

Oracle® Cloud

Using the UiPath Robotic Process Automation Adapter with Oracle Integration



F10982-02

The Oracle logo, consisting of the word "ORACLE" in white, uppercase letters, centered within a solid red square.

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Oracle Cloud Using the UiPath Robotic Process Automation Adapter with Oracle Integration,

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Preface

This guide describes how to configure the UiPath Robotic Process Automation Adapter as a connection in an integration in Oracle Integration.

Note:

The information in this guide applies to all of your Oracle Integration instances. It doesn't matter which edition you're using, what features you have, or who manages your cloud environment. You'll find what you need here, including notes about any differences between the various flavors of Oracle Integration when necessary.

Topics

- [Audience](#)
- [Documentation Accessibility](#)
- [Related Resources](#)
- [Conventions](#)

Audience

This guide is intended for developers who want to use the UiPath Robotic Process Automation Adapter in integrations in Oracle Integration.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

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Related Resources

See these Oracle resources:

- Oracle Cloud
<http://cloud.oracle.com>
- *Using Integrations in Oracle Integration*
- *Using the Oracle Mapper with Oracle Integration*

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.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1

Understand the UiPath Robotic Process Automation Adapter

Review the following conceptual topics to learn about the UiPath Robotic Process Automation Adapter and how to use it as a connection in integrations in Oracle Integration. A typical workflow of adapter and integration tasks is also provided.

Topics

- [UiPath Robotic Process Automation Adapter Capabilities](#)
- [What Application Version Is Supported?](#)
- [About UiPath Robotic Process Automation Adapter Use Cases](#)
- [Workflow to Create and Add a UiPath Robotic Process Automation Adapter Connection to an Integration](#)

UiPath Robotic Process Automation Adapter Capabilities

The UiPath Robotic Process Automation Adapter enables you to create an integration in Oracle Integration.

You can use the UiPath Robotic Process Automation Adapter to integrate application objects with the UiPath Orchestrator and simplify application development by providing a standard interface for adding items to queues, starting jobs, fetching job status and receiving output from queues.

The UiPath Robotic Process Automation Adapter is supported only as an invoke in an integration flow; adding it as a trigger is not supported.

UiPath Robotic Process Automation Adapter is one of many predefined adapters included with Oracle Integration. You can configure UiPath Robotic Process Automation Adapter as a target connection in an integration in Oracle Integration.

What Application Version Is Supported?

For information about which application version is supported by this adapter, see the Oracle Integration Adapters Certification Matrix under section **Oracle Integration Adapters Certification** at the top of the page:

[Oracle Integration Adapters Certification Matrix](#)

About UiPath Robotic Process Automation Adapter Use Cases

The UiPath Robotic Process Automation Adapter can be used in scenarios such as the following.

Integrate with Applications without Adapters or APIs

You can use the UiPath Robotic Process Automation Adapter to integrate with applications that don't have an adapter in Oracle Integration and don't expose APIs.

The UiPath Robotic Process Automation Adapter offers a new way to integrate with applications that Oracle Integration doesn't support natively. The adapter simplifies the discovery of robots that have been created and deployed in the UiPath Orchestrator. Robots, created with RPA technology, can be invoked from an integration flow to interact with applications and systems previously unreachable using Oracle Integration due to a lack of exposed APIs or an adapter. Using the adapter, you can add data to queues, instruct robots to start jobs using data from queues, and receive output from jobs.

The UiPath Robotic Process Automation Adapter also enables you to use robots to interact with applications that have been modified or extended. You may not be able to use extended functionality using APIs or an application adapter. With the UiPath Robotic Process Automation Adapter, you can use this functionality in an integration flow by instructing a robot to make these transactions.

Automate Repetitive Human Tasks

You can use the UiPath Robotic Process Automation Adapter to automate simple repetitive tasks usually performed by a human.

RPA robots can perform repetitive tasks, like data entry, that don't involve decision making. In Oracle Integration, you can trigger these transactions automatically using the UiPath Robotic Process Automation Adapter.

Workflow to Create and Add a UiPath Robotic Process Automation Adapter Connection to an Integration

You follow a very simple workflow to create a connection with an adapter and include the connection in an integration in Oracle Integration.

This table lists the workflow steps for both adapter tasks and overall integration tasks, and provides links to instructions for each step.

