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Oracle CPQ — Oracle Order Management | Manage Quotes, Orders, and Subscriptions





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Preface

This document describes how to install, configure, and run this accelerator in Oracle Integration 3.

Topics:

- Documentation Accessibility
- Diversity and Inclusion
- Related Resources
- Conventions

Documentation Accessibility

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Related Resources

For more information, see these Oracle resources:

- Oracle Integration documentation in the Oracle Cloud Library on the Oracle Help Center.
- Oracle Cloud at http://cloud.oracle.com.



Conventions

The following text conventions are used in this document.

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	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.



1

About This Accelerator

Use this accelerator to manage quotes, orders, and subscriptions between Oracle CPQ and Oracle Order and Subscription Management.



This accelerator is available as **Oracle CPQ** — **Oracle Order Management** | **Manage Quotes, Orders, and Subscriptions** in the Integration Store.

Overview Of Oracle CPQ — Oracle Order Management | Manage Quotes, Orders, and Subscriptions

This is a bi-directional Oracle CPQ integration with Order and Subscription services. This accelerator manages the quotes, orders, and subscriptions. To use this accelerator, you must install the accelerator and configure the connections and other resources within the accelerator. Subsequently, you can activate and run the above integration flows.

Create Sales Order	Process order bookings in Fusion Order Management from Oracle CPQ across multiple product types: ATO, PTO, KIT, finished goods, etc.
Cancel Sales Order	Initiate full or partial order cancellation from Oracle CPQ to Fusion Order Management.
Get Sales Order Status	Retrieve order header and line statuses from Oracle to Oracle CPQ.
Asset Upsert	Automated asset creation/update in Oracle CPQ triggered by Oracle OSS Events.
Sales Order Status Sync	Automatically updates Oracle CPQ order header, line and asset status in response to Oracle Fusion Order Management Business events trigger.

System and Access Requirements

- Oracle Integration, Version 21.4.3.0.0 or higher
- Oracle CPQ 24A or later
- Oracle Order Management 24A or later
- Customer Data Management (CDM) Integration which supports account integration.
- Users can create products in the Oracle CX Sales Product Model and synchronize the products into CPQ. Likewise, they can create parts in Oracle CPQ and synchronize them into the Oracle CX Sales Product Model.
- Administrators performing the integration installation must have administrator privileges on the Oracle CPQ, Oracle Order Management, and OIC sites.



Note:

For information about obtaining any of the above prerequisites, refer to Oracle CPQ - Oracle Order Management Integration Guide.



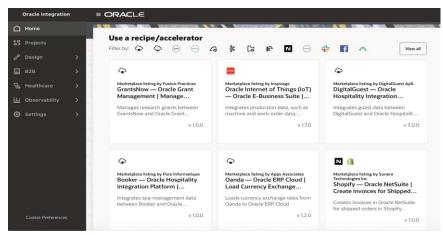
Install and Configure the Accelerator

This section describes how to install the accelerator, verify the integration, connection, and lookup resources, and configure the connections.

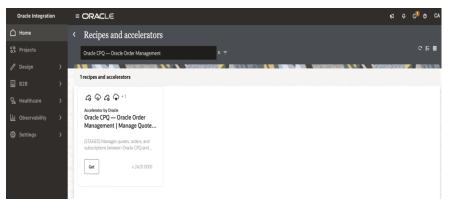
Accelerator Installation

On your Oracle Integration instance, install the accelerator to deploy and configure the integration and associated resources.

1. On the Oracle Integration Home page, in the Use a Recipe/Accelerator section, click View All.

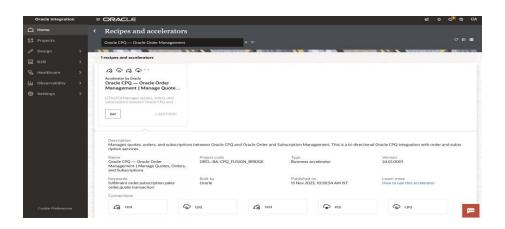


2. Use the Search Q Option and enter Oracle CPQ — Oracle Order Management.



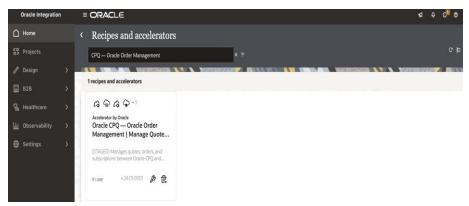
3. Hover over the card and click to verify the following business accelerator name and project code is displayed:

Name: Oracle CPQ — Oracle Order Management | Manage Quotes, Orders, and Subscriptions
Project Code: ORCL-BA-CPQ_FUSION_BRIDGE



4. Hover over the card and click **Get** to install the business accelerator.

The "Getting Oracle CPQ — Oracle Order Management | Manage Quotes, Orders, and Subscriptions." Message displays. Wait a short time then click **Refresh**. The accelerator is installed and the **In use**, **Configure** and **Uninstall** options are available.



