

**Oracle Functional Testing Advanced  
Pack for Oracle Utilities**

**Reference Guide for Oracle Utilities Mobile  
Workforce Management/ Oracle Real-Time  
Scheduler**

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# Preface

This guide describes the Oracle Utilities Mobile Workforce Management (MWM) v2.2.0.3 and Oracle Real-Time Scheduler (ORS) v2.2.0.3 components and the function libraries used to create those components in Oracle Functional Testing Advanced Pack for Oracle Utilities (OFTAPOU) v5.0.0. These components are used to build test flows in Oracle Flow Builder (OFB).

This preface includes the following sections:

- [Audience](#)
- [Related Documents](#)
- [Conventions](#)

## Audience

This guide is intended for QA/Test Engineers and Automation Developers to understand the various components and libraries available for them to automate the business test flows for Oracle Utilities Mobile Workforce Management using Oracle Functional Testing Advanced Pack for Oracle Utilities (OFTAPOU) for Oracle Utilities Mobile Workforce Management and Oracle Real-Time Scheduler.

## Related Documents

For more information, see the following documents:

- *Oracle Functional Testing Advanced Pack for Oracle Utilities Release Notes*
- *Oracle Functional Testing Advanced Pack for Oracle Utilities Installation and Administration Guide*
- *Oracle Functional Testing Advanced Pack for Oracle Utilities User's Guide*

See also:

- Oracle Utilities Mobile Workforce Management Documentation Library
- Oracle Real-Time Scheduler Documentation Library

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## Conventions

The following text conventions are used in this document:

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

# Chapter 1

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## Component Reference

This chapter lists the Oracle Utilities Mobile Workforce Management/Oracle Real-Time Scheduler starter components available to create flows in Oracle Flow Builder for testing the Oracle Utilities Mobile Workforce Management/ Oracle Real-Time Scheduler application.

The chapter includes the following sections:

- [Overview](#)
- [Components](#)

### Overview

Oracle Functional Testing Advanced Pack for Oracle Utilities for Oracle Utilities Mobile Workforce Management/ Oracle Real-Time Scheduler is a test starter pack built on top of Oracle Functional Testing Advanced Pack for Oracle Utilities that generates test automation scripts using Oracle Flow Builder.

Oracle Functional Testing Advanced Pack for Oracle Utilities for Oracle Utilities Mobile Workforce Management/ Oracle Real-Time Scheduler contains out-of-the-box product-specific components used to build new test flows in Oracle Flow Builder to test the Oracle Utilities Mobile Workforce Management/ Oracle Real-Time Scheduler applications. These out-of-the-box components correspond to specific business entities, such as business objects, service scripts, or business services used for interfacing with the application. These components can be used as available or can be extended. Create new components to be used to create flows. This starter pack also contains a set of function libraries that can be used for creating custom components.

**Note:** See [Chapter 2: Function Library Reference](#) for detailed information about using these function libraries.

Consider this pack to be a starter kit which can be expanded and built upon. A few sample flows are included as examples.

**Note:** See the *Oracle Functional Testing Advanced Pack for Oracle Utilities User's Guide* for information about creating components and flows.

### Components

This section lists the starter components available in Oracle Utilities Mobile Workforce Management.

**Pre-requisites:** The Inbound Web Service service using the respective business object should be available in the application.

**Additional Notes:** Failure while creating, reading, or updating the component is logged in the test execution report, thus facilitating debugging/analysis of the problem.

The components are categorized under the following functional areas:

- Administration Data
- Connected MCP Processing
- Contractor Portal
- Resource Management
- Scheduling
- Service Management
- M2 Activity
- Next Generation MCP Processing

## Administration Data

Component	Description
M1-ActivityType	Used to create, read, or update M1 Activity Type via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-ActivityType business object.
M1-AlertType	Used to create, read, or update an M1 Alert Type via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-AlertType business object.
M1-AppointmentBookingGroup	Used to create, read, or update an M1 Appointment Booking Group via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-AppointmentBookingGroup business object.
M1-BreakTaskType	Used to create, read, or update an M1 Break Task Type via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-BreakTaskType business object.
M1-CapacityType	Used to create, read, or update an M1 Capacity Type via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-CapacityType business object.

Component	Description
M1-ComplexActivityType	<p>Used to create, read, or update an M1 Complex Activity Type via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-ComplexActivityType business object.</p>
M1-CrewHierarchy	<p>Used to create, read, or update an M1-CrewHierarchy via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-CrewHierarchy business object.</p>
M1-ContractorType	<p>Used to create, read, or update an M1 Contractor Type via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-ContractorType business object.</p>
M1-CrewShiftType	<p>Used to create, read, or update an M1 Crew Shift Type via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-CrewShiftType business object.</p>
M1-CrewType	<p>Used to create, read, or update an M1 Crew Type via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-CrewType business object.</p>
M1-Deployment	<p>Used to activate or deactivate a deployment via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-Deployment business object.</p>
M1-DeploymentPart	<p>Used to create, read, or update a deployment part via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-DeploymentPart business object.</p>
M1-DeploymentType	<p>Used to create, read, or update a deployment type via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-DeploymentType business object.</p>

Component	Description
M1-Depot	<p>Used to create, read, or update a depot via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-Depot business object.</p>
M1-DepotProfile	<p>Used to create, read, or update a depot profile via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-DepotProfile business object.</p>
M1-DepotTaskType	<p>Used to create, read, or update a depot task type via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-DepotTaskType business object.</p>
M1-DispatchArea	<p>Used to create, read, or update an M1 Dispatch Area via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-DispatchArea business object.</p>
M1-DispatcherType	<p>Used to create, read, or update an M1 Dispatcher Type via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-DispatcherType business object.</p>
M1-Equipment	<p>Used to create, read, or update an M1 Equipment via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-Equipment business object.</p>
M1-GeographicArea	<p>Used to create, read, or update an M1 Geographic Area via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-GeographicArea business object.</p>
M1-GlobalConfig	<p>Used to create, read, or update M1 Global Configurations via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-GlobalConfigurations business object.</p>

Component	Description
M1-KPI	<p>Used to create, read, or update an M1 KPI via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-KPI business object.</p>
M1-Location	<p>Used to create, read, or update an M1 Location via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-Location business object.</p>
M1-MobileDeviceTerminal	<p>Used to create, read, or update an M1 Mobile Device Terminal via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-MobileDeviceTerminal business object.</p>
M1-MobileWorkerType	<p>Used to create, read, or update an M1 Mobile Worker Type via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-MobileWorkerType business object.</p>
M1-MobileDeviceTerminalType	<p>Used to create, read, or update an M1 MobileDeviceTerminalType via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-MobileDeviceTerminalType business object.</p>
M1-NPTTaskType	<p>Used to create, read, or update an M1 Non Prd Task Type via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-NonPrdTaskType business object.</p>
M1-POUTaskType	<p>Used to create, read, or update an M1 POU Task Type via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-POUTaskType business object.</p>
M1-POUType	<p>Used to create, read, or update an M1 POU Type via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-POUType business object.</p>

Component	Description
M1-PriorityProfile	<p>Used to create, read, or update an M1 Priority Profile via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-PriorityProfile business object.</p>
M1-ProcedureType	<p>Used to create, read, or update an M1 Procedure Type via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-ProcedureType business object.</p>
M1-RemarkType	<p>Used to create, read, or update an M1 Remark Type via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-RemarkType business object.</p>
M1-ResTimesheetType	<p>Used to create, read, or update an M1 Resource TimesheetType. via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-Resource TimesheetType business object.</p>
M1-Scheduler	<p>Used to create, read, or update an M1 Scheduler via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-Scheduler business object.</p>
M1-SchedulerArea	<p>Used to create, read, or update an M1 Scheduler Area via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-SchedulerArea business object.</p>
M1-SchedulerConfig	<p>Used to create, read, or update an M1 Scheduler Config via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-SchedulerConfig business object.</p>
M1-ServiceArea	<p>Used to create, read, or update an M1 Service Area via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-ServiceArea business object.</p>

