2	Rheem RTE13 4.0 Tankless W/H	DT		Model	✓	
3	Goodman 46,000 BTU Furnace	AT		Model	✓	

2. Enter the details as shown below and click **Save**.

* Label:

Active:

Non Serialized:

Model Property:

* Name

* English:

SpanishLA:

French (European):

Portuguese (Brazil):

Chinese (Traditional):

* Label:

Active:

Non Serialized:

Decimal quantity:

Model Property:

* Name		Unit of Measurement	
* English	<input type="text" value="Material"/>	* English	<input type="text" value="quantity"/>
SpanishLA	<input type="text"/>	SpanishLA	<input type="text"/>
French (European)	<input type="text"/>	French (European)	<input type="text"/>
Portuguese (Brazil)	<input type="text"/>	Portuguese (Brazil)	<input type="text"/>
Chinese (Traditional)	<input type="text"/>	Chinese (Traditional)	<input type="text"/>

* Label:

Active:

Non Serialized:

Decimal quantity:

Model Property:

* Name		Unit of Measurement	
* English	<input type="text" value="Equipment"/>	* English	<input type="text" value="Each"/>
SpanishLA	<input type="text"/>	SpanishLA	<input type="text"/>
French (European)	<input type="text"/>	French (European)	<input type="text"/>
Portuguese (Brazil)	<input type="text"/>	Portuguese (Brazil)	<input type="text"/>
Chinese (Traditional)	<input type="text"/>	Chinese (Traditional)	<input type="text"/>

3. Repeat step 2 for StockItem, StockAsset, issuedAsset and issuedComponent.

* Label:

Active:

Non Serialized:

Decimal quantity:

Quantity precision:

Model Property:

* Name		Unit of Measurement	
* English	<input type="text" value="Items"/>	* English	<input type="text" value="items"/>
SpanishLA	<input type="text"/>	SpanishLA	<input type="text"/>
French (European)	<input type="text"/>	French (European)	<input type="text"/>
Portuguese (Brazil)	<input type="text"/>	Portuguese (Brazil)	<input type="text"/>
Chinese (Traditional)	<input type="text"/>	Chinese (Traditional)	<input type="text"/>

Note: Default Quantity precision is set to 2. User can configure it as per their need.

* Label	<input type="text" value="StockAsset"/>			
Active	<input checked="" type="checkbox"/>			
Non Serialized	<input checked="" type="checkbox"/>			
Decimal quantity	<input type="checkbox"/>			
Model Property	<input type="text" value="Material Id [wam_material_id]"/>			
* Name				
Unit of Measurement				
* English	<input type="text" value="Assets"/>	* English	<input type="text" value="asset"/>	
SpanishLA	<input type="text"/>	SpanishLA	<input type="text"/>	
French (European)	<input type="text"/>	French (European)	<input type="text"/>	
Portuguese (Brazil)	<input type="text"/>	Portuguese (Brazil)	<input type="text"/>	
Chinese (Traditional)	<input type="text"/>	Chinese (Traditional)	<input type="text"/>	
<input type="button" value="Close"/>				<input type="button" value="Save"/>

* Label	<input type="text" value="issuedAsset"/>			
Active	<input checked="" type="checkbox"/>			
Non Serialized	<input type="checkbox"/>			
Model Property	<input type="text" value="Item Type [Item Type]"/>			
* Name				
* English	<input type="text" value="Issued Assets"/>			
SpanishLA	<input type="text"/>			
French (European)	<input type="text"/>			
Portuguese (Brazil)	<input type="text"/>			
Chinese (Traditional)	<input type="text"/>			
<input type="button" value="Close"/>				<input type="button" value="Save"/>

* Label	<input type="text" value="issuedComponent"/>			
Active	<input checked="" type="checkbox"/>			
Non Serialized	<input type="checkbox"/>			
Model Property	<input type="text" value="Item Type [Item Type]"/>			
* Name				
* English	<input type="text" value="Issued Components"/>			
SpanishLA	<input type="text"/>			
French (European)	<input type="text"/>			
Portuguese (Brazil)	<input type="text"/>			
Chinese (Traditional)	<input type="text"/>			
<input type="button" value="Close"/>				<input type="button" value="Save"/>

Timesheet/ Other Direct Charges Flag

This flag indicates whether mobile worker is allowed to add timesheet/other direct charges for completed activity.

In the Oracle Utilities Work and Asset Management master configuration, the following properties accept values - Yes/No.

- Allow Timesheet against completed activity
- Allow ODC against completed activity

Master Configuration: Work Management Master Configuration

Main

Master Configuration Details

Main

BUSINESS OBJECT	Work Management Master Configuration
Work Order Parameters	
WORK ORDER AUTO CLOSURE NUMBER OF DAYS	180
ALLOW STOCK ISSUE AGAINST COMPLETED ACTIVITY	Yes
ALLOW TIMESHEET AGAINST COMPLETED ACTIVITY	Yes
ALLOW ODC AGAINST COMPLETED ACTIVITY	Yes

To set the value of these properties in Oracle Field Service:

1. Navigate to **Configuration > Resources, Activities, Inventories > Properties**. Search for **Resource Usage Flag**.

< Configuration | Properties

View Add new Export Import

ID	Property name	Property Label	Type	Entity	GUI	Actions
1225	Resource Usage Flag	wam_ru_comp_act_flag	enumeration	Activity	combobox	Modify

1-1 of 1

2. Click **Modify**. Go to the **Enumeration values** section. TS and ODC indicate Timesheet and Other Direct Charges respectively. Default value for both flag is "NO".

Modify Property

GUI Combobox
 Radiogroup

Clone property data on Reopen or Prewrite

Enumeration values

* English []

SpanishLA []

French (European) []

Portuguese (Brazil) []

Chinese (Traditional) []

Active

Add Change

Values

ODCNO[ODCNO]
ODCYES[ODCYES] - Inactive
TSNO[TSNO]
TSYES[TSYES] - Inactive

Cancel Update

3. To change the value of flags, select or unselect the **Active** checkbox to make the corresponding enum values of YES/NO active or inactive respectively.
4. Click **Change > Update** to reflect the changes. Else, click **Cancel**.

Timeout Seconds

User can set the value of timeout variable in seconds that indicates a limit on how long they are willing to wait for a response from a service to come back on client side. This configuration is added to stop the loading spinner and display timeout message on UI if the request takes too long for response.

To set the value of this property in Oracle Field Service:

1. Navigate to **Configuration > Properties**. Search for "Timeout".

ID	Property name	Property Label	Type	Entity	GUI	Actions
1240	Timeout	timeout	enumeration	Activity	combobox	Modify

2. To add new value for timeout, click **Modify** and go to the **Enumeration values** section.
 - a. Provide key and value in seconds.
 - b. Click **Add**.

- c. Select or unselect the **Active** checkbox to make the corresponding enum values of timeout active or inactive respectively.
- d. Click **Change > Update** to reflect the changes. Else, click **Cancel**.

Note: Default value of timeout is 60 seconds. There must be only one value active at a time.

Checklist

Before proceeding to [Chapter 4: User Operations](#) verify if the following activities are complete.

- All the Activity Types specific to customer are created
- Properties are imported
- User Types are imported
- Plugins are configured
- Make sure the quota is allocated and need not be configured
- Name of the organization
- Sync information from Oracle Utilities Work and Asset Cloud Service to Oracle Field Service Cloud
- Work Skills are created
- Name of the resources, work zones
- Inventory Types are created
- Details of Oracle Integration Cloud used to create the outbound channel

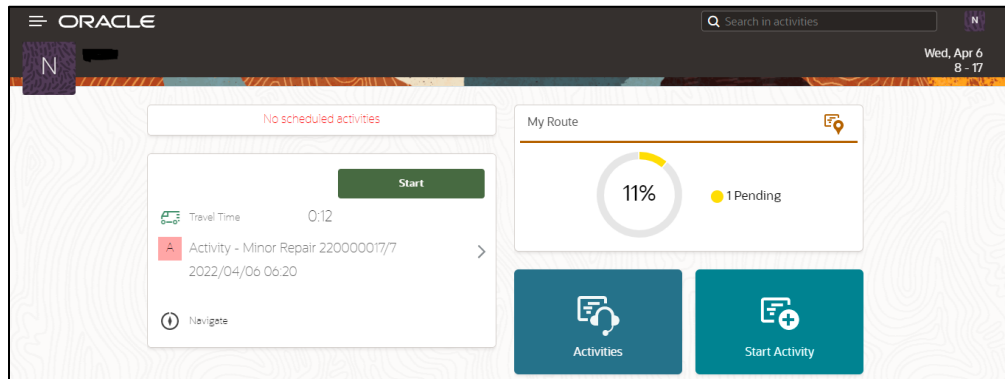
Chapter 4: User Operations

This chapter provides step-by-step instructions to perform user operations.

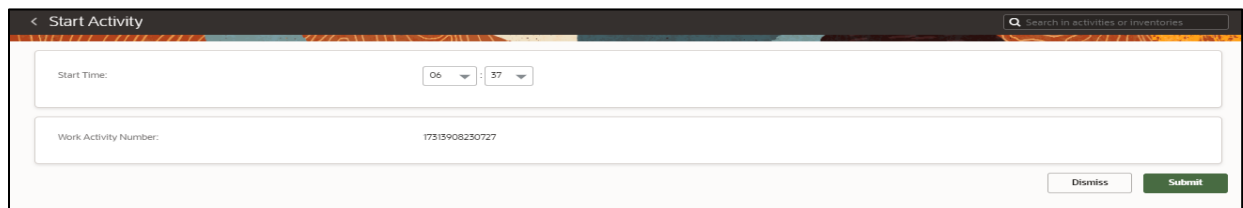
1. Login to the Oracle Field Service Mobility application.

You can access the application by adding '/m' to the Oracle Field Service URL <ofs_link/m>.

2. Access the **Mobility** page using the worker/technician's credentials. The page shows the activities in the queue of the worker.
3. Click **Start** to start the activity in the worker's queue.



