Oracle® Cloud

Using Integration Insight in Oracle Integration Generation 2

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Preface

Using Integration Insight in Oracle Integration Generation 2 provides information about using the Integration Insight feature (commonly referred to as *Insight*) in Oracle Integration to model and extract meaningful business metrics and send alert notifications in real time.

Topics:

Audience

This guide is intended for Insight administrators, integration architects, business analysts, and business executives who want to use Insight in Oracle Integration to model and extract meaningful business metrics from business processes.

Documentation Accessibility

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Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

Related Resources

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

What’s New in Insight

For an overview of new and changed features in Insight, see *What's New for Oracle Integration*.

2

Introduction to Insight

Today's competitive market demands that stakeholders be able to understand, monitor, and react to changing market conditions. Businesses need flexible, dynamic, and detailed insight – and they need it as it happens.

Collecting, storing, visualizing, and reporting on business metrics in real time has traditionally been a costly undertaking, requiring significant investment of capital and engineering resources. Software is typically developed to meet the unique needs of business applications. In today's sophisticated enterprise software environment, many businesses use multiple integrated systems, provided by a variety of vendors, further complicating the task of collecting business metrics.

The Integration Insight feature (commonly referred to as *Insight*) in Oracle Integration dramatically simplifies the process of modeling and extracting meaningful business metrics for business users. It provides built-in powerful business analytics through a business-friendly experience, allowing users to model, collect, and monitor metrics for their business processes to achieve real-time visibility and react quickly to changing demands.

Topics:

Access Insight

Insight is automatically included when provisioning the following Oracle Integration versions.

> **Note:**
>
> While Insight is visible in the left navigation pane for Oracle Integration Standard Edition instances, you are not licensed to use this component unless you update your instance to Oracle Integration Enterprise Edition, which provides complete licensing access to all components. See Editing the Edition, License Type, Message Packs, and Custom Endpoint of an Instance in *Provisioning and Administering Oracle Integration and Oracle Integration for SaaS, Generation 2*.

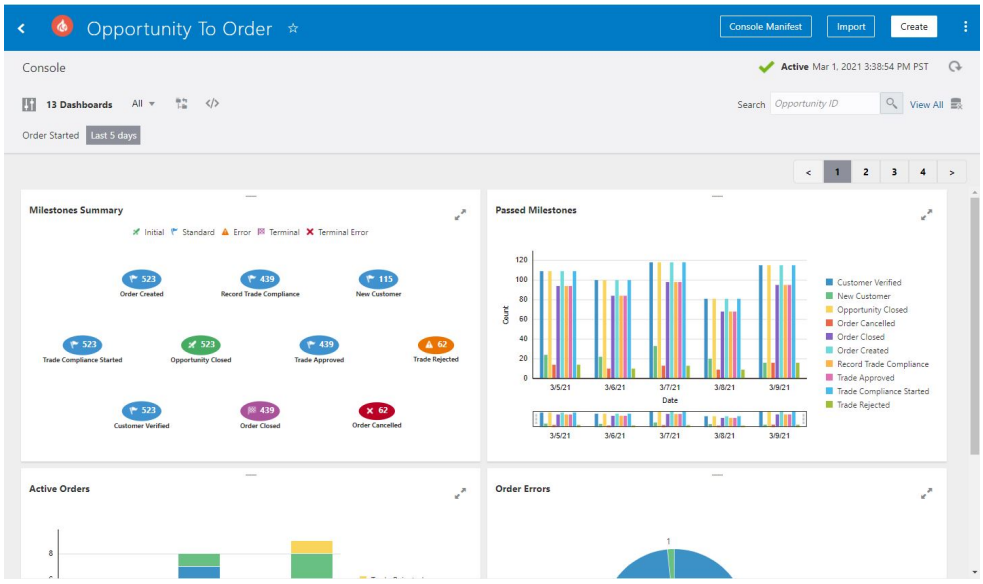
Version	Enterprise Edition	Standard Edition
Oracle Integration Generation 2	Yes	No
Oracle Integration for Oracle SaaS Generation 2	Yes	No

Insight Capabilities

Insight in Oracle Integration provides tools to model, collect, and monitor metrics for business processes in real time.

Insight provides:

- A web-based interface to:
  - Model a business process, including milestones and indicators defined to extract specific metrics. For example, an order process starts with an initial milestone `Order Received`, which provides metrics for an order, such as number of items, model ordered, shipping address, and shipping type. Each step of the order is represented by either a standard milestone (for example, `Order Shipped`) or error milestone (`Payment Declined`), and completed with a terminal milestone (`Order Completed`) or a terminal error (`Order Returned`).
  - Map milestones to integration flows or process applications (or both) through an intuitive designer view using drag and drop development, and extract metrics values from the payload.
  - Monitor business process status and activity in real time.
- Advanced analytics presented in both preconfigured and custom dashboards. Dashboards can be viewed in Oracle Integration or embedded in external applications, portals, or web sites in a number of ways, as described in Embed Insight Dashboards in Other Applications.



- Early warnings that prevent business failure through alerts that trigger notifications as needed. Alerts can be defined to flag exceptionally high orders, business errors that may otherwise be missed, or orders stuck in one step for longer than the defined service-level agreement (SLA).

Insight Roles and Personas

Permissions in Insight are defined by a subset of Oracle Integration roles. The role(s) that you are assigned define your persona in Insight.

> **Note:**
>
> The following roles do not have any privileges in Insight:
>
> - ServiceMonitor
> - ServiceDeployer
> - ServiceInvoker
> - ServiceViewer

The following table lists predefined roles available in Oracle Integration, and the Insight tasks that personas associated with those roles can perform.

Oracle Integration Roles	Personas and Permissions in Insight
ServiceAdministrator	This Oracle Integration role maps to the Insight persona *Insight Administrator*. This is a super user who manages Insight. This user can purge Insight model data and has all the privileges of the other roles to view, create, manage, edit, and delete all the models and dashboards.
ServiceDeveloper	This Oracle Integration role includes the Insight personas *Business User/Analyst* and *Integration Architect*. This user can view, create, manage, edit, and delete Insight models. The Business User/Analyst understands the business use case and defines business milestones and indicators in an Insight model. The Integration Architect understands the end-to-end business process implemented in Oracle Integration and defines the mapping of the milestones to the appropriate location in the business process implementation and the extraction criteria of Insight indicators. This user does not have access to Insight dashboards through the Consoles page.
ServiceUser and ServiceEndUser The ServiceEndUser role is available only for new instances created using version 22.2 or later.	These Oracle Integration roles map to the Insight persona *Business Executive*. This user understands how the business works and can use the Insight consoles, which provide preconfigured and custom dashboards, to gain insight into business process status and activity in real time. For example, this user might ask an integration architect and business analyst to build a model in Insight to provide a visualization of which products are selling best in which US state and if there are any models with a high return rate. This data helps to make decisions such as investing more marketing dollars in certain regions and if it makes sense to expand overseas. This user can view, create, manage, edit, and delete Insight dashboards through the Consoles page. This user does not have access to models through the Models page.

Insight Terminology

The terminology used by the Insight Administrator, Integration Architect, or Business User/Analyst may not be well understood by the Business Executive.

In this guide, the terminology used is pertinent to the role and persona of the user performing the task. The following table provides a terminology overview, mapping similar terms for different personas:

Insight Administrator, Integration Architect, or Business User/Analyst	Business Executive
model	business process An Insight *model* provides a grammar for describing the milestones of a *business process* that are key for tracking business performance.
instance	business transaction
unique instance identifier	business transaction identifier

Insight End-to-End Workflow

To use Insight to monitor a business process, there are several tasks to complete before you can view business metrics on the Insight dashboards.

The high-level workflow is:

- Create a model, defining milestones, a unique instance identifier, indicators, and alerts.
- Associate the model to a business process implementation by mapping model milestones to the business process implementation.
- Activate the model to allow business executives to view and analyze business processes in real time.

Create a Model

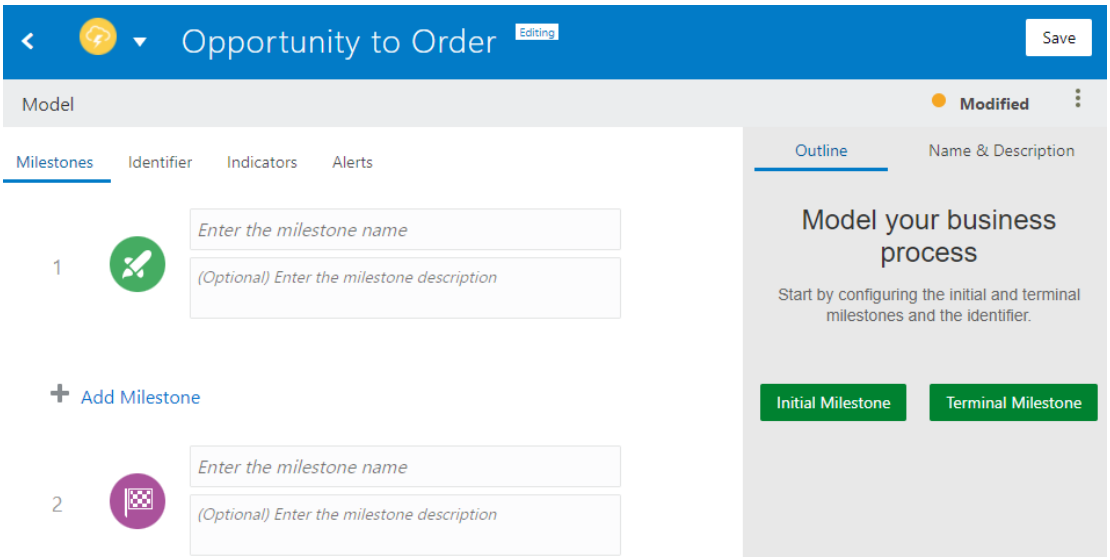
A user with the ServiceDeveloper role, such as a Business User/Analyst or an Integration Architect, performs the first task in Insight: create a *model* of the business process.

The model defines what characteristics stakeholders care about, and includes abstractions such as *milestones* and *indicators*.

- Milestones indicate progression through business activities such as `Problem Received`, `Ticket Created`, and `Problem Resolved`.
- Indicators represent metrics that are useful for tracking the business process. For example: `Total Resolution Cost`, `Country`, `Region`, and `Customer Status`.

A model can also optionally include alerts, which define conditions for milestones or indicators to notify users by email when those conditions are met.

Creating a model is accomplished using web-based tooling that simplifies the process.



For more information and steps, see Work with Models in Insight.

Associate the Model to a Business Process Implementation

After the business process model is defined, the next step is to associate the model to a business process implementation. The Integration Architect maps model milestones to the business process implementation in integration flows or process applications (or both) in Oracle Integration.

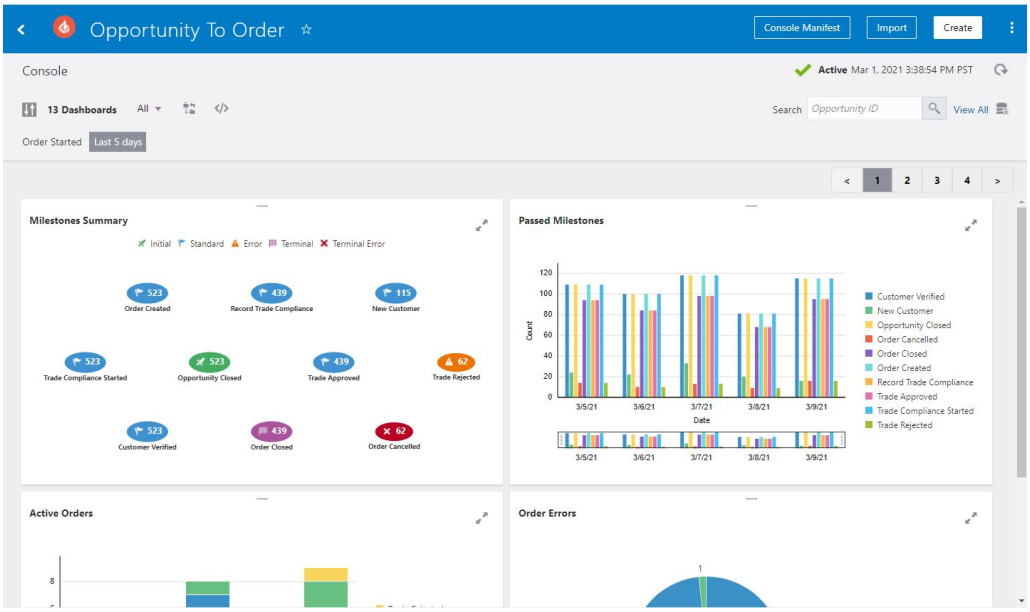
For more information and steps, see Associate a Model to a Business Process Implementation.

Analyze Business Processes

After milestone mappings to the business process implementation are complete and extraction criteria defined, the business process and model must be activated to begin gathering metrics data from the business process as milestones are passed. These metrics are immediately available in dashboards for a Business Executive to analyze.

See:

- About the Console and Dashboards for a Single Business Process
- Work with the Console and Dashboards for a Business Process

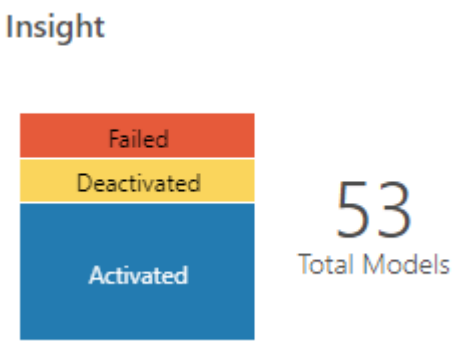


In addition to viewing dashboards within Oracle Integration, Insight offers the capability to embed dashboards in other applications. See Embed Insight Dashboards in Other Applications.

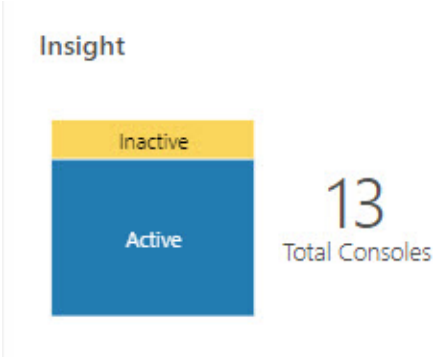
View Summary Status

On the Oracle Integration home page, the Insight tile provides a summary status. Depending on your Insight role, the tile provides direct access to models, dashboards, or both:

- Insight Administrators, Business Users/Analysts, and Integration Architects see a summary status of models. Hover your cursor over the labels to view a count of models with the associated status. Click an area of the tile to view the corresponding list of models on the Models page in Insight.



- Business Executives see a summary status of consoles. Hover your cursor over the labels to view a count of consoles with the associated status. Click an area of the tile to view the corresponding list of consoles on the Consoles page in Insight.


Insight
Inactive
Active
13
Total Consoles

3

Work with Models in Insight

An Insight *model* provides a grammar for describing the milestones of a *business process* that are key for tracking performance metrics and potential bottlenecks.

Insight Administrators, Business Users/Analysts, and Integration Architects can work with models.

A Business Executive can analyze the resulting data exposed in a model's *dashboard*. See Work with Consoles and Dashboards in Insight.

Topics:

About Model Status

An Insight model changes status during its lifecycle.

- **Draft**: A newly created model is in this status until the model is configured. In this status, changes can be made to the model and no metrics are collected. A draft model can be exported to later be imported into another Insight instance.
- **Configured**: A model moves into this status when its milestones, indicators, and unique instance identifier have been defined and milestones have been mapped to a business process. A model in this status is ready to activate.
- **Activation In Progress**: A model is in this status when activation has been initiated.

- **Timeout**: A model falls into this status when it times out after attempting to activate for five minutes.
- **Activated**: When a model is in this status, metrics are being collected, and changes are not possible. An activated model can be exported to later be imported into another Insight instance.
- **Deactivated**: A model moves into this status when you specifically deactivate it.
- **Failed**: A model falls into this status when it encounters issues during activation.
- **Unknown**: A model may move into this status when the status of the model cannot be determined as activated or deactivated. You can perform all lifecycle actions on a model in an unkown status.

To make changes to an activated model, you must first create a draft version of the active model to edit the model without interrupting metrics collection in the active model. After editing, the model can be reactivated to apply the changes. See Edit a Model.

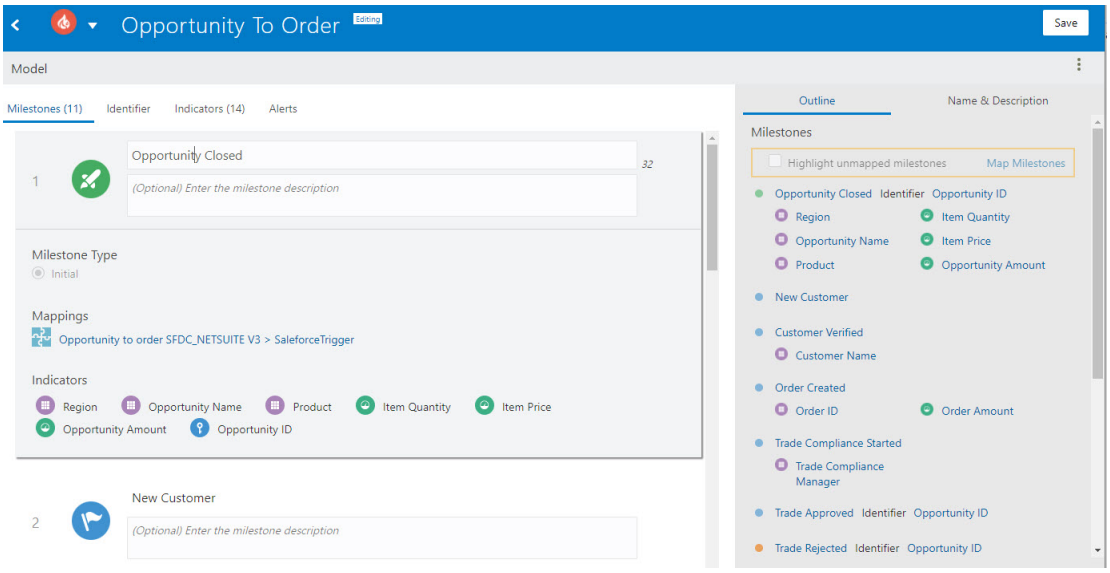
About Model Components

A model is defined by unique metadata. Every model includes:

- A name
- An optional description
- Singular and plural labels for the business transactions (instances) that are understandable by Business Executives, such as “Order” and “Orders”
- An icon representing the model
- Milestones
- A unique instance identifier
- Indicators
- Alerts

Milestones

Milestones are key components in an Insight model. They define points in a business process that represent progress and can be mapped to an action in the business process implementation.



Characteristics of a milestone include:

- **Atomicity**: A milestone has no entry or exit point. A milestone is considered to be passed or not passed, but you are never *in* a milestone. A milestone has no duration and is passed atomically. However, it is important to consider the duration from one milestone to another.
- **No enforced ordering**: Milestones can be passed in any order and repeatedly. However, Insight does maintain the *natural ordering* in which the milestones are defined in the model.

  For example, an `Order Received` milestone generally happens before an `Order Complete` milestone. Insight lists milestones in this natural order in the context of selection and reporting.
- **Semantic types**: A milestone may have one or more semantic classifications that describe the milestone's role in the execution of a business process. See the list of milestone types below.
- **Mapping**: Milestones are mapped to points in a business process implementation that indicate that the milestone has been passed.
- **Indicators**: Milestones can have indicators associated with them whose values are extracted when the milestone is passed. These indicators represent the state of the instance when the milestone is passed, and have a variety of different semantic options.

Milestones are of the following types:

- **Initial**: This milestone is preseeded in a newly created model. It is mandatory and cannot be removed from the model. A model instance is assumed to be valid when a milestone of type Initial is passed. This concept is key to filtering out instances that may already be in flight when Insight starts monitoring a runtime engine. An instance that has most recently passed an Initial milestone is in an Active state.
- **Standard**: Represents a milestone that is neither Terminal nor Error. An instance that has most recently passed a Standard milestone is in an Active state.
- **Error**: Represents a milestone that reflects some business error condition encountered in the execution of the business process. The business process implementation may account for and recover from errors, and thus Error milestones are not necessarily also

Terminal. An instance that has most recently passed an Error milestone is in an Error state.

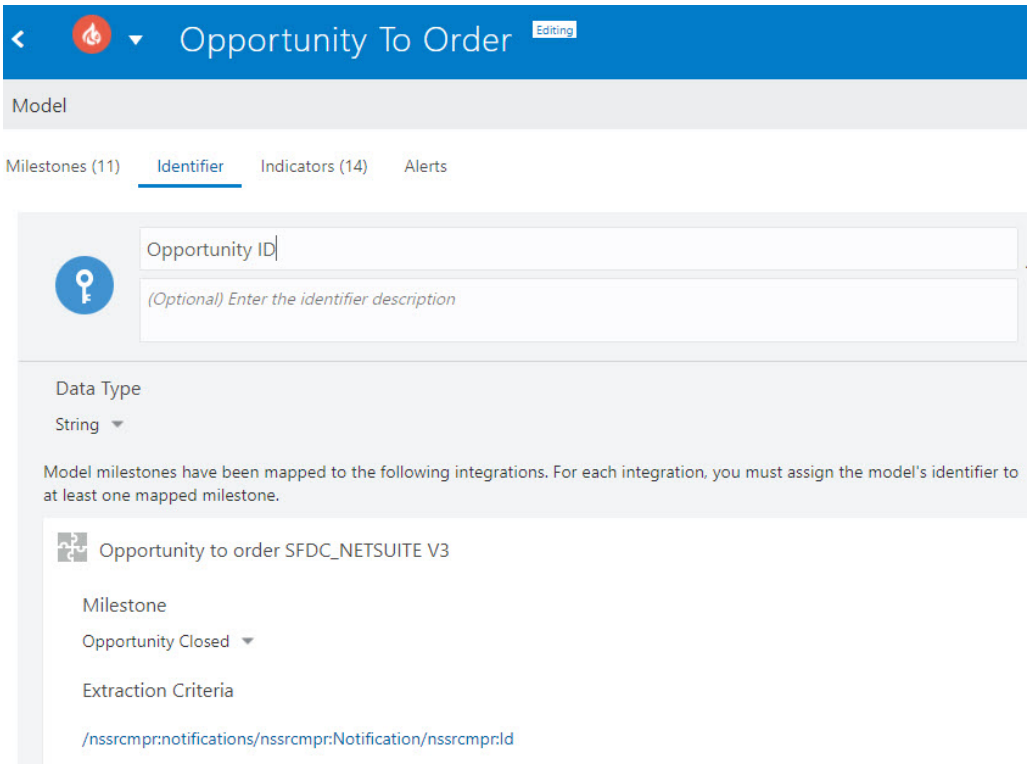
- **Terminal**: This milestone is preseeded in a newly created model. It is mandatory and cannot be removed from the model. A terminal milestone represents an expected end to the model instance. For example, a milestone "Order Complete" that represents the completion of an order might be modeled as a Terminal milestone. Insight does not enforce the end of an instance after a Terminal milestone, and further milestones may be passed. An instance is in a Completed state when the last milestone passed was a Terminal milestone.
- **Terminal/Error**: Represents an Error milestone, which also represents the expected end of the business process processing. An instance that reaches a Terminal/Error milestone is in a Failed state.

Every instance (unique business transaction) of the model must pass through at least an Initial and a Terminal milestone.

See Define Milestones and Map Milestones to Integration Actions.

Unique Instance Identifier

Every Insight model must have a *unique instance identifier* defined. This identifier describes a value that is extracted at runtime for every instance (business transaction) of the business process defined by the model.



Insight uses the unique instance identifier to grant you visibility into your entire business process, even if it is implemented in more than one integration or process.

A Business User/Analyst defines the unique instance identifier, in collaboration with an Integration Architect who maps the milestones to actions in the business process

implementation (which can span one or more integrations or processes) and defines identifier extraction criteria.

The unique instance identifier extraction criteria is defined in the context of a business process action that is mapped to a milestone associated with the identifier. The extraction criteria is an XPath expression that defines how values are extracted from message payloads at the point that the milestone is passed.

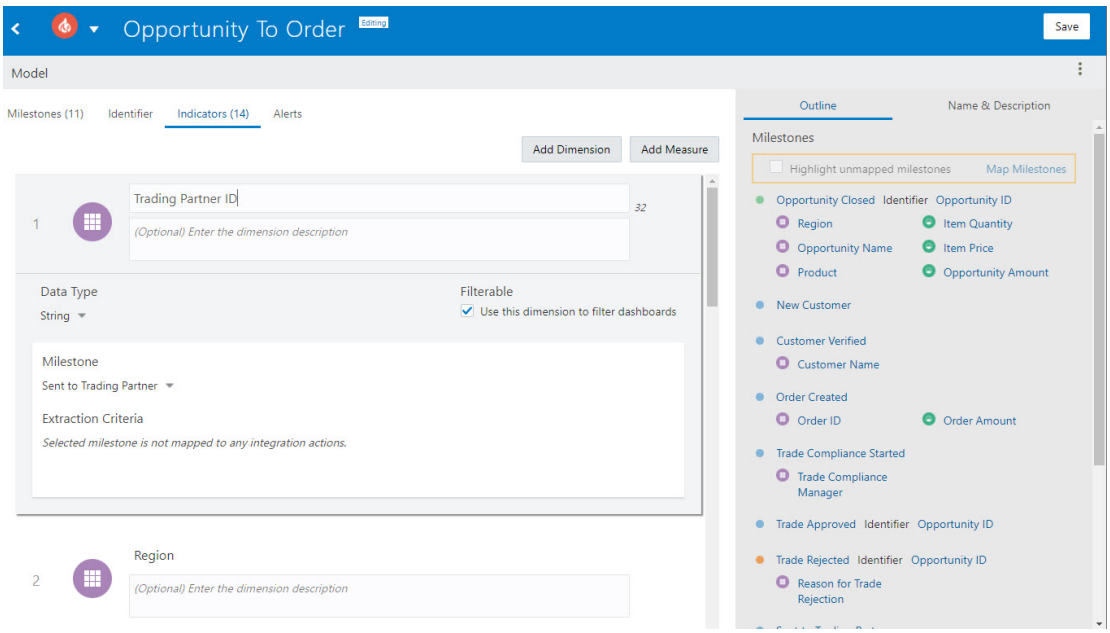
The unique instance identifier value is extracted at runtime every time a milestone is passed and correlates the actions and data that belong to the same instance (business transaction) of the business process. Actions with the same unique instance identifier value are considered part of the same instance (for example, the same order). For example, a unique instance identifier of `orderID` specifies that each unique `orderID` value is considered to be a separate instance of your business process. Actions with the same `orderID` value are considered part of the same order, or instance.

When a business process implementation spans more than one integration or process, or both, you must assign the model's unique instance identifier to mapped milestones to establish the correlation between the actions in the same instance of the business process and extract the unique instance identifier value when the specified milestone is passed. For example, if your business process is implemented across two integrations, and the order number is extracted from the first integration, when the second integration is invoked you can extract the order number a second time to correlate its actions as part of the same order.

See Define a Unique Instance Identifier and Define Identifier Extraction Criteria .

Indicators

Indicators represent metrics that are unique to a business process, and are extracted when milestones are passed in a business process implementation.



A Business User/Analyst defines indicators, in collaboration with an Integration Architect who maps the milestones to actions in the business process implementation (integration or process) and defines indicator extraction criteria.

Indicators allow business users to gain insight into how a business process is functioning, and also allow comparisons between business transactions (instances), such as each order or service request. They help to quantify the performance of the business, and are used to create dashboards and reports for tracking business metrics.

The indicator extraction criteria is defined in the context of a business process action that is mapped to a milestone associated with the indicator. The extraction criteria is an XPath expression that defines how values are extracted from message payloads at the point that the milestone is passed.

An indicator can be mapped to one or more milestones. Mapping an indicator to multiple milestones allows the value of the indicator to change during the execution of a business process if necessary. For example, in a business process that tracks an order, the value of an indicator may change as discounts are applied. When the "Order Received" milestone is passed, the value extracted for an associated "Price" indicator may be $100. As the order progresses, a discount may be applied. When the "Discount Applied" milestone is passed, the value extracted for the "Price" indicator may be reduced to $80. In dashboards and alerts that include the indicator, the value shown is the final value of the indicator in the business process.

There are two types of indicators:

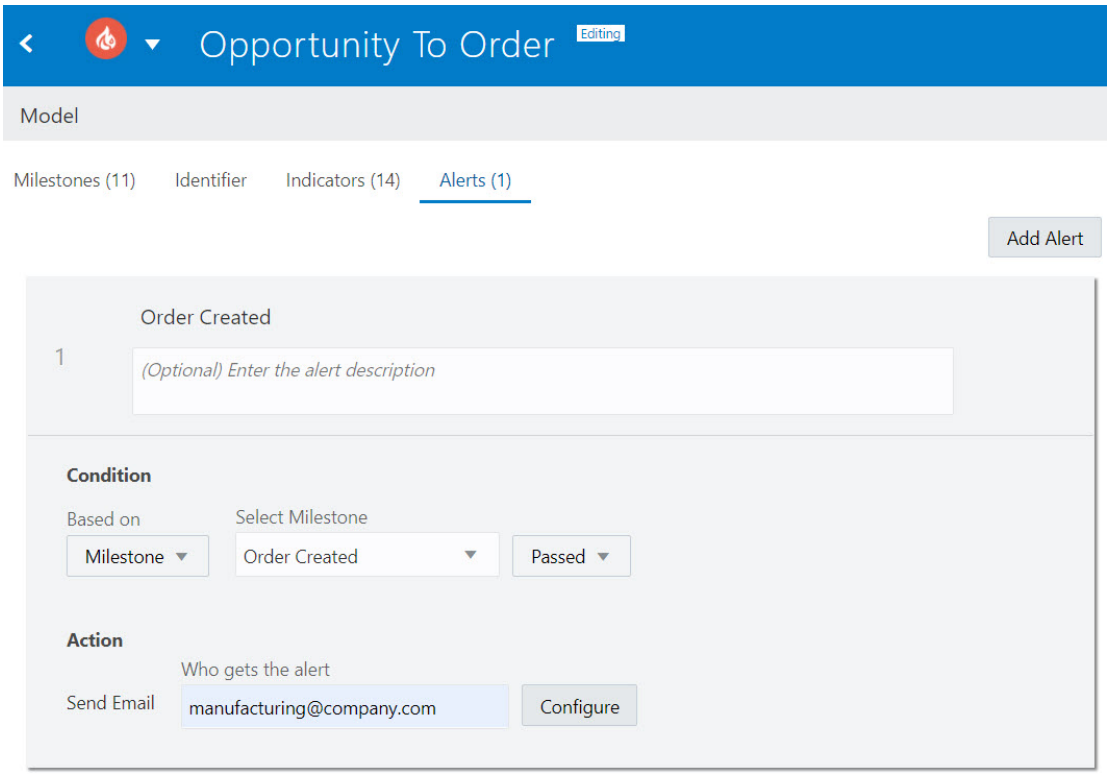
- **Measures** are numerical values that can be used by mathematical functions. They identify values that allow the state of a business process to be quantified. For example, a business process might define measures for Total Order Value or Item Count. A single measure can change over the lifecycle of a model. For example, the Discount amount may change during a business process because the Quote Modified milestone can be passed more than once.
- **Dimensions** provide a type of grouping and categorization of business transactions (instances), allowing for slicing and dicing of aggregate integration measures. For example, a typical order in a business process might define dimensions for Geographic Region, Sales Channel, or Product Category.

> **Important:**
>
> Insight does not support duplicate indicators.

See Define Indicators and Define Indicator Extraction Criteria.

Alerts

Alerts define conditions for milestones or indicators to notify users when those conditions are met.



Limitations:

- When you export or import a model, any alerts defined for the model are not included in the archive. You must redefine alerts when you import the model into another Insight instance.

You can optionally define alerts in your model to notify users by email when:

- A milestone is passed or not passed.
- An indicator (dimension or measure) is equal to, greater than, or less than a specified value.

You can configure the alert notification email to include the unique instance identifier, indicator values, and a link to the associated Business Transactions dashboard in the body of the email.

See Define Alerts.

About Model Instances

Instances represent the activity of the associated Insight model. A single instance is a unique occurrence of the business process that the model defines. To a Business Executive, an instance is a *business transaction*.

An instance always begins when the model's Initial milestone is passed and always ends when one of the model's Terminal or Terminal Error milestones is passed. This activity is

more commonly described using the model-specific **Business Transaction Label** and **Business Transactions Label** values that represent singular and plural terms, respectively, that are understandable by Business Executives, such as "Order" and "Orders".

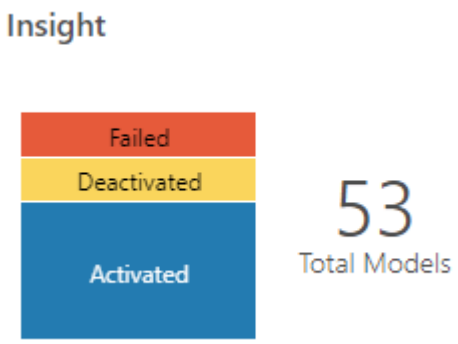
Instance status depends on whether the instance is active or completed:

- **Active** — either **Healthy** or **Recoverable Errors**:
  - **Healthy**: The milestone passed most recently is either Initial or Standard.
  - **Recoverable Errors**: The milestone passed most recently is Error but not Terminal Error.
- **Completed** — **Successful** or **Failed**:
  - **Successful**: The milestone passed most recently is Terminal.
  - **Failed**: The milestone passed most recently is Terminal Error.

For information about milestone types, see Milestones.

View a Summary Status of All Models

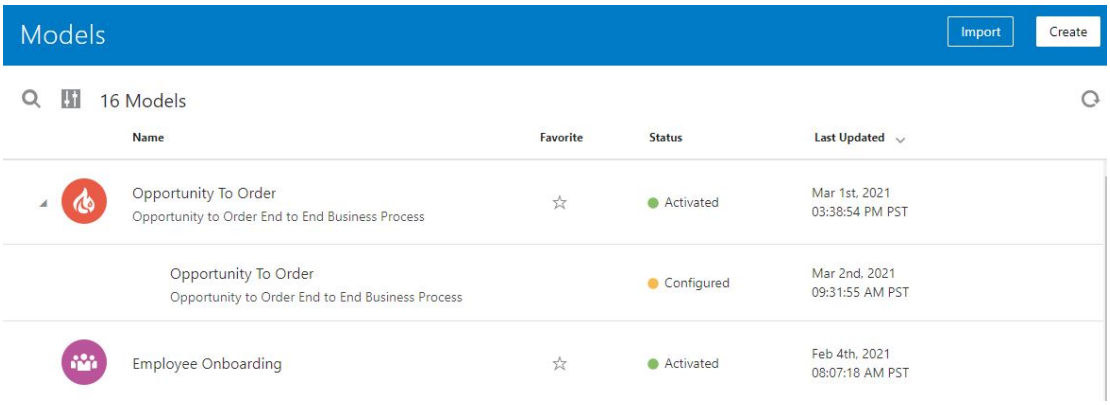
On the Oracle Integration home page, the Insight tile provides Insight Administrators, Business Users/Analysts, and Integration Architects with a summary status of Insight models. Hover your cursor over the labels to view a count of models with the associated status. Click an area of the tile to view the corresponding list of models on the Models page in Insight.



Work with the Models Page

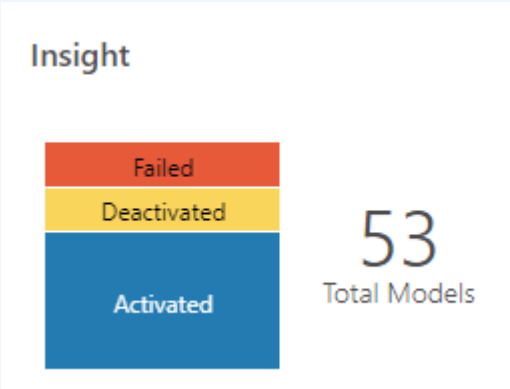
On the Models page, you can create new models and work with existing models.

Insight Administrators, Business Users/Analysts, and Integration Architects can work with the Models page.



To work with the Models page:

1. In the Oracle Integration navigation pane, click **Insight**. In the Insight navigation pane, click **Models**.

> **Note:**
>
> You can also access the Models page from the Insight tile on the Oracle Integration home page. Click the labels on the Insight tile to filter the list on the Models page by failed, deactivated, activated, or all models.
>
> 
>

2. On the Models page, review the list of models and perform any of the following actions:
   - Click **Import** to import a model from a zip file. See Import a Model.
   - Click **Create** to create a new model. See Create a Model.
   - Click **Search**

     , then enter a full or partial model name in the search field and press Enter. The search results honor any filters you have applied. To clear the search field, click **Clear**

     .

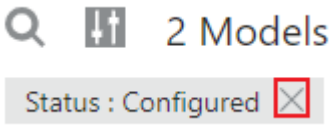
- Click **Filter**

  to filter the list of models:

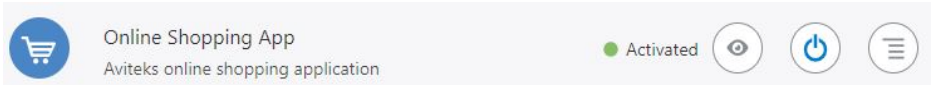
  – **Status**: select **All** to list all models, or select to list only those models that have a status of **Activated**, **Deactivated**, **Configured**, **Draft**, or **Failed**.

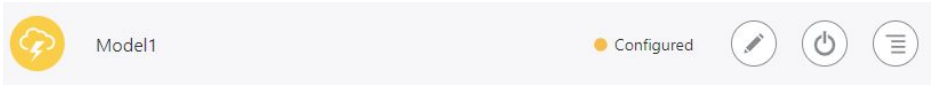
  – **Favorites**: Select **All** to display all models, or **Favorites** to display only those models that are marked as a favorite.

  On the Models page, remove a filter by clicking its **Remove** icon.



- In the list of models, hover your cursor over a model to expose model action icons:





  – **View**: Click

  to view the milestones, unique instance identifier, and indicators (dimensions and measures) defined for an activated model.

  – **Deactivate**: Click

  to deactivate an activated model. See Deactivate a Model.

  – **Create Draft**: Click

  then **Create Draft** to create a draft version of an Activated model to continue editing a model without interrupting metrics collection. See Edit a Model.

  - **Delete** or **Discard**: Click

    then **Delete** or **Discard**, depending on the status of the model. This action is permanent and cannot be reversed. See Delete a Model.

  - **Export**: Click

    then **Export** to export a model to a zip file. See Export a Model.

  - (Insight Administrator only) **View Console**: Click

    then **View Console** to open the console showing the dashboards for a model. See Work with the Console and Dashboards for a Business Process.

  - **Edit**: Click

    to edit a Draft or Configured model. See Edit a Model.

  - **Activate**: Click

    to activate a model. The model definition must be fully complete to activate it. A draft can be activated to replace the existing active model. See Activate a New or Changed Model.

- **Favorites**: Click a model's **Favorite** icon

  to mark it as a favorite or remove it from your favorites list.

