

BPA
Platform

Installation and Configuration

SAP Business One Integration Tool Pack v3.12 Quick Start Guide

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Introduction

The **SAP Business One Integration Tool Pack** allows you to automate the management of your SAP Business One company data.

You can carry out tasks such as retrieving information from a company or executing an operation to automatically **ADD**, **UPDATE**, or **DELETE** items such as invoices, sales orders, or business partners. Company objects and fields can be mapped to BPA Platform data at runtime.

When combined with other tools of BPA Platform , the **SAP Business One Integration Tool Pack** can also provide a method of synchronising data between two systems that do not naturally talk to each other; for example, your SAP Business One system and a web shop such as Magento.

The SAP Business One Integration Tool Pack Contents

The tool pack consists of:

- ▶ **SAP Business One Event Agent** — see [How to Install and Configure the SAP Business One Event Agent](#)
- ▶ **SAP Business One Trigger tool** — see [How to Install the SAP Business One \(DI-API\) Integration and SAP Business One Trigger Tools](#)
- ▶ **SAP Business One (DI-API) Integration Agent** — see [How to Install the SAP Business One \(DI-API\) Integration Agent](#)
- ▶ **SAP Business One (DI-API) Integration tool** — see [How to Install the SAP Business One \(DI-API\) Integration and SAP Business One Trigger Tools](#)
- ▶ **SAP Business One (SL) Integration Agent** — see [How to Install the SAP Business One \(SL\) Integration Agent](#)
- ▶ **SAP Business One (SL) Integration tool** — see [How to Install the SAP Business One \(SL\) Integration Tool](#)

Features

- ▶ On-premise and cloud (both Public and Private Cloud) installations of SAP Business One supported.
- ▶ Support for user defined tables and fields within objects and sub-objects.
- ▶ Allows you to maintain the synchronisation of data between one SAP company database and another. For example, if a record changes in one company it will be reflected in the other.
- ▶ Allows data to be synchronised between SAP Business One and third-party systems.

- ▶ Dynamic provision of API metadata enabling changes to objects & operations to be rolled out independently of the tool pack (**SAP Business One (DIAPI) Integration** tool only).
- ▶ Memory support for ODBC, OLEDB, Call Store Procedure, and internal repositories (**SAP Business One (DIAPI) Integration** tool only).

System Requirements

All aspects of the **SAP Business One Integration Tool Pack** require BPA Platform (formerly known as "TaskCentre") 2020 Update 1 (build 6466) or above.

For a detailed description of the supported architecture for BPA Platform v. SAP Business One configurations, refer to the product help.

The supported versions of SAP Business One are as follows:

Version	Supported with SQL Server	Supported with SAP HANA
SAP Business One 8.82	✓	✗
SAP Business One 9.0	✓	✗
SAP Business One 9.1	✓	✓
SAP Business One 9.2	✓	✓
SAP Business One 9.3	✓	✓
SAP Business One 10.0	✓	✓

For more information about SAP Business One compatibility, refer to your Codeless Platforms partner or account manager.

Architecture

The following diagrams demonstrate the possible architectures when using the **SAP Business One Integration Tool Pack** with either an SQL Server or SAP HANA configuration. The following combinations of tool pack components are valid:

- ▶ **SAP Business One (DIAPI) Integration Agent and tool**
- ▶ **SAP Business One (SL) Integration Agent and tool**
- ▶ **SAP Business One (DIAPI) Integration Agent and tool and the SAP Business One (SL) Integration Agent and tool**

- ▶ SAP Business One Event Agent, SAP Business One Trigger tool, and SAP Business One (DI-API) Integration Agent and tool
- ▶ All six components

SAP Business One On-Premise Configurations

The following diagrams provide an architectural overview of supported SAP Business One Integration Tool Pack components in an SAP Business One on-premise environment.

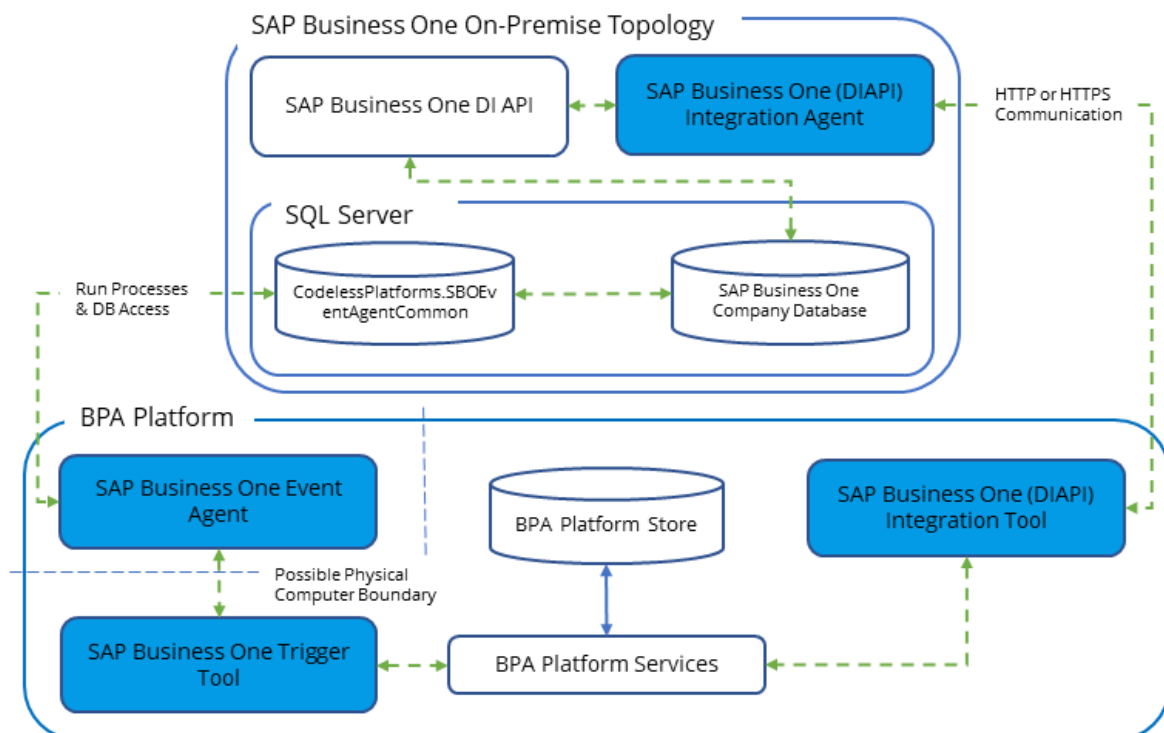
Using a Microsoft SQL Server Configuration

NOTE: For ease of viewing, the below assumes all relevant **Tool Pack** components are in use, with all SAP Business One elements grouped together rather than residing in their respective silos. Other configurations exist and may be supported — for more information, contact your Codeless Platforms partner or account manager.

To monitor SAP Business One events, the **SAP Business One Event Agent** can be located on the same computer hosting the required company database instance — remote installations are supported.

However, the **SAP Business One (DI-API) Integration Agent** must always be located on the same computer hosting the SAP Business One Data Interface (DI) API; remote installations are not supported for this **Agent**.

Both the **SAP Business One Trigger** and **SAP Business One (DI-API) Integration** tools must be installed on the BPA Platform server, and also on any remote BPA Platform client computers (not shown) that run SAP Business One tasks.

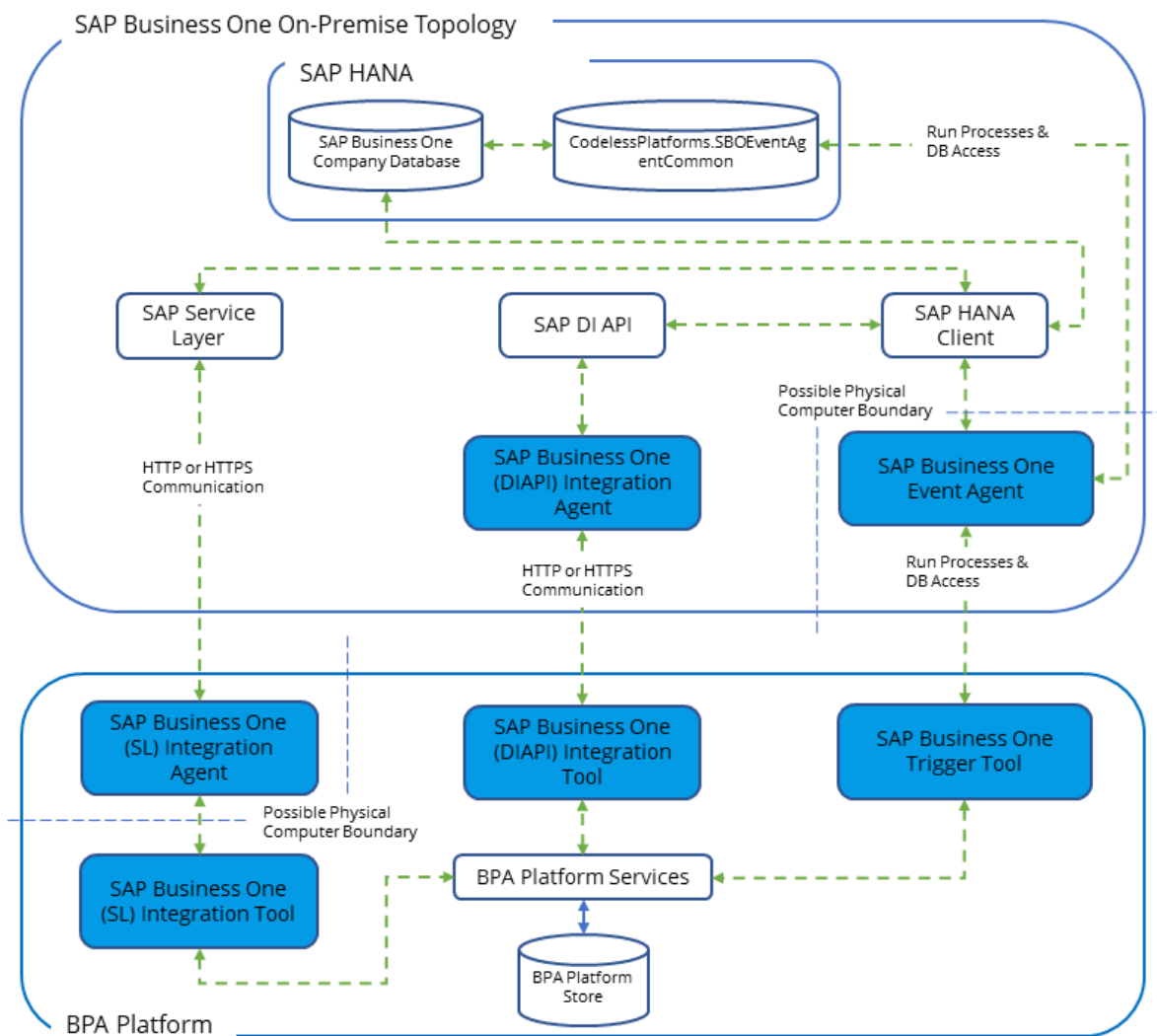


Using an SAP HANA Configuration

NOTE: For ease of viewing, the below assumes all relevant **Tool Pack** components are in use, with all SAP Business One elements grouped together rather than residing in their respective silos. Other configurations exist and may be supported — for more information, contact your Codeless Platforms partner or account manager.

