

**Oracle Utilities Testing Accelerator  
Reference Guide for Oracle Utilities Mobile  
Workforce Management/ Oracle Real-Time  
Scheduler v2.3.0.0**

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# Preface

Welcome to the Oracle Utilities Testing Accelerator Reference Guide for Oracle Utilities Mobile Workforce Management/ Oracle Real-Time Scheduler v2.3.0.0.

The guide describes the Oracle Utilities Mobile Workforce Management (MWM) v2.3.0.0 and Oracle Real-Time Scheduler (ORS) v2.3.0.0 components and the function libraries used to create those components in Oracle Utilities Testing Accelerator (OUTA) v6.0.0.

This preface includes the following sections:

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

## 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 Utilities Testing Accelerator for Oracle Utilities Mobile Workforce Management and Oracle Real-Time Scheduler.

## Related Documents

For more information, refer to the following Oracle resources.

### Release Notes

- *Oracle Utilities Testing Accelerator Release Notes*

### Installation and Administration Guide

- *Oracle Utilities Testing Accelerator Installation and Administration Guide*
- *Oracle Utilities Testing Accelerator Upgrade Guide*

### User and Reference Guides

- *Oracle Utilities Testing Accelerator User's Guide*
- *Oracle Utilities Testing Accelerator Licensing Information User Manual*
- *Oracle Utilities Testing Accelerator Reference Guide for Core*
- *Oracle Utilities Testing Accelerator Reference Guide for Oracle Utilities Customer Care and Billing v2.6.0.0*
- *Oracle Utilities Testing Accelerator Reference Guide for Oracle Utilities Customer Care and Billing v2.6.0.1*
- *Oracle Utilities Testing Accelerator Reference Guide for Oracle Utilities Customer To Meter v2.6.0.1*
- *Oracle Utilities Testing Accelerator Reference Guide for Oracle Utilities Work and Asset Management/ Oracle Utilities Operational Device Management v2.2.0.1*
- *Oracle Utilities Testing Accelerator Reference Guide for Oracle Utilities Meter Data Management / Oracle Utilities Smart Grid Gateway v2.2.0.1*
- *Oracle Utilities Testing Accelerator Reference Guide for Oracle Utilities Meter Data Management / Oracle Utilities Smart Grid Gateway v2.2.0.2*

See also:

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

## Conventions

The following text conventions are used in this document:

Convention	Meaning
<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.

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## Abbreviations

The following terms are used in this document:

<b>Term</b>	<b>Expanded Form</b>
OUTA	Oracle Utilities Testing Accelerator
MWM	Oracle Utilities Mobile Workforce Management
ORS	Oracle Real-Time Scheduler

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

Oracle Utilities Testing Accelerator 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.

For detailed information about using these function libraries, refer to [Chapter 2: Function Library Reference](#).

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

For information about creating components and flows, refer to the *Oracle Utilities Testing Accelerator User's Guide*.

## 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 Activities](#)
- [Hybrid MCP Processing](#)



## Administration Data

Component	Description
M1-ActivityType	<p>Used to create, read, or update M1 Activity Type via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-ActivityType business object.</p>
M1-AdditionalUserInfo	<p>Used to maintain additional user information as part of the miscellaneous section on the user portal via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1- AdditionalUserInfo business object.</p>
M1-AlertType	<p>Used to create, read, or update an M1 Alert Type via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-AlertType business object.</p>
M1-AppointmentBookingGroup	<p>Used to create, read, or update an M1 Appointment Booking Group via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-AppointmentBookingGroup business object.</p>
M1-BreakTaskType	<p>Used to create, read, or update an M1 Break Task Type via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-BreakTaskType business object.</p>
M1-CapacityType	<p>Used to create, read, or update an M1 Capacity Type via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-CapacityType business object.</p>
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>

<b>Component</b>	<b>Description</b>
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>
M1-DeploymentTypeRestfulSvc	<p>Used to create and describe the structure and rules applicable to deployment type definitions supporting the JSON based mobile platform.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-DeploymentTypeRestfulSvc business object.</p>
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>

Component	Description
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>
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>

Component	Description
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>
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>

<b>Component</b>	<b>Description</b>
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>
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>

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

Component	Description
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 ConnectedMCP_StartActivity 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 ConnectedMCP_StartBreak 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 ConnectedMCP_StartNPT 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 ConnectedMCP_StartPOU 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.
ConnectedMCP_DispatchedTask	Performs the actions of a field worker to check if a task has been dispatched using Connected MCP. Then, click it.