- Click any column heading to sort in ascending or descending order. The **Last Updated** column for models in Draft status shows the date and time the model's metadata was most recently updated; for other models, the time and date specifies when the last lifecycle action occurred that changed the model's status.

Create a Model

An Insight *model* provides a grammar for describing the milestones of a *business process* that are key for tracking performance metrics and potential bottlenecks.

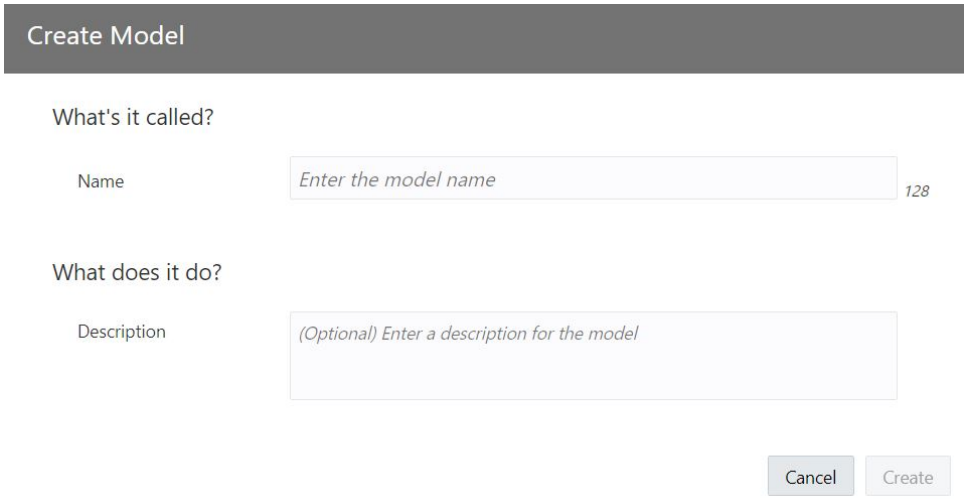
Insight Administrators, Business Users/Analysts, and Integration Architects can create and edit models.

To create a model:

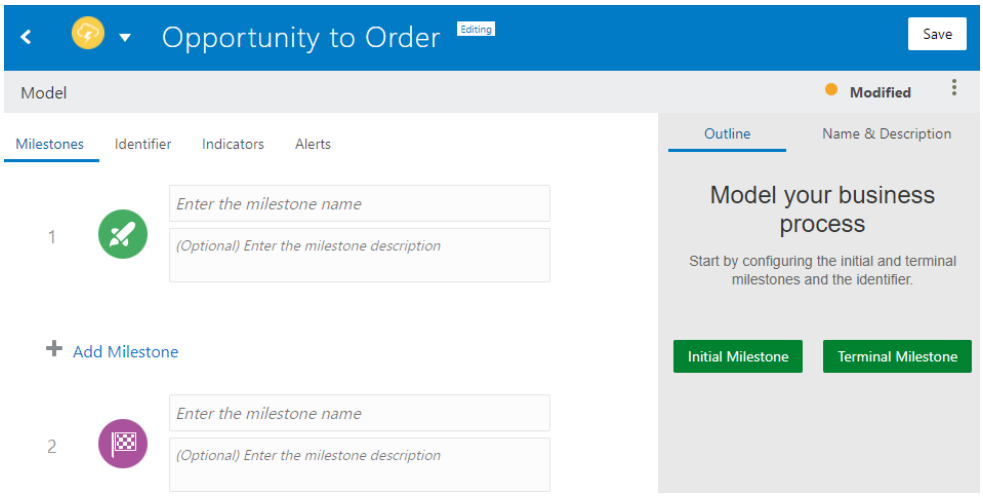
1. On the Models page, click **Create**.

> **Note:**
>
> You can also create a new model in the Insight Designer (in the Integrations feature in Oracle Integration) if it does not yet exist. See Map Milestones to Integration Actions.

2. In the Create Model dialog, enter a name and optional description for the new model, then click **Create**.

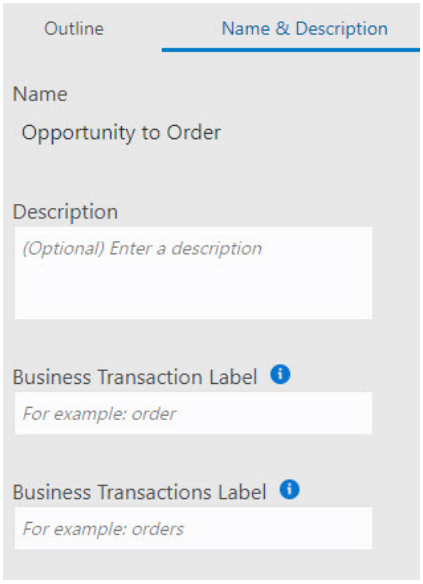


The Model Editor opens with the new model in Draft status. The new model includes two milestones: the first milestone is an *Initial milestone* and the last milestone is a *Terminal milestone*. These preseeded milestones are mandatory and cannot be removed from the model. You will add milestones between these two default milestones.



3. In the Model Editor, complete the following tasks:
   - Click the arrow next to the model's icon, then choose an image to represent it.

- Click the **Name & Description** tab, then enter a **Business Transaction Label** and **Business Transactions Label** that represent singular and plural terms, respectively, for business transactions that are understandable by Business Executives, such as "Order" and "Orders".



- Define milestones in the model that you will map to points in the business process implementation. See Define Milestones.
- Define a unique instance identifier for the model. See Define a Unique Instance Identifier.
- Define dimensions and measures for indicators. See Define Indicators.

4. Click **Save** to save the model.

   A confirmation message appears. The model is created and is in Draft status.

Next step: Define Milestones

Define Milestones

Milestones are key components in an Insight model. They define points in a business process that represent progress and can be mapped to an action in the business process implementation.

For more information about milestones, see Milestones and Map Milestones to Integration Actions.

A Business User/Analyst defines milestones, in collaboration with an Integration Architect who maps the milestones to actions in the business process implementation.

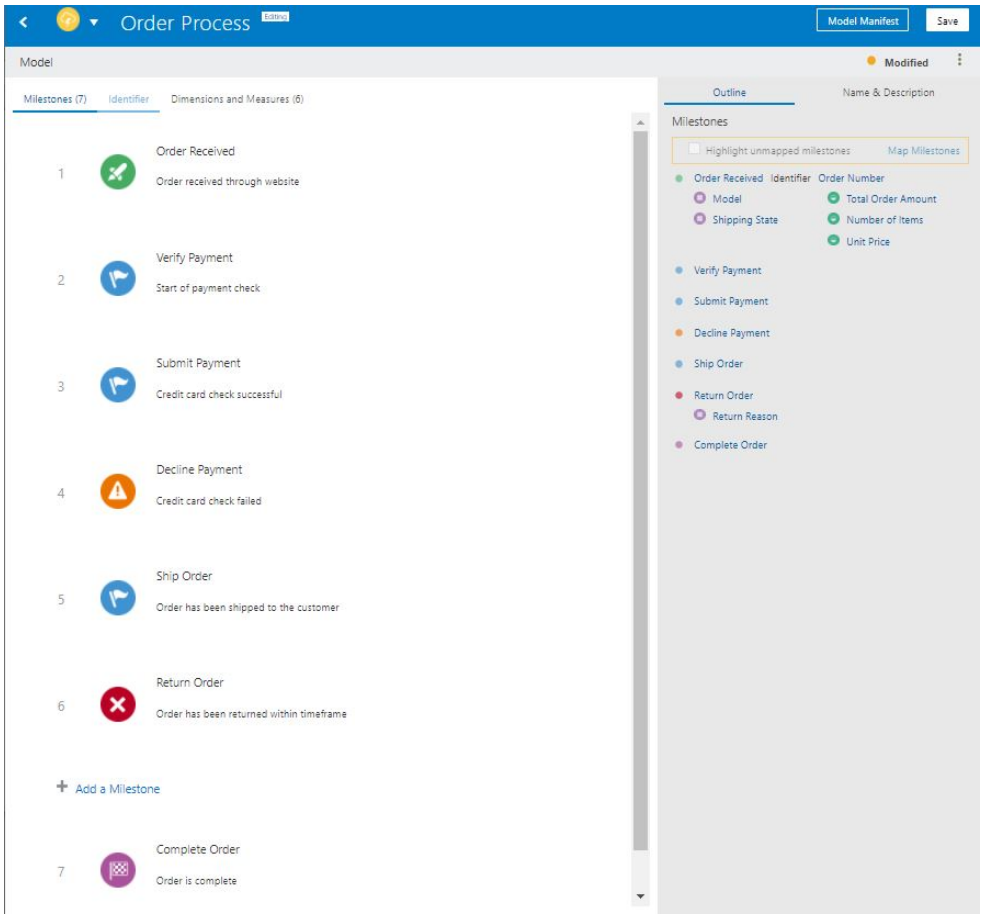
To define milestones:

1. On the Models page, open the model for editing.
2. On the **Milestones** page:
   - Enter a name and optional description for the Initial and Terminal milestones if not already specified.

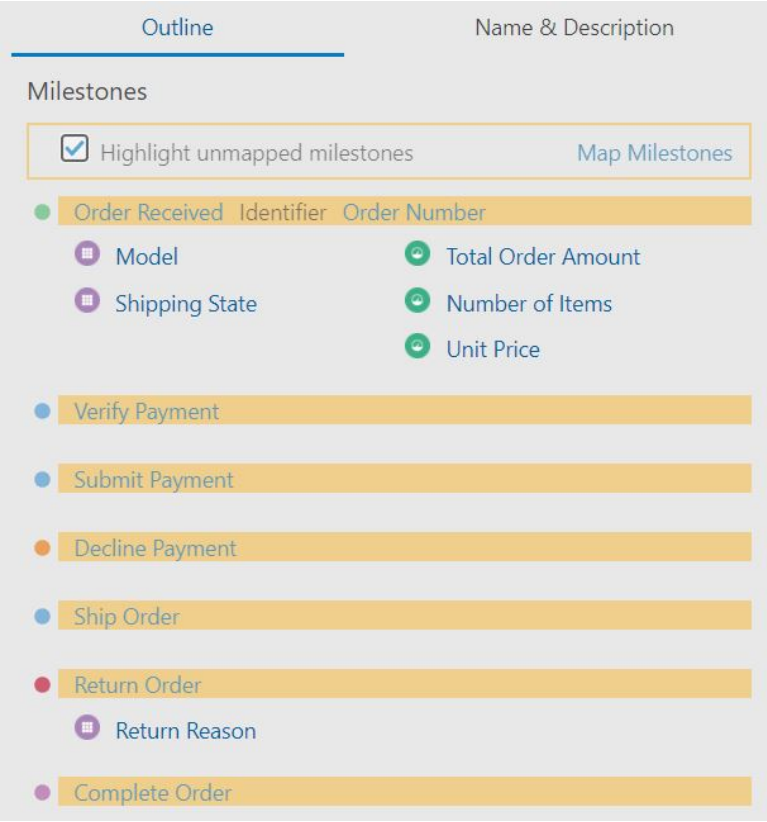
- Click **Add a Milestone** to define additional milestones for the model.
- For each new milestone, enter a milestone name and description, and select the milestone type (Standard, Error, Terminal, or Terminal/Error).
- To delete a milestone, click

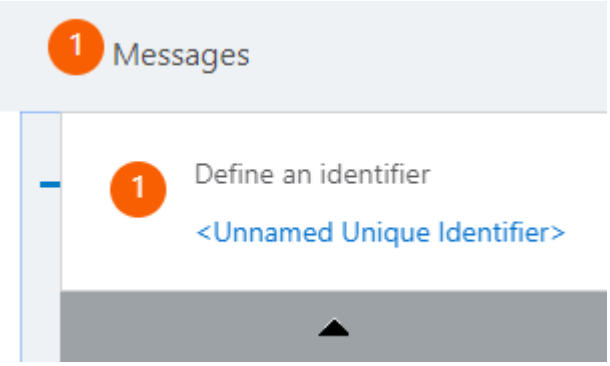
  next to the milestone name, and select **Delete**.



Notice that the right pane shows an outline view of the milestones, where you can select **Highlight unmapped milestones** for a quick summary view of those milestones that need to be mapped to an integration.



Any pending tasks are shown under **Messages** in the right pane. Click the link in each message to perform the necessary task.



3. Click **Save**.

To map milestones to integration actions, see Map Milestones to Integration Actions.

Next step: Define a Unique Instance Identifier

Define a Unique Instance Identifier

Every Insight model must have a *unique instance identifier* defined. This identifier describes a value that is extracted at runtime for every instance (business transaction) of the business process defined by the model.

For an understanding of the unique instance identifier, see Unique Instance Identifier.

To define a unique instance identifier for a model:

1. On the Models page, open the model for editing.
2. On the **Identifier** page, enter a name that identifies a unique value in the business process.

   Make sure that the value you specify will identify unique instances in the business process. For example, `Order ID`. You do not want to specify something like `salesRepId`, because the same sales representative is likely responsible for multiple orders and therefore is not a unique identifier among instances of the business process defined by the model.
3. Optionally, enter a description for the identifier.
4. From the **Milestone** list, select a milestone that has been defined for the model so that when the milestone is passed in the business process, the value of the unique instance identifier will be extracted based on extraction criteria to be defined later. If no milestones exist yet, navigate back to this page later to select a milestone from the list.
5. Select a **Data Type** for the unique instance identifier: **String**, **Integer**, **Float**, **Decimal**, or **Date**.

   > **Note:**
   >
   > The selected data type must match the data type of the value that will be extracted at runtime, as defined by the associated identifier extraction criteria that you will specify later. Otherwise, the identifier will show an empty value in Insight dashboards.
6. Click **Save**.

Later, you will define the extraction criteria for the unique instance identifier:

- If you map milestones to an integration in the Integrations feature, you define the extraction criteria for the unique instance identifier in either Insight or Integrations. See Associate a Model to an Integration. Milestone mappings to integrations and associated extraction criteria are shown in both Integrations and Insight.
- If you map milestones to a process in the Processes feature, you define the extraction criteria for the unique instance identifier in Processes. See Associate a Model to a Process. Milestone mappings to processes and associated extraction criteria are shown only in Processes, *not* in Insight.

Next step: Define Indicators

Define Indicators

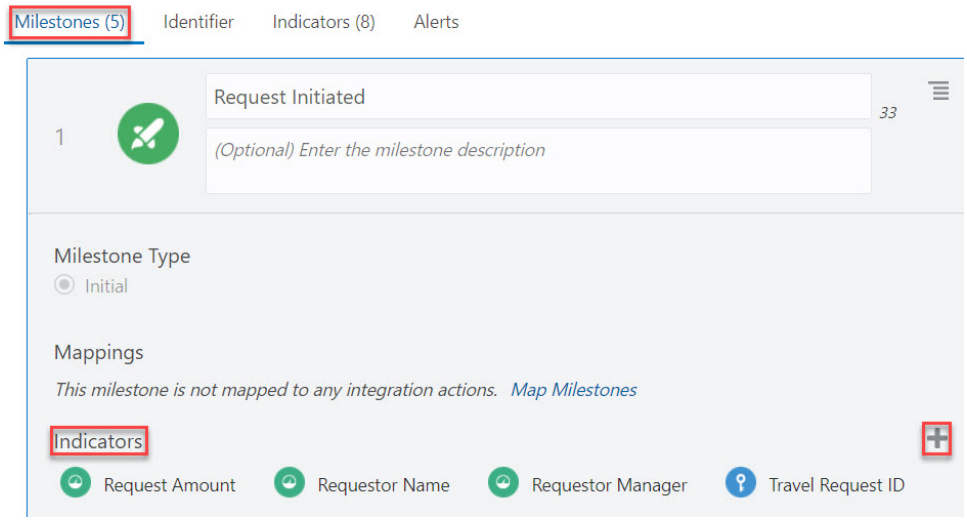
Indicators represent metrics that are unique to a business process, and are extracted when milestones are passed in a business process implementation.

For an understanding of indicators, see Indicators.

To define an indicator (dimension or measure):

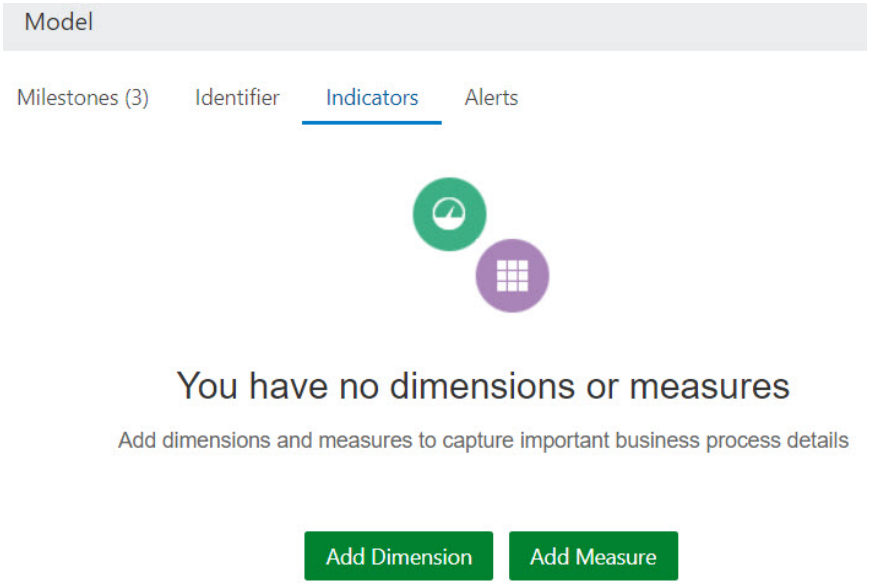
1. On the Models page, open the model for editing.
2. Define the indicator on either the **Milestones** page or the **Indicators** page:
   - On the **Milestones** page, click the milestone for which you want to create an indicator, and next to **Indicators**, click **Create**

     and select the type of indicator you want to create: **Add Dimension** or **Add Measure**.

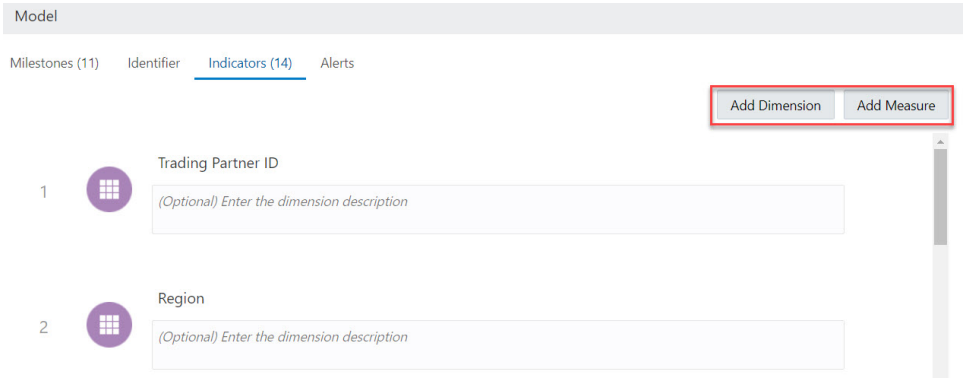


   - Or, on the **Indicators** page, click **Add Dimension** or **Add Measure**.

     If no indicators exist for the model, the Indicators page looks like this:

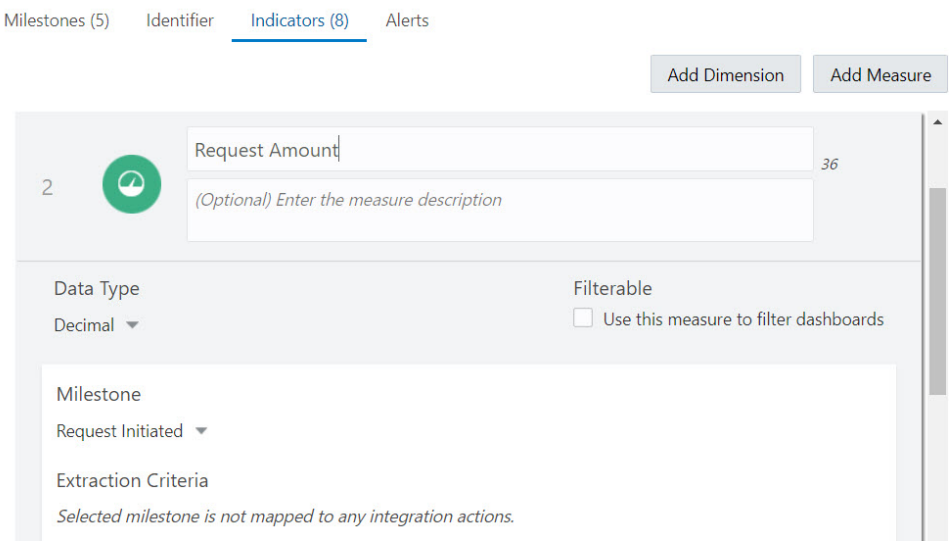


If indicators have been defined for the model, the Indicators page looks like this:



A dimension is indicated by the icon and a measure is indicated by the icon.

3. Enter a name and optional description for the indicator.



4. If you want to use the indicator as filter criteria in custom dashboards and the Business Transactions dashboard, select the **Filterable** check box to enable filtering. Be mindful of the number of indicators you mark as **Filterable**, as too many filterable indicators can slow down performance.
5. (If on the Indicators page) From the **Milestone** list, select a milestone that has been defined for the model so that when the milestone is passed in the business process, a value will be extracted for the indicator based on the extraction criteria to be defined later. If no milestones exist yet, navigate back to this page later to select a milestone from the list.
6. Select the **Data Type** for the indicator.

   For dimensions, the supported data types are **String**, **Integer**, **Float**, **Decimal**, and **Date**. For measures, the supported data types are **String**, **Integer**, **Float**, and **Decimal**.

   Notes:

   - Indicator values of **String** data type are truncated at 256 characters in the console and dashboard output.
   - The selected data type must match the data type of the value that will be extracted at runtime, as defined by the associated indicator extraction criteria that you will specify later. Otherwise, the indicator will show an empty value in Insight dashboards.
7. If the value extracted for the indicator may change as each milestone is passed during the business process (for example, a discount may be applied to an indicator that extracts the price of an item), click **Assign to Another Milestone** to select another milestone where the indicator may change. During runtime, the business process metrics show the last value of the indicator in the Insight dashboard.
8. Repeat steps 2 through 7 for each indicator that you want to define.
9. Click **Save**.

Later, you will define the extraction criteria for the indicators:

- If you map milestones to an integration in the Integrations feature, you define the extraction criteria for the indicators in either Insight or Integrations. See Associate a Model to an Integration. Milestone mappings to integrations and associated extraction criteria are shown in both Integrations and Insight.
- If you map milestones to a process in the Processes feature, you define the extraction criteria for the indicators in Processes. See Associate a Model to a Process. Milestone mappings to processes and associated extraction criteria are shown only in Processes, *not* in Insight.

Define Alerts

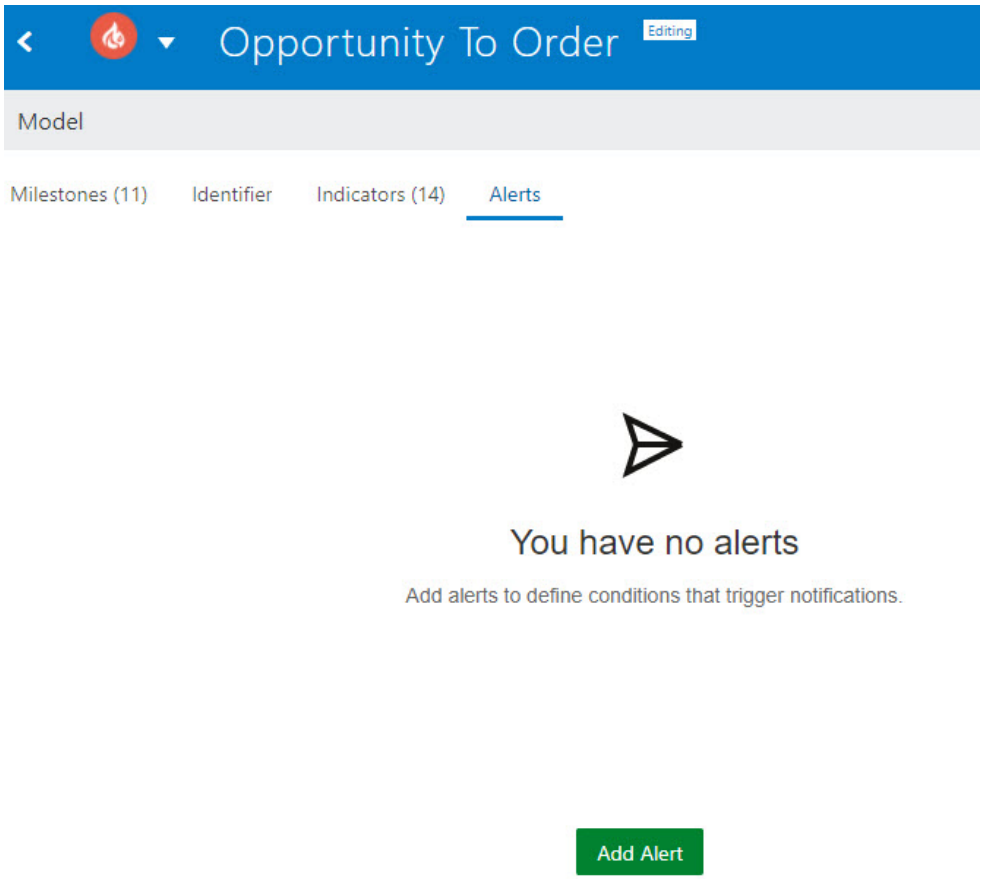
Alerts define conditions for milestones or indicators to notify users when those conditions are met.

For an understanding of alerts, see Alerts.

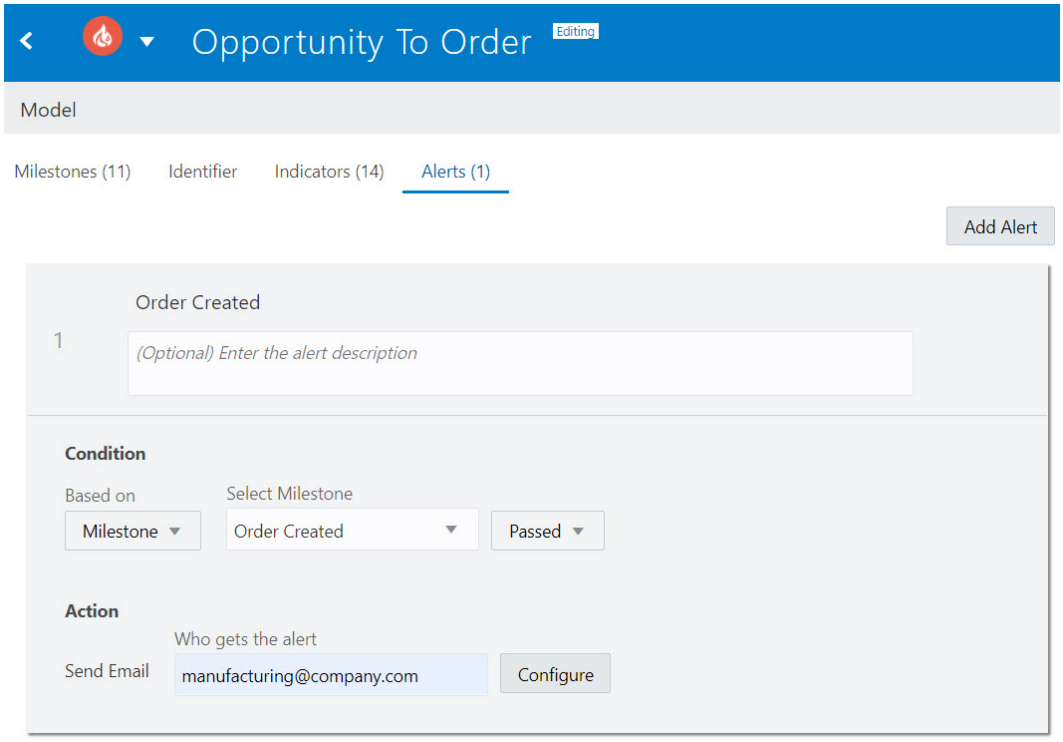
To optionally define an alert for a model:

1. On the Models page, open the model for editing.
2. Click **Alerts**.

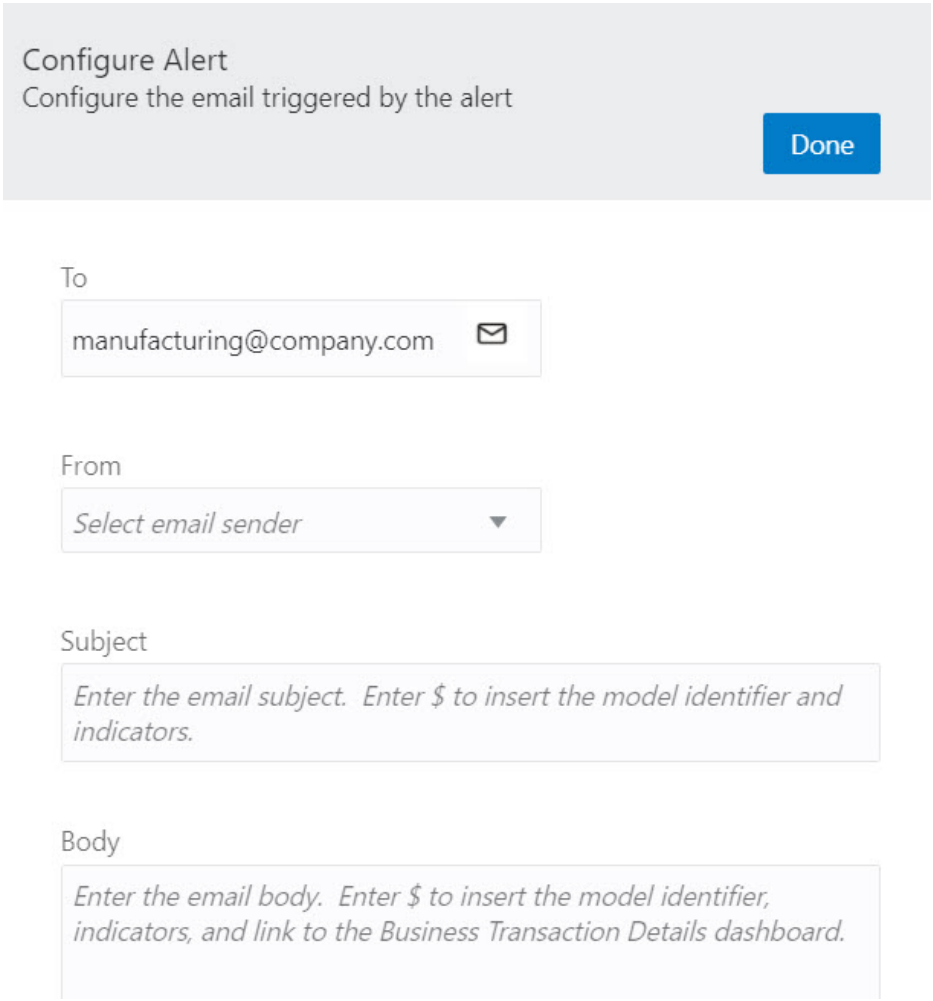
   If no alerts exist for the model, the Alerts page looks like this:



   If alerts have been defined for the model, the Alerts page looks like this:



3. Click **Add Alert**, then enter an alert name and optional description.
4. Define the required alert **Condition**:
   - To define an alert based on whether or not a milestone is passed:
     - **Based On**: Select **Milestone**.
     - **Select Milestone**: Select the milestone for which you want to define an alert.
     - Select whether the alert should be issued when the specified milestone is **Passed** or **Not Passed Within** a selected time.
   - To define an alert based on the value of an indicator (dimension or measure):
     - **Based On**: Select **Indicator**.
     - **Select Indicator**: Select the indicator for which you want to define an alert.
     - **Operator** and **Value**: Select the operator and enter a value to define the condition for issuing the alert.
5. Define the alert **Action**:
   - Click **Configure** to open the Configure Alert dialog:



- Configure the email for the alert notification:
  - **To**: Enter one or more individual or group email addresses, separated by commas.
  - **From**: Select a sender from the dropdown list, which is populated by the configuration on the Notifications page in Oracle Integration. See Send Service Failure Alerts, System Status Reports, and Integration Error Reports by Notification Emails in *Using Integrations in Oracle Integration*.
  - **Subject** and **Body**: Enter text you want to provide for the notification. The body text supports HTML markup tags. Type `$` to select and insert the unique instance identifier, indicators, or a link to the Business Transaction Details dashboard.

> **Note:**
>
> To be successfully extracted, the identifier and indicator values must be mapped to the same milestone for which the alert is configured. See Define a Unique Instance Identifier.

In the notification email that the recipient receives, the indicator placeholders in subject and body are replaced with the actual values. The link placeholder is replaced with a clickable link to the Business Transaction Details dashboard. For those indicators whose values are not available, their placeholders will be replaced with the text `[Not Available]`.

6. Click **Done**, then click **Save**.

Activate a New or Changed Model

After you have defined or updated the milestones, indicators, a unique identifier, mappings, and extraction criteria for an Insight model, it is in Configured status, and is ready to be activated.

Insight Administrators, Business Users/Analysts, and Integration Architects can activate models.

Activating a new model (or updating an existing activated model) pushes the new model definition, including mapping metadata, out to the runtime engines used during the mapping process. Mapping metadata is used by the runtime engines to monitor for execution patterns indicating that milestones have been passed. The process of validating a model, distributing it to the runtime engines, and then beginning the process of active monitoring for extracting metrics takes some time to complete.

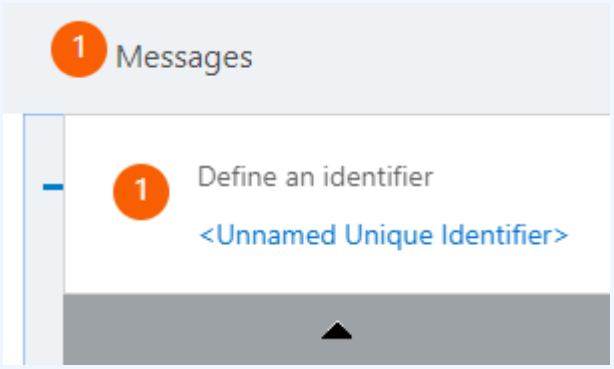
After activation is complete, Business Executives will immediately have access to dashboards that monitor the business process in real time.

To activate a model:

1. On the Models page, complete any pending tasks for the model you want to activate.

Notes:

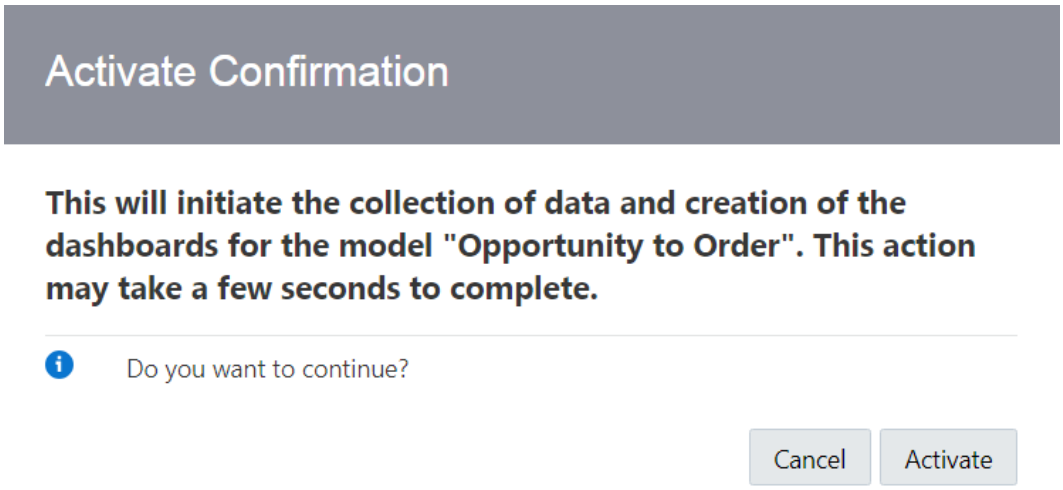
- If you are making changes to an existing activated model, click the
  
  icon next to the existing model to view the updated draft model.
- Any pending tasks are shown under **Messages** in the Model Editor. Click the link in each message to perform the necessary task.



The model status changes from Draft to Configured only when all pending tasks are completed. You can activate a model only when it is in Configured status.

Note:

2. Hover your cursor over the model you want to activate and click
   
   .
3. In the confirmation dialog, click **Activate**.



A message notifies you that the activation request was submitted, and the progress status is displayed.

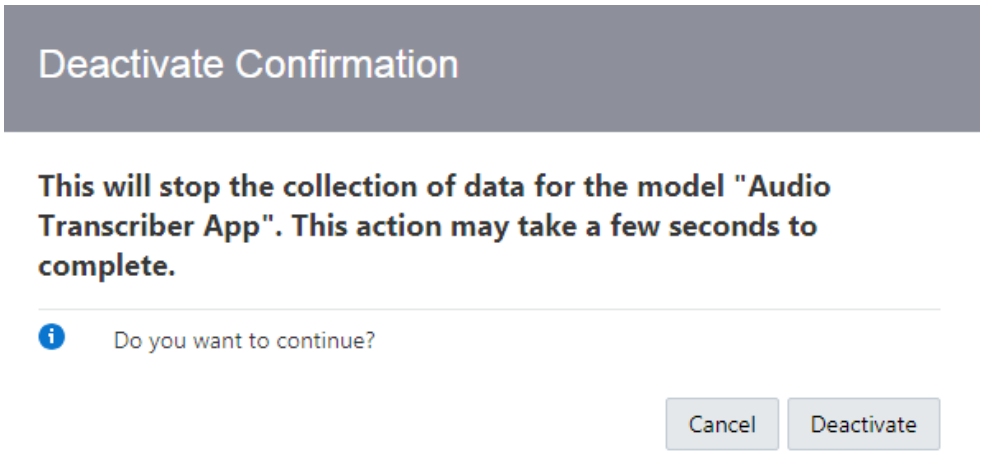
Deactivate a Model

You can deactivate an active Insight model to stop gathering metrics from the business process defined by the model.

Insight Administrators, Business Users/Analysts, and Integration Architects can deactivate models.

To deactivate a model:

1. On the Models page, hover your cursor over the model you want to deactivate and click  .
2. In the Deactivate Confirmation dialog, click **Deactivate**.



If any of the following scenarios are encountered by the deactivation process, the Deactivate Errors dialog is displayed:

- The business process instance to which a milestone is mapped has been deleted or is otherwise unavailable.
- The connection to the business process instance to which milestones are mapped fails.
- The business process instance to which milestones are mapped is no longer registered to the Insight instance.

To confirm deactivation of a model when presented with the Deactivation Errors dialog, click **Deactivate Anyway**.

Edit a Model

An Insight model in Draft status can be edited.

Insight Administrators, Business Users/Analysts, and Integration Architects can create and edit models.

> **Note:**
>
> Before making changes to an active model, review the information in Impact of Model Reactivation After Changes in Model Metadata.