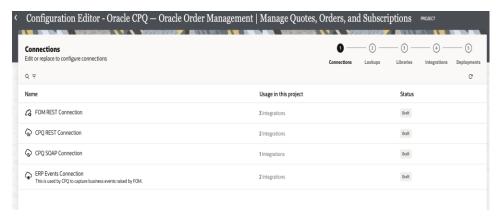
Note:

The accelerator installs the project **Oracle CPQ Fusion Bridge** which is a single pane canvas to manage all integrations, connections, lookups, and libraries.

- 5. Click on the **Configure** option. The Configuration Editor opens with five trains stops:
 - 1. Connections
 - 2. Lookups
 - 3. Libraries
 - 4. Integrations
 - 5. Deployments



- 6. Select **Connections** and verify the following connections have been imported:
 - FOM REST Connection
 - CPQ REST Connection
 - CPQ SOAP Connection
 - ERP Events Connection

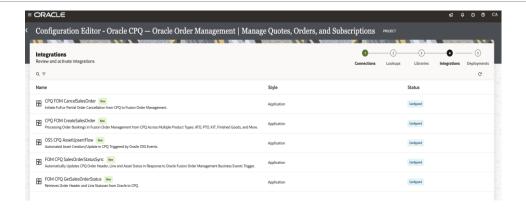


- 7. Select **Lookups** and verify the following lookups have been imported:
 - CPQ-FOM-AdjustmentTypeDVM
 - CPQ-FOM-LineStatusDVM
 - CPQ-FOM-PricePeriodicityDVM
 - CPQ-FOM-PriceTypeDVM

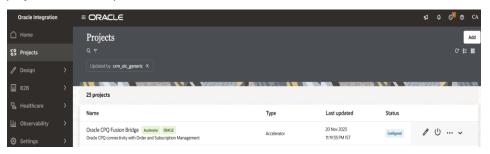


- 8. Select Integrations and verify the following integrations have been imported:
 - CPQ FOM CancelSalesOrder
 - CPQ FOM CreateSalesOrder
 - OSS CPQ AssetUpsertFlow
 - FOM CPQ SalesOrderStatusSync
 - FOM CPQ GetSalesOrderStatus

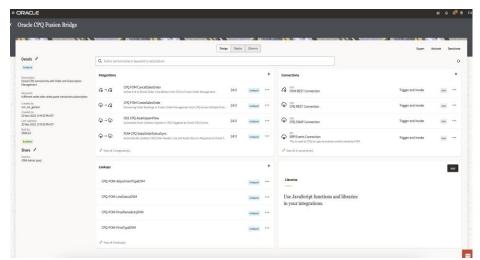




9. Select **Projects** in the left side navigation panel and verify Oracle CPQ Fusion Bridge project has been imported.



10. Click **Oracle CPQ Fusion Bridge** Project and verify all the above verified Integrations, Connections and Lookups available.



11. Configure the resources before you activate and run the accelerator.



Note:

We can Configure the resources within the above Configuration Editor or the within the installed accelerator project **Oracle CPQ Fusion Bridge**.

Configure the CPQ REST Connection

Use the following steps to configure the **CPQ_REST_CONNECTION** connection.

- In the Connections section, click Actions ■ on the connection and then select the Edit option for the CPQ REST Connection. The connection configuration page displays.
- 2. In the Properties section, enter the following details:

Field	Information to Enter
Connection Type	Leave REST Catalog URL selected.
Connection URL	Enter your instance URL in the following format: https:// <cpq host="" name="">/rest/<latest rest="" version="">/metadata-catalog</latest></cpq>

- 3. Enter your CPQ administrator username and password in the corresponding field.
- 4. Click **Test** to ensure that your connection is successfully configured.

A message confirms if your test is successful.