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



## Contractor Portal

Component	Description
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

Component	Description
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>

<b>Component</b>	<b>Description</b>
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-DispatcherShiftLite	<p>Used to retrieve dispatcher shift information when we only need base elements.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-DispatcherShiftLite 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>

Component	Description
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>
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-ResourceLite	<p>Used to retrieve dispatcher information when we only need base elements, however it also includes other elements which may only be relevant for other Resource business objects (Crews, Mobile Workers, Vehicles, etc).</p> <p>After creation, the CRUD operations can be performed through these components against the M1-ResourceLite 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>

<b>Component</b>	<b>Description</b>
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>
M1-TemplateMail	<p>Used to create, read, or update an M1 Template Mail via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-TemplateMail business object.</p>
M1-TemplatePOU	<p>Used to create, read, or update an M1 Template POU via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-TemplatePOU business object.</p>
M1-Vehicle	<p>Used to create, read, or update an M1 Vehicle via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-Vehicle business object.</p>
M1-VehicleLeaveArea	<p>Used to create, read, or update an M1 Vehicle Leave Area via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-VehicleLeaveArea business object.</p>
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'.

Component	Description
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.
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.

<b>Component</b>	<b>Description</b>
M1-Assignment	<p>Used to create, read, or update an M1 Assignment via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-Assignment business object.</p>
M1-ComplexActivity	<p>Used to create, read, or update an M1 Complex Activity via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-ComplexActivity business object.</p>
M1-DeferActivity	Used to defer an activity
M1-DepotRelatedActivity	<p>Used to create, read, or update an M1 Depot Related Activity via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-DepotRelatedActivity business object.</p>
M1-DepotTask	<p>Used to create, read, or update an M1 Depot Task via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-DepotTask business object.</p>
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	<p>Used to create, read, or update an M1 Override Time Window via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-OverrideTimeWindow business object.</p>
M1-ActivityCommitByCont	Used to commit the work done by the contractors via a Web service.
M1-ActivityCompleteByCont	Used to complete the work done by Contractors via Web service.

## M2 Activities

Component	Description
M2-InstallMeterActivity	<p>Used to create, read, or update an M2 Install Meter Activity via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M1-InstallMeterActivity business object.</p>
M2-InstallMeterAssignment	<p>Used to create, read, or update an M2 Install Meter Assignment via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M2-InstallMeterAssignment business object.</p>
M2-BasicItemActivity	<p>Used to create, read, or update an M2 Basic Item Activity via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M2-BasicItemActivity business object.</p>
M2-BasicItemAssignment	<p>Used to create, read, or update a basic item assignment via a Web service.</p> <p>After creation, the CRUD operations can be performed through these components against the M2-BasicItemAssignment business object.</p>
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-ConnectSPAAssignment 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>



<b>Component</b>	<b>Description</b>
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>
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>

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

## Hybrid MCP Processing

<b>Component</b>	<b>Description</b>
HybridMCP_StartShift	Performs the actions of a field worker to start a crew shift using HybridMCP. Then, clicks it.
HybridMCP_TaskDispatched	Verifies whether task (activity, break, NPT, or POU) is dispatched or not. Then, clicks it from the Task List screen.