To edit a model:

1. On the Models page:
   - If the model is Activated, click
     
     then **Create Draft**

- If the model is Configured or a Draft, click the name or

of the model.

2. After making the required changes, save and reactivate the model to apply the changes. See Activate a New or Changed Model.

Impact of Model Reactivation After Changes in Model Metadata

If you change the metadata of an activated Insight model and try to activate it again, the existing metrics of the model are impacted.

The following table illustrates the impact on the existing metrics of the model being reactivated.

Operation	Impact on existing metrics of the model
Model name changed	The model name is changed across Insight and there is no impact on the existing metrics.
Milestone added	New instances created after activation will start collecting data for the new milestone. Existing metrics will remain unaffected.
Milestone deleted	Existing metrics collected for the deleted milestone will be lost. Existing instances will depict that the milestone was never reached. You will also be notified with a warning message about such changes upon reactivation of the model.
Milestone type modified: • Initial • Terminal • Error • Error Terminal • Standard	The existing metrics may become confusing. For example, suppose a Terminal milestone is changed to Standard. The Instance Details page (also known as Business Transaction Details dashboard) will not show a Terminal milestone. You will also be notified with a warning message about such changes.
Milestone name modified	No impact on existing metrics. All dashboards will show the changed name.
Milestone implementation mapping changed	No impact on existing metrics. New instances will collect data in accordance to new implementation mapping.
Indicator added	No impact on existing metrics. New instances will start collecting metrics for the new indicator upon reactivation of the model.
Indicator deleted	The existing metrics collected for the deleted indicator will be lost. Upon activating the model with a deleted indicator, you will be presented with a list of dashboards where the indicator is being used. You must remove affected dashboards or remove the usage of the indicator from those dashboards to proceed with the activation.

Operation	Impact on existing metrics of the model
Indicator extraction criteria is modified	The existing metrics collected for the indicator will be lost. On activating the model with a deleted indicator, you will be presented with a list of dashboards where the indicator is being used. You must remove affected dashboards or remove the usage of the indicator from those dashboards to proceed with the activation.
Indicator name is modified	No impact on existing metrics. The new indicator name will continue to show for existing and new instances.

Import a Model

You can import a model created in another Insight instance from an archive.

Insight Administrators, Business Users/Analysts, and Integration Architects can import models.

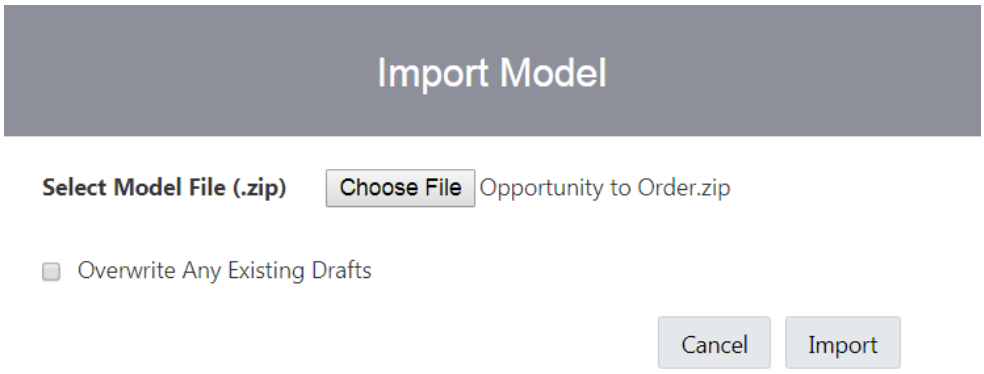
Limitations:

When you import a model from an archive, alerts and custom dashboards defined for the model are not included in the archive:

- You must redefine *alerts* in the imported model.
- You can import *custom dashboards* after the model is imported and activated. See Import Dashboards.

To import a model created in another Insight instance:

1. On the Models page, click **Import** to open the Import Model dialog.
2. Click **Choose File** to browse to and select an archive zip file of a previously exported model that you want to import.



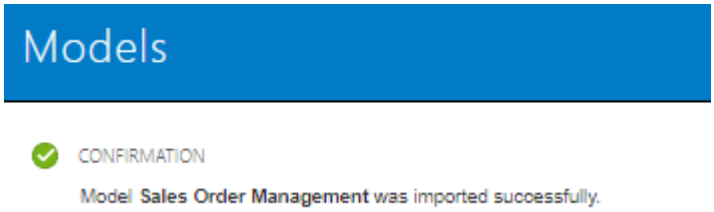
3. (Optional) Select **Overwrite Any Existing Drafts** if you want to overwrite an existing draft model of the same name with the model being imported.

4. Click **Import**.

   The model is imported in a Draft status.

> **Note:**
>
> See What to Expect When You Import a Model Where the Unique Instance Identifier Is Mapped to Multiple Integrations for additional information if you are importing a model from an earlier version of Insight where the unique instance identifier is mapped to multiple integrations.

A confirmation message is displayed at the top of the page.



What to Expect When You Import a Model Where the Unique Instance Identifier Is Mapped to Multiple Integrations

New milestones may be automatically created when you import a model where the unique instance identifier is mapped to more than one integration (which was supported in earlier versions of Insight).

When you edit an imported model created with a previous version of Insight where the unique instance identifier is mapped to multiple integrations, the integration actions that are mapped to are examined to determine if a milestone mapped to the same action exists in your model. If Insight finds a match, the unique instance identifier is associated to the milestone that is mapped to the same action.

If Insight does not find matching milestone mappings, a new milestone is created for each unmatched unique instance identifier association.

You must either rename the new milestones or associate the mappings with appropriate milestones that already exist in your model.

> **Note:**
>
> The milestone is created only when you attempt to edit an imported model. You can activate the imported model without editing it. It will continue to function as it did previously.

Export a Model

You can export a model to later import it into another Insight instance.

Insight Administrators, Business Users/Analysts, and Integration Architects can export models.

> **Limitations:**
>
> - When you export a model, any alerts defined for the model are not included in the archive. You must redefine alerts when you import the model into another Insight instance.

To export a draft or activated model:

- On the Models page, hover your cursor over the model you want to export and click  , then select **Export** to export the model to a zip file.

Delete a Model

You can delete an Insight model when it is no longer needed.

Insight Administrators, Business Users/Analysts, and Integration Architects can delete models.

To delete a model:

1. On the Models page, hover your cursor over the model you want to delete and click  , then **Delete** or **Discard**, depending on the status of the model.
2. In the confirmation dialog, click **Delete** or **Discard**.

If any of the following scenarios are encountered by the delete process, the Delete Errors dialog is displayed:

- The business process instance to which a milestone is mapped has been deleted or is otherwise unavailable.
- The connection to the business process instance to which milestones are mapped fails.
- The business process instance to which milestones are mapped is no longer registered to the Insight instance.

To confirm deletion of a model when presented with the Delete Errors dialog, click **Delete Anyway**.

4

Associate a Model to a Business Process Implementation

After an Insight model is created and the milestones, unique instance identifier, and indicators defined, you can associate the model to a business process implementation to gain insight into your business process in real time

You can associate an Insight model to a business process implementation in Integrations or Processes, or that spans across both.

Topics:

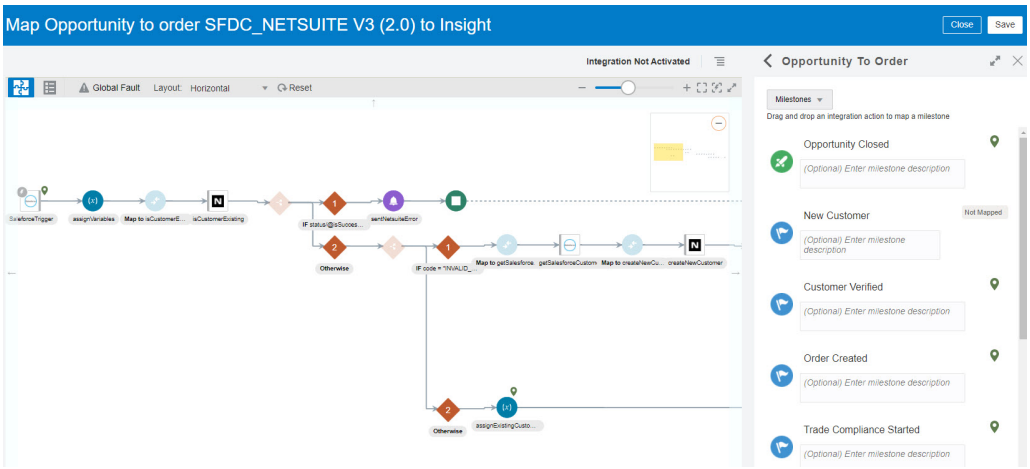
Associate a Model to an Integration

You can associate an Insight model to a business process implementation in Integrations.

To associate a model to a business process implementation in Integrations, an Integration Architect maps milestones to Integrations actions, in collaboration with a Business/User Analyst who defines the milestones in Insight.

Mapping milestones involves identifying execution points that best represent when a milestone has been passed. For example, the invocation of an action called `placeOrder` represents passage of a milestone called `OrderReceived`, so mapping the `OrderReceived` milestone to the `placeOrder` action makes sense.

As part of the mapping process, you must also define *extraction criteria* for the unique instance identifier and indicators (dimensions and measures). Extraction criteria define the rules to extract information from runtime messages, and is expressed using XPath expressions. Before you can activate a model, the extraction criteria must be defined.



Topics:

Prerequisites for Mapping Milestones

Before mapping milestones to actions in a business process implementation, all of the following conditions must be true:

- The model for which you want to map milestones must be created in Insight. See Create a Model.
- The model for which you want to create mappings must be in a Draft status. You can create a draft of an activated model, then map its milestones. See Edit a Model.
- The relationship between models and business processes can be many to many: a business process implementation can be mapped to milestones in multiple models; milestones in a single model can be mapped to multiple business process implementations. Milestones in all models that you want to map should be created and configured. See Define Milestones.

When all of these conditions are met, you can use the Insight Designer (in the Integrations feature in Oracle Integration) to map milestones to actions in a business process implementation.

Supported Integrations Actions

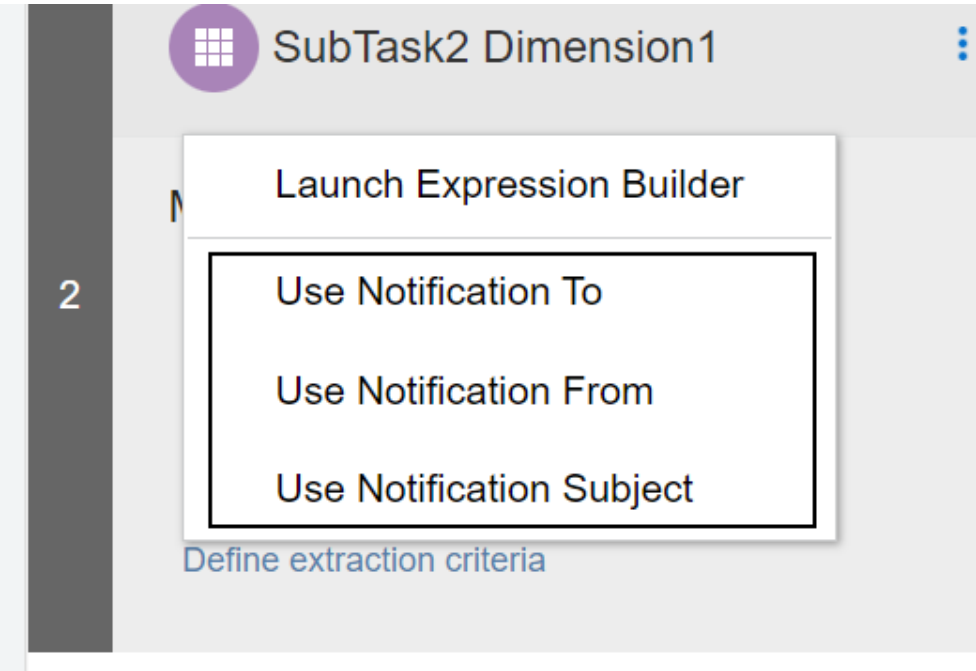
You can map milestones to only orchestration integrations. Other styles are not supported.

You can map milestones to the following actions in an integration (business process implementation):

- **Assign**: When mapped to an Assign action, a milestone is considered passed and identifier/indicator values are extracted *on entry* or *on exit* of the Assign. You can define extraction criteria using message parts that exist on entry or on exit of the Assign, depending on the option you select.
- **Callback**: When mapped to a Callback action, a milestone is considered passed and identifier/indicator values are extracted *on entry* of the Callback. You can define extraction criteria using only message parts that exist on entry of the Callback.
- **Fault Return**: When mapped to a Fault Return action, a milestone is considered passed and identifier/indicator values are extracted *on entry* of the Fault Return. You can define extraction criteria using only message parts that exist on entry of the Fault Return.
- **Invoke**: When mapped to an Invoke action, a milestone is considered passed and identifier/indicator values are extracted *on entry* or *on exit* of the Invoke. You can define extraction criteria using message parts that exist on entry or on exit of the Invoke, depending on the option you select.
- **Log** (new in 20.4.2): When mapped to a Log action, a milestone is considered passed and identifier/indicator values are extracted *on entry* of the Log. You can define extraction criteria using only message parts that exist on entry of the Log.
- [1]**Notification** (new in 20.4.2): When mapped to a Notification action, a milestone is considered passed and identifier/indicator values are extracted *on entry* of the Notification. You can define extraction criteria using only message parts that exist on entry of the Notification.

  For the indicators that are associated with the milestones mapped to a Notification action, the following additional options must be set while defining the indicator xpath in the Insight Designer:

[1] If you want to map model milestones to any of the actions added in 20.4.2 (released in November 2020) in integrations activated prior to 20.4.2, you must reactivate those integrations to use the new actions in Insight.



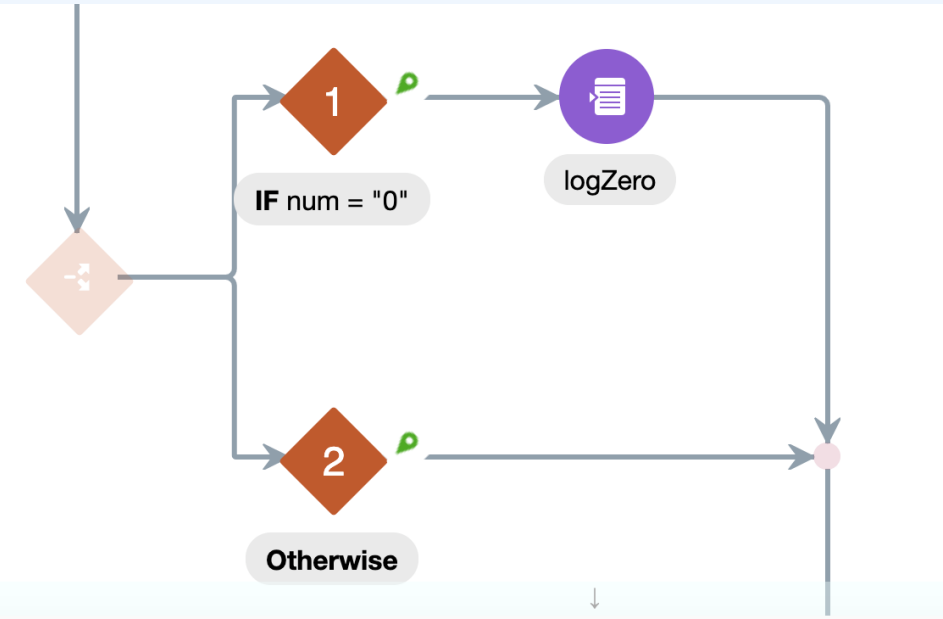
  - **Use Notification To**: the <To> mail ID associated with the notification
  - **Use Notification From**: the <From> mail ID associated with the notification
  - **Use Notification Subject**: the subject of the notification mail

  These options are in addition to the generic xpath support (**Launch Expression Builder**) supported for all other actions.

- **Re-throw Fault**: When mapped to a Re-throw Fault action, a milestone is considered passed and identifier/indicator values are extracted *on entry* of the Re-throw Fault. You can define extraction criteria using only message parts that exist on entry of the Re-throw Fault.
- **Return**: When mapped to a Return action, a milestone is considered passed and identifier/indicator values are extracted *on entry* of the Return. You can define extraction criteria using only message parts that exist on entry of the Return.
- **Schedule**: When mapped to a Schedule action, a milestone is considered passed and identifier/indicator values are extracted *on exit* of the Schedule. You can define extraction criteria using message parts that exist on exit of the Schedule.
- **Stop**: When mapped to a Stop action, a milestone is considered passed and identifier/indicator values are extracted *on entry* of the Stop. You can define extraction criteria using only message parts that exist on entry of the Stop.
- [1]**Switch** (new in 20.4.2): When mapped to a Switch action, a milestone is considered passed and identifier/indicator values are extracted *on entry* of the Switch. You can define extraction criteria using only message parts that exist on entry of the Switch.

Note:

The Switch action contains two branches by default: **IF** and **Otherwise** (default). The milestone must be mapped to either of these two branches. Be sure that you don't map the milestone to the Switch action itself.

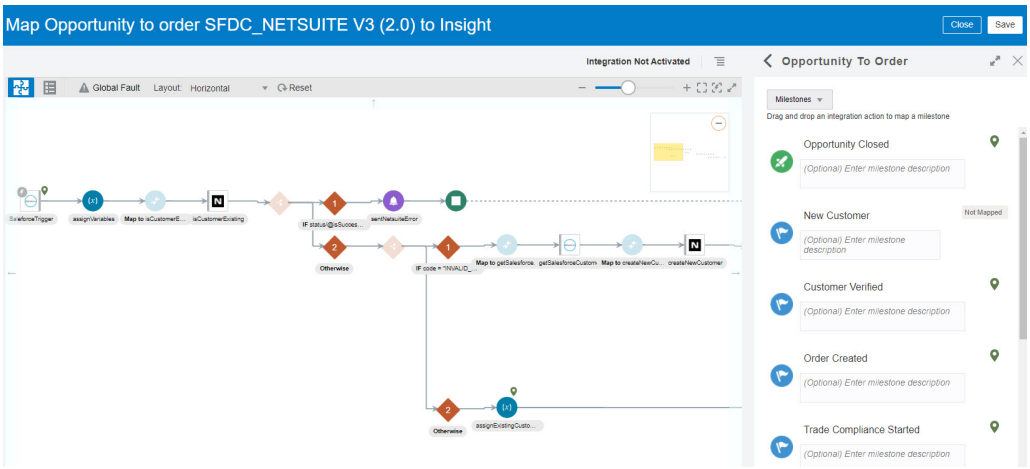


- [1]**Throw New Fault** (new in 20.4.2) : When mapped to a Throw New Fault action, a milestone is considered passed and identifier/indicator values are extracted *on entry* of the Throw New Fault. You can define extraction criteria using only message parts that exist on entry of the Throw New Fault.
- **Trigger**: When mapped to a Trigger action, a milestone is considered passed and identifier/indicator values are extracted *on exit* of the Trigger. You can define extraction criteria using message parts that exist on exit of the Trigger.

Mapping milestones to other actions is not supported.

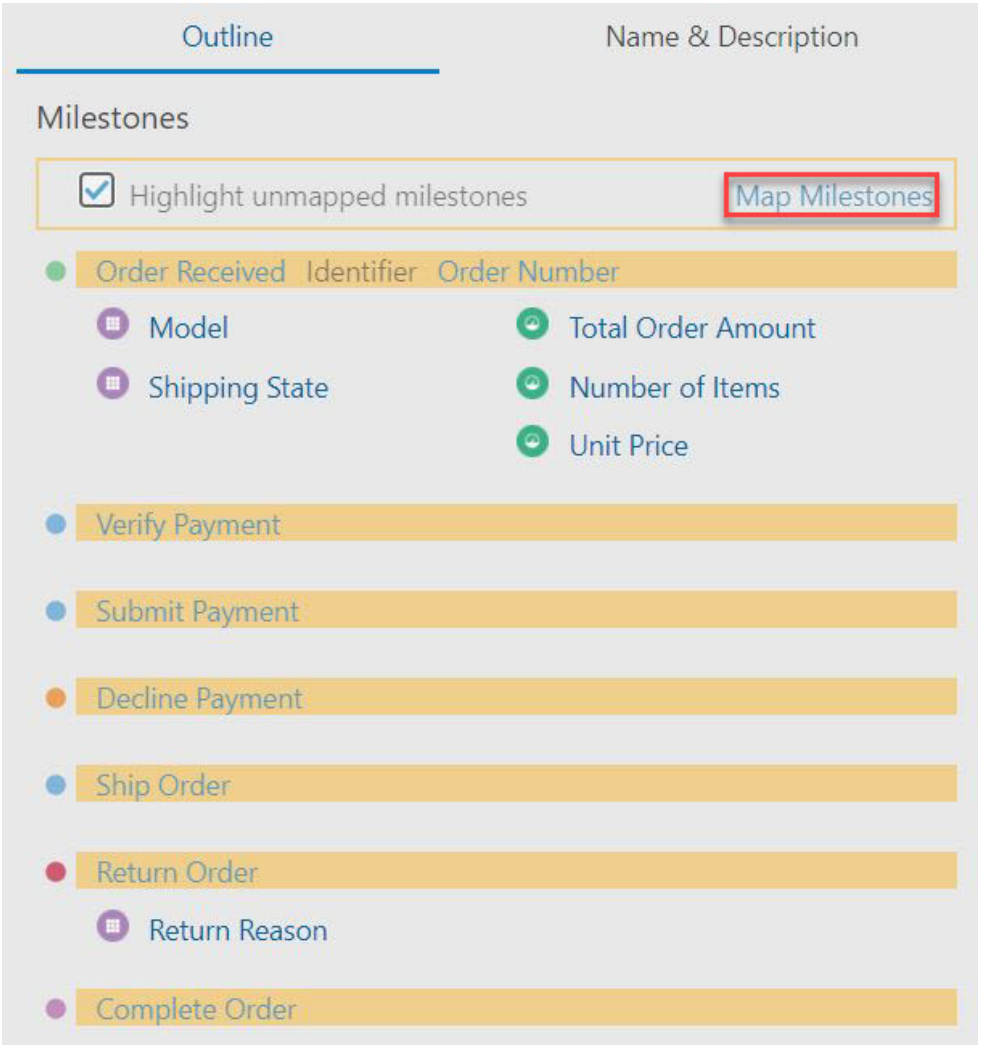
Work with the Insight Designer in Integrations

In the Integrations feature in Oracle Integration, you use the Insight Designer to view details about where each milestone in your model is mapped, map new milestones to integration actions, and define extraction criteria for the indentifier and indicators.

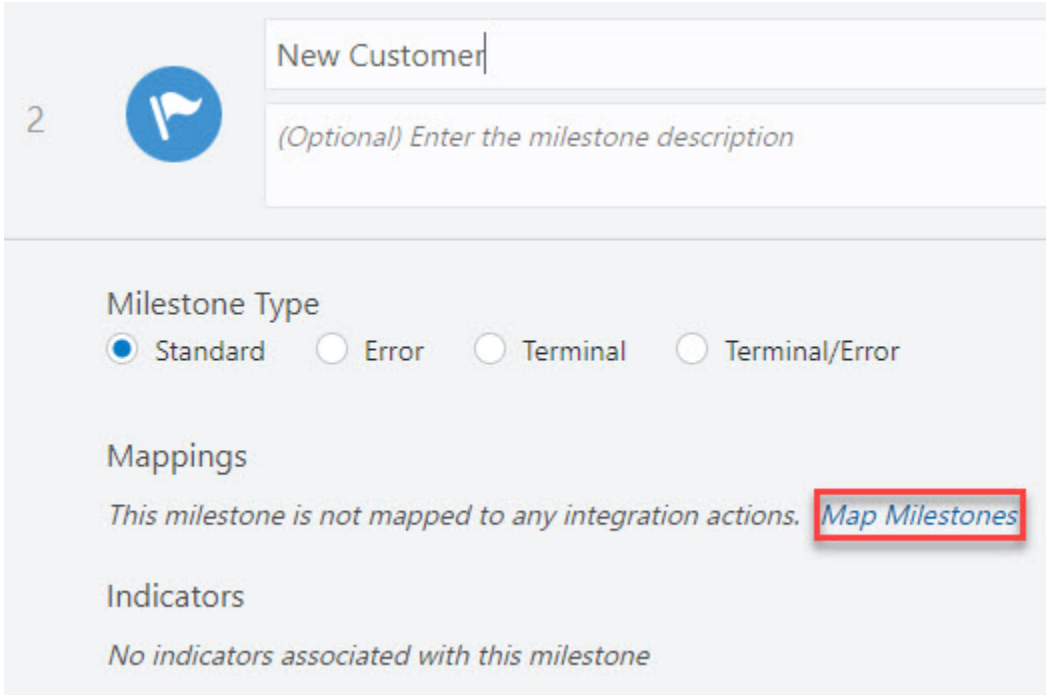


Open the Insight Designer in any of the following ways:

- In the Outline pane of the Model Editor, click **Map Milestones**.

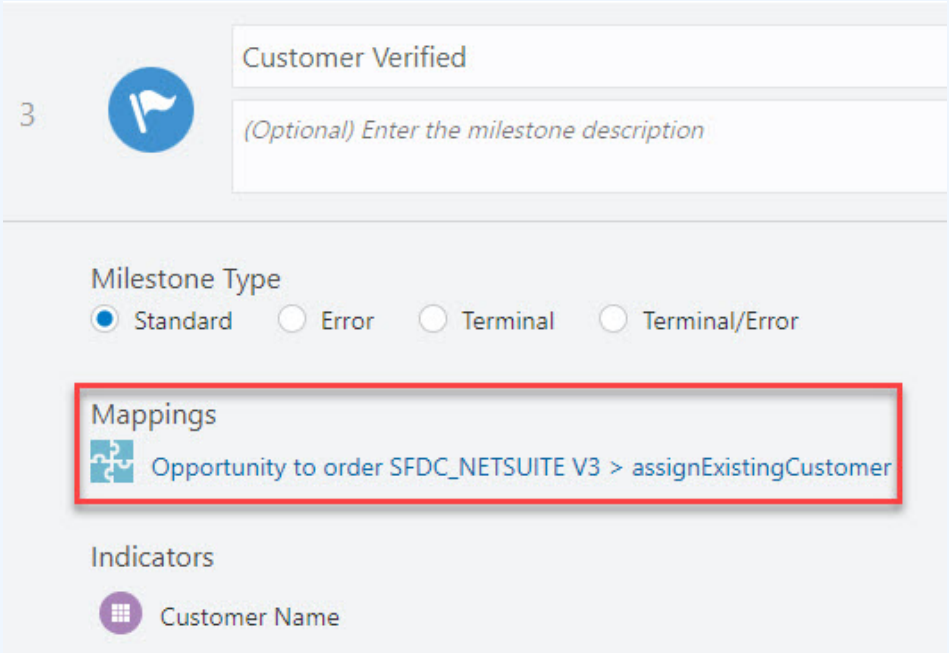


- On the Milestones page of the Model Editor, click a milestone, and select **Map Milestones**.



Note:

For a milestone that has been mapped to an integration, click the integration name under **Mappings** to open the Insight Designer.



- In the Oracle Integration navigation pane, click **Integrations**, then **Integrations**. Hover your cursor over the integration for which you want to view details, click

on the far right and select **Insight Designer**.
- When viewing an activated integration in Integrations, click

in the right pane.

> **Note:**
>
> The
> 
> icon is shown only if the integration has an Active status.

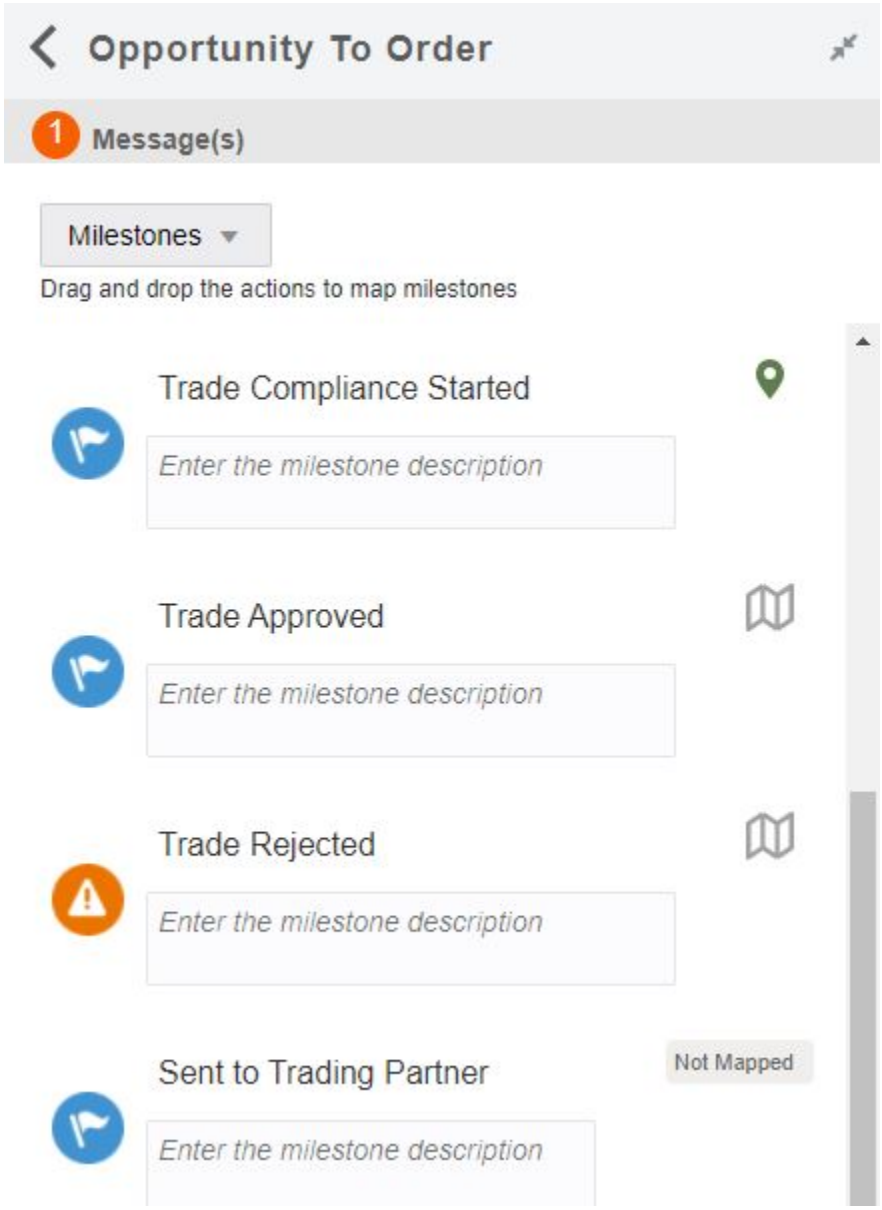
View Milestone Mapping Details

In the Insight Designer, you can view details about the milestones in your model, and their mapping information.

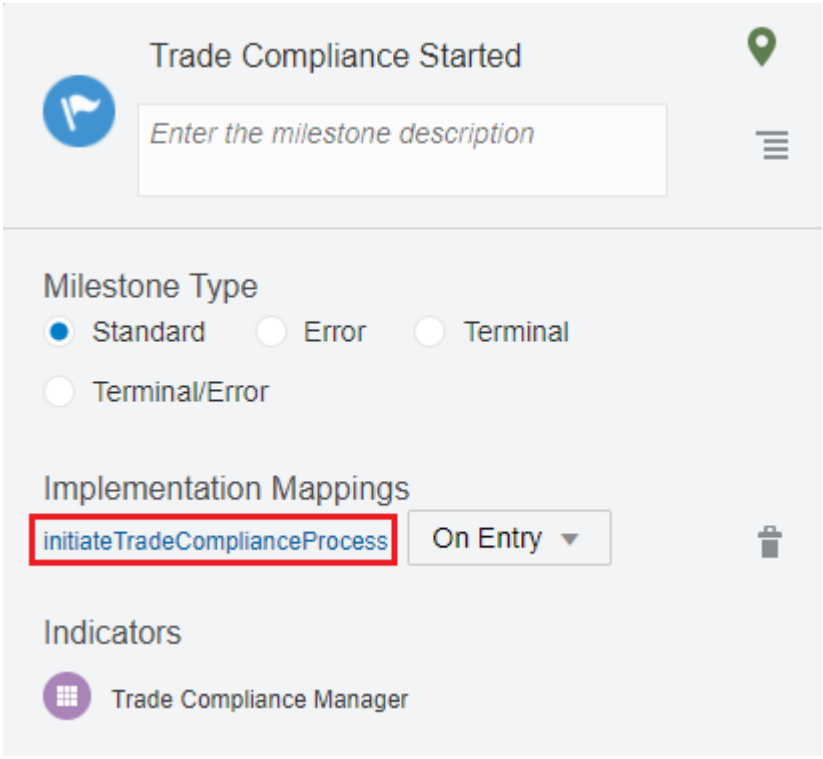
To view milestone mapping details:

1. In the Insight Designer **Models** pane, select the model for which you want to view milestone mappings.

   When a model is selected, you can work with its milestones, identifier, and indicators. To view the list of all models and select a different model, click
   
   next to the model name at the top of the pane.
2. From the dropdown list, select **Milestones**.



3. Click a milestone to expand details about the milestone type, mappings, and indicators:
   - indicates the milestone is mapped to the current integration. Click the integration action under **Mappings** to locate that action in the Insight Designer.



- 
indicates the milestone is mapped to one or more other integrations. Click 
to expand details about the milestone type, mappings, and indicators.
- **Not Mapped** indicates the milestone is not mapped to any integrations.
- Click  and select **Move Up** or **Move Down** to change the order of the milestone in the list, **Add a Milestone** to add a new milestone to the model, or **Delete** to delete the milestone.
- To delete a mapping, hover over it and click  .
- Under **Indicators**, click an indicator to navigate to its definition. See Define Indicator Extraction Criteria.

Map Milestones to Integration Actions

Mapping milestones requires an understanding of the business process implemented by one or more integrations in the Integrations feature in Oracle Integration.

An Integration Architect maps milestones to integration actions, in collaboration with a Business User/Analyst who defines the milestones in Insight. Each milestone can be mapped to only one integration action.

Every time a mapped action occurs in an integration flow, identifier and indicator information is extracted from the message payload, if applicable, and the milestone is

considered passed. Insight collects this information and displays it on relevant dashboards in the model's console.

> **Important:**
>
> Your business process implementation may span more than one integration. Repeat this task for each integration you want to map to your model.
>
> If the same business process implementation also calls a process application, you must separately associate the Insight model to the process application to extract pertinent metrics . See Associate a Model to a Process.

For more information about milestones, see Milestones and Define Milestones.

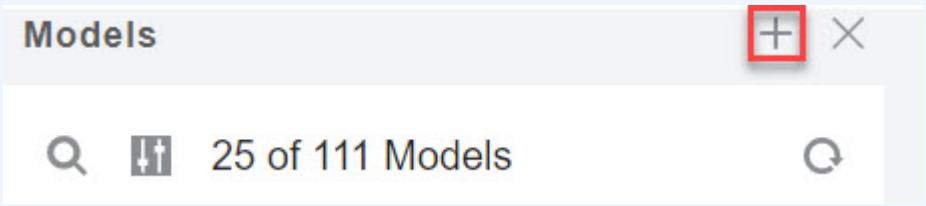
To map a milestone to an action in an integration:

1. In the Insight Designer **Models** pane, select the model containing the milestones that you want to map to this integration.

   When a model is selected, you can work with its milestones, identifier, and indicators. To view the list of all models and select a different model, click

   next to the model name at the top of the pane.

   > **Note:**
   >
   > In the Insight Designer, you can also create a new model if it does not yet exist. In the **Models** pane, click **Create Model**
   >
   > 
   >
   > .
   >
   > 
   >
   >
   > Refer to Create a Model for information about defining the model components.

   When you start mapping milestones to integration actions, Insight automatically creates a draft of the model if it is activated. Your updates are applied to the draft model, which you can activate when updates are finalized.

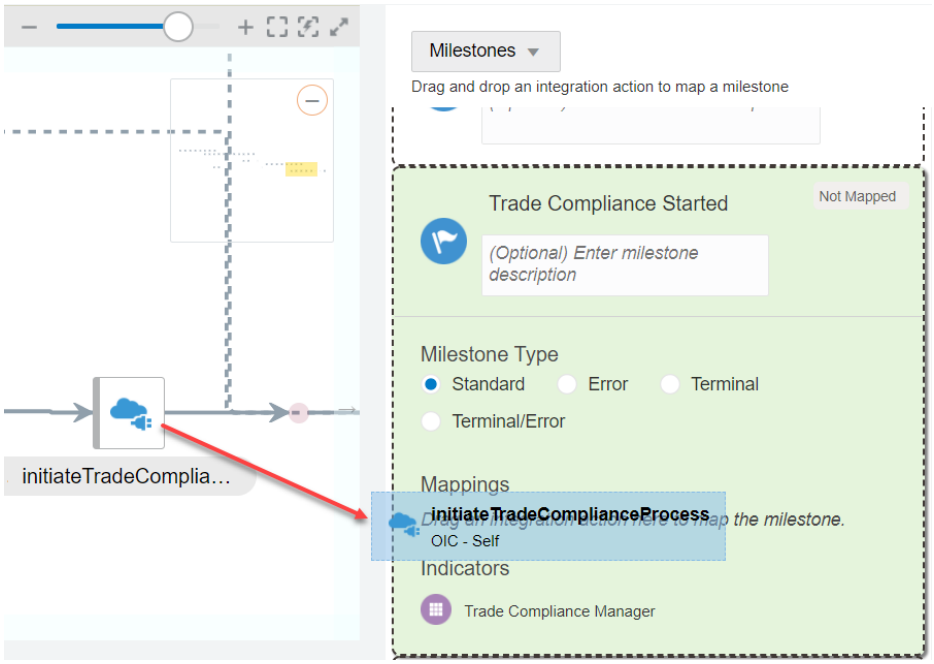
2. From the dropdown list, select **Milestones**.

   For information about the icons and actions in the **Milestones** pane, see View Milestone Mapping Details.