4. Enter the **Start Time** and **Work Activity Number**. Click **Submit**.



5. To enter the activity details:
 - a. Click the activity. On the **Activity Details** page, click **Assets**.

< Activity Details (2022/04/06) Search in activities or inventories

Start Follow Up Work New Work Move Navigate Map Book (create) activity Nearby Activities Knowledge Lock Activity

Activity Details

Work Order Description:	work-order-desc
Activity ID:	4266009
Activity Number:	220000017/7
Activity Type:	Activity - Minor Repair
Activity Status:	Pending
Description:	work-order-desc
Location Information:	Central Storeroom
Asset Information:	Smart Asset, 12345, 1234
Emergency Indicator:	No
Requestor Information:	System, English
Total Risk Priority:	4
Required By Date:	2022-04-11
Duration:	48 minutes
Traveling Time:	12 minutes
Activity ID:	4266009

Location Information

Address:	301 Main St
City:	Canton
State:	OH

Quick Links

[Assets](#) [Resources](#) [Planned Service History](#) [Resource Usage](#)

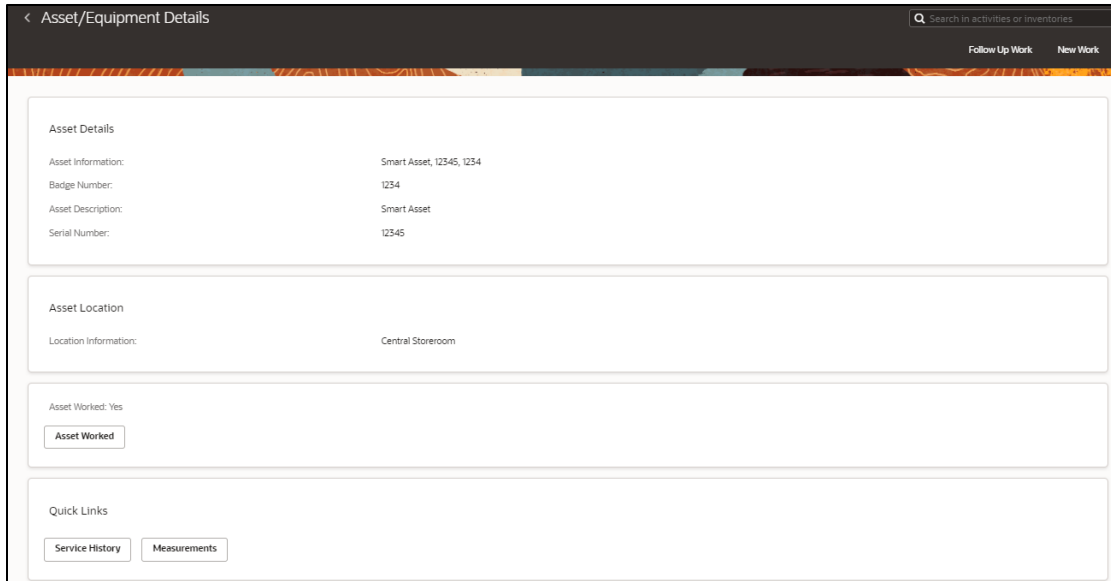
b. Oracle Field Service displays all assets attached to this activity. Select the required asset to view the asset information.

< Assets/Equipment Search in activities or inventories

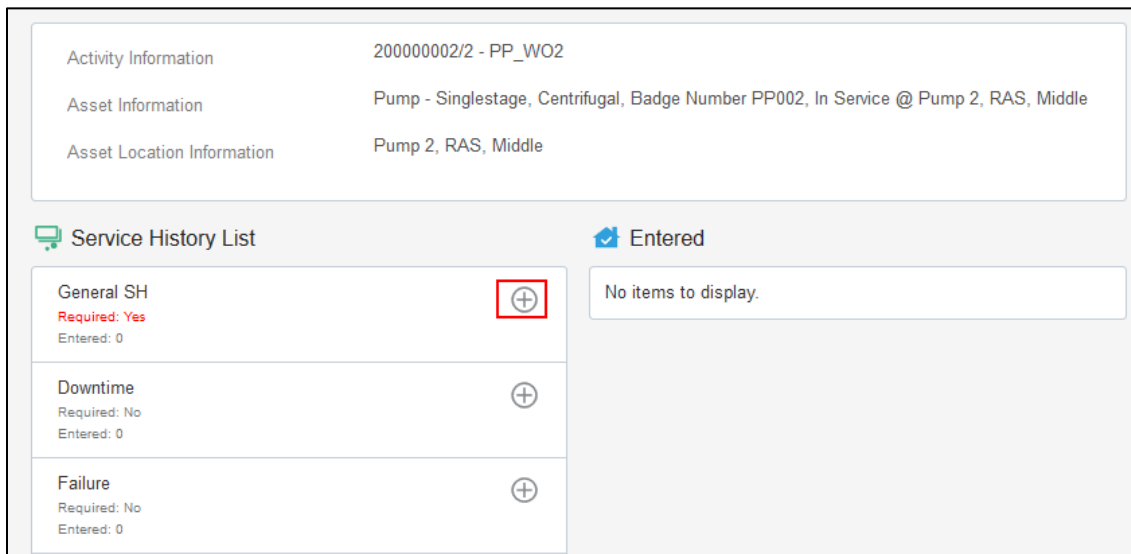
Follow Up Work New Work Update Truck Inventory Refresh Activity

Existing 1

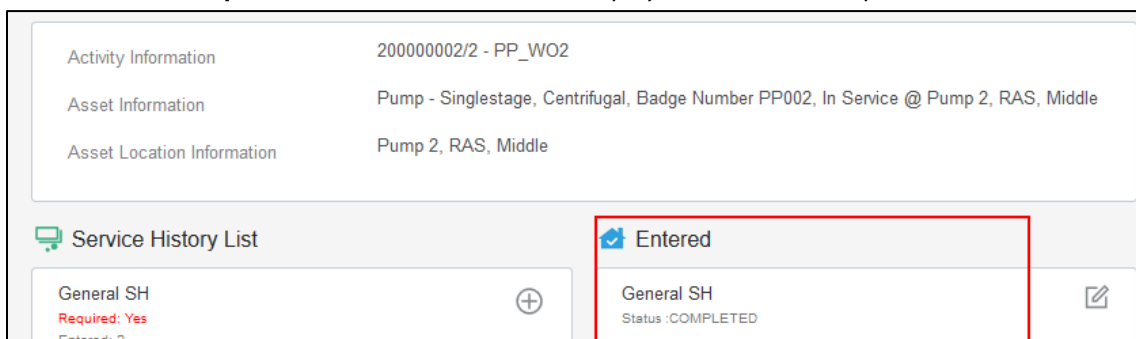
Smart Asset, 12345, 1234	1
Central Storeroom Asset	



6. To enter the service history details:
 - a. Click **Service History** on the **Assets** page.
 - b. From the list of service histories that are part of the activity, select '+' next to the specific service history to add the required details.



- c. Click **Complete**. The service histories are displayed in the **Entered** pane.



Note: Crew can also save the service history in 'pending' state. Click **Save**. The pending service histories are displayed in the **Entered** pane with the 'pending' status.

Asset Information: Fan - Centrifugal, Badge Number 4053_4APRI_FAN, In Service @ 4A Primary Air Fan
Asset Location Information: 4A Primary Air Fan
Effective Date/Time*: 13.04.22 04:30:00 PM

Service History Comments:

Buttons: Save, Complete, Attach, Dismiss

Activity Information: 200000002/2 - PP_WO2
Asset Information: Pump - Singlestage, Centrifugal, Badge Number PP002, In Service @ Pump 2, RAS, Middle
Asset Location Information: Pump 2, RAS, Middle

Service History List

Service History Type	Status
General SH Required: Yes Entered: 2	General SH Status :COMPLETED
Downtime Required: No Entered: 0	General SH Status :PENDING

- d. To complete a service history in 'pending' status:
 - i. Click **Edit** to edit a specific service history.

Activity Information: 200000002/2 - PP_WO2
Asset Information: Pump - Singlestage, Centrifugal, Badge Number PP002, In Service @ Pump 2, RAS, Middle
Asset Location Information: Pump 2, RAS, Middle


Service History List

Service History Type	Status
General SH Required: Yes Entered: 2	General SH Status :COMPLETED
Downtime Required: No Entered: 0	General SH Status :PENDING

- ii. Click **Attach** to attach images of various artifacts.

Asset Information: Fan - Centrifugal, Badge Number 4053_4APRI_FAN, In Service @ 4A Primary Air Fan

Asset Location Information: 4A Primary Air Fan

Effective Date/Time*: 13.04.22 04:30:00 PM 

Service History Comments:

Save Complete **Attach** Delete Dismiss

iii. Browse and select the file to attach. Click **Upload**.

Attach **Browse...** OIC.JPG


Comments

Upload Dismiss

iv. Click **Complete**.

Asset Information: Fan - Centrifugal, Badge Number 4053_4APRI_FAN, In Service @ 4A Primary Air Fan

Asset Location Information: 4A Primary Air Fan

Effective Date/Time*: 13.04.22 04:40:00 PM 

Service History Comments:

Save **Complete** Attach Dismiss

The completed service histories are displayed in the **Entered** pane. The number of times the service history was edited is also shown.

Activity Information	20000002/2 - PP_WO2
Asset Information	Pump - Singlestage, Centrifugal, Badge Number PP002, In Service @ Pump 2, RAS, Middle
Asset Location Information	Pump 2, RAS, Middle

Service History List

General SH Required: Yes Entered: 2	+
Downtime Required: No Entered: 0	+

Entered

General SH Status : COMPLETED	✎
General SH Status : COMPLETED	✎

- e. Populate the details for required service histories.
 - f. Make sure the service histories that are marked as 'Required: Yes' have at least one entry.
 - g. Click **Asset Details** to navigate back to the **Asset Details** page.
7. To enter measurement details:
- a. Click **Measurement**.

< Asset/Equipment Details

Remove Out of Service Attach Component

Asset Worked: Yes

Asset Worked

Attachment Count: 0

Quick Links

Service History Measurements

- b. Click + on the **Measurement Mobility** page.

Activity Information:	200000021/426 - Asset replace/Install Asset/Install Asset tracked & Test FR
Asset Information:	Fan - Centrifugal, Badge Number 4053_4APRI_FAN, In Service @ 4A Primary Air Fan
Asset Location Information:	4A Primary Air Fan

Activity Information +

No items to display.

Quick Links

Asset Details Activity Details

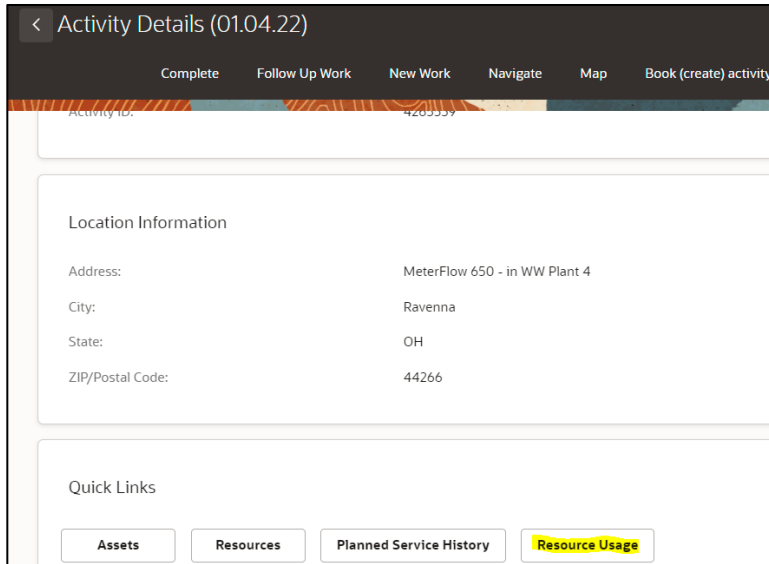
- c. Enter the required measurement details and click **Save**.

