

**Oracle Functional Testing Advanced  
Pack for Oracle Utilities  
Reference Guide for Oracle Utilities Customer  
Care and Billing (v2.5.0.2)**

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# Contents

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## Preface

Audience .....	i
Related Documents .....	i
Conventions.....	ii

## Chapter 1

Overview .....	1-1
Components .....	1-1

## Chapter 2

OUCCLIB.....	2-1
--------------	-----

## Chapter 3

Sample Flows.....	3-1
CreatePremiseAndAccount Flow .....	3-1
StartService Flow.....	3-2
CreateBill Flow .....	3-2
CreatePaymentEvent Flow .....	3-3
StopService Flow.....	3-3
EndToEndStartService Flow .....	3-3
Executing Sample Flows.....	3-4
Pre-requisites.....	3-4
Setting Up Sample Flows .....	3-4

## Appendix A

List of Inbound Web Services .....	A-1
------------------------------------	-----

## Appendix B

Debug Mode in the Application.....	B-1
IE Development Tool Bar .....	B-4
SOAP UI.....	B-7

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# Preface

This guide describes the Oracle Utilities Customer Care and Billing v2.5.0.2 components and function libraries used to create those components in Oracle Functional Testing Advanced Pack for Oracle Utilities (OFTAPOU) v5.0.1. These components are used to build test flows in Oracle Flow Builder (OFB).

This preface includes the following sections:

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

## Audience

This guide is intended for QA/Test Engineers and Automation Developers to understand the various components and libraries available for them to automate the business test flows for Oracle Utilities Customer Care and Billing using Oracle Functional Testing Advanced Pack for Oracle Utilities (OFTAPOU) for Oracle Utilities Customer Care and Billing.

## Related Documents

For more information, see the following documents:

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

See also:

- *Oracle Utilities Customer Care and Billing Documentation Library*

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## Conventions

The following text conventions are used in this document:

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

# Chapter 1

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## Component Reference

This chapter lists the Oracle Utilities Customer Care and Billing starter components available to create flows in Oracle Flow Builder for testing the Oracle Utilities Customer Care and Billing applications.

The chapter includes the following sections:

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

### Overview

Oracle Functional Testing Advanced Pack for Oracle Utilities for Oracle Utilities Customer Care and Billing is a test starter pack built on top of Oracle Functional Testing Advanced Pack for Oracle Utilities that generates test automation scripts using Oracle Flow Builder.

Oracle Functional Testing Advanced Pack for Oracle Utilities for Oracle Utilities Customer Care and Billing contains out-of-the-box product-specific components used to build new test flows in Oracle Flow Builder to test the Customer Care and Billing 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. Users can use these components as available or can extend them. Users can also create new components to be used to create flows. This starter pack also contains a set of function libraries that can be used for creating custom components.

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

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

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

### Components

This section lists the starter components available for Oracle Utilities Customer Care and Billing.

**Pre-requisites:** The Inbound Web 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:

- [Admin](#)
- [Credit and Collection](#)
- [Customer Information](#)
- [Data Synchronization](#)
- [Field Order](#)
- [Financial](#)
- [Meter](#)
- [Meter Read](#)
- [Sales and Marketing](#)
- [Usage](#)
- [Umbrella Agreement Management](#)

## Admin

Component	Description
C1-IdentifierTypeAdd	Used to add an Identifier Type record.  This component invokes the ATC1IdentifierType Inbound Web Service using the C1-IdentifierTypePhysicalBO Business Object.
C1-IdentifierTypeRead	Used to read an Identifier Type record.  This component invokes the ATC1IdentifierType Inbound Web Service using the C1-IdentifierTypePhysicalBO Business Object.
C1-IdentifierTypeUpdate	Used to update an Identifier Type record.  This component invokes the ATC1IdentifierType Inbound Web Service using the C1-IdentifierTypePhysicalBO Business Object.
C1-IdentifierTypeDelete	Used to delete an Identifier Type record.  This component invokes the ATC1IdentifierType Inbound Web Service using the C1-IdentifierTypePhysicalBO Business Object.
C1-NotificationTypeRead	Used to read a Notification Type.  This component invokes the ATC1NotificationType Inbound Web Service using the C1-NotificationType Business Object.
C1-NotificationTypeDelete	Used to delete a Notification Type.  This component invokes the ATC1NotificationType Inbound Web Service using the C1-NotificationType Business Object.

<b>Component</b>	<b>Description</b>
C1-PersonContactTypeAdd	Used to add a Person Contact Type.  This component invokes the ATC1PersonContactType Inbound Web Service using the C1-PersonContactType Business Object.
C1-PersonContactTypeRead	Used to read a Person Contact Type.  This component invokes the ATC1PersonContactType Inbound Web Service using the C1-PersonContactType Business Object.
C1-PersonContactTypeUpdate	Used to update a Person Contact Type.  This component invokes the ATC1PersonContactType Inbound Web Service using the C1-PersonContactType Business Object.
C1-PersonContactTypeDelete	Used to delete a Person Contact Type.  This component invokes the ATC1PersonContactType Inbound Web Service using the C1-PersonContactType Business Object.

## Credit and Collection

<b>Component</b>	<b>Description</b>
C1-CollAgencyReferralAdd	Used to add a collection agency referral record.  This component invokes the ATC1CollectionAgencyReferral Inbound Web Service using the C1CollAgencyRefAdd Business Service.
C1-CollAgencyReferralDelete	Used to delete a collection agency referral record.  This component invokes the ATC1CollectionAgencyReferral Inbound Web Service using the C1CollAgencyRefDelete Business Service.
C1-CollAgencyReferralRead	Used to read a collection agency referral record.  This component invokes the ATC1CollectionAgencyReferral Inbound Web Service using the C1CollAgencyRefRead Business Service.
C1-CollAgencyReferralUpdate	Used to update a collection agency referral record.  This component invokes the Inbound Web Service ATC1CollectionAgencyReferral using the C1CollAgencyRefUpdate Business Service.



<b>Component</b>	<b>Description</b>
C1-CollectionProcessAdd	Used to add a collection process record.  This component invokes the Inbound Web Service ATC1CollectionProcess using the C1CollectionProcAdd Business Service.
C1-CollectionProcessRead	Used to read a collection process record.  This component invokes the Inbound Web Service ATC1CollectionProcess using the C1CollectionProcRead Business Service.
C1-CollectionProcessUpdate	Used to update a collection process record.  This component invokes the Inbound Web Service ATC1CollectionProcess using the C1CollectionProcUpdate Business Service.
C1-CutProcessRead	Used to read a cut process record. This component invokes the ATC1CutProcess Inbound Web Service using the C1CutProcRead Business Service.
C1-CutProcessUpdate	Used to update a cut process record.  This component invokes the Inbound Web Service ATC1CutProcess using the C1CutProcUpdate Business Service.
C1-OverdueProcessRead	Used to read an overdue process record.  This component invokes the Inbound Web Service ATC1OverdueProcess using the C1OverdueProcessRead Business Service.
C1-OverdueProcessUpdate	Used to update an overdue process record.  This component invokes the Inbound Web Service ATC1OverdueProcess using the C1OverdueProcessUpdate Business Service.
C1-PayPlanAdd	Used to add a pay plan record.  This component invokes the Inbound Web Service ATC1PayPlan using the C1PayPlanAdd Business Service.
C1-PayPlanRead	Used to read a pay plan record.  This component invokes the Inbound Web Service ATC1PayPlan using the C1PayPlanRead Business Service.
C1-PayPlanUpdate	Used to update a pay plan record.  This component invokes the Inbound Web Service ATC1PayPlan using the C1PayPlanUpdate Business Service.

<b>Component</b>	<b>Description</b>
C1-PaymentArrangementAdd	Used to add a payment arrangement record.  This component invokes the Inbound Web Service ATC1PayArrangement using C1PayArrangementAdd Business Service.
C1-PaymentArrangementRead	Used to read a payment arrangement record.  This component invokes the Inbound Web Service ATC1PayArrangement using C1PayArrangementRead Business Service.
C1-PaymentArrangementUpdate	Used to update a payment arrangement record.  This component invokes the Inbound Web Service ATC1PayArrangement using the C1PayArrangementUpdate Business Service.
C1-PayArrangementByBillAdd	Used to add a payment arrangement by bill record.  This component invokes the Inbound Web Service ATC1PaymentArrangementByBill using the C1PayArrangeByBillAdd Business Service.
C1-PayArrangementByBillRead	Used to read a payment arrangement by bill record.  This component invokes the Inbound Web Service ATC1PayArrangeByBill using the C1PayArrangeByBillRead Business Service.
C1-PayArrangementByBillUpdate	Used to update a payment arrangement by bill record.  This component invokes the Inbound Web Service ATC1PayArrangeByBill using the C1PayArrangeByBillUpdate business service.
C1-SeveranceProcessRead	Used to read a severance process record.  This component invokes the Inbound Web Service ATC1SeveranceProcess using the C1SeveranceProcessRead Business Service.
C1-SeveranceProcessUpdate	Used to update a severance process record.  This component invokes the Inbound Web Service ATC1SeveranceProcess using the C1SeveranceProcessUpdate Business Service.
C1-WriteOffRead	Used to read a write off record.  This component invokes the Inbound Web Service ATC1WriteOff using the C1WriteOffRead Business Service.

Component	Description
C1-WriteOffUpdate	Used to update a write off record.  This component invokes the Inbound Web Service ATC1WriteOff using the C1WriteOffUpdate Business Service.
C1-WriteOffProcessAdd	Used to add a write off process record.  This component invokes the Inbound Web Service ATC1WriteOffProcess using the C1WriteOffProcessAdd Business Service.
C1-WriteOffProcessRead	Used to read a write off process record.  This component invokes the Inbound Web Service ATC1WriteOffProcess using the C1WriteOffProcessRead Business Service.
C1-WriteOffProcessUpdate	Used to update a write off process record.  This component invokes the Inbound Web Service ATC1WriteOffProcess using the C1WriteOffProcessUpdate Business Service.

### Customer Information

Component	Description
C1-AccountAdd	Used to create an Account record.  This component invokes the ATC1Account Inbound Web Service using the C1AccountPhysical Business Object.
C1-AccountBSRead	Used to read an existing Account record.  This component invokes the ATC1AccountBS Inbound Web Service using the C1-AccountRead Business Service.
C1-AccountBSUpdate	Used to update an existing Account record.  This component invokes the ATC1AccountBS Inbound Web Service using the C1-AccountUpdate Business Service.
C1-AccountUpdate	Used to update an existing Account record.  This component invokes the ATC1Account Inbound Web Service using the C1AccountPhysical Business Object.

<b>Component</b>	<b>Description</b>
C1-AccountDelete	Used to delete an existing Account record.  This component invokes the ATC1Account Inbound Web Service using the C1AccountPhysical Business Object.
C1-AccountRead	Used to read an existing Account record.  This component invokes the ATC1Account Inbound Web Service using the C1AccountPhysical Business Object.
C1-CaseAdd	Used to create a Case record.  This component invokes the ATC1Case Inbound Web Service using the C1CasePhysical Business Object.
C1-CaseUpdate	Used to update an existing Case record.  This component invokes the ATC1Case Inbound Web Service using the C1CasePhysical Business Object.
C1-CaseRead	Used to read an existing Case record.  This component invokes the ATC1Case Inbound Web Service using the C1CasePhysical Business Object.
C1-ContractOptionAdd	Used to create a Contract Option record.  This component invokes the ATC1ContractOption Inbound Web Service using the C1ContractOptionPhysical Business Object.
C1-ContractOptionDelete	Used to delete an existing Contract Option record.  This component invokes the ATC1ContractOption Inbound Web Service using the C1ContractOptionPhysical Business Object.
C1-ContractOptionUpdate	Used to update (Update, Freeze and Cancel) an existing Contract Option record.  This component invokes the ATC1ContractOption Inbound Web Service using the C1ContractOptionPhysical Business Object.
C1-ContractOptionRead	Used to read an existing Contract Option record.  This component invokes the ATC1ContractOption Inbound Web Service using the C1ContractOptionPhysical Business Object.

<b>Component</b>	<b>Description</b>
C1-CustomerContactAdd	Used to create a Customer Contact record.  This component invokes the ATC1CustomerContact Inbound Web Service using the C1CustomerContactPhysical Business Object.
C1-CustomerContactUpdate	Used to update an existing Customer Contact record.  This component invokes the ATC1CustomerContact Inbound Web Service using the C1CustomerContactPhysical Business Object.
C1-CustomerContactRead	Used to read an existing Customer Contact record.  This component invokes the ATC1CustomerContact Inbound Web Service using the C1CustomerContactPhysical Business Object.
C1-DeclarationAdd	Used to create a Declaration record.  This component invokes the ATC1Declaration Inbound Web Service using the C1DeclarationPhysical Business Object.
C1-DeclarationUpdate	Used to update an existing Declaration record.  This component invokes the ATC1Declaration Inbound Web Service using the C1DeclarationPhysical Business Object.
C1-DeclarationDelete	Used to delete an existing Declaration record.  This component invokes the ATC1Declaration Inbound Web Service using the C1DeclarationPhysical Business Object.
C1-DeclarationRead	Used to read an existing Declaration record.  This component invokes the ATC1Declaration Inbound Web Service using the C1DeclarationPhysical Business Object.
C1-LandlordAgreementAdd	Used to create a Landlord Agreement record.  This component invokes the ATC1LandlordAgreement Inbound Web Service using the C1LandlordAgreementPhysical Business Object.
C1-LandlordAgreementUpdate	Used to update an existing Landlord Agreement record.  This component invokes the ATC1LandlordAgreement Inbound Web Service using the C1LandlordAgreementPhysical Business Object.