- Click Save and Save changes. A pop-up box with two Inactive integrations (OSS CPQ AssetUpsertFlow and FOM CPQ SalesOrderStatusSync) displays. Click Save again.
- 6. Click Go back .
- 7. Verify the CPQ REST Connection is Configured.
- 8. Click Actions • again and then click the **Refresh Metadata** option for the CPQ REST Connection.



Configure the CPQ SOAP Connection

Use the following steps to configure the CPQ_SOAP_CONNECTION connection.

- 1. In the Connections section, click Actions • on the connection and select **Edit** option for the CPQ SOAP Connection and the connection configuration page appears.
- 2. In the Properties section, enter the following details:

Field	Information to Enter
Connection Type	Leave SOAP WSDL URL selected.
Connection URL	Enter your instance URL in the following format: https:// <cpq host="" name="">/v2_0/receiver/commerce/oraclecpqo?wsdl</cpq>

- 3. Enter your CPQ administrator username and password in the corresponding field.
- 4. Click **Test** to ensure that your connection is successfully configured.

A message confirms if your test is successful.

- 5. Click **Save** and **Save changes** Popup with 1 Inactive integration (CPQ FOM CreateSalesOrder) will be displayed. Click Save again.
- 6. Click Go back .
- 7. Verify CPQ SOAP Connection is Configured.
- 8. Click on Actions • again and click on Refresh Metadata option for the CPQ SOAP Connection.



Configure the FOM REST Connection

Use the following steps to configure the **FOM_REST_CONNECTION** connection.

- 1. In the Connections section, click Actions ■ on the connection and select **Edit** option for the FOM REST Connection and the connection configuration page displays.
- 2. In the Properties section, enter the following details:

Field	Information to Enter	
Connection Type	Leave REST API Base URL selected.	
Connection URL	<pre>Enter your instance URL in the following format: https://<order host="" management="" name="">/fscmRestApi/resources/<latest rest="" version=""></latest></order></pre>	

- 3. Expand Optional Properties and Select "TLSv1.2TLS" for the TLS Version.
- 4. Select security policy as Basic Authentication.
- 5. Enter your Order Management username and password in the corresponding fields.
- Click Test to ensure that your connection is successfully configured. A message confirms if your test is successful.
- Click Save and Save changes. A popup with three Inactive integrations (CPQ FOM
 CancelSalesOrder, CPQ FOM CreateSalesOrder and FOM CPQ GetSalesOrderStatus) displays. Click
 Save again.
- 8. Click Go back 4.
- 9. Verify FOM REST Connection is Configured.
- **10.** Click on Actions ■ again and then click **Refresh Metadata** for the FOM REST Connection.



Note:

The integration Order Management user should have appropriate roles to Create Orders using the **Order Management REST APIs.**



Configure the ERP Events Connection

Use the following steps to configure the **ERP_EVENTS_CONNECTION** connection.

- 1. In the Connections section, click Actions ■ on the connection and select the **Edit** option for the ERP Events Connection. The connection configuration page displays.
- 2. In the Properties section, enter the following details:

Field	Information to Enter
ERP Cloud Host	Enter your ERP Cloud Host URL in the following format:
	https:// <order host="" management="" name=""></order>

- 3. Enter your Fusion username and password for Fusion in the corresponding fields.
- 4. Click **Test** to ensure that your connection is successfully configured.

A message confirms if your test is successful.

- 5. Click **Save** and **Save changes**. A popup with two Inactive integrations (OSS CPQ AssetUpsertFlow and FOM CPQ SalesOrderStatusSync) displays. Click **Save** again.
- 6. Click Go back .
- 7. Verify ERP Events Connection is Configured.
- 8. Click on Actions * * again and then click Refresh Metadata for the ERP Events Connection.



Activate and Run the Accelerator

After you've configured the connections and other resources, activate the accelerator and run it.