3. Map milestones to integration actions in any of the following ways:

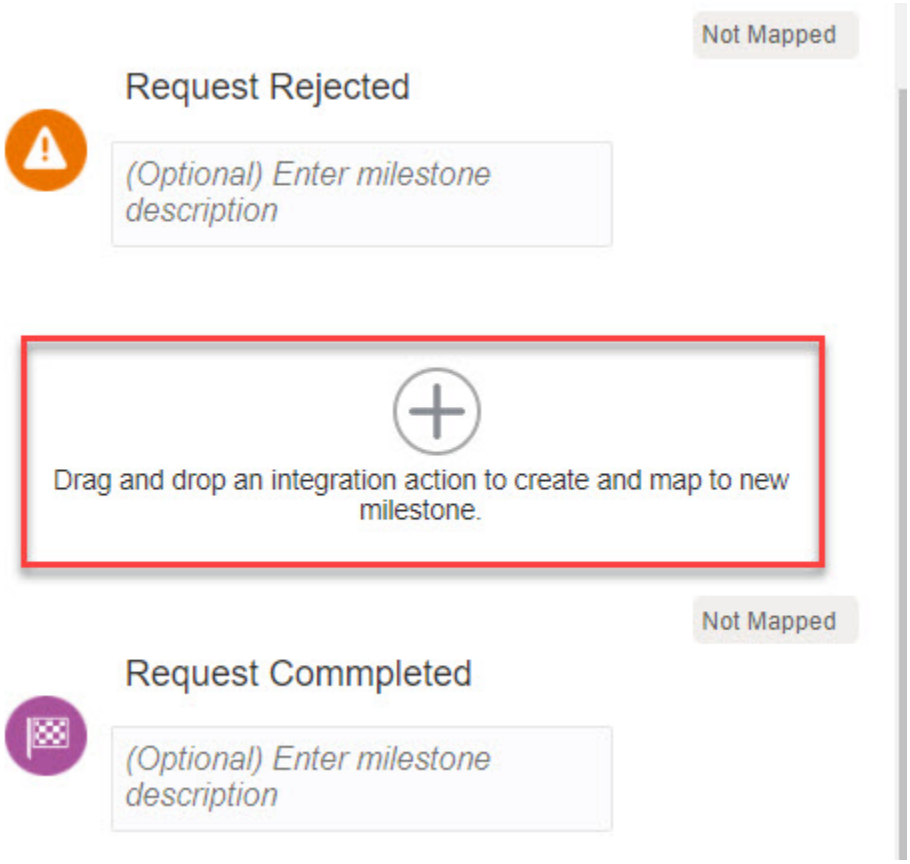
> **Note:**
>
> You can map milestones to only the integration actions listed in Supported Integrations Actions.

- Drag and drop a mappable action from the integration canvas to an existing milestone.

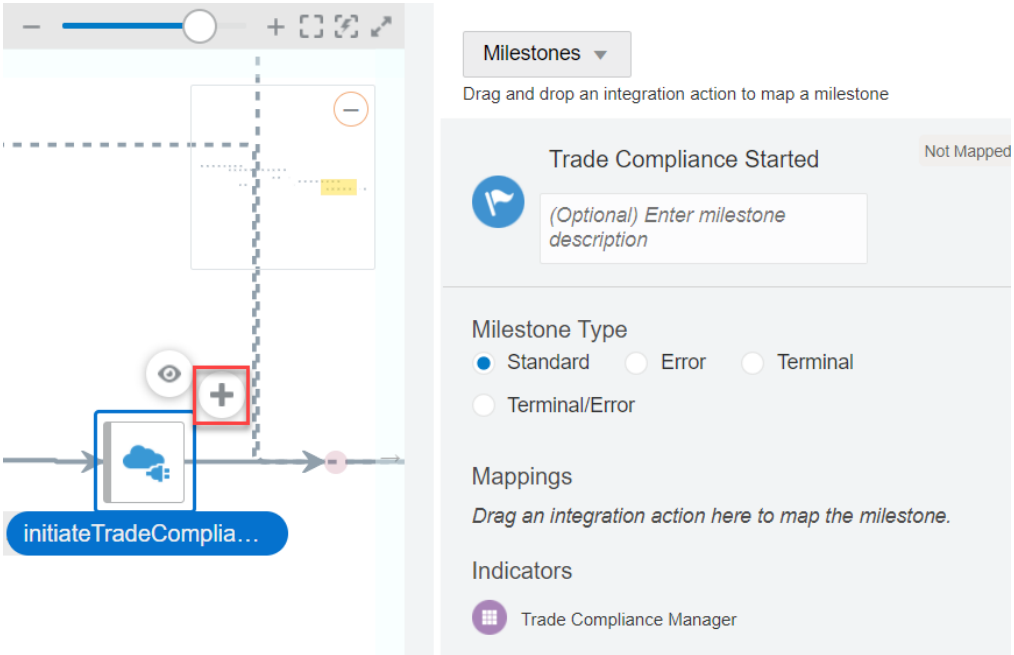


- Drag and drop a mappable action from the integration canvas to the new milestone

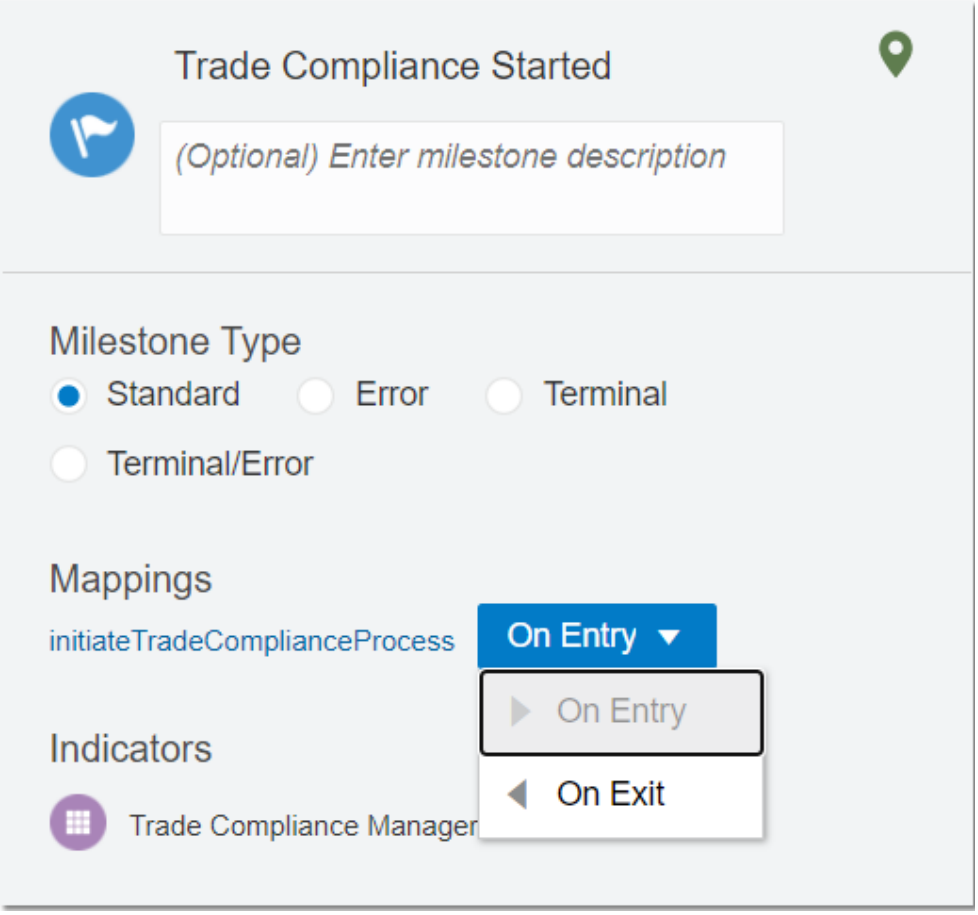
icon.



- Click to select a milestone in the **Milestones** list, click the name below a mappable action in the integration canvas, and then click the action's **Map to Insight** (+) icon. The action is mapped to the selected milestone.



4. (Optional) If you mapped a milestone to an Assign or Invoke action, select under **Mappings** whether the milestone is considered passed **On Entry** or **On Exit** of the activity. **On Entry** is selected by default.



> **Note:**
>
> The option you select determines when identifier and indicator values are extracted from the message payload. For example, if you select **On Exit**, the value of an indicator is extracted when the activity is exited and not when it is entered.

If you have mapped an action other than an Assign or an Invoke to the milestone, this field is read only.

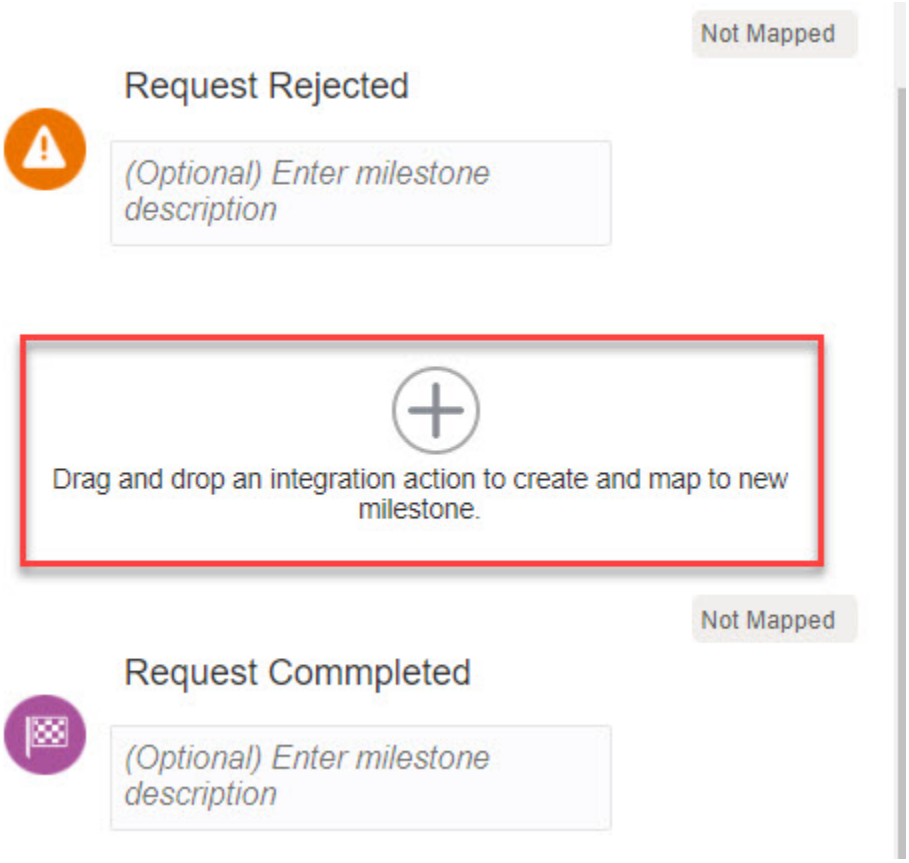
5. (Optional) Add a new milestone to the model without immediately mapping it to an integration action in either of the following ways:

   - Click ☰ in an existing milestone and select **Add Milestone** to add a new milestone directly below the existing milestone.

- Click the new milestone

  icon to add a new milestone directly above the icon.



Next step: Define Identifier Extraction Criteria in the Insight Designer for an Integration

Define Identifier Extraction Criteria

After mapping a model's milestones to an integration, the extraction criteria for the unique instance identifier must be defined.

For an understanding of the unique instance identifier, see Unique Instance Identifier and Define a Unique Instance Identifier.

You can define extraction criteria for a unique instance identifier starting from two locations in Oracle Integration:

- Define Identifier Extraction Criteria in Insight
- Define Identifier Extraction Criteria in the Insight Designer for an Integration

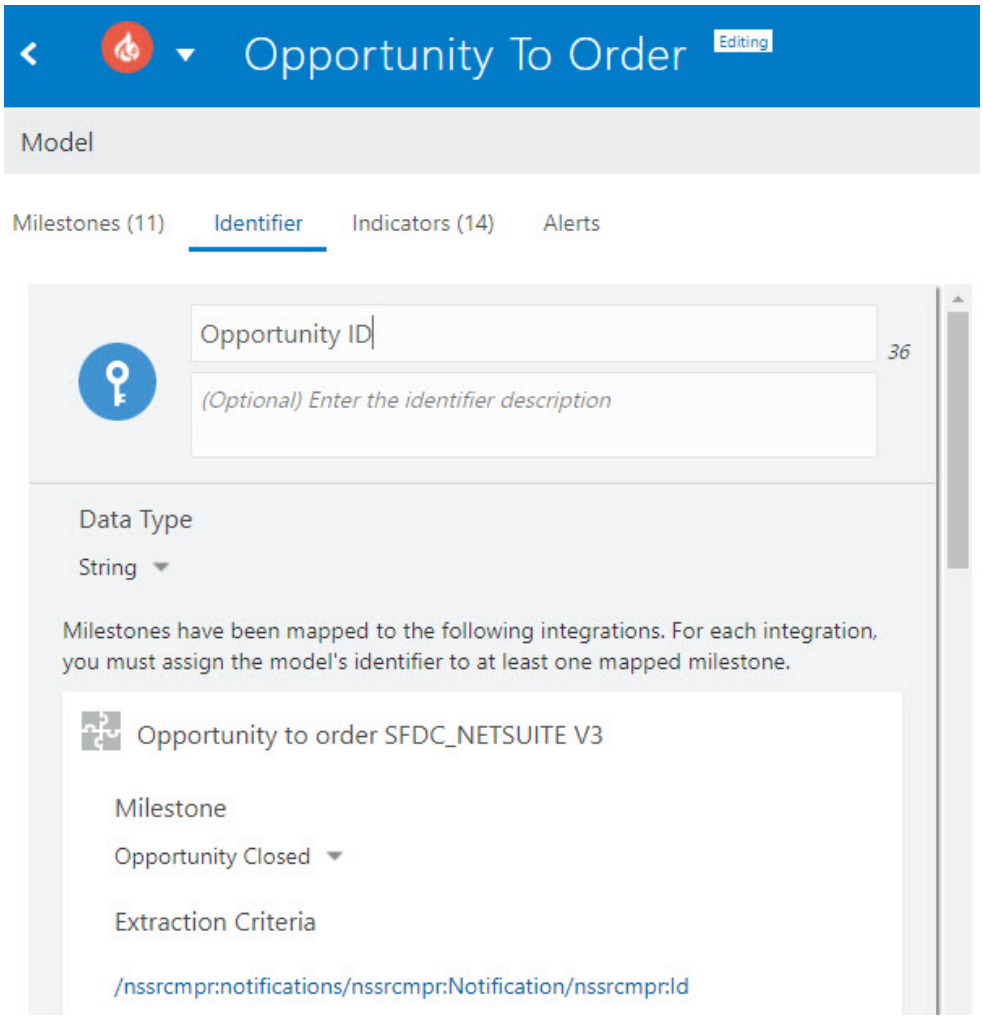
Define Identifier Extraction Criteria in Insight

To define extraction criteria for a unique instance identifier in Insight:

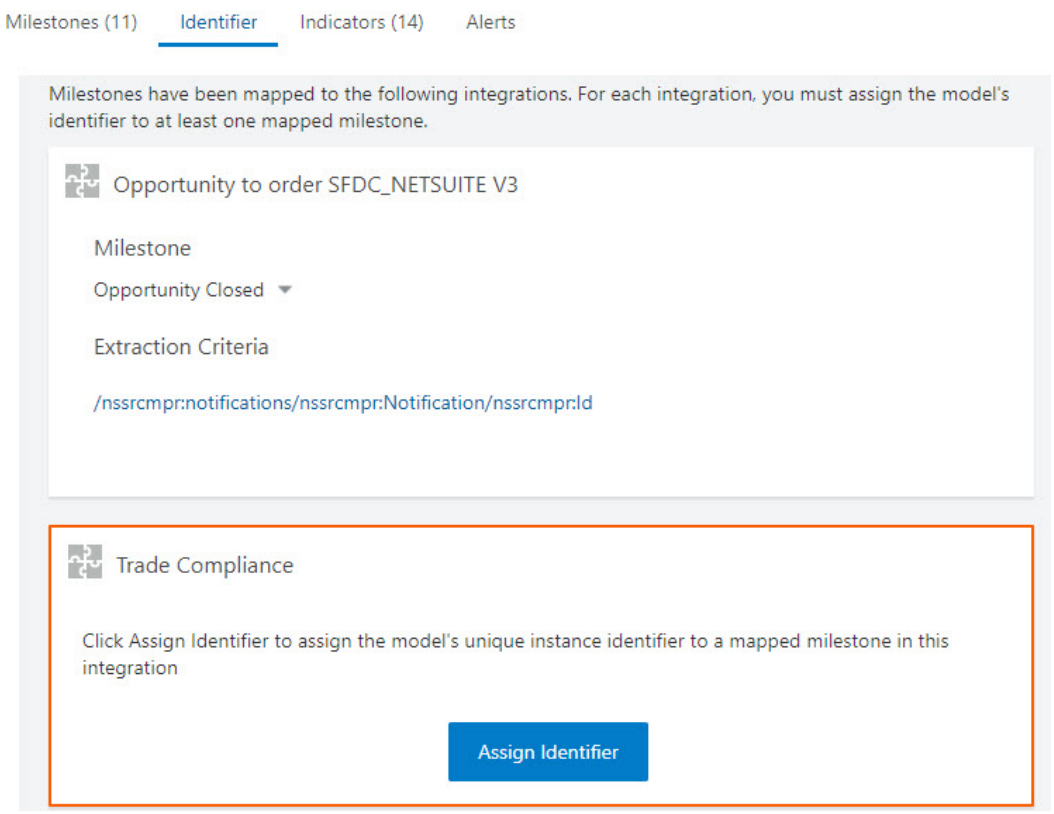
1. On the Models page, open the model for editing.

2. Click **Identifier** to open the **Identifier** page.

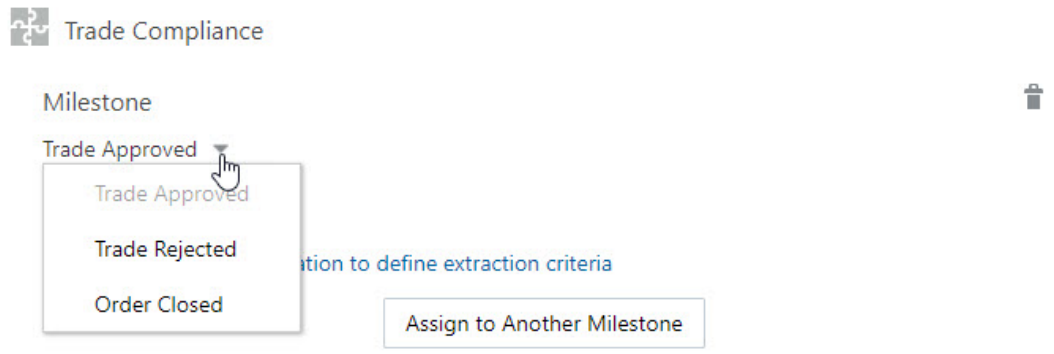
   If milestones have not yet been mapped to any integrations, you see only a list of milestones that have been associated with the identifier. To define extraction criteria for the identifier, you must first map associated milestones to an integration, as described in Map Milestones to Integration Actions.



3. Review the integrations to which model milestones have been mapped. Milestones may be mapped to a single integration or multiple integrations. You can edit existing mappings as required.
4. For the integration(s) of interest, if the unique instance identifier has not yet been assigned to a milestone in the integration, click **Assign Identifier**.



5. From the **Milestone** list, select the milestone to which to assign the model's unique instance identifier.

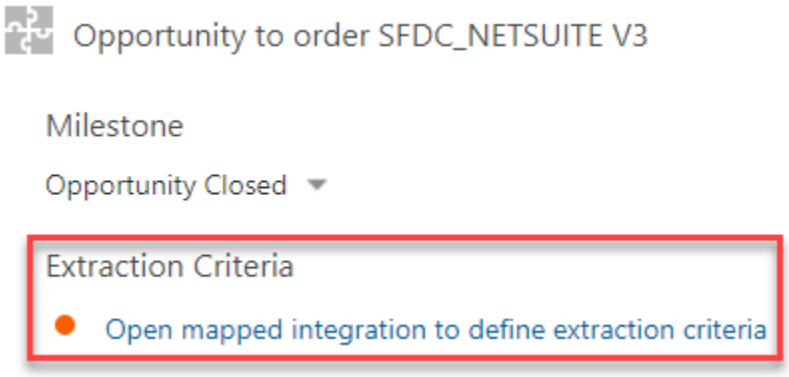


> **Note:**
>
> Typically, the identifier is assigned to a single milestone in an integration. If your business process analysis requires more complexity, you can click **Assign to Another Milestone** to assign the identifier to additional milestones that have been mapped to the same integration. Data defined by the extraction criteria for the identifier is extracted as each associated milestone is passed.

6. If not yet defined, select the data type of the identifier from the **Data Type** list below the identifier name: **String**, **Integer**, **Float**, **Decimal**, or **Date**.

> **Note:**
>
> The selected data type must match the data type of the value that will be extracted at runtime, as defined by the associated identifier extraction criteria in the next steps. Otherwise, the identifier will show an empty value in Insight dashboards.

7. Under **Extraction Criteria**, click the link to open the Exression Editor in the Insight Designer in the Integrations feature.



8. To define extraction criteria for the identifier, follow the steps in Define Identifier Extraction Criteria in the Insight Designer for an Integration, beginning with step 7.

Define Identifier Extraction Criteria in the Insight Designer for an Integration

To define extraction criteria for a unique instance identifier in the Insight Designer:

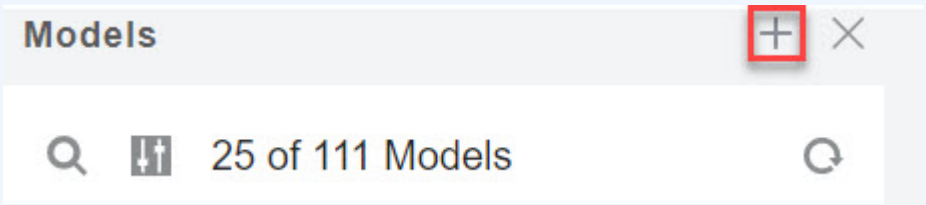
1. In the Insight Designer **Models** pane, select the model for which you want to define unique instance identifier extraction criteria.

   When a model is selected, you can work with its milestones, identifier, and indicators. To view the list of all models and select a different model, click  next to the model name at the top of the pane.

Note:

In the Insight Designer, you can also create a new model if it does not yet exist. In the **Models** pane, click **Create Model**

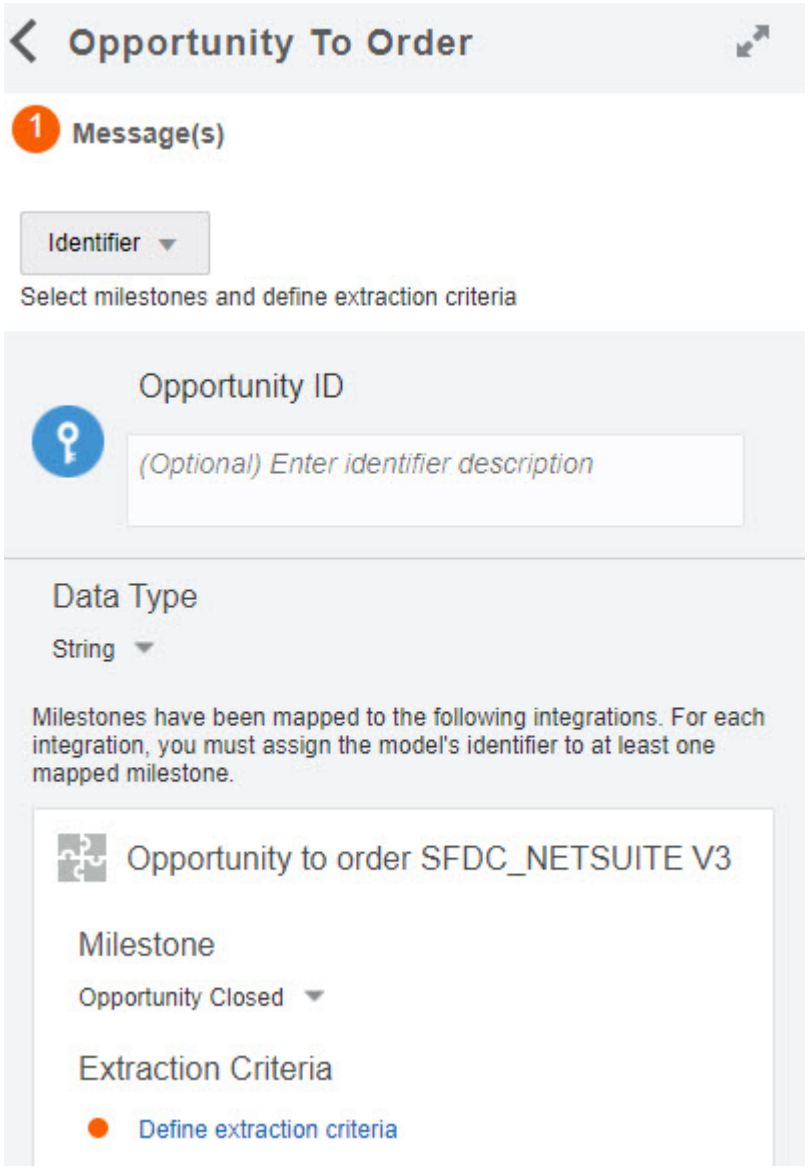
.



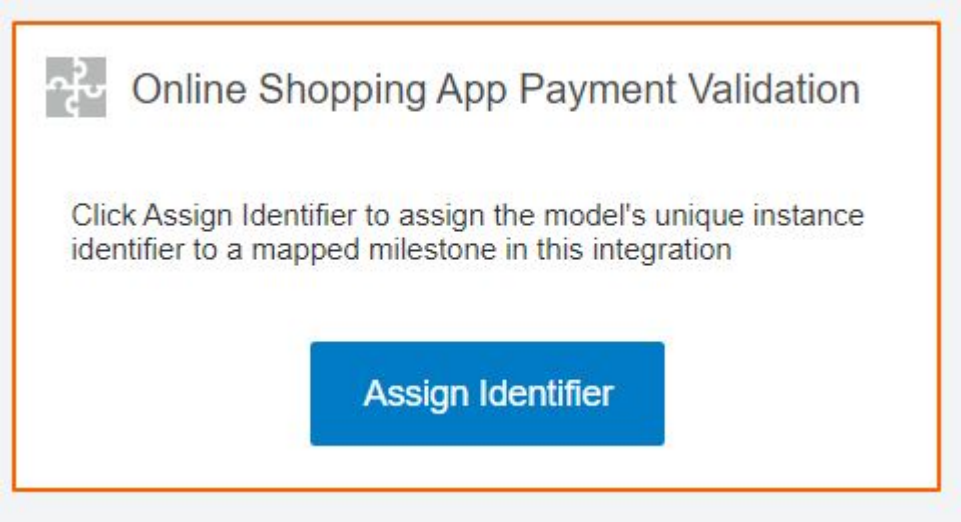
Refer to Create a Model for information about defining the model components.

2. From the dropdown list, select **Identifier**.

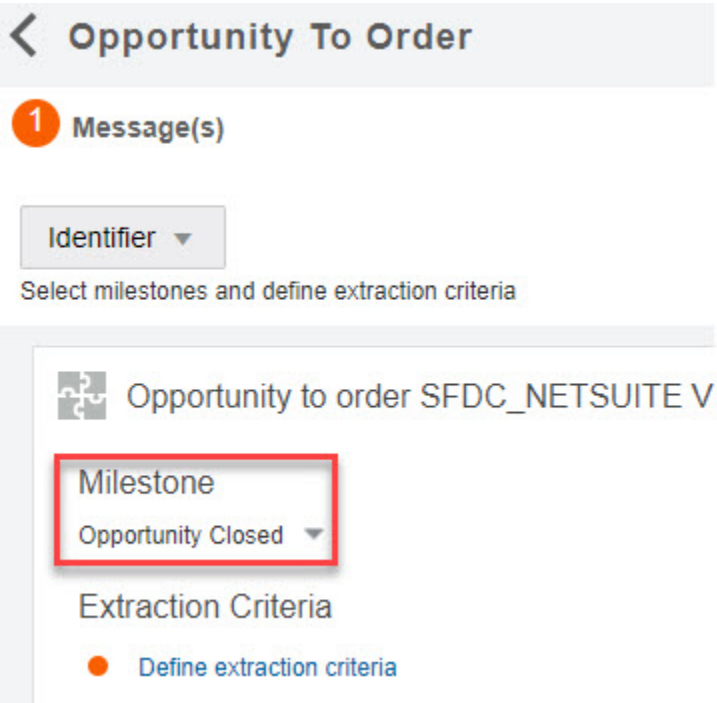
   If milestones have not yet been mapped to any integrations, you see only a list of milestones that have been associated with the identifier. To define extraction criteria for the identifier, you must first map associated milestones to an integration, as described in Map Milestones to Integration Actions.



3. Review the integrations to which model milestones have been mapped. Milestones may be mapped to a single integration or multiple integrations. You can edit existing mappings as required.
4. For the integration(s) of interest, if the unique instance identifier has not yet been assigned to a milestone in the integration, click **Assign Identifier**.



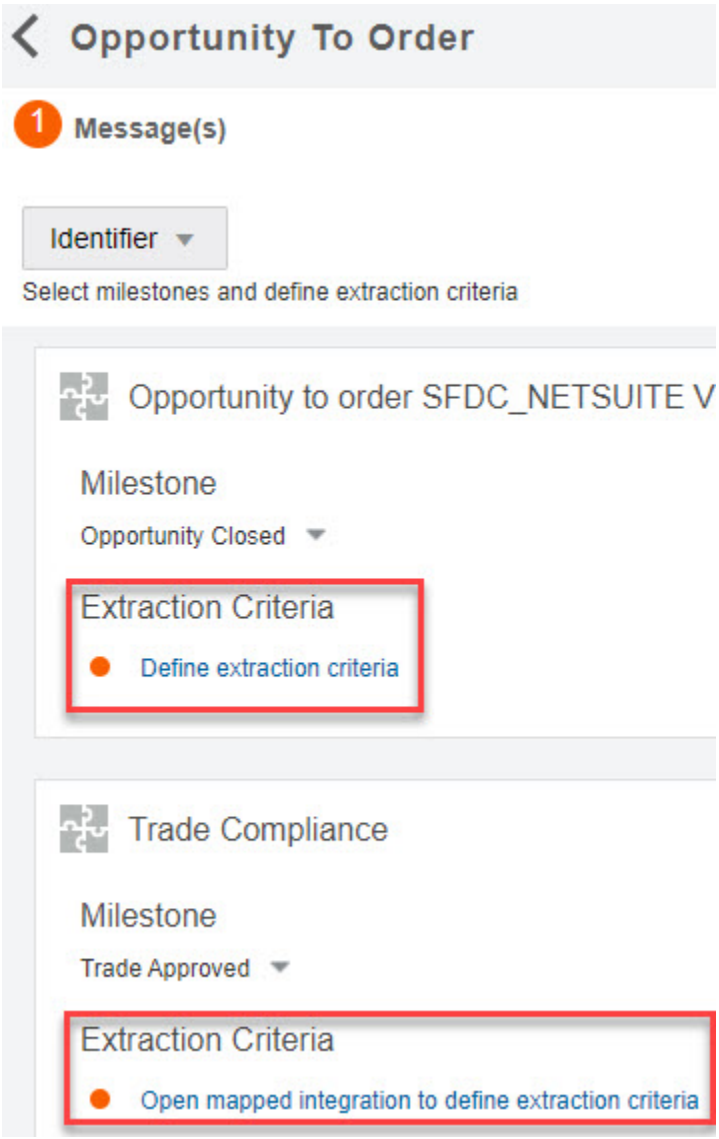
5. From the **Milestone** list, select the milestone to which to assign the model's unique instance identifier.



6. If not yet defined, select the data type of the identifier from the **Data Type** list below the identifier name: **String**, **Integer**, **Float**, **Decimal**, or **Date**.

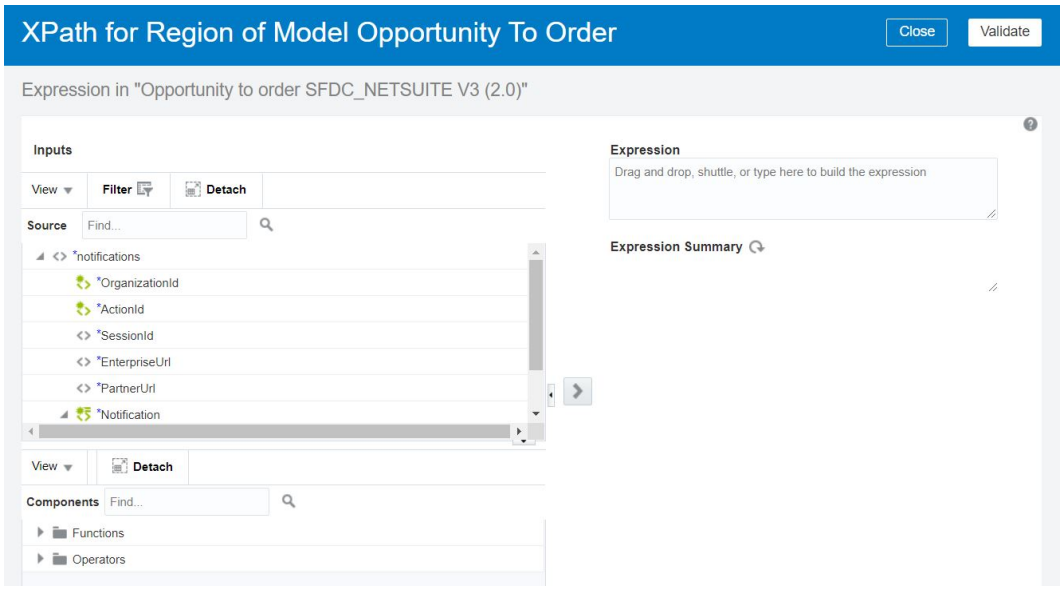
> **Note:**
>
> The selected data type must match the data type of the value that will be extracted at runtime, as defined by the associated identifier extraction criteria in the next steps. Otherwise, the identifier will show an empty value in Insight dashboards.

7. In the **Identifier** pane, scroll to the integration you are working with.
8. Under **Extraction Criteria**:



- If the mapped integration is open in the integration canvas, click **Define extraction criteria** to open the Expression Editor.
- If the mapped integration is not open in the integration canvas, click **Open mapped integration to define extraction criteria**, then click **Open** in the confirmation dialog to open the integration in the canvas.

9. Use the Expression Editor to define the extraction criteria.



You can click and drag an element from the **Source** tree to the **Expression** field, or you can select an element from the mapped activity listed in the **Source** tree and click **Select an element and move**

to move it to the **Expression** field.

You can also insert **Functions** and **Operators** from the **Components** tree into your expression or type an XPath expression directly into the **Expression** field. See Work with Functions, Operators, and XSLT Statements in *Using the Oracle Mapper with Oracle Integration*.

10. Click **Validate** to validate your expression in the Expression Editor. If your expression is not valid, make edits and revalidate.

> **Note:**
>
> The validation does not check the data type of the value that will be extracted at runtime. Therefore, you must ensure that the extracted value data type matches the indicator data type. Otherwise, the indicator will show an empty value in Insight dashboards.

11. Click **Close**.
12. In the Insight Designer, click **Save**.

Next step: Define Indicator Extraction Criteria in the Insight Designer for an Integration

Define Indicator Extraction Criteria

After mapping a model's milestones to an integration, the extraction criteria for the indicators (dimensions and measures) must be defined.

For an understanding of indicators, see Indicators and Define Indicators.

You can define extraction criteria for indicators starting from two locations in Oracle Integration:

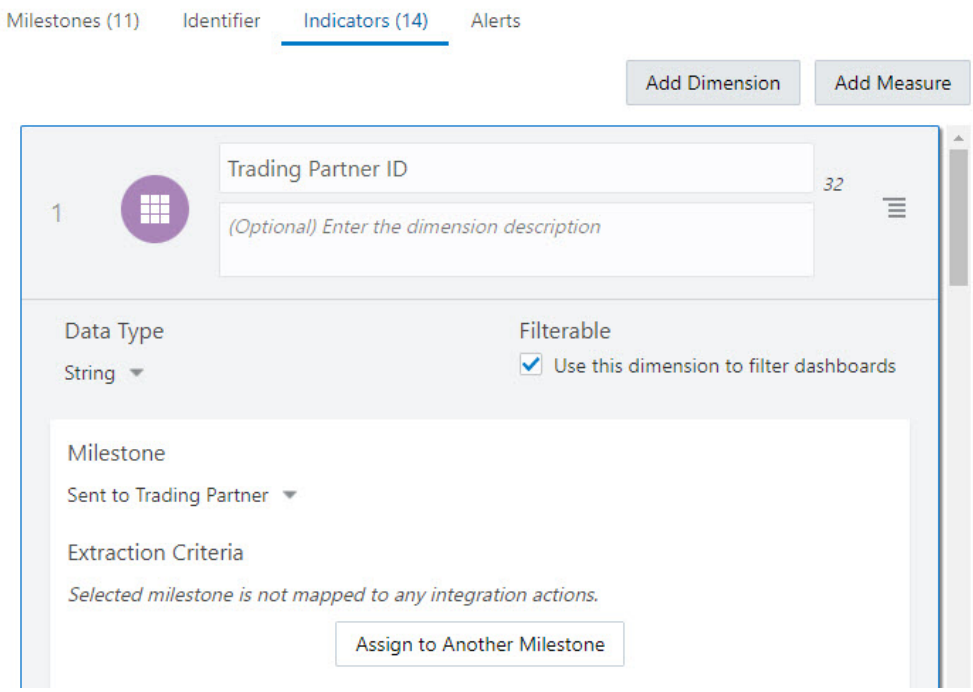
- Define Indicator Extraction Criteria in Insight
- Define Indicator Extraction Criteria in the Insight Designer for an Integration

Define Indicator Extraction Criteria in Insight

To define extraction criteria for a model's indicators in Insight:

1. On the Models page, open the model for editing.
2. Click **Indicators** to open the **Indicators** page where you can review the indicators defined for the model.
3. Click an indicator in the list to expand details about its data type, milestone association, and extraction criteria when the associated milestone is passed.

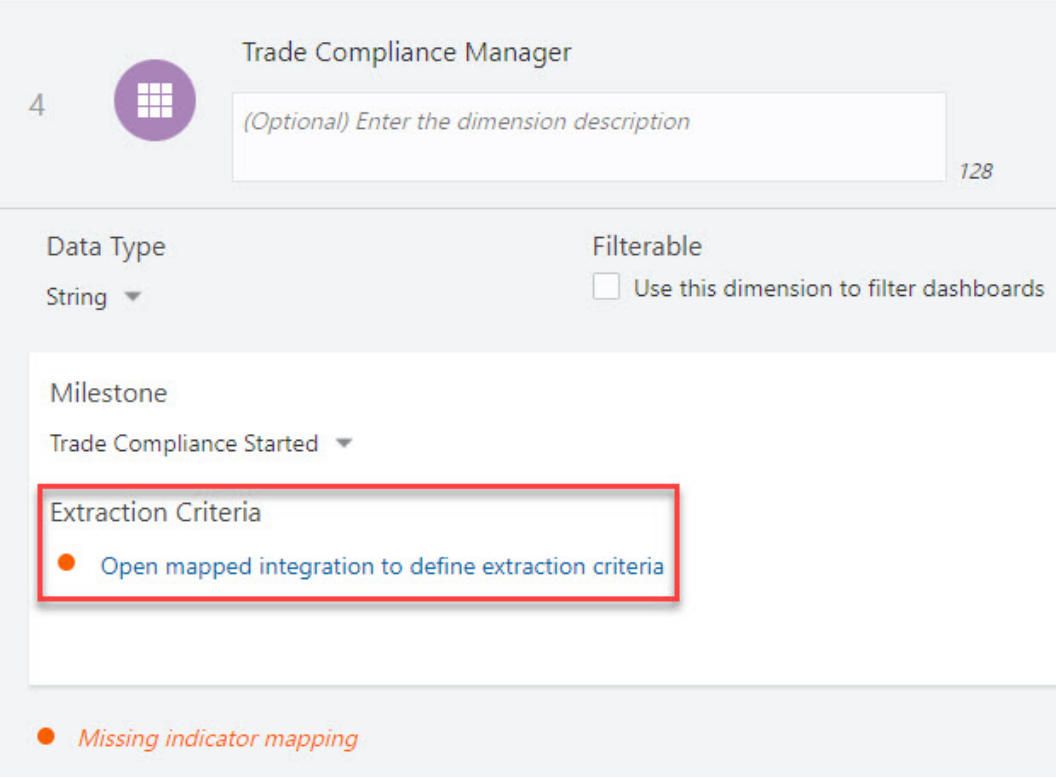
   Under **Extraction Criteria**, you may see the message *Selected milestone is not mapped to any integration actions*. To define extraction criteria for the indicator, you must first map associated milestone(s) to an integration, as described in Map Milestones to Integration Actions.