As before, all **Agents** can be located on the same computer hosting the connecting service with the exception of the **SAP Business One (DI-API) Integration Agent** which must be located local to the DI-API service.

The **SAP Business One Trigger**, **SAP Business One (DI-API) Integration**, and **SAP Business One (SL) Integration** tools must be installed on the BPA Platform server, and also on any remote BPA Platform client computers that run SAP Business One tasks.



SAP Business One Cloud Configurations

The following diagrams provide an architectural overview of supported **SAP Business One Integration Tool Pack** components with SAP Cloud.

SAP Private Cloud with Microsoft SQL Server

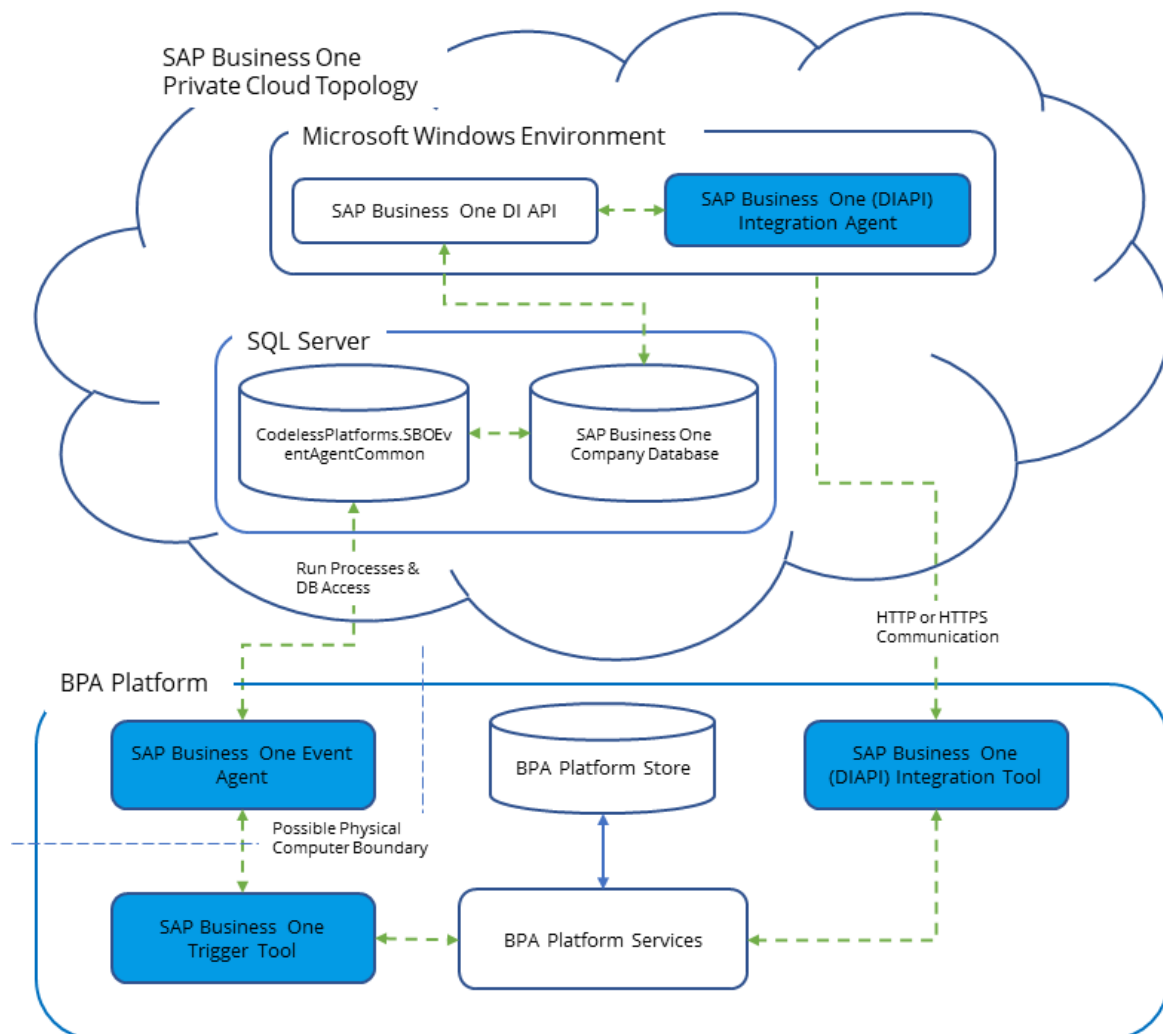
NOTE: For ease of viewing, the below assumes all relevant **Tool Pack** components are in use, with all SAP Business One elements grouped together rather than residing in their respective silos. Other configurations exist and may be supported — for more information, contact your Codeless Platforms partner or account manager.

The BPA Platform server must be installed on a computer which is in the same secure domain and has access to the SAP Presentation Server, for example an Application Server, or on the Presentation Server itself.

The **SAP Business One Event Agent** can be installed on the same computer as the BPA Platform server, or on any remote computer in the same secure domain which has access to both BPA Platform and the relevant SAP Business One company database in the Private Cloud environment.

The **SAP Business One (DI-API) Integration Agent**, however, must be installed along-side the SAP DI API therefore the cloud environment must make a computer available for both components.

Both the **SAP Business One Trigger** and **SAP Business One (DI-API) Integration** tools must be installed on the BPA Platform server, and also on any remote BPA Platform client computers (not shown) that run SAP Business One tasks.



SAP Private Cloud with SAP HANA

NOTE: For ease of viewing, the below assumes all relevant **Tool Pack** components are in use, with all SAP Business One elements grouped together rather than residing in their respective silos. Other configurations exist and may be supported — for more information, contact your Codeless Platforms partner or account manager.

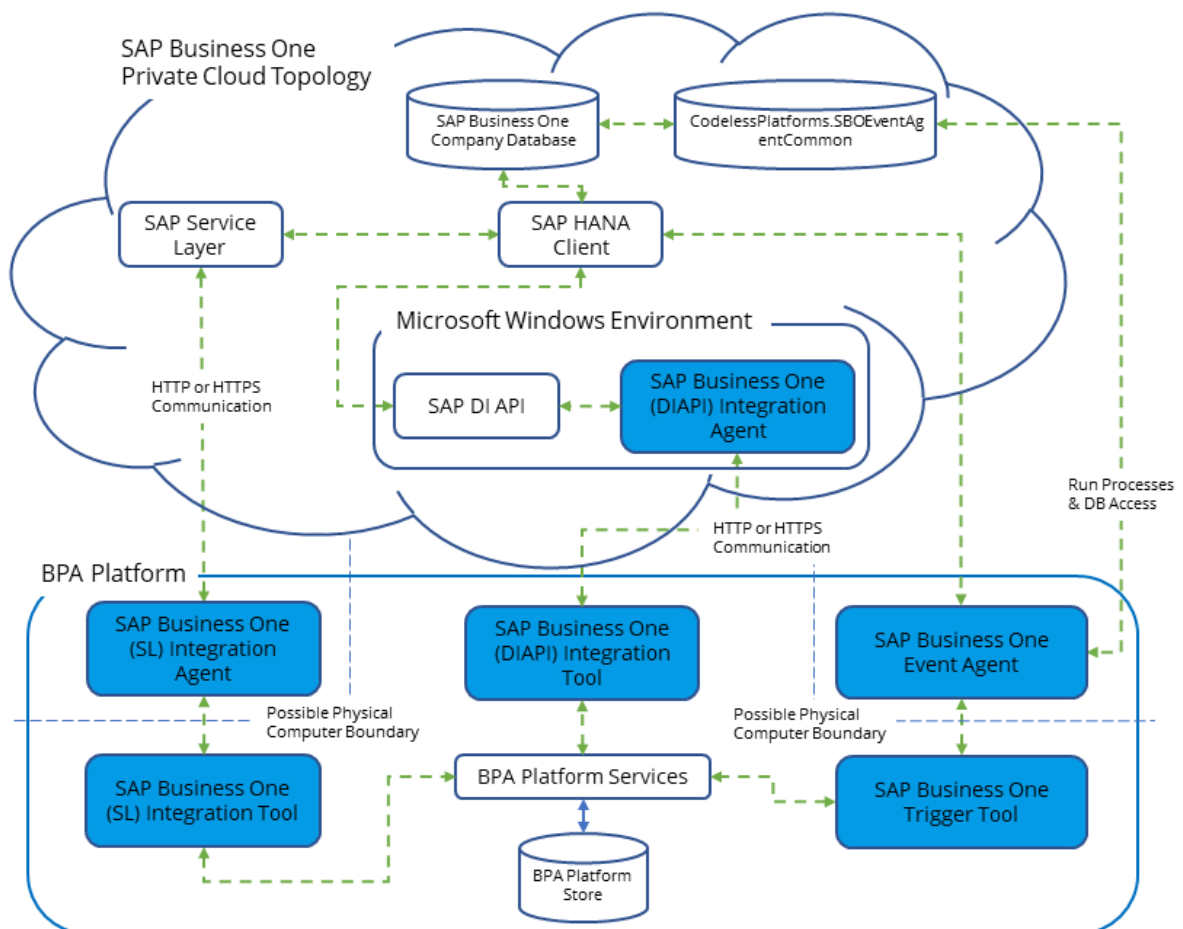
The BPA Platform server must be installed on a computer which is in the same secure domain and has access to the SAP Presentation Server, for example an Application Server, or on the Presentation Server itself.

The **SAP Business One (SL) Integration Agent** can be installed along-side the BPA Platform server or a remote computer (in the same secure domain) that has access to both BPA Platform and the Service Layer.

The **SAP Business One Event Agent** can also be installed on the BPA Platform server or a remote computer but must have access to the SAP HANA client.

The **SAP Business One (DI-API) Integration Agent**, however, must be installed along-side the SAP DI-API cloud environment must make a computer available for both components.