<b>Component</b>	<b>Description</b>
C1-LandlordAgreementRead	Used to read an existing Landlord Agreement record.  This component invokes the ATC1LandlordAgreement Inbound Web Service using the C1LandlordAgreementPhysical Business Object.
C1-LoanUpdate	Used to update an existing Loan record.  This component invokes the ATC1Loan Inbound Web Service using the ATC1Loan Business Service.
C1-LoanRead	Used to read an existing Loan record.  This component invokes the ATC1Loan Inbound Web Service using the ATC1Loan Business Service.
C1-NonBilledBudgetAdd	Used to add a Non-billed Budget record.  This component invokes the ATC1NonBilledBudget Inbound Web Service using the C1NBBAdd Business Service.
C1-NonBilledBudgetUpdate	Used to update an existing Non-billed Budget record.  This component invokes the ATC1NonBilledBudget Inbound Web Service using the C1NBBUpdate Business Service.
C1-NonBilledBudgetRead	Used to read an existing Non-billed Budget record.  This component invokes the ATC1NonBilledBudget Inbound Web Service using the C1NBBRead Business Service.
C1-NtfContactPreferenceAdd	Used to add a Notification Contact Preference.  This component invokes the ATC1NotificationContactPreference Inbound Web Service using the C1-NtfContactPreference Business Object.
C1-NtfContactPreferenceRead	Used to read a Notification Contact Preference.  This component invokes the ATC1NotificationContactPreference Inbound Web Service using the C1-NtfContactPreference Business Object.
C1-NtfContactPreferenceUpdate	Used to update a Notification Contact Preference.  This component invokes the ATC1NotificationContactPreference Inbound Web Service using the C1-NtfContactPreference Business Object.

<b>Component</b>	<b>Description</b>
C1-NtfContactPreferenceDelete	Used to delete a Notification Contact Preference.  This component invokes the ATC1NotificationContactPreference Inbound Web Service using the C1-NtfContactPreference Business Object.
C1-PersonAdd	Used to create a Person record.  This component invokes the ATC1Person Inbound Web Service using the C1PersonPhysical Business Object.
C1-PersonBSAdd	Used to add a Person record.  This component invokes the ATC1PersonBS Inbound Web Service using the C1-PersonAdd Business Service.
C1-PersonBSRead	Used to read a Person record.  This component invokes the ATC1PersonBS Inbound Web Service using the C1-PersonRead Business Service.
C1-PersonBSUpdate	Used to update a Person record.  This component invokes the ATC1PersonBS Inbound Web Service using the C1-PersonUpdate Business Service.
C1-PersonContactUpdate	Used to add, update, and delete a Person Contact.  This component invokes the ATC1PersonContact Inbound Web Service using the C1-PersonContact Business Object.
C1-PersonContactRead	Used to read a Person Contact Type.  This component invokes the ATC1PersonContact Inbound Web Service using the C1-PersonContact Business Object.
C1-PersonUpdate	Used to update an existing Person record.  This component invokes the ATC1Person Inbound Web Service using the C1PersonPhysical Business Object.
C1-PersonDelete	Used to delete an existing Person record.  This component invokes the ATC1Person Inbound Web Service using the C1PersonPhysical Business Object.

<b>Component</b>	<b>Description</b>
C1-PersonRead	Used to read an existing Person record.  This component invokes the ATC1Person Inbound Web Service using the C1PersonPhysical Business Object.
C1-PremiseAdd	Used to create a Premise record.  This component invokes the ATC1Premise Inbound Web Service using the C1PremisePhysical Business Object.
C1-PremiseUpdate	Used to update an existing Premise record.  This component invokes the ATC1Premise Inbound Web Service using the C1PremisePhysical Business Object.
C1-PremiseDelete	Used to delete an existing Premise record.  This component invokes the ATC1Premise Inbound Web Service using the C1PremisePhysical Business Object.
C1-PremiseRead	Used to read an existing Premise record.  This component invokes the ATC1Premise Inbound Web Service using the C1PremisePhysical Business Object.
C1-PremiseManagementUpdate	Used to invoke the Premise Management functionality, including update, create, assign landlord, assign parent premise, remove landlord, remove parent premise, stop and start service on premise actions).  This component invokes the ATC1PremiseManagement Inbound Web Service using the C1PremiseManagementUpdate Business Service.
C1-PremiseReplicatorUpdate	Used to invoke the Premise Replicator functionality.  This component invokes the ATC1PremiseReplicator Inbound Web Service using the C1PremiseReplicatorUpdate Business Service.
C1-PushNotificationOptOutAdd	Used to add a Push Notification Opt Out.  This component invokes the ATC1PushNotificationOptOut Inbound Web Service using the C1-PushNotificationOptOut Business Object.



<b>Component</b>	<b>Description</b>
C1-PushNotificationOptOutRead	Used to read a Push Notification Opt Out.  This component invokes the ATC1PushNotificationOptOut Inbound Web Service using the C1-PushNotificationOptOut Business Object.
C1-PushNotificationOptOutDel	Used to delete a Push Notification Opt Out.  This component invokes the ATC1PushNotificationOptOut Inbound Web Service using the C1-PushNotificationOptOut Business Object.
C1-RebateClaimAdd	Used to create a Rebate Claim record.  This component invokes the ATC1RebateClaim Inbound Web Service using the C1-RebateClaim Business Object.
C1-RebateClaimUpdate	Used to update an existing Rebate Claim record.  This component invokes the ATC1RebateClaim Inbound Web Service using the C1-RebateClaim Business Object.
C1-RebateClaimRead	Used to read an existing Rebate Claim record.  This component invokes the ATC1RebateClaim Inbound Web Service using the C1-RebateClaim Business Object.
C1-RebateClaimDelete	Used to delete an existing Rebate Claim record.  This component invokes the ATC1RebateClaim Inbound Web Service using the C1-RebateClaim Business Object.
C1-RebateClaimLineAdd	Used to create a Rebate Claim Line record.  This component invokes the ATC1RebateClaimLine Inbound Web Service using the C1RebateClaimLinePhysical Business Object.
C1-RebateClaimLineUpdate	Used to update an existing Rebate Claim Line record.  This component invokes the ATC1RebateClaimLine Inbound Web Service using the C1RebateClaimLinePhysical Business Object.
C1-RebateClaimLineRead	Used to read an existing Rebate Claim Line record.  This component invokes the ATC1RebateClaimLine Inbound Web Service using the C1RebateClaimLinePhysical Business Object.

<b>Component</b>	<b>Description</b>
C1-RebateClaimLineDelete	Used to delete an existing Rebate Claim Line record.  This component invokes the ATC1RebateClaimLine Inbound Web Service using the C1RebateClaimLinePhysical Business Object.
C1-RebateClaimLogsAdd	Used to add a Rebate Claim Log record.  This component invokes the ATC1RebateClaimLogs Inbound Web Service using the C1RebateClaimPhysical Business Object.
C1-RebateClaimLogsRead	Used to read a Rebate Claim Log record.  This component invokes the ATC1RebateClaimLogs Inbound Web Service using the C1RebateClaimPhysical Business Object.
C1-SARelationshipAdd	Used to create an SA Relationship record.  This component invokes the ATC1SARelationship Inbound Web Service using the C1SARelationshipAdd Business Service.
C1-SARelationshipUpdate	Used to update (update, activate, cancel, create sub SA) an existing SA Relationship record.  This component invokes the ATC1SARelationship Inbound Web Service using the C1SARelationshipUpdate Business Service.
C1-SARelationshipRead	Used to read an existing SA Relationship record.  This component invokes the ATC1SARelationship Inbound Web Service using the C1SARelationshipRead Business Service.
C1-ServiceAgreementAdd	Used to create a Service Agreement record.  This component invokes the ATC1ServiceAgreement Inbound Web Service using the C1ServiceAgreementPhysical Business Object.
C1-ServiceAgreementRead	Used to read an existing Service Agreement record.  This component invokes the ATC1ServiceAgreement Inbound Web Service using the C1ServiceAgreementPhysical Business Object.

Component	Description
C1-ServiceAgreementUpdate	<p>Used to update (activate, apply new start option, cancel, close, cancel proposal SA, accept proposal SA, decline proposal SA, activate proposal SA, reactivate, stop) an existing Service Agreement record.</p> <p>This component invokes the ATC1ServiceAgreementUpdate Inbound Web Service using the C1ServiceAgreementUpdate Business Service.</p>
C1-ServiceCreditEventAdd	<p>Used to create a Service Credit Event record.</p> <p>This component invokes the ATC1ServiceCreditEvent Inbound Web Service using the C1ServiceCreditEventPhysical Business Object.</p>
C1-ServiceCreditEventUpdate	<p>Used to update an existing (cancel, complete, transfer) Service Credit Event record.</p> <p>This component invokes the ATC1ServiceCreditEvent Inbound Web Service using the C1ServiceCreditEventPhysical Business Object.</p>
C1-ServiceCreditEventDelete	<p>Used to delete an existing Service Credit Event record.</p> <p>This component invokes the ATC1ServiceCreditEvent Inbound Web Service using the C1ServiceCreditEventPhysical Business Object.</p>
C1-ServiceCreditEventRead	<p>Used to read an existing Service Credit Event record.</p> <p>This component invokes the ATC1ServiceCreditEvent Inbound Web Service using the C1ServiceCreditEventPhysical Business Object.</p>
C1-SCMembershipAdd	<p>Used to create a Service Credit Membership record.</p> <p>This component invokes the ATC1ServiceCreditMembership Inbound Web Service using the C1SCMPPhysical Business Object.</p>
C1-SCMembershipUpdate	<p>Used to update (activate, cancel) an existing Service Credit Membership record.</p> <p>This component invokes the ATC1ServiceCreditMembership Inbound Web Service using the C1SCMPPhysical Business Object.</p>

<b>Component</b>	<b>Description</b>
C1-SCMembershipDelete	<p>Used to delete an existing Service Credit Membership record.</p> <p>This component invokes the ATC1ServiceCreditMembership Inbound Web Service using the C1SCMPhysical Business Object.</p>
C1-SCMembershipRead	<p>Used to read an existing Service Credit Membership record.</p> <p>This component invokes the ATC1ServiceCreditMembership Inbound Web Service using the C1SCMPhysical Business Object.</p>
C1-ServicePointAdd	<p>Used to create a Service Point record.</p> <p>This component invokes the ATC1ServicePoint Inbound Web Service using the C1ServicePointPhysical Business Object.</p>
C1-ServicePointUpdate	<p>Used to update an existing Service Point record.</p> <p>This component invokes the ATC1ServicePoint Inbound Web Service using the C1ServicePointPhysical Business Object.</p>
C1-ServicePointDelete	<p>Used to delete an existing Service Point record.</p> <p>This component invokes the ATC1ServicePoint Inbound Web Service using the C1ServicePointPhysical Business Object.</p>
C1-ServicePointRead	<p>Used to read an existing Service Point record.</p> <p>This component invokes the ATC1ServicePoint Inbound Web Service using the C1ServicePointPhysical Business Object.</p>
C1-ServiceProviderSARelUpdate	<p>Used to update (update, create, expire) an existing Service Provider SA Relationship record.</p> <p>This component invokes the ATC1ServiceProviderSARelationship Inbound Web Service using the C1ServiceProviderSARelUpdate Business Service.</p>
C1-ServiceProviderSARelRead	<p>Used to query an existing Service Provider SA Relationship record.</p> <p>This component invokes the ATC1ServiceProviderSARelationship Inbound Web Service using the C1ServiceProviderSARelRead Business Service.</p>

Component	Description
C1-StartStopUpdate	Used to invoke the Start Stop functionality including the cancel, stop and start actions.  This component invokes the ATC1StartStop Inbound Web Service using the C1StartStopUpdate Business Service.
C1-StartStopRead	Used to read a Start Stop record.  This component invokes the ATC1StartStop Inbound Web Service using the C1StartStopRead Business Service.
C1-StatementConstructAdd	Used to create a Statement Construct record.  This component invokes the ATC1StatementConstruct Inbound Web Service using the C1StatementConstructPhysical Business Object.
C1-StatementConstructUpdate	Used to update an existing Statement Construct record.  This component invokes the ATC1StatementConstruct Inbound Web Service using the C1StatementConstructPhysical Business Object.
C1-StatementConstructDelete	Used to delete an existing Statement Construct record.  This component invokes the ATC1StatementConstruct Inbound Web Service using the C1StatementConstructPhysical Business Object.
C1-StatementConstructRead	Used to query an existing Statement Construct record.  This component invokes the ATC1StatementConstruct Inbound Web Service using the C1StatementConstructPhysical Business Object.

## Data Synchronization

Component	Description
C1-FASyncRequestRead	Used to read an FA Sync Request record.  This component invokes the ATC1FASyncRequestRead Inbound Web Service using the C1-FASyncRequest Business Object.

Component	Description
C1-GetSyncRequestId	<p>Used to get the sync request ID of a given primary key ID (for example: Premise, SP, Meter, Meter Config, etc) using a specific query zone.</p> <p>The following zones can be used:</p> <ul style="list-style-type: none"> <li>• C1-GETSPSYNC - Get Sync Request ID using SP ID</li> <li>• C1-GETPERSYN - Get Sync Request ID using Person ID</li> <li>• C1-GETMRSYNC - Get Sync Request ID using Meter Read ID</li> <li>• C1-GETMTRCFS - Get Sync Request ID using Meter Configuration ID</li> <li>• C1-GETSASYNC - Get Sync Request ID using Service Agreement ID</li> <li>• C1-GETSPMHSY - Get Sync Request ID using SP Meter History ID</li> <li>• C1-GETMTRSYN - Get Sync Request ID using Meter ID</li> <li>• C1-GETFASYNC - Get Sync Request ID using Field Activity ID</li> <li>• C1-GETSYNCRQ - Get Sync Request ID using External ID</li> </ul> <p>This component invokes the ATC1GetSyncRequestId Inbound Web Service using the C1-GetSyncRequestId Business Service.</p>
C1-MDM2MRSyncRequestRead	<p>Used to read an MDM2 Meter Read Sync Request record.</p> <p>This component invokes the ATC1MDM2MRSyncRequestRead Inbound Web Service using the C1-MDM2MRSyncRequest Business Object.</p>
C1-MDM2MtrConfigSyncReqRead	<p>Used to read an MDM2 Meter Configuration Sync Request record.</p> <p>This component invokes the ATC1MDM2MtrConfigSyncReqRead Inbound Web Service using the C1-MDM2MtrConfigSyncRequest Business Object.</p>
C1-MDM2PersonSyncRequestRead	<p>Used to read an MDM2 Person Sync Request record.</p> <p>This component invokes the ATC1MDM2PersonSyncRequestRead Inbound Web Service using the C1-MDM2PersonSyncRequest Business Object.</p>

Component	Description
C1-MDM2SASyncRequestRead	Used to read an MDM2 Service Agreement Sync Request record.  This component invokes the ATC1MDM2SASyncRequestRead Inbound Web Service using the C1-MDM2SASyncRequest Business Object.
C1-MDM2SPSyncRequestRead	Used to read an MDM2 Service Point Sync Request record.  This component invokes the ATC1MDM2SPSyncRequestRead Inbound Web Service using the C1-MDM2SPSyncRequest Business Object.
C1-MDM2SpMtrHistSyncReqRead	Used to read an MDM2 SP Meter History Sync Request record.  This component invokes the ATC1MDM2SpMtrHistSyncReqRead Inbound Web Service using the C1-MDM2SpMtrHistSyncRequest Business Object.
C1-MDM2MtrSyncRequestRead	Used to read an MDM2 Meter Sync Request record.  This component invokes the ATC1MDM2MtrSyncRequestRead Inbound Web Service using the C1-MDM2MtrSyncRequest Business Object.
C1-SyncRequestUpdate	Used to update the message of Sync Request BO. This component also transitions the BO to: <ul style="list-style-type: none"> <li>The default next state, if the message list is not populated, or</li> <li>The exception state, if message list is populated.</li> </ul> This component invokes the ATC1SyncRequestUpdate Inbound Web Service using the F1-UpdateSyncRequest Business Service.