Asset Information:	Fan - Centrifugal, Badge Number 4053_4APRI_FAN, In Service @ 4A Primary Air Fan		
Asset Location Information:	4A Primary Air Fan		
Measurement Type*:	Runtime Hours		
Reading Date/Time*:	07.04.22 10:27:00		
Reading*:	1		
Reason:	PLN		
<input type="button" value="Save"/> <input type="button" value="Dismiss"/>			

The measurement is displayed in the list.

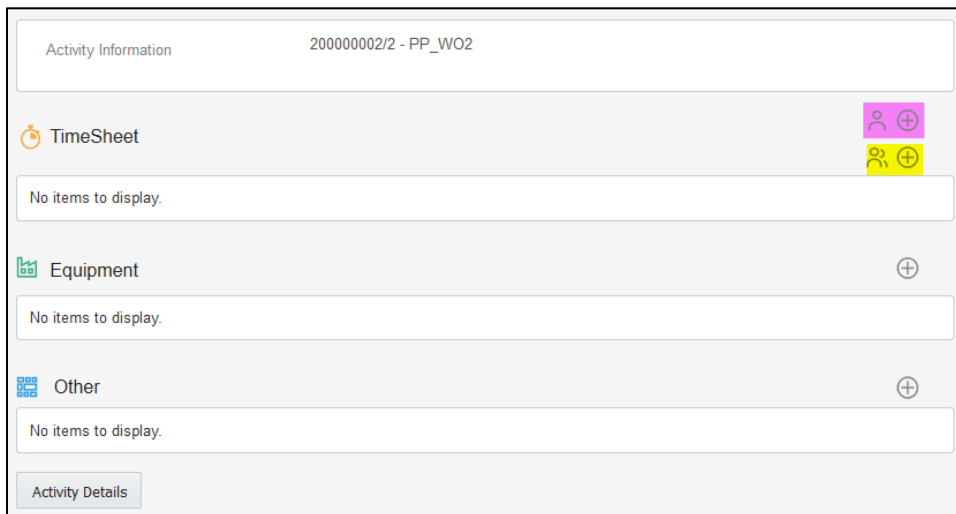
Activity Information:	200000021/426 - Asset replace/Install Asset/Install Asset tracked & Test FR		
Asset Information:	Fan - Centrifugal, Badge Number 4053_4APRI_FAN, In Service @ 4A Primary Air Fan		
Asset Location Information:	4A Primary Air Fan		
Activity Information			
Runtime Hours			
Reading Date/Time:	Apr 07, 2022 at 10:27 AM		
Reading:	1		
Quick Links			
<input type="button" value="Asset Details"/>		<input type="button" value="Activity Details"/>	

- d. Click the edit icon to edit the measurement. You can enter multiple measurements.
 - e. Click **Activity Details** to navigate back to the **Activity Details** page.
8. To enter resource usage details:
- a. Click **Resource Usage** in the **Quick Links** section in **Activity Details** page.



b. Enter time sheets, equipment, and other details.

Crew can enter individual timesheets (highlighted in purple) or for team (highlighted in yellow). In addition, a supervisor can enter individual timesheet for himself if the secure parameter, “ofsc_sup_in_team” is set to true/yes in the plugin settings.



c. Click the ‘+’ icon of multiple crew timesheet (highlighted in yellow above).

d. Enter the required information and click **Save**.

Activity Information	20000002/2	
Employee Information	Manager	
Date	01 / 10 / 2020	
Regular/Overtime	Regular	
Crew Shift Type	Day Shift	
Labor Earning Type	Regular	
Hours	1	
Work Started	2020-01-10T07:26:00	
Work Stopped	2020-01-10T08:26:00	
Travel Time	HH: 0	MM: 1






Employee	Craft	-	Add
Manager	Carpenter	<input checked="" type="checkbox"/>	
John,Reese	Electrician	<input checked="" type="checkbox"/>	
Harold,Finch	Inspector	<input checked="" type="checkbox"/>	
Chandra Perni		<input type="checkbox"/>	

Save Dismiss

The timesheets for each crew member are created in 'pending' status.

Activity Information	20000002/2 - PP_WO2	
----------------------	---------------------	--

TimeSheet

1 Hours , Jan 10,2020 User: Manager Status: Pending	
1 Hours , Jan 10,2020 User: John,Reese Status: Pending	
1 Hours , Jan 10,2020 User: Harold,Finch Status: Pending	
1 Hours , Jan 10,2020 User: Chandra Perni Status: Pending	
1 Hours , Jan 10,2020 User: Chandra Perni Status: Pending	

Equipment

No items to display.

e. Click the **Edit** icon and complete the timesheet.

Activity Information	20000002/2
Employee Information	John,Reese
Date	01 / 10 / 2020
Regular/Overtime	Regular
Crew Shift Type	Day Shift
Labor Earning Type	Regular
Craft	
Hours	1
Work Started	2020-01-10T07:26:00
Work Stopped	2020-01-10T08:26:00
Travel Time	HH: 0 MM: 1

Save Complete Delete Dismiss

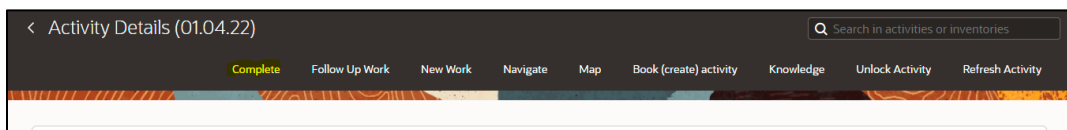
f. Complete the timesheets for all other crew members.

Activity Information	20000002/2 - PP_WO2
TimeSheet	o c + o c +
Electrician , 1 Hours , Jan 10,2020 User: Manager Status: Completed	⊙
Carpenter , 1 Hours , Jan 10,2020 User: John,Reese Status: Completed	⊙
Carpenter , 1 Hours , Jan 10,2020 User: Harold,Finch Status: Completed	⊙
Electrician , 1 Hours , Jan 10,2020 User: Chandra Perni Status: Completed	⊙
Electrician , 1 Hours , Jan 10,2020 User: Chandra Perni Status: Completed	⊙

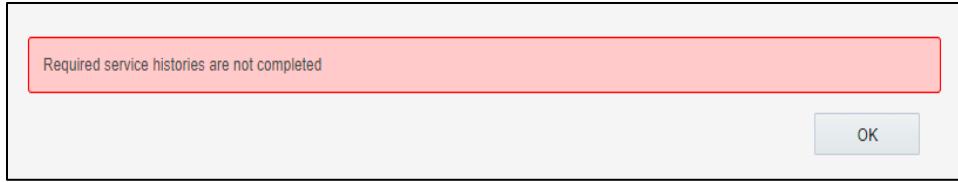
g. Populate entries for equipment and other.

h. Navigate back to the **Activity Details** page after populating all the required resource details.

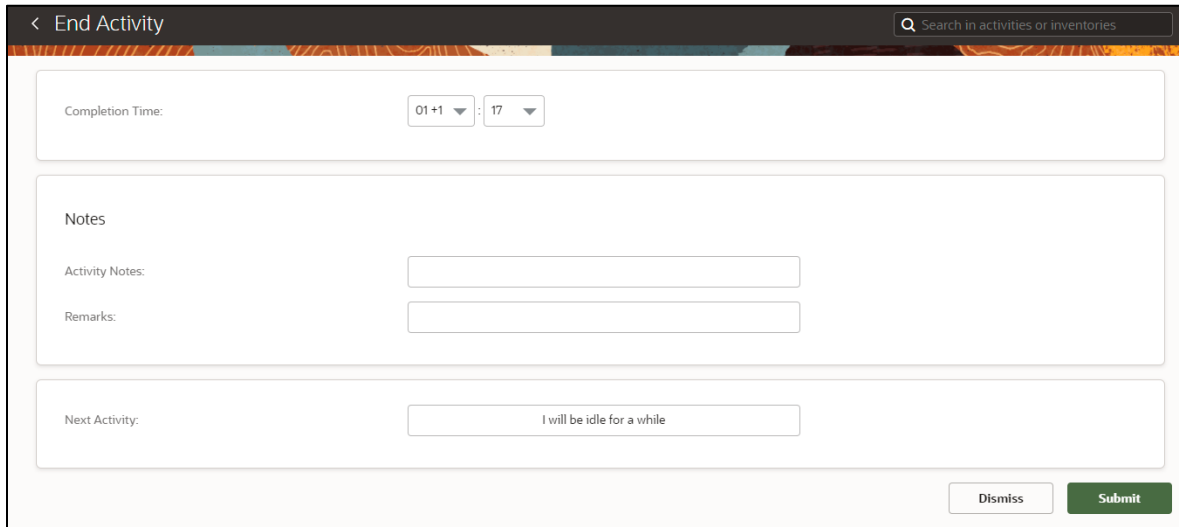
i. Click **Complete** to verify the eligibility of the activity to complete.



j. If all activities are not eligible for activity completion, the following message is displayed. Click **OK**.



k. Else, it will navigate to the **End Activity** screen. Click **Submit**.

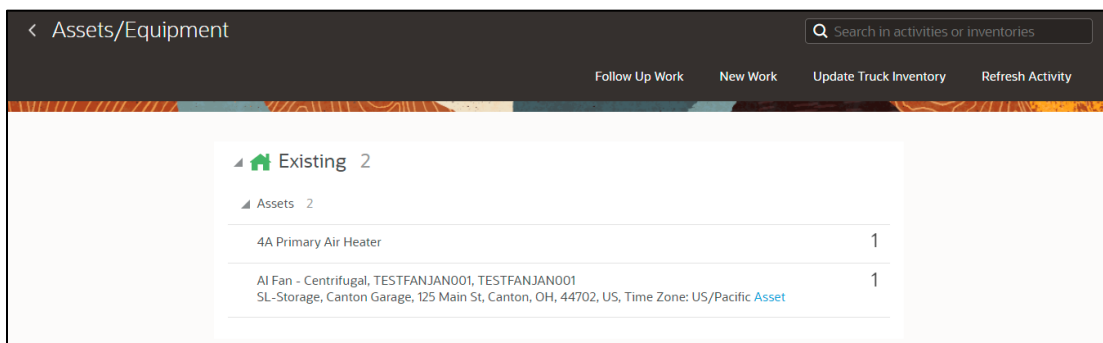


The completion information is sent to Oracle Utilities Work and Asset Cloud Service and the activity is completed.