The **SAP Business One Trigger**, **SAP Business One (DI-API) Integration**, and **SAP Business One (SL) Integration** tools must be installed on the BPA Platform server, and also on any remote BPA Platform client computers that run SAP Business One tasks.



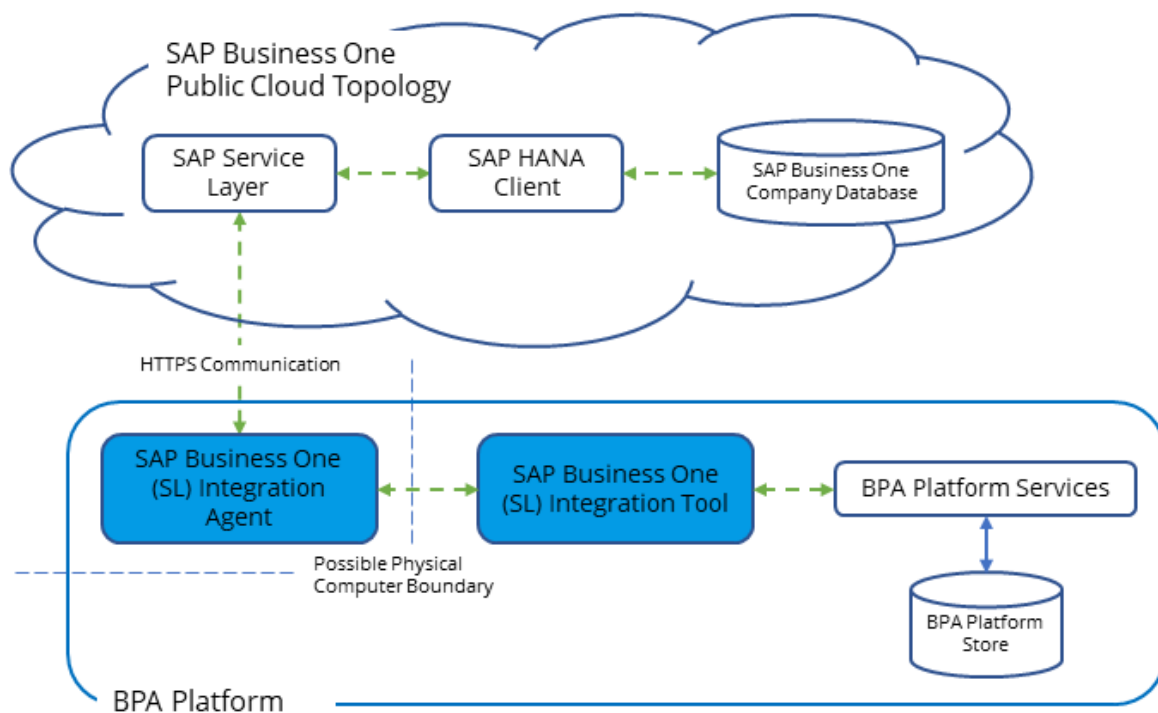
SAP Public Cloud

NOTE: For ease of viewing, the below assumes all relevant **Tool Pack** components are in use, with all SAP Business One elements grouped together rather than residing in their respective silos. Other configurations exist and may be supported — for more information, contact your Codeless Platforms partner or account manager.

With a SAP Public Cloud environment, only a **SAP Business One (SL) Integration Agent** and tool deployment is supported. The **SAP Business One Event Agent** cannot be deployed in this environment as triggers are not permitted by SAP Business One. All communication is over HTTPS.

The BPA Platform server must be installed on a computer which is in the same secure domain and has access to the SAP Presentation Server, for example an Application Server, or on the Presentation Server itself.

The **SAP Business One (SL) Integration Agent** can be installed along-side the BPA Platform server or a remote computer (in the same secure domain) that has access to both BPA Platform and the Service Layer.



How to Install and Configure the SAP Business One Event Agent

This section describes how to install and configure the **SAP Business One Event Agent**.

It is recommended you perform the installation locally rather than over the network.

TIP: Be prepared to configure the **SAP Business One Event Agent** immediately after installation has completed. If the **Event Agent** is being installed remote to the company database, ensure you have the details of the computer hosting the company database.

NOTE: The upgrade procedure is the same unless explicitly stated. If upgrading from an earlier version of the tool pack, you must ensure all previously installed components are upgraded to the same version. Failure to do so may result in errors during configuration and runtime, as well as task failure.

Pre-Installation Checklist

For a detailed description of external software prerequisites, including supported operating systems, refer to the [BPA Platform System Dependencies Matrix](#).

Before installing the **SAP Business One Event Agent**, the following must be met:

Item	Description	Prerequisite
Supported BPA Platform versions	All components of the SAP Business One Integration Tool Pack require BPA Platform (formerly "TaskCentre") 2020 Update 1 or higher. The BPA Platform client is also required on the same computer as the SAP Business One Event Agent . The client must also be BPA Platform 2020 Update 1 or higher.	Installed Y / N

Item	Description	Prerequisite
<p>Connectivity Considerations</p>	<p>If using the Event Agent to monitor an SAP HANA database, port 30015 is used to communicate with the SAP HANA client. Use of a custom port is permitted; ensure the relevant ports are open on the computer hosting the SAP Business One Event Agent as well as the BPA Platform server.</p> <p>If monitoring a SQL Server database, the Event Agent does not require access to ports to communicate with the SQL Server database.</p> <p>In both cases, TCP ports are not required to communicate with the SAP Business One Trigger tool.</p> <p><i>SAP HANA Multi-Tenant Support</i></p> <p>From SAP Business One Integration Tool Pack version 3.12 onwards, if your SAP Business One installation makes use of multi-tenanted HANA databases, you can add the tenant name to the server name when creating connections to the company databases — see 3b. Using the SAP Business One Event Agent with SAP HANA.</p>	<p>Access to SAP HANA database Y / N</p> <p>If Y, access to port Y / N</p> <p>If Y, custom ports in use Y / N</p>

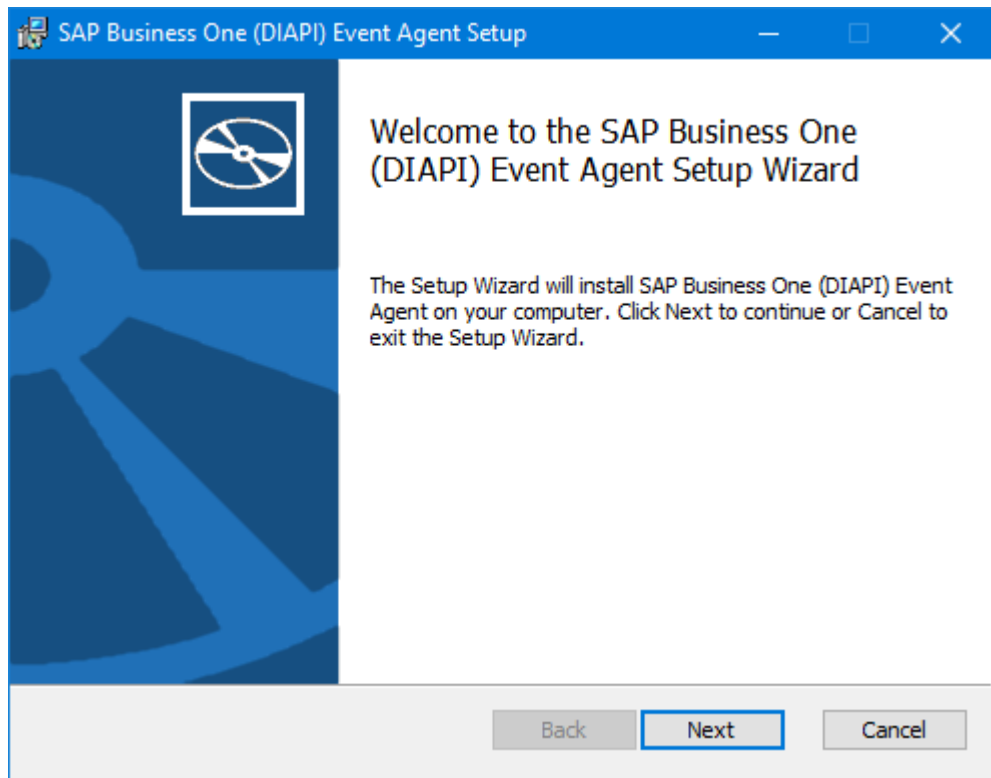
Item	Description	Prerequisite
SAP Business One Database User Credentials	<p>The SAP Business One Event Agent creates a database table in HANA or SQL Server, <code>SBO_<company-database-name>_CODELESSPLATFORMS</code>, containing records of the events which the SAP Business One Trigger tool then reads. <code><company-database-name></code> is the company database the Event Agent is monitoring.</p> <p>The <code>SBO_SP_TRANSACTIONNOTIFICATION</code> stored procedure in the company database is also modified to match the database instance.</p> <p><i>Connecting to an SAP HANA Database</i></p> <p>Because of the above, the SAP Business One Event Agent requires access to an SAP HANA administration account. It is recommended you use the SYSTEM account details. If this is not possible, create an account with SYSTEM privileges. Note that the account is not used at runtime, only configuration time to make the above changes.</p> <p><i>Connecting to a SQL Server Database</i></p> <p>The SAP Business One Event Agent can use either SQL Server or Windows domain credentials to access the company database.</p>	<p>SAP Business One user credentials —</p> <p>Username:</p> <p>Password:</p>
SAP Business One Event Agent Software	<p>Download the SAP Business One Integration Tool Pack release from the Partner Area — note that a Codeless Platforms account is required to access this.</p>	<p>Downloaded Y / N</p>