4. If required, change the name and description for the indicator, select the data type, enable filtering, and associate a milestone with the indicator, as described in Define Indicators beginning with step 3.

> **Note:**
>
> The selected data type must match the data type of the value that will be extracted at runtime, as defined by the associated indicator extraction criteria in the next steps. Otherwise, the indicator will show an empty value in Insight dashboards.

5. Under **Extraction Criteria**, click the link to open the Expression Editor in the Insight Designer in the Integrations feature.



6. To define extraction criteria for the identifier, follow the steps in Define Indicator Extraction Criteria in the Insight Designer for an Integration, beginning with step 6.
7. If the value extracted for the indicator may change as each milestone is passed during the business process (for example, a discount may be applied to an indicator that extracts the price of an item), click **Assign to Another Milestone** to select another milestone where the indicator may change and repeat these steps to define the extraction criteria. During runtime, the business process metrics show the last value of the indicator in the Insight dashboard.

Define Indicator Extraction Criteria in the Insight Designer for an Integration

To define extraction criteria for a model's indicators in the Insight Designer in Integrations:

1. In the Insight Designer **Models** pane, select the model for which you want to define indicator extraction criteria.

   When a model is selected, you can work with its milestones, identifier, and indicators. To view the list of all models and select a different model, click 
   next to the model name at the top of the pane.

   > **Note:**
   >
   > In the Insight Designer, you can also create a new model if it does not yet exist. In the **Models** pane, click **Create Model** 
   > .
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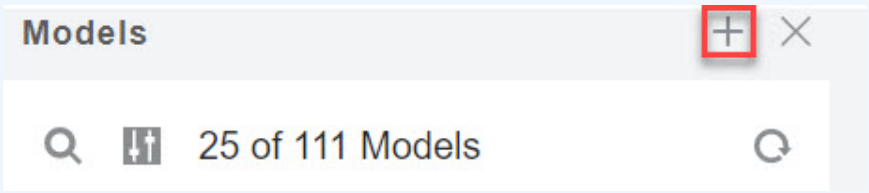
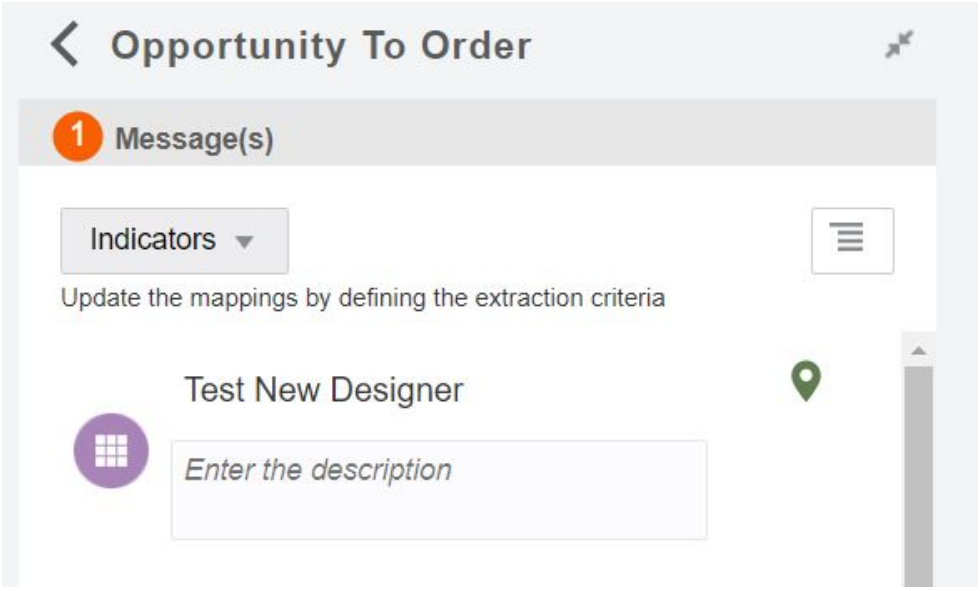
   > 
   >
   >
   > Refer to Create a Model for information about defining the model components.

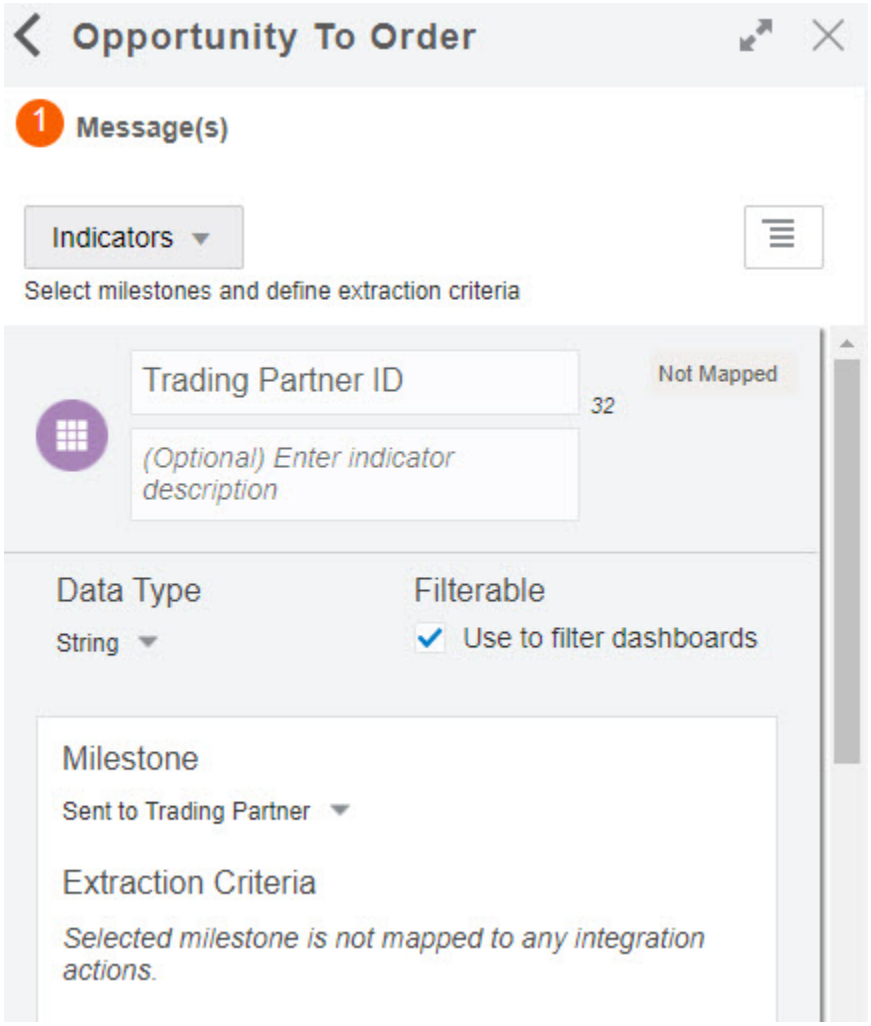
2. From the dropdown list, select **Indicators**.



> **Note:**
>
> Any pending tasks are shown under **Messages**. Click the link in each message to perform the necessary task.
>
> The model status changes from Draft to Configured only when all pending tasks are completed. You can activate a model only when it is in Configured status.

3. In the indicators list, review the indicators defined for the model.
   - A  icon indicates the milestone associated with the indicator is mapped to the current integration and the indicator extraction criteria is defined.
   - A  icon indicates the milestone associated with the indicator is mapped to one or more other integrations.
   - **Not Mapped** indicates the milestone associated with the indicator is not mapped to any integrations, or the indicator's extraction criteria is not defined.
   - Click  and select **Add Dimension** or **Add Measure** to add a new indicator to the model.
4. Click an indicator in the list to expand details about its data type, milestone association, and extraction criteria when the associated milestone is passed.

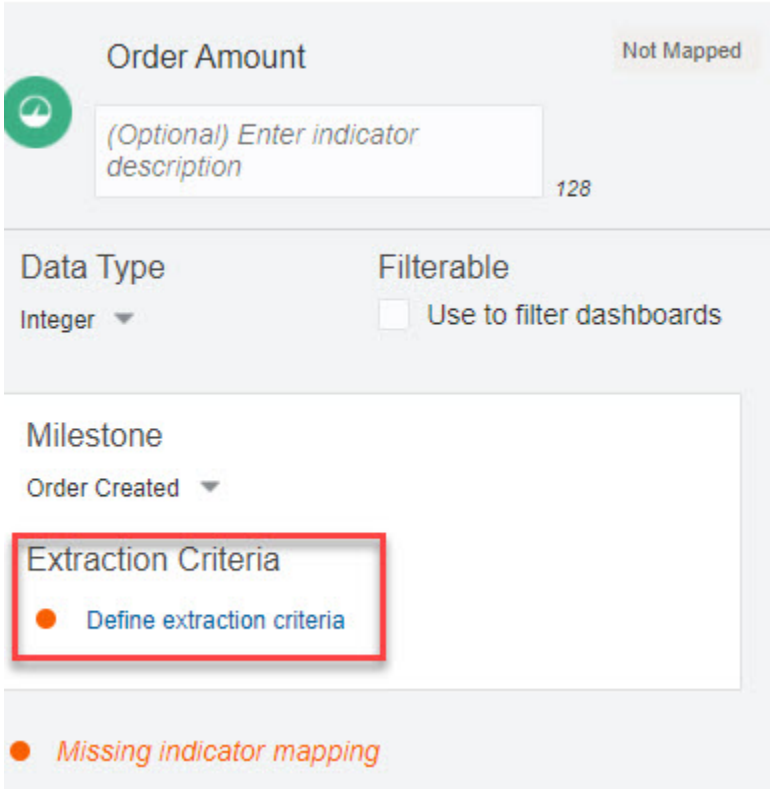
   Under **Extraction Criteria**, you may see the message *Selected milestone is not mapped to any integration actions*. To define extraction criteria for the indicator, you must first map associated milestone(s) to an integration, as described in Map Milestones to Integration Actions.



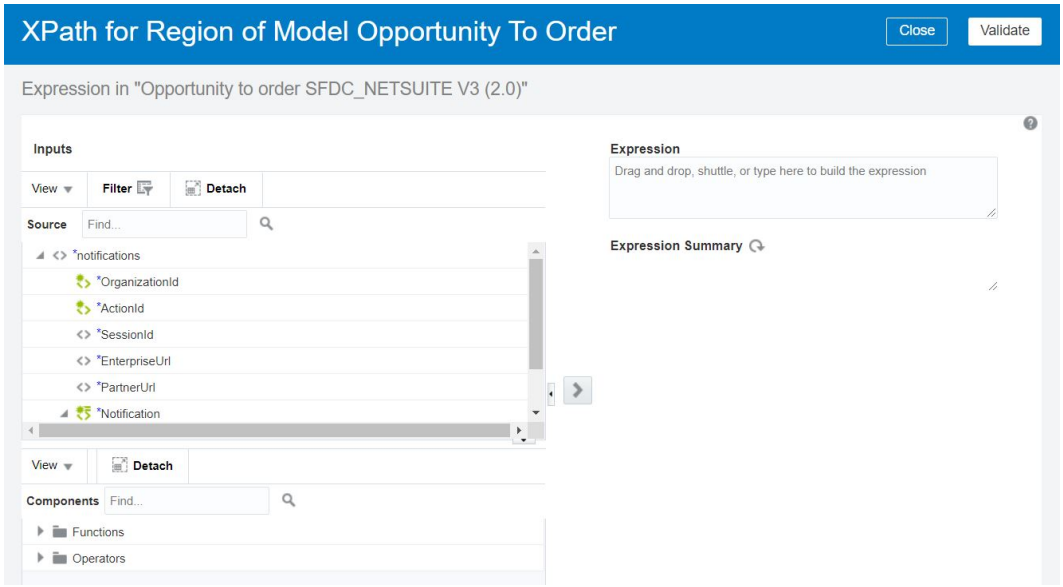
5. If required, change the name and description for the indicator, select the data type, enable filtering, and associate a milestone with the indicator, as described in Define Indicators beginning with step 3.

> **Note:**
>
> The selected data type must match the data type of the value that will be extracted at runtime, as defined by the associated indicator extraction criteria in the next steps. Otherwise, the indicator will show an empty value in Insight dashboards.

6. Under **Extraction Criteria**, click the link to open the Expression Editor.



7. Use the Expression Editor to define the extraction criteria.



You can click and drag an element from the **Source** tree to the **Expression** field, or you can select an element from the mapped activity listed in the **Source** tree and click **Select an element and move**

to move it to the **Expression** field.

You can also insert **Functions** and **Operators** from the **Components** tree into your expression or type an XPath expression directly into the **Expression** field. See Work with Functions, Operators, and XSLT Statements in *Using the Oracle Mapper with Oracle Integration*.

8. Click **Validate** to validate your expression in the Expression Editor. If your expression is not valid, make edits and revalidate.

> **Note:**
>
> The validation does not check the data type of the value that will be extracted at runtime. Therefore, you must ensure that the extracted value data type matches the indicator data type. Otherwise, the indicator will show an empty value in Insight dashboards.

9. Click **Close**.
10. In the Insight Designer, click **Save**.

Save Milestone Mappings

Milestone mappings and extraction criteria definitions for the identifier and indicators are only added to the Insight model definition when you save.

An Integration Architect defines and saves milestone mappings and extraction criteria definitions.

To save your milestone mappings:

- In the Insight Designer, click **Save** to save your mappings.

> **WARNING:**
>
> If you close the browser window or navigate away from the Insight Designer page without saving, your mappings will not be saved.

If you close the Insight Designer (click **Close**) or navigate back to the Models list without saving, you are prompted to confirm you want to discard your changes. Click **OK** to discard your changes and exit the Insight Designer, or click **Cancel** to dismiss the dialog and retain your changes.

A message is displayed to indicate if your mappings were saved or if an error occurred.

The next time you (or another user) opens the Insight Designer or the Model Editor, the mappings appear as they were configured during the most recent save.

Next step: When your mapping is complete, you can activate the model and the integration (if it is not yet activated). See:

- Activate a New or Changed Model
- Activate an Integration in *Using Integrations in Oracle Integration*

After activating the model and integration, Insight begins collecting metrics as milestones are passed by integration actions.

Delete Milestone Mappings

When you delete a mapping to a milestone, the extraction criteria defined for the unique instance identifier and indicators (dimensions and measures) associated with it are also deleted.

To delete a milestone mapping:

1. In the Insight Designer search for and select the model in the Models pane for which you want to delete a mapping.
2. From the drop-down list under the model name, select **Milestones**.
3. Click the milestone for which you want to delete a mapping.
4. Under **Mappings**, click **Delete mapping**
   
   next to each mapping you want to delete.

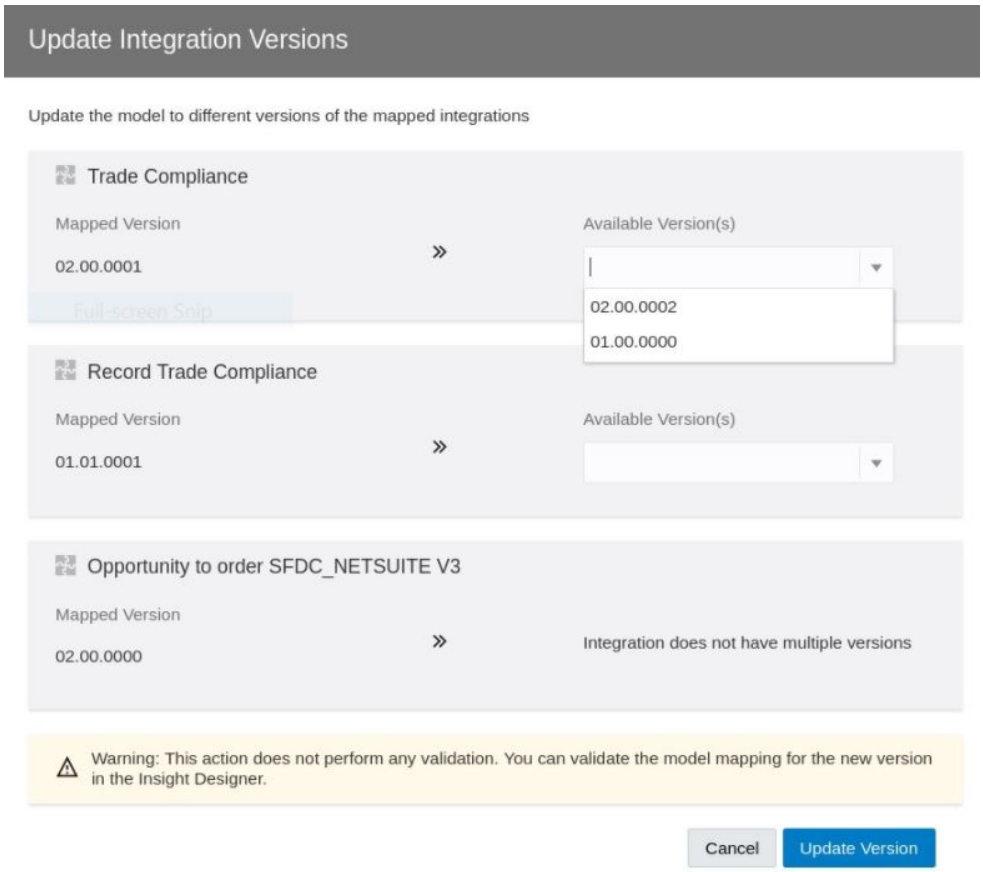
Update a Model to Use Different Versions of Mapped Integrations

After model milestones are mapped to actions in an integration, the integration may later be modified, creating a new version of the integration. You can update a model to use the desired version of each integration to which its milestones are mapped.

Insight Administrators, Business Users/Analysts, and Integration Architects can update a model to a different version of a mapped integration.

To update a model to use different versions of mapped integrations:

1. On the Models page, locate the model that you want to update. If the model is not in Draft status, hover your cursor over the model and click
   
   then select **Create Draft** to create a draft version of the model.
2. Click
   
   then select **Update Versions**.
3. In the Update Integration Versions dialog, select the desired version from the **Available Version(s)** list for each integration that has multiple versions, then click **Update Versions**.



> **Note:**
>
> Updating a model to use a different version of an integration version does not automatically perform any validation.

4. To verify the model mapping for the new integration versions, open the Insight Designer and check that the milestone, identifier, and indicator mappings are correct.

Associate a Model to a Process

You can associate an Insight model to a business process implementation in Processes.

To associate a model to a business process implementation in Processes, an Integration Architect links an activated Insight model to a process application, in collaboration with a Business/User Analyst who defines the milestones and indicators in Insight.

After you link an Insight model to a process application, you can drag the corresponding Insight element in the structured process editor to key points in the process application flow. For each element inserted into the process application, you edit the element's properties to select the pertinent milestone at that point, and define

the data to extract for the unique instance identifier and indicators (dimensions and measures). At runtime, the extracted metrics are reflected in the Insight dashboards.

> **Note:**
>
> When you map a model's milestones to an *integration*, the mapping details are reflected in the model definition in Insight. However, when you link a model to a *process application* and select model milestones at points in the process application flow, the model definition does not reflect the milestone, identifier, and indicator associations in Insight. They are shown only in the process application flow in the structured process editor.

For steps to link an Insight model to a process, see Work with Insight Models in *Using Processes in Oracle Integration*.

5

Work with Consoles and Dashboards in Insight

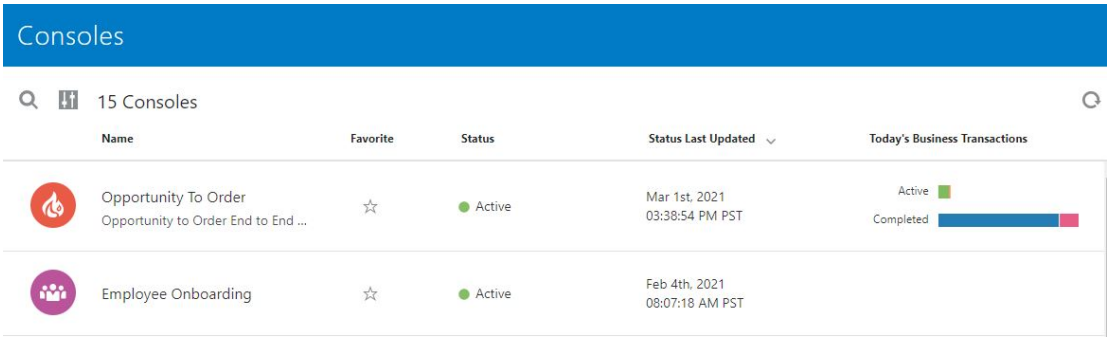
Insight provides business process metrics using consoles and dashboards. This information helps Business Executives gain insight into their business.

Topics:

About the Consoles Page for All Business Processes

When a model that defines a business process is activated, Insight automatically creates an associated console.

The Consoles page shows the status of all business processes and includes a high-level visualization of the metrics collected over the past day for all activated business processes.



See Work with the Consoles Page.

About the Console and Dashboards for a Single Business Process

The console page for a business process shows information about the performance of the business process using *dashboards*. Dashboards help a business person to identify bottlenecks in the process and track key metrics immediately and in real time.

The default dashboards on the console page for a business process are known as *preconfigured dashboards*. The preconfigured dashboards display the aggregate state of the business process based on milestones alone.

To see the values of indicators, you can create your own *custom dashboards* based on the indicators defined in the business process. This allows you to track metrics using custom visualizations that are unique to your business.

When you click **View All** on the console page for a business process, the Business Transactions dashboard displays on its own page, where you can drill down to view details about individual transactions of the business process in the Business Transaction Details dashboard and progress tracker dashboard.

See Work with the Console and Dashboards for a Business Process.

Topics:

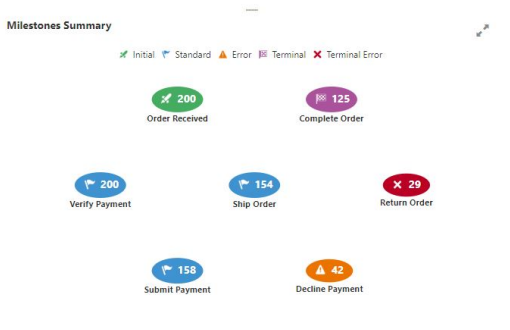
Preconfigured Dashboards

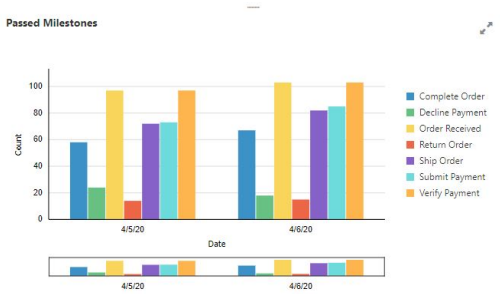
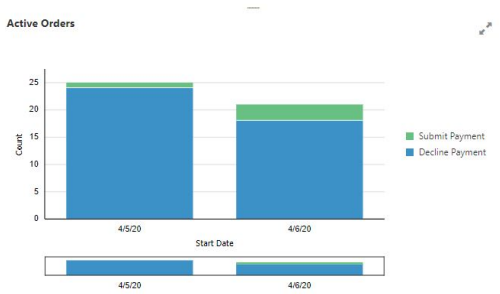
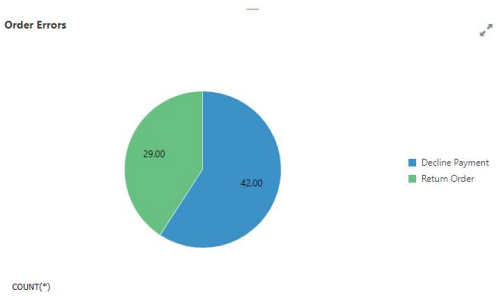
A Business Executive can evaluate the state of a business process using the metrics presented by out-of-the-box *preconfigured charts*.

The preconfigured charts display the aggregate state of the business process based on milestones alone.

> **Note:**
>
> To see the values of indicators, you can create your own custom charts based on the indicators defined in the business process. This allows you to track metrics using custom visualizations that are unique to your business.

Insight provides the following preconfigured dashboards:

Milestones Summary: Displays a list of all milestones passed in the last five days where the color corresponds to the milestone type and the number corresponds to the amount of times this milestone has been passed.	

Passed Milestones: Displays a bar graph view of all milestones passed each day for the last five days.	
Active *Transactions*: Displays a stacked bar view of the last milestone passed for all business transactions that are still active (no Terminal milestone has been passed yet). The chart visualizes where business transactions are stuck.	
***Transaction* Errors**: Displays a pie chart view of the count of business transactions that have passed an Error milestone (for example, when a quote is rejected or an order is cancelled).	
Avg. *Transaction* Completion Time: Displays a bubble view of the average time it took for a business transaction to complete, both in case of failure (Terminal Error milestone passed) or success (Terminal milestone passed).	

See Work with Preconfigured and Custom Dashboards on the Console Page.

Custom Dashboards

If a business process has indicators (dimensions and measures), custom dashboards can capture and visualize data related to the indicators to track metrics, ratios, and trends that are important to the business.

Custom dashboards can be filtered by a number of different criteria, including when a business transaction started or ended, how long the business transaction took to complete, and which milestones have most recently been passed. There is no limit to the number of custom dashboards that you can create.

Insight provides the following chart types for custom dashboards:

Chart Type	Description
	A *pie chart* is a circular chart where each sector represents the quantity of a dimension you select. The size of each sector is determined by the value of a measure you select, aggregated using a function you select (such as average, sum, count, or standard deviation).
	A *bar chart* is a two-dimensional chart, where the X-axis values are computed based on the values of a dimension you select. Each bar on the graph is optionally grouped by the value of a second dimension. The Y-axis values are computed based on values of a measure you select, aggregated using a function you select (such as average, sum, count, or standard deviation). A bar chart is the only chart type that lets you group by two different dimensions. You can swap the dimensions used for the X-axis and its grouping to change how the bars are displayed in the chart.
	A *bubble chart* is a three-dimensional chart, where each bubble groups values of a dimension you choose. The size of each bubble is determined based on values of a measure you select, aggregated using a function you select (such as average, sum, count, or standard deviation). A bubble's location on the X- and Y-axes is determined based on values of measures you select, aggregated using a function you select (such as average, sum, count, and standard deviation).
	An *area chart* is a two-dimensional chart that is a line chart, where the area between the axes and line is shaded to represent the range of measure values for each dimension. The X-axis values are computed based on the values of a dimension you select. The Y-axis values are computed based on values of a measure you select, aggregated using a function you select (such as average, sum, count, or standard deviation).
	A *line chart* is a two-dimensional chart that is represented by a series of data points connected with a straight line. Line charts are most often used to visualize data that changes over time. The X-axis values are computed based on the values of a dimension you select. The Y-axis values are computed based on values of a measure you select, aggregated using a function you select (such as average, sum, count, or standard deviation).
	A *scatter chart* shows a single point for each point of data in a series without connecting them, showing patterns across hundreds of instances. The X-axis represents one measure, and the Y-axis represents another measure you select. Each point in the scatter chart is a combination of color and shape that represents a unique value of a dimension you select.

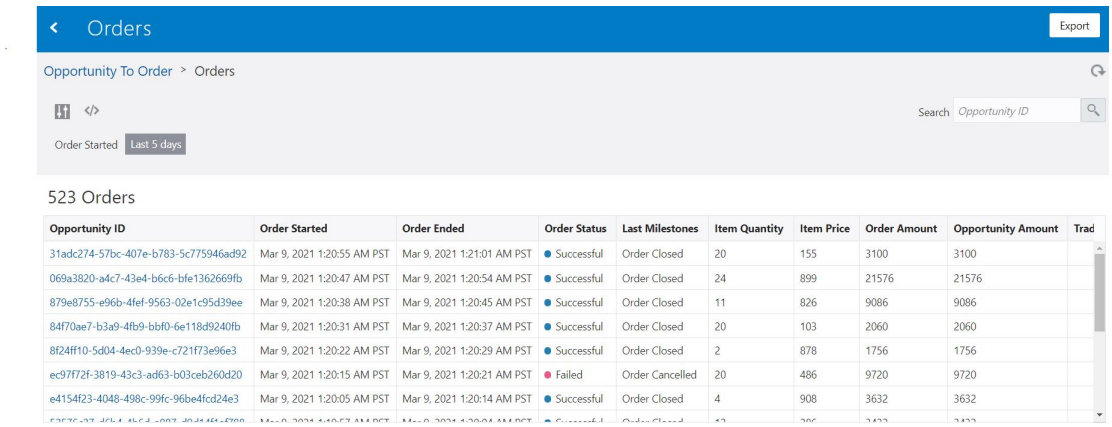
See Create Custom Dashboards and Work with Preconfigured and Custom Dashboards on the Console Page.

Business Transactions Dashboard

The Business Transactions dashboard provides a list of all business transactions, each of which is associated with the same activated business process. The header of the dashboard shows the number of business transactions, followed by the label that was defined as the **Business Transactions Label** when the model was created. Each business transaction entry in the list shows the ID, starting and ending timestamp, status, last milestone passed, and values of the business process indicators.

As a business person, you can search for a specific business transaction by its identifier (such as an order number), filter the list by status (such as Failed or Healthy business transactions), and drill down to inspect detailed metrics about a business transaction on the Business Transaction Details dashboard. You can also export the entire list of business transactions to a `.csv` file to further analyze and customize.

> **Note:**
>
> If a business process includes milestones that can be passed more than once, and indicator values are extracted for that milestone, only the indicator values extracted from the most recent time the milestone was passed are displayed in the list.

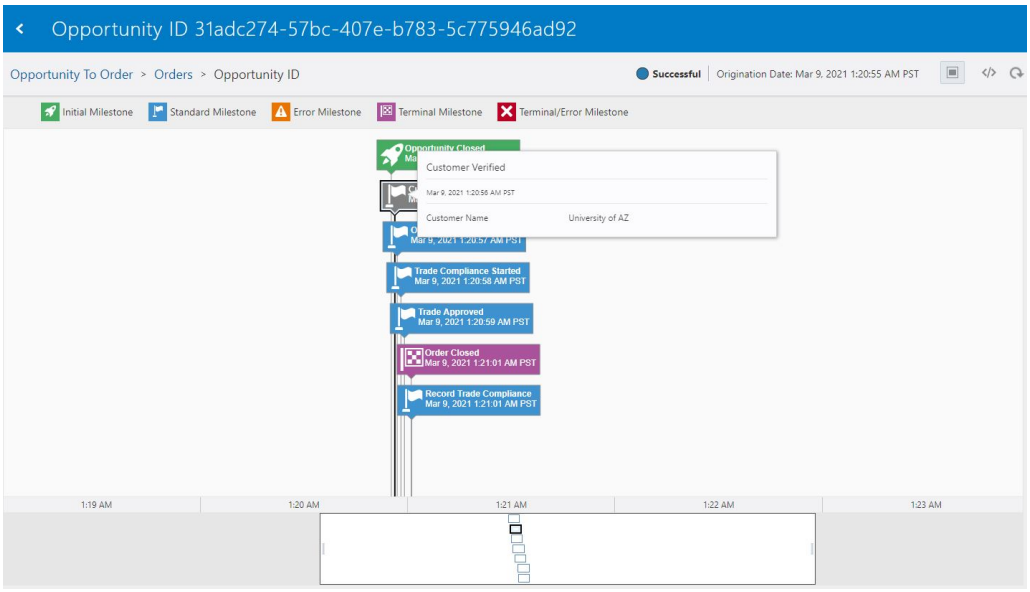


See Work with the Business Transactions Dashboard.

Business Transaction Details Dashboard

To view more information about a particular business transaction listed on the Business Transactions dashboard, a business person can drill down to the associated Business Transaction Details dashboard.

The Business Transaction Details dashboard provides a chronological detailed progression of the milestones that were passed for a single business transaction. By default, the timeline shows all passed milestones.



See Work with the Business Transaction Details Dashboard.

Progress Tracker Dashboard

The progress tracker dashboard visualizes the progress of a single business transaction. The milestones shown and their order in the dashboard depend on the state of the business transaction.

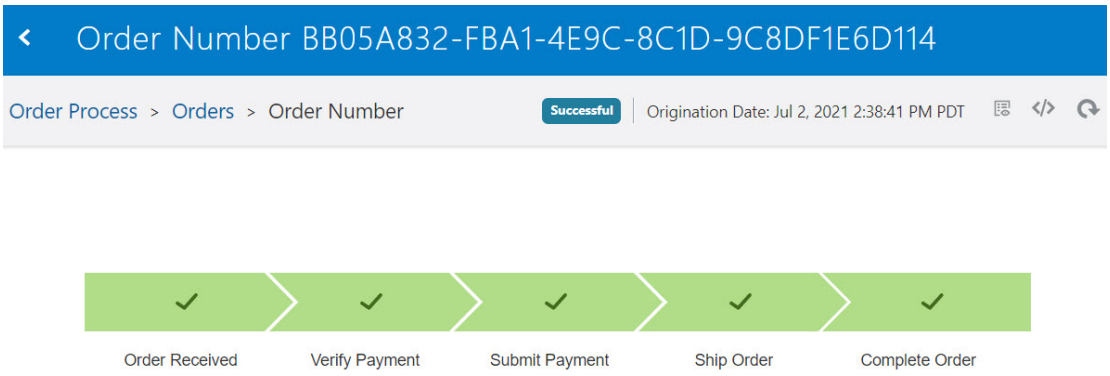
Business Transaction Status	Milestones Shown in the Dashboard By Default	Milestone Sequence
For completed transactions: Healthy or Recoverable Errors	Passed and not passed milestones. Error milestones are shown only if passed.	Order in which the milestones are defined in the model.
For active transactions: Successful or Failed	Passed milestones only. For Failed business transactions, the passed Terminal Error milestone is shown.	Order in which the milestones are passed at runtime.

In Insight, the progress tracker dashboard shows the default view. However, when you embed a progress tracker dashboard in another application, you can customize the dashboard to hide selected milestones and to show all milestones that have not been passed (skipped), including Error and Terminal Error milestones, regardless of whether the business transaction is Completed or Active. See Embed Insight Dashboards in Other Applications.

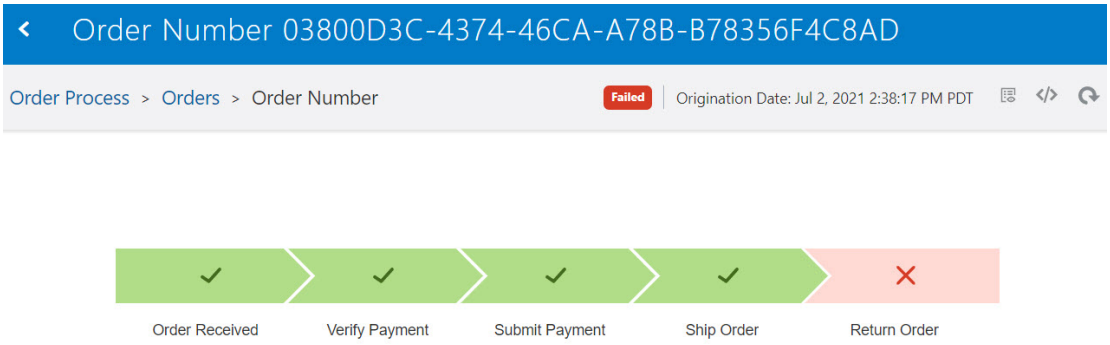
Examples of Default Progress Tracker Dashboard in Insight

A Completed business transaction shows only passed milestones, including the passed Terminal Error milestone for Failed business transactions:

Completed (Successful) business transaction

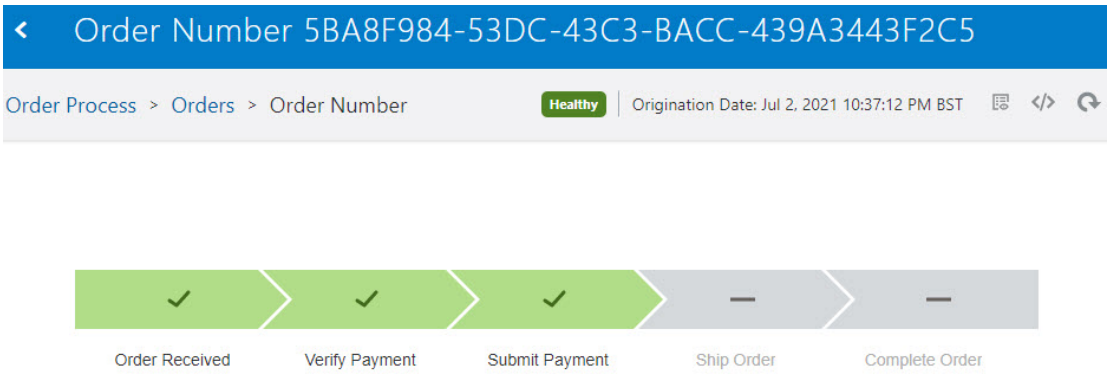


Completed (Failed) business transaction

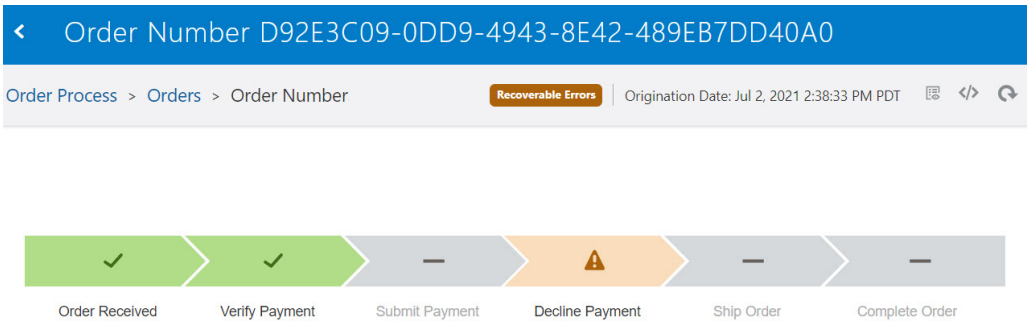


An Active business transaction shows passed and not passed milestones, including Error milestones only if passed:

Active (Healthy) business transaction



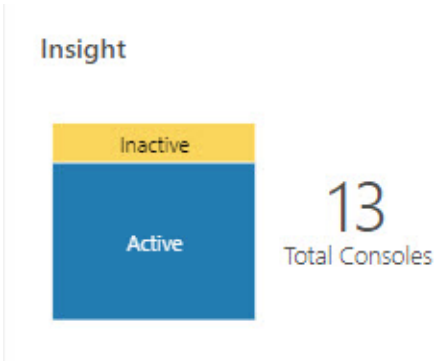
Active (Recoverable Errors) business transaction



See Work with the Progress Tracker Dashboard.