Step	Description	More Information
1	Access Oracle Integration.	Go to <code>https://hostname:port_number/ic</code> .
2	Create the adapter connections for the applications you want to integrate. The connections can be reused in multiple integrations and are typically created by the administrator.	Create a UiPath Robotic Process Automation Adapter Connection
3	Create the integration. When you do this, you add invoke (target) connections to the integration.	Create Integrations of <i>Using Integrations in Oracle Integration</i> and Add the UiPath Robotic Process Automation Adapter Connection to an Integration

Step	Description	More Information
4	Map data between the trigger connection data structure and the invoke connection data structure.	Map Data in <i>Using Integrations in Oracle Integration</i>
5	(Optional) Create lookups that map the different values used by those applications to identify the same type of object (such as gender codes or country codes).	Manage Lookups in <i>Using Integrations in Oracle Integration</i>
6	Activate the integration.	Activate Integrations in <i>Using Integrations in Oracle Integration</i>
7	Monitor the integration on the dashboard.	Monitor Integrations in <i>Using Integrations in Oracle Integration</i>
8	Track payload fields in messages during runtime.	Assign Business Identifiers for Tracking Fields in Messages and Manage Business Identifiers for Tracking Fields in Messages in <i>Using Integrations in Oracle Integration</i>
9	Manage errors at the integration level, connection level, or specific integration instance level.	Manage Errors in <i>Using Integrations in Oracle Integration</i>

2

UiPath Robotic Process Automation Adapter Concepts

Learn about Robotic Process Automation and UiPath.

Topics:

- [About Robotic Process Automation](#)
- [UiPath Concepts](#)

About Robotic Process Automation

Robotic Process Automation (RPA) is a technology that uses robots to interact with application user interfaces.

Using RPA, you can create UI scripts that reproduce actions in the interface as if a human user is performing them. After a script is created, it can be replayed using different input parameters by an application that simulates human input, known as a robot.

Robots can interact with any application that has a user interface, including web apps, character-oriented terminal applications, and native Windows applications.

UiPath Concepts

Refer to the UiPath documentation to learn about concepts such as environments, processes, robots, and queues.

See [UiPath Resources](#).

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Create a UiPath Robotic Process Automation Adapter Connection

A connection is based on an adapter. You define connections to the specific cloud applications that you want to integrate. The following topics describe how to define connections.

Topics

- [Prerequisites for Creating a Connection](#)
- [Create a Connection](#)

Prerequisites for Creating a Connection

You must satisfy the following prerequisites to create a connection with the UiPath Robotic Process Automation Adapter.

You must first ensure that your UiPath Orchestrator instance is configured to allow you to invoke robots using the public UiPath REST APIs. See [UiPath Resources](#).

Next, ensure that you meet the following conditions in your UiPath Orchestrator instance:

- Have access to a tenancy on an UiPath Orchestrator instance.
- Create an environment in UiPath Orchestrator.
- Configure at least one robot on a machine and associate it to an environment in UiPath Orchestrator.
- Deploy at least one package as a process to an environment in UiPath Orchestrator.
- **Optional** Create a queue in UiPath Orchestrator if you want to pass data to or receive data from a robot as it runs a process.

Create a Connection

The first step in creating an integration is to create the connections to the applications with which you want to share data.

1. In the navigation pane, click **Integrations**, then click **Connections**.
2. Click **Create**.
3. Select the UiPath Robotic Process Automation Adapter from the dialog. You can also search for this adapter by entering a partial or full name in the **Search** field, and clicking **Search**.

The Create New Connection dialog is displayed.

4. Enter the information to describe the connection.
 - Enter a meaningful name to help others find your connection when they begin to create their own integrations. The name you enter is automatically added in capital letters to the **Identifier** field. If you modify the identifier name, do not include a blank space (for example, `Import Candidates`).
 - Select the role (direction) in which to use this connection. You can only use the UiPath Robotic Process Automation Adapter connection as an invoke.
 - Enter an optional description of the connection.
5. Click **Create**.

Your connection is created and you are now ready to configure connection details, such as email contact, connection properties, security policies, and connection login credentials.

Add a Contact Email

From the Connection Administrator section of the connection, you can add a contact email address for notifications.