Component	Description
HybridMCP_EnrouteActivity	<p>Performs the actions of a field worker to move the status of a task to 'En-route' using HybridMCP. Then, clicks it.</p> <p><b>Note:</b> To be called only after calling the HybridMCP_DispatchedTask component.</p>
HybridMCP_StartActivity	<p>Performs the actions of a field worker to move the status of an activity to 'Started' using HybridMCP. Then, clicks it.</p> <p><b>Note:</b> To be called only after calling the HybridMCP_EnrouteActivity component.</p>
HybridMCP_CompleteActivity	<p>Performs the actions of a field worker for completing an M1 Activity using HybridMCP.</p> <p><b>Note:</b> To be called only after calling the HybridMCP_StartActivity component.</p>
HybridMCP_StartBreak	<p>Performs the actions of a field worker to move the status of a break task to 'Started' using HybridMCP. Then, clicks it.</p> <p><b>Note:</b> To be called only after calling the HybridMCP_DispatchedTask component.</p>
HybridMCP_CompleteBreak	<p>Performs the actions of a field worker for completing an M1 Break Task using HybridMCP.</p> <p><b>Note:</b> To be called only after calling the HybridMCP_StartBreak component.</p>
HybridMCP_EnrouteNPT	<p>Performs the actions of a field worker to move the status of an NPT task to 'En-route' using HybridMCP. Then, clicks it.</p> <p><b>Note:</b> To be called only after calling the HybridMCP_DispatchedTask component.</p>
HybridMCP_StartNPT	<p>Performs the actions of a field worker to move the status of an activity to 'Started' using HybridMCP. Then, clicks it.</p> <p><b>Note:</b> To be called only after calling the HybridMCP_EnrouteNPT component.</p>
HybridMCP_CompleteNPT	<p>Performs the actions of a field worker for completing an M1 Non Productive Task using HybridMCP.</p> <p><b>Note:</b> To be called only after calling the HybridMCP_StartNPT component.</p>

Component	Description
HybridMCP_EnroutePOU	<p>Performs the actions of a field worker to move the status of an NPT task to 'En-route' using HybridMCP. Then, clicks it.</p> <p><b>Note:</b> To be called only after calling the HybridMCP_DispatchedTask component.</p>
HybridMCP_StartPOU	<p>Performs the actions of a field worker to move the status of a POU to 'Started' using HybridMCP. Then, clicks it.</p> <p><b>Note:</b> To be called only after calling the HybridMCP_EnroutePOU component.</p>
HybridMCP_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 HybridMCP_StartPOU component.</p>
HybridMCP_CompleteShift	<p>Performs the actions of a field worker for completing a shift using HybridMCP.</p> <p><b>Note:</b> To be called only after a shift is in 'start' status.</p>
HybridMCP_getCurrentTime	<p>Returns the current date and time. It is designed for entering the current date and time value in the MDT Tag while logging into the HybridMCP Shift.</p>
Webdriver_AndroidLogin	<p>Performs the crew shift login on an Android emulator or android device.</p> <p><b>Note:</b> To be called only after configuring an Android device or emulator. More details can be found on Sample flows Section for Android flow.</p>
Webdriver_completeBreak	<p>Performs the actions of a field worker for completing an M1 Break Task using Web Driver on an Android / iOS emulator or device.</p> <p><b>Note:</b> To be called only after calling the Webdriver_startBreak component.</p>
Webdriver_completeM1Activity	<p>Performs the actions of a field worker for completing an M1 Activity using Web Driver on an Android / iOS emulator or device.</p> <p><b>Note:</b> To be called only after calling the Webdriver_startM1Activity component.</p>

Component	Description
Webdriver_completeM2Activity	Performs the actions of a field worker for completing an M2 Activity using Web Driver on an Android / iOS emulator or device. <b>Note:</b> To be called only after calling the Webdriver_startM2Activity component.
Webdriver_completeNPT	Performs the actions of a field worker for completing an Non Productive Task using Web Driver on an Android / iOS emulator or device. <b>Note:</b> To be called only after calling the Webdriver_startNPTcomponent.
Webdriver_completePOU	Performs the actions of a field worker for completing an M1 POU task using Web Driver on an Android / iOS emulator or device. <b>Note:</b> To be called only after calling the Webdriver_completePOU component.
Webdriver_endShift	Performs the actions of a field worker for completing a shift using Web Driver on an Android / iOS emulator or device.. <b>Note:</b> To be called only after a shift is in 'start' status.
Webdriver_gotoTaskHome	Performs the actions of a field worker for navigating to the task list home screen using Web Driver on an Android / iOS emulator or device.
Webdriver_iOSLogin	Performs the crew shift login on an iOS emulator. <b>Note:</b> To be called only after configuring an iOS emulator. More details can be found on Sample flows Section for iOS flow.
Webdriver_selectDeployment	Performs the actions of a field worker for selecting the active deployment before the crew shift starts, using Web Driver on an Android / iOS emulator or device.
Webdriver_startBreak	Performs the actions of a field worker to move the status of a break task to 'Started' using Web Driver on an Android / iOS emulator or device. <b>Note:</b> To be called only after calling the Webdriver_waitForTaskDispatch component.