View a Summary Status of All Consoles

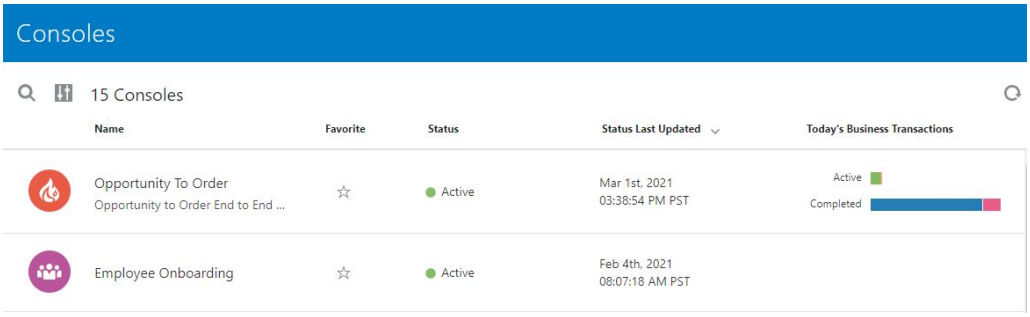
On the Oracle Integration Oracle Integration home page, the Insight tile provides Business Executives with a summary status of Insight consoles. Hover your cursor over the labels to view a count of consoles with the associated status. Click an area of the tile to view the corresponding list of consoles on the Consoles page in Insight.



Work with the Consoles Page

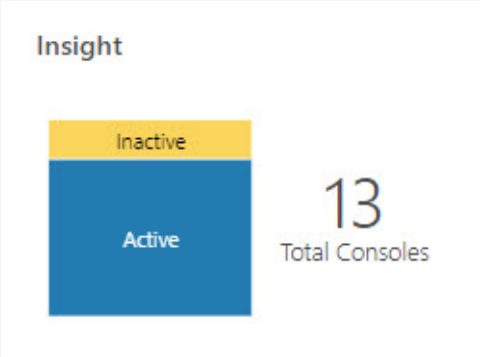
The Consoles page shows the status of all business processes and includes a high-level visualization of the metrics collected over the past day for all activated business processes.

For an overview of the Consoles page, see About the Consoles Page for All Business Processes.

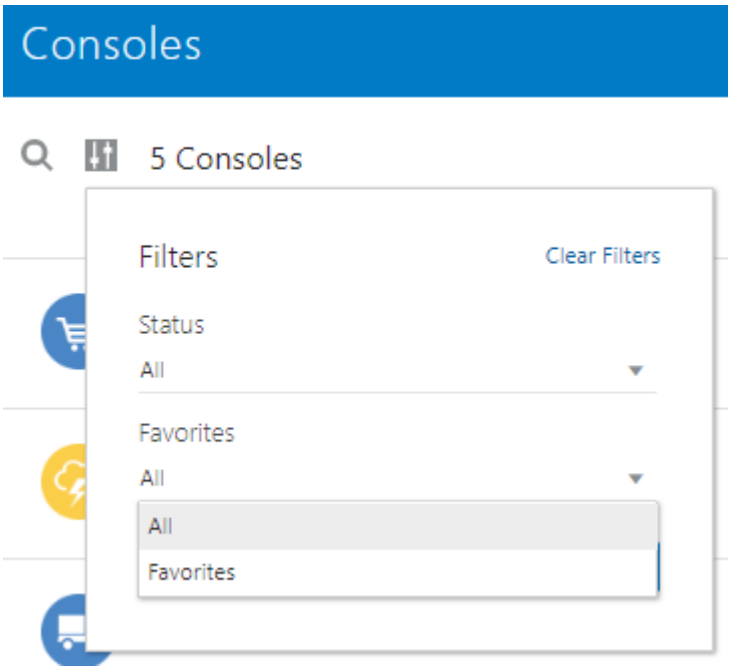


To work with the Consoles page:

1. In the Oracle Integration navigation pane, click **Insight**. In the Insight navigation pane, click **Consoles**.

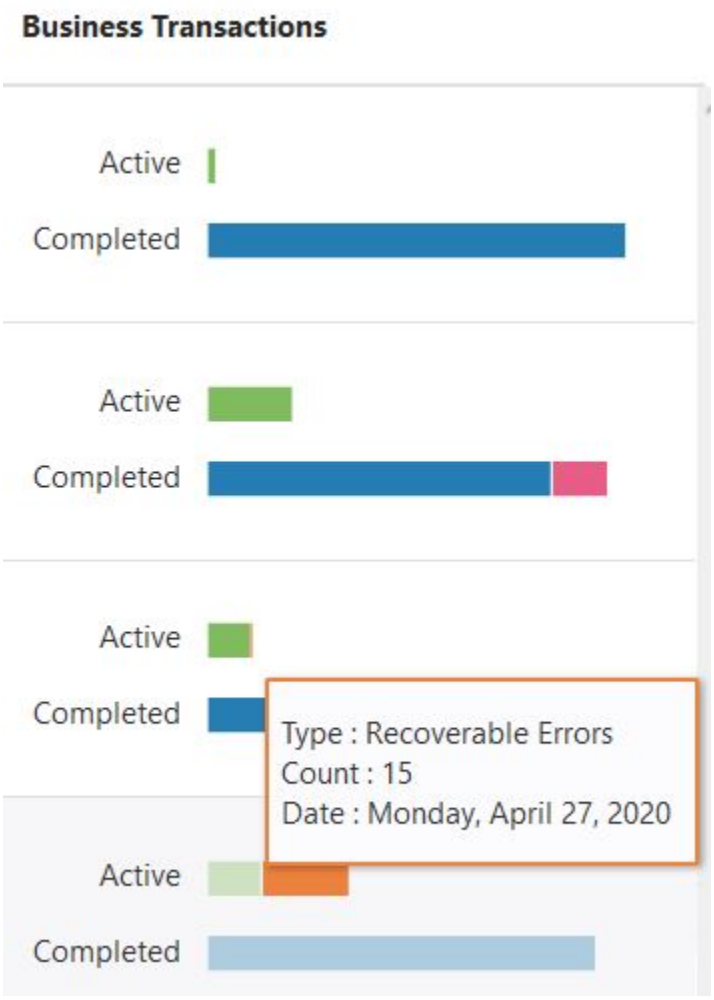
> **Note:**
>
> You can also access the Consoles page from the Insight tile on the Oracle Integration home page. Click the labels on the Insight tile to filter the list on the Consoles page by inactive, active, or all consoles.
>
> 
>

2. On the Consoles page, review the list of consoles for all business processes and perform any of the following actions:
   - Click the **Search**  icon to display a search field where you can enter a console (business process) name. All business processes with names matching your search text are displayed.
   - Click the **Filter**  icon to list business processes that meet selected criteria:
     - **Status**: select **All** to list all business processes, or select to list only those business processes that have a status of **Active** or **Inactive**.
     - **Favorites**: Select **All** to display all business processes, or **Favorites** to display only those business processes that are marked as a favorite.



In the Filters pane, click **Apply** to filter the list of dashboards by the Status and Favorites selections. Click **Clear Filters** to reset the list to display all dashboards.

- Click a console (business process) name to navigate to the console page for that business process, showing its business transaction dashboards. See Work with the Console and Dashboards for a Business Process.
- In the **Status** column, monitor the activation status of each business process: either **Active** or **Inactive**. Inactive business processes are either deactivated or failed.
- In the **Business Transactions** column, hover over a bar to see the number of business transactions that bar represents.



Business transaction status depends on whether the transaction is active or completed:

- **Active** — either **Healthy** or **Recoverable Errors**:
  - **Healthy**: The milestone passed most recently is either Initial or Standard.
  - **Recoverable Errors**: The milestone passed most recently is Error but not Terminal Error.
- **Completed** — **Successful** or **Failed**:
  - **Successful**: The milestone passed most recently is Terminal.
  - **Failed**: The milestone passed most recently is Terminal Error.

For information about milestone types, see Milestones.

Work with the Console and Dashboards for a Business Process

The console page for a business process shows information about the performance of the business process using *dashboards*. Dashboards help a business person to identify bottlenecks in the process and track key metrics immediately and in real time.

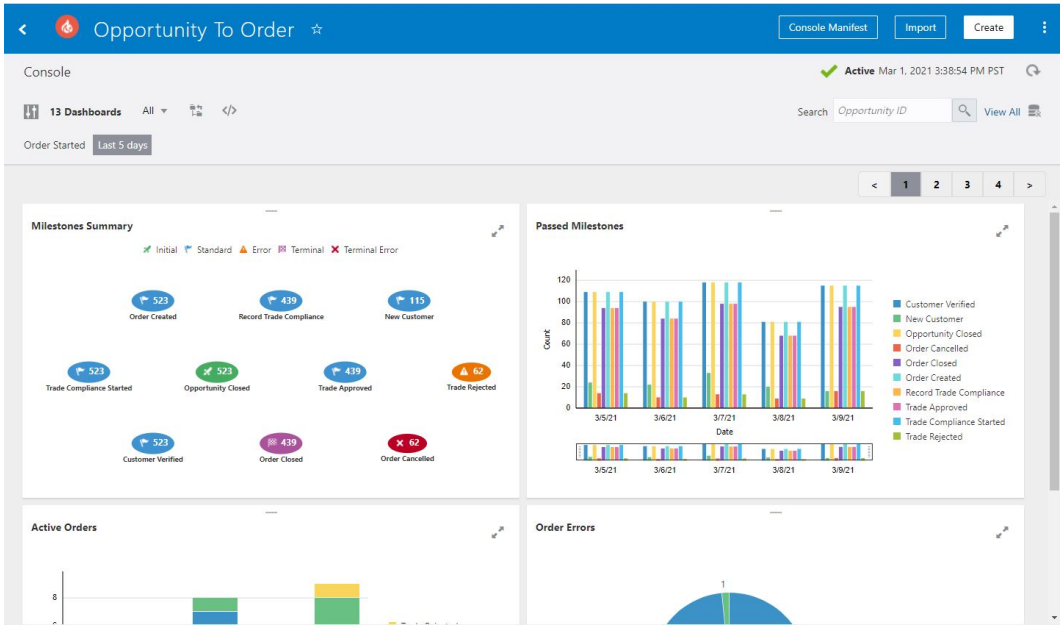
Topics:

Work with Preconfigured and Custom Dashboards on the Console Page

For overview information, see Preconfigured Dashboards and Custom Dashboards.

To work with the dashboards for a business process:

1. Navigate to the console page for the business process in either of the following ways:
   - On the Consoles page, click the model (business process) of interest to display its console page.
   - (Insight Administrator only) On the Models page, click  for a model, then **View Console** to open the associated console page.



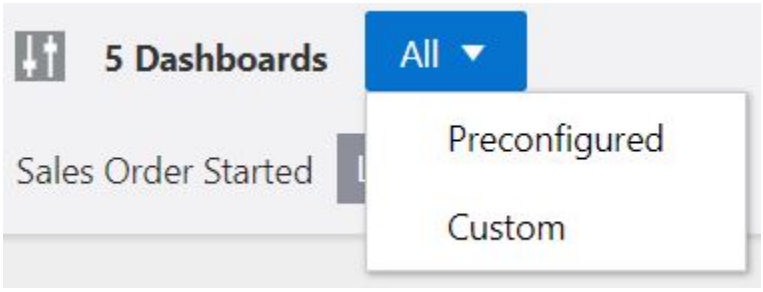
2. On the console page, review the dashboards for the business process and perform any of the following actions:

   - Click **Console Manifest** to find the IDs for console components. See Generate a Console's Manifest.
   - Click **Import** to import dashboards that were previously exported with this business process. See Import Dashboards.
   - Click **Create** to create custom dashboards. See Create Custom Dashboards.
   - Click **Details**

     to display the Console Details. This area displays the model's icon, model description, and the identifying terms for siingle and multiple business transactions, which were defined when the model was created.
   - Click **Search**

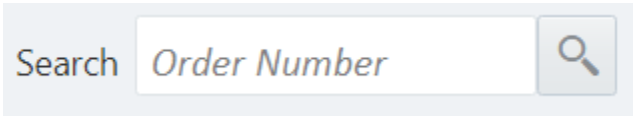
     to search for a chart by full or partial chart name.
   - Click **Expand filters**

     to set lifecycle filters or filterable indicators to narrow or expand your results. See Filter Dashboards.
   - Select from the **Dashboard Type** list to display dashboards of the selected type:
     - **All**
     - **Preconfigured**
     - **Custom**



- Click **Rearrange Dashboards** to change the order that dashboards appear on the console page. See Rearrange Dashboards.
- Click **Embed Dashboard**

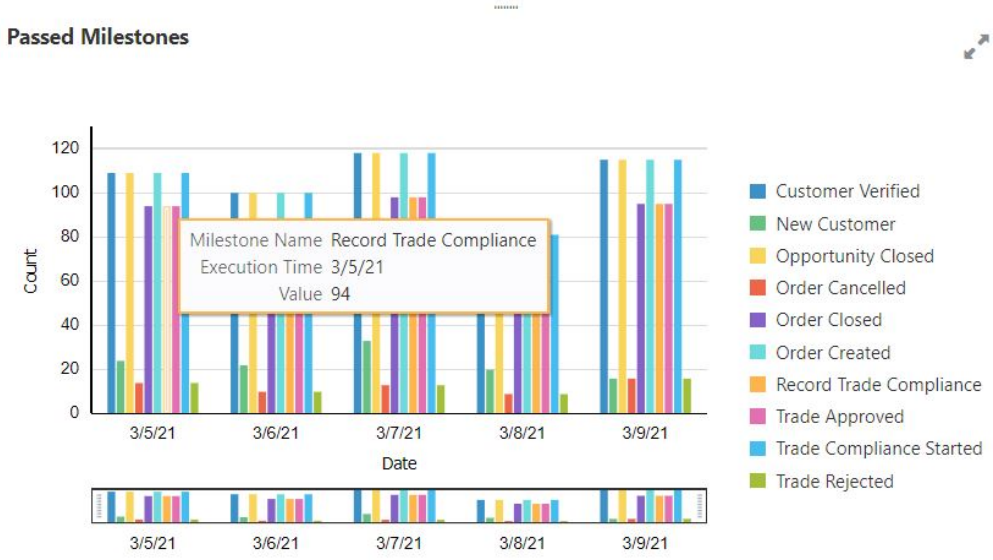
  to open the Embed Dashboards dialog. See Embed Insight Dashboards in Other Applications.
- Enter a value in the **Search** field to search for specific business transactions (instances) based on the business transaction's unique identifier. Matching business transactions display in the Business Transactions dashboard. See Search for Business Transactions.



- Click **View All** to view all business transactions on the Business Transactions dashboard, and drill down to more details. Business transactions from the last five days are displayed by default. See Work with the Business Transactions Dashboard.
- (Visible only to the Insight Administrator) Click **Purge**

  to purge Insight metrics and events data for the console. See Purge Console Data for a Model.
- Click **Refresh**

  to update the dashboards with the most recent business process data.
- For any dashboard, click **Expand** to display the dashboard in full page view. Click **Close** to return to the console view.
- Hover your mouse over dashboards to view more details about the data.



- Double-click on a milestone in a dashboard to display the Business Transactions dashboard showing business transactions associated with that milestone:
  - **Passed Milestones**: Double-click any milestone bar to show the business transactions (instances) that have passed that milestone.
  - **Milestones Summary**: Double-click any milestone bubble to show the business transactions (instances) associated with the milestone.
  - **Active *Transactions***: Double-click any business transaction bar to show the active business transactions. Because a business transaction state may change between the time the dashboard displayed and the time you clicked a bar, you may not see the same business transactions in the Business Transactions dashboard.
  - ***Transaction* Errors**: Double-click any slice on the pie chart to show the business transactions in Error state.
  - **Avg. *Transaction* Completion Time**: Double-click any bubble on the bubble chart to show the business transactions in Successful or Failed state, depending on the bubble you clicked.
  - Custom dashboards: Double-click any element that represents business transactions (such as a pie slice in a pie chart) to show the associated business transactions. See Create Custom Dashboards.

Create Custom Dashboards

Custom dashboards use visualization charts, such as pie charts or bar charts, to represent indicators (dimensions and measures) for Insight models that have indicators defined.

Insight Administrators and Business Executives create custom dashboards.

For overview information, see Custom Dashboards.

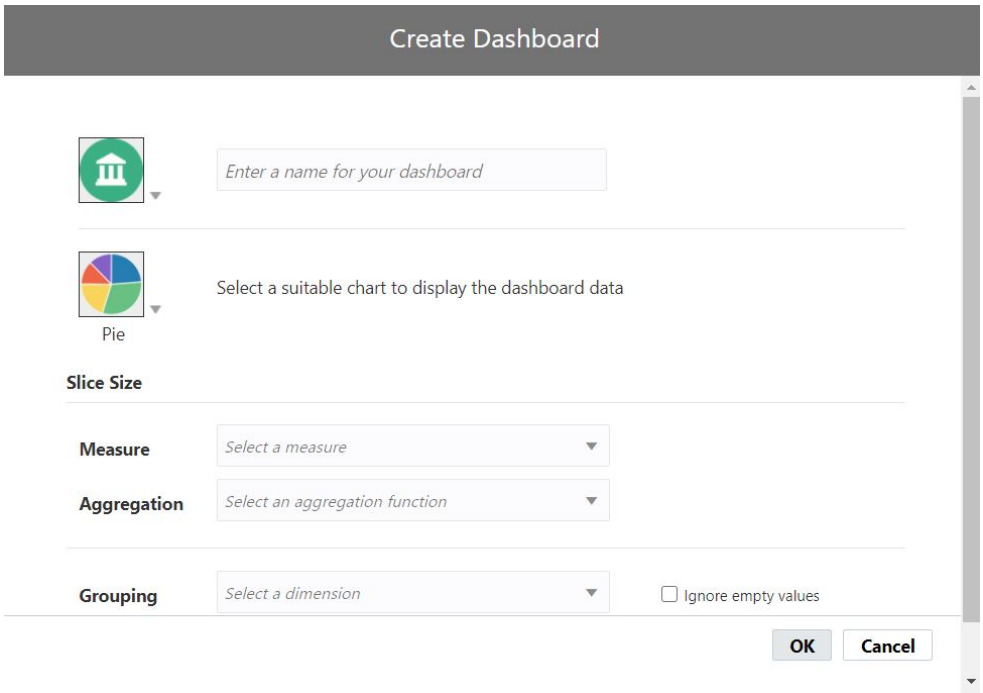
To create a custom dashboard:

1. On the Models page, click the model for which you want to create a custom dashboard and ensure that the model has indicators (dimensions and measures) defined. If not, follow the steps in Define Indicators.

> **Note:**
>
> You can only create and define indicators for models that are in a Draft status. If you have to create a draft of your model to add indicators, you must also reactivate the model. Metrics may be lost while the model is being reactivated.

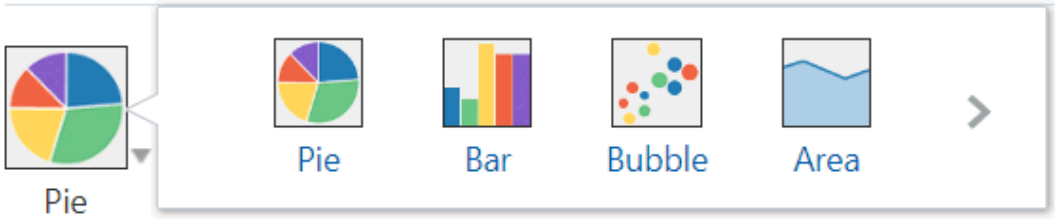
2. On the Consoles page, click the model (business process) for which you want to create a custom dashboard.
3. In the model's console, click **Create**.

The Create Dashboard dialog is displayed.



4. Enter a suitable name for the dashboard.
5. Click the dashboard icon to show the icon picker. Choose an appropriate icon for your dashboard.

6. Click the chart icon to show the chart picker. Select a chart appropriate for the data visualization.



7. Based on the type of chart you choose, select appropriate values for each of the fields in the Create Chart dialog, where:
   - A **Measure** value is an indicator defined in the model for the business process that is a quantifiable value, such as item count or price.
   - An **Aggregation** value is a function that operates on the selected measure. Available functions are:
     - **Average**
     - **Count**
     - **Count Distinct**
     - **Maximum**
     - **Median**
     - **Minimum**
     - **Percentage of Total**
     - **Standard Deviation**
     - **Sum**
     - **Variance**
   - A **Grouping/X-Axis** value is a dimension indicator defined in the model for the business process that specifies a grouping for the aggregated measure value, such as geographic region, salesperson, order start date, or status.

   The following table describes the fields and values in the Create Chart dialog for each custom chart type.

Fields and Values	Pie	Bar	Bubble	Area	Line	Scatter
Slice Size. Select the values that the slice size represents. These values are mandatory. • **Measure**. Select the measure for the slice size. • **Aggregation**. Select the aggregation function for the measure.	X					
X-axis. Select the value to be represented on the X-axis. This value is a dimension indicator used to group data. This value is mandatory.		X		X	X	
X-axis. Select the values to be represented on the X-axis. These values are mandatory. • **Measure**. Select the appropriate measure indicator. • **Aggregation**. Select the aggregation function for the measure.			X			X
Y-axis. Select the values to be represented on the Y-axis. These values are mandatory. • **Measure**. Select the appropriate measure indicator. • **Aggregation**. Select the aggregation function for the measure.		X	X	X	X	X
Bubble Size. Select the values to determine the bubble size. These values are mandatory. • **Measure**. Select the appropriate measure indicator. • **Aggregation**. Select the aggregation function for the measure.			X			
Grouping. Select the dimension indicator to group data. This value is mandatory.	X		X			X
Grouping. Select the dimension indicator to group data shown on the X-axis. This value cannot be the same dimension used for the X-axis. This value is optional.		X				
Ignore empty values. Select to display data only for valid values, and ignore null values, of the selected dimension.	X	X	X	X	X	X

See Work with Preconfigured and Custom Dashboards on the Console Page.

Import Dashboards

After importing a model from another Insight instance and activating the model, you can import the custom dashboards for the model's console.

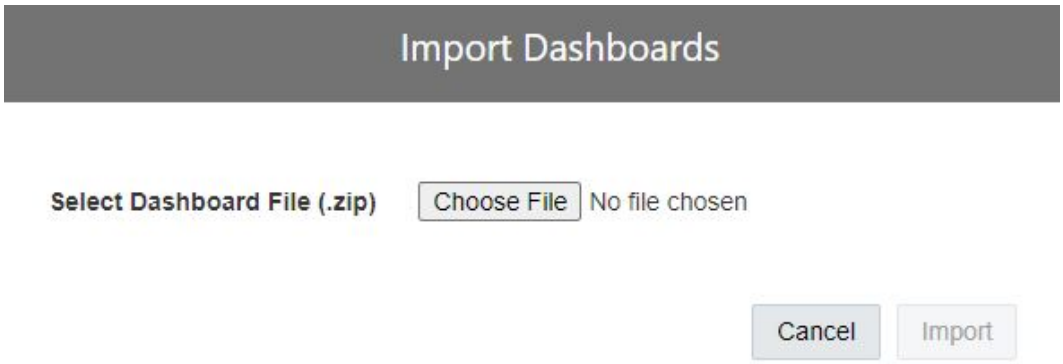
Insight Administrators or Business Executives import Insight custom dashboards.

> **Note:**
>
> You can import custom dashboards only into an activated model.

To import custom dashboards:

1. On the Consoles page, click the console corresponding to the business process defined by the model for which you want to import the custom dashboards.
2. On the console page, click **Import**.

The Import Dashboards dialog is displayed.



3. Click **Choose File**to select the zip file containing the custom dashboards you want to import.

   The name of the model for the custom dashboards you are importing must match the name of the current model.
4. Click **Import**.

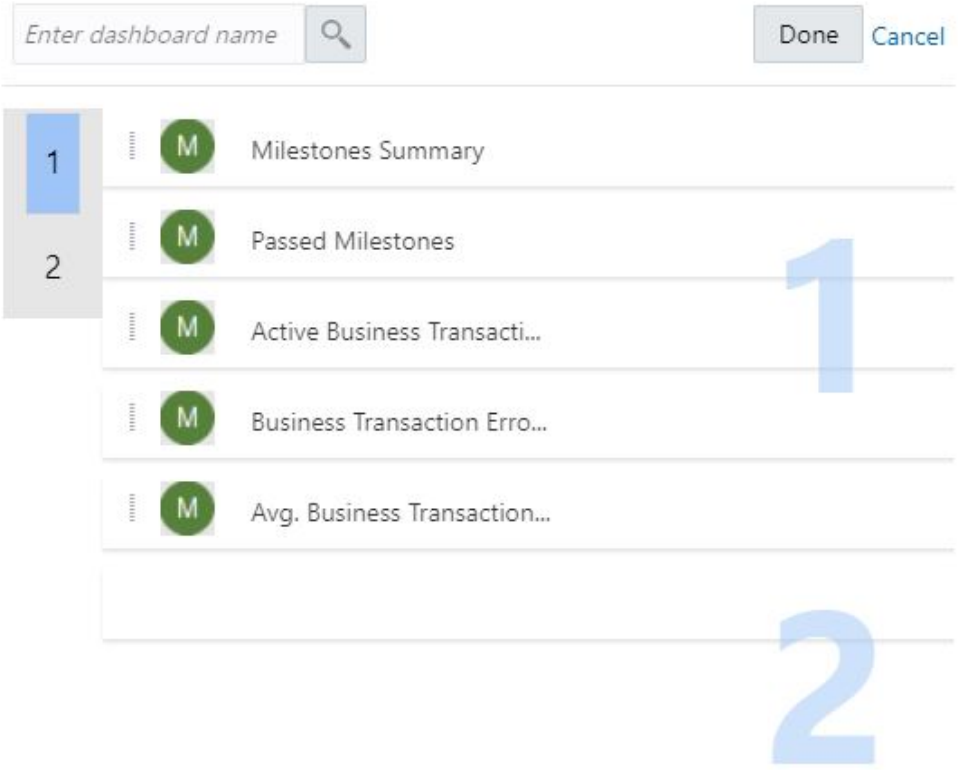
> **Note:**
>
> Dashboards with names matching those in the current console are not imported. Dashboards not imported are shown as skipped. Changing the names of any conflicting dashboards allows you to import them.

Rearrange Dashboards

You can rearrange the charts on the dashboard for a business process as desired.

To rearrange the dashboards on the console page:

1. On the console page, click **Rearrange Dashboards** .
2. Click and drag the bar to the left of a dashboard's name to move it to a different position. The console page on which a dashboard appears is indicated by the large number to the right of the dashboard list.



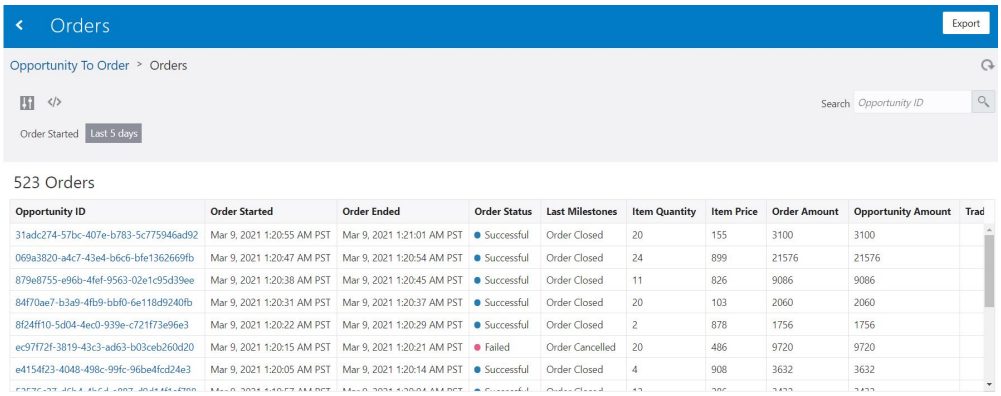
3. Click **Done** to save any ordering changes you make.

Work with the Business Transactions Dashboard

For overview information, see Business Transactions Dashboard.

You can navigate to the Business Transactions dashboard in any of the following ways:

- Click the **View All** link on the console page for a business process.
- Drill down from preconfigured or custom dashboards.
- Search for business transactions. See Search for Business Transactions.



In the Business Transactions dashboard:

- Click **Export** to export the entire list of business transactions to a `.csv` file to further analyze and customize.
- Click **Expand filters**
  
  to set lifecycle filters or filterable indicators to narrow or expand your results. See Filter Dashboards.
- Click **Embed Dashboard**
  
  to open the Embed Dashboards dialog. See Embed Insight Dashboards in Other Applications.
- Enter a value in the **Search** field to search for specific business transactions based on the business transaction's unique identifier. See Search for Business Transactions.
- Click any of the row headers to sort the list by that header.
- Use the navigational arrows at the bottom of the page to navigate to subsequent pages.
- Double-click anywhere in the row for a single business transaction to open the Business Transaction Details dashboard for that business transaction. See Work with the Business Transaction Details Dashboard.

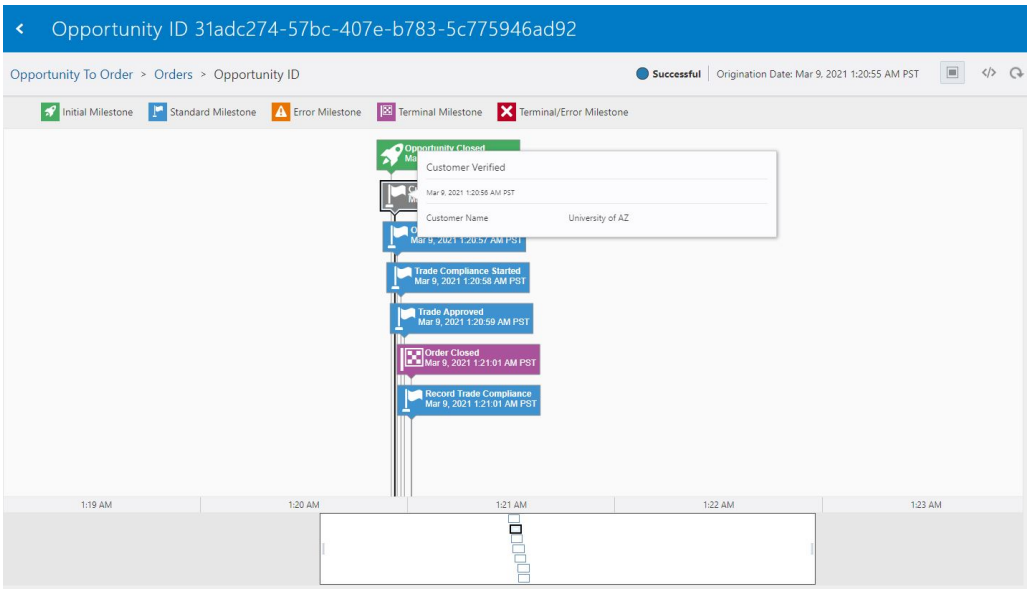
> **Note:**
>
> If your business process includes milestones that can be passed more than once, and indicator values are extracted for that milestone, only the indicator values extracted from the most recent time the milestone was passed are displayed in the Business Transactions dashboard. To see indicator values extracted each time a milestone was passed, drill down into the Business Transaction Details dashboard.

Work with the Business Transaction Details Dashboard

For overview information, see Business Transaction Details Dashboard.

To navigate to the Business Transaction Details dashboard:

- In the Business Transactions dashboard, double-click anywhere in the row for a single business transaction to open the Business Transaction Details dashboard for that business transaction.



In the Business Transaction Details dashboard:

- Click the breadcrumb links at the top of the page to navigate back to the Business Transactions dashboard and console page for the business process.
- Click

  to view the progress tracker dashboard for this business transaction. See Work with the Progress Tracker Dashboard
- Click **Embed Dashboard**

  to open the Embed Dashboards dialog. See Embed Insight Dashboards in Other Applications.
- Click any milestone in the timeline to display a popup showing the milestone details, including indicators.

Work with the Progress Tracker Dashboard

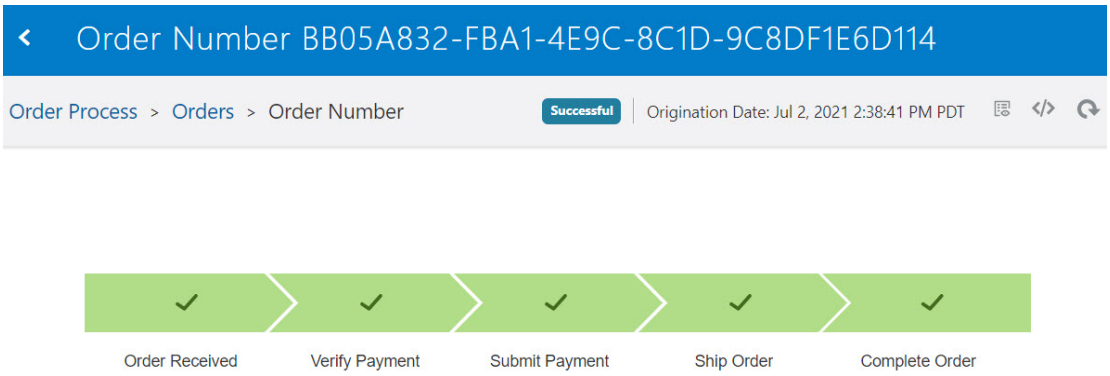
For overview information about milestones shown in the dashboard, see Progress Tracker Dashboard.

To navigate to the progress tracker dashboard:

- In the Business Transaction Details dashboard, click

  to view the progress tracker dashboard for the business transaction.

Figure 5-1 Progress Tracker Dashboard: Completed (Successful) Business Transaction



See Progress Tracker Dashboard for examples of the default progress tracker view for different business transaction states, and how to interpret the visualization.

In the progress tracker dashboard:

- Click the breadcrumb links at the top of the page to navigate back to the Business Transactions dashboard and console page for the business process.
- Click
  
  to return to the Business Transaction Details dashboard.
- Click **Embed Dashboard**
  
  to open the Embed Dashboards dialog.

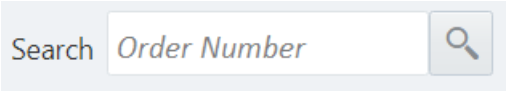
  When you embed a progress tracker dashboard in another application, you can customize the dashboard to hide selected milestones and to show all milestones that have not been passed (skipped), including Error and Terminal Error milestones, regardless of whether the business transaction is Completed or Active. When skipped milestones are shown for a Completed business transaction, the milestone sequence in the progress tracker dashboard is the order in which the milestones are defined in the model. See Embed Insight Dashboards in Other Applications.
- Hover over a milestone to show a tooltip with the timestamp when the milestone was passed.

Search for Business Transactions

You can search for specific business transactions (instances) associated with a business process based on the business transaction's unique identifier.

You can search for business transactions from the dashboards page or the Business Transactions dashboard.

The **Search** field has the same label as the business transaction's unique identifier.



Notes:

- Search is performed based on only the search string you provide. Any filters you have applied are ignored.
- Search is performed on only identifier values of business transactions (instances). For example, if the identifier is `Order Number`, you can only search for business transactions by order number.
- Retrieving a large number of business transactions in a search may adversely affect performance.
- When you enter a search, if the business transaction identifier is of type `integer`, `double`, or `date`, you must enter a search string that exactly matches the identifier. If the identifier is of type `string`, you can enter a case-sensitive string that fully or partially matches the identifier, including the following SQL wildcards:
  - `%` (percentage): A substitute for zero or more characters.
  - _ (underscore): A substitute for a single character.

Filter Dashboards

Insight supports a sophisticated set of filter criteria that allows business owners to focus on the business data that matters most to them. The filter criteria that is selected determines which business transactions are included in the dashboards.

Filter criteria can be specified for:

- preconfigured dashboards
- custom dashboards
- the Business Transactions dashboard

For all dashboards, you can specify milestone-related filter criteria, such as business transaction start date, end date, duration, passed milestones, and status. These criteria are called *lifecycle filters*, and are the same across all business processes.

For custom dashboards and the Business Transactions dashboard, you can also specify criteria based on indicators in the business process that have been marked as filterable. These criteria are called *indicator filters*, and vary between business processes, depending on the indicators defined for the associated model.

> **Note:**
>
> Dashboards do not update automatically with filter criteria. You must click **Apply** to apply the filters and update the dashboards based on your filter criteria or **Clear All** to clear all the selected filters. Click **Refresh**
>
> 
>
> to see the latest data without changing the filters.

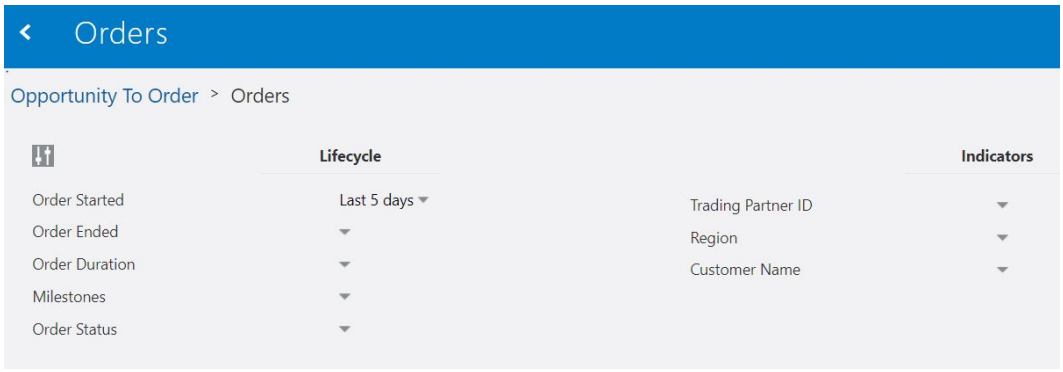
Lifecycle Filters

To filter dashboards by lifecycle filters:

- Click **Expand filters**

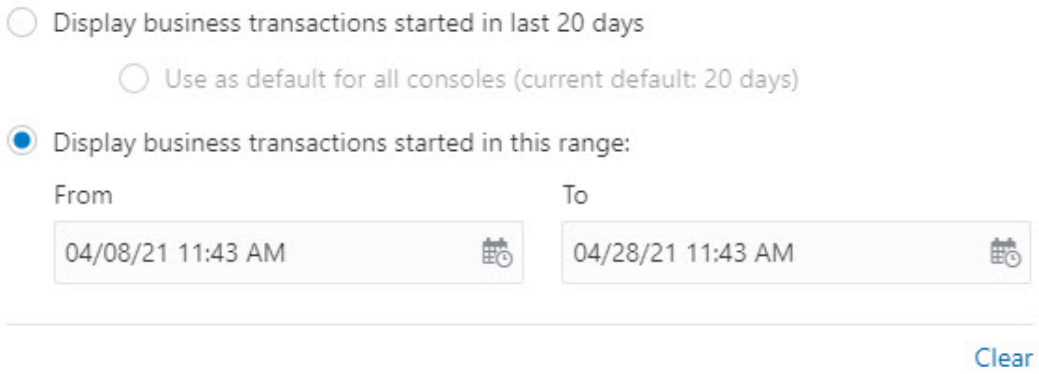
  

  to expose the filter criteria for selection.