9. To perform Asset Installs and Removals:

Install Asset:

- a. Start the activity.
- b. To **install** an asset, click on the location.



c. Click **Install Asset**.

< Asset/Equipment Details Search in activities or inventories

[Install Asset](#) [Follow Up Work](#) [New Work](#)

Asset Location

Location Information: 4A Primary Air Heater


Building: S Fan Room

Service Area: North


d. Give the **Badge Number** of the Asset to be installed on this location, and click **Install**.

Asset Operation: Install Asset

Activity Information: 200000021/406

Effective Date Time*: 2022/04/07 12:16:00 

Select Asset

Badge Number: 

[Install](#) [Dismiss](#)

e. The newly installed asset is shown in the **Installed pool**.

Assets/Equipment Q

Existing 3

Asset 3

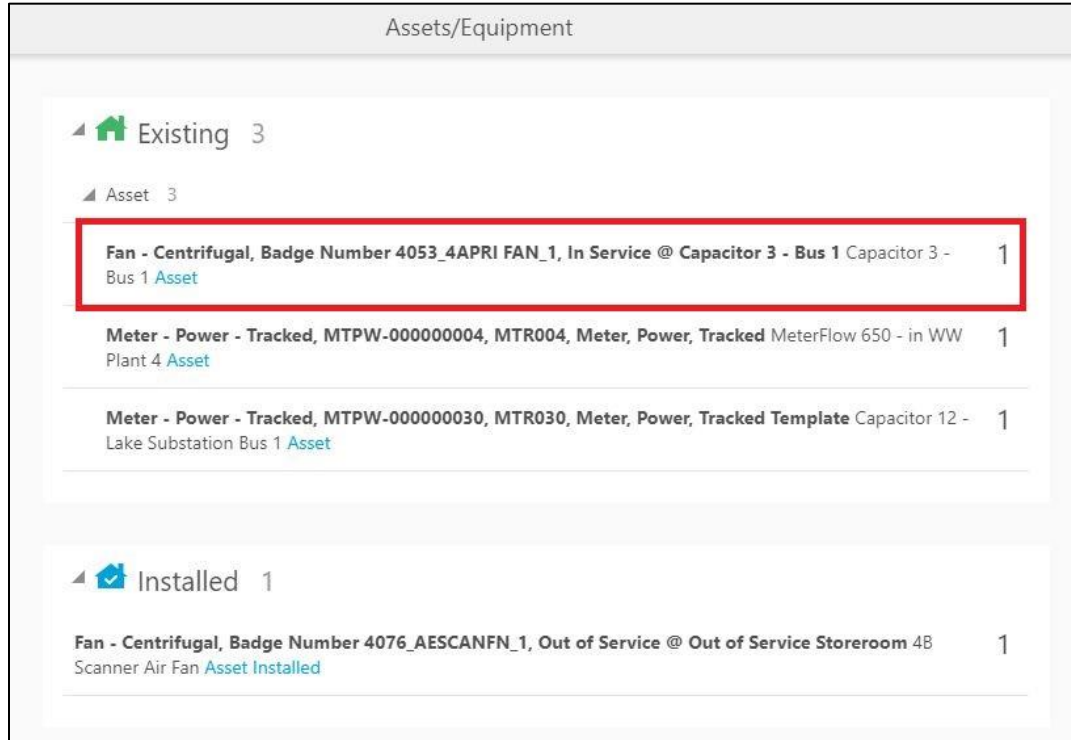
Fan - Centrifugal, Badge Number 4053_4APRI FAN_1, In Service @ Capacitor 3 - Bus 1 Capacitor 3 - Bus 1 Asset	1
Meter - Power - Tracked, MTPW-000000004, MTR004, Meter, Power, Tracked MeterFlow 650 - in WW Plant 4 Asset	1
Meter - Power - Tracked, MTPW-000000030, MTR030, Meter, Power, Tracked Template Capacitor 12 - Lake Substation Bus 1 Asset	1

Installed 1

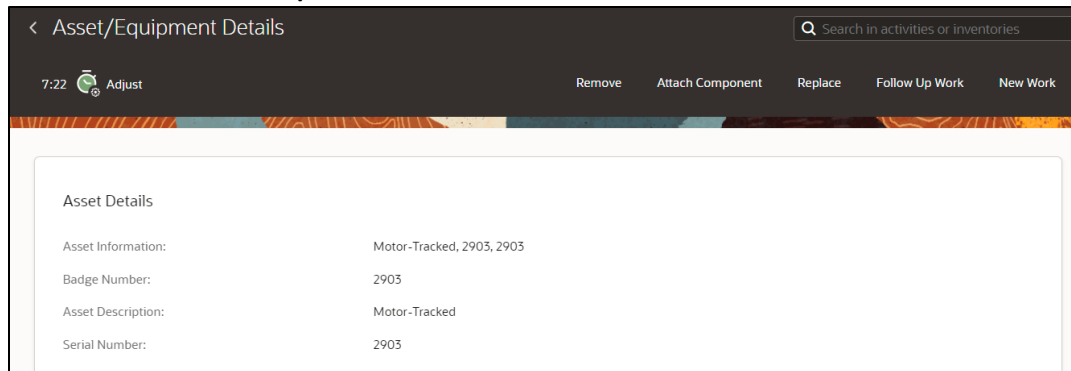
Fan - Centrifugal, Badge Number 4076_AESCANFN_1, Out of Service @ Out of Service Storeroom 4B Scanner Air Fan Asset Installed	1
---	---

Attach Component:

- a. Start the activity.
- b. To attach a component, click the asset.



c. Click Attach Component.



d. Enter the Badge Number of the Component to be attached and click Attach.

Asset Operation:	Attach Component
Activity Information:	220000017/4
Asset Information:	Motor-Tracked, 2903, 2903

Effective Date Time*:	2022/04/07 12:35:00	
-----------------------	---------------------	--

Select Component

Badge Number:	<input type="text"/>	
---------------	----------------------	--

Attach Dismiss

The attached component is shown in the **Installed Pool**.

Assets/Equipment	
Existing 3	
Asset 3	
Fan - Centrifugal, Badge Number 4053_4APRI FAN_1, In Service @ Capacitor 3 - Bus 1 Asset	1
Meter - Power - Tracked, MTPW-000000004, MTR004, Meter, Power, Tracked MeterFlow 650 - in WW Plant 4 Asset	1
Meter - Power - Tracked, MTPW-000000030, MTR030, Meter, Power, Tracked Template Capacitor 12 - Lake Substation Bus 1 Asset	1
Installed 2	
Asset 2	
Brakes-Component, BRK-0001, BRK-0001, Brakes Capacitor 3 - Bus 1 Attached Component Installed	1
Fan - Centrifugal, Badge Number 4076_AESCANFN_1, Out of Service @ Out of Service Storeroom 4B Scanner Air Fan Asset Installed	1

Out of Service:

- a. Start the activity.
- b. To move an asset **out of service**, click the asset.

Existing 3

Asset 3

Fan - Centrifugal, Badge Number 4053_4APRI_FAN_1, In Service @ Capacitor 3 - Bus 1 Capacitor 3 - Bus 1 Asset	1
Meter - Power - Tracked, MTPW-000000004, MTR004, Meter, Power, Tracked MeterFlow 650 - in WW Plant 4 Asset	1
Meter - Power - Tracked, MTPW-000000030, MTR030, Meter, Power, Tracked Template Capacitor 12 - Lake Substation Bus 1 Asset	1

Installed 2

Asset 2

Brakes-Component, BRK-0001, BRK-0001, Brakes Capacitor 3 - Bus 1 Attached Component Installed	1
Fan - Centrifugal, Badge Number 4076_AESCANFN_1, Out of Service @ Out of Service Storeroom 4B Scanner Air Fan Asset Installed	1

c. Click **Out of Service**.

< Asset/Equipment Details Search in activities or inventories

Remove **Out of Service** Attach Component Replace Follow Up Work New Work

Asset Details

Asset Information: Fan - Centrifugal, Badge Number 4053_4APRI_FAN, In Service @ 4A Primary Air Fan

d. Enter the **effective date/time** and click **Submit**.

Asset Operation:	Out of Service
Activity Information:	200000037/17
Main Asset Information:	Fan - Centrifugal, Badge Number 4053_4APRI_FAN, In Service @ 4A Primary Air Fan
Effective Date Time*:	<input type="text" value="11/16/2020 05:42:52 PM"/>
<input type="button" value="Submit"/> <input type="button" value="Dismiss"/>	

The asset moves to out of service status in **Deinstalled** pool.

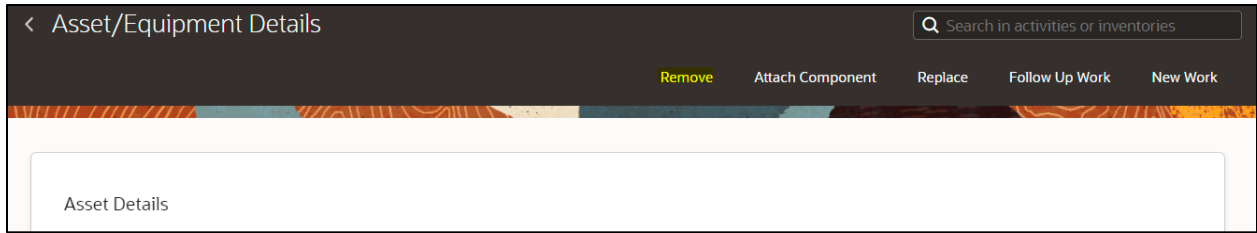
Installed 2	
Asset 2	
Brakes-Component, BRK-0001, BRK-0001, Brakes Capacitor 3 - Bus 1	Attached Component Installed 1
Fan - Centrifugal, Badge Number 4076_AESCANFN_1, Out of Service @ Out of Service Storeroom 4B	Scanner Air Fan Asset Installed 1
Deinstalled 1	
Fan - Centrifugal, Badge Number 4053_4APRI FAN_1, In Service @ Capacitor 3 - Bus 1	Capacitor 3 - Bus 1 Out Of Service Asset 1

Remove Asset/Component:


- a. Start the activity.
- b. To remove a specific asset/component, click it.