### Field Order

Component	Description
C1-AppointmentRead	Used to read an existing Appointment record.  This component invokes the ATC1Appointment Inbound Web Service using the C1AppointmentRead Business Service.

<b>Component</b>	<b>Description</b>
C1-AppointmentUpdate	<p>Used to update an existing Appointment record.</p> <p>This component invokes the ATC1Appointment Inbound Web Service using the C1AppointmentUpdate Business Service.</p>
C1-DispatchFieldActivityRead	<p>Used to read an existing Dispatch Field Activity record.</p> <p>This component invokes the ATC1DispatchFA Inbound Web Service using the C1DispatchFARead Business Service.</p>
C1-DispatchFieldActivityUpdate	<p>Used to update an existing Dispatch Field Activity record.</p> <p>This component invokes the ATC1DispatchFA Inbound Web Service using the C1DispatchFAUpdate Business Service.</p>
C1-FAUploadStagingAdd	<p>Used to create an FA Upload Staging record.</p> <p>This component invokes the ATC1FAUploadStaging Inbound Web Service using the C1FAUploadStagingAdd Business Service.</p>
C1-FAUploadStagingRead	<p>Used to read an existing FA Upload Staging record.</p> <p>This component invokes the ATC1FAUploadStaging Inbound Web Service using the C1FAUploadStagingRead Business Service.</p>
C1-FAUploadStagingUpdate	<p>Used to update an existing FA Upload Staging record.</p> <p>This component invokes the ATC1FAUploadStaging Inbound Web Service using the C1FAUploadStagingUpdate Business Service.</p>
C1-FAUploadStagingDelete	<p>Used to delete an existing FA Upload Staging record.</p> <p>This component invokes the ATC1FAUploadStaging Inbound Web Service using the C1FAUploadStagingDelete Business Service.</p>
C1-FieldActivityAdd	<p>Used to create a Field Activity record.</p> <p>This component invokes the ATC1FieldActivity Inbound Web Service using the C1FieldActivityPhysical Business Object.</p>
C1-FieldActivityRead	<p>Used to read an existing Field Activity record.</p> <p>This component invokes the ATC1FieldActivity Inbound Web Service using the C1FieldActivityPhysical Business Object.</p>



<b>Component</b>	<b>Description</b>
C1-FieldActivityUpdate	Used to update an existing Field Activity record.  This component invokes the ATC1FieldActivity Inbound Web Service using the C1FieldActivityUpdate Business Service.
C1-FACompletionByExtSystem	Used to complete a pending Field Activity record.  This component invokes the ATC1FACompletion Inbound Web Service using the C1FACompletion Business Service.
C1-FieldOrderAdd	Used to create a Field Order record.  This component invokes the ATC1FieldOrder Inbound Web Service using the C1FieldOrderPhysical Business Object.
C1-FieldOrderRead	Used to read an existing Field Order record.  This component invokes the ATC1FieldOrder Inbound Web Service using the C1FieldOrderPhysical Business Object.
C1-FieldOrderUpdate	Used to update an existing Field Order record.  This component invokes the ATC1FieldOrder Inbound Web Service using the C1FieldOrderUpdate Business Service.

## Financial

<b>Component</b>	<b>Description</b>
C1-AdjustmentAdd	Used to adding an Adjustment record.  This component invokes the ATC1Adjustment Inbound Web Service using the C1AdjustmentAdd Business Service.
C1-AdjustmentDelete	Used to delete an Adjustment.  This component invokes the ATC1Adjustment Inbound Web Service using the C1AdjustmentDelete Business Service.
C1-AdjustmentRead	Used to read an Adjustment.  This component invokes the ATC1Adjustment Inbound Web Service using the C1AdjustmentRead Business Service.

<b>Component</b>	<b>Description</b>
C1-AdjustmentUpdate	Used to update an Adjustment record.  This component invokes the ATC1Adjustment Inbound Web Service using the C1AdjustmentUpdate Business Service.
C1-BillAdd	Used to add a Bill record.  This component invokes the ATC1Bill Inbound Web Service using the C1BillAdd Business Service.
C1-BillDelete	Used to delete a Bill record  This component invokes the ATC1Bill Inbound Web Service using the C1BillDelete Business Service.
C1-BillRead	Used to read a Bill record.  This component invokes the ATC1Bill Inbound Web Service using the C1BillRead Business Service.
C1-BillUpdate	Used to update a Bill record.  This component invokes the ATC1Bill Inbound Web Service using the C1BillUpdate Business Service.
C1-BillSegmentAdd	Used to add a Bill Segment record.  This component invokes the ATC1BillSegment Inbound Web Service using the C1BillSegmentAdd Business Service.
C1-BillSegmentRead	Used to read a Bill Segment record.  This component invokes the ATC1BillSegment Inbound Web Service using the C1BillSegmentRead Business Service.
C1-BillSegmentUpdate	Used to update a Bill Segment record.  This component invokes the ATC1BillSegment Inbound Web Service using the C1BillSegmentUpdate Business Service.
C1-BillableChargeAdd	Used to add a Billable Charge record.  This component invokes the ATC1BillableCharge Inbound Web Service using the C1BillableChargeAdd Business Service.
C1-BillableChargeRead	Used to read a Billable Charge record.  This component invokes the ATC1BillableCharge Inbound Web Service using the C1BillableChargeRead Business Service.

<b>Component</b>	<b>Description</b>
C1-BillableChargeUpdate	Used to read a Billable Charge record.  This component invokes the ATC1BillableCharge Inbound Web Service using the C1BillableChargeUpdate Business Service.
C1-DepositControlAdd	Used to add a Deposit Control record.  This component invokes the ATC1DepositControl Inbound Web Service using the C1DepositControlAdd Business Service.
C1-DepositControlRead	Used to read a Deposit Control.  This component invokes the ATC1DepositControl Inbound Web Service using the C1DepositControlRead Business Service.
C1-DepositControlUpdate	Used to update a Deposit Control record.  This component invokes the ATC1DepositControl Inbound Web Service using the C1DepositControlUpdate Business Service.
C1-FTRead	Used to read a Financial Transaction record.  This component invokes the ATC1FT Inbound Web Service using the C1FTRead Business Service.
C1-FTUpdate	Used to update a Financial Transaction record.  This component invokes the ATC1FinancialTransaction Inbound Web Service using the C1FTUpdate Business Service.
C1-MatchEventAdd	Used to add a Match Event record.  This component invokes the ATC1MatchEvent Inbound Web Service using the C1MatchEventAdd Business Service.
C1-MatchEventDelete	Used to delete a Match Event record.  This component invokes the ATC1MatchEvent Inbound Web Service using the C1MatchEventDelete Business Service.
C1-MatchEventRead	Used to read a Match Event record.  This component invokes the ATC1MatchEvent Inbound Web Service using the C1MatchEventRead Business Service.

<b>Component</b>	<b>Description</b>
C1-MatchEventUpdate	Used to update a Match Event record.  This component invokes the ATC1MatchEvent Inbound Web Service using the C1MatchEventUpdate Business Service.
C1-MultiCancelRebillRead	Used to read a Multi Cancel Rebill record.  This component invokes the ATC1MultiCancelRebill Inbound Web Service using the C1MultiCancelRebillRead Business Service.
C1-MultiCancelRebillUpdate	Used to update a Multi Cancel Rebill record.  This component invokes the ATC1MultiCancelRebill Inbound Web Service using the C1MultiCancelRebillUpdate Business Service.
C1-PaymentAdd	Used to add a Payment record.  This component invokes the ATC1Payment Inbound Web Service using the C1PaymentAdd Business Service.
C1-PaymentDelete	Used to delete a Payment.  This component invokes the ATC1Payment Inbound Web Service using the C1PaymentDelete Business Service.
C1-PaymentRead	Used to read a Payment.  This component invokes the ATC1Payment Inbound Web Service using the C1PaymentRead Business Service.
C1-PaymentUpdate	Used to update a Payment record.  This component invokes the ATC1Payment Inbound Web Service using the C1PaymentUpdate Business Service.
C1-PaymentEventAdd	Used to add a Payment Event record.  This component invokes the ATC1PaymentEvent Inbound Web Service using the C1PaymentEventAdd Business Service.
C1-PaymentEventDelete	Used to delete a Payment Event record.  This component invokes the ATC1PaymentEvent Inbound Web Service using the C1PaymentEventDelete Business Service.

<b>Component</b>	<b>Description</b>
C1-PaymentEventRead	Used to read a Payment Event record.  This component invokes the ATC1PaymentEvent Inbound Web Service using the C1PaymentEventRead Business Service.
C1-PaymentEventUpdate	Used to update a Payment Event record.  This component invokes the ATC1PaymentEvent Inbound Web Service using the C1PaymentEventUpdate Business Service.
C1-PaymentEventQuickAddAdd	Used to add a Payment Event Quick Add record.  This component invokes the ATC1PaymentEventQuickAdd Inbound Web Service using the C1PaymentEventQuickAddAdd Business Service.
C1-PaymentQuickAddAdd	Used to add a Payment Quick Add record.  This component invokes the ATC1PaymentEventQuickAdd Inbound Web Service using the C1PaymentQuickAddAdd Business Service.
C1-StatementAdd	Used to add a Statement record.  This component invokes the ATC1Statement Inbound Web Service using the C1StatementAdd Business Service.
C1-StatementDelete	Used to delete a Statement record.  This component invokes the ATC1Statement Inbound Web Service using the C1StatementDelete Business Service.
C1-StatementRead	Used to read a Statement record.  This component invokes the ATC1Statement Inbound Web Service using the C1StatementRead Business Service.
C1-StatementUpdate	Used to update a Statement record.  This component invokes the ATC1Statement Inbound Web Service using the C1StatementUpdate Business Service.
C1-TenderControlAdd	Used to add a Tender Control record.  This component invokes the ATC1TenderControl Inbound Web Service using the C1TenderControlAdd Business Service.

<b>Component</b>	<b>Description</b>
C1-TenderControlRead	Used to read a Tender Control record.  This component invokes the ATC1TenderControl Inbound Web Service using the C1TenderControlRead Business Service.
C1-TenderCtrlSearchByAllUser	Used to search an open Tender Control record.  This component invokes the ATC1TenderCtrlSearchByAllUser Inbound Web Service using the C1TenderCtrlSearchByAllUser Business Service.
C1-TenderControlUpdate	Used to update a Tender Control record.  This component invokes the ATC1TenderControl Inbound Web Service using the C1TenderControlUpdate Business Service.
C1-OffCycleBillGeneratorAdd	Used to add an Off Cycle Bill Generator record.  This component invokes the ATC1OffCycleBillGenerator Inbound Web Service using the C1OffCycleBillGenPhysical Business Object.
C1-OffCycleBillGeneratorRead	Used to read an Off Cycle Bill Generator.  This component invokes the ATC1OffCycleBillGenerator Inbound Web Service using the C1OffCycleBillGenPhysical Business Object.
C1-OffCycleBillGeneratorUpdate	Used to update an Off Cycle Bill Generator record.  This component invokes the ATC1OffCycleBillGenerator Inbound Web Service using the C1OffCycleBillGenPhysical Business Object.
C1-OffCycleBillGeneratorDelete	Used to delete an Off Cycle Bill Generator record.  This component invokes the ATC1OffCycleBillGenerator Inbound Web Service using the C1OffCycleBillGenPhysical Business Object.

## Meter

<b>Component</b>	<b>Description</b>
C1-DeviceTestAdd	Used to add a Device Test record.  This component invokes the ATC1DeviceTest Inbound Web Service using the C1DeviceTestPhysical Business Object.

<b>Component</b>	<b>Description</b>
C1-DeviceTestRead	Used to read a Device Test record.  This component invokes the ATC1DeviceTest Inbound Web Service using the C1DeviceTestPhysical Business Object.
C1-DeviceTestUpdate	Used to update a Device Test record.  This component invokes the ATC1DeviceTest Inbound Web Service using the C1DeviceTestPhysical Business Object.
C1-DeviceTestSelectionAdd	Used to add a Device Test record.  This component invokes the ATC1DeviceTestSelection Inbound Web Service using the C1DeviceTestSelectionPhysical Business Object.
C1-DeviceTestSelectionRead	Used to read a Device Test Selection record.  This component invokes the ATC1DeviceTestSelection Inbound Web Service using the C1DeviceTestSelectionPhysical Business Object.
C1-DeviceTestSelectionUpdate	Used to update a Device Test record.  This component invokes the ATC1DeviceTestSelection Inbound Web Service using the C1DeviceTestSelectionPhysical Business Object.
C1-ItemAdd	Used to add an Item record.  This component invokes the ATC1ItemPhysical Inbound Web Service using the C1ItemPhysical Business Object.
C1-ItemDelete	Used to delete an Item record.  This component invokes the ATC1ItemPhysical Inbound Web Service using the C1ItemPhysical Business Object.
C1-ItemRead	Used to read an Item record.  This component invokes the ATC1ItemPhysical Inbound Web Service using the C1ItemPhysical Business Object.
C1-ItemUpdate	Used to update an Item record.  This component invokes the ATC1ItemPhysical Inbound Web Service using the C1ItemPhysical Business Object.