Component	Description
M1-ServiceAreaHierarchy	<p>Used to create, read, or update an M1 Service Area Hierarchy via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-ServiceAreaHierarchy business object.</p>
M1-ServiceClass	<p>Used to create, read, or update an M1 Service Class via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-ServiceClass business object.</p>
M1-ShiftCostProfile	<p>Used to create, read, or update an M1 Shift Cost Profile via a Web service.</p> <p>The CRUD operations can be performed through these components against the M1-ShiftCostProfile business object.</p>
M1-SpeedProfileGeoArea	<p>Used to create, read, or update an M1-SpeedProfileGeoArea via a Web service.</p> <p>The CRUD operations can be performed through these components against the M1-SpeedProfileGeoArea business object.</p>
M1-Skill	<p>Used to create, read, or update an M1 Skill via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-Skill business object.</p>
M1-StatusReason	<p>Used to create, read, or update an M1 Status Reason via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-StatusReason business object.</p>
M1-WorkCalendar	<p>Used to create, read, or update an M1-WorkCalendar via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-WorkCalendar business object.</p>
M1-VehicleType	<p>Used to create, read, or update an M1 Vehicle Type via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-VehicleType business object.</p>

Component	Description
M1-WorkProfile	Used to create, read, or update an M1 Work Profile via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-WorkProfile business object.
M1-WorkerAttribute	Used to create, read, or update an M1 WorkerAttribute via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-WorkerAttribute business object.
M1_BatchExecuteBS	Used to create, read, or update an M1 BatchExecuteBS via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-BatchExecuteBS business object.

### Connected MCP Processing

Component	Description
ConnectedMCP_CompleteActivity	Performs the actions of a field worker for completing an M1 Activity using Connected MCP.  <b>Note:</b> To be called only after calling the <a href="#">ConnectedMCP_StartActivity</a> component.
ConnectedMCP_CompleteBreak	Performs the actions of a field worker for completing an M1 Break Task using Connected MCP.  <b>Note:</b> To be called only after calling the <a href="#">ConnectedMCP_StartBreak</a> component.
ConnectedMCP_CompleteNPT	Performs the actions of a field worker for completing an M1 Non Productive Task using Connected MCP.  <b>Note:</b> To be called only after calling the <a href="#">ConnectedMCP_StartNPT</a> component.
ConnectedMCP_CompletePOU	Performs the actions of a field worker for completing an M1 POU task using Connected MCP.  <b>Note:</b> To be called only after calling the <a href="#">ConnectedMCP_StartPOU</a> component.
ConnectedMCP_CompleteShift	Performs the actions of a field worker for completing a shift using Connected MCP.  <b>Note:</b> To be called only after a shift is in 'start' status.

Component	Description
ConnectedMCP_DispatchedTask	Performs the actions of a field worker to check if a task has been dispatched using Connected MCP. Then, click it.
ConnectedMCP_EnrouteActivity	Performs the actions of a field worker to move the status of a task to 'En-route' using Connected MCP. Then, click it.  <b>Note:</b> To be called only after calling the <a href="#">ConnectedMCP_DispatchedTask</a> component.
ConnectedMCP_EnrouteNPT	Performs the actions of a field worker to move the status of an NPT task to 'En-route' using Connected MCP. Then, click it.  <b>Note:</b> To be called only after calling the <a href="#">ConnectedMCP_DispatchedTask</a> component.
ConnectedMCP_EnroutePOU	Performs the actions of a field worker to move the status of an NPT task to 'En-route' using Connected MCP. Then, click it.  <b>Note:</b> To be called only after calling the <a href="#">ConnectedMCP_DispatchedTask</a> component.
ConnectedMCP_StartActivity	Performs the actions of a field worker to move the status of an activity to 'Started' using Connected MCP. Then, click it.  <b>Note:</b> To be called only after calling the <a href="#">ConnectedMCP_EnrouteActivity</a> component.
ConnectedMCP_StartBreak	Performs the actions of a field worker to move the status of a break task to 'Started' using Connected MCP. Then, click it.  <b>Note:</b> To be called only after calling the <a href="#">ConnectedMCP_DispatchedTask</a> component.
ConnectedMCP_StartCrewShift	Performs the actions of a field worker to start a crew shift using Connected MCP. Then, click it.
ConnectedMCP_StartNPT	Performs the actions of a field worker to move the status of an activity to 'Started' using Connected MCP. Then, click it.  <b>Note:</b> To be called only after calling the <a href="#">ConnectedMCP_EnrouteNPT</a> component.
ConnectedMCP_StartPOU	Performs the actions of a field worker to move the status of a POU to 'Started' using Connected MCP. Then, click it.  <b>Note:</b> To be called only after calling the <a href="#">ConnectedMCP_EnroutePOU</a> component.

## Contractor Portal

<b>Component</b>	<b>Description</b>
M1-Capacity	<p>Used to create, read, or update an M1 Capacity via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-Capacity business object.</p>
M1-CapacityTemplate	<p>Used to create, read, or update an M1 Capacity Template via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-CapacityTemplate business object.</p>
M1-CapacityWeeklyTemplate	<p>Used to create, read, or update an M1-CapacityWeeklyTemplate via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-CapacityWeeklyTemplate business object.</p>
M1-Company	<p>Used to create, read, or update an M1 Company via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-Company business object.</p>
M1-Contractor	<p>Used to create, read, or update an M1 Contractor via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-Contractor business object.</p>
M1-ContractorEligibility	<p>Used to create, read, or update an M1 Contractor Eligibility via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-ContractorEligibility business object.</p>

## Resource Management

<b>Component</b>	<b>Description</b>
M1-BreakTask	<p>Used to create, read, or update an M1 Break Task via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-BreakTask business object.</p>

<b>Component</b>	<b>Description</b>
M1-CommonShiftWeeklyTemplate	<p>Used to create, read, or update an M1 Common Shift Weekly Template via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-CommonShiftWeeklyTemplate business object.</p>
M1-CrewShftCloseOpenAllocate	<p>Used to close or open a shift using M1-CrShfClAl via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-CrShfClAl service script.</p>
M1-CrewShift	<p>Used to create, read, or update an M1 Crew Shift via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-CrewShift business object.</p>
M1-CrewShiftTemplate	<p>Used to create, read, or update an M1 Crew Shift Template via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-CrewShiftTemplate business object.</p>
M1-DeactivateMobileWorker	<p>Used to deactivate an active mobile worker via a Web service.</p> <p>After creation, the mobile worker can be deactivated. The business object used for this component is M1-MobileWorker.</p>
M1-DeactivateVehicle	<p>Used to deactivate an active vehicle via a Web service.</p> <p>After creation, the vehicle can be deactivated. The business object used for this component is M1-Vehicle.</p>
M1-DeactivateCrew	<p>Used to deactivate an active crew via a Web service.</p> <p>After creation, crew can be deactivated. The business object used for this component is M1-Crew.</p>
M1-DeleteResourceLeavePOU	Used for deleting M1 Resource Leave POU
M1-DepotRelatedShift	<p>Used to create, read, or update an M1 Depot Related Shift via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-DepotRelatedShift business object.</p>