- 1. In the project workspace, click **Activate**. In the Activate project panel, with the default project deployment selected, choose an appropriate tracing option, then click **Activate**.
 - A message confirms that the integration(s) has been activated. Refresh the page to view the updated status of the integration(s).
- 2. Run the accelerator to create a sales order (OR) to get sales order status sync (OR) to create/update assets.
 - a. Log in to Oracle CPQ.
 - b. Create Quote, Quote Lines and Book Order.
 - c. CPQ FOM CreateSalesOrder integration gets triggered and an Order is created in Fusion Order Management(FOM). Quote is updated with Order Number and Fulfillment Line Id(s).
 - d. Log in to Fusion and navigate to Order Management(FOM), provide Order Number and verify the order details.
 - e. For each order status update based on notification settings in FOM, a business event is triggered and FOM CPQ SalesOrderStatusSync listens and syncs the status to the CPQ quote and quote lines.
 - f. For subscription products, once status moves to Subscription Interfaced navigate to Oracle Subscription Management and submit the order lines for creating a subscription.
 - g. Once subscription is created, an event is raised and OSS CPQ AssetUpsertFlow integration listens and updates the quote and quote lines with status Activated. This also creates the assets for each quote line.
- 3. Run the accelerator to cancel sales order.
 - a. Log in to Oracle CPQ.
 - b. Open Quote, Cancel Order.
 - c. CPQ FOM CancelSalesOrder integration gets triggered and an Order is cancelled in Fusion Order Management. Quote is updated with the status.
 - d. Log in to Fusion Order management, provide Order Number and verify the order details.
- 4. Monitor the running of the integration flow(s) in Oracle Integration.
 - a. In the project workspace, click **Observe**. You'll see the integration flow(s) being triggered and running successfully.
 - b. To manage errors in your project, see Manage Errors in a Project.



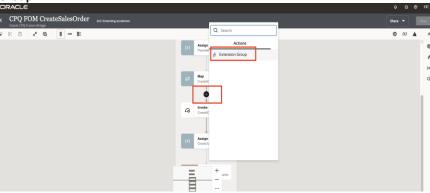
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Appendix: Extend the Integrations

You can extend (customize) an integration in an accelerator project by adding and configuring an extension group. An extension group enables you to extend your integration by adding invoke connections; stitch, for-each, switch, map, and integration actions; and global variables to the integrations in your accelerator project.

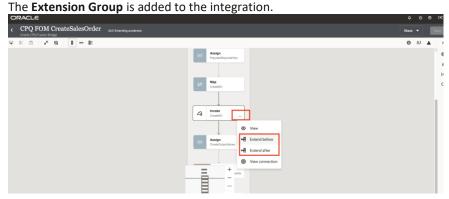
You can extend an integration to add the following before or after an invoke connection:

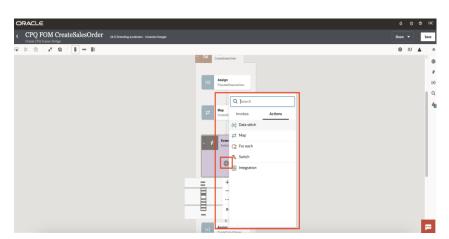
- Stitch action
- For-each action
- Switch action
- Map action
- Integration action (and associated map)
- Invoke connection (and associated map)
- 1. Open the Oracle CPQ Fusion Bridge Project.
- 2. Select any specific Integration to extend and click on it.
- 3. Perform one of the following actions (a or b) before or after an invoke action.
 - a) Add at the location where you want to add the extension, then select Extension Group.



b) Click Actions • • inside the invoke action.
 Select Extend before or Extend after.

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4. Expand Extension Group and click to add an invoke or action.

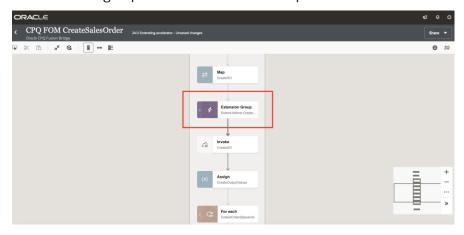
- 5. We can click add Data stitch, Map, For each, Switch or Integration components with in the Extension Group.
- In Integrations Panel, Click on Actions ■ and Activate option for the FOM CPQ
 GetSalesOrderStatus integration.

CPQ Extensibility Use Cases

If we configured new Orchestration Process in Order Management, and **CPQ FOM CreateSalesOrder** integration can be customized to use the new one by mapping CPQ attribute Orchestration Process Name with newly configured Orchestration Process.

We can follow the steps for achieving this customization:

- 1. Select CPQ FOM CreateSalesOrder Integration and click on Map CreateSO.
- 2. Add Extension group before CreateSO invoke Operation.





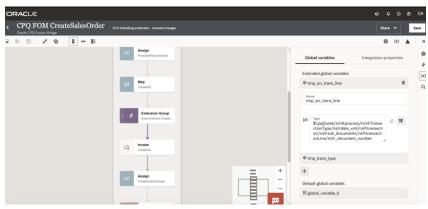
3. Add following two Global variables:

- tmp_src_trans_line:

type: document number from transactionline of CpqQuote.