<b>Component</b>	<b>Description</b>
C1-ItemReplicatorUpdate	Used to update an Item Replicator record.  This component invokes the ATC1ItemReplicator Inbound Web Service using the C1ItemReplicatorUpdate Business Service.
C1-MeterAdd	Used to add a Meter record.  This component invokes the ATC1Meter Inbound Web Service using the C1MeterPhysical Business Object.
C1-MeterDelete	Used to delete a Meter record.  This component invokes the ATC1Meter Inbound Web Service using the C1MeterPhysical Business Object.
C1-MeterRead	Used to read a Meter record.  This component invokes the ATC1Meter Inbound Web Service using the C1MeterPhysical Business Object.
C1-MeterUpdate	Used to update a Meter record.  This component invokes the ATC1Meter Inbound Web Service using the C1MeterPhysical Business Object.
C1-MeterConfigurationAdd	Used to add a Meter Configuration record.  This component invokes the ATC1MeterConfiguration Inbound Web Service using the C1MeterConfigurationPhysical Business Object.
C1-MeterConfigurationDelete	Used to delete a Meter Configuration record.  This component invokes the ATC1MeterConfiguration Inbound Web Service using the C1MeterConfigurationPhysical Business Object.
C1-MeterConfigurationRead	Used to read a Meter Configuration record.  This component invokes the ATC1MeterConfiguration Inbound Web Service using the C1MeterConfigurationPhysical Business Object.
C1-MeterConfigurationUpdate	Used to update a Meter Configuration record.  This component invokes the ATC1MeterConfiguration Inbound Web Service using the C1MeterConfigurationPhysical Business Object.



<b>Component</b>	<b>Description</b>
C1-MeterReplicatorUpdate	Used to update a Meter Replicator record.  This component invokes the ATC1MeterReplicator Inbound Web Service using the C1MeterReplicatorUpdate Business Service.
C1-ItemInstallationAdd	Used to add an Item Installation record.  This component invokes the ATC1ItemInstallation Inbound Web Service using the C1ItemInstallationAdd Business Service.
C1-ItemInstallationRead	Used to read an Item Installation record.  This component invokes the ATC1ItemInstallation Inbound Web Service using the C1ItemInstallationRead Business Service.
C1-ItemInstallationUpdate	Used to update an Item Installation record.  This component invokes the ATC1ItemInstallation Inbound Web Service using the C1ItemInstallationUpdate Business Service.
C1-SpMeterInstallationAdd	Used to add a Meter Installation record.  This component invokes the ATC1SPMeterInstallation Inbound Web Service using the C1SpMeterInstallAdd Business Service.
C1-SpMeterInstallationRead	Used to read a Meter Installation record.  This component invokes the ATC1SPMeterInstallation Inbound Web Service using the C1SpMeterInstallRead Business Service.
C1-SpMeterInstallationUpdate	Used to update a Meter Installation record.  This component invokes the ATC1SPMeterInstallation Inbound Web Service using the C1SpMeterInstallUpdate Business Service.
C1-StockLocationAdd	Used to add a Stock Location record.  This component invokes the ATC1StockLocation Inbound Web Service using the C1-StockLocationPhysicalBO Business Object.
C1-StockLocationDelete	Used to delete a Stock Location record.  This component invokes the ATC1StockLocation Inbound Web Service using the C1-StockLocationPhysicalBO Business Object.

<b>Component</b>	<b>Description</b>
C1-StockLocationRead	Used to read a Stock Location record.  This component invokes the ATC1StockLocation Inbound Web Service using the C1-StockLocationPhysicalBO Business Object.
C1-StockLocationUpdate	Used to update a Stock Location record.  This component invokes the ATC1StockLocation Inbound Web Service using the C1-StockLocationPhysicalBO Business Object.
C1-StockLocationInventoryRead	Used to read a Stock Location Inventory record.  This component invokes the ATC1StockLocInventory Inbound Web Service using the C1StockLocInventoryRead Business Service.
C1-StockLocationInventoryUpdate	Used to update a Stock Location Inventory record.  This component invokes the ATC1StockLocInventory Inbound Web Service using the C1StockLocInventoryUpdate Business Service.

## Meter Read

<b>Component</b>	<b>Description</b>
C1-ServiceRouteTransferRead	Used to read a Service Route Transfer record.  This component invokes the ATC1ServiceRouteTransfer Inbound Web Service using the C1ServiceRteTransRead Business Service.
C1-ServiceRouteTransferUpdate	Used to update a Service Route Transfer record.  This component invokes the ATC1ServiceRouteTransfer Inbound Web Service using the C1ServiceRteTransUpdate Business Service.
C1-MRUploadStagingAdd	Used to add a Meter Read Upload Staging record.  This component invokes the ATC1MRUploadStaging Inbound Web Service using the C1MRUploadStagingAdd Business Service.
C1-MRUploadStagingDelete	Used to delete a Meter Read Upload Staging record.  This component invokes the ATC1MRUploadStaging Inbound Web Service using the C1MRUploadStagingDelete Business Service.

<b>Component</b>	<b>Description</b>
C1-MRUploadStagingRead	Used to read a Meter Read Staging record.  This component invokes the ATC1MRUploadStaging Inbound Web Service using the C1MRUploadStagingRead Business Service.
C1-MRUploadStagingUpdate	Used to update a Meter Read Upload Staging record.  This component invokes the ATC1MRUploadStaging Inbound Web Service using the C1MRUploadStagingUpdate Business Service.
C1-MeterReadAdd	Used to add a Meter Read record.  This component invokes the ATC1MeterRead Inbound Web Service using the C1MeterReadPhysical Business Object.
C1-MeterReadDelete	Used to delete a Meter Read record.  This component invokes the ATC1MeterRead Inbound Web Service using the C1MeterReadPhysical Business Object.
C1-MeterReadRead	Used to read a Meter Read record.  This component invokes the ATC1MeterRead Inbound Web Service using the C1MeterReadPhysical Business Object.
C1-MeterReadUpdate	Used to update a Meter Read record.  This component invokes the ATC1MeterUpdate Inbound Web Service using the C1MeterReadPhysical Business Object.
C1-RenumberServiceRouteSeqRead	Used to read a Renumber Service Route Sequence record.  This component invokes the ATC1RenumberMRRRouteSequence Inbound Web Service using the C1RenumberMRSeqRead Business Service.
C1-RenumberServiceRouteSeqUpd	Used to update a Renumber Service Route Sequence record.  This component invokes the ATC1RenumberMRRRouteSequence Inbound Web Service using the C1RenumberMRSeqUpdate Business Service.
C1-TrendAdd	Used to add a trend record.  This component invokes the ATC1Trend Inbound Web Service using the C1TrendAdd Business Service.

Component	Description
C1-TrendRead	Used to read a trend record.  This component invokes the ATC1Trend Inbound Web Service using the C1TrendRead Business Service.
C1-TrendUpdate	Used to update a trend record.  This component invokes the ATC1Trend Inbound Web Service using the C1TrendUpdate Business Service.

## Sales and Marketing

Component	Description
C1-CampaignAdd	Used to add a Campaign record.  This component invokes the ATC1Campaign Inbound Web Service using the C1-CampaignAdd Business Service.
C1-CampaignRead	Used to read a Campaign record.  This component invokes the ATC1Campaign Inbound Web Service using the C1-CampaignRead Business Service.
C1-CampaignUpdate	Used to update a Campaign record.  This component invokes the ATC1Campaign Inbound Web Service using the C1-CampaignUpdate Business Service.
C1-CampaignDelete	Used to delete a Campaign record.  This component invokes the ATC1Campaign Inbound Web Service using the C1-CampaignDelete Business Service.
C1-LeadAccountAdd	Used to add a Lead Account record.  This component invokes the ATC1LeadAccount Inbound Web Service using the C1-LeadAccount Business Object.
C1-LeadAccountRead	Used to read a Lead Account record.  This component invokes the ATC1LeadAccount Inbound Web Service using the C1-LeadAccount Business Object.

<b>Component</b>	<b>Description</b>
C1-LeadAccountUpdate	Used to update a Lead Account record.  This component invokes the ATC1LeadAccount Inbound Web Service using the C1-LeadAccount Business Object.
C1-LeadAccountDelete	Used to delete a Lead Account record.  This component invokes the ATC1LeadAccount Inbound Web Service using the C1-LeadAccount Business Object.
C1-PackageAdd	Used to add a Package record.  This component invokes the ATC1PackageBS Inbound Web Service using the C1-PackageAdd Business Service.
C1-PackageRead	Used to read a Package record.  This component invokes the ATC1Package Inbound Web Service using the C1-PackagePhysical Business Object.
C1-PackageUpdate	Used to update a Package record.  This component invokes the ATC1PackageBS Inbound Web Service using the C1-PackagePhysical Business Service.
C1-PackageDelete	Used to delete a Package record.  This component invokes the ATC1Package Inbound Web Service using the C1-PackagePhysical Business Object.
C1-ThirdPartyRepAdd	Used to add a Third Party Representative record.  This component invokes the ATC1ThirdPartyRep Inbound Web Service using the C1-ThirdPartyRepresentative Business Object.
C1-ThirdPartyRepRead	Used to read a Third Party Representative record.  This component invokes the ATC1ThirdPartyRep Inbound Web Service using the C1-ThirdPartyRepresentative Business Object.
C1-ThirdPartyRepUpdate	Used to update a Third Party Representative record.  This component invokes the ATC1ThirdPartyRep Inbound Web Service using the C1-ThirdPartyRepresentative Business Object.

<b>Component</b>	<b>Description</b>
C1-ThirdPartyRepDelete	<p>Used to delete a Third Party Representative record.</p> <p>This component invokes the ATC1ThirdPartyRep Inbound Web Service using the C1-ThirdPartyRepresentative Business Object.</p>
C1-SalesRepIndividualAdd	<p>Used to add an Individual Sales Representative record.</p> <p>This component invokes the ATC1SalesRepIndividual Inbound Web Service using the C1-SRpInPost Service Script.</p>
C1-SalesRepIndividualRead	<p>Used to read an Individual Sales Representative record.</p> <p>This component invokes the ATC1SalesRepIndividualRead Inbound Web Service using the C1-SRInd Service Script.</p>
C1-SalesRepIndividualUpdate	<p>Used to update an Individual Sales Representative record.</p> <p>This component invokes the ATC1SalesRepIndividual Inbound Web Service using the C1-SRpInPost Service Script.</p>
C1-SalesRepIndividualDelete	<p>Used to delete an Individual Sales Representative record.</p> <p>This component invokes the ATC1SalesRepIndividual Inbound Web Service using the C1-SRpInPost Service Script.</p>
C1-SalesRepGroupAdd	<p>Used to add a Group Sales Representative record.</p> <p>This component invokes the ATC1SalesRepGroup Inbound Web Service using the C1-SalesRepGroup Business Object.</p>
C1-SalesRepGroupRead	<p>Used to read a Group Sales Representative record.</p> <p>This component invokes the ATC1SalesRepGroup Inbound Web Service using the C1-SalesRepGroup Business Object.</p>
C1-SalesRepGroupUpdate	<p>Used to update an Individual Sales Representative record.</p> <p>This component invokes the ATC1SalesRepGroup Inbound Web Service using the C1-SalesRepGroup Business Object.</p>

<b>Component</b>	<b>Description</b>
C1-SalesRepGroupDelete	Used to delete an Individual Sales Representative record.  This component invokes the ATC1SalesRepIndividual Inbound Web Service using the C1-SalesRepGroup Business Object.
C1-SalesRepLogsRead	Used to read a Sales Representative Log record.  This component invokes the ATC1SalesRepLogs Inbound Web Service using the C1-SalesRepLogs Business Object.
C1-SalesRepLogsAdd	Used to add a Sales Representative Log record.  This component invokes the ATC1SalesRepLogs Inbound Web Service using the C1-SalesRepLogs Business Object.
C1-CampaignInitiativeAdd	Used to add a Campaign Initiative record.  This component invokes the ATC1CampaignInitiative Inbound Web Service using the C1-InitiativeService Business Object.
C1-CampaignInitiativeRead	Used to read a Campaign Initiative record.  This component invokes the ATC1CampaignInitiative Inbound Web Service using the C1-InitiativeService Business Object.
C1-CampaignInitiativeUpdate	Used to update a Campaign Initiative record.  This component invokes the ATC1CampaignInitiative Inbound Web Service using the C1-InitiativeService Business Object.
C1-CampaignInitiativeDelete	Used to delete a Campaign Initiative record.  This component invokes the ATC1CampaignInitiative Inbound Web Service using the C1-InitiativeService Business Object.
C1-ContractOptInitiativeAdd	Used to add a Contract Option Initiative record.  This component invokes the ATC1ContractOptInitiative Inbound Web Service using the C1-InitiativeService Business Object.
C1-ContractOptInitiativeRead	Used to read a Contract Option Initiative record.  This component invokes the ATC1ContractOptInitiative Inbound Web Service using the C1-InitiativeService Business Object.