Component	Description
M1-DepotSinglePersonCrew	<p>Used to create, read, or update an M1 Depot Single Person Crew via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-DepotSinglePersonCrew business object.</p>
M1-Dispatcher	<p>Used to create, read, or update an M1 Dispatcher via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-Dispatcher business object.</p>
M1-DispatcherShift	<p>Used to create, read, or update an M1 Dispatcher Shift via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-DispatcherShift business object.</p>
M1-ForceLogOffCrewShift	Used to force logging off an MDT crew shift
M1-GetShiftCapabilities	Used to retrieve the capabilities of a crew shift
M1-HazardArea	<p>Used to create, read, or update an M1 Hazard Area via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-HazardArea business object.</p>
M1-MailingList	<p>Used to create, read, or update an M1 Mailing List via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-MailingList business object.</p>
M1-MainMail	Used to create M1 MainMail
M1-MobileWorker	<p>Used to create, read, or update an M1 Mobile Worker via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-MobileWorker business object.</p>
M1-NonProductiveTask	<p>Used to create, read, or update an M1 NonPrdTask via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-NonPrdTask business object.</p>

Component	Description
M1-POUtask	<p>Used to create, read, or update an M1 POU Task via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-POUtask business object.</p>
M1-RealPOU	<p>Used to create, read, or update an M1 Real POU via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-RealPOU business object.</p>
M1-ResourceTimesheet	<p>Used to create, read, or update an M1 Res Time Sheet via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-ResTimesheet business object.</p>
M1-Resourceleave	<p>Used to create, read, or update an M1 Resource Leave via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-ResourceLeave business object.</p>
M1-ShiftWeeklyTemplate	<p>Used to create, read, or update an M1 Shift Weekly Template via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-ShiftWeeklyTemplate business object.</p>
M1-SimpleProcedure	<p>Used to create, read, or update an M1 Simple Procedure via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-SimpleProcedure business object.</p>
M1-SinglePersonCrew	<p>Used to create, read, or update an M1 Single Person Crew via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-SinglePersonCrew business object.</p>
M1-SubscriptionWeeklyTemplate	<p>Used to create, read, or update an M1 Subscription Weekly Template via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-SubscriptionWeeklyTemp business object.</p>

Component	Description
M1-TemplateMail	Used to create, read, or update an M1 Template Mail via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-TemplateMail business object.
M1-TemplatePOU	Used to create, read, or update an M1 Template POU via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-TemplatePOU business object.
M1-Vehicle	Used to create, read, or update an M1 Vehicle via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-Vehicle business object.
M1-VehicleLeaveArea	Used to create, read, or update an M1 Vehicle Leave Area via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-VehicleLeaveArea business object.
M1-getPOUTaskIdForPOUId	Used to retrieve the POU task ID (the task scheduled to a crew shift) for a given real POU ID.
M1-getdeactivateMWId	Used to retrieve the mobile worker ID for the given user whose BO status is 'Active'.
M1-getdeactivateVehicleId	Used to retrieve the vehicle ID for the given user whose BO status is 'Active'.
M1-getdeactivateCrewId	Used to retrieve the crew ID for the given user whose BO status is 'Active'.

## Scheduling

Component	Description
M1-AllocateActivityToAShift	Used to manually allocate an activity to a crew shift.
M1-AppointmentBookingRequest	Used to trigger an M1 Appointment Booking Request.
M1-CheckIfActivityIsScheduled	Verifies if an activity is scheduled to a crew shift.
M1-DailySpeedTemplate	Used to create, read, or update an M1 Daily Speed Template via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-DailySpeedTemplate business object.

Component	Description
M1-FixToCrew	Used to fix an activity to be scheduled to a particular crew
M1-SchedulerRegistryRead	Used to retrieve the scheduler registry details for an entity
M1-SpeedProfileTemplate	Used to create, read, or update an M1 Speed Profile Template via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-SpeedProfileTemplate business object.
M1-TaskScheduleDetails	Used for reading an M1 Task Schedule entity.
M1-UnAssignActivity	Used to unassign an activity from the crew shift.
M1-WaitForTime	Used to wait for certain amount of time. The unit of measure is minutes.

## Service Management

Component	Description
M1-Activity	Used to create, read, or update an M1 Activity via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-Activity business object.
M1-Assignment	Used to create, read, or update an M1 Assignment via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-Assignment business object.
M1-ComplexActivity	Used to create, read, or update an M1 Complex Activity via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-ComplexActivity business object.
M1-DeferActivity	Used to defer an activity
M1-DepotRelatedActivity	Used to create, read, or update an M1 Depot Related Activity via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-DepotRelatedActivity business object.

Component	Description
M1-DepotTask	Used to create, read, or update an M1 Depot Task via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-DepotTask business object.
M1-GetAssignmentIdForTaskId	Used to retrieve the assignment ID of a dispatched task
M1-GetDepotTaskId	Used to retrieve the depot task ID associated to a given depot related or a pre-requisite activity.
M1-GetDeploymentId	Used to retrieve the deployment ID for the given deployment type.
M1-OverrideTimeWindow	Used to create, read, or update an M1 Override Time Window via a Web service.  After creation, the CRUD operations can be performed through these components against the M1-OverrideTimeWindow business object.

## M2 Activity

Component	Description
M2-InstallMeterActivity	Used to create, read, or update an M2 Install Meter Activity via a Web service.  After creation, the CRUD operations can be performed through these components against the M2-InstallMeterActivity business object.
M2-InstallMeterAssignment	Used to create, read, or update an M2 Install Meter Assignment via a Web service.  After creation, the CRUD operations can be performed through these components against the M2-InstallMeterAssignment business object.
M2-BasicItemActivity	Used to create, read, or update an M2 Basic Item Activity via a Web service.  After creation, the CRUD operations can be performed through these components against the M2-BasicItemActivity business object.
M2-BasicItemAssignment	Used to create, read, or update a basic item assignment via a Web service.  After creation, the CRUD operations can be performed through these components against the M2-BasicItemAssignment business object.

Component	Description
M2- ConnectSPActivity	<p>Used to create, read, or update an M2 Connect Service Point Activity via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M2- ConnectSPActivity business object.</p>
M2-ConnectSPAssignment	<p>Used to create, read, or update a connect service point assignment via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M2-ConnectSPAssignment business object.</p>
M2-CutNonPayItemActivity	<p>Used to create, read, or update an M2 Cut For Non Payment Item Activity via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M2- CutNonPayItemActivity business object.</p>
M2-CutNonPayItemAssignment	<p>Used to create, read, or update a cut for non payment item assignment via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M2-CutNonPayItemAssignment business object.</p>
M2-DisconnectMeterActivity	<p>Used to create, read, or update a disconnect meter activity via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M2- DisconnectMeterActivity business object.</p>
M2-DisconnectMeterAssignment	<p>Used to create, read, or update a disconnect meter assignment via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M2-DisconnectMeterAssignment business object.</p>
M2-DisconnectSPActivity	<p>Used to create, read, or update a disconnect service point activity via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M2-DisconnectSPActivity business object.</p>
M2-DisconnectSPAssignment	<p>Used to create, read, or update a disconnect service point assignment via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M2- DisconnectSPAssignment business object.</p>