Installing the SAP Business One Event Agent

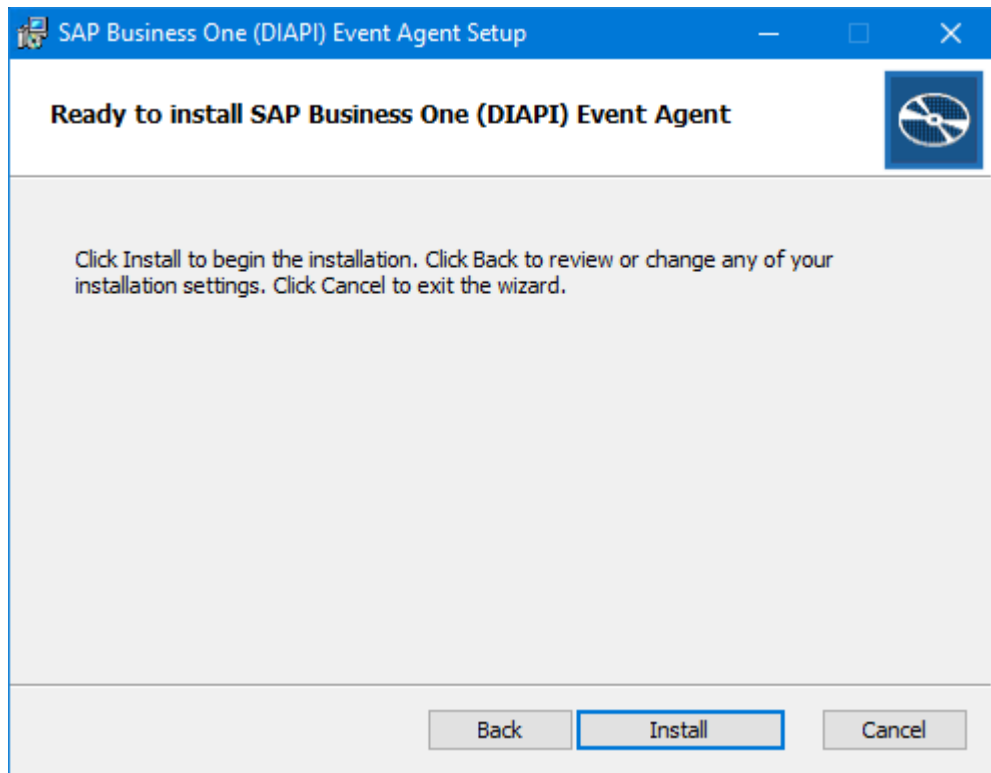
To install the **Agent**, do the following:

1. Unzip the [SAP Business One Integration Tool Pack software](#) to your preferred location on the computer.
2. Double-click `SBOEventAgentDIAPI.msi`.

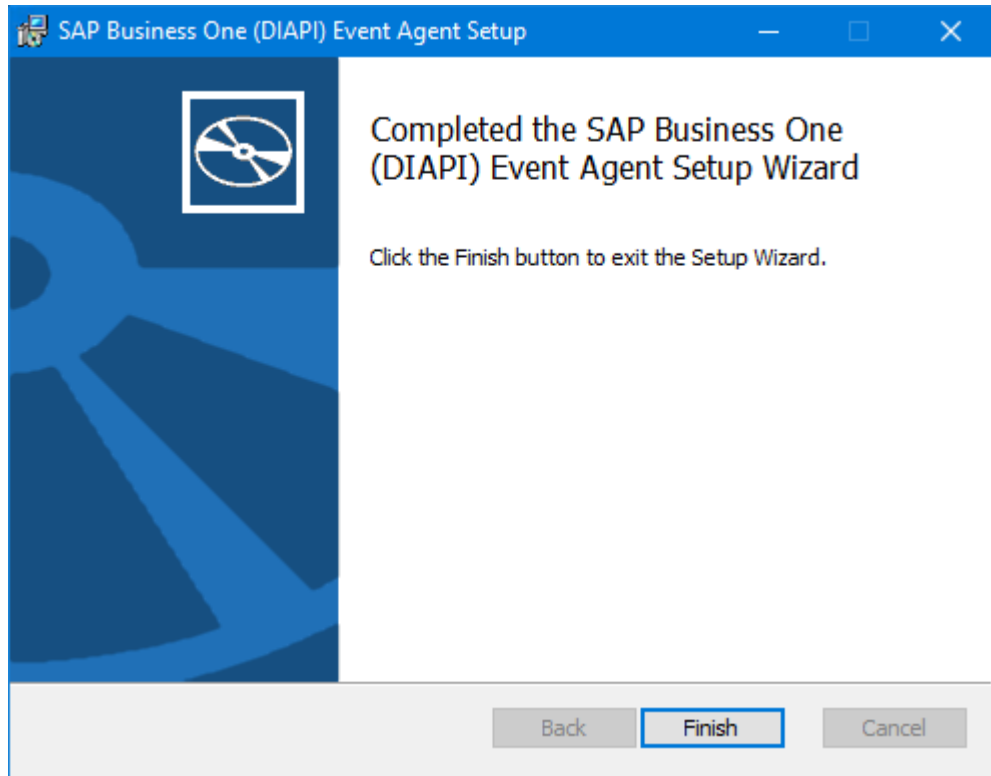
3. Click **Next** at the installation launch window to start the process.



4. Click **Install**.



- When completed, click **Finish** to close the installation wizard.



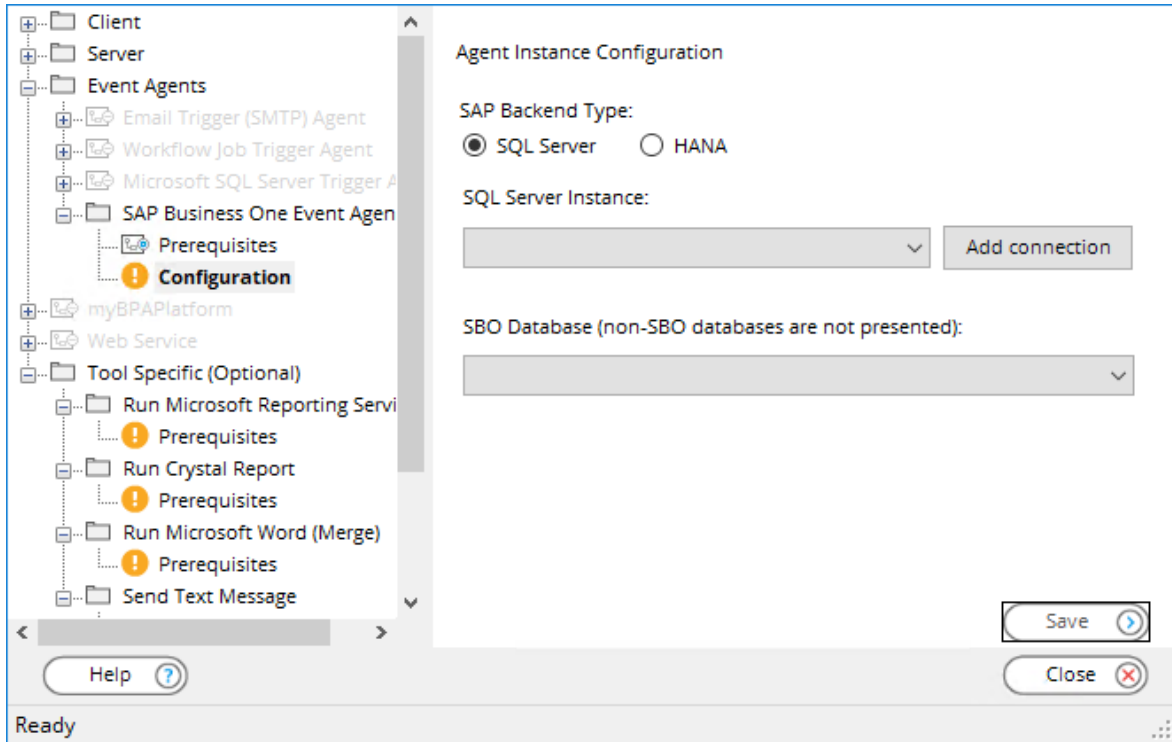
Configuring the SAP Business One Event Agent

It is recommended you perform this procedure immediately after installation. However, if you have previously closed the Configurator without completing the SAP Business One Event Agent, launch it now. Do the following:

- The Configurator launches automatically, typically opening to the **SAP Business One Event Agent > Prerequisites** node as it is unable to detect a HANA database when SQL Server is installed or vice versa. This error can be ignored.
- Click **Next**.
- If monitoring a SQL Server database, go to [3a. Using the SAP Business One Event Agent with SQL Server](#)
If monitoring an SAP HANA database, go to [3b. Using the SAP Business One Event Agent with SAP HANA](#).

3a. Using the SAP Business One Event Agent with SQL Server

Typically, the **SAP Business One Event Agent** is installed to the same computer hosting the SQL Server company database. However, the **Event Agent** can be installed on a computer that has access to both the company database and the BPA Platform server.



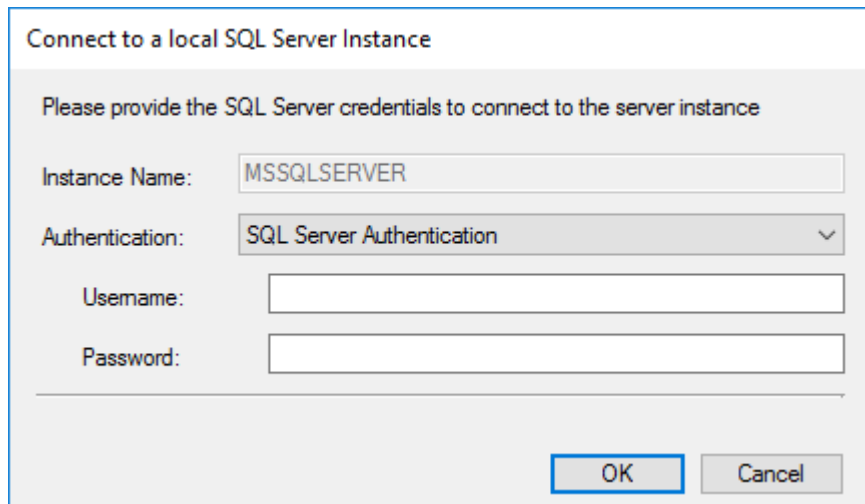
Local Agent Installation

If the **SAP Business One Event Agent** is installed local to the company database, the Configurator detects whether SQL Server or HANA is the database; **SAP Backend Type** should be pre-selected as **SQL Server**. Do the following:

- Select the relevant database instance from the **SQL Server Instance** drop-down.

The Configurator attempts to connect using the current Windows authentication credentials for the logged in user. If this is successful, the instance name is displayed in **SQL Server Instance**.

If alternative credentials are required, such as SQL Server credentials, click **Change connection**. Change the **Authentication** type to **SQL Server Authentication** and enter the required **Username** and **Password**.