1. In the **Email Address** field, enter an email address to receive email notifications when problems occur.
2. In the upper right corner, click **Save**.

Configure Connection Properties

Enter connection information so your application can process requests.

1. Click **Configure Connectivity**.
2. In the **Connection URL** field, specify the URL you use to sign in to the UiPath Orchestrator. For example, enter `https://platform.uipath.com` to connect to the UiPath Orchestrator Community Edition.
3. In the **Tenant** field, enter the tenant you use on the UiPath Orchestrator.
4. Click **OK**.
5. Configure connection security.

Configure Connection Security

Configure security for your UiPath Robotic Process Automation Adapter connection by providing your sign in credentials.

1. Click **Configure Credentials**.
2. Enter your sign in credentials:
 - a. Enter a username and password to connect to the UiPath Orchestrator.
 - b. Reenter the password a second time.
3. Click **OK**.

Test the Connection

Test your connection to ensure that it is successfully configured.

1. In the upper right corner of the page, click **Test**.

If successful, the following message is displayed and the progress indicator shows 100%.

Connection *connection_name* was tested successfully.

2. If your connection was unsuccessful, an error message is displayed with details. Verify that the configuration details you entered are correct.
3. When complete, click **Save**, then click **Close**.

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Add the UiPath Robotic Process Automation Adapter Connection to an Integration

When you drag the UiPath Robotic Process Automation Adapter into the invoke area of an integration, the Adapter Endpoint Configuration Wizard is invoked. This wizard guides you through configuration of the UiPath Robotic Process Automation Adapter endpoint properties.

The following sections describe the wizard pages that guide you through configuration of the UiPath Robotic Process Automation Adapter as an invoke in an integration.

Topics

- [Basic Info Page](#)
- [UiPath Robotic Process Automation Adapter Robot Configuration Page](#)
- [Summary Page](#)

Basic Info Page

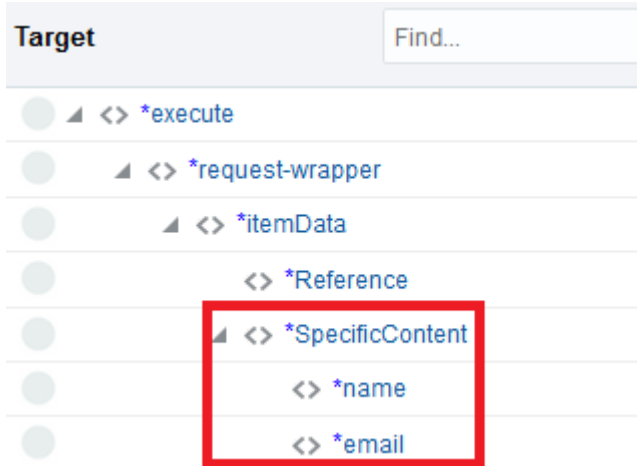
You can enter a name and description on the Basic Info page of each adapter in your integration.

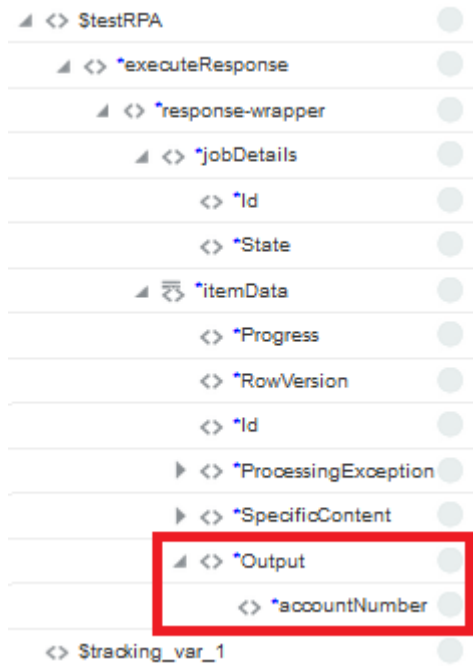
Element	Description
What do you want to call your endpoint?	Provide a meaningful name so that others can understand the responsibilities of this connection. You can include English alphabetic characters, numbers, underscores, and dashes in the name. You cannot include the following: <ul style="list-style-type: none">• Blank spaces (for example, My Inbound Connection)• Special characters (for example, #;83& or righ(t)now4)• Multibyte characters
What does this endpoint do?	Enter an optional description of the connection's responsibilities. For example: This connection receives an inbound request to synchronize account information with the cloud application.