Component	Description
M2-ExchangeItemActivity	<p>Used to create, read, or update an exchange item activity via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M2- ExchangeItemActivity business object.</p>
M2-ExchangeItemAssignment	<p>Used to create, read, or update an exchange item assignment via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M2- ExchangeItemAssignment business object.</p>
M2-InstallItemActivity	<p>Used to create, read, or update an install item activity via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M2- InstallItemActivity business object.</p>
M2-InstallItemAssignment	<p>Used to create, read, or update an install item assignment via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M2-InstallItemAssignment business object.</p>
M2-MeterReadActivity	<p>Used to create, read, or update a meter read activity via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M2- MeterReadActivity business object.</p>
M2-MeterReadAssignment	<p>Used to create, read, or update a meter read assignment via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M2-MeterReadAssignment business object.</p>
M2-RemoveItemActivity	<p>Used to create, read, or update a remove item activity via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M2- RemoveItemActivity business object.</p>
M2-RemoveItemAssignment	<p>Used to create, read, or update a remove item assignment via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M2-RemoveItemAssignment business object.</p>

Component	Description
M2-RemoveMeterActivity	Used to create, read, or update a remove meter activity via a Web service.  After creation, the CRUD operations can be performed through these components against the M2- RemoveMeterActivity business object.
M2-RemoveMeterAssignment	Used to create, read, or update a remove meter assignment via a Web service.  After creation, the CRUD operations can be performed through these components against the M2-RemoveMeterAssignment business object.
M2-MaintUtilityActByHost	Used to create an M2 Activity from an external system

### Next Generation MCP Processing

Component	Description
NextGenMCP_StartShift	Performs the actions of a field worker to start a crew shift using NextGen MCP. Then, clicks it.
NextGenMCP_EnrouteActivity	Performs the actions of a field worker to move the status of a task to 'En-route' using NextGen MCP. Then, clicks it.  <b>Note:</b> To be called only after calling the NextGenMCP _DispatchedTask component.
NextGenMCP_StartActivity	Performs the actions of a field worker to move the status of an activity to 'Started' using NextGen MCP. Then, clicks it.  <b>Note:</b> To be called only after calling the NextGenMCP _EnrouteActivity component.
NextGenMCP_CompleteActivity	Performs the actions of a field worker for completing an M1 Activity using NextGen MCP.  <b>Note:</b> To be called only after calling the NextGenMCP _StartActivity component.
NextGenMCP_StartBreak	Performs the actions of a field worker to move the status of a break task to 'Started' using NextGen MCP. Then, clicks it.  <b>Note:</b> To be called only after calling the NextGenMCP _DispatchedTask component.
NextGenMCP_CompleteBreak	Performs the actions of a field worker for completing an M1 Break Task using NextGen MCP.  <b>Note:</b> To be called only after calling the NextGenMCP _StartBreak component.

Component	Description
NextGenMCP_EnrouteNPT	<p>Performs the actions of a field worker to move the status of an NPT task to 'En-route' using NextGen MCP. Then, clicks it.</p> <p><b>Note:</b> To be called only after calling the NextGenMCP_DispatchedTask component.</p>
NextGenMCP_StartNPT	<p>Performs the actions of a field worker to move the status of an activity to 'Started' using NextGen MCP. Then, clicks it.</p> <p><b>Note:</b> To be called only after calling the NextGenMCP_EnrouteNPT component.</p>
NextGenMCP_CompleteNPT	<p>Performs the actions of a field worker for completing an M1 Non Productive Task using NextGen MCP.</p> <p><b>Note:</b> To be called only after calling the NextGenMCP_StartNPT component.</p>
NextGenMCP_EnroutePOU	<p>Performs the actions of a field worker to move the status of an NPT task to 'En-route' using NextGen MCP. Then, clicks it.</p> <p><b>Note:</b> To be called only after calling the NextGenMCP_DispatchedTask component.</p>
NextGenMCP_StartPOU	<p>Performs the actions of a field worker to move the status of a POU to 'Started' using NextGen MCP. Then, clicks it.</p> <p><b>Note:</b> To be called only after calling the NextGenMCP_EnroutePOU component.</p>
NextGenMCP_CompletePOU	<p>Performs the actions of a field worker for completing an M1 POU task using ConnectedMCP.</p> <p><b>Note:</b> To be called only after calling the NextGenMCP_StartPOU component.</p>
NextGenMCP_CompleteShift	<p>Performs the actions of a field worker for completing a shift using NextGen MCP.</p> <p><b>Note:</b> To be called only after a shift is in 'start' status.</p>

# Chapter 2

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## Function Library Reference

This chapter lists the Oracle Utilities Mobile Workforce Management function libraries and functions available to create components and flows in Oracle Flow Builder for testing the Oracle Utilities Mobile Workforce Management application.

- [OUMWMLIB](#)
- [OUMWMCONNECTEDMCPLIB](#)
- [OUMWMMCPLIB](#)

### OUMWMLIB

The OUMWMLIB library comprises functions that work on the connected MCP browser UI. These functions mimic the actions of a field worker who updates the task/shift information into the application using the connected MCP.

The library is made up of a collection of actions, such as clicking various buttons, entering text into fields, navigating through the connected MCP UI, etc., used for creating the required functions. These functions are, in turn, used for creating the connected MCP components.

The functions use the object repository “MWM\_ConnectedMCP\_REPOSITORY.properties” that is in the “etc” directory of the Oracle Functional Testing Advanced Pack for Oracle Utilities repository.

This section provides a list of functions included in the library, along with their usage details.

#### **getTaskScheduledShiftId**

Retrieves the Crew Shift ID to which a given task is scheduled.

This function checks continuously for the given time until it finds the crew shift that the activity is scheduled to. If the activity is not scheduled within the given time, it returns a blank string.

Example:

```
getTaskScheduledShiftId(String <timeInMinutes>, String <activityId>)
```

Input Parameters: String, String

Return Type: String

#### **getPOUTaskIDForPOUID**

Retrieves the period of unavailability Task ID for a given real-time period of unavailability ID.

This function checks continuously for the given time to retrieve the POU Task ID. If the POU Task ID is not created within the time, it returns a blank string.

Example:

```
getPOUTaskIDForPOUID(String <timeInMinutes>, String <realPOUID>)
```

Input Parameters: String, String

Return Type: String

### **getAssignmentIDForTaskId**

Retrieves the Assignment ID for a given Activity ID. The assignment will be created when the activity is in “Assignment In Progress” state.

This function checks for the Assignment ID for a given Activity ID until the given time. If an assignment is not created within the time, it returns a blank string.

Example:

```
getAssignmentIDForTaskId(String <timeInMinutes>, String <activityId>)
```

Input Parameters: String, String

Return Type: String

### **getAssignmentCurrentStatus**

Retrieves the current status of an assignment.

This function returns a blank string if the assignment does not exist for the given ID.

Example:

```
getAssignmentCurrentStatus (String <assignmentId>)
```

Input Parameters: String

Return Type: String

### **verifyIfAssignmentIsDispatched**

Verifies if an assignment has been dispatched or not.

This function checks until the provided time to assert if the assignment has been dispatched. If the assignment is dispatched, it returns “Y”. Else, returns “N”.

Example:

```
verifyIfAssignmentIsDispatched (String <timeInMinutes>, String  
<assignmentId>)
```

Input Parameters: String, String

Return Type: String

### **checkActivityScheduledState**

Verifies if an activity has been scheduled to any shift.

This function checks for the activity to be scheduled to a shift for a given time. If the activity is scheduled with in the given time, it returns “Y”, else returns “N”.

Example:

```
checkActivityScehduledState (String <timeInMinutes>, String  
<activityId>)
```

Input Parameters: String, String

Return Type: String

**getProcedureId**

Retrieves the Procedure ID for a given procedure name and Crew Shift ID.