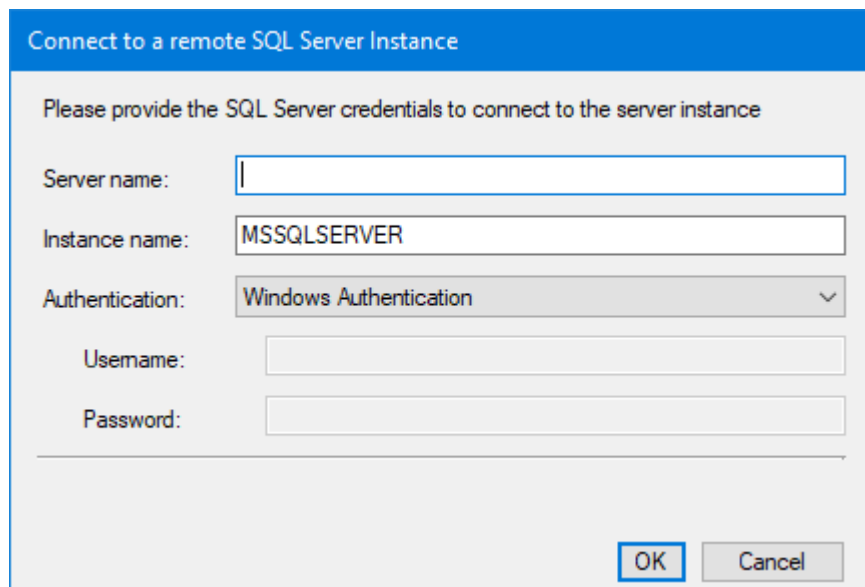


- b. Click **OK** to return to the Configurator.
- c. If the Configurator has successfully connected using the credentials provided, the **SBO Database** drop-down is populated with available company databases. Choose the relevant database this **Event Agent** is monitoring.
- d. Click **Save**.

Remote Event Agent installation

If the **SAP Business One Event Agent** has been installed on a remote computer compared to the company database, select **SAP Backend Type** as **SQL Server**. Note that installation onto the BPA Platform server computer is fully supported. Do the following:

- a. Click **Add Connection**.

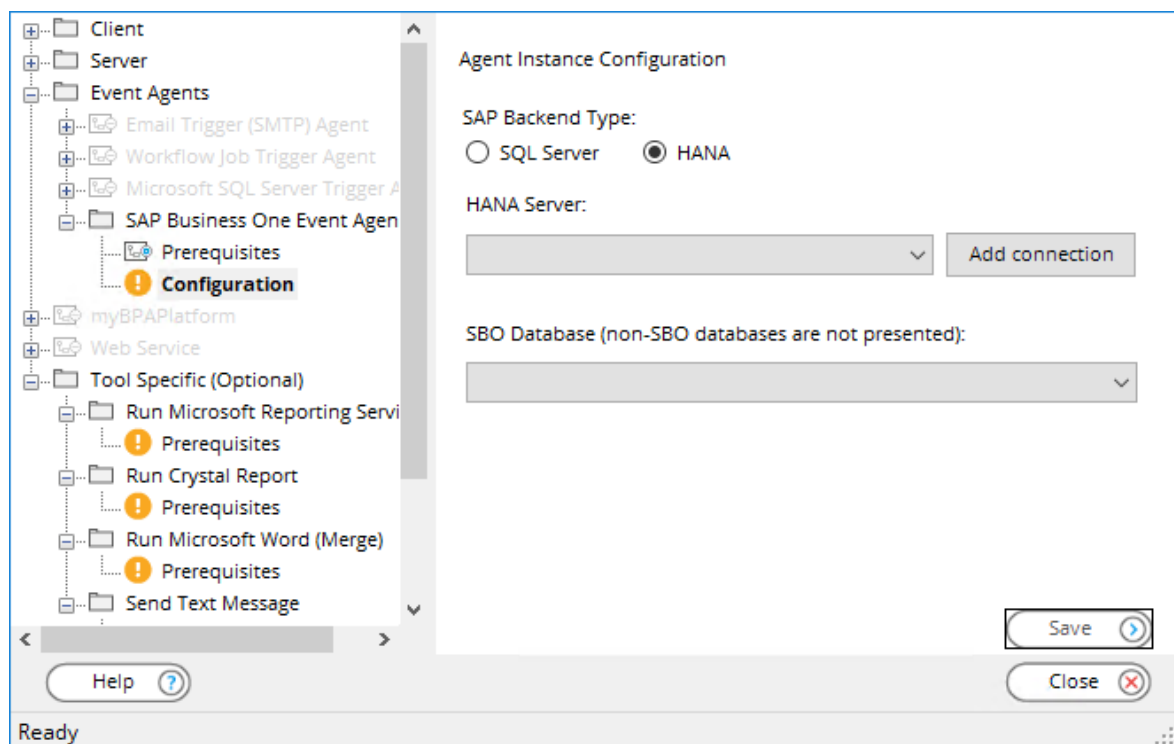


- b. Enter the **Server name** (hostname, IP address, or URL) SQL Server instance's location.

- c. Unless the SQL Server **Instance name** is different to the default, this can be skipped. If you are unsure, consult your Database Administrator.
- d. Select the appropriate **Authentication** type from the drop-down:
 - Windows Authentication** — Use the logged in Windows user's credentials
 - SQL Server Authentication** — Enter the relevant **Username** and **Password** to use
5. Click **OK**.
6. Back in the Configurator, select the new database instance from the **SQL Server Instance** drop-down. This is in the format of `<server_name>\<instance_name>`.
The Configurator attempts to connect using the configured credentials.
7. If the Configurator has successfully connected using the credentials provided, the **SBO Database** drop-down is populated with available company databases. Choose the relevant database this **Event Agent** is monitoring.
8. Click **Save**.

3b. Using the SAP Business One Event Agent with SAP HANA

The SAP Business One Event Agent must be installed on the same machine hosting the SAP HANA client.



- a. Select **SAP Backend Type** as **HANA**.
- b. Click **Add connection**.

- c. Enter the **HANA Server** (hostname, IP address, or URL) of where the SAP company database is located). This must match exactly the name you have registered this server with in the SAP Landscape Directory (SLD). Use the following formats:
 - For HANA v9.3 or earlier — *<hostname_or_IP_address>*
For example, *SAP93-1*
 - For HANA v10.0 or higher — *<hostname_or_IP_address_or_URL>*
For example, *SAP10-1*
 - For HANA v10.0 or higher, with multi-tenancy — *<tenant>@<hostname_or_IP_address_or_URL>*
For example, *HDB@SAP10-1*
- d. The default **HANA Server Port** used for communication is **30015**. Adjust this if required.
- e. Enter the user credentials assigned to the **SAP Business One Event Agent** (see [Connecting to an SAP HANA Database](#)).
- f. Click **OK**.
- g. Back in the Configurator, select the new database instance from the **HANA Server** drop-down. This is in the format of *<server_name>\<instance_name>*.
The Configurator attempts to connect using the configured credentials.
- h. If the Configurator has successfully connected using the credentials provided, the **SBO Database** drop-down is populated with available company databases. Choose the relevant database this **Event Agent** is monitoring.
- i. Click **Save**.

Continuing the Configuration for Both Installation Types

4. The Configurator takes you to the **SBO Agent (<agent_name>)\<database_name> > Prerequisites** node.
5. Resolve any errors found there, if any.
6. Click **Next**.
7. (Optional) The **Agent Account** configuration is only required if you want a separate, specific account to access the company database. However, if the provided **Event Agent** account is sufficient, click **Next** to skip to the **Registration Settings** node.

To change the user account, do the following:

- a. Enter the new **User name**
 - b. Enter the relevant **Password**
 - c. Use **Test connection** to ensure the **Event Agent** can use the credentials
 - d. Click **Next**.
8. The final step is to register the **SAP Business One Event Agent** with the BPA Platform server. By default, the **Event Agent** takes the installed machine as the location of the BPA Platform server. If this is the case, click **Next** to save the configuration.

To register the **Event Agent** against a remote BPA Platform server, do the following:

- a. Select **Change Settings**.
- b. Enter the BPA Platform server's hostname or IP address into **Server**.
- c. Configure a unique **Agent Name** for this **Event Agent** instance.

TIP: Use the installed machine name as part of the **Agent Name** for faster identification.

- d. Click **Save**.
 - e. Supply the password of the BPA Platform Administrator account. You must ensure that you are not logged on elsewhere with the Administrator account; this prevents the registration from being completed.

This establishes communication with the BPA Platform server and completes the registration.
9. Click **Save**.
 10. To ensure the registration process is successful, log into the BPA Platform client on the BPA Platform server and go to the **System > Agents** in the resources tree.

The **SAP Business One Trigger** tool can now use this **Event Agent** to inform of specific events and trigger a task to run. For a detailed description of how to create such a task, see [How to Add an SAP Business One Trigger Task Step](#).

Upgrading Remote Agents and Connectors

To maintain communication to the BPA Platform server and to make full use of all **Agent**-related features in this release, ensure you upgrade all remote **SAP Business One Event Agents**.

You must also ensure you upgrade any remote installations of the **SAP Business One Trigger tool** to maintain communication to the BPA Platform server.

How to Install the SAP Business One (DI-API) Integration Agent

This section describes how to install the **SAP Business One (DI-API) Integration Agent**.

It is recommended you perform the installation locally rather than over the network.

NOTE: The upgrade procedure is the same unless explicitly stated. If upgrading from an earlier version of the tool pack, you must ensure all previously installed components are upgraded to the same version. Failure to do so may result in errors during configuration and runtime, as well as task failure.

Pre-Installation Checklist

For a detailed description of external software prerequisites, including supported operating systems, refer to the [BPA Platform System Dependencies Matrix](#).