<b>Component</b>	<b>Description</b>
C1-ContractOptInitiativeUpdate	Used to update a Contract Option Initiative record.  This component invokes the ATC1ContractOptInitiative Inbound Web Service using the C1-InitiativeService Business Object.
C1-ContractOptInitiativeDelete	Used to delete a Contract Option Initiative record.  This component invokes the ATC1ContractOptInitiative Inbound Web Service using the C1-InitiativeService Business Object.
C1-ConservationInitiativeAdd	Used to add a Conservation Initiative record.  This component invokes the ATC1ConservationInitiative Inbound Web Service using the C1-InitiativeConservationProg Business Object.
C1-ConservationInitiativeRead	Used to read a Conservation Initiative record.  This component invokes the ATC1ConservationInitiative Inbound Web Service using the C1-InitiativeConservationProg Business Object.
C1-ConservationInitiativeUpd	Used to update a Conservation Initiative record.  This component invokes the ATC1ConservationInitiative Inbound Web Service using the C1-InitiativeConservationProg Business Object.
C1-ConservationInitiativeDel	Used to delete a Conservation Initiative record.  This component invokes the ATC1ConservationInitiative Inbound Web Service using the C1-InitiativeConservationProg Business Object.
C1-InitiativeLogsRead	Used to read an Initiative Log record.  This component invokes the ATC1InitiativeLogs Inbound Web Service using the C1-InitiativeLogs Business Object.
C1-InitiativeLogsAdd	Used to add an Initiative Log record.  This component invokes the ATC1InitiativeLogs Inbound Web Service using the C1-InitiativeLogs Business Object.



Component	Description
C1-MyLeads	<p>Used to get the representative link to the user. This component also retrieves all group representatives linked to the representative.</p> <p>This component invokes the ATC1MyLead Inbound Web Service using the C1-MyLead Service Script.</p>
C1-LeadQuery	<p>Used to get the lead details depending on the search group used, by filling up the correct schema group.</p> <p>This component invokes the ATC1LeadQuery Inbound Web Service using the C1-LeadQuery Business Service.</p>
C1-InitiativeQuery	<p>Used to get the initiative details based on the C1-INTVQ1 zone.</p> <p>This component invokes the ATC1InitiativeQuery Inbound Web Service using the C1-InitiativeQuery Business Service.</p>
C1-LeadAdd	<p>Used to create a Lead record.</p> <p>This component invokes the ATC1Lead Inbound Web Service using the C1LeadPhysical Business Object.</p>
C1-LeadRead	<p>Used to read an existing Lead record.</p> <p>This component invokes the ATC1Lead Inbound Web Service using the C1LeadPhysical Business Object.</p>
C1-LeadUpdate	<p>Used to update an existing Lead record.</p> <p>This component invokes the ATC1Lead Inbound Web Service using the C1LeadPhysical Business Object.</p>
C1-LeadDelete	<p>Used to delete an existing Lead record.</p> <p>This component invokes the ATC1Lead Inbound Web Service using the C1LeadPhysical Business Object.</p>
C1-LeadEventAdd	<p>Used to create a Lead Event record.</p> <p>This component invokes the ATC1LeadEvent Inbound Web Service using the C1LeadEventPhysical Business Object.</p>
C1-LeadEventRead	<p>Used to read an existing Lead Event record.</p> <p>This component invokes the ATC1LeadEvent Inbound Web Service using the C1LeadEventPhysical Business Object.</p>

<b>Component</b>	<b>Description</b>
C1-LeadEventUpdate	Used to update an existing Lead Event record.  This component invokes the ATC1LeadEvent Inbound Web Service using the C1LeadEventPhysical Business Object.
C1-OrderAdd	Used to create an Order record.  This component invokes the ATC1Order Inbound Web Service using the C1OrderAdd Business Service.
C1-OrderRead	Used to read an existing Order record.  This component invokes the ATC1Order Inbound Web Service using the C1OrderRead Business Service.
C1-OrderUpdate	Used to update an existing Order record.  This component invokes the ATC1Order Inbound Web Service using the C1OrderUpdate Business Service.
C1-QuoteAdd	Used to create a Quote record.  This component invokes the ATC1Quote Inbound Web Service using the C1QuoteAdd Business Service.
C1-QuoteRead	Used to read an existing Quote record.  This component invokes the ATC1Quote Inbound Web Service using the C1QuoteRead Business Service.
C1-QuoteUpdate	Used to update an existing Quote record.  This component invokes the ATC1Quote Inbound Web Service using the C1QuoteUpdate Business Service.
C1-QuoteDelete	Used to delete an existing Quote record.  This component invokes the ATC1Quote Inbound Web Service using the C1QuoteDelete Business Service.

## Usage

Component	Description
C1-GetUsageId	Used to get the usage request ID of given a person name.  This component invokes the ATC1GetUsageId Inbound Web Service using the C1-GetUsageId Business Service.
C1-UsageReqCyclicalBillingRead	Used to read an Usage Request Cyclical Billing record.  This component invokes the ATC1UsageReqCyclicalBillingRead Inbound Web Service using the C1-UsageRequestCyclicalBilling Business Object.

## Umbrella Agreement Management

Component	Description
C1-UmbrellaAgreementAdd	Used to create an Umbrella Agreement record.  This component invokes the ATC1UmbrellaAgreement Inbound Web Service using the C1UmbrellaAgreementPhysical Business Object.
C1-UmbrellaAgreementRead	Used to read an existing Umbrella Agreement record.  This component invokes the ATC1UmbrellaAgreement Inbound Web Service using the C1UmbrellaAgreementPhysical Business Object.
C1-UmbrellaAgreementUpdate	Used to update an existing Umbrella Agreement record.  This component invokes the ATC1UmbrellaAgreement Inbound Web Service using the C1UmbrellaAgreementUpdate Business Service.
C1-UmbrellaAgreementDelete	Used to delete an existing Umbrella Agreement record.  This component invokes the ATC1UmbrellaAgreement Inbound Web Service using the C1UmbrellaAgreementPhysical Business Object.

---

<b>Component</b>	<b>Description</b>
C1-TermsOfServiceAdd	Used to create a Terms of Service record.  This component invokes the ATC1TermsOfService Inbound Web Service using the C1TermsOfServicePhysical Business Object.
C1-TermsOfServiceRead	Used to read an existing Terms of Service record.  This component invokes the ATC1TermsOfService Inbound Web Service using the C1TermsOfServicePhysical Business Object.
C1-TermsOfServiceUpdate	Used to update an existing Terms of Service record.  This component invokes the ATC1TermsOfService Inbound Web Service using the C1TermsOfServiceUpdate Business Service.
C1-TermsOfServiceDelete	Used to delete an existing Terms of Service record.  This component invokes the ATC1TermsOfService Inbound Web Service using the C1TermsOfServicePhysical Business Object.

---

# Chapter 2

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## Function Library Reference

This chapter lists the Oracle Utilities Customer Care and Billing function library [OUCCBLIB](#) and the functions available to create components and flows in Oracle Flow Builder for testing the Oracle Utilities Customer Care and Billing application.

### OUCCBLIB

The OUCCBLIB library is a collection of actions, such as getting the element value in a XML or generating random number on a given string prefixes or suffix. This section provides a list of functions included in the library, along with their usage details.

#### **verificationPoint**

Checks if the actual result is the same with the expected result.

```
verificationPoint(String testTitle, String actualResult, String  
expectedResult, String testType)
```

@param testTitle - Test title

@param actualResult - Actual Result

@param expectedResult - Expected Result

@param testType - Signify what type of test is to be performed.

@ValidTestTypeValue "WildCard" - Wild card, "Exact" - Exact match,  
"Contains" - Actual value contains the expected result

#### **Example:**

```
verificationPoint("Verify if Generate switch is  
disabled", sGenerateSW, "false", "Exact");  
verificationPoint("Verify if CIS Division is  
populated", sCisDivision, "*", "WildCard");
```

```
verificationPoint("Verify the correct Create Date/Time", sCreateDttm,  
pst.format(currentDt), "Contains");
```

Input Parameters: String, String, String, String

## editElementValue

Edits the value of a given element. This function is significant when trying to edit CLOB fields in a SOAP request.

```
editElementValue(String child, String subchild, String value)
```

@param child - element header of the soap response. This can be the root element

@param subchild - element of the child or sub child

@param value - new value to be supplied

@return edited XML

### Example:

```
String strSOAP =
"<businessObjectDataArea>
  <environmentURL>http://www.sample.com</environmentURL>
  <emailBody>
    <messageCategory>11118</messageCategory>
    <messageNumber>12012</messageNumber>
  </emailBody>
</businessObjectDataArea>"

System.out.println(editElementValue("businessObjectDataArea", "environm
entURL", "www.oracle.com"));
}
```

### Output:

```
<businessObjectDataArea>
  <environmentURL>www.oracle.com</environmentURL>
  <emailBody>
    <messageCategory>11118</messageCategory>
    <messageNumber>12012</messageNumber>
  </emailBody>
</businessObjectDataArea>
```

Input Parameters: String, String, String

Return Type: String[]

## getElementValue

Gets the value of an element.

```
getElementValue(String sElement, String sSubElement)
```

@param sElement - group or list element name

@param sSubElement - element name under the group or list.

@return return a single element value. Returns "null value" if tag is missing.

### Example:

```
<faInfo><faId>557162971576</faId></faInfo>
System.out.println("FA ID = " +getElementValue("faInfo", "faId"));
```

### Output:

```
FA ID = 557162971576
Input Parameters: String, String
Return Type: String
```

## getElementValueByIndex

Gets the value of an element in a list.

```
getElementValueByIndex(String sElement, String sSubElement, String
sIndex)
```

@param sElement - group or list element name

@param sSubElement - element name under the group or list.

@param index - Record position. 1 for the first record, 2 for the second. Etc..

@return return a single element value. Returns "null value" if tag is missing.

### Example:

```
<spUsagePeriods>
<serviceQty><seq>1</seq><qty>1317.000000</qty></serviceQty>
<serviceQty><seq>2</seq><qty>659.000000</qty></serviceQty>
</spUsagePeriods>
System.out.println("Quantity:" + getElementValueByIndex("serviceQty",
"qty", 2));
```

### Output:

```
Quantity: 659.00000
Input Parameters: String, String, String
Return Type: String[]
```

## setPropertyVariable

Populate c1Variables.properties. This function writes a temporary variable with key, value combination. If the key exists, it updates the value. If the key does not exist, it writes both the key and value. The value of the key can be retrieved by using the getPropertyVariable.

```
setPropertyVariable(String field, String value)
```

@param field - variable name

@param value - value

### Example:

```
setPropertyVariable("PersonName", "Brazil,Mark");
Input Parameters: String, String
Return Type: None
```

**Note:** To check the properties see directory outsp-function-libs\CCB (For Example: C:\OATSOU\outsp-function-libs\CCB).

## getPropertyVariable

Gets the value of the key from c1Variables.properties. To use this function, c1Variables.properties and the selected key should exist.

```
getPropertyVariable(String field)
```

@param field - Value of the field that is to be retrieved (field should exist on the property file)

### Example:

```
Variable.properties's AdjId=409779332582
String sAdjId = getPropertyVariable("AdjId");
info("Adj Id :"+sAdjId);
```

Input Parameters: String  
Return Type: String

**Note:** To check the properties see directory outsp-function-libs\CCB (e.g. C:\OATSOU\outsp-function-libs\CCB).

### autoFormatInput

Auto formats a given input string. For date conversion use the convertDateTimeFormat function.

```
autoFormatInput(String unformattedString, String format)
```

@param unformattedString - Raw Format

@param format - Desired Format

#### Example:

```
//Auto generated random number to conform with SSN format
autoFormatInput("521326648","999-99-9999");
```

Output: 521-32-6648  
Input Parameters: String  
Return Type: String

### addDayMonthOrYear

Adds 'N' number of day, month, or year to a particular date and format.

```
addDayMonthOrYear(String sDate, String sDateFormat, String sMonth,
String sDay, String sYear)
```

@param sDate - Base date to be manipulated

@param sDateFormat - Define the format of sDate. (y = year, M = month, d = day, H = hours, m = minute, s = seconds)

@param sMonth - Number of months to be added

@param sDay - Number of days to be added

@param sYear - Number of year to be added

#### Example:

```
//Add one day to 01-01-2001
addDayMonthOrYear("01-01-2001", "MM-dd-yyyy", "0", "1", "0");
```

Input Parameters: String, String, String, String, String  
Return Type: String

### subtractDayMonthOrYear

Subtracts the number of days, months, or year to a particular date and format.

```
subtractDayMonthOrYear(String sDate, String sDateFormat, String
sMonth, String sDay, String sYear)
```

@param sDate - Base date to be manipulated

@param sDateFormat - Format of sDate. (y = year, M = month, d = day, H = hours, m = minute, s = seconds)

@param sMonth - Number of months to be subtracted



@param sDay - Number of days to be subtracted

@param sYear - Number of year to be subtracted

**Example:**

```
//Subtract one day to 01-01-2001
subtractDayMonthOrYear("01-01-2001", "MM-dd-yyyy", "0", "1", "0");
```

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

Return Type: String

## randomNumber

Generates random number of a given length.

```
randomNumber(String sLengthOfRandomNbr)
```

@param sLengthOfRandomNbr - desired length of the random number

**Example:**

```
randomNumber ("5");
```

**Output:**

53293

Input Parameters: String

Return Type: String

## addRandomNbrAsPrefix

Generates a random number of a given length to a prefix.

```
addRandomNbrAsPrefix(String sLengthOfRandomNbr,String sField)
```

@param sLengthOfRandomNbr - Number of Random Numbers to be generated.

@param sField - A prefix field

**Example:**

```
String strField = " Test Street"
info(addRandomNbrAsPrefix("5",strField);
```

**Output:**

99011 Test Street

Input Parameters: String

Return Type: String

## addRandomNbrAsSuffix

Generates random number of a given length to a suffix.

```
addRandomNbrAsSuffix(String sLengthOfRandomNbr,String sField)
```

@param sLengthOfRandomNbr - Length of Random Numbers to be generated.