Sample expression:

\$CpqQuote/ns14:process/ns14:TransactionType/ns9:data_xml/ns9:transact
ion/ns9:sub_documents/ns9:transactionLine/ns9:_document_number

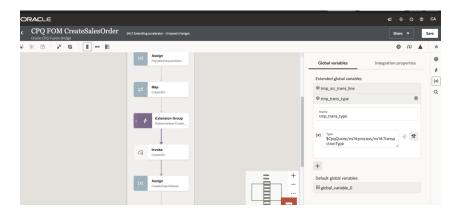


- tmp_trans_type:

type: TransactionType from CpqQuote

Sample Expression:

\$CpqQuote/ns14:process/ns14:TransactionType



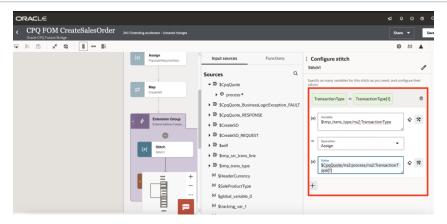
4. Add Stitch Operation in the Extension Group.

Assign the tmp_trans_type of tmp_trans_type value with first element of Transaction Type of CPQQuote.

Sample:

```
$tmp_trans_type/ns2:TransactionType =
$CpqQuote/ns2:process/ns2:TransactionType[1]
```

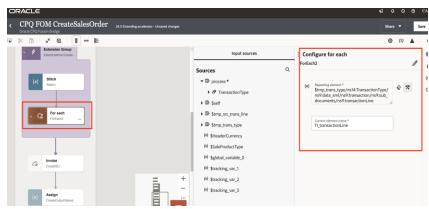




5. Add For each after the Stitch operation with:

Repeating element: transactionLine of tmp_trans_type

Current element: f1_transactionLine



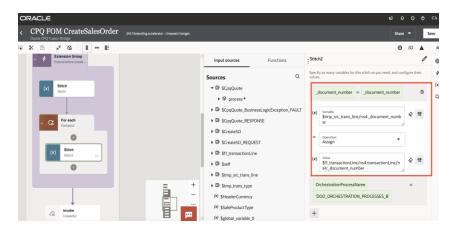
6. Add Stitch operation with two assignments inside For each:

Assign#1: the _document_number of tmp_trans tmp_src_trans_linetype value with

```
_document_number of f1_transactionLine
```

Sample Assignment:

\$tmp_src_trans_line/ns4:_document_number =
\$f1 transactionLine/ns4:transactionLine/ns4: document number



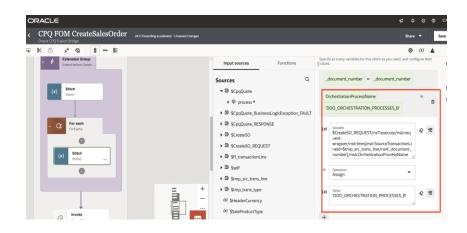


Assign#2: OrchestrationProcessName attribute of CreateSO_REQUEST array element of matching element of document_number of tmp_src_trans_line with the required Orchestration process name (Ex: 'DOO_ORCHESTRATION_PROCESSES_B')

Sample Assignment:

\$CreateSO_REQUEST/ns7:execute/ns6:requestwrapper/ns6:lines[ns6:SourceTransactionLineId=\$tmp_src_trans_line/ns4:_d
ocument_number]/ns6:OrchestrationProcessName =

'DOO ORCHESTRATION PROCESSES B'



Note: Here, this logic of figuring out the target array element using \$tmp_src_trans_line/ns4:_document_number will help you to copy the value from same array element of source using \$tmp_src_trans_line/ns4:_document_number.

For example, if we create any new custom attributes in Oracle CPQ and if we want to assign the value with any other OOTB attribute values from the map, we can extend and use the above logic to copy and assign. Otherwise, we can simply loop array element and copy the hard coded OrchestrationProcessName.

Note:

Here, this logic of figuring out the target array element using \$tmp_src_trans_line/ns4:_document_number will help you to copy the value from same array element of source using \$tmp_src_trans_line/ns4:_document_number.

Extending Custom Attribute: If we create any new custom attributes in CPQ, and if we want to assign the value with any other OOTB attribute values from the map, we can extend and use the above logic to copy and assign. Otherwise, we can simply loop array element and copy the hard coded OrchestrationProcessName.