When installing the **SAP Business One (DI-API) Integration Agent**, the following must be met:

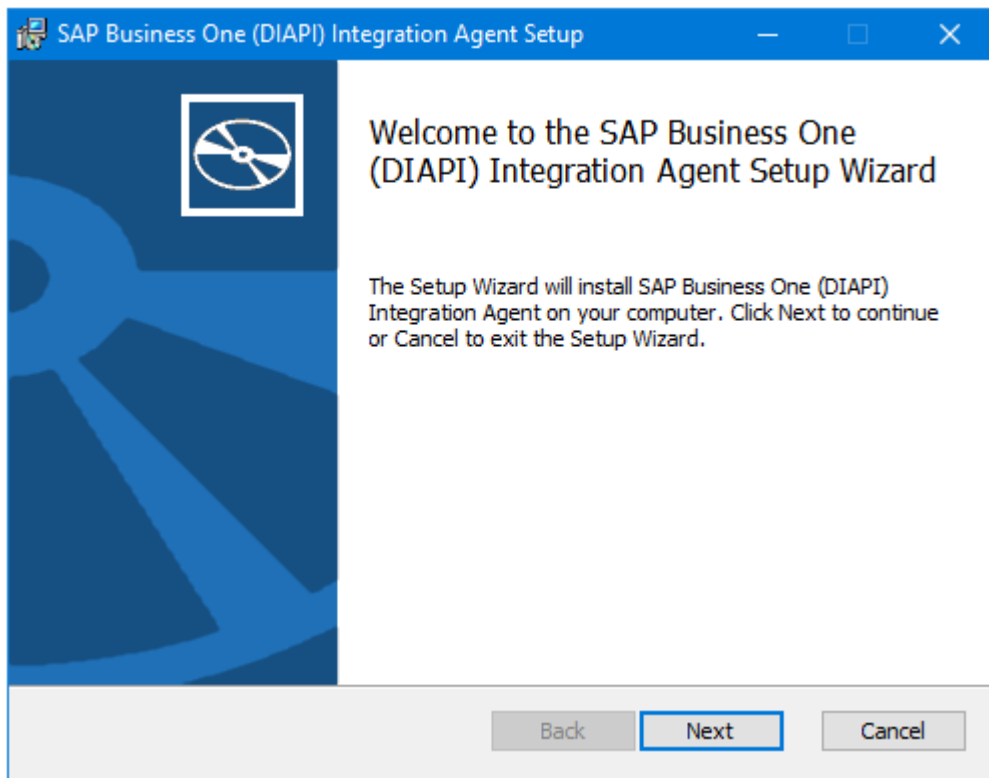
Item	Description	Prerequisite
Supported BPA Platform Versions	All components of the SAP Business One Integration Tool Pack require BPA Platform (formerly "TaskCentre") 2020 Update 1 or higher.	Installed Y / N
Connectivity Considerations	<p>You must install the SAP Business One (DI-API) Integration Agent on the same computer hosting the SAP DI (Data Interface) API.</p> <p>Additionally, the Agent requires access to the following ports:</p> <ul style="list-style-type: none">▶ 4205 — To communicate with the SAP Business One (DI-API) Integration tool▶ 30000 — To communicate with the SAP Licence Server. Only required for backwards compatibility for those running SAP Business One v9.3 or earlier. <p>Use of custom ports is permitted; ensure the relevant ports are open on all computers involved.</p>	<p>Access to SAP Business One (DI-API) Integration port Y / N</p> <p>Access to SAP Licence Server port Y / N</p> <p>Custom ports in use Y / N</p>

Item	Description	Prerequisite
SAP Business One (DIAPI) Integration Agent Software	Download the SAP Business One Integration Tool Pack release from the Partner Area — note that a Codeless Platforms account is required to access this.	Downloaded Y / N
(Upgrades Only) Current Installation Folder	If a custom installation location was used for the previous version of SAP Business One (DIAPI) Integration Agent, make a note of it now.	Custom location:

Installing the SAP Business One (DIAPI) Integration Agent

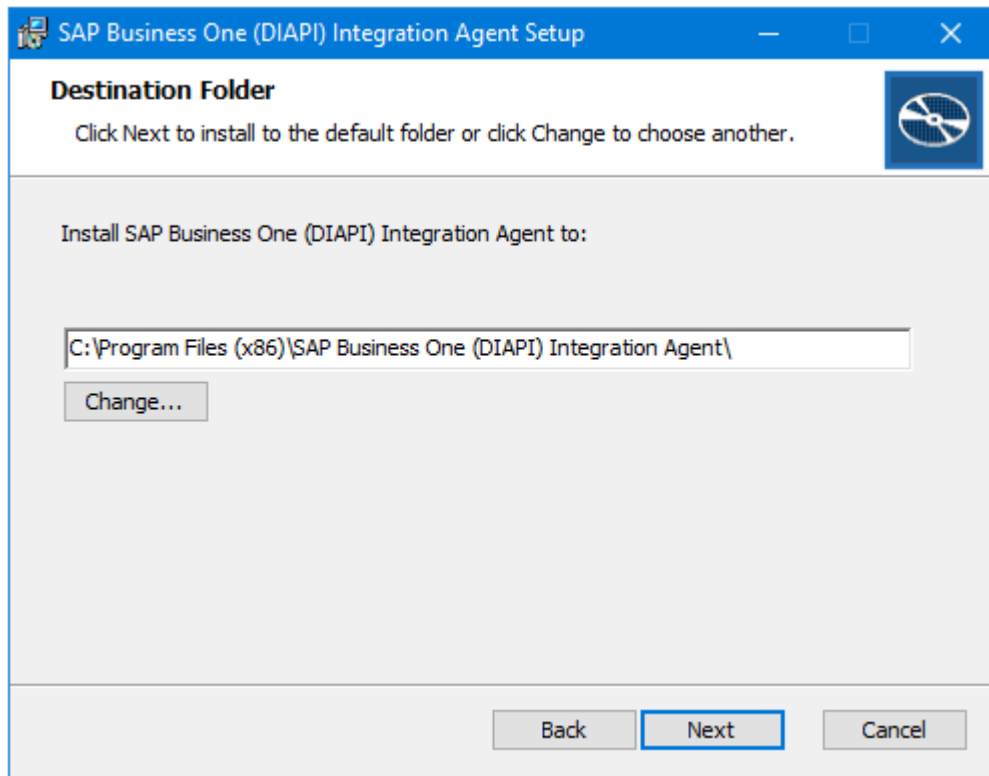
To install the Agent, do the following:

1. Unzip the [SAP Business One Integration Tool Pack software](#) to your preferred location on the computer.
2. Double-click `SBOIntegrationAgentDIAPI.msi`.
3. Click **Next** at the installation launch window to start the process.

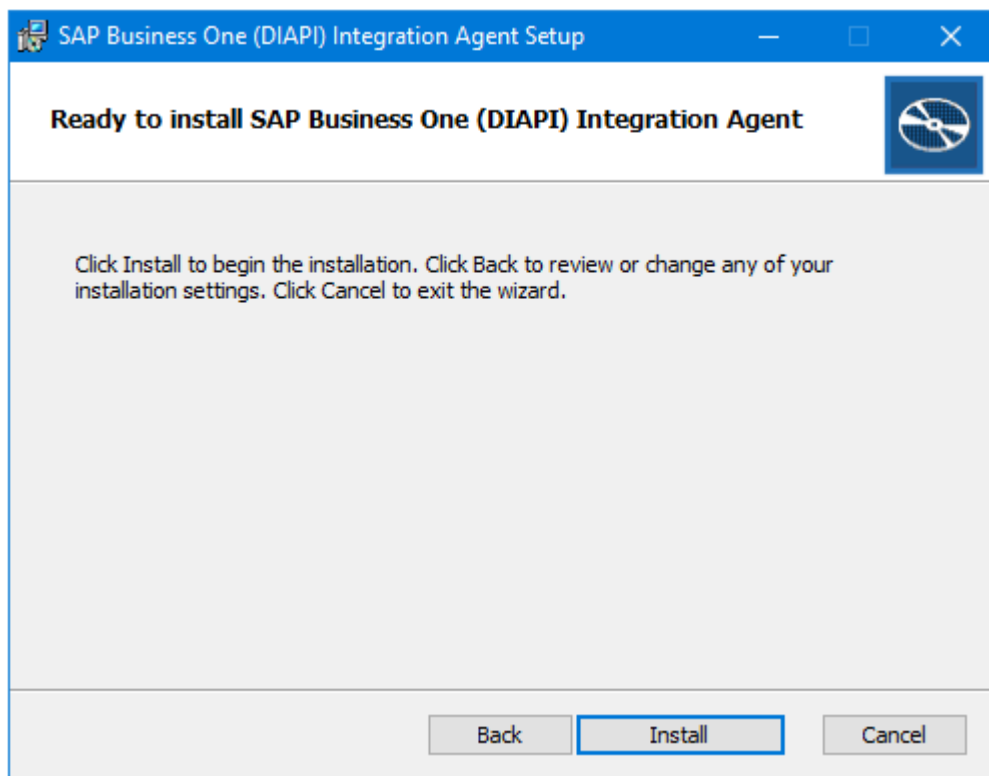


4. By default, the SAP Business One (DIAPI) Integration Agent is installed to the **C:\Program Files (x86)\SAP Business One (DIAPI) Integration Agent** folder. If required, click **Change** to install to a non-default location, else click **Next** to continue. Note that when upgrading, the installer does an “uninstall, re-install”, so if a custom

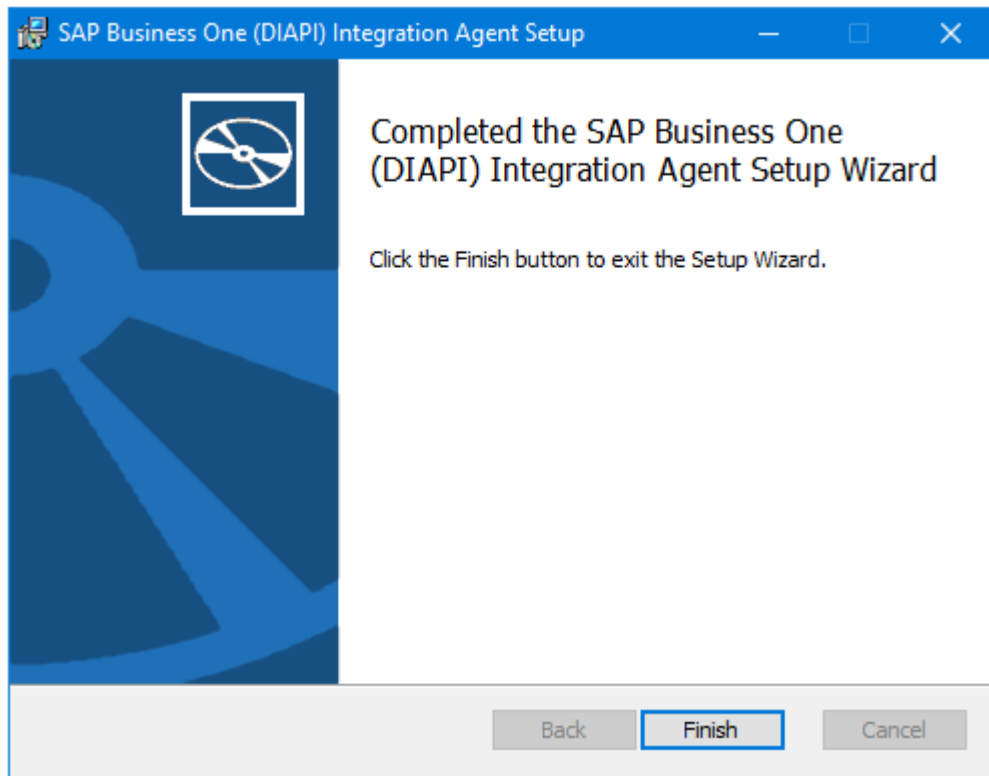
folder was specified during the original installation, you must re-enter the custom folder path.