@param sField - A suffix field

**Example:**

```
String strField = "E-TEST-"
info(addRandomNbrAsSuffix("5",strField);
```

**Output:**

```
E-TEST-52697
Input Parameters: String
Return Type: String
```

**addBusinessDate**

Adds 'N' number of business days on a given date. This does not include holidays, rest day is defaulted to Saturday and Sunday.

```
addBusinessDate(String startDate, String format, String
noOfBusinessDays)
```

@param startDate - Base date to be incremented

@param format - startDate format. (y = year, M = month, d = day, H = hours, m = minute, s = seconds)

@param noOfBusinessDays - Number of business days to be added

**Example:**

```
06-07-2013 (Fri) + 3 Business days = 06-12-2013
System.out.println(addBusinessDate("06-03-2013", "MM-dd-yyyy", 3))
```

**Output:**

```
06-12-2013
Input Parameters: String,String,String
Return Type: String
```

**currentDateTimeZone**

Gets current time to of a given time zone.

```
currentDateTimeZone(String sDateTimeFormat, String sTimeZone)
```

@param sTimeZone - Time zone to be used. (e.g PST, GMT)

@param sDateTimeFormat - New Format of the string.

@sDateTimeFormat y = year, M = month, d = day, H = hours, m = minute, s = seconds

**Example:**

```
currentDateTimeZone("yyyy-MM-dd", "GMT");
```

**Output:**

```
2013-03-01
Input Parameters: String,String
Return Type: String
```

**ignoreHttpError**

Ignores errors received by the system.

For example: System tags the test as “Pass” even if the response has an error. This function is usually used in negative testing.

**Note:** When an error code is ignored, it is ignored throughout the script execution. To report an error, use [reportHttpError](#) and use the same error code.

```
ignoreHttpError(String errorCode)
```

@parm errorCode - Error code which the system should ignore the reporting.

---

Following are the valid values:

- ERR\_ZERO\_LENGTH\_DOWNLOAD
- ERR\_MATCH\_ERROR
- ERR\_RESPONSE\_TIME\_ERROR
- ERR\_SOLVE\_ERROR
- ERR\_HTML\_PARSING\_ERROR
- ERR\_INTERNET\_INVALID\_URL
- ERR\_INVALID\_HTTP\_RESPONSE\_CODE
- ERR\_KEYSTORE\_LOAD\_ERROR

### **reportHttpError**

Reports errors received by the system.

**Note:** This function is used only when the user previously ignored a specific error code.

```
reportHttpError(String errorCode)
```

@param errorCode - Error code which the system should report.

Following are the valid values:

- ERR\_ZERO\_LENGTH\_DOWNLOAD
- ERR\_MATCH\_ERROR
- ERR\_RESPONSE\_TIME\_ERROR
- ERR\_SOLVE\_ERROR
- ERR\_HTML\_PARSING\_ERROR
- ERR\_INTERNET\_INVALID\_URL
- ERR\_INVALID\_HTTP\_RESPONSE\_CODE
- ERR\_KEYSTORE\_LOAD\_ERROR

# Chapter 3

---

## Sample Work Flows

This chapter describes the Oracle Utilities Customer Care and Billing sample flows that illustrate common use cases for Oracle Utilities Customer Care and Billing. It also explains the procedure to execute these sample flows.

The chapter includes the following sections:

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

### Sample Flows

The sample flows delivered as part of Oracle Functional Testing Advanced Pack for Oracle Utilities for Oracle Utilities Customer Care and Billing 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 demo data, giving the user the ability to deploy Oracle Functional Testing Advanced Pack for Oracle Utilities for Oracle Utilities Customer Care and Billing and execute the sample flows immediately. The flows perform a part of the basic sanity testing required to certify that the Oracle Utilities Customer Care and Billing environment has been set up appropriately.

This section includes the following sample work flows:

- [CreatePremiseAndAccount Flow](#)
- [StartService Flow](#)
- [CreateBill Flow](#)
- [CreatePaymentEvent Flow](#)
- [StopService Flow](#)
- [EndToEndStartService Flow](#)

### CreatePremiseAndAccount Flow

The CreatePremiseAndAccount flow creates a Premise, Service Point, Person, and Account, collectively referred to as 'V' objects.

An additional component that sends the execution results is provided to notify the user of the test results via an email.

The following table lists the tasks in this flow and their respective components in Oracle Utilities Customer Care and Billing:

<b>Task</b>	<b>CCB Component</b>
Customer Information	C1-PremiseAdd
Customer Information	C1-ServicePointAdd
Customer Information	C1-PersonAdd
Customer Information	C1-AccountAdd
Admin Setup (OUAF)	F1-SendResultsMail

## StartService Flow

The StartService flow creates a meter/meter configuration, meter read, pending start SA, and completion of the start service FA before the SA is activated.

An additional component that sends the execution results is provided to notify the user of the test results via an email.

The following table lists the tasks in this flow and their respective components in Oracle Utilities Customer Care and Billing:

<b>Task</b>	<b>CCB Component</b>
Meter	C1-MeterAdd
Meter	C1-MeterConfigurationAdd
Meter Read	C1-MeterReadAdd
Customer Information	C1-StartStopUpdate
Field Order	C1-FACompletionByExtSystem
Customer Information	C1-ServiceAgreementUpdate
Admin Setup (OUAF)	F1-SendResultsMail

## CreateBill Flow

The CreateBill flow generates, freezes, and completes a bill. It uses the C1-BillAdd and C1-BillUpdate components, and an additional F1-SendResultsMail component to be able to notify the user of the test results via an email.

The following table lists the tasks in this flow and their respective components in Oracle Utilities Customer Care and Billing:

<b>Task</b>	<b>CCB Component</b>
Financial	C1-BillAdd
Financial	C1-BillUpdate
Admin Setup (OUAF)	F1-SendResultsMail

## CreatePaymentEvent Flow

The CreatePaymentEvent flow creates a Payment Event, and then distributes and freezes the payments.

The flow uses C1-TenderCtrlSearchByAllUser, C1-PaymentEventAdd, and C1-PaymentEventUpdate components, and an additional F1-SendResultsMail component to be able to notify the user of the test results via an email.

The following table lists the tasks in this flow and their respective components in Oracle Utilities Customer Care and Billing:

Task	CCB Component
Financial	C1-TenderCtrlSearchByAllUser
Financial	C1-PaymentEventAdd
Financial	C1-PaymentEventUpdate
Financial	C1-PaymentEventUpdate
Admin Setup (OUAF)	F1-SendResultsMail

## StopService Flow

The StopService flow initiates a 'stop service' request. As part of the full 'stop service' flow, steps for creating a final meter read and completion of the stop service FA are included.

An additional component that sends the execution results is provided to notify the user of the test results via an email.

The following table lists the tasks in this flow and their respective components in Oracle Utilities Customer Care and Billing:

Task	CCB Component
Customer Information	C1-StartStopUpdate
Field Order	C1-FACompletionByExtSystem
Customer Information	C1-ServiceAgreementUpdate
Admin Setup (OUAF)	F1-SendResultsMail

## EndToEndStartService Flow

The EndToEndStartService flow creates a Premise, Service Point, Person, and Account, collectively referred to as "V" objects. It also creates a Meter, Meter Configuration, and Meter Read, and starts a Service Agreement. All Pending Field Activity created by start/stop are also completed before activating the Service Agreement.

An additional component that sends the execution results is provided to notify the user of the test results via an email.

Task	CCB Component
Customer Information	C1-PremiseAdd
Customer Information	C1-ServicePointAdd
Customer Information	C1-PersonAdd

Task	CCB Component
Customer Information	C1-AccountAdd
Meter	C1-MeterAdd
Meter	C1-MeterConfigurationAdd
Meter Read	C1-MeterReadAdd
Customer Information	C1-StartStopUpdate
Field Order	C1-FACompletionByExtSystem
Customer Information	C1-ServiceAgreementUpdate
Admin Setup (OUAF)	F1-SendResultsMail

## 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 Customer Care and Billing v2.5.0.2 is up and running with the demo data pack.
- OpenScript is installed in the local machine. Refer to *Oracle Functional Testing Advanced Pack for Oracle Utilities Installation and Administration Guide* for version details.
- Oracle Utilities Customer Care and Billing is installed and repository/directory is setup in the local machine appropriately. Refer to *Oracle Functional Testing Advanced Pack for Oracle Utilities Installation and Administration Guide* for more details.

### Setting Up Sample Flows

To setup a sample flow, follow these steps:

1. Login to Oracle Utilities Customer Care and Billing.
2. Import the Inbound Web Services into the Oracle Utilities Customer Care and Billing application where the scenarios need to be executed.  
  
See **Importing Inbound Web Services** in the *Oracle Functional Testing Advanced Pack for Oracle Utilities User's Guide* for steps to import the Inbound Web Services.
3. Navigate to **Admin > B > Bundle Import > Add**.
4. Enter the **External Reference**, **Detailed Description**, and **Bundle Details** from the IWS Bundle Export Dump.
5. Click **Save** and then click **Apply bundle**.
6. Launch OpenScript in the local machine and perform the following steps:
  - a. Navigate to **View > OpenScript Preferences**.
  - b. In the left tree, select **OpenScript**. In the sub tree, select **Playback**, and then select **Error Recovery**.

- c. Click **SetAll** and select **Report Error and Continue**.
  - d. Click **Apply**, and then click **Close**.
7. Configure the **configuration.properties** file as follows:
- a. Provide the application URL for the parameter:
 

```
gStrApplicationURL = http\://<%serverName%>\:<%portNumber%>/
ouaf
```
  - 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:\OATSOUCCB_DEMO\OUTSP\Logs\

gStrXSDFiles=<%XSD Folder path%>
Example: C:\OATSOUCCB_DEMO\OUTSP\Logs\
```
9. Create two folders (CCB and Core) in the outsp-function-libs folder in the Oracle Application Testing Suite repository directory. Copy the function libraries to the respective folders.
- CCB
    - OUCCBLIB
  - Core
    - OUTSPCORELIB
    - WSCOMMONLIB
    - WSVALIDATELIB
10. Copy all .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 Customer Care and Billing 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 **Setting Up Inbound Web Services** in *Oracle Functional Testing Advanced Pack for Oracle Utilities User's Guide*.

### List of Inbound Web Services

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

- ATC1Account
- ATC1AccountBS
- ATC1Adjustment
- ATC1Appointment
- ATC1Bill
- ATC1BillSegment
- ATC1BillableCharge
- ATC1Case
- ATC1Campaign
- ATC1CampaignInitiative
- ATC1CollectionAgencyReferral
- ATC1CollectionProcess
- ATC1ConservationInitiative
- ATC1ContractOption
- ATC1ContractOptInitiative
- ATC1CustomerContact
- ATC1CutProcess
- ATC1Declaration
- ATC1DepositControl
- ATC1DeviceTest
- ATC1DeviceTestSelection

- ATC1DispatchFA
- ATC1FACompletion
- ATC1FASyncRequestRead
- ATC1FAUploadStaging
- ATC1FieldActivity
- ATC1FieldOrder
- ATC1FT
- ATC1GetSyncRequestId
- ATC1GetUsageId
- ATC1IdentifierType
- ATC1InitiativeLogs
- ATC1InitiativeQuery
- ATC1Item
- ATC1ItemInstallation
- ATC1ItemReplicator
- ATC1LandlordAgreement
- ATC1Lead
- ATC1LeadEvent
- ATC1LeadQuery
- ATC1Loan
- ATC1MRUploadStaging
- ATC1MatchEvent
- ATC1MDM2PersonSyncRequestRead
- ATC1MDM2MRSyncRequestRead
- ATC1MDM2MtrConfigSyncReqRead
- ATC1MDM2SASyncRequestRead
- ATC1MDM2SPSyncRequestRead
- ATC1MDM2SpMtrHistSyncReqRead
- ATC1MDM2MtrSyncRequestRead
- ATC1Meter
- ATC1MeterConfiguration
- ATC1MeterRead
- ATC1MeterReplicator
- ATC1MultiCancelRebill
- ATC1MyLead
- ATC1NonBilledBudget
- ATC1NotificationType
- ATC1NtfContactPreference

- ATC1OffCycleBillGenerator
- ATC1Order
- ATC1OverdueProcess
- ATC1Package
- ATC1PackageBS
- ATC1PayArrangement
- ATC1PayPlan
- ATC1Payment
- ATC1PayArrangeByBill
- ATC1PaymentEvent
- ATC1PaymentEventQuickAdd
- ATC1PaymentQuickAdd
- ATC1Person
- ATC1PersonBS
- ATC1PersonContact
- ATC1PersonContactType
- ATC1Premise
- ATC1PremiseManagement
- ATC1PremiseReplicator
- ATC1PushNotificationOptOut
- ATC1Quote
- ATC1RebateClaim
- ATC1RebateClaimLine
- ATC1RebateClaimLogs
- ATC1RenumberMRRRouteSequence
- ATC1SARelationship
- ATC1SaleRepGroup
- ATC1SalesRepIndividual
- ATC1SalesRepIndividualRead
- ATC1SalesRepLogs
- ATC1SPMeterInstallation
- ATC1ServiceAgreement
- ATC1ServiceAgreementUpdate
- ATC1ServiceCreditEvent
- ATC1ServiceCreditMembership
- ATC1ServicePoint
- ATC1ServiceProviderSARelationship
- ATC1ServiceRteTransfer

- ATC1SeveranceProcess
- ATC1StartStop
- ATC1Statement
- ATC1StatementConstruct
- ATC1StockLocation
- ATC1StockLocationInventory
- ATC1SyncRequestUpdate
- ATC1TenderControl
- ATC1TenderCtrlSearchByAllUser
- ATC1TermsOfService
- ATC1ThirdPartyRep
- ATC1Trend
- ATC1UmbrellaAgreement
- ATC1UsageReqCyclicalBilling
- ATC1UsageRequestTransition
- ATC1WriteOff
- ATC1WriteOffProcess
- ATC1SaleRepGroup
- ATC1RebateClaimLogs
- ATC1LeadAccount

# Appendix B

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## Identifying Fields For a Web Service Request

The requisite fields need to be filled up with data in order to map the value on a given schema. For example: When a person is added online, only the field description is shown, but the exact field mapping is hidden from the user.

Following are the methods you can use to identify fields for a web service request and add data in those fields:

- [Debug Mode in the Application](#)
- [IE Development Tool Bar](#)
- [SOAP UI](#)

### Debug Mode in the Application

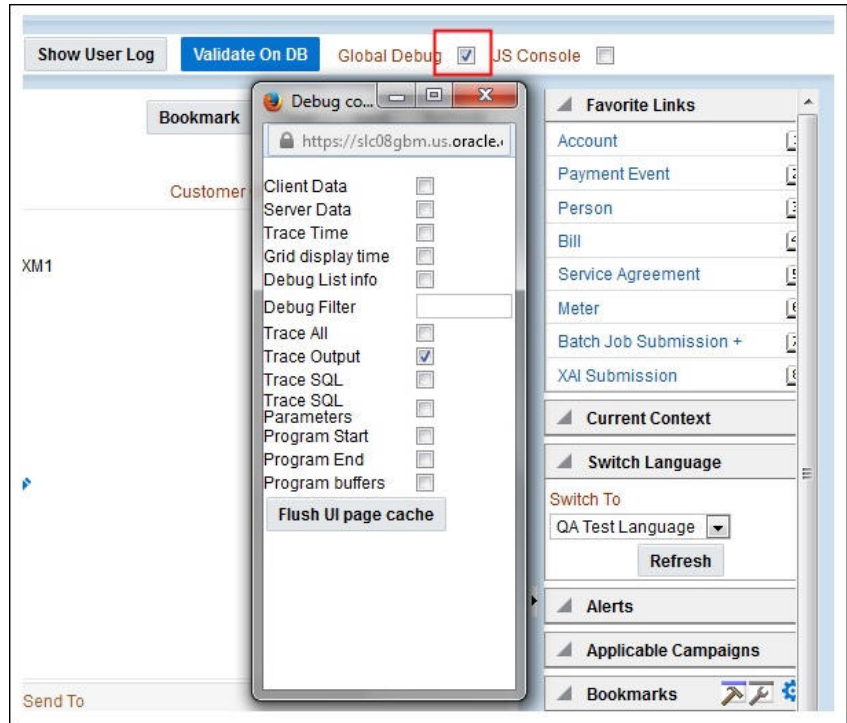
The debug mode enables users to check the field mapping on a given maintenance page. This is actually the easiest among the different possible ways; however some clients may have system restriction (such as access restriction) on using debug mode.

To enter test data in the requisite fields using the debug method, follow these steps:

1. Log in to the Oracle Utilities Customer Care and Billing application in the 'debug' mode.

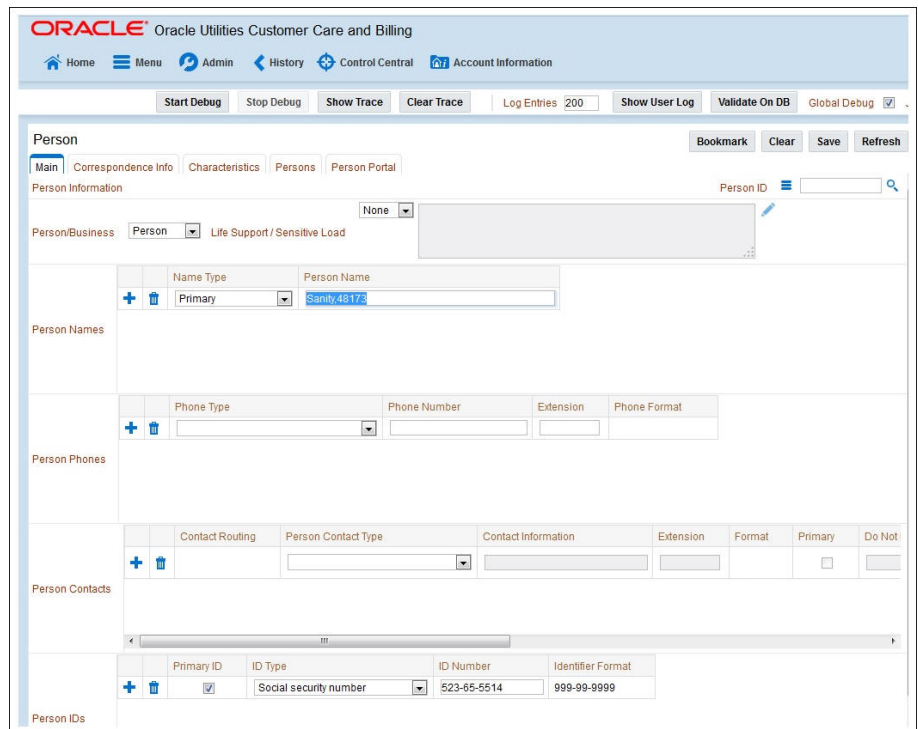


2. Before clicking the Debug mode switch ensure to navigate first to the target page. For example: Person maintenance page



3. Perform the required action. Then, click **Save**.

For example: The figure below shows adding a person (person name, person phone, person contacts, Person IDs, etc)



The schema window showing the populated values is displayed.