This function checks for a procedure to be created for the procedure name and Crew Shift ID within the given time. If the procedure ID is not found within the given time, it returns a blank string. Else, returns the procedure ID.

Example:

```
getProcedureId(String <procedureName>,String <crewShiftId>,String
<timeInMinutes>)
```

Input Parameters: String, String, String

Return Type: String

**getTimesheetIdFromShiftId**

Retrieves the Timesheet ID for a given Crew Shift ID.

This function checks for a time sheet to be created for the Crew Shift ID within the given time. If Timesheet ID is not found within the given time, it returns a blank string, else returns the Timesheet ID.

Example:

```
getTimesheetIdFromShiftId(String <crewShiftId>, String
<timeInMinutes>)
```

Input Parameters: String, String

Return Type: String

**getVisitIds**

Retrieves the Visit IDs (comma separated) for a given Complex Activity ID.

If the Visit ID is not found, it returns a blank string. Else, it returns the Visit IDs.

Example:

```
getVisitId(String <complexActivityId>)
```

Input Parameters: String, String, String

Return Type: String

**getDeploymentId**

Retrieves the Deployment ID for a given Deployment Type. This function checks for the latest deployment generated for the given Deployment Type.

If the Deployment ID is not found, it returns a null. Else, it returns the Deployment ID.

Example:

```
getDeploymentId (String < deploymentType>)
```

Input Parameters: String

Return Type: String

**deactivateCrew**

Retrieves the Crew ID for the given Crew Name. This function checks for active Crew ID with the given Crew Name.

If the Crew ID is not found, it returns an empty string. Else, it returns the Crew ID.

Example:

```
deactivateCrew (String < crewName>)
```

Input Parameters: String

Return Type: String

### deactivateMobileWorkerId

Retrieves the Mobile ID for the given User ID. This function checks for active mobile worker with the given User ID.

If the Mobile Worker ID is not found, it returns an empty string. Else, it returns the Mobile Worker ID.

Example:

```
deactivateMobileWorkerId (String < User_ID>)
```

Input Parameters: String

Return Type: String

### deactivateVehicle

Retrieves the Vehicle ID for the given Vehicle Tag. This function checks for active Vehicle with the given Vehicle Tag.

If the Vehicle ID is not found, it returns an empty string. Else, it returns the Vehicle ID.

Example:

```
deactivateVehicle (String < vehicleTag>)
```

Input Parameters: String

Return Type: String

## OUMWMCONNECTEDMCPLIB

The OUMWMCONNECTEDMCPLIB library contains functions that have been/can be used for creating Oracle Utilities Mobile Workforce Management components used to create the Oracle Utilities Mobile Workforce Management flows.

The library includes the Oracle Utilities Mobile Workforce Management specific functions that use the underlying framework of core functions. These functions interface with the database and read information, such as scheduling information of tasks, etc.

The library uses the UI element's xpath values specified in the MWM\_ConnectedMCP\_REPOSITORY.properties file in the **etc** directory of the repository.

**Note:** The private functions in this library are used to implement the public functions. The private functions cannot be used directly in the Oracle Flow Builder scripts.

### invokeApp

Launches the Web browser, navigates to the URL provided, and then checks for the object in the Web page.

If the object is found, the function returns “Y”, else returns “N”.

Example:

```
loginToMDT (String <URL>,String <objectToCheck>)
```

Input Parameters: String, String

Return Type: String

## loginToMDT

Internally calls the [invokeApp](#) function with the MCP URL that is connected.

This function inputs the User ID and password, and logs into the MCP application that is connected. It returns “Y” on the successful login, else returns “N”.

If the URL parameter is specified as “NA”, the connected MCP URL is formulated using the application URL specified in the configuration.properties file by appending “/mobility/Login.jsp” to that URL. If the connected MCP URL is specified to this function, then it is used instead.

Example:

```
loginToMDT(String <username>, String <password>, String
<connectedMCPURL>)
```

Input Parameters: String, String, String

Return Type: String

## downloadDeployment

Internally calls the [loginToMDT](#) function and waits for the deployment to download.

This function verifies if the **Start Shift** page is displayed within a minute. If the page is displayed, it returns “Y”, else it returns “N”.

If the URL parameter is specified as “NA”, the connected MCP URL is formulated using the application URL specified in the configuration.properties file by appending “/mobility/Login.jsp” to that URL. If the connected MCP URL is specified to this function, then it is used instead.

Example:

```
downloadDeployment(String <username>, String <password>, String
<connectedMCPURL>)
```

Input Parameters: String, String, String

Return Type: String

## startShift

Internally calls the [downloadDeployment](#) function and waits for the crew shift to start.

This function verifies if the Open Task List page is displayed. If the page is displayed, it returns “Y”, else it returns “N”. The loginError should be set as “N” for the crew shift to start successfully.

The function also verifies the negative scenarios where an error message is expected to be displayed during the shift start. The error message verification can be triggered by setting the loginError flag as “Y” as the input. If the loginError is set as “Y”, the function checks for an error message to be displayed, returns the error message, and then logs off the crew shift. If no error message is retrieved, it then returns a blank string.

If the URL parameter is specified as “NA”, the connected MCP URL is formulated using the application URL specified in the configuration.properties file by appending “/mobility/Login.jsp” to that URL. If the connected MCP URL is specified to this function, then it is used instead.

Example:

```
startShift(String <username>, String <password>, String
<connectedMCPURL>, String <loginError>)
```

Input Parameters: String, String, String, String

Return Type: String

## verifyTaskDispatched

Verifies if a task has been dispatched for a given Task ID and then clicks on the task to open the UI.

This function returns a “Y” if the task has been dispatched. It checks for a task to be dispatched to the connected MCP within five minutes. If it is not dispatched, it returns a “N”.

Example:

```
verifyTaskDispatched(String <tasked>)
```

Input Parameters: String

Return Type: String

## enrouteActivity

Performs the actions of a field worker and moves the task to “Enroute” status using the connected MCP.

This function returns “Y” on success, else returns “N”. To assign an activity, it has to be called after calling the [verifyTaskDispatched](#) function.

Example:

```
enrouteActivity ()
```

Input Parameters: <none>

Return Type: String

## startActivityFromEnroute

Performs the actions of a field worker and moves the task to “Started” status using the connected MCP.

This function returns “Y” on success, else returns “N”. To assign an activity, it has to be called after calling the [enrouteActivity](#) function.

Example:

```
startActivityFromEnroute ()
```

Input Parameters: <none>

Return Type: String

## completeActivity

Performs the actions of a field worker and moves the task to “Completed” status using the connected MCP.

This function returns “Y” on success, else returns “N”. To assign an activity, it has to be called after calling the [startActivityFromEnroute](#) function.

Example:

```
completeActivity ()
```

Input Parameters: <none>

Return Type: String

## startBreak

Performs the actions of a field worker and moves the break task status to “Started” using the connected MCP.

This function returns “Y” on success, else returns “N”. To assign a break task, it has to be called after calling the [verifyTaskDispatched](#) function.

Example:

```
startBreak ()
```

Input Parameters: <none>

Return Type: String

### completeBreak

Performs the actions of a field worker and moves the break task status to “Completed” using the connected MCP.

This function returns “Y” on success, else returns “N”. To assign a break task, it has to be called after calling the [startBreak](#) function.

Example:

```
completedBreak ()
```

Input Parameters: <none>

Return Type: String

### enrouteNPT

Performs the actions of a field worker and moves the non productive task (NPT) status to “Enroute” using the connected MCP.