Existing 2	
Asset 2	
Meter - Power - Tracked, MTPW-000000004, MTR004, Meter, Power, Tracked MeterFlow 650 - in WW Plant 4	Asset 1
Meter - Power - Tracked, MTPW-000000030, MTR030, Meter, Power, Tracked Template Capacitor 12 - Lake Substation Bus 1	Asset 1
Installed 2	
Asset 2	
Brakes-Component, BRK-0001, BRK-0001, Brakes Capacitor 3 - Bus 1	Attached Component Installed 1
Fan - Centrifugal, Badge Number 4076_AESCANFN_1, Out of Service @ Out of Service Storeroom 4B	Scanner Air Fan Asset Installed 1

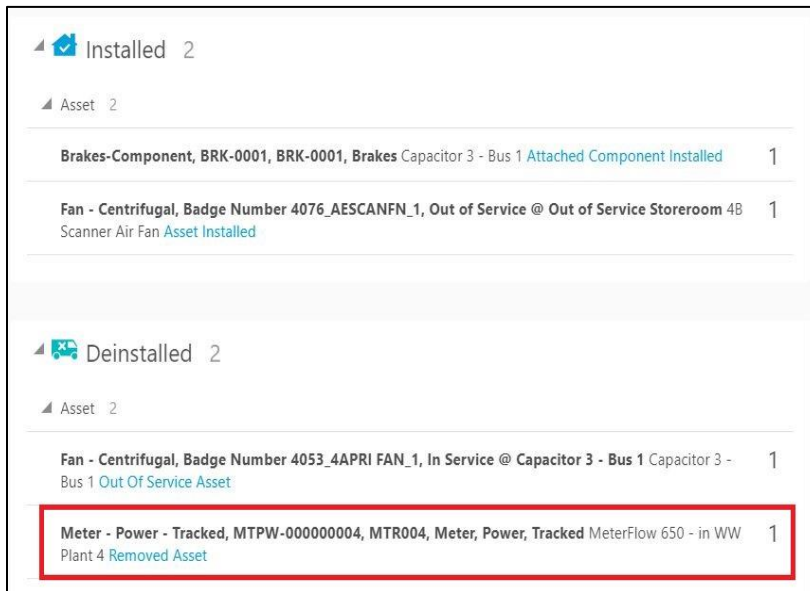
- c. Click **Remove**.



d. Enter the **effective date/time** and click **submit**.

Asset Operation:	Remove Asset
Activity Information:	CreateNewWO_MainPage1234
Main Asset Information:	INTWAMOFSC_TrackedAsset, DEMOBADGE001, DEMOBADGE001, Demo_InstallAsset
Effective Date Time*:	11/25/2020 03:18:06 PM 
<input type="button" value="Submit"/> <input type="button" value="Dismiss"/>	

The asset/component is removed and moved to the **Deinstalled** pool.



Undo Install:

a. To undo an installation, click the newly installed asset in the Installed pool.

Installed 2

Asset 2

- Brakes-Component, BRK-0001, BRK-0001, Brakes Capacitor 3 - Bus 1 Attached Component Installed 1
- Fan - Centrifugal, Badge Number 4076_AESCANFN_1, Out of Service @ Out of Service Storeroom 4B Scanner Air Fan Asset Installed 1**

Deinstalled 2

Asset 2

- Fan - Centrifugal, Badge Number 4053_4APRI FAN_1, In Service @ Capacitor 3 - Bus 1 Capacitor 3 - Bus 1 Out Of Service Asset 1
- Meter - Power - Tracked, MTPW-000000004, MTR004, Meter, Power, Tracked MeterFlow 650 - in WW Plant 4 Removed Asset 1

b. Click **Undo Install Asset**.

Attach Component **Undo Install Asset** Follow Up Work New Work

Asset Details

Asset Information: Main Shaft - Tracked, 939383333144559, MS-0004, Main Shaft - Wind Tower

Badge Number: MS-0004

Asset Description: Runtime Hours

c. Click **Submit**.

Are you sure you want to Undo Install Asset?

Action: Undo Install Asset

Activity Information: 200000036/181

Asset Information: 0100006 - Truck 2, (Main Shaft - LM Wind Power), Inventory Tracked

The asset/component installation is undone and it disappears from Installed Pool.

Existing 2	
Asset 2	
4B Scanner Air Fan	1
Meter - Power - Tracked, MTPW-000000030, MTR030, Meter, Power, Tracked Template Capacitor 12 - Lake Substation Bus 1 Asset	1
Installed 1	
Brakes-Component, BRK-0001, BRK-0001, Brakes Capacitor 3 - Bus 1 Attached Component Installed	1
Deinstalled 2	

Undo Attach:

- a. To undo attach, click the newly attached component in Installed pool.

Existing 2	
Asset 2	
4B Scanner Air Fan	1
Meter - Power - Tracked, MTPW-000000030, MTR030, Meter, Power, Tracked Template Capacitor 12 - Lake Substation Bus 1 Asset	1
Installed 1	
Brakes-Component, BRK-0001, BRK-0001, Brakes Capacitor 3 - Bus 1 Attached Component Installed	1

- b. Click **Undo Attach Component**.

[Undo Attach Component](#) [Follow Up Work](#) [New Work](#)

Asset Details

Asset Information: Bearing-LG-Component-Tracked, BRG-RB-000001, BRG-RB-000001, Bearing - Main Shaft - Wind Tow

Badge Number: BRG-RB-000001

Asset Description: Runtime Hours

Attached To Asset: Main Shaft - Tracked, 93958333144559, MS-0004, Main Shaft - Wind Tower

[Go to Parent Asset](#)

c. Click **Submit**.

[Submit](#) [Dismiss](#)

Are you sure you want to Undo Attach Component?

Action: Undo Attach Component

Activity Information: 200000036/181

Component Information: 0100007 - Truck 2, (Bearing -Wind Tower Main Shaft - WinEnergy), Inventory Tracked

d. The attach operation is undone and the component disappears from installed pool.

Existing 2

Asset 2

4B Scanner Air Fan	1
Meter - Power - Tracked, MTPW-000000030, MTR030, Meter, Power, Tracked Template Capacitor 12 - Lake Substation Bus 1 Asset	1

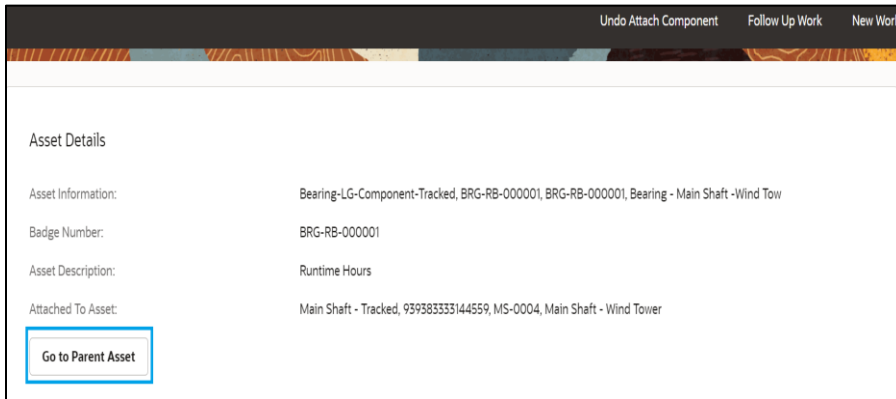
Deinstalled 2

Asset 2

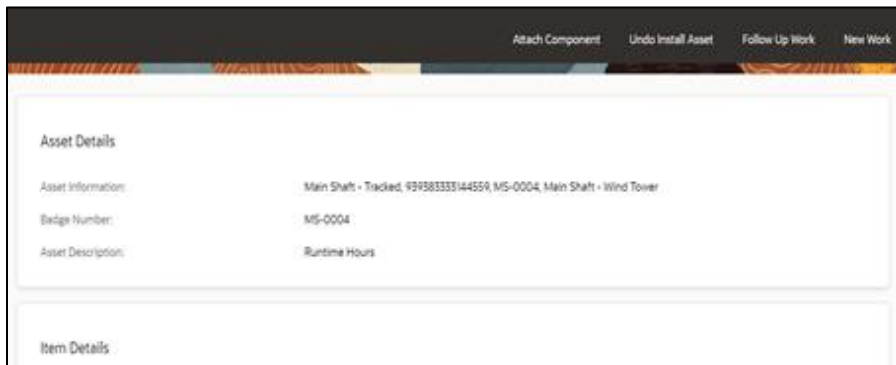
Fan - Centrifugal, Badge Number 4053_4APRI FAN_1, In Service @ Capacitor 3 - Bus 1 Out Of Service Asset	1
Meter - Power - Tracked, MTPW-000000004, MTR004, Meter, Power, Tracked MeterFlow 650 - in WW Plant 4 Removed Asset	1

Navigate to Parent Asset:

- a. To Navigate to parent asset, click the newly attached component in Installed pool.

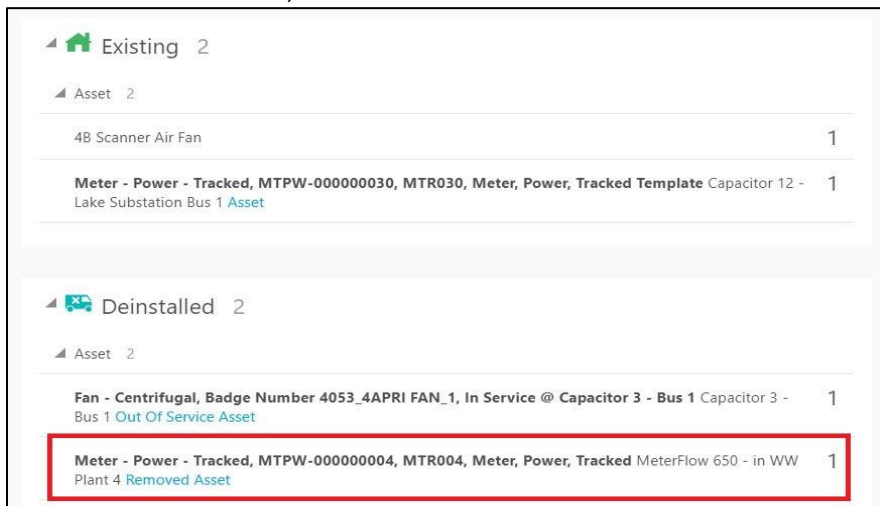


- b. When crew clicks on "Go to Parent Asset" To Navigate to parent asset to which the component attached too.

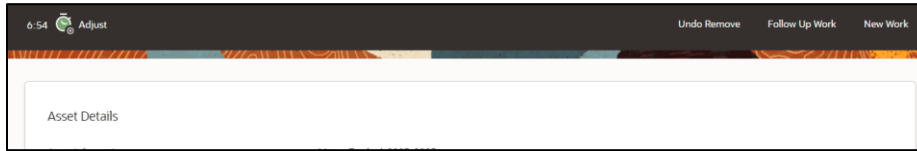


Undo Remove:

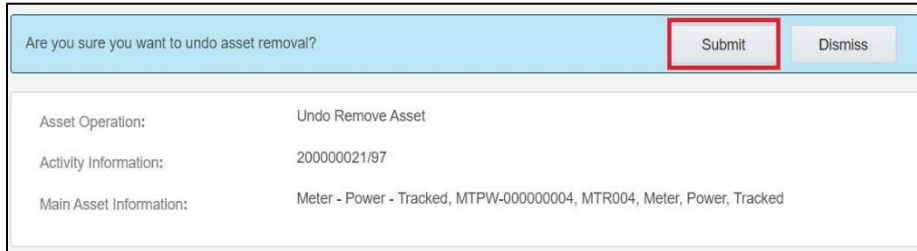
- a. To undo remove, click the removed asset.