```

https://slc08gbm.us.oracle.com:10701/ouaf/cisMain.jsp?language=ENG
<field name="IN_CITY_LIM_LBL">In City Limit</field>
<field name="GEO_CODE_LBL">Geographic Code</field>
<list name="PER_IDENTIFIER">
  <listHeader>
    <field name="PER_ID"></field>
    <field name="LAST_ID_TYPE_CD"></field>
    <field name="moreRows">false</field>
    <field name="remainingRows">0</field>
    <field name="lastInfo"></field>
  </listHeader>
  <listBody action="A">
    <field name="PER_ID"></field>
    <field name="ID_TYPE_CD">SSN</field>
    <field name="PER_ID_NBR">523-65-5514</field>
    <field name="PRIM_SW">>true</field>
    <field name="VERSION">0</field>
    <field name="ENCR_PER_ID_NBR"></field>
    <field name="HASH_PER_ID_NBR"></field>
    <field name="IDENTIFIER_FMT">999-99-9999</field>
  </listBody>
</list>
<list name="PER_NAME">
  <listHeader>
    <field name="PER_ID"></field>
    <field name="LAST_SEQ_NUM">0</field>
    <field name="moreRows">false</field>
    <field name="remainingRows">0</field>
    <field name="lastInfo"></field>
  </listHeader>
  <listBody action="A">
    <field name="ENTITY_NAME_UPR"></field>
    <field name="PER_ID"></field>
    <field name="SEQ_NUM">0</field>
    <field name="ENTITY_NAME">Sanity, 48173</field>
    <field name="NAME_TYPE_FLG">PRIM</field>
    <field name="VERSION">0</field>
    <field name="PRIM_NAME_SW">false</field>
  </listBody>
</list>
<list name="PER_CHAR">
  <listHeader>
    <field name="PER_ID"></field>
    <field name="LAST_CHAR_TYPE_CD"></field>
    <field name="LAST EFFDT"></field>
    <field name="moreRows">false</field>
    <field name="remainingRows">0</field>
    <field name="lastInfo"></field>
  </listHeader>
  <listBody action="A">

```

- Navigate to the Business Object or Business Service look up window for the requisite field.

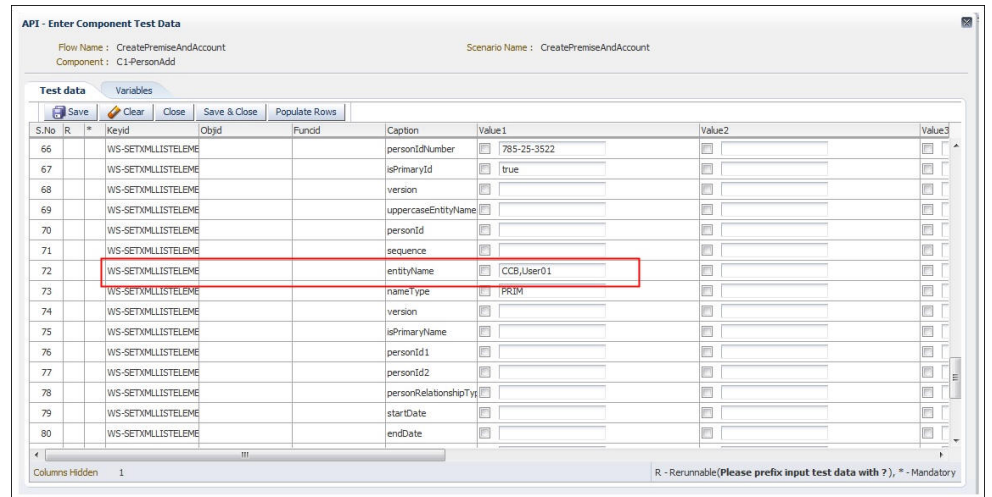
For example: In the figure below, ENTITY\_NAME is named as entityName.