This function returns “Y” on success, else returns “N”. To assign a non productive task, it has to be called after calling the [verifyTaskDispatched](#) function.

Example:

```
enrouteNPT ()
```

Input Parameters: <none>

Return Type: String

### startNPT

Performs the actions of a field worker and moves the non productive task (NPT) status to “Started” using the connected MCP.

This function returns “Y” on success, else returns “N”. To assign a non productive task, it has to be called after calling the [enrouteNPT](#) function.

Example:

```
startNPT ()
```

Input Parameters: <none>

Return Type: String

### enroutePOU

Performs the actions of a field worker and moves the period of unavailability (POU) task status to “Enroute” using the connected MCP.

This function returns “Y” on success, else returns “N”. To assign a POU task, it has to be called after calling the [verifyTaskDispatched](#) function.

Example:

```
enroutePOU ()
```

Input Parameters: <none>

Return Type: String

## startPOU

Performs the actions of a field worker and moves the period of unavailability (POU) task status to “Started” using the connected MCP.

This function returns “Y” on success, else returns “N”. To assign a POU task, it has to be called after calling the [enroutePOU](#) function.

Example:

```
startPOU ()
```

Input Parameters: <none>

Return Type: String

## completePOU

Performs the actions of a field worker and moves the period of unavailability (POU) task status to “Completed” using the connected MCP.

This function returns “Y” on success, else returns “N”. To assign a POU task, it has to be called after calling the [startPOU](#) function.

Example:

```
completePOU()
```

Input Parameters: <none>

Return Type: String

## endShift

Completes/ends the crew shift by performing the actions of a field worker to complete the current day’s crew shift using the connected MCP.

This function also closes the connected MCP application. It returns “Y” on success, else returns “N”.

Example:

```
endShift ()
```

Input Parameters: <none>

Return Type: String

# OUMWMMCLIB

The OUMWMMCLIB library contains functions that have been/can be used for creating Oracle Utilities Mobile Workforce Management components. These components are later used to create the Oracle Utilities Mobile Workforce Management flows.

The library includes the Oracle Utilities Mobile Workforce Management specific functions that use the underlying framework of core functions. These functions interface with the database and read information, such as scheduling information of tasks, etc.

The library uses the UI elements’ xpath values specified in the MCP.properties file added as an asset to this functional library.

**Note:** The private functions in this library are used to implement the public functions. The private functions cannot be used directly in the Oracle Flow Builder scripts.

## startShift

Internally calls the downloadDeployment function and waits for the crew shift to start. This Function invokes the application in Chrome browser using the URL specified in config.properties file. The URL is provided as a value to the variable gStrNewMCPURL in config.properties file.

The function fetches this URL and invokes the application, and then logs in to the application fetching user credentials from config.properties file. On successful login, it checks for the available deployments. It selects the required deployment and waits for it to be downloaded.

Once the deployment is downloaded, it starts the crew shift and waits for the tasks to get dispatched in The **Open Tasks List** screen. If in case, the user tries to launch the application for an already started shift, it directly logs into the application and waits for the activities to get dispatched in the Open Task List screen.(No start shift step is performed as it is referring to already started shift.)

The function also verifies the negative scenarios where an error message is expected to be displayed when user login fails for any of the reasons, such as invalid user credentials, etc.

Example:

```
startShift(String <username>, String <password>, String HardwareId,
String <deploymentType>)
```

Input Parameters: String, String, String, String

Return Type: String

## verifyTaskDispatched

Verifies if a task has been dispatched for a given Task ID for a specified amount of time maxTimeToCheck, and then clicks on the task in UI to perform actions on it.

This function returns a "Y" if the task has been dispatched. It checks for a task to be dispatched to the new MCP browser application within specified amount of time in minutes. If it is not dispatched, it returns a "N".

Example:

```
verifyTaskDispatched(String <taskId>,String maxTimeToCheck)
```

Input Parameters: String,String

Return Type: String

## enrouteActivity

Performs the actions of a field worker and moves the task to "Enroute" status using the Next Gen MCP\_ EnrouteActivity component.

This function returns "Y" on success, else returns "N". To assign an activity, it has to be called after calling the verifyTaskDispatched function.

Example:

```
enrouteActivity ()
```

Input Parameters: <none>

Return Type: String

## startActivityFromEnroute

Performs the actions of a field worker and moves the task to "Started" status using the NextGenMCP\_StartActivity component.

This function returns "Y" on success, else returns "N". To assign an activity, it has to be called after calling the enrouteActivity function.

Example:

```
startActivityFromEnroute ()
```

Input Parameters: <none>

Return Type: String

### **completeActivity**

Performs the actions of a field worker and moves the task to "Completed" status using the Next Gen MCP\_ CompleteActivity component

This function returns "Y" on success, else returns "N". To assign an activity, it has to be called after calling the startActivityFromEnroute function.

Example:

```
completeActivity ()
```

Input Parameters: <none>

Return Type: String

### **startBreak**

Performs the actions of a field worker and moves the break task status to "Started" using the Next Gen MCP\_ StartBreak component

This function returns "Y" on success, else returns "N". To assign a break task, it has to be called after calling the verifyTaskDispatched function.

Example:

```
startBreak ()
```

Input Parameters: <none>

Return Type: String

### **completeBreak**

Performs the actions of a field worker and moves the break task status to "Completed" using the Next Gen MCP\_ CompleteBreak component

This function returns "Y" on success, else returns "N". To assign a break task, it has to be called after calling the startBreak function.

Example:

```
completedBreak ()
```

Input Parameters: <none>

Return Type: String

### **enrouteNPT**

Performs the actions of a field worker and moves the non productive task (NPT) status to "Enroute" using the Next Gen MCP\_ EnrouteNPT component.

This function returns "Y" on success, else returns "N". To assign a non productive task, it has to be called after calling the verifyTaskDispatched function.

Example:

```
enrouteNPT ()
```

Input Parameters: <none>

Return Type: String

## startNPT

Performs the actions of a field worker and moves the non productive task (NPT) status to "Started" using the Next Gen MCP\_StartNPT Component

This function returns "Y" on success, else returns "N". To assign a non productive task, it has to be called after calling the enroutenPT function.

Example:

```
startNPT ()
```

Input Parameters: <none>

Return Type: String

## completeNPT

Performs the actions of a field worker and moves the period of unavailability (POU) task status to "Completed" using the Next Gen MCP\_CompleteNPT component.

This function returns "Y" on success, else returns "N". To assign a POU task, it has to be called after calling the startPOU function.

Example:

```
completeNPT()
```

Input Parameters: <none>

Return Type: String

## enroutePOU

Performs the actions of a field worker and moves the period of unavailability (POU) task status to "Enroute" using the Next Gen MCP\_EnroutePOU component.

This function returns "Y" on success, else returns "N". To assign a POU task, it has to be called after calling the verifyTaskDispatched function.

Example:

```
enroutePOU ()
```

Input Parameters: <none>

Return Type: String

## startPOU

Performs the actions of a field worker and moves the period of unavailability (POU) task status to "Started" using the Next Gen MCP\_StartPOU component.

This function returns "Y" on success, else returns "N". To assign a POU task, it has to be called after calling the enroutenPT function.

Example:

```
startPOU ()
```

Input Parameters: <none>

Return Type: String

## completePOU

Performs the actions of a field worker and moves the period of unavailability (POU) task status to "Completed" using the Next Gen MCP\_CompletePOU component.

This function returns "Y" on success, else returns "N". To assign a POU task, it has to be called after calling the startPOU function.