UiPath Robotic Process Automation Adapter Robot Configuration Page

You can configure which process you want to run, which robots will run the process, and if any data is written to a queue, from which robots that run the process can get or put data.

Element	Description
Process	Select the process you want to run.
Robot Strategy	<p>Select one of the available options to determine which robots will run the process you selected:</p> <ul style="list-style-type: none"> • Select the I want to choose one or more named robots option to choose specific robot(s) to run the process you selected. • Select the I want to specify number of robots to use option to run the process you selected with the number of available robots that you specify. • Select the I want all the available robots to be used option to run the process you selected with all robots that are currently available.
Robots	<p>What you enter in the Robots field differs based on the Robot Strategy option you select.</p> <p>If you select the I want to choose one or more named robots option, all robots in the same environment as the process you selected are listed in the Available region. Move the robots you want to run the process from the Available to the Selected region.</p> <p>If you select the I want to specify number of robots to use option, the Robots field displays as a simple text box. Enter the number of robots in the same environment as the process that you want to run the process.</p> <p>This field is hidden if you select the I want all available robots to be used Robot Strategy option.</p>

Element	Description
Wait for Response	<p>Select this option to wait until the robots complete the job before the integration proceeds to the next action in the flow (a synchronous pattern). The integration waits for the job to complete for 2 minutes. An exception is returned if the job doesn't complete in this time period.</p> <p>Note: the 2-minute timeout includes the time that requests spend in a queue awaiting processing and the time that a robot takes to execute requests. If a robot takes 1 minute to execute a request, and the same robot is scheduled to execute 2 more instances of the same process from the queue, only the first 2 requests can be completed before the timeout; any further requests sent as part of the same invocation will time out and the integration will return an exception.</p> <p>If you don't select this option the next action in the integration flow is executed immediately (an asynchronous pattern).</p>
Queue	<p>Optional Select a queue to add items to. You must select a queue to pass parameters to or return parameters from robots running the process.</p>
Specific Content	<p>Enter the key names of data elements, separated by commas, that you want the integration to pass to robots running the process. This data is placed in the queue you selected. UiPath retrieves the data from the queue at process runtime.</p> <p>When configuring the mapping for this adapter, the elements you specify here appear as children to the SpecificContent element in the Target Panel.</p>  <p>The screenshot shows a 'Target' panel with a search bar labeled 'Find...'. Below it is a tree view of elements: <ul style="list-style-type: none"> *execute *request-wrapper *itemData *Reference *SpecificContent (highlighted with a red box) <ul style="list-style-type: none"> *name *email </p> <p>This field is available only if you selected a queue.</p>

Element	Description
Output	<p data-bbox="876 262 1364 409">Enter the key names of data elements, separated by commas, that you expect the robots running the process to return. This data is placed in the queue you selected and is made available for mapping.</p> <p data-bbox="876 420 1364 535">When configuring mappings from this adapter, the elements you specify here appear as children to the Output element in the Source panel.</p>  <p data-bbox="876 1218 1347 1312">This field is available only if you selected a queue and selected the Wait for Response option.</p>

Summary Page

You can review the specified adapter configuration values on the Summary page.

Element	Description
Summary	<p>Displays a summary of the configuration values you defined on previous pages of the wizard.</p> <p>The information that is displayed can vary by adapter. For some adapters, the selected business objects and operation name are displayed. For adapters for which a generated XSD file is provided, click the XSD link to view a read-only version of the file.</p> <p>To return to a previous page to update any values, click the appropriate tab in the left panel or click Back. Click Cancel to cancel your configuration details.</p>

5

UiPath Robotic Process Automation Adapter Samples

You can use the UiPath Robotic Process Automation Adapter in end-to-end scenarios such as the following:

Topics:

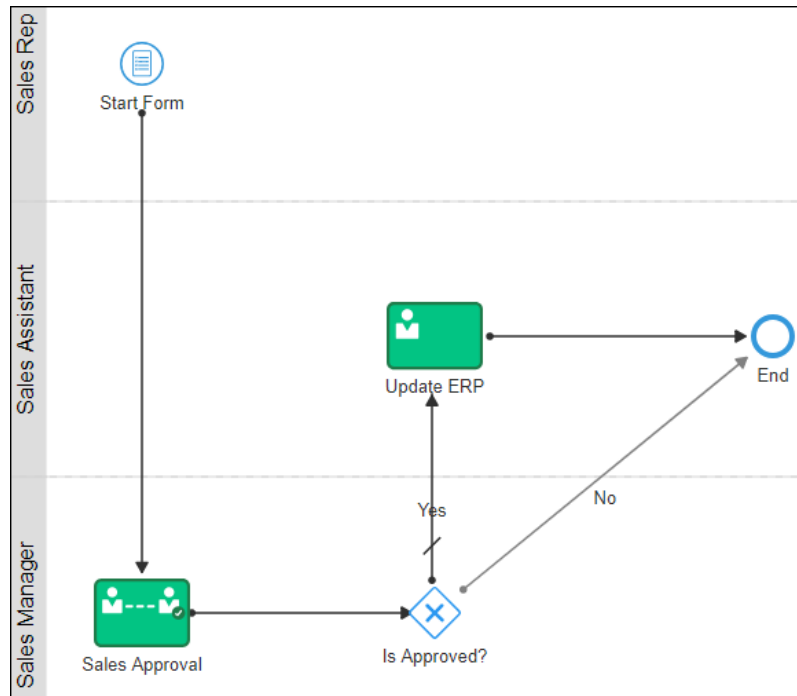
- [Accelerate Process Automation](#)

Accelerate Process Automation

If your company uses legacy ERP or CRM systems (systems that don't have an adapter in Oracle Integration and don't expose APIs), you can use the UiPath RPA adapter to extend your process automation capabilities to these systems and eliminate repetitive, error-prone tasks of manually updating them, each time there's a new order or change in customer data.

Let's consider a simple example to illustrate how you can leverage the UiPath RPA adapter to accelerate process automation, mitigate risks, and yet retain full control of your processes.

The following figure shows an example sales process in an organization with a legacy ERP application. To begin with, a sales representative initiates a request to sell a certain item that's under controlled availability (for example, a new line of laptops) to a customer. The representative provides all the required information about the customer and the order through a web form. This request is then forwarded to a sales manager for approval. If approved, a human task is initiated to update the order details in the ERP system. Now, a sales assistant performs a set of repetitive tasks to update the ERP application, such as logging into the application, navigating screens, moving files, copying and pasting data between applications, and so on.



In a large organization that receives hundreds of sales requests in a day, manually updating the ERP and several other legacy systems can create a huge backlog and cause significant delays in order processing, which may ultimately result in loss of sales opportunities. Additionally, these manual tasks could potentially introduce processing errors into the system.

Using UiPath, you can create processes to automate such repetitive manual tasks. You can simply record screen actions, such as logging into applications, navigating screens, moving files, and copy-pasting data between applications, and arrange these actions in the required sequence in the UiPath process flow. You can then replay these user interactions through application interfaces using UiPath robots, and use different input parameters for each run. Robots are execution agents that enable you to execute automation processes you build in the UiPath Studio.

You can trigger these UiPath robots and processes at any stage of an Oracle Integration process using the UiPath RPA adapter. Use the RPA adapter in Oracle Integration to create a connection to the UiPath Orchestrator—a web-client where the robots are deployed and robot-process associations are defined. Then use this connection to create an integration to UiPath by specifying the automated process to execute, robot to use, and input/output data mappings. See *UiPath Resources and Create Integrations in Using Integrations in Oracle Integration*.

Within your process in Oracle Integration, you can use the UiPath RPA integration through an Integration activity. In the example discussed here, you can replace the human task of updating the ERP system with an Integration activity, and map this activity to an activated RPA integration. See *Configure Integrations in Using Processes in Oracle Integration*.

In addition, when a UiPath robot finishes executing an automated process, you can bring the flow back to the process in Oracle Integration and maintain complete control of your business workflow. You can also introduce a backup flow for review or escalations, in case of exceptions or errors encountered while executing automated processes. Thus, you can combine UiPath RPA with Oracle Integration to create

highly-efficient, reliable end-to-end process automation, thereby boosting workforce productivity and customer service.