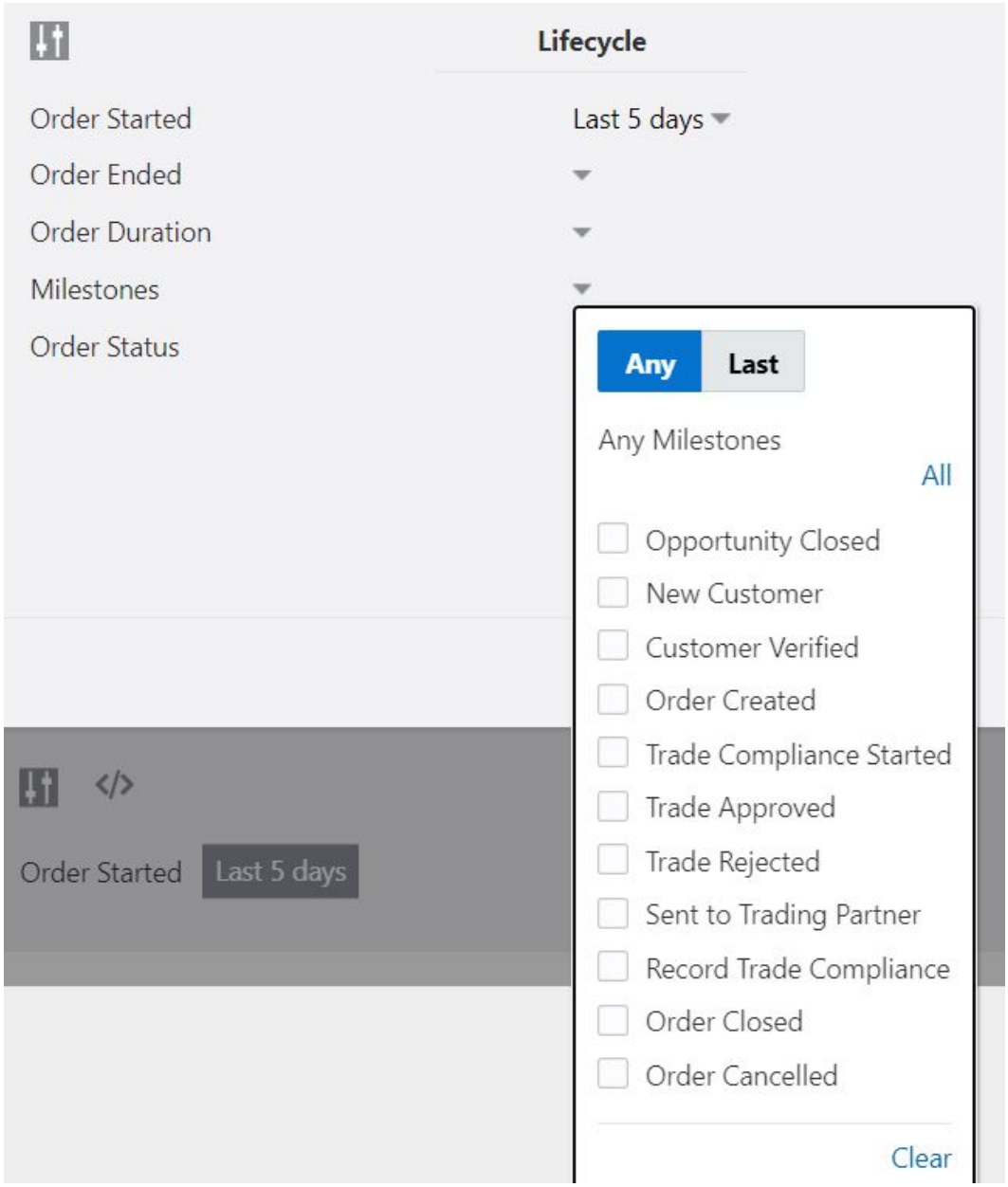
The available lifecycle filters are:

- ***Transaction* Started**: Filters for business transactions that started in the last number of days or during a date range. The default value is **Last 5 Days**.



  - **Display business transactions started in last *x* days**: Select to specify a number to display all transactions started within the last *x* days, where a day is the current time minus 24 hours.

  - **Use as default for all consoles**: Select to use the specified **last *x* days** filter value for all consoles.
  - **Display business transactions started in this range**: Select and specifiy a **From**/**To** date range to display all business transactions started during the range.
- ***Transaction*** **Ended**: Filters for business transactions that completed in the last number of days or during a date range. The default value is **Last 1 Days**.
  - **Display business transactions ended in last *x* days**: Select to specify a number to display all transactions completed within the last *x* days, where a day is the current time minus 24 hours.
  - **Display business transaction ended in this range**: Select and specify a **From**/**To** date range to display all business transactions completed during the range..
- ***Transaction*** **Duration**: Filters for the length of time a business transaction took to complete. Enter an integer as the **From**/**To** values for a duration and select the appropriate unit of time: **Days**, **Hours**, **Minutes**, and **Seconds**.
- **Milestones**: Filters for active and completed business transactions that have passed selected milestones.



  - **Any**: Select to display all business transactions that have passed any of the milestones you select.
  - **Last**: Select to display all business transactions that have *most recently* passed the milestones you select.

  All (default) displays all business transactions.

- ***Transaction* Status**: Filters for business transactions that were in the selected statuses at the time the data was loaded:
  - **Healthy**: Displays business transactions that are running.
  - **Successful**: Displays business transactions that have completed successfully.
  - **Recoverable Errors**: Displays business transactions that are in a faulted state.
  - **Failed**: Displays business transactions that have failed.

> **Note:**
>
> When you change filter criteria, click **Apply** to refresh the business transaction data and apply the changed filters. Clicking **Refresh**
>
> 
>
> only refreshes the data, without applying the changed filters.

Indicator Filters

To filter dashboards by indicators (dimensions and measures) that have been marked as filterable (applies only to custom dashboards and the Business Transactions dashboard):

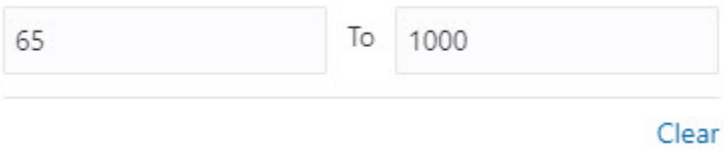
- Click **Expand filters**
  
  to expose the filter criteria for selection. For example, the following screen shows that three custom dashboard indicators have been marked as filterable in the business process.

The filter values that you specify depend on the data type of the indicator:

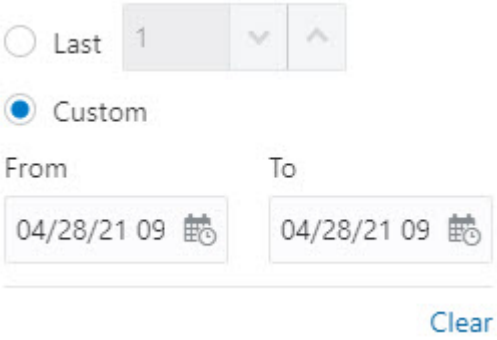
- `string`: Enter a valid string value for the indicator. The value is a case-sensitive exact match that can include the following SQL wildcards:
  - `%` (percentage): A substitute for zero or more characters.
  - _ (underscore): A substitute for a single character.

  > **Note:**
  >
  > Insight does not support filtering by `NULL` string values.

- `decimal`, `integer`, or `float`: Enter a minimum and maximum value for the indicator.



- `date`: Select **Last x days** and a value, or select **Custom Range** and a **From**/**To** date range.



Generate a Console's Manifest

You can generate a manifest showing the IDs for console components.

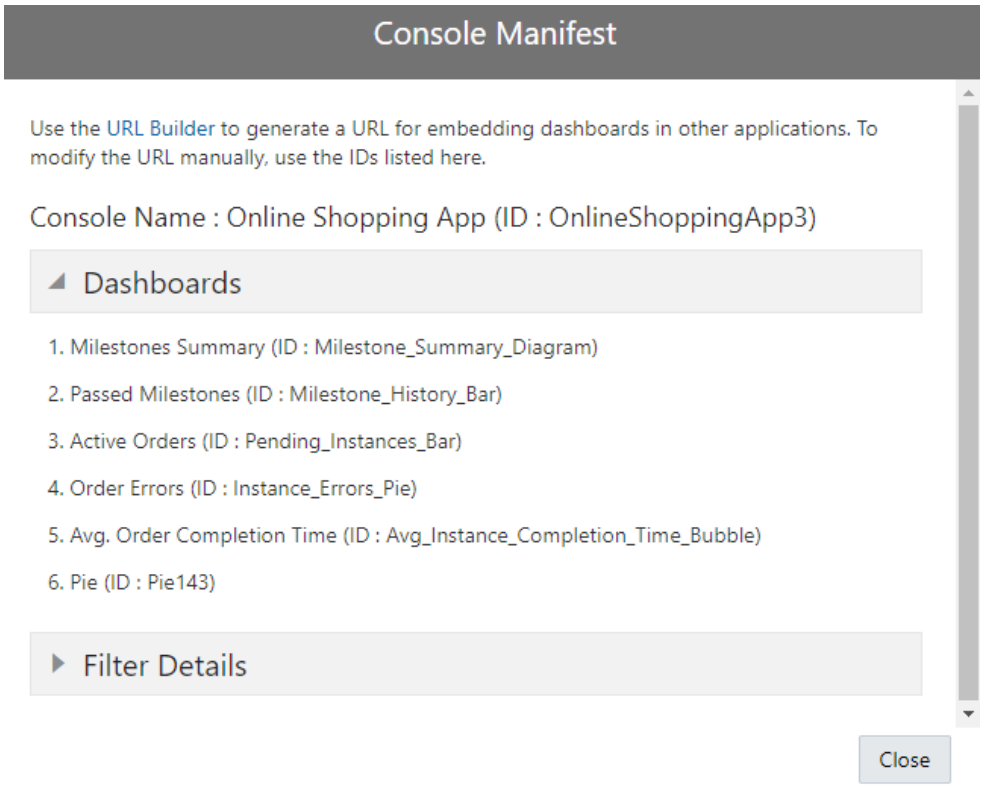
Insight Administrators, Business Users/Analysts, and Integration Architects can generate console manifests.

A console's manifest provides the IDs for the associated model, dashboards, milestones, unique instance identifier, and indicators (dimensions and measures). You can copy and use these IDs as needed, notably for embedding dashboards in other applications, as decribed in manually constructing or modifying the URL for embedding Insight dashboards in other applications, as described in Embed Insight Dashboards in Other Applications.

To generate a console's manifest:

1. On the Consoles page, click the console for which you want to generate a manifest.
2. On the console page, click **Console Manifest** in the header area.

The Console Manifest dialog displays the console name and IDs for the associated model and dashboards, Expand the **Filter Details** list to view the IDs for the milestones, unique instance identifier, and indicators (dimensions and measures).



> **Note:**
>
> You can also generate the Console Manifest from the Embed Dashboards dialog. See Construct a URL Using the URL Builder to Embed Insight Dashboards and Embed Insight Dashboards in a Visual Builder Application.

Purge Console Data for a Model

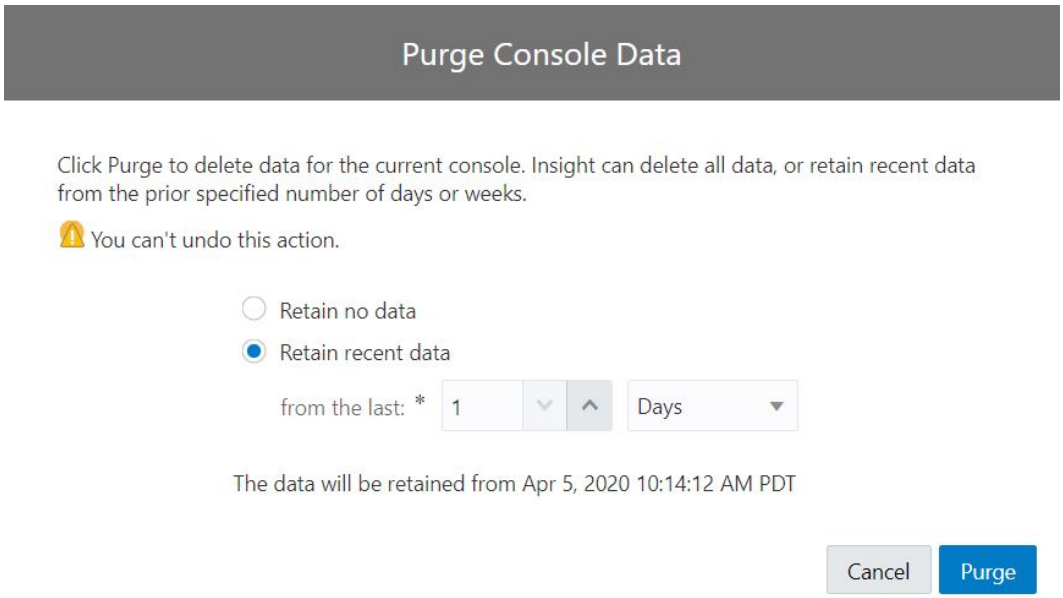
You can maintain database capacity and application performance by purging metrics and events data for a model.

Only the Insight Administrator can purge data.

> **Note:**
>
> Data retention settings configured in the Oracle Integration **Settings** area can affect overall Insight data retention. For example, the standard settings for data retention define how long to keep Insight business transactions, the **Purge When Low Space Reached** setting determines whether data is automatically purged without reclaiming database space, and clicking **Perform Manual Purge** performs an immediate manual purge. See Set Data Retention in *Provisioning and Administering Oracle Integration and Oracle Integration for SaaS, Generation 2*.

To purge Insight metrics and events data for a model (console):

1. On the Consoles page, click the console you want to purge.
2. Click **Purge**
   
   to display the Purge Console Data dialog.



3. In the Purge Console Data dialog, select the amount of data to purge:
   - **Retain no data** to delete all data for the model.
   - **Retain recent data**, then select from the dropdown lists to specify a number of days or weeks from which to retain data for the model.
4. Click **Purge** to immediately delete console data according to your selection.

6

Embed Insight Dashboards in Other Applications

In addition to viewing dashboards within Oracle Integration, Insight offers the capability to embed dashboards in other applications.

Insight provides the following ways to embed dashboards in other applications:

- In an iFrame using a specially constructed URL, which you can build using the URL builder in Insight or manually:
  - (Recommended) Construct a URL Using the URL Builder to Embed Insight Dashboards
  - Construct a URL Manually to Embed Insight Dashboards
- As a pre-built custom web component in a Visual Builder application, as described in Embed Insight Dashboards in a Visual Builder Application.
- (Deprecated) As a custom web component built using Oracle JET Composite Component Architecture (CCA), as described in Embed Insight Dashboards As Custom Web Components In External Applications.

> **Note:**
>
> This capability has been deprecated and will no longer be supported in future releases. Instead, embed dashboards using the other supported methods.

Construct a URL Using the URL Builder to Embed Insight Dashboards

You can embed Insight dashboards in other applications in an iFrame using a URL constructed using the URL builder.

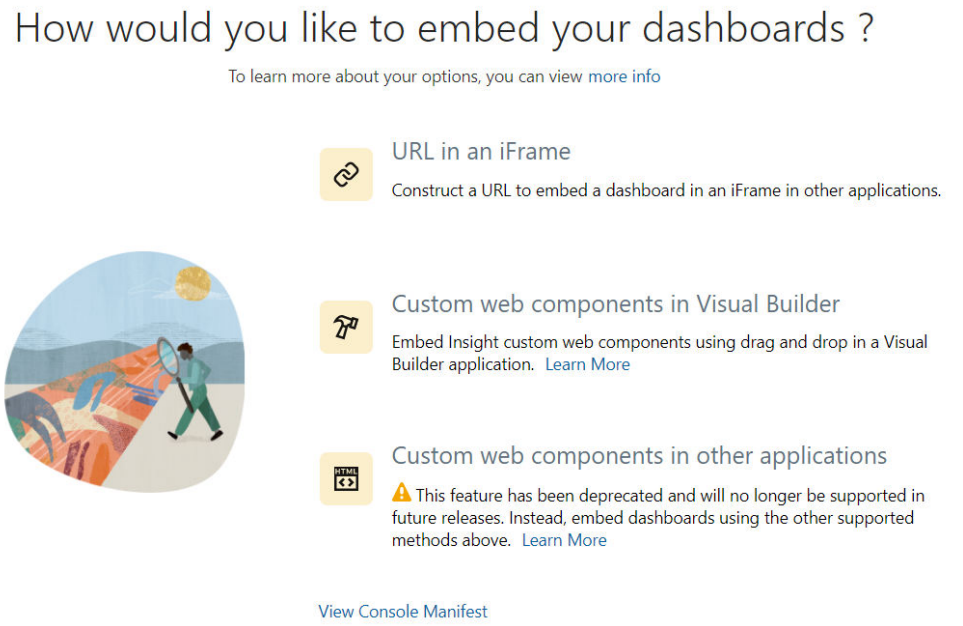
> **Limitation:**
>
> The external application and the Oracle Integration instance must use the same Single Sign-On (SSO).

To construct a URL for embedding dashboards using the URL builder:

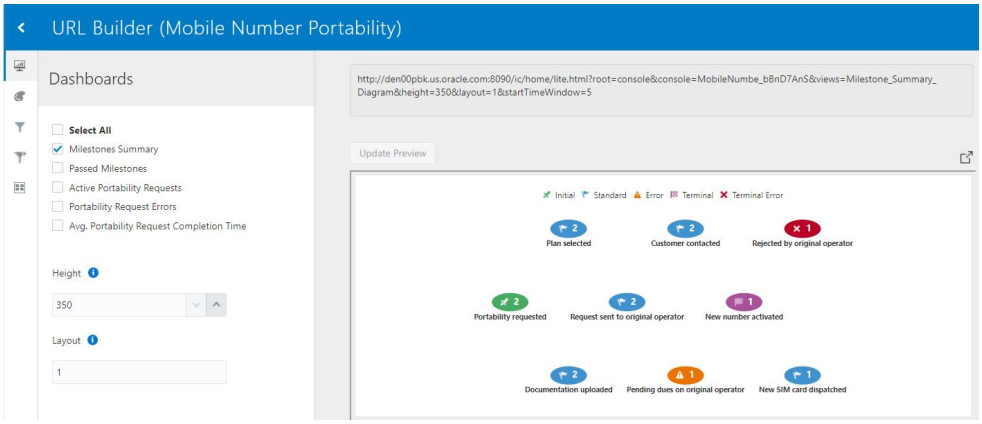
1. In Insight, go to the page that shows the dashboard(s) you want to embed: preconfigured and custom dashboards, the Business Transactions dashboard, the Business Transaction Details dashboard, or the progress tracker dashboard.

2. In the header area, click **Embed Dashboard**

to open the Embed Dashboards dialog.



3. Click the **URL in an iFrame** selection to open the URL Builder.



4. In the URL builder, select or specify values to customize the dashboard(s) you want to embed in an external application:
   - Preconfigured and Custom Dashboards
   - Business Transactions Dashboard
   - Business Transaction Details Dashboard
   - Progress Tracker Dashboard
5. Click **Update Preview** to preview the dashboard(s) that the URL renders.

> **Note:**
>
> The preview is not automatically refreshed. You must click **Update Preview** to see the results of changes to the URL.

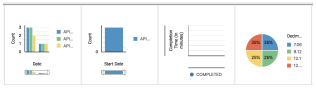
6. When you have completed constructing the URL that represents the dashboards you want to embed, hover over the URL and click the **Copy to Clipboard** icon to paste it as required by the external application.

Preconfigured and Custom Dashboards

Use the URL builder to select the preconfigured and custom dashboards to be embedded in another application and filter the transactions and attributes to be shown in those dashboards.

Dashboards Pane	Description	Values/Syntax	URL Parameter	Example
Checklist of dashboards	**Required**. Select the dashboards you want to include to generate a comma-separated list of dashboard IDs.	*dashboard-id1,dashboard-id2,... , dashboard-idn*	`views`	`views=PieChart123,Milestone_Summary_Diagram`
Height	Optional. Enter the desired height of the dashboards, in pixels. Minimum value (default): `350`.	*integer*	`height`	`height=350`

Dashboards Pane	Description	Values/Syntax	URL Parameter	Example

Layout	Optional. Enter a comma-separated list of the number of dashboards to be rendered for each row. For example:
	• A value of `4` displays 4 dashboards in one row:
	 
	• A value of `2,2` displays 2 rows with 2 dashboards per row:
	 
	• A value of `1,3,2` displays 3 rows with 1 dashboard in the first row, 3 in the second row, and 2 in the third row:
	 
	Default: vertical single-column layout.
		number-dashboards-in-1st-row,number-dashboards-in-2nd row, ...,number-dashboards-in-nth-row	`layout`	`layout=4`
				`layout=2,2`
				`layout=1,3,2`

Styling Pane	Description	Values/Syntax	URL Parameter	Example
Show Header	Optional. Select to include a header with each embedded dashboard showing the name of the dashboard. For example, Milestones Summary. Default: Not selected (no header).	`true` | `false` (default)	`header`	`header=true`

Lifecycle Filters Pane	Description	Values/Syntax	URL Parameter	Example
***Transaction* Started**	Optional. Select one of the following filters: • **Started in last *x* days** to enter a value (*x*) to display in the dashboards business transactions started within the last *x* days, where a day is the current time minus 24 hours. Default: 5. • **Started in this range** to enter a calendar range to display in the dashboards business transactions started during the specified range.	**Started in last *x* days**: *integer* **Started in this range**: *yyyy-MM-dd HH:mm:ss*	**Started in last *x* days**: `startTimeWindow` **Started in this range**: `fromStartDate` and `toStartDate`	**Started in last *x* days**: `startTimeWindow=4` **Started in this range**: `fromStartDate=2020-08-22 16:19:37&toStartDate=2020-08-17 16:19:37`
***Transaction* Ended**	Optional. Select one of the following filters: • **Ended in last *x* days** to enter a value (*x*) to display in the dashboards business transactions ended within the last x days, where a day is the current time minus 24 hours. • **Ended in this range** to enter a calendar range to display in the dashboards business transactions ended during the specified range. • **None** (default) to omit a transaction ended filter.	**Ended in last *x* days**: *integer* **Ended in this range**: *yyyy-MM-dd HH:mm:ss*	**Ended in last *x* days**: `endTimeWindow` **Ended in this range**: `fromEndDate`, `toEndDate`	**Ended in last *x* days**: `endTimeWindow=3` **Ended in this range**: `fromEndDate=2020-08-22 16:19:37&toEndDate=2020-08-17 16:19:37`
***Transaction* Duration**	Optional. Enter **From** and **To** values and select a time unit to display in the dashboards business transactions that completed in the specified length of time.	Range values: *integer* Time Unit values: `Days` | `Hours` | `Minutes` | `Seconds`	Range: `MinInstExecDuration`, `MaxInstExecDuration` Time Unit: `InstExecDuration`	`MinInstExecDuration=1&MaxInstExecDuration=2&InstExecDuration=Minutes,Hours` filters those transactions that completed in the range of 1 minute to 2 hours

Lifecycle Filters Pane	Description	Values/Syntax	URL Parameter	Example
Milestones	Optional. Select one of the following filters: • **Any** to display in the dashboards business transactions that have passed any of the milestones you select from the list. • **Last** to display in the dashboards business transactions that have *most recently* passed the milestones you select from the list. • **None** (default) to omit a milestone filter. In this case, dashboards will display all transactions that have passed all milestones.	*milestone-id1*,*milestone-id2*, ..., *milestone-idn*	anyMilestones lastMilestones	anyMilestones=API_START_IthAGqTx,API_STANDAR_TbJajNFt lastMilestones=API_START_IthAGqTx,API_STANDAR_TbJajNFt
***Transaction* Status**	Optional. Select one or more status values. Dashboards show business transactions that are in the specified status(es) at the time the dashboard is rendered. Default: Display all transactions in all statuses.	RUNNING COMPLETED RECOVERABLE FAILED	status	status=RUNNING,COMPLETED,RECOVERABLE

Custom Filters Pane (applies only to custom dashboards)	Description	Values/Syntax	URL Parameter	Example
Indicators of type `decimal`, `integer`, or `float`	Optional. Enter valid values to display in the dashboards business transactions that fall within the specified minimum and maximum range.	Any valid `decimal`, `integer`, or `float` values.	min*indicator-id* max*indicator-id*	minOrderAmount=11&maxOrderAmount=11.4 In this example, the indicator is a measure with ID `OrderAmount` of `float` data type.
Indicators of type `string`	Optional. Enter a valid string value. Dashboards show business transactions where the `string` indicator has the specifed value.	Any valid `string` value	*indicator-id*	City=Bangalore In this example, the indicator is a dimension with ID `City` of `string` data type.

Custom Filters Pane (applies only to custom dashboards)	Description	Values/Syntax	URL Parameter	Example
Indicators of type `date`	Optional. Select either **Last x Days** or **Custom Range**. Dashboards show business transactions where the `date` indicator value is within the specified last number of days or date range.	*yyyy-MM-dd HH:mm:ss*	`from`*indicator-id* `to`*indicator-id*	`fromOrderDate=2020-08-22 16:19:37&toOrderDate=2020-08-17 16:19:37` In this example, the indicator is a measure with ID `OrderDate` of `date` data type.

Advanced Properties	Description	Values/Syntax	URL Parameter	Example
Time Zone	Optional. Select the time zone to be shown with the dashboards as an offset from Greenwich Mean Time (GMT). Default: Host computer time zone.	`GMT+|-`*xx:xx*	`timezone`	`timezone=GMT+05:30`
Enable Navigation to Business Transactions	Optional. Select to enable the capability to click on embedded preconfigured or custom dashboards to drill down to associated business transactions. Default: Not selected (no drill down).	`true` | `false` (default)	`drilldown`	`drilldown=true`

Business Transactions Dashboard

Use the URL builder to filter the business transactions to include in the dashboard to be embedded in another application.

Styling Pane	Description	Values/Syntax	URL Parameter	Example
Show Header	Optional. Select to include a header with the embedded dashboard showing the number of business transactions, followed by the term defined as the **Business Transactions Label** when the model was created. For example, **523 Orders**. Default: Not selected (no header).	`true` | `false` (default)	`header`	`header=true`

Lifecycle Filters Pane	Description	Values/Syntax	URL Parameter	Example
***Transaction* Started**	Optional. Select one of the following filters: • **Started in last *x* days** to enter a value (*x*) to display in the dashboard business transactions started within the last *x* days, where a day is the current time minus 24 hours. Default: 5. • **Started in this range** to enter a calendar range to display in the dashboard business transactions started during the specified range.	**Started in last *x* days**: *integer* **Started in this range**: *yyyy-MM-dd HH:mm:ss*	**Started in last *x* days**: startTimeWindow **Started in this range**: fromStartDate, toStartDate	**Started in last *x* days**: startTimeWindow=4 **Started in this range**: fromStartDate=2020-08-22 16:19:37&toStartDate=2020-08-17 16:19:37
***Transaction* Ended**	Optional. Select one of the following filters: • **Ended in last *x* days** to enter a value (*x*) to display in the dashboard business transactions ended within the last x days, where a day is the current time minus 24 hours. • **Ended in this range** to enter a calendar range to display in the dashboard business transactions ended during the specified range. • **None** (default) to omit a transaction ended filter.	**Ended in last *x* days**: *integer* **Ended in this range**: *yyyy-MM-dd HH:mm:ss*	**Ended in last *x* days**: endTimeWindow **Ended in this range**: fromEndDate, toEndDate	**Ended in last *x* days**: endTimeWindow=3 **Ended in this range**: fromEndDate=2020-08-22 16:19:37&toEndDate=2020-08-17 16:19:37
***Transaction* Duration**	Optional. Enter **From** and **To** values and select a time unit to display in the dashboard business transactions that completed within the specified length of time.	Duration values: *integer* Time Unit values: Days | Hours | Minutes | Seconds	Duration: MinInstExecDuration, MaxInstExecDuration Time Unit: InstExecDuration	MinInstExecDuration=1&MaxInstExecDuration=2&InstExecDuration=Minutes,Hours filters those transactions that completed within the duration of 1 minute to 2 hours

Lifecycle Filters Pane	Description	Values/Syntax	URL Parameter	Example
Milestones	Optional. Select one of the following filters: • **Any** to display in the dashboard business transactions that have passed any of the milestones you select in the field below. • **Last** to display in the dashboard business transactions that have most recently passed the milestones you select in the field below. • **None** (default) to omit a milestone filter.	*milestone-id1*,*milestone-id2*, ..., *milestone-idn*	anyMilestones lastMilestones	anyMilestones=API_START_IthAGqTx,API_STANDAR_TbJajNFt lastMilestones=API_START_IthAGqTx,API_STANDAR_TbJajNFt
***Transaction* Status**	Optional. Select one of more status values to display in the dashboard business transactions that were in the specified status(es) at the time the data was loaded. Default: Display all transactions in all statuses.	RUNNING COMPLETED RECOVERABLE FAILED	status	status=RUNNING,COMPLETED,RECOVERABLE

Custom Filters Pane	Description	Values/Syntax	URL Parameter	Example
Indicators of type `string`	Optional. Enter a valid string value to display in the dashboards business transactions with that value for the indicator.	Any valid `string` value	*indicator-id*	`City=Bangalore` In this example, the indicator is a dimension with ID `City` of `string` data type.
Indicators of type `decimal`, `integer`, or `float`	Optional. Enter valid values to display in the dashboards business transactions that fall within the specified minimum and maximum range.	Any valid `decimal`, `integer`, or `float` values.	min*indicator-id* max*indicator-id*	`minOrderAmount=11&maxOrderAmount=11.4` In this example, the indicator is a measure with ID `OrderAmount` of `float` data type.
Indicators of type `date`	Optional. Select **Last x days** and value, or select **Custom Range** and a **From**/**To** date range. Dashboards show business transactions where the indicator value matches the dates specified.	*yyyy-MM-dd HH:mm:ss*	from*indicator-id* to*indicator-id*	`fromOrderDate=2020-08-22 16:19:37&toOrderDate=2020-08-17 16:19:37` In this example, the indicator is a measure with ID `OrderDate` of `date` data type.

Business Transaction Details Dashboard

Use the URL builder to identify the business transaction to include in the dashboard to be embedded in another application.

General Properties Pane	Description	Values/Syntax	URL Parameter	Example
View  	Click  to embed the progress tracker dashboard for the business transaction, and click  to embed the Business Transaction Details dashboard for the business transaction. You must click **Update Preview** to refresh the dashboard with the new view. The `header` setting is preserved between views, but other settings are set to their default values when you switch views.	N/A	N/A	N/A
Business Transaction ID	**Required**. The ID of the business transaction. This field is automatically filled by the ID of the business transaction that you selected in the Business Transactions dashboard.	*transaction-id*	bTxnId	bTxnId=1224

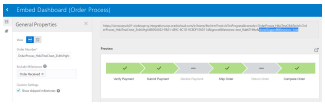
Styling Pane	Description	Values/Syntax	URL Parameter	Example
Show Header	Optional. Select to include a header showing the unique instance identifier name and value for the business transaction. For example, **Order Number 4566**. Default: Not selected (no header). **Example** With **Show Header** selected, the header shows the unique instance identifier name and value for the current business transaction: 	`true` | `false` (default)	`header`	`header=true`

Progress Tracker Dashboard

Use the URL builder to customize the progress tracker dashboard to be embedded in another application.

General Properties Pane	Description	Values/Syntax	URL Parameter	Example
View  	Click  to embed the progress tracker dashboard for the business transaction, and click  to embed the Business Transaction Details dashboard. You must click **Update Preview** to refresh the dashboard with the new view. For URL parameters that the two views have in common, such as `header`, the settings you specify in one view are inherited in the other view.	N/A	N/A	N/A

General Properties Pane	Description	Values/Syntax	URL Parameter	Example
Identifier	**Required**. The ID of the business transaction (the value of the unique instance identifier for this transaction). This field is automatically filled by the ID of the business transaction that you selected in the Business Transactions dashboard.	*transaction-id*	bTxnId	bTxnId=1224
Exclude Milestones	Optional. Select one or more milestones to exclude from the progress tracker dashboard from the list of all milestones defined in the associated model. For example, if business executives do not want to see a particular Error milestone when it is passed, select that milestone from the list and click **Update Preview** to hide the milestone from the dashboard.	*milestone-id*	ignoreMilestones	ignoreMilestones=test_RdaKTHMz

General Properties Pane	Description	Values/Syntax	URL Parameter	Example
Custom Settings	Optional. Select **Show skipped milestones** to show all milestones that have not been passed (including Error and Terminal Error milestones). When skipped milestones are shown, the milestone sequence in the progress tracker dashboard is the order in which the milestones are defined in the model. For a description of the default milestones shown in the dashboard, see Progress Tracker Dashboard. **Example** By default, the dashboard for a Completed business transaction with Successful status shows only passed milestones, in the order in which they are passed at runtime. With **Show skipped milestones** selected, the embedded dashboard shows both passed and not passed (skipped) milestones in the order in which the milestones are defined in the model. 	`true` | `false`	`showSkippedMilestones`	`showSkippedMilestones=true`

Styling Pane	Description	Values/Syntax	URL Parameter	Example
Show Header	Optional. Select to include a header showing the name of the console and the ID of the business transaction. Default: Not selected (no header). **Example** With **Show Header** selected, the header shows the name of the console and the transaction ID: 	`true` | `false` (default)	`header`	`header=true`
Custom Header	Optional. Exposed only if **Show Header** is selected. Select an indicator to replace the default business transaction ID in the header with the indicator value. **Example** With **Custom Header** set to indicator `Shipping State`, the header shows the indicator value: 	*`indicator-id`*	`showid`	`showId=ShippingState`
Animation	Optional. Enter a value to display the progress tracker as a live animation that overlays grey segments with green segments to visualize passed milestones, where the value you enter specifies the speed of the overlay animation in milliseconds. Default: No animation.	*`integer`*	`animate`	`animate=500`

Construct a URL Manually to Embed Insight Dashboards

You can embed Insight dashboards in other applications in an iFrame using a specially constructed URL.

> **Limitation:**
>
> The external application and the Oracle Integration instance must use the same Single Sign-On (SSO).

Refer to the following sections for the URL parameters specific to each dashboard:

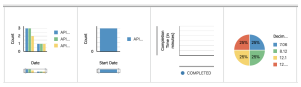
- Preconfigured and Custom Dashboards
- Business Transactions Dashboard
- Business Transaction Details Dashboard
- Progress Tracker Dashboard

Preconfigured and Custom Dashboards

The following parameters can be used to build the URL that describes the preconfigured and custom dashboards to be embedded in another application and the transactions to be shown in those dashboards.

Example URL: `https://oic-host/ic/home/lite.html?root=console&console=InsightAPIM_giqndguH&views=Milestone_Summary_Diagram`

Parameter	Description	Values/Syntax	Example
`root`	**Required**. The page ID of the Consoles page.	`console`	`root=console`
`console`	**Required**. The ID of the associated console for the dashboards, as specified in the console manifest.	*`console-id`*	`console=InsightAPIM_giqndguH`
`views`	**Required**. A comma-separated list of dashboard IDs, as specified in the console manifest.	*`dashboard-id1,dashboard-id2,... , dashboard-idn`*	`views=PieChart123,Milestone_Summary_Diagram`
`header`	Optional. When set to `true`, each embedded dashboard includes a header showing the name of the dashboard. For example, Milestones Summary. Default: `false`	`true` | `false`	`header=true`
`height`	Optional. The desired height of the dashboards, in pixels. Minimum value (default): `350`	*`integer`*	`height=350`

Parameter	Description	Values/Syntax	Example
`layout`	Optional. A comma-separated list of the number of dashboards to be rendered for each row. Default: `1` (vertical single-column layout).	*`number-dashboards-in-1st-row,number-dashboards-in-2nd row, ...,number-dashboards-in-nth-row`*	`layout=4` displays 4 dashboards in one row:  `layout=2,2` displays 2 rows with 2 dashboards per row:  `layout=1,3,2` displays 3 rows with 1 dashboard in the first row, 3 in the second row, and 2 in the third row: 
`timezone`	Optional. Time zone offset from Greenwich Mean Time (GMT) to be shown with the dashboards. Default: Host computer time zone.	`GMT+|-`*`xx:xx`*	`timezone=GMT+05:30`
`drilldown`	Optional. When set to `true`, enables the capability to click on embedded preconfigured or custom dashboards to drill down to associated business transactions. Default: `false`	`true` | `false`	`drilldown=true`

Filter Parameter	Description	Values/Syntax	Example
`fromStartDate` `toStartDate`	Optional. Dashboards show business transactions started during the specified date range. Valid only if `startTimeWindow` is not specified.	*yyyy-MM-dd HH:mm:ss*	`fromStartDate=2020-08-22 16:19:37&toStartDate=2020-08-17 16:19:37`
`startTimeWindow`	Optional. Dashboards show business transactions started within the last `x` days, where a day is the current time minus 24 hours. Default: `5` Valid only if `fromStartDate` and `toStartDate` are not specified.	*integer*	`startTimeWindow=4`
`fromEndDate` `toEndDate`	Optional. Dashboards show business transactions completed during the range between `fromEndDate` and `toEndDate`. Specify the start and end dates of the range. Valid only if `endTimeWindow` is not specified.	*yyyy-MM-dd HH:mm:ss*	`fromEndDate=2020-08-22 16:19:37&toEndDate=2020-08-17 16:19:37`
`endTimeWindow`	Optional. Dashboards show business transactions completed within the last `x` days, where a day is the current time minus 24 hours. Valid only if `fromEndDate` and `toEndDate` are not specified.	*integer*	`endTimeWindow=6`

Filter Parameter	Description	Values/Syntax	Example

Duration:
`MinInstExecDuration`
`MaxInstExecDuration`
Time Unit:
`InstExecDuration`
	Optional. Dashboards show business transactions that completed in the specified length of time.
	Specify `MinInstExecDuration` and `MaxInstExecDuration` duration values as integers, and specify time unit values as a comma-separated list of two values where the first value is the time unit of the `MinInstExecDuration` (start) value and the second value is the time unit of the `MaxInstExecDuration` (end) value.
		Duration values:
		`integer`
		Time Unit values:
		`Seconds | Minutes | Hours | Days`
			`MinInstExecDuration=1&MaxInstExecDuration=2&InstExecDuration=Minutes,Hours`
			filters those transactions that completed within the duration of 1 minute to 2 hours

`status`	Optional. Dashboards show business transactions that are in the specified status(es) at the time the dashboard is rendered.
	Specify statuses as a comma-separated list of values.
	Default: `ALL`
		`status1``,`*`status2`*`, ..., `*`statusn`*` | ALL`
		where valid status values are:
		`RUNNING`
		`COMPLETED`
		`RECOVERABLE`
		`FAILED`
			`status=RUNNING,COMPLETED,RECOVERABLE`

`anyMilestones` `lastMilestones`	Optional. Dashboards show business transactions that have passed any of the milestones specified by `anyMilestones`, or have most recently passed the milestones specified by `lastMilestones`. Specify milestones as a comma-separated list of milestone IDs, as specified in the console manifest. Default: `ALL`	*`milestone-id1`*`,`*`milestone-id2`*`, ..., `*`milestone-idn`*` | ALL`	`anyMilestones=API_START_IthAGqTx,API_STANDAR_TbJajNFt` `lastMilestones=API_START_IthAGqTx,API_STANDAR_TbJajNFt`
For indicators of type `string`: *`indicator-id`*	*Applies only to custom dashboards*. Optional. Dashboards show business transactions where the specified indicator has the specifed value.	Any valid `string` value | `ALL`	`City=Bangalore` In this example, the indicator is a dimension with ID `City` of `string` data type.