Example:

```
completePOU()
```

Input Parameters: <none>

Return Type: String

## endShift

Completes/ends the crew shift by performing the actions of a field worker to complete the current day's crew shift using the Next Gen MCP\_ CompleteShift component.

This function also closes the Next Gen MCP application. It returns "Y" on success, else returns "N".

Example:

```
endShift()
```

Input Parameters: <none>

Return Type: String

## CheckforAnActivityInCompletionScreen

Navigates to the **Activity Completion** screen and verifies if the activity with specified Activity ID is in completed state for a time specified as maxTimetoCheck in minutes.

If found, it returns "true", else "false".

Example:

```
CheckforAnActivityInCompletionScreen(String taskID, String  
maxTimetoCheck)
```

Input Parameters: <String,String>

Return Type: boolean

## moveToOpenTasksAfterTaskComplete:

Performs actions such as navigating back to open the task list screen from the **Activity Completion** screen. It returns TRUE on successful navigation to open the task list screen. Else, it returns false.

Example:

```
moveToOpenTasksAfterTaskComplete ()
```

Input Parameters: <none>

Return Type: Boolean

# Chapter 3

## Sample Work Flows

This chapter describes the Oracle Utilities Mobile Workforce Management sample flows that illustrate common use cases for Oracle Functional Testing Advanced Pack for Oracle Utilities. It also explains the procedure to execute these sample flows.

The chapter includes the following sections:

- [Sample Flows](#)
- [Executing Sample Flows](#)

### Sample Flows

The sample flows delivered as part of Oracle Functional Testing Advanced Pack for Oracle Utilities for Oracle Utilities Mobile Workforce Management demonstrate how flows can be created for Web services based testing and for a combination of Web services and UI based testing using the same framework.

These flows are designed to run using the demo data, there by giving the user, the ability to deploy Oracle Functional Testing Advanced Pack for Oracle Utilities for Oracle Utilities Mobile Workforce Management and execute the sanity flows immediately. The flows perform a part of the basic sanity testing required to certify that the Oracle Utilities Mobile Workforce Management environment has been setup appropriately.

This section includes the following sample work flows:

- [Non-MDT Flow](#)
- [MDT Flow](#)
- [M2 Non-MDT Flow](#)
- [MDT Flow Using NextGen MCP](#)

### Non-MDT Flow

The Non-MDT flow comprises the creation and completion life cycle of an M1 activity - break, non-productive task (NPT), and real period of unavailability (POU), along with the crew shift.

The following table lists the tasks that are created and their respective components in Oracle Utilities Mobile Workforce Management:

Task	MWM Component
Activity	M1-Activity
Break	M1-Break

<b>Task</b>	<b>MWM Component</b>
Non-productive Task	M1-NonProductiveTask
Real Period of Availability	M1-RealPOU

Activity, real POU, break, and non-productive tasks are scheduled to a planned crew shift that has the matching location, required capability, and scheduling time window. The dispatcher logs in the planned crew shift and starts the shift. Once the crew shift starts, activity, non-productive task, real POU, and break are dispatched to the crew shift. The dispatcher starts, completes the activity, real POU, break, and non-productive task.

The M1-Assignment component is used to assign a transition (to enroute --> start --> completing an activity). Similarly, M1-BreakTask, M1-NonProductiveTask, and M1-POUtask components are used to start, complete the break, non-productive tasks, and POU respectively. The dispatcher completes the crew shift after completing the dispatched tasks.

## MDT Flow

The MDT flow includes the creation and completion of an activity, break, non-productive task (NPT), and real period of unavailability (POU) using connected MCP.

<b>Task</b>	<b>MWM Component</b>
Activity	M1-Activity
Break	M1-Break
Non-productive Task	M1-NonProductiveTask
Real Period of Availability	M1-RealPOU

Activity, real POU, break, and non-productive tasks are scheduled to a planned crew shift that has the matching location, required capability, and scheduling time window.

The MDT flow is as follows:

1. The dispatcher launches the connected MCP.
2. The crew logs in with the valid credentials and starts the crew shift.
3. The activity, break task, and non-productive tasks are dispatched to the crew shift.
4. Use the following components applicable for each task:

<b>Task</b>	<b>MWM Component</b>
Start the crew shift	ConnectedMCP_StartCrewShift
Verify if the tasks are dispatched	ConnectedMCP_DispatchedTask
Enroute status	ConnectedMCP_EnrouteActivity
Start activity	ConnectedMCP_StartActivity
Complete activity	ConnectedMCP_CompleteActivity

5. The crew shift is completed after completing all the dispatched tasks.

## M2 Non-MDT Flow

The M2-Non-MDT flow includes the creation and completion of M-Activity (Install Meter Activity, for example).

Create an Install Meter Activity using the **M2-InstallMeterActivity** component.

The M2-Activity is scheduled to a planned crew shift that has the matching location, required capability, and the scheduling time window.

The M2 Non-MDT flow is as follows:

1. The dispatcher logs in the planned crew shift.
2. The dispatcher starts and completes the M2-Activity.  
The M2-InstallMeterAssignment component is used for M2-Activity assignment transition.
3. The dispatcher completes the crew shift after completing the M2-Activity (Install Meter Activity).

## MDT Flow Using NextGen MCP

The MDT flow includes the creation and completion of an activity, break, non-productive task (NPT), and real period of unavailability (POU) using NextGen MCP.

Task	MWM Component
Activity	M1-Activity
Break	M1-Break
Non-productive Task	M1-NonProductiveTask
Real Period of Availability	M1-RealPOU

Activity, real POU, break, and non-productive tasks are scheduled to a planned crew shift that has the matching location, required capability, and scheduling time window.

The MDT flow is as follows:

1. The dispatcher launches the NextGen MCP (Google Chrome Browser).
2. The crew logs in with valid credentials and starts the crew shift.
3. The activity, break task, and non-productive tasks are dispatched to the crew shift.
4. Use the following components applicable for each task:

Task	MWM Component
Start the crew shift	NextGenMCP_StartCrewShift
Verify if the tasks are dispatched	NextGenMCP_DispatchedTask
Enroute status	NextGenMCP_EnrouteActivity
Start activity	NextGenMCP_StartActivity

5. The crew shift is complete after completing all the dispatched tasks.

Note: The MDT Flow using NextGen MCP can be run/played back in OpenScript 12.5 version. OpenScript v12.5 currently does not support recording on Google Chrome at its current level. But, this is an expected feature in OpenScript v12.6 (which would soon be available).

## Executing Sample Flows

This section describes the procedure to setup sample flows and execute them.

- [Pre-requisites](#)
- [Setting Up Sample Flows](#)

### Pre-requisites

To execute the sample flow, ensure the following pre-requisites are met:

- Oracle Utilities Mobile Workforce Management v2.2.0.3/Oracle Real-Time Scheduler v2.2.0.3 is up and running with the demo data pack.
- OpenScript is installed in the local machine. See the *Oracle Functional Testing Advanced Pack for Oracle Utilities Installation Guide* for the version details.
- Oracle Functional Testing Advanced Pack for Oracle Utilities is installed and repository/directory is setup in the local machine appropriately. See the *Oracle Functional Testing Advanced Pack for Oracle Utilities Installation Guide* for more details.
- **Important:** Browser Playback settings of OpenScript must be set explicitly to either Mozilla Firefox or Chrome Browser for MDT flow and only "Chrome Browser" for NextGen MCP flow.

### Setting Up Sample Flows

To setup a sample flow, follow these steps:

1. Login to Oracle Utilities Mobile Workforce Management/Oracle Real-Time Scheduler.
2. Import the Inbound Web services into the Oracle Utilities Mobile Workforce Management/Oracle Real-Time Scheduler application where the scenarios need to be executed.