```

https://slc08gbm.us.oracle.com:10701/?format=html&TYPE=FIXS&KEY1=C1PersonPhysical&KEY2=F1BO&lan - Internet Explorer
<effectiveDate dataType="date" mapField="EFFDT"/>
<adhocCharacteristicValue mapField="ADHOC_CHAR_VAL"/>
<version dataType="number" mapField="VERSION"/>
<characteristicValueForeignKey1 mapField="CHAR_VAL_FK1"/>
<characteristicValueFK2 mapField="CHAR_VAL_FK2"/>
<characteristicValueFK3 mapField="CHAR_VAL_FK3"/>
<characteristicValueFK4 mapField="CHAR_VAL_FK4"/>
<characteristicValueFK5 mapField="CHAR_VAL_FK5"/>
<searchCharacteristicValue mapField="SRCH_CHAR_VAL"/>
</personCharacteristic>
<personId2 type="list" mapChild="CL_PER_ID">
  <personId mapField="PER_ID"/>
  <idType mapField="ID_TYPE_CD"/>
  <personIdNumber mapField="PER_ID_NBR"/>
  <isPrimaryId dataType="boolean" mapField="PRIM_SW"/>
  <version dataType="number" mapField="VERSION"/>
  <encryptedIdNumber mapField="ENCR_PER_ID_NBR"/>
  <hashIdNumber mapField="HASH_PER_ID_NBR"/>
</personId2>
<personName type="list" mapChild="CL_PER_NAME">
  <uppercaseEntityName mapField="ENTITY_NAME_UPR"/>
  <personId mapField="PER_ID"/>
  <sequence dataType="number" mapField="SEQ_NUM"/>
  <entityName mapField="ENTITY_NAME"/>
  <nameType dataType="lookup" mapField="NAME_TYPE_FLG" lookup="NAME_TYPE_FLG"/>
  <version dataType="number" mapField="VERSION"/>
  <isPrimaryName dataType="boolean" mapField="PRIM_NAME_SW"/>
</personName>
<personPerson type="list" mapChild="CL_PER_PER">
  <personId1 mapField="PER_ID1"/>
  <personId2 mapField="PER_ID2"/>
  <personRelationshipType mapField="PER_REL_TYPE_CD"/>
  <startDate dataType="date" mapField="START_DT"/>
  <endDate dataType="date" mapField="END_DT"/>
  <boolean mapField="FINAN_REL_SW"/>

```

- In the flow, search for the requisite field and enter the component test data.



- Click **Save** to save the test data.

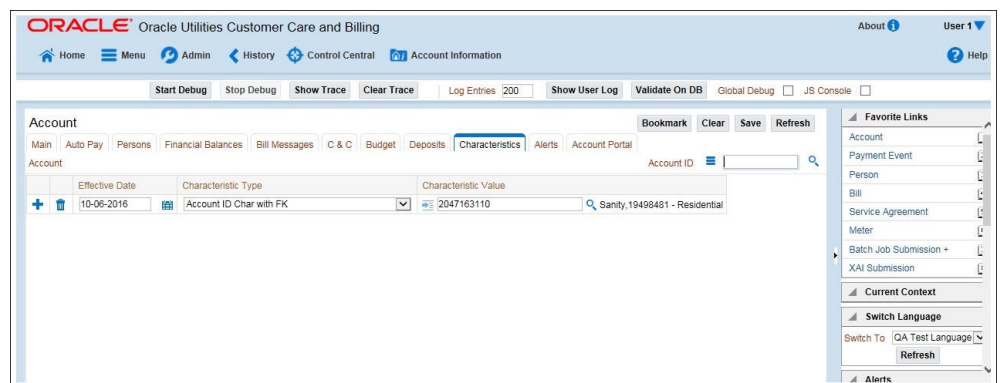
## IE Development Tool Bar

The IE Development tool bar, available in IE11, enables users to inspect the page and its field mapping. It is on a 1:1 basis, meaning one inspect = one field.

To enter test data in the requisite fields using the IE Development tool bar, follow these steps:

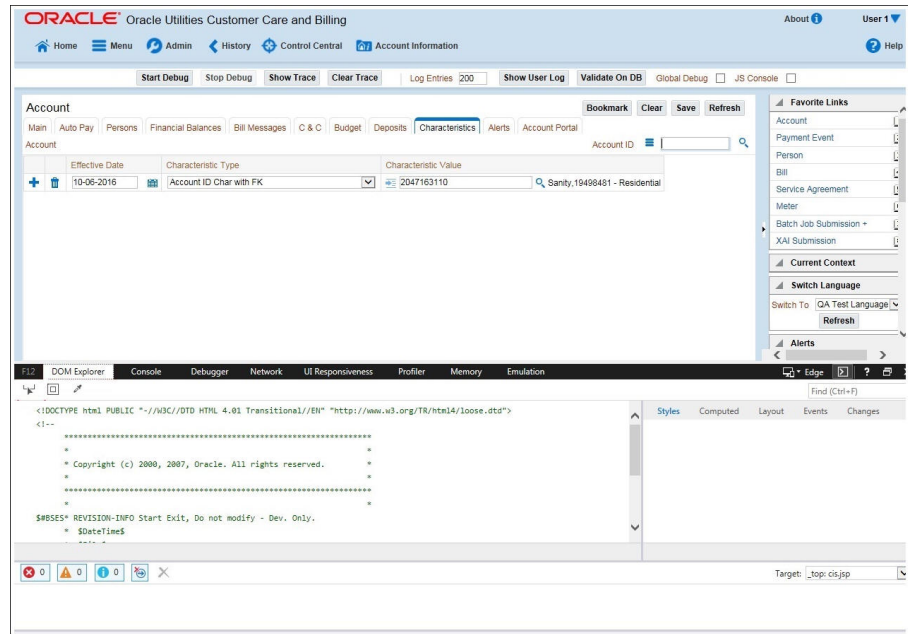
- Login to Oracle Utilities Customer Care and Billing using Internet Explorer 11.
- Navigate to the page where the requisite field needs to be updated with data.

For example: The figure below shows the Account page where the **Characteristic Value** field on the **Characteristics** tab needs to be updated.

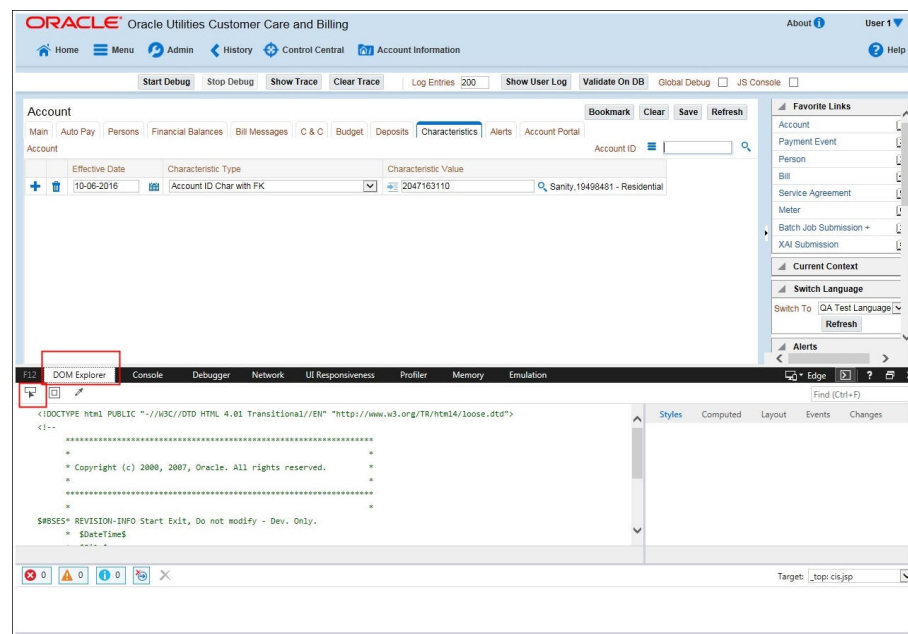


- Press **F12**. The browser displays the F12 developer tools that help in building and debugging web pages.



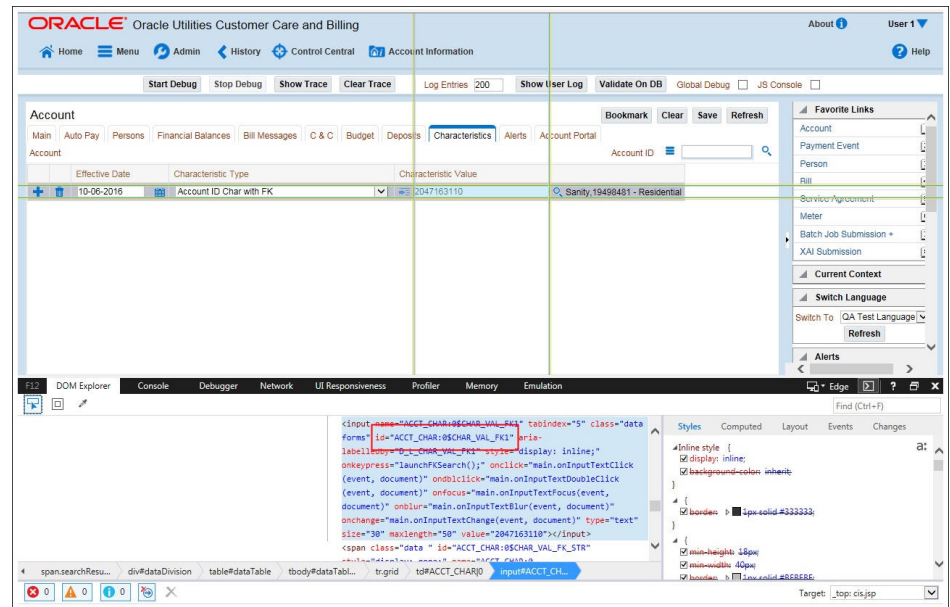


- On the F12 tools menu, click the **DOM Explorer** tab, and then click the **Select element** icon.



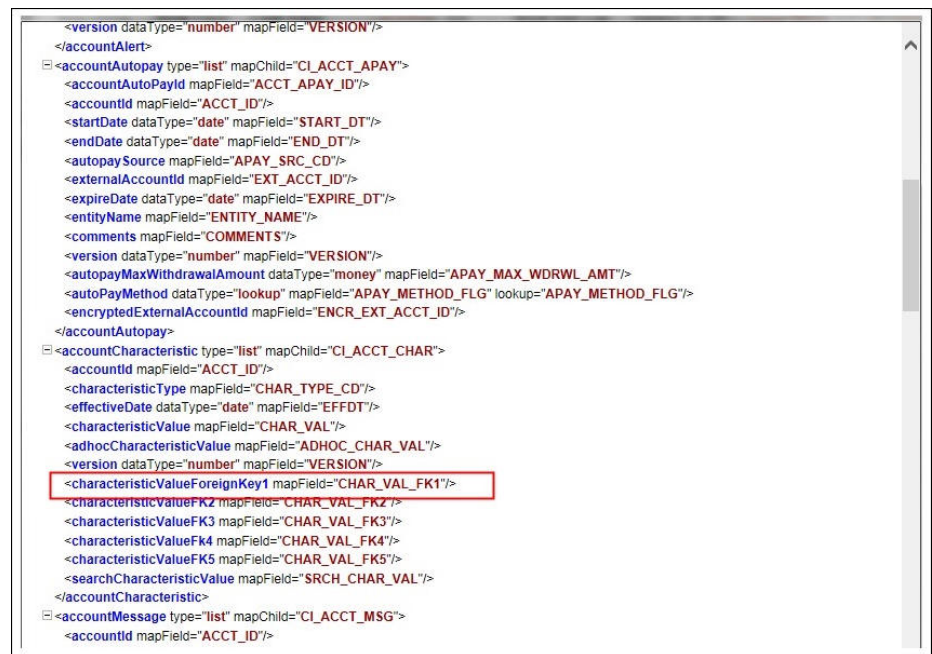
- On the application page, click the field for which you need to enter the data. The DOM Explorer shows the HTML for the selected field.

For example: Click the **Characteristic Value** field on the **Account** page. The DOM Explorer shows the **ID** of that field.

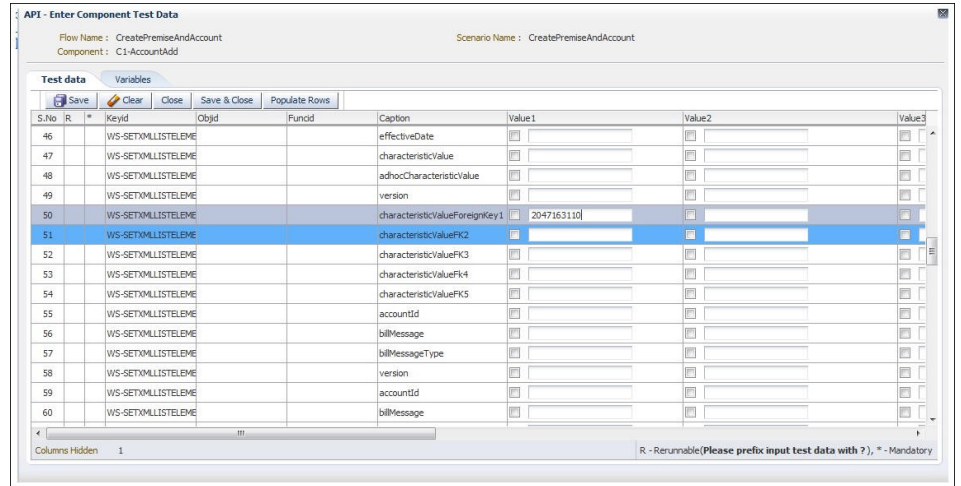


- On the object lookup window, search the requisite field.

For example: Search for CHAR\_VAL\_FK1.



- In the flow, add the necessary data into the field.



8. Click **Save** to save the data.

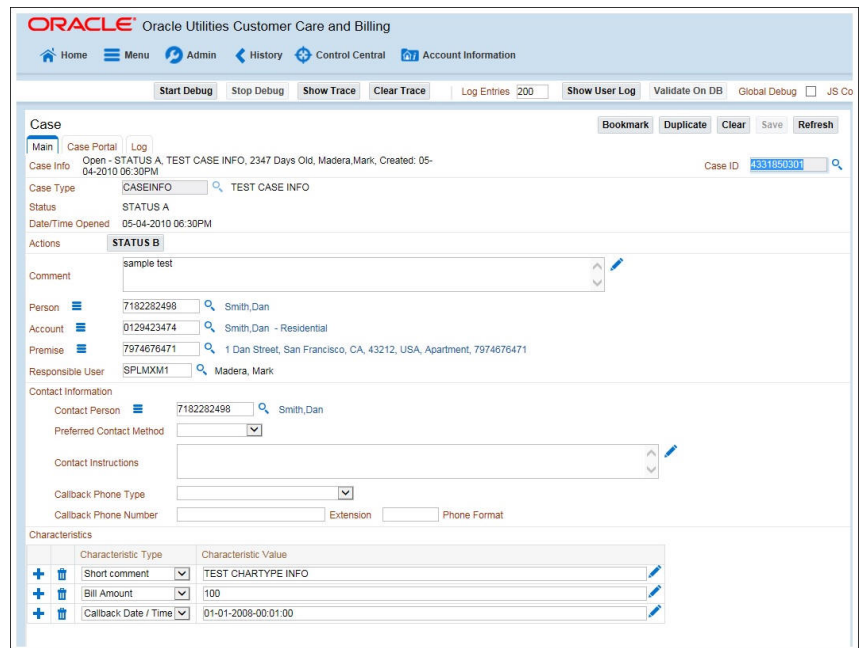
## SOAP UI

This method is an alternative to the other methods mentioned above if the user is familiar with SOAP UI.

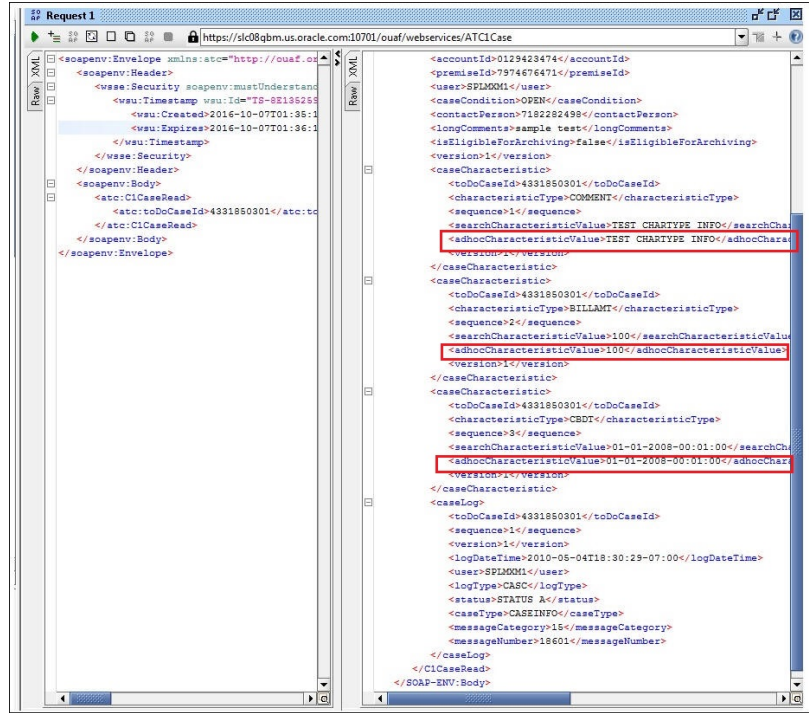
To identify the requisite fields using SOAP UI, follow these steps:

1. Log in to the Oracle Utilities Customer Care and Billing application.
2. Navigate to the page where the test data has to added. Add the data in the respective fields.

For example: The figure below shows the **Case** page where **Characteristics Type** and **Characteristic Value** are added in the **Characteristics** section.



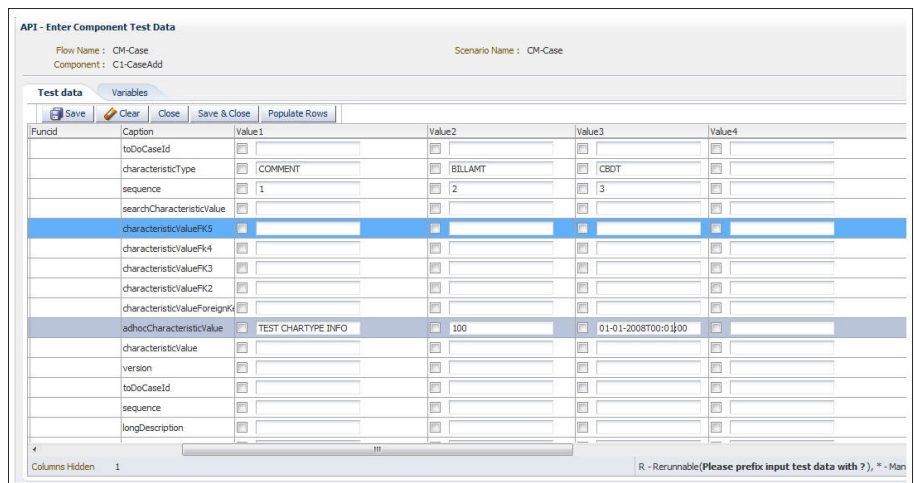
- On the SOAP UI, perform a Read using the data that has been added on the **Case** page (in step 2). The result is displayed in the right pane.



- Copy the values and paste them in the respective fields on the flow.

For example: COMMENT and TEST CHARTYPE INFO are the values for characteristicType and adhocCharacteristicValue fields.

**Note:** Not all fields populated on the SOAP response needs to be populated on the flow. (For example: version, info, other type of description, etc).



- Click **Save** to save the data.