Component	Description
Webdriver_startM1Activity	<p>Performs the actions of a field worker to move the status of an M1activity to 'Started' using Web Driver on an Android/ iOS emulator or device.</p> <p><b>Note:</b> To be called only after calling the Webdriver_startM1Activity component.</p>
Webdriver_startM2Activity	<p>Performs the actions of a field worker to move the status of an M2activity to 'Started' using Web Driver on an Android / iOS emulator or device.</p> <p><b>Note:</b> To be called only after calling the Webdriver_startM2Activity component.</p>
Webdriver_startNPT	<p>Performs the actions of a field worker to move the status of the NPT to 'Started' using Web Driver on an Android/ iOS emulator or device.</p> <p><b>Note:</b> To be called only after calling the Webdriver_waitForTaskDispatch component.</p>
Webdriver_startPOU	<p>Performs the actions of a field worker to move the status of the POU to 'Started' using Web Driver on an Android/ iOS emulator or device.</p> <p><b>Note:</b> To be called only after calling the Webdriver_waitForTaskDispatch component.</p>
Webdriver_startShift	<p>Performs the actions of a field worker to move the status of the Crew shift to 'Started' using Web Driver on an Android/ iOS emulator or device.</p>
Webdriver_waitForTaskDispatch	<p>Performs the actions of a field worker to verify all the assigned tasks are dispatched in the MDT using Web Driver on an Android/ iOS emulator or device.</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 Utilities Testing Accelerator for testing the Oracle Utilities Mobile Workforce Management application.

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

# 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 Utilities Testing Accelerator 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.

The library includes three new functions (hybridMCP\_startShift, hybridMCP\_verifyTaskDispatched, hybridMCP\_endShift) to support the HybridMCP MDT flow.

**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 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 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

## hybridMCP\_startShift

Works similar to the [startShift](#) function. This function is designed to handle the Hybrid MCP browser, where it additionally enters the MDT tag. It internally calls the [downloadDeployment](#) function and waits for the crew shift to start. It invokes the application in the Google Chrome browser using the URL specified in config.properties file. The URL is provided as a value to the variable gStrNewMCPURL in the config.properties file.

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

After 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.

### Example:

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

Input Parameters: String, String, String, String, String.

Return Type: String

## hybridMCP\_verifyTaskDispatched

This function works similar to the [verifyTaskDispatched](#) function, except that it is designed to handle the HybridMCP browser. It 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 the 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 the specified time (in minutes). If it is not dispatched, it returns a “N”.

### Example:

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

Input Parameters: String,String

Return Type: String

## hybridMCP\_endShift

This function works similar to the [verifyTaskDispatched](#) function, except that it is designed to handle HybridMCP browser. It completes/ends the crew shift by performing the actions of a field worker to complete the current day's crew shift using the HybridMCP\_ CompleteShift component.

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

**Example:**

```
endShift ()
```

Input Parameters: <none>

Return Type: String

## OUMWMHYBRIDLIB

The OUMWMHYBRIDLIB library includes functions that are/ can be used to create Oracle Utilities Mobile Workforce Management Mobile web driver related components. These components are later used to create the Oracle Utilities Mobile Workforce Management flows.

The library includes the Oracle Utilities Mobile Workforce Management web driver specific functions that use mobile specific activities.

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

### AndroidMCP\_startRemoteDriver

This function is used with the Android-MDT Flow. It is an initial step required to connect the android mobile device/ emulator that is running with the Appium server using the following capabilities:

- MWM Application Package Name
- MWM Application Activity Name
- Android OS Version(gStrAndroidOSVersion)
- Android Device Name(gStrAndroidDeviceName)
- Android Device UID(gStrAndroidDeviceUID)
- Android MWM Build Path(gStrAndroidBuildPath)
- Android Node URL(gStrAndroidMCPRemoteNodeURL)

Using these capabilities, the Appium server chooses the particular Android device/emulator for automation. The emulator should be running so that it automatically installs the MWM-debug build, located in the defined build-path folder. Finally, it automatically launches the Oracle Utilities Mobile Workforce Management application.