See the **Inbound Web Services** section in *Oracle Functional Testing Advanced Pack for Oracle Utilities User's Guide* for steps to import the Inbound Web services.

3. Navigate to **Admin > B > Bundle Import > Add**.
4. Enter the **External Reference**, **Detailed Description**, and **Bundle Details** from the IWS Bundle Export Dump.
5. Click **Save**, and then click **Apply bundle**.
6. Launch OpenScript in the local machine and perform the following steps:
  - a. Navigate to **View > OpenScript Preferences**.
  - b. In the left tree, select **OpenScript**. In the sub tree, select **Playback**, and then select **Error Recovery**.
  - c. Click **SetAll** and select **Report Error and Continue**.
  - d. Click **Apply**, and then click **Close**.
7. Configure the **configuration.properties** file as follows:

- a. Provide the application and NextGen MCP URLs for the parameter:

```
gStrNewMCPURL=http\://<%serverName%>\:<%portNumber%>/ouaf/
mobility/www/index.html
```

- b. Provide the additional path required for Inbound Web service URL:

```
gStrApplicationXAIServerPath=/<%webservices/
gStrApplicationURL%>/<%AppendThisToAbove gStrApplicationURL%>/
```

- c. Provide an environment name for display in the results email:  
`gStrEnvironmentName= <%testEnvironmentName%>`
- d. Provide the application login user ID:  
`gStrApplicationUserName= <%UserName%>`
- e. Provide the application login password:  
`gStrApplicationUserPassword= <%password%>`
- f. Provide the SMTP email server and e-mail ID:  
`gStrSMTP_HOST_NAME=<%SMTP ServerName%>`  
`gStrSMTP_PORT=<%PortNumber%>`  
`gStrTO_EMAIL_RECIPIENTS=<%e-mail Id%>`
- g. Provide the application database details as below:  
`gStrApplicationDBConnectionString =<%jdbc Connectionstring%>`  
eg: `jdbc\:oracle\:thin\:@<DBserverName%>\:<%port%>\:<DBSID%>`  
`gStrApplicationDBUsername=<DBUserID%>`  
`gStrApplicationDBPassword=<DBPassword%>`
- h. Provide the full directory path of Oracle Application Testing Suite repository directories in the local machine.  
`gStrOutputFilePath=<LogFilepath%>`  
Example: `C:\OATSOUWWM_DEMO\OUTSP\Log\`  
`gStrXSDFiles=<XSD Folder path%>`  
Example: `C:\OATSOUWWM_DEMO\OUTSP\Log\`
9. Create two folders (MWM and Core) in the outsp-function-libs folder in the Oracle Application Testing Suite repository directory. Copy the function libraries to the respective folders.
- MWM
    - OUMWMCONNECTEDMCPLIB
    - OUMWMLIB
    - OUMWMMCPLIB
  - Core
    - OUTSPCORELIB
    - WSCOMMONLIB
    - WSVALIDATELIB
10. Copy all the .jar files provided in the installer into the **genericJars** folder in the Oracle Application Testing Suite repository directory.

# Appendix A

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## Inbound Web Services

The Oracle Utilities Mobile Workforce Management components are developed using Web services method, and these components require Inbound Web Services to be defined in the application.

For instructions to create, import, or search an Inbound Web Service, see the **Setting Up Inbound Web Services** appendix in *Oracle Functional Testing Advanced Pack for Oracle Utilities User's Guide*.

### List of Inbound Web Services

The list of Inbound Web Services provided to use with the delivered components and flows is as follows:

- ATM1Activity
- ATM1Alert
- ATM1AllocateActivityToAShift
- ATM1AppointmentBookingRequest
- ATM1Assignment
- ATM1BreakTask
- ATM1CommonShiftWeeklyTemplate
- ATM1Company
- ATM1ComplexActivity
- ATM1Contractor
- ATM1ContractorEligibility
- ATM1Crew
- ATM1CrewShift
- ATM1CrewShiftCloseOpenAllocate
- ATM1CrewShiftTemplate
- ATM1DailySpeedTemplate
- ATM1DeferActivity
- ATM1DepotRelatedActivity
- ATM1DepotRelatedShift

- ATM1DepotSinglePersonCrew
- ATM1DepotTask
- ATM1Dispatcher
- ATM1DispatcherShift
- ATM1FixToCrew
- ATM1ForceLogOffCrewShift
- ATM1GetShiftCapabilities
- ATM1HazardArea
- ATM1MailingList
- ATM1MainMail
- ATM1MobileWorker
- ATM1NonPrdTask
- ATM1OverrideTimeWindow
- ATM1POUtask
- ATM1RealPOU
- ATM1ResTimesheet
- ATM1ResourceLeave
- ATM1SchedulerRegistryRead
- ATM1ShiftWeeklyTemplate
- ATM1SimpleProcedure
- ATM1SinglePersonCrew
- ATM1SpeedProfileTemplate
- ATM1SubscriptionWeeklyTemplate
- ATM1TaskScheduleDetails
- ATM1TemplateMail
- ATM1TemplatePOU
- ATM1UnassignActivity
- ATM1Vehicle
- ATM1VehicleLeaveArea
- ATM2InstallMeterActivity
- ATM2InstallMeterAssignment
- ATM2ConnectSPActivity
- ATM2ConnectSPAssignment
- ATM2CutNonPayItemActivity
- ATM2CutNonPayItemAssignment
- ATM2DisconnectMeterActivity
- ATM2DisconnectMeterAssignment
- ATM2ExchangeItemActivity

- ATM2ExchangeItemAssignment
- ATM2InstallMeterActivity
- ATM2InstallMeterAssignment
- ATM2MeterReadActivity
- ATM2MeterReadAssignment
- ATM2RemoveMeterActivity
- ATM2RemoveMeterAssignment
- ATM2BasicItemActivity
- ATM2BasicItemAssignment
- ATM2RemoveItemActivity
- ATM2RemoveItemAssignment
- ATM1ActivityType
- ATM1AlertType
- ATM1BreakTaskType
- ATM1Capacity
- ATM1CapacityTemplate
- ATM1CapacityType
- ATM1CapacityWeeklyTemplate
- ATM1ComplexActivityType
- ATM1ContractorType
- ATM1CrewHierarchy
- ATM1CrewShiftType
- ATM1CrewType
- ATM1Deployment
- ATM1DeploymentPart
- ATM1DeploymentType
- ATM1Depot
- ATM1DepotProfile
- ATM1DepotTaskType
- ATM1DispatchArea
- ATM1DispatcherType
- ATM1Equipment
- ATM1GeographicArea
- ATM1GlobalConfigurations
- ATM1KPI
- ATM1Location
- ATM1MobileDeviceTerminal
- ATM1MobileDeviceTerminalType

- ATM1MobileWorkerType
- ATM1NonPrdTaskType
- ATM1POUTaskType
- ATM1POUType
- ATM1PriorityProfile
- ATM1ProcedureType
- ATM1RemarkType
- ATM1ResTimesheetTyp
- ATM1Scheduler
- ATM1SchedulerArea
- ATM1SchedulerConfiguration
- ATM1ServiceArea
- ATM1ServiceAreaHierarchy
- ATM1ServiceClass
- ATM1ShiftCostProfile
- ATM1Skill
- ATM1StatusReason
- ATM1VehicleType
- ATM1WorkCalendar
- ATM1WorkProfile
- ATM2MaintainUtilityActByHost