Filter Parameter	Description	Values/Syntax	Example
For indicators of type `decimal`, `integer`, or `float`: `min`*`indicator-id` `max`*`indicator-id`*	*Applies only to custom dashboards*. Optional. Dashboards show business transactions where the specified indicator is in the specified range.	Any valid `decimal`, `integer`, or `float` value | `ALL`	`minOrderAmount=11&maxOrderAmount=11.4` In this example, the indicator is a measure with ID `OrderAmount` of `float` data type.
For indicators of type `date`: `from`*`indicator-id`* `to`*`indicator-id`*	*Applies only to custom dashboards*. Optional. Dashboards show business transactions where the value of the specified indicator is in the specified date range.	*`yyyy-MM-dd HH:mm:ss`*	`fromOrderDate=2020-08-22 16:19:37&toOrderDate=2020-08-17 16:19:37` In this example, the indicator is a measure with ID `OrderDate` of `date` data type.

Business Transactions Dashboard

The following parameters can be used to build the URL that describes the business transactions to include in the dashboard to be embedded in another application.

Example URL: `https://`*`oic-host`*`/ic/home/lite.html?root=bTxns&console=InsightAPIM_giqndguH`

Parameter	Description	Values/Syntax	Example
`root`	**Required**. The page ID of the Business Transactions dashboard.	`bTxns`	`root=bTxns`
`console`	**Required**. The ID of the associated console for the business transactions, as specified in the console manifest.	*`console-id`*	`console=InsightAPIM_giqndguH`
`header`	Optional. When set to `true`, the embedded dashboard includes a header showing the number of business transactions, followed by the term defined as the **Business Transactions Label** when the model was created. For example, **523 Orders**. Default: `false`	`true` | `false`	`header=true`
Filter parameters	See filter parameters for Preconfigured and Custom Dashboards.		

Business Transaction Details Dashboard

The following parameters can be used to build the URL that describes the business transaction details to be embedded in another application.

Example URL: `https://oic-host/ic/home/lite.html?root=bTxnDetails&console=InsightAPIM_giqndguH&bTxnId=1224`

Parameter	Description	Values/Syntax	Example
`root`	**Required**. The page ID of the Business Transaction Details page.	`bTxnDetails`	`root=bTxnDetails`
`console`	**Required**. The ID of the associated console for the business transaction, as specified in the console manifest.	*`console-id`*	`console=InsightAPIM_giqndguH`
`bTxnId`	**Required**. The ID of the business transaction. You can find this ID in the row for the business transaction in the Business Transactions Dashboard.	*`transaction-id`*	`bTxnId=1224`
`header`	Optional. When set to `true`, the embedded dashboard includes a header showing the model identifier name and value for the business transaction. For example, Order ID 4566. Default: `false`	`true` | `false`	`header=true`

Progress Tracker Dashboard

The following parameters can be used to build the URL that describes the progress tracker to be embedded in another application.

Example URL: `https://oic-host/ic/home/lite.html?root=bTxnProgress&console=InsightAPIM_giqndguH&bTxnId=1224`

Parameter	Description	Values/Syntax	Example
`root`	**Required**. The page ID of the progress tracker for a business transactions. This page displays when you click the  icon in the Business Transaction Details page.	`bTxnProgress`	`root=bTxnProgress`

Parameter	Description	Values/Syntax	Example
`console`	**Required**. The ID of the associated console for the business transaction, as specified in the console manifest.	*`console-id`*	`console=InsightAPIM_giqndguH`
`bTxnId`	**Required**. The ID of the business transaction. You can find this ID in the row for the business transaction in the Business Transactions Dashboard.	*`transaction-id`*	`bTxnId=1224`
`ignoreMilestones`	Optional. A comma-separated list of one or more milestones to exclude from the progress tracker.	*`milestone-id`*	`ignoreMilestones=test_RdaKTHMz`

Parameter	Description	Values/Syntax	Example
`showSkippedMilestones`	Optional. When set to `true`, the embedded dashboard shows all milestones that have not been passed (including Error and Terminal Error milestones). When skipped milestones are shown, the milestone sequence in the progress tracker dashboard is the order in which the milestones are defined in the model. For a description of the default milestones shown in the dashboard, see Progress Tracker Dashboard. **Example** By default, the dashboard for a Completed business transaction with Successful status shows only passed milestones, in the order in which they are passed at runtime. With `showSkippedMilestones=true`, the embedded dashboard shows both passed and not passed (skipped) milestones in the order in which the milestones are defined in the model. 	`true` | `false`	`showSkippedMilestones=true`

Parameter	Description	Values/Syntax	Example
`header`	Optional. When set to `true`, the progress tracker dashboard includes a header showing the name of the console and the ID of the business transaction. To replace the ID with the value of a specific indicator, set the `showid` parameter to the indicator ID. **Example** With `header=true`, the header shows the name of the console and the transaction ID:  Default: `false`	`true` | `false`	`header=true`
`showid`	Optional. The ID of an indicator to replace the default business transaction ID in the header with the indicator value. Exposed only if `header=true`. **Example** With `showId=ShippingState`, the header shows the indicator value:  	*`indicator-id`*	`showId=ShippingState`
`animate`	Optional. Displays the progress tracker as a live animation that overlays each blue segment with a green segment to visualize passed milestones. Specify a value to set the speed of the overlay animation in milliseconds. Default: `0` (no animation).	*`integer`*	`animate=500`

Embed Insight Dashboards in a Visual Builder Application

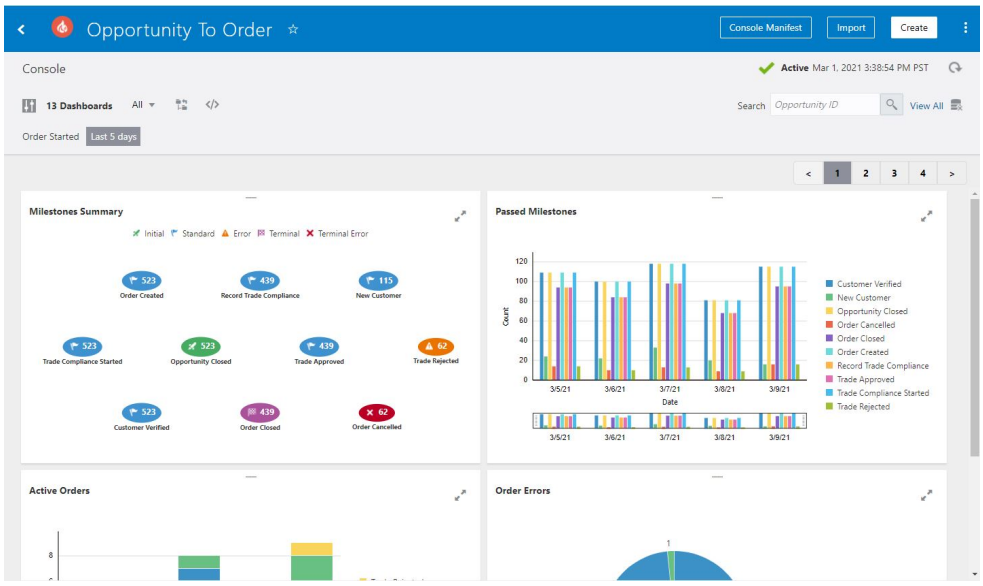
In addition to viewing dashboards within Oracle Integration, you can embed Insight custom web components in a Visual Builder application to render real-time Insight dashboards at runtime.

Limitations:

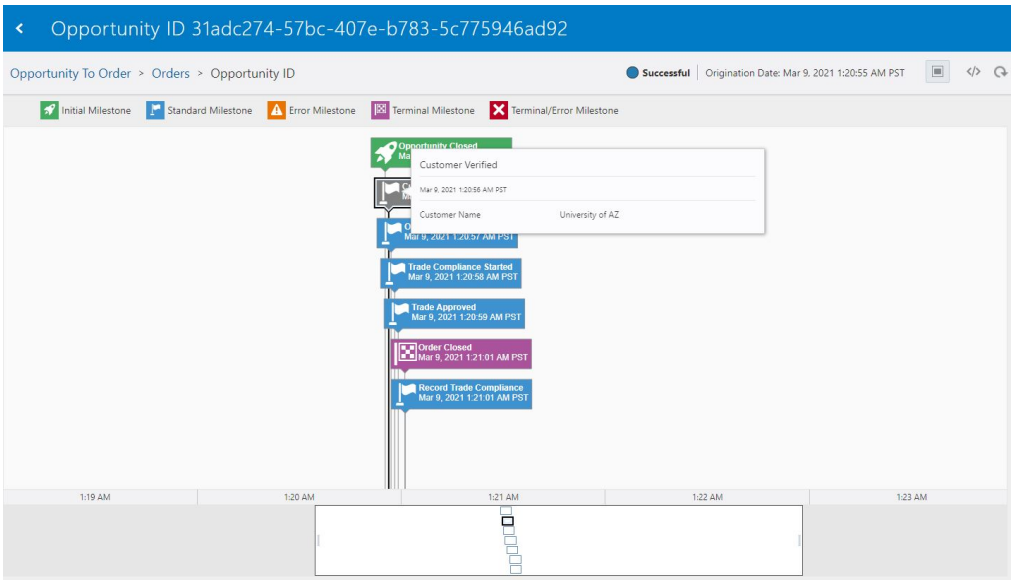
- The Visual Builder application and Oracle Integration must use the same Single Sign-On (SSO) instance.
- The Insight custom web components are certified to support Oracle JavaScript Extension Toolkit (JET) version 10.1.3 and earlier.
- Embedding a Business Transactions dashboard, which shows a list of business transactions, is not currently supported.

Insight custom web components, built using Oracle JET Composite Component Architecture (CCA), are available in the following downloadable zip files for embedding dashboards in a Visual Builder web application:

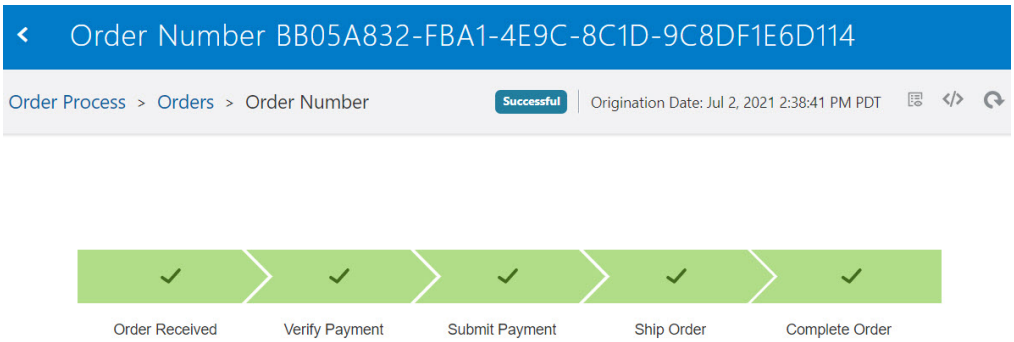
- `insight-dashboard.zip` to embed preconfigured and custom dashboards, as shown on the console page for the associated business process.



- `insight-transaction-dashboard.zip` to embed a Business Transaction Details dashboard in a selected view:
  - Business transaction details view:



– Progress tracker view:



For a description of the default milestones shown in the progress tracker dashboard, see Progress Tracker Dashboard.

When you embed a progress tracker dashboard in another application, you can customize the dashboard to hide selected milestones (**Exclude Milestones**) and to show all milestones that have not been passed (**Show skipped milestones**), including Error and Terminal Error milestones, regardless of whether the business transaction is Completed or Active. When skipped milestones are shown for a Completed business transaction, the milestone sequence in the progress tracker dashboard is the order in which the milestones are defined in the model.

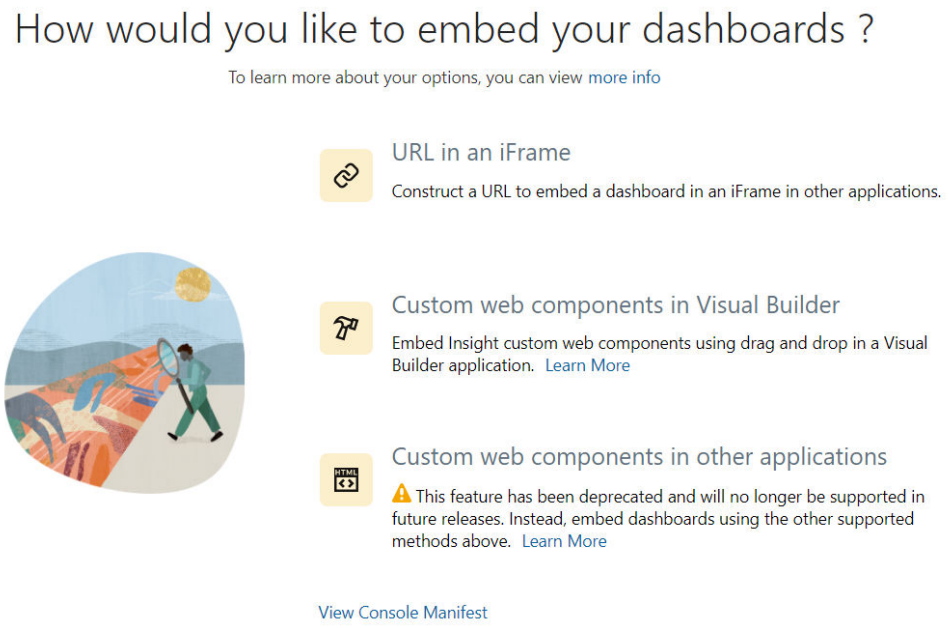
Download Insight Custom Web Components

To download the zip files containing the Insight custom web components for Visual Builder:

1. In Insight, go to the page that shows the dashboard(s) you want to embed (preconfigured and custom dashboards, the Business Transaction Details dashboard, or the progress tracker dashboard).
2. In the header area, click **Embed Dashboard**

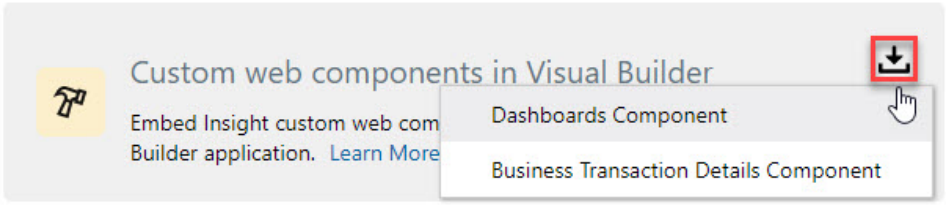
   

   to open the Embed Dashboards dialog.



3. Hover your cursor over the **Custom web components in Visual Builder** selection, and click **Download Custom Web Components**

.



- Select **Dashboards Component** to download `insight-dashboard.zip` for embedding preconfigured and custom dashboards.
- Select **Business Transaction Details Component** to download `insight-transaction-dashboard.zip` for embedding the Business Transaction Details dashboard or the progress tracker dashboard.

4. Save the downloaded zip file to a location in your local file system.

Embed Insight Dashboards

To embed Insight dashboards in a Visual Builder application:

1. In Visual Builder, create or open the Visual Builder application, then the associated web application in which you want to embed one or more Insight dashboards. See Manage the Applications in *Developing Applications with Oracle Visual Builder in Oracle Integration*.

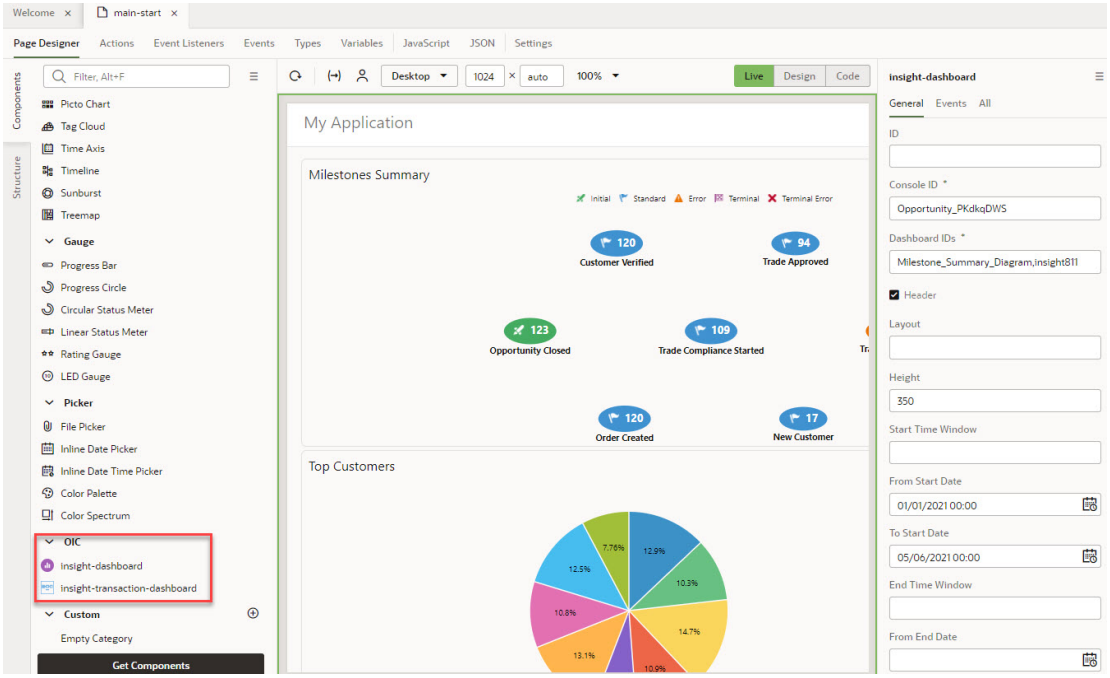
2. In the Components palette, scroll to the **OIC** section near the bottom of the list.
   - If the **OIC** section exists and lists the Insight custom web component you want to use (**insight-dashboard** or **insight-transaction-dashboard**), go to the next step.
   - If the **OIC** section does not exist or does not list the required custom web component, click **Import Web Component**

     next to any other section to import one or both zip files from your local download location, depending on the dashboards you want to embed. For more information, see Import a Web Component Archive in *Developing Applications with Oracle Visual Builder in Oracle Integration*.

     > **Note:**
     >
     > The names of the imported zip files must be `insight-dashboard.zip` and `insight-transaction-dashboard.zip`. Changing the names is not supported.

3. Once the zip files are imported, drag and drop the required Insight custom web components from the **OIC** section in the Components palette onto the Page Designer canvas.
4. In the right pane, enter values for the parameters associated with the Insight dashboard that you want to embed. Click

   next to each parameter for a description of the parameter value.
5. In the Page Designer, click **Live** to render the specified dashboards in the Page Designer canvas.



Embed Insight Dashboards As Custom Web Components In External Applications

In addition to viewing dashboards within Oracle Integration, you can embed Insight custom web components in other external applications to render real-time Insight dashboards at runtime.

> **Note:**
>
> Embedding Insight dashboards as custom web components in other applications has been deprecated and will no longer be supported in future releases. Instead, embed dashboards using the other supported methods:
>
> - (Recommended) Construct a URL Using the URL Builder to Embed Insight Dashboards
> - Construct a URL Manually to Embed Insight Dashboards
> - Embed Insight Dashboards in a Visual Builder Application

Insight *custom web components*, built using Oracle JET Composite Component Architecture (CCA), can be bundled with native web applications and embedded as custom HTML elements.

One of the key advantages of this approach is that there is no need for Single Sign-On (SSO) synchronization between Oracle Integration and the web application. Custom web components use an OAuth token to access Insight dashboards.

To embed Insight dashboards in other applications as custom web components:

1. Contact Oracle Support for the `oic_ui_components.zip` file containing the Insight custom web components. Unzip the file to *`oic-host`*`/ic/home` or a directory on your local drive.
2. Create a trusted client application that represents the external application in OIC-IDCS to generate an OAuth token. Copy the `client_id`, `client_secret`, `scope`, and `grant_type`.

   For more information, see Configure a Trusted Application to Authenticate with OAuth (replacing the Oracle Integration instance with the external application) in *REST API for Oracle Integration*.
3. In the external application, make a REST call to the IDCS API to fetch the OAuth token by passing the `client_id`, `client_secret`, `scope`, and `grant_type`. Make sure that `client_id` and `client_secret` are passed securely to the IDCS REST API.

   For more information, see Generate Access Token and Other OAuth Runtime Tokens to Access the Resource in *REST API for Oracle Identity Cloud Service*.
4. Create the JavaScript (`*.js`) file that describes the custom web components.

For example:

```
let VERSION = '1.0';
let MINIFIED = true;
let RESOURCE_URL = 'OIC_URL/ic/home';

require([RESOURCE_URL + '/cca-config.js'], function (config) {
    config.configPaths(RESOURCE_URL + '/resources/js', VERSION, MINIFIED);

    require(['integration.cca, 'manifest-integration.suite.home'],
        function (app) {
            let ko = app.libko();
            app.start(true, this, document.body);
        });
});
```

where:

- *OIC_URL* is the Oracle Integration host URL (where Oracle Integration is running).
- RESOURCE_URL is a URL in the format *OIC_URL*/ic/home *or* the location where you have saved the Insight custom web components (contact Oracle Support for the oic_ui_components.zip file).
- VERSION is the custom web component library version. By default, this value is 1.0.
- MINIFIED is a Boolean value:
  - true loads the minified version of the custom web component library
  - false loads the debug version of the custom web component library

  By default, this value is true.

5. Edit the HTML for the page where you want to embed the dashboards as follows:
   - Include the paths to the *.css and *.js files.
   - Enter the parameter values that describe the dashboards you want to embed.

   For example:

```
<html>
<head>
    <link rel="stylesheet" href="OIC_URL/resources/js/node_modules/
@oracle/oraclejet/dist/css/alta/oj-alta-min.css">
    <script data-main="main.js"" src=" OIC_URL/resources/js/node_modules/
requirejs/require.js"></script>
</head>

<body>
    <oj-oic-insight-dashboard console="CONSOLE_ID" oicurl="OIC_URL"
token="TOKEN" OTHER_PARAMS>
    </oj-oic-insight-dashboard>
</body>
</html>
```

where:

- *CONSOLE_ID* is the ID of the associated console for the dashboard(s) you want to embed, as specified in the console manifest.
- *OIC_URL* is the Oracle Integration host URL (where Oracle Integration is running).
- *TOKEN* is the OAuth access token.
- *OTHER_PARAMS* are described below.

6. Host the application to render the Insight dashboards on the HTML page where they are defined.

Refer to the following sections for the parameters specific to each dashboard:

- Preconfigured and Custom Dashboards
- Business Transactions Dashboard
- Business Transaction Details Dashboard
- Progress Tracker Dashboard

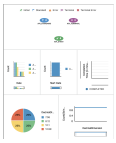
Preconfigured and Custom Dashboards

The following parameters can be used to describe the preconfigured and custom dashboards to be embedded in another application and the transactions to be shown in those dashboards.

Example:

```
<oj-oic-insight-dashboard console="InsightAPIM_giqndguH"
oicurl="OIC_URL" token="TOKEN" views="Milestone_Summary_Diagram"> </oj-
oic-insight-dashboard>
```

Parameter	Description	Values/ Syntax	Example
`console`	**Required**. The ID of the associated console for the dashboard(s), as specified in the console manifest.	"*console-id*"	`console="InsightAPIM_giqndguH"`
`views`	**Required**. A comma-separated list of dashboard IDs, as specified in the console manifest.	"*dashboard-id1,dashboard-id2, ... ,dashboard-idn*"	`views="PieChart123,milestone_History_Bar"`
`header`	Optional. When set to `true`, each embedded dashboard includes a header showing the name of the dashboard. For example, Milestones Summary. Default: `false`	`true` | `false`	`header=true`
`height`	Optional. The desired height of the dashboards, in pixels. Minimum value (default): `350`	"*integer*"	`height="350"`

Parameter	Description	Values/ Syntax	Example
`layout`	Optional. A comma-separated list of the number of dashboards to be rendered for each row. Default: `1` (vertical single-column layout).	"*number-dashboards-in-1st-row,number-dashboards-in-2nd row, ...,number-dashboards-in-nth-row*"	`layout="4"` displays 4 dashboards in one row:  `layout="2,2"` displays 2 rows with 2 dashboards per row:  `layout="1,3,2"` displays 3 rows with 1 dashboard in the first row, 3 in the second row, and 2 in the third row: 
`timezone`	Optional. Time zone offset from Greenwich Mean Time (GMT) to be shown with the dashboards. Default: Host computer time zone.	"`GMT+|-xx:xx`"	`timezone="GMT+05:30"`

Filter Parameter	Description	Values/ Syntax	Example
`fromStartDate toStartDate`	Optional. Dashboards show business transactions started during the specified date range. Valid only if `startTimeWindow` is not specified.	`filters: {fromStartDate="yyyy-MM-dd HH:mm:ss",toStartDate="yyyy-MM-dd HH:mm:ss"}`	`filters: {fromStartDate="2020-08-22 16:19:37",toStartDate="2020-08-17 16:19:37"}`
`startTimeWindow`	Optional. Dashboards show business transactions started within the last `x` days, where a day is the current time minus 24 hours. Default: `5` Valid only if `fromStartDate` and `toStartDate` are not specified.	`filters: {startTimeWindow="integer"}`	`filters: {startTimeWindow="4"}`
`fromEndDate toEndDate`	Optional. Dashboards show business transactions completed during the range between `fromEndDate` and `toEndDate`. Specify the start and end dates of the range. Valid only if `endTimeWindow` is not specified.	`filters: {fromEndDate="yyyy-MM-dd HH:mm:ss",toEndDate="yyyy-MM-dd HH:mm:ss"}`	`filters: {fromEndDate="2020-08-22 16:19:37",toEndDate="2020-08-17 16:19:37"}`
`endTimeWindow`	Optional. Dashboards show business transactions ended within the last `x` days, where a day is the current time minus 24 hours. Valid only if `fromEndDate` and `toEndDate` are not specified.	`filters: {endTimeWindow="integer"}`	`filters: {endTimeWindow="6"}`

Filter Parameter	Description	Values/ Syntax	Example
Duration: `MinInstExecDuration` `MaxInstExecDuration` Time Unit: `InstExecDuration`	Optional. Dashboards show business transactions that completed in the specified length of time. Specify `MinInstExecDuration` and `MaxInstExecDuration` duration values as integers, and specify time unit values as a comma-separated list of two value where the first value is the time unit of the `MinInstExecDuration` (start) value and the second value is the time unit of the `MaxInstExecDuration` (end) value.	`filters:{MinInstExecDuration="`*`integer`*`",MaxInstExecDuration="`*`integer`*`",InstExecDuration="`*`startTimeUnit,endTimeUnit`*`"}` where valid *`startTimeUnit`* and *`endTimeUnit`* values are: `Seconds | Minutes | Hours | Days`	`filters:{MinInstExecDuration="1",MaxInstExecDuration="2",InstExecDuration="Minutes,Hours"}` filters those transactions that completed within the duration of 1 minute to 2 hours

Filter Parameter	Description	Values/ Syntax	Example

`status`	Optional. Dashboards show business transactions that are in the specified status(es) at the time the dashboard is rendered.
	Specify statuses as a comma-separated list of values.
	Default: `ALL`
		`filters: {status="status1,status2,...,statusn" | "ALL"}`
		where valid *status* values are:
		`RUNNING | COMPLETED | RECOVERABLE | FAILED`
			`filters: {status="RUNNING,COMPLETED,RECOVERABLE"}`

`anyMilestones` `lastMilestones`	Optional. Dashboards show business transactions that have passed any of the milestones specified by `anyMilestones`, or most recently passed the milestones specified by `lastMilestones`. Specify milestones as a comma-separated list of milestone IDs, as specified in the console manifest. Default: `ALL`	`filters: {parameter="milestone-id1,milestone-id2,...,milestone-idn" | "ALL"}`	`filters: {anyMilestones="API_START_IthAGqTx,API_STANDAR_TbJajNFt"}` `filters: {lastMilestones="API_START_IthAGqTx,API_STANDAR_TbJajNFt"}`

Filter Parameter	Description	Values/ Syntax	Example
For indicators of type `string`: *`indicator-id`*	*Applies only to custom dashboards*. Optional. Dashboards show business transactions where the specified indicator has the specifed value.	`filters:{`*`indicator-id`*`="`*`value`*`"}` where *`value`* is any valid `string` value | `ALL`	`filters:{City="Bangalore"}` In this example, the indicator is a dimension with ID `City` of `string` data type.
For indicators of type `decimal`, `integer`, or `float`: `min`*`indicator-id`* `max`*`indicator-id`*	*Applies only to custom dashboards*. Optional. Dashboards show business transactions where the specified indicator is in the specified range.	`filters:{min`*`indicator-id`*`="`*`value`*`",max`*`indicator-id`*`="`*`value`*`"}` where *`value`* is any valid `decimal`, `integer`, or `float` value | `ALL`	`filters:{minOrderAmount="11",maxOrderAmount="11.4"}` In this example, the indicator is a measure with ID `OrderAmount` of `float` data type.

Filter Parameter	Description	Values/ Syntax	Example
For indicators of type `date`: `fromindicator-id` `toindicator-id`	*Applies only to custom dashboards*. Optional. Dashboards show business transactions where the value of the specified indicator is in the specified date range.	`filters:{fromindicator-id="yyyy-MM-dd HH:mm:ss",toindicator-id="yyyy-MM-dd HH:mm:ss"}`	`filters:{fromOrderDate="2020-08-22 16:19:37",toOrderDate="2020-08-17 16:19:37"}` In this example, the indicator is a measure with ID `OrderDate` of `date` data type.

Business Transactions Dashboard

The following parameters can be used to describe the business transactions to include in the dashboard to be embedded in another application.

Example:

```
<oj-oic-insight-transactions console="InsightAPIM_giqndguH"
oicurl="OIC_URL"
            token="TOKEN"> </oj-oic-insight-transactions>
```

Parameter	Description	Values/ Syntax	Example
`console`	**Required**. The ID of the associated console for the business transactions, as specified in the console manifest.	`"console-id"`	`console="InsightAPIM_giqndguH"`
`header`	Optional. When set to `true`, the embedded dashboard includes a header showing the number of business transactions, followed by the term defined as the **Business Transactions Label** when the model was created. For example, **523 Orders**. Default: `false`	`true` | `false`	`header=true`

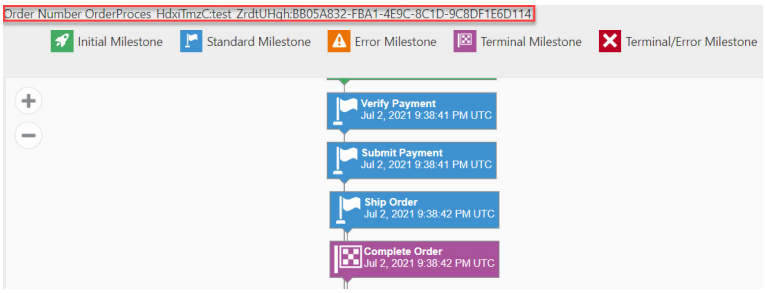
Parameter	Description	Values/ Syntax	Example
Filter parameters	See filter parameters for Preconfigured and Custom Dashboards.		

Business Transaction Details Dashboard

The following parameters can be used to describe the business transaction details to be embedded in another application.

Example:

```
<oj-oic-insight-transaction-dashboard console="InsightAPIM_giqndguH"
oicurl="OIC_URL" token="TOKEN" type="details" transaction-id="1234"> </oj-
oic-insight-transaction-dashboard>
```

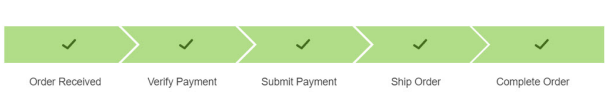
Parameter	Description	Values/ Syntax	Example
`console`	**Required**. The ID of the associated console for the business transaction, as specified in the console manifest.	"*console-id*"	`console="InsightAPIM_giqndguH"`
`transaction-id`	**Required**. The ID of the business transaction. You can find this ID in the row for the business transaction in the Business Transactions Dashboard.	"*transaction-id*"	`transaction-id="1224"`
`type`	**Required**. For a business Business Transaction Details dashboard, set this value to `"details"`	`"details"`	`type="details"`
`header`	Optional. When set to `true`, the embedded dashboard includes a header showing the unique instance identifier name and value for the business transaction. For example, **Order Number 4566**. Default: `false` **Example** When `header=true`, the header shows the unique instance identifier name and value for the current business transaction: 	`true` | `false`	`header=true`

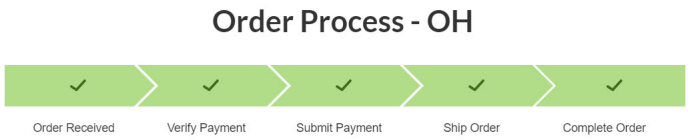
Progress Tracker Dashboard

The following parameters can be used to describe the progress tracker to be embedded in another application.

Example:

```
<oj-oic-insight-transaction-dashboard console="InsightAPIM_giqndguH"
oicurl="OIC_URL" token="TOKEN" type="progress" transaction-id="1234">
</oj-oic-insight-transaction-dashboard>
```

Parameter	Description	Values/ Syntax	Example
`console`	**Required**. The ID of the associated console for the business transaction, as specified in the console manifest.	"*console-id*"	`console="InsightAPIM_giqndguH"`
`transaction-id`	**Required**. The ID of the business transaction. You can find this ID in the row for the business transaction in the Business Transactions Dashboard.	"*transaction-id*"	`transaction-id="1224"`
`type`	**Required**. For a progress tracker dashboard, set this value to `"progress"`	`"progress"`	`type="progress"`
`header`	Optional. When set to `true`, the progress tracker dashboard includes a header showing the name of the console and the ID of the business transaction. Default: `false` **Example** When `header=true`, the header shows the name of the console and the transaction ID: 	`true` | `false`	`header=true`

Parameter	Description	Values/ Syntax	Example
`showid`	Optional. The ID of an indicator to teplace the default business transaction ID in the header with the indicator value. Exposed only if `header=true`. **Example** When `showId="ShippingState"`, the header shows the value of indicator `ShippingState`: 	`"indicator-id"`	`showId="NewPlanType"` The value of the `NewPlanType` indicator is show in the header.
`animate`	Optional. Displays the progress tracker as a live animation that overlays each blue segment with a green segment to visualize passed milestones. Specify a value to control the speed of the overlay animation in milliseconds. Default: `0` (no animation).	`"integer"`	`animate="500"`

7

Troubleshoot Insight

Review the following topics to be aware of the commonly-faced problems and workarounds in Insight:

Topics:

Empty Values for the Indicator and Identifiers in Insight Dashboards

When the data type of the unique instance identifier or indicators do not match the data type of the associated value that is extracted at runtime, the identifier or indicators show empty values in the Insight dashboards.

To fix this issue, verify that the data type of the identifier and each indicator is the same as the data type of their values that will be extracted at runtime, as defined by the associated extraction criteria.

Unable to Map to a Model

Check for common reasons why you may not be able to create mappings for milestones and indicators in your model.

- The most common reason is that you may not be assigned to the appropriate role. Only users with the ServiceAdministrator, ServiceDeveloper, or ServiceDeployer roles can map milestones or indicators to a business process implementation. If you have the ServiceUser role, you will be able to define the abstract elements of milestones and indicators (such as name or type), but you will not be able to do mappings.
- The second most common reason that a user may not be able to create mappings for a model is that it is not in Draft state. Only drafts of models can be edited. If you are viewing an activated version of a model, you will not be able to modify it.

Model Has Stopped Progressing

Instances of a model may stop progressing through milestones for a number of different reasons. Use this information as a starting point to work with your administrator to understand why your instances are not hitting the milestones that you think they should.

The most likely reason instances for a model to stop progressing is that the model has been deactivated.

The other likely reason that a model is not progressing is that milestones are improperly mapped to underlying implementation. For example if you are expecting a milestone representing “Order Shipped” to be passed frequently in your order processing application, but your orders seem to be “stuck” at the previous milestone, then it is possible that the Order Shipped milestone was associated with an incorrect action in an integration that does not really represent the order being shipped.

Another reason this can happen is if the integration is waiting for an action to occur before it continues.

Unable to View the Models Page

If you expect to see the Models page in the navigation menu, but it is not listed, then you have not been assigned to the appropriate Oracle Integration role.

Only Insight Administrators, Business Users/Analysts, and Integration Architects can work with the Models page. See Insight Roles and Personas.

Unable to View the Consoles Page

If you expect to see the Consoles page in the navigation menu, but it is not listed, then you have not been assigned to the appropriate Oracle Integration role.

Only Insight Administrators and Business Executives can work with the Consoles page. See Insight Roles and Personas.

Dashboards Are Empty

After a model is defined and its milestones mapped to the business process implementation, the model must be activated to begin collecting metrics.

Depending on the activity level of your application, it may take some time to begin to see instances and indicators populated in the console. For example, if you have created a model of an order processing system and your application typically processes several orders per minute, you should start to see your consoles being populated within a few minutes. However, if your application typically receives an order every hour, it may take several hours for your console to begin to show meaningful data.

There is minimal delay between metrics being collected on runtime engines and information showing up in your consoles. The product has been optimized to minimize performance impact on runtime engines, so during times of heavy runtime load, you may see delay of a few minutes or less.

Your dashboards may also be empty if there have been no instances for the last five days.

Effect on Metrics When Updating an Active Model

The metrics being collected for a model are impacted when you either add or remove a milestone or an indicator to or from the model.

The following is the impact in different scenarios:

1. If a milestone is added while metrics are being collected, new Insight instances created after activation start collecting data for the new milestone. The existing metrics are unaffected.
2. If a milestone is deleted while metrics are being collected, the existing metrics collected for the deleted milestone are lost. The existing instances depict that the milestone was never reached. A warning message notifies you about such changes upon reactivation of the model.
3. If an indicator is added while metrics are being collected, there is no impact on the existing metrics. The new Insight instances start collecting metrics for the new indicator upon reactivation of the model.
4. If an indicator is removed while metrics are being collected, the existing metrics collected for the indicator are lost. On activating the model with a deleted indicator, you are presented with a list of consoles where the indicator is being used. You must remove such consoles or remove the usage of the indicator from those consoles to proceed with activation of model.

For more information, see Impact of Model Reactivation After Changes in Model Metadata.