**Note:** All variables mentioned with the capabilities should be defined in configuration.properties file.

**Example:**

```
AndroidMCP_startRemoteDriver ()
```

Input Parameters: <none>

Return Type: String

### iosMCP\_startRemoteDriver

This method is used with the iOS-MDT Flow. This is the initial step required to connect the iOS mobile Simulator running with the Appium server (MAC) using the following capabilities:

- iOS X-Code Version(gStrIOSVersion)
- iOS Simulator Name(gStrIOSDeviceName)
- iOS Device UID(gStrIOSDeviceUID): <OPTIONAL>

- iOS Build Path(gStrIosBuildPath)
- iOS Node URL(gStrIosMCPRemoteNodeURL)

Using these capabilities, the Appium server chooses the particular iOS Simulator for automation. The Simulator automatically invokes; it automatically installs the MWM-debug build located in the defined build-path folder. Finally, it automatically launches the Oracle Utilities Mobile Workforce Management application.

**Note:** All variables mentioned with the capabilities should be defined in configuration.properties file.

**Example:**

```
IosMCP_startRemoteDriver()
```

Input Parameters: <none>

Return Type: String

### MobileMCP\_switchToDebugContextNodeURL

After the Oracle Utilities Mobile Workforce Management application is successfully launched, this method handles the Application Context-Mode and switches the context from Native-View to Debug-View (Web-View).

The method is used to handle the automation on OUML code-level, as both Android and IOS applications have same OUML code. So it is easier to create and maintain the same functional flow for both application types (Android / iOS).

**Note:** This method is common for both MDT flows.

**Example:**

```
MobileMCP_switchToDebugContextNodeURL()
```

Input Parameters: <none>

Return Type: String

### MobileMCP\_selectTerms

When the Oracle Utilities Mobile Workforce Management application is launched, the Terms and Conditions need to be accepted. This method just presses the **Accept** button.

**Note:** This method is common for both MDT flows.

**Example:**

```
MobileMCP_selectTerms()
```

Input Parameters: <none>

Return Type: String

### MobileMCP\_applicationUrl

This function inputs the application URL with the username and password. It takes the following variables from the “configuration.properties” file:

- gStrMobileDeploymentURL
- gStrApplicationUserName
- gStrApplicationUserPassword

After providing input to these three fields, the function clicks the **Download** button that triggers the download app bundle process.

**Example:**

```
MobileMCP_applicationUrl()
```

```
Input Parameters: <none>
```

```
Return Type: String
```

**MobileMCP\_loginPage**

This function performs the login action by entering the MDT-Tag, application username, and password, and then clicking the **Login** button.

**Example:**

```
MobileMCP_loginPage()
```

```
Input Parameters: <String>
```

```
Return Type: String
```

**HybridMCP\_selectDeployment**

After successful login, the **Select Deployment** page appears that requires a human intervention to select a proper deployment from the available list. This method simulates this action by selecting a valid REST-DEPLOYMENT.

**Example:**

```
HybridMCP_selectDeployment()
```

```
Input Parameters: <String>
```

```
Return Type: String
```

**HybridMCP\_startShift**

After selecting deployment, this method starts the crew shift in MDT by clicking **Start**.

**Example:**

```
HybridMCP_startShift()
```

```
Input Parameters: <none>
```

```
Return Type: String
```

**HybridMCP\_waitForAllTaskDispatch**

This method enables wait on the **Task - Home** page till all tasks are dispatched in the MDT. Pass "Number of Tasks" as an argument and also the max time to wait for all tasks to dispatch. If it crosses the max time, the test fails.