5. Click **Install** to start the installation process. Progress is displayed on screen.



- When completed, click **Finish** to close the installation wizard.



Upgrading Remote Agents and Connectors

To maintain communication to the BPA Platform server and to make full use of all Agent-related features in this release, ensure you upgrade all remote **SAP Business One (DI-API) Integration Agents**.

You must also ensure you upgrade any remote installations of the **SAP Business One (DI-API) Integration Connector** to maintain communication to the BPA Platform server.

How to Install the SAP Business One (DIAPI) Integration and SAP Business One Trigger Tools

This section describes how to install the **SAP Business One (DIAPI) Integration** and **SAP Business One Trigger** tools. The same installation package installs both.

It is recommended you perform the installation locally rather than over the network.

NOTE: The upgrade procedure is the same unless explicitly stated. If upgrading from an earlier version of the tool pack, you must ensure all previously installed components are upgraded to the same version. Failure to do so may result in errors during configuration and runtime, as well as task failure.

Pre-Installation Checklist

For a detailed description of external software prerequisites, including supported operating systems, refer to the [BPA Platform System Dependencies Matrix](#).

When installing the **SAP Business One (DIAPI) Integration** and **SAP Business One Trigger** tools, the following must be met:

Item	Description	Prerequisite
Supported BPA Platform Versions	All components of the SAP Business One Integration Tool Pack require BPA Platform (formerly "TaskCentre") 2020 Update 1 or higher.	Installed Y / N
Connectivity Considerations	<p>The SAP Business One (DIAPI) Integration tool requires access to the following ports:</p> <ul style="list-style-type: none"> ▶ 4205 — To communicate with the SAP Business One (DIAPI) Integration Agent <p>Use of custom ports is permitted; ensure the relevant ports are open on all computers involved. No TCP ports are required to communicate with the SAP Business One Event Agent.</p>	<p>Access to SAP Business One (DIAPI) Integration Agent port Y / N</p> <p>Custom ports in use Y / N</p>
SAP Business One (DIAPI) Integration and SAP Business One Trigger Tools Software	Download the SAP Business One Integration Tool Pack release from the Partner Area — note that a Codeless Platforms account is required to access this.	Downloaded Y / N

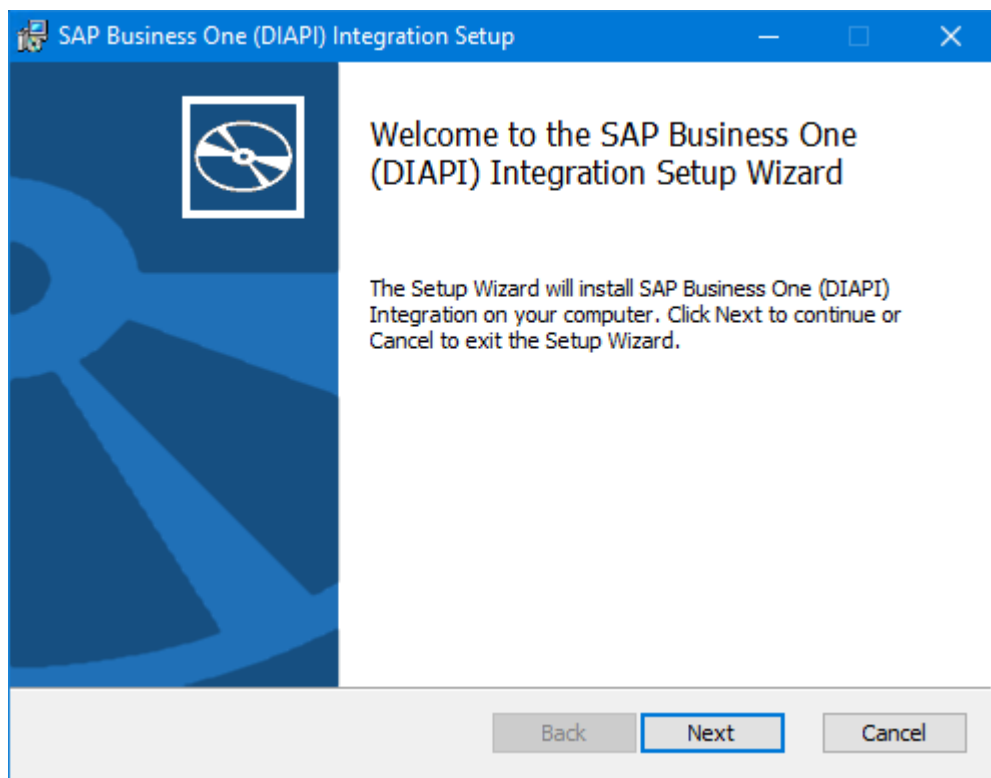
Item	Description	Prerequisite
(Upgrades Only) Current Installation Folder	If a custom installation location was used for the previous version of the SAP Business One Integration Tool Pack , make a note of it now.	Custom location:

Installing the SAP Business One (DI-API) Integration and SAP Business One Trigger Tools

You must install the both tools on the BPA Platform server as well as any remote BPA Platform client machines that run **SAP Business One (DI-API) Integration** or **SAP Business One Trigger** tasks.

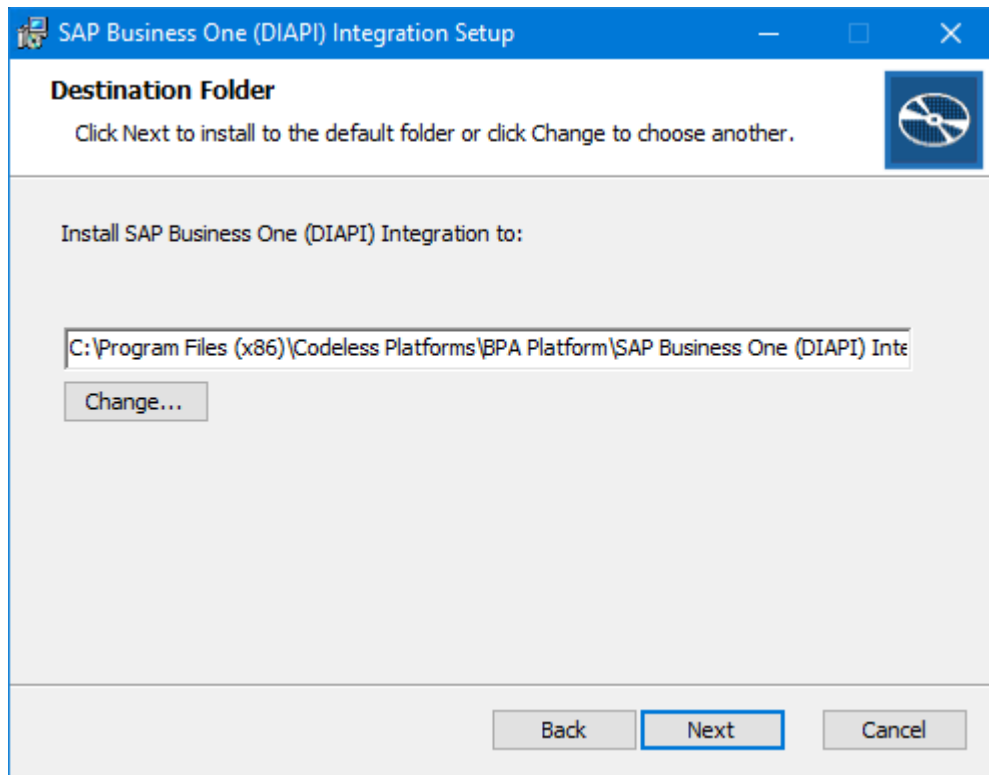
To install the tool, do the following:

1. Unzip the [SAP Business One Integration Tool Pack software](#) to your preferred location on the computer.
2. Double-click `SBOIntegrationDI-API.msi`.
3. Click **Next** at the installation launch window to start the process.

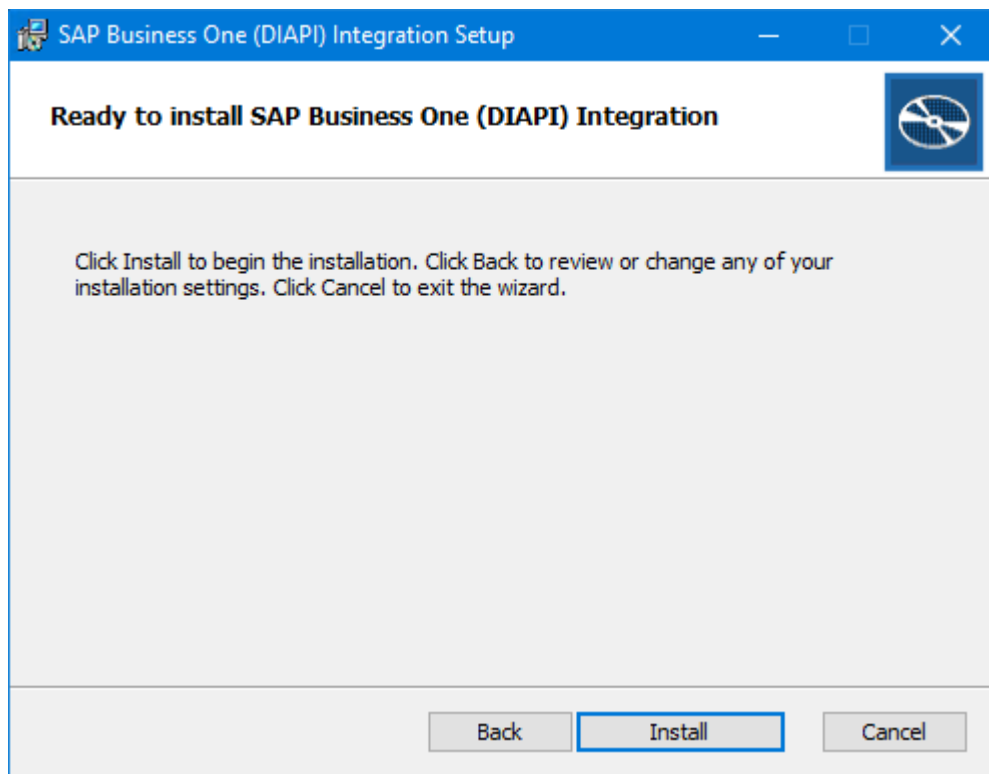


4. By default, the **SAP Business One (DI-API) Integration** and **SAP Business One Trigger** tools are installed to the **C:\Program Files (x86)\Codeless Platforms\BPA Platform\SAP Business One (DI-API) Integration** folder. If required, click **Change** to install to a non-default location, else click **Next** to continue. Note that when upgrading, the installer does an “uninstall, re-install”, so if a custom folder was specified during the original