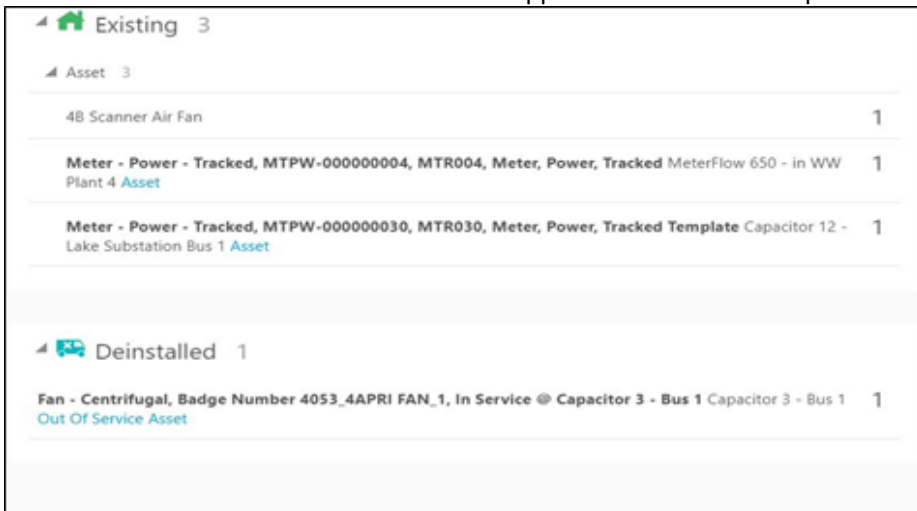
b. Click **Undo Remove**.



c. Click **Submit**.



The removal is undone and asset disappears from Deinstalled pool.

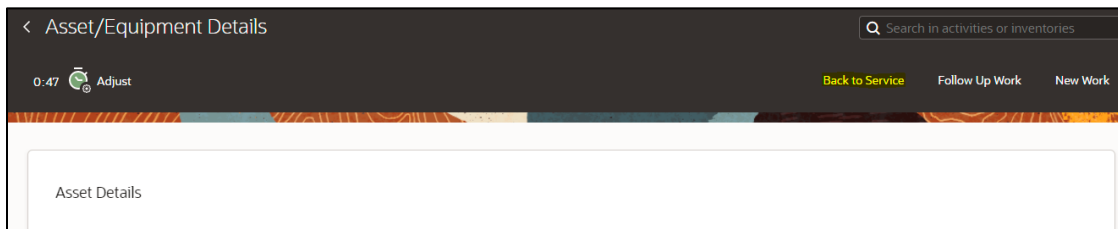


Back to Service:

a. To move asset back to service, click **Asset** in **Out of Service**.

Existing 3	
Asset 3	
4B Scanner Air Fan	1
Meter - Power - Tracked, MTPW-000000004, MTR004, Meter, Power, Tracked MeterFlow 650 - in WW Plant 4 Asset	1
Meter - Power - Tracked, MTPW-000000030, MTR030, Meter, Power, Tracked Template Capacitor 12 - Lake Substation Bus 1 Asset	1
Deinstalled 1	
Fan - Centrifugal, Badge Number 4053_4APRI FAN_1, In Service @ Capacitor 3 - Bus 1 Out Of Service Asset	1

b. Click Back to Service.



c. Click Submit.

Are you sure you want to move asset back to service? Submit Dismiss

Asset Operation:	Back to Service
Activity Information:	200000021/97
Main Asset Information:	Fan - Centrifugal, Badge Number 4053_4APRI FAN_1, In Service @ Capacitor 3 - Bus 1

The asset moves from the deinstalled pool.

Existing 4

Asset 4

4B Scanner Air Fan	1
Fan - Centrifugal, Badge Number 4053_4APRI FAN_1, In Service @ Capacitor 3 - Bus 1 Capacitor 3 - Bus 1 Asset	1
Meter - Power - Tracked, MTPW-000000004, MTR004, Meter, Power, Tracked MeterFlow 650 - in WW Plant 4 Asset	1
Meter - Power - Tracked, MTPW-000000030, MTR030, Meter, Power, Tracked Template Capacitor 12 - Lake Substation Bus 1 Asset	1

Replace Asset:

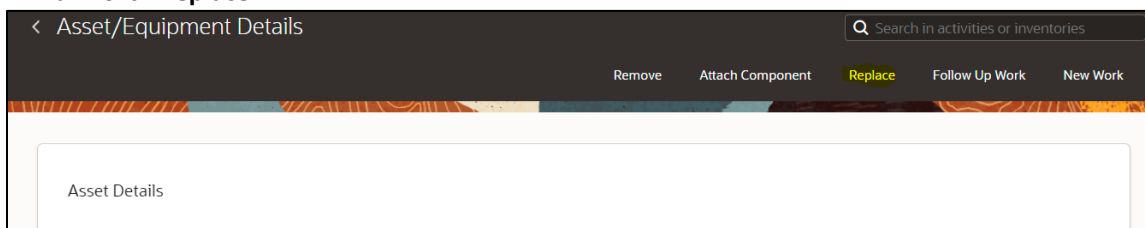
- a. Click the asset that needs to be replaced.

Existing 3



Asset 3

Gearbox-Component-Tracked, 0000121326, GEAR-004, Gearbox, Tower Drivetrain VFD, Pump 9, RAS, PLT5 Component	1
Meter - Power - Tracked, MTPW-000000021, MTR021, Meter, Power, Tracked Template VFD, Pump 9, RAS, PLT5 Asset	1
Meter - Power - Tracked, MTPW-000000030, MTR030, Meter, Power, Tracked Template Capacitor 12 - Lake Substation Bus 1 Asset	1

- b. Click **Replace**.



- c. Give the badge number of the asset to be replaced with and click **Replace**.

Asset Operation:	Replace
Activity Information:	220000009/25
Asset Information:	Breaker, Badge Number , In Service @ 4A Scanner Air Fan
Effective Date Time*:	07.04.22 12:46:00 
Select Asset	
Badge Number:	<input type="text"/> 
<input type="button" value="Replace"/> <input type="button" value="Dismiss"/>	

The new asset moves to the installed pool and the replaced asset moves to the deinstalled pool.

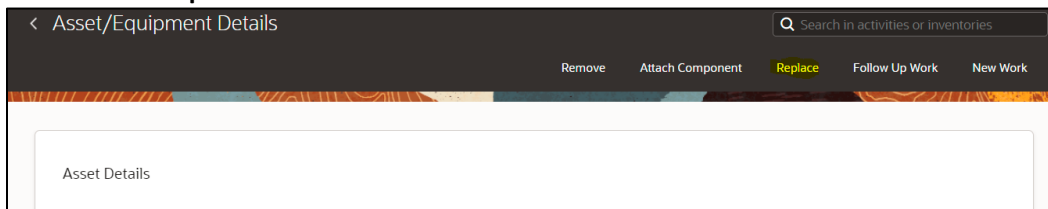
Existing 2	
Asset 2	
Gearbox-Component-Tracked, 0000121326, GEAR-004, Gearbox, Tower Drivetrain VFD, Pump 9, RAS, PLTS Component	1
Meter - Power - Tracked, MTPW-000000030, MTR030, Meter, Power, Tracked Template Capacitor 12 - Lake Substation Bus 1 Asset	1
Installed 1	
Meter - Power - Tracked, MTPW-000000060, MTR060, Meter, Power, Tracked Template VFD, Pump 9, RAS, PLTS Asset Installed	1
Deinstalled 1	
Meter - Power - Tracked, MTPW-000000021, MTR021, Meter, Power, Tracked Template VFD, Pump 9, RAS, PLTS Replaced Asset	1

Replace the Component:

- a. Click the component to be replaced.

Existing 2	
Asset 2	
Gearbox - Component - Tracked, 0000121326, GEAR-004, Gearbox, Tower Drivetrain VFD, Pump 9, RAS, PLT5 Component	1
Meter - Power - Tracked, MTPW-000000030, MTR030, Meter, Power, Tracked Template Capacitor 12 - Lake Substation Bus 1 Asset	1
Installed 1	
Meter - Power - Tracked, MTPW-000000060, MTR060, Meter, Power, Tracked Template VFD, Pump 9, RAS, PLT5 Asset Installed	1
Deinstalled 1	
Meter - Power - Tracked, MTPW-000000021, MTR021, Meter, Power, Tracked Template VFD, Pump 9, RAS, PLT5 Replaced Asset	1

b. Click Replace.



c. Enter the badge number of the replacing component and click Replace.

Badge Number:

The Replaced Component moves to deinstalled pool and the newly attached component moves to the installed pool.

Existing 1	
Meter - Power - Tracked, MTPW-000000030, MTR030, Meter, Power, Tracked Template Capacitor 12 - Lake Substation Bus 1 Asset	1

Installed 2	
Asset 2	
Gearbox-Component-Tracked, 0000121325, GEAR-003, Gearbox, Tower Drivetrain VFD, Pump 9, RAS, PLT5 Component Installed	1
Meter - Power - Tracked, MTPW-000000060, MTR060, Meter, Power, Tracked Template VFD, Pump 9, RAS, PLT5 Asset Installed	1

Deinstalled 2	
Asset 2	
Gearbox-Component-Tracked, 0000121326, GEAR-004, Gearbox, Tower Drivetrain VFD, Pump 9, RAS, PLT5 Replaced Component	1
Meter - Power - Tracked, MTPW-000000021, MTR021, Meter, Power, Tracked Template VFD, Pump 9, RAS, PLT5 Replaced Asset	1

Undo Replace:

- a. Click **Installed Asset/Component.**

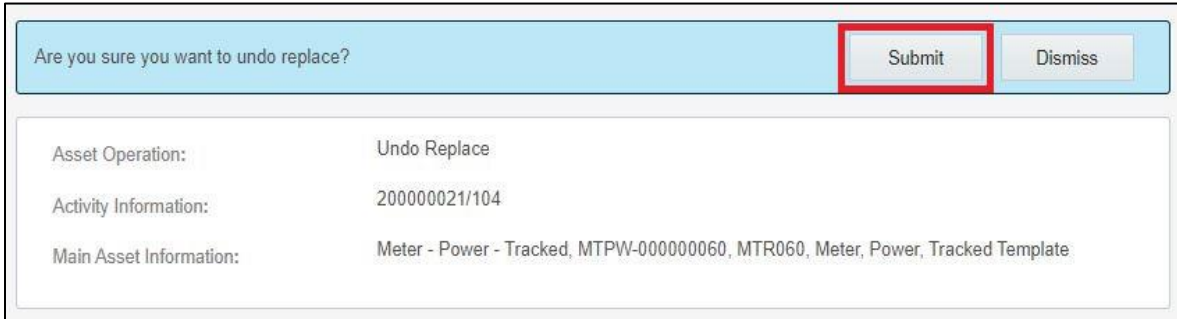
Installed 2	
Asset 2	
Gearbox-Component-Tracked, 0000121325, GEAR-003, Gearbox, Tower Drivetrain VFD, Pump 9, RAS, PLT5 Component Installed	1
Meter - Power - Tracked, MTPW-000000060, MTR060, Meter, Power, Tracked Template VFD, Pump 9, RAS, PLT5 Asset Installed	1