**Example:**

```
HybridMCP_waitForAllTaskDispatch()
```

```
Input-Parameters:<String, String>
```

```
Return Type: String
```

**HybridMCP\_gotoTaskHome**

After the completion of all tasks, go to the **Task - Home** page to see the remaining task list. This method simulates this action. It opens **Menu** and clicks **Home** from the list.

**Example:**

```
HybridMCP_gotoTaskHome()
```

```
Input Parameters:<String>
```

```
Return Type: String
```

## HybridMCP\_startBreak

On the **Task - Home** page, this method finds the break-task by the Task ID, and then selects the particular task. On that task action page, it clicks **Start**.

**Example:**

```
HybridMCP_startBreak()
```

Input Parameters:<String, SString>

Return Type: String

## HybridMCP\_completeBreak

After starting break-task, this method completes it by clicking **Complete**.

**Example:**

```
HybridMCP_completeBreak()
```

Input Parameters:<None>

Return Type: String

## HybridMCP\_startNonProductiveTask

On the **Task - Home** page, this method finds the NPT-task by the Task ID, and then selects the particular task. When on the task action page, it clicks **Start**.

**Example:**

```
HybridMCP_startNonProductiveTask()
```

Input Parameters:<String, String>

Return Type: String

## HybridMCP\_completeNonProductiveTask

After starting break-task, this method completes the NPT-task by clicking **Complete**.

**Example:**

```
HybridMCP_completeNonProductiveTask()
```

Input Parameters:<None>

Return Type: String

## HybridMCP\_startPOU

On the **Task-Home** page, this method finds the POU-task by the Task ID and then selects the particular task. When on the task action page, it clicks **Start**.

**Example:**

```
HybridMCP_startPOU()
```

Input Parameters:<String, String>

Return Type: String

## HybridMCP\_completePOU

After starting break-task, this method completes that POU-Task by clicking **Complete**.

**Example:**

```
HybridMCP_completePOU()
```

Input Parameters:<None>

Return Type: String

## HybridMCP\_startM1Activity

On the **Task - Home** page, this method finds the M1-task by the Task ID and then selects the particular task. When on the task action page, it clicks **Start**.

**Example:**

```
HybridMCP_startM1Activity()
```

Input Parameters:<String, String>

Return Type: String

## HybridMCP\_completeM1Activity

After starting break-task, this method completes that M1-task by clicking **Complete**.

**Example:**

```
HybridMCP_completeM1Activity()
```

Input Parameters:<None>

Return Type: String

## HybridMCP\_startM2ConnectSPActivity

On the **Task - Home** page, this method finds the M2-task by the Task ID and then selects the particular task. When on that task action page, it clicks **Enroute** and **Start**.

**Example:**

```
HybridMCP_startM2ConnectSPActivity()
```

Input Parameters:<String, String>

Return Type: String

## HybridMCP\_completeM2ConnectSPActivity

After starting break-task, this method completes that M2-task by clicking **Complete**.

**Example:**

```
HybridMCP_completeM2ConnectSPActivity()
```

Input Parameters:<None>

Return Type: String

## HybridMCP\_endShift

This method completes/ends the crew shift by performing the actions of a field worker to complete the current day's crew shift. This function also closes the Next Gen MCP application. It returns "Y" on success, else returns "N".

**Example:**

```
HybridMCP_endShift()
```

Input Parameters: <none> Return Type: String

## HybridMCP\_closeRemoteDriver

This method ends or closes the connection with the Remote IOS/ Android MDT device. It is usually used at the end of an automation test.

**Example:**

```
HybridMCP_closeRemoteDriver()
```

Input Parameters: <none> Return Type: String



# Chapter 3

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## Sample Work Flows

This chapter describes the Oracle Utilities Mobile Workforce Management sample flows that illustrate common use cases for Oracle Utilities Testing Accelerator. It also explains the procedure to execute these sample flows. It includes the following sections:

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

## Sample Flows

The sample flows delivered as part of Oracle Utilities Testing Accelerator 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 Utilities Testing Accelerator 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](#)
- [MDT Flow Using HybridMCP](#)

### 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
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.

Task	MWM Component
Activity	M1-Activity

Task	MWM Component
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:

Task	MWM Component
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

Task	MWM Component
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).