Deinstalled 2	
Asset 2	
Gearbox-Component-Tracked, 0000121326, GEAR-004, Gearbox, Tower Drivetrain VFD, Pump 9, RAS, PLT5 Replaced Component	1
Meter - Power - Tracked, MTPW-000000021, MTR021, Meter, Power, Tracked Template VFD, Pump 9, RAS, PLT5 Replaced Asset	1

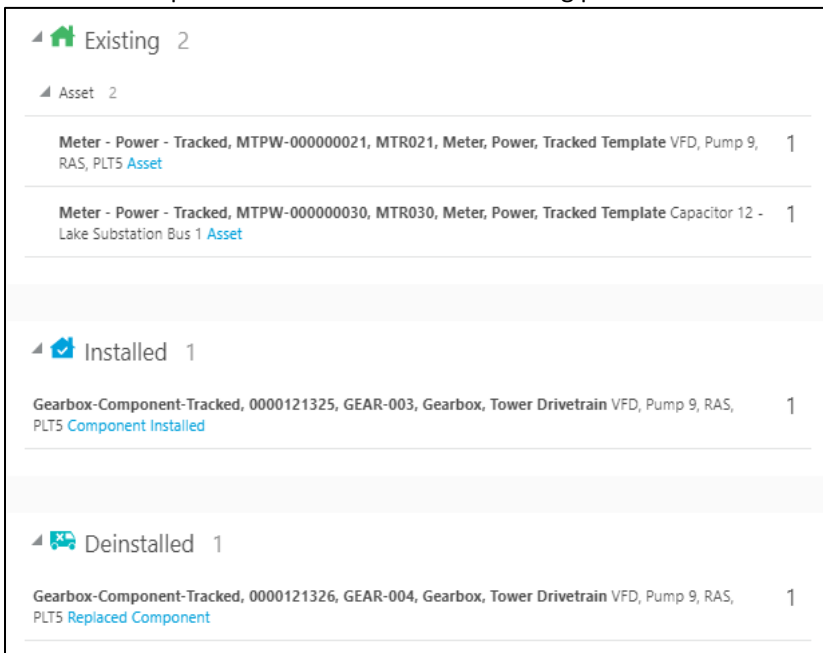
b. Click **Undo Replace**.



c. Click **Submit**.



The replaced asset moves back to existing pool.



d. Repeat the above steps to undo replace for a component.

Existing 3

Asset 3

Gearbox-Component-Tracked, 0000121326, GEAR-004, Gearbox, Tower Drivetrain VFD, Pump 9, RAS, 1
PLTS [Component](#)

Meter - Power - Tracked, MTPW-000000021, MTR021, Meter, Power, Tracked Template VFD, Pump 9, 1
RAS, PLTS [Asset](#)

Meter - Power - Tracked, MTPW-000000030, MTR030, Meter, Power, Tracked Template Capacitor 12 - 1
Lake Substation Bus 1 [Asset](#)

Chapter 5: Customizations

Adding new properties according to the requirement and customizations help customers to enhance the functionality of the integration and increase the usability. The customizations are done in Oracle Integration Cloud, Oracle Field Service, and Oracle Utilities Customer Cloud Service depending on the fields, elements, or properties to be added and whether they are available.

This chapter focuses on a few cases about customizations.

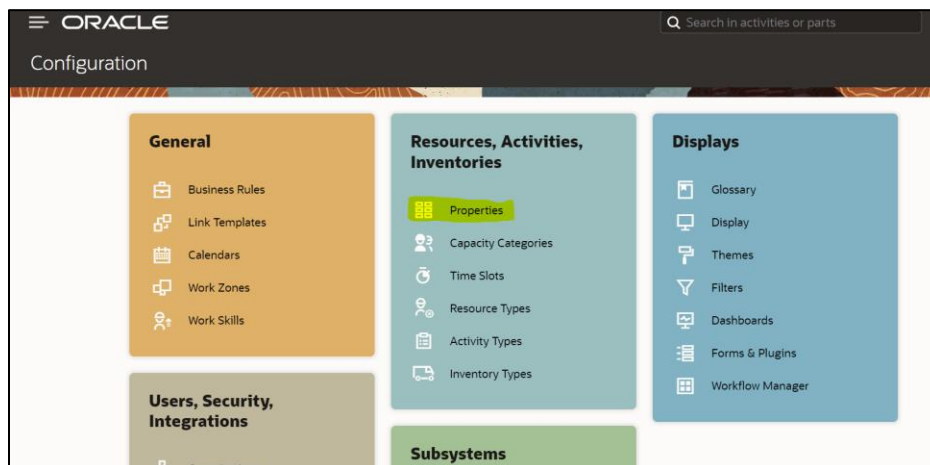
- [Adding New Fields to Field Activity](#)
- [Adding Custom Business Objects](#)
- [Plugins Rendering Data](#)
- [Validation for Completion](#)

Adding New Fields to Field Activity

This section provides the steps to add a new field to the field activity already available but not present in the field activity.

Oracle Field Service Configurations

1. Login to Oracle Field Service.
2. Navigate to **Configuration > Resources, Activities, Inventories > Properties**.



3. Enter the **Property name** and **Property Label**.
4. Select the entity, type of GUI, and add the enumeration values “customprop1” and “customprop2”.

Modify Property

Property type: Enumeration

* Property name

* English: Test Custom Property

SpanishLA:

Portuguese (Brazil):

* Property Label: test_customproperty

Property hint

English:

SpanishLA:

Portuguese (Brazil):

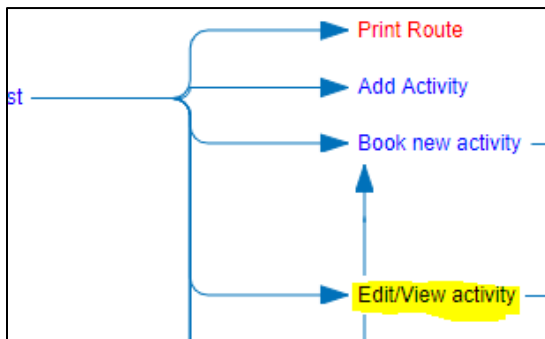
Entity: Activity

GUI: Combobox Radiogroup

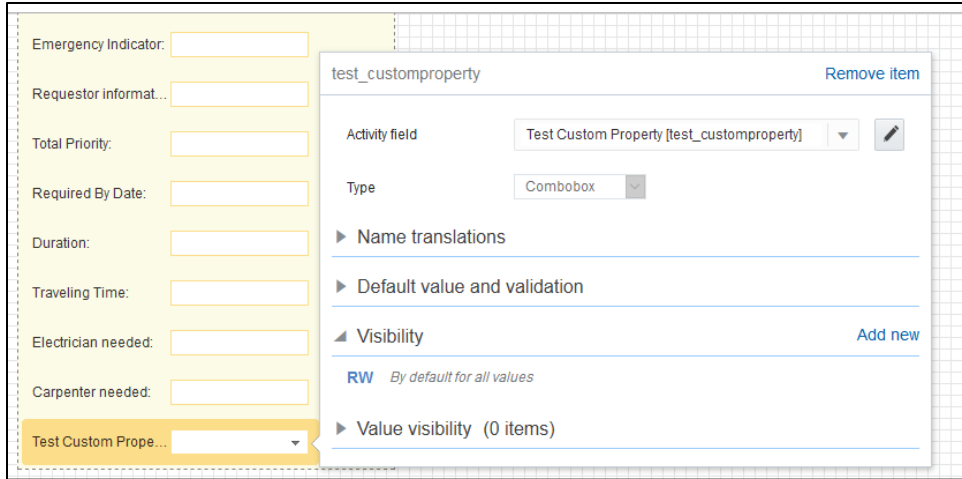
Clone property data on Reopen or Prewrite:

Enumeration values

5. Navigate to **Configuration > Users, Security, Integrations > User Types** and select the required user type.
6. Navigate to the Screen configurations for the select user type and open the **Edit/View activity** section.



7. Add a new element by dragging and dropping a new 'Input' from the **Add New Element** section.
8. Map the element to the **Test Custom Property**. Save this configuration after mapping the field.

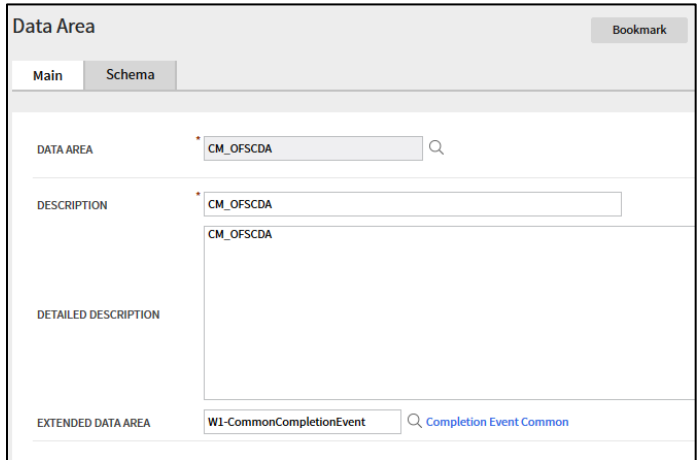


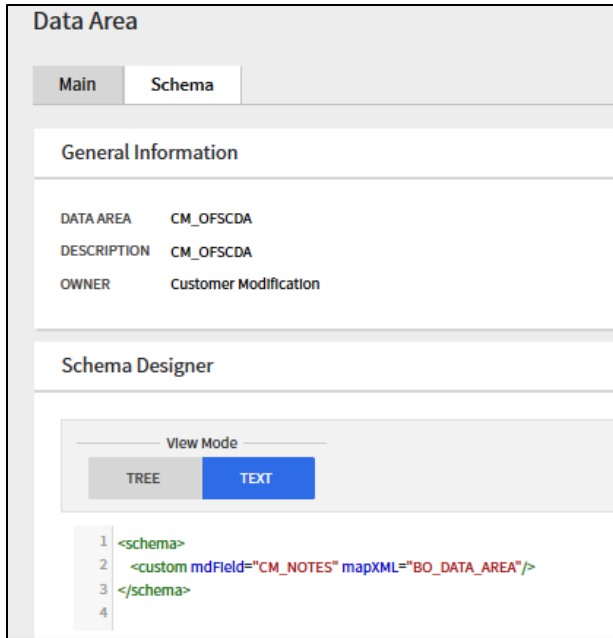
Oracle Utilities Work and Asset Cloud Service Configurations

1. Login to Oracle Utilities Work and Asset Cloud Service.
2. To configure with a new schema element:
 - a. Navigate to the W1-ActivityComplInboundComm business object.
 - b. Identify the data area to add the new schema element.

Example: To make changes to the Completion Event Details section, the data area to be changed is the custom data area created for Oracle Field Service.

- c. Extend the data area. Add the completion event details data area in the **Extended Data Area** field.





d. The new schema element is displayed in the business object schema.

```

<creationDateTime suppress="true" required="true" dataType="dateTime" uerion="current">
<statusDateTime suppress="true" dataType="dateTime" mapField="STATUS_UPD_DTTM"/>
<version suppress="true" dataType="number" mapField="VERSION"/>
<exceptionInformation type="group" mapXML="BO_DATA_AREA">
  <messageCategory suppress="true" mdField="MESSAGE_CAT_NBR" dataType="number"/>
  <messageNumber suppress="true" mdField="MESSAGE_NBR" dataType="number"/>
  <longDescription suppress="true" mdField="DESCRLONG"/>
  <expandedMessage suppress="input" mdField="ACT_ERROR_MESSAGE"/>
  <messageParameters suppress="true" type="list">
    <parameterSequence mdField="PARAM_SEQ" dataType="number" isPrimeKey="true"/>
    <messageParameterType mdField="MSG_PARM_TYP_FLG" dataType="lookup" lookup="MS">
      <messageParameterValue mdField="F1_MSG_PARM_VLONG"/>
    </messageParameterType>
  </messageParameters>
</exceptionInformation>
<accessControl type="group">
  <owningAccessGroup fkRef="F1-ACCGP" mapField="OWNING_ACCESS_GRP_CD"/>
</accessControl>
<eventInformation type="group">
  <completionDateTime dataType="dateTime" mapField="W1_EVT_DTTM"/>
  <comments mdField="COMMENTS" mapXML="BO_DATA_AREA"/>
  <crewName mdField="CREW_NAME" mapXML="BO_DATA_AREA"/>
  <custom mdField="CM_NOTES" mapXML="BO_DATA_AREA"/>
</eventInformation>

```

Adding Custom Business Objects

After a custom business object for a service history is added in Oracle Utilities Work and Asset Management, the information is available to Service History plugin along with all other service histories as part of “wam_asset_valid_service_history_types” property.

In Oracle Field Service the new business object value is added as an enumeration value in “wam_service_history_bo” property.

If the new business object belongs to one of the predefined service history categories of Questionnaire, Inspection, Failure, Downtime and General, it is defined as such in the property. For example: A custom business object “CM_Downtime” is entered in the “wam_service_history_bo” property as shown below. The service history plugin will automatically handle the new business object.

If the new business object entered does not fall into any of the predefined service history categories, after the “wam_service_history_bo” property is updated, the service history plugin javascript should be updated to handle the new service history category. Create a new XSL that needed for the UI of the new service history category to be added.

Plugins Rendering Data

This section explains how each plugin renders the data.

Measurements

- Valid measurement types received from Oracle Utilities Work and Asset Clod Service are assigned to “wam_valid_measurement_types” property and are obtained in runtime as XML string and displayed in plugin.
- The individualMeasurementType-to-form.xml and individualMeasurementTypeEdit-to-form.xml are used to style the UI forms to add and update measurement information.
- The measurement information is consolidated into “wam_measurements_output” property and made available for validateCompletion plugin.
- Measurement reason types (wam_measurement_meter_reason, wam_measurement_gauge_reason) are populated based on the measurement type selected.

Resource Usage

- resourceUsage-to-form.xml provides the summary of **Resource Usage Details** page from where crew can add timesheets, equipment, and other resource usage. It also displays the resource usage details entered.
- individualTimeUsage-to-form.xml used to display add/update time sheet screens whereas crewTimeUsage-to-form.xml is used to enter and update individual and crew timesheets.

- individualEquipmentUsage-to-form.xml and individualOtherUsage-to-form.xml are used to enter equipment and other resource usages.
- Upon completion of resource usage which calls Oracle Integration Cloud (Oracle Utilities OFS WACS Resource Usage Details integration flow) and update the details in Oracle Utilities Work and Asset Cloud Service.

Service History

- The below XSL are applied to render the UI:
 - serviceHistoryTypes-to-form.xml to show Service History List and the Entered Service histories
 - downtime-to-form.xml for Downtime Service History form
 - failure-to-form.xml for Failure Service History form
 - questionnaire-to-form.xml for Questionnaire and Inspection Service History form
 - sh-to-form.xml for General Service History form
 - entered-sht-count.xml is used to count the entered service histories per each service history type
 - shAttachment-to-form.xml to enter attachments
- The valid service histories are displayed based on the service histories hold by “wam_asset_valid_service_history_types” property.
- The asset failure information is displayed based on the values holds in “wam_failure_info” property.
- The asset downtime reason is displayed based on the values holds in “wam_downtime_reason” property.
- The following BO categories are supported. (Questionnaire and Inspection are handled similarly)
 - Questionnaire
 - Inspection
 - Failure
 - Downtime
 - General
- Refer to [Chapter 5: Customizations](#) for information about adding a custom business object.
 - If the completion message for service histories is greater than 655360, the message is split into multiple wam_service_history_output(i) where i values ranges from 1 to 20 (size upto 640KB) properties and made available for validateCompletion plugin.

Asset Component Install Exchange Undo

- The below XSL are applied to render the UI:
 - assetQuery-to-form.xml to show Install, Attach, Replace, and Undo operation screens.
- Every operation will have have “wam_asset_effective_date_time” property on the screen defaulted to Current Date/Time which can be modified by the user.
- Upon clicking “Search and Add” or “Search and Replace” for Install, Attach, and Replace operations, it calls Oracle Integration Cloud (Oracle Utilities OFS WACS Asset Query integration flow). If the response succeeds, the assets details are received and the operation is performed successfully. If the response fails, a valid error message is displayed on the screen.

Validate Completion

- This plugin is used to validate and construct the final completion message obtained from individual plugins that is sent out by Oracle Field Service to Oracle Utilities Work and Asset Management. Click **Complete**.
- The plugin validates to check if there are any pending service histories and all the required service histories are completed.

If the validations are not successful, click **OK** and fix the issue. If the validations are successful, the completion message is written to a temporary file and navigated to the **End Activity** screen. Click **Submit** to send the completion message to Oracle Utilities Work and Asset Management.

- The plugin populates the “participation” node in the completion message with either "W1AW" or "W1AS" based on if the “Asset worked” was selected (checkbox selected) or not.

Lock Unlock

- The index.html page provides the summary of **Lock/Unlock status** from where user can Lock or Unlock Activity.

Only on locking an activity crew can start the operations such as Asset Install, replace, remove, adding timesheet, Equipment and other details. A crew member can lock the activity without starting it. Once activity is locked by any crew it can be unlocked by himself or from dispatch console.

Pick Up

- assetQuery-to-form.xsl displays the asset query screen to query assets from Oracle Utilities Work and Asset Management using asset badge number or location.
- pickupWork-to-form.xsl provides crew member with a drop-down option to choose the level from work order, work request-asset related or work request-non-asset related.
- workOrderRequest-to-form.xsl displays a form where crew member can add details for work order or work request created.
- On clicking **Query New Asset**, the crew gets navigated to **Asset Query** page which calls the Oracle Integration for Cloud flow (Oracle Utilities OFS WACS Asset Query). The crew member can click **Clear Selection** to clear the selected asset.

Materials

- materials-to-form.xsl displays a drop-down containing list of trucks assisting the crew to update the truck inventories of selected truck.
- moveMaterials-to-activity-form.xsl displays Use/Undo Use Item, Install/Undo Install Asset and Attach/Undo Attach component screens from truck inventories.
- Initial sync of truck inventories can be performed from the dispatch console by clicking **Sync Truck Inventories**.

Validation for Completion

Validation Rules

- Basic validation is to ensure that the activity has all the necessary information to be completed.
- All pending service histories must be completed when completing the activity (mandatory).
- Required service histories must be entered for worked assets.
- For each asset that worked, loop through the list of required service history types defined on the activity.
- Find all service histories in the list of activity service histories that its service history type = current service history type being processed and either asset ID = empty or equal current asset being processed.
- If not found, issue an error that "A service history of type %1 is missing for asset %2".

Chapter 6: Hosting Plug-Ins in OFS

Plug-ins can be hosted within Oracle Field Service or externally.

Oracle Field Service has plugins that can be hosted within Oracle Field Service.

The steps to host a plug-in within Oracle Field Service is documented in https://docs.oracle.com/en/cloud/saas/field-service/22a/fapcf/configure-and-use-plugins.html#c_hostingPlugins

The plugins can be hosted externally on:

- Any webserver (example: Tomcat) running on a virtual machine either on-premises or on cloud.
- It can be stored In Object Storage on a cloud instance by uploading the files either in a public bucket.

Additionally, if the plugins are hosted externally:

1. Navigate to **Configuration > Application > Additional Resources**.
2. Select **Allow Cross-origin resource sharing (CORS) from the following web domains** and provide the domain of the server on which the plugins are hosted.

Hosting files on a webserver

Plugins can be hosted on a webserver running on a virtual machine either on-premises or on cloud.

The mobile device or browser needs to be able to reach and communicate with the server hosting the plugin files.

Please refer to the documentation of the webserver of choice on how setup and host the static content. The unzipped files of the plugin is then hosted on the webserver. The path to the index.html or the directory containing the index.html is configured in the URL field of the plugin screen as defined in <https://docs.oracle.com/en/cloud/saas/field-service/22a/fapcf/configure-and-use-plugins.html#configure-and-use-plugins>

The externally hosted plugin can be secured and Oracle Field Service supports authentication mechanism as defined in

https://docs.oracle.com/en/cloud/saas/field-service/22a/fapcf/configure-and-use-plugins.html#c_authentication

Storing files on Object Storage

Before storing files in Object Storage make sure that the basic administration tasks in Oracle Cloud Infrastructure related to Object Storage are completed properly, and that the compartments and buckets where the plugin files are stored are set up.

For more information on Oracle Cloud Object Storage setup for Oracle Utilities Cloud Services, refer to the latest *Oracle Utilities Cloud Services Object Storage Setup Guide* at:

https://docs.oracle.com/cd/F35460_01/PDF/UGBU_Cloud_Services_Object_Storage_Setup_21A.pdf

Using public bucket

The unzipped plugin files can be uploaded into a public bucket in which case the files are not protected and is open to public. The URL to index.html in the public bucket is configured in URL field in Oracle Field Service.