## MDT Flow Using HybridMCP

**Note:** While using secured (https) connection to access the HybridMCP Web application for the first time, “Your connection is not private” message is displayed. Accept and proceed further to access the application.

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

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 HybridMCP (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	HybridMCP_StartShift
Verify if the tasks are dispatched	HybridMCP_TaskDispatched
Enroute status	HybridMCP_EnrouteActivity
Complete activity	HybridMCP_CompleteActivity
Complete the crew shift	HybridMCP_CompleteShift

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

**Note:** The MDT Flow using HybridMCP 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 v2.3.0/Oracle Real-Time Scheduler v2.3.0 is up and running with the demo data pack.
- OpenScript is installed in the local machine. See the *Oracle Utilities Testing Accelerator Installation and Administration Guide* for the version details.
- Oracle Utilities Testing Accelerator is installed and repository/directory is setup in the local machine appropriately. See the *Oracle Utilities Testing Accelerator Installation and Administration 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 and HybridMCP flows.

### 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 Utilities Testing Accelerator 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\
```
  - i. Provide the Mobile Android device details.
 

**Note:** Below is an example for mentioning the version, name, and UID. Run the 'adb devices' command for identifying the respective Android device details.

```
gStrAndroidDeviceName=emulator
```

```
gStrAndroidDeviceUID=emulator-5554
gStrAndroidDeviceName=Nexus_4
```

- j. Provide the Mobile iOS device details.

**Note:** Below is an example for mentioning the version, name, and UID. Run the ‘instruments -s devices’ command for identifying the respective iOS device details.

```
gStrIOSVersion=9.1
gStrIOSDeviceName=iPhone 4s
gStrIOSDeviceUID=33ad17f071d36d191d0a6e6b102b8ed3e7783c58
```

- k. Provide the Appium node URL details.

```
gStrAndroidMCPRemoteNodeURL=http\://<<Appium
Server>>\:<<port>>/wd/hub
gStrIosMCPRemoteNodeURL= http\://<<Appium Server>>\:<<port>>/
wd/hub
```

- l. Provide the Android/iOS build paths.

```
gStrAndroidBuildPath=<<your local directory
>>\Oracle_MWM_Debug.apk
gStrIosBuildPath=<<your local directory
>>\Oracle_MWM_Debug.ipa
```

8. 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
    - OUMWMMCP LIB
  - Core
    - OUTSPCORELIB
    - WSCOMMONLIB
    - WSVALIDATELIB
9. 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 Utilities Testing Accelerator User's Guide*.

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

- ATM1Activity
- ATM1Alert
- ATM1AllocateActivityToAShift
- ATM1AppointmentBookingRequest
- ATM1Assignment
- ATM1AdditionalUserInfo
- 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
- AT\_M1DeploymentTypeRestfulSvc
- ATM1Depot
- ATM1DepotProfile
- ATM1DepotTaskType
- ATM1DispatchArea
- ATM1DispatcherType
- ATM1DispatcherShiftLite
- ATM1Equipment
- ATM1GeographicArea
- ATM1GlobalConfigurations
- ATM1KPI
- ATM1Location
- ATM1MobileDeviceTerminal
- ATM1MobileDeviceTerminalType

- ATM1MobileWorkerType
- ATM1NonPrdTaskType
- ATM1POUTaskType
- ATM1POUType
- ATM1PriorityProfile
- ATM1ProcedureType
- ATM1RemarkType
- ATM1ResTimesheetType
- AT\_M1ResourceLite
- ATM1Scheduler
- ATM1SchedulerArea
- ATM1SchedulerConfiguration
- ATM1ServiceArea
- ATM1ServiceAreaHierarchy
- ATM1ServiceClass
- ATM1ShiftCostProfile
- ATM1Skill
- ATM1StatusReason
- ATM1VehicleType
- ATM1WorkCalendar
- ATM1WorkProfile
- ATM2MaintainUtilityActByHost
- ATM1RetrievePOUTaskIdsOfPOU
- ATM1RetrieveMWIdFromUserId
- ATM1RetrieveDeploymntId
- ATM1RetrieveAssgnmtsOfTask
- ATM1FetchActiveResourceIDByType
- ATM1CheckIfActScheduled