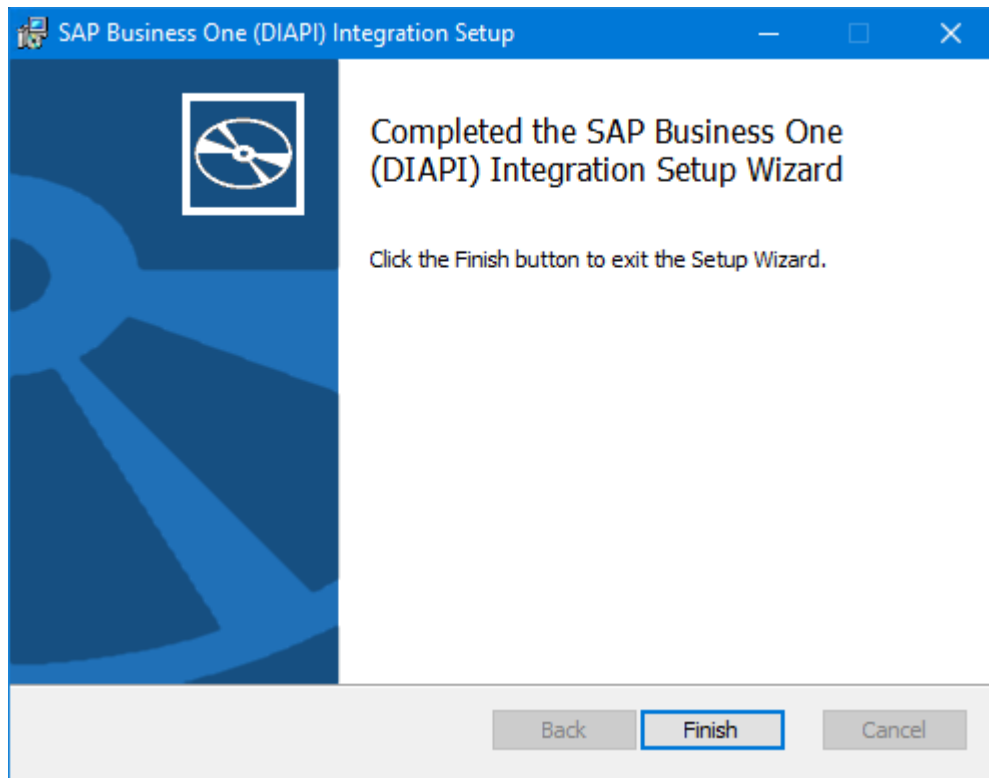
installation, you must re-enter the custom folder path.



5. Click **Install** to start the installation process. Progress is displayed on screen.



- When completed, click **Finish** to close the installation wizard.



Upgrading Remote Connectors and Agents

To maintain communication to the BPA Platform server and to make full use of all features in this release, ensure you upgrade all remote **SAP Business One (DI-API) Integration Connectors**.

You must also ensure you upgrade any remote installations of the **SAP Business One (DI-API) Integration Agents** to maintain communication to the BPA Platform server.

How to Install the SAP Business One (SL) Integration Agent

This section describes how to install the **SAP Business One (SL) Integration Agent**.

It is recommended you perform the installation locally rather than over the network.

NOTE: The upgrade procedure is the same unless explicitly stated. If upgrading from an earlier version of the tool pack, you must ensure all previously installed components are upgraded to the same version. Failure to do so may result in errors during configuration and runtime, as well as task failure.

Pre-Installation Checklist

For a detailed description of external software prerequisites, including supported operating systems, refer to the [BPA Platform System Dependencies Matrix](#).

When installing the **SAP Business One (SL) Integration Agent**, the following must be met:

Item	Description	Prerequisite
Supported BPA Platform versions	<p>All components of the SAP Business One Integration Tool Pack require BPA Platform (formerly "TaskCentre") 2020 Update 1 or higher.</p> <p>The BPA Platform client is also required on the same computer as the SAP Business One Event Agent. The client must also be BPA Platform 2020 Update 1 or higher.</p>	Installed Y / N

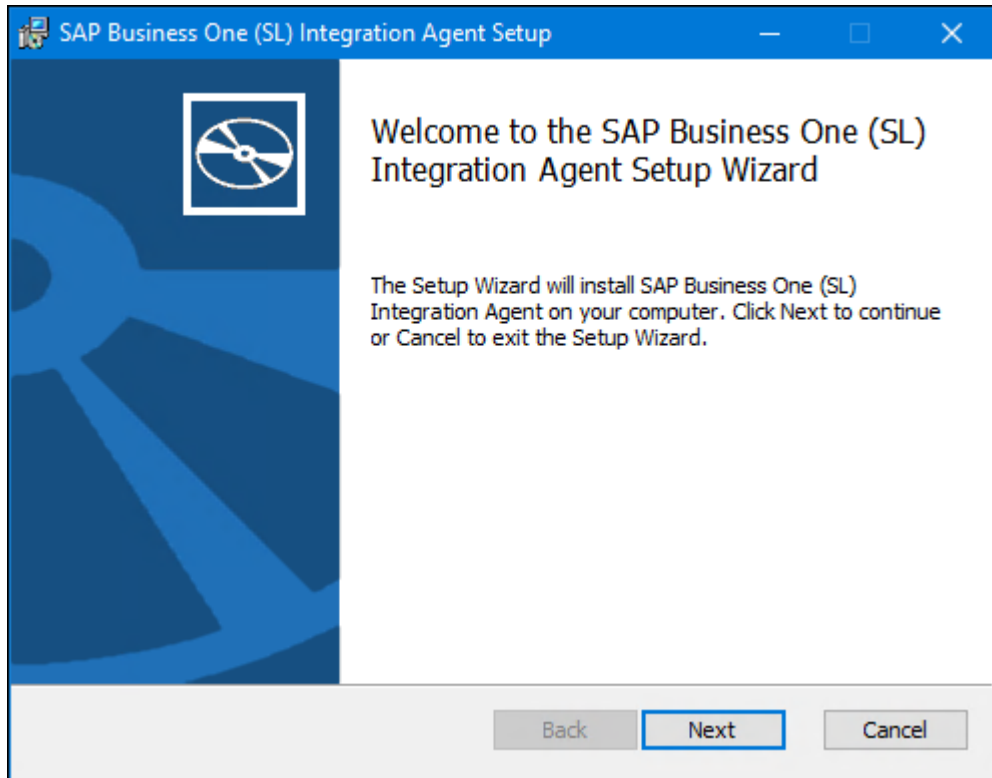
Item	Description	Prerequisite
<p>Connectivity Considerations</p>	<p>You can choose to install the SAP Business One (SL) Integration Agent on any computer that has access to both the BPA Platform server and the SAP Service Layer. Installation onto the BPA Platform server itself is supported.</p> <p>Additionally, the SAP Business One (SL) Integration Agent requires access to the following ports:</p> <ul style="list-style-type: none"> ▶ 4209 — To communicate with the SAP Business One (SL) Integration tool ▶ 50000 — To communicate with the SAP Service Layer. <p>Use of custom ports is permitted; ensure the relevant ports are open on all computers involved.</p> <p>In addition, communication to the Service Layer for HANA must be over HTTPS.</p>	<p>Access to SAP Business One (SL) Integration port Y / N</p> <p>Access to SAP Service Layer port Y / N</p> <p>Custom ports in use Y / N</p>
<p>SAP Business One Event Agent Software</p>	<p>Download the SAP Business One Integration Tool Pack release from the Partner Area — note that a Codeless Platforms account is required to access this.</p>	<p>Downloaded Y / N</p>
<p>(Upgrades Only) Current Installation Folder</p>	<p>If a custom installation location was used for the previous version of SAP Business One (SL) Integration Agent, make a note of it now.</p>	<p>Custom location:</p>

Installing the SAP Business One (SL) Integration Agent

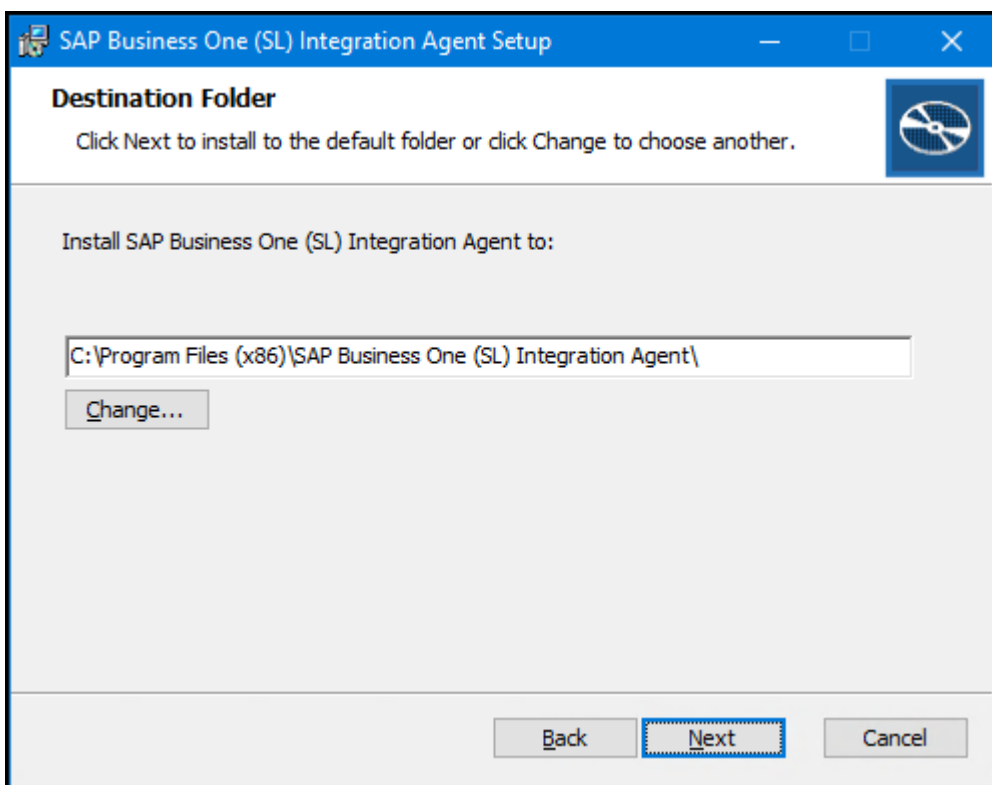
To install the **Agent**, do the following:

1. Unzip the [SAP Business One Integration Tool Pack software](#) to your preferred location on the computer.
2. Double-click `SBOIntegrationAgentSL.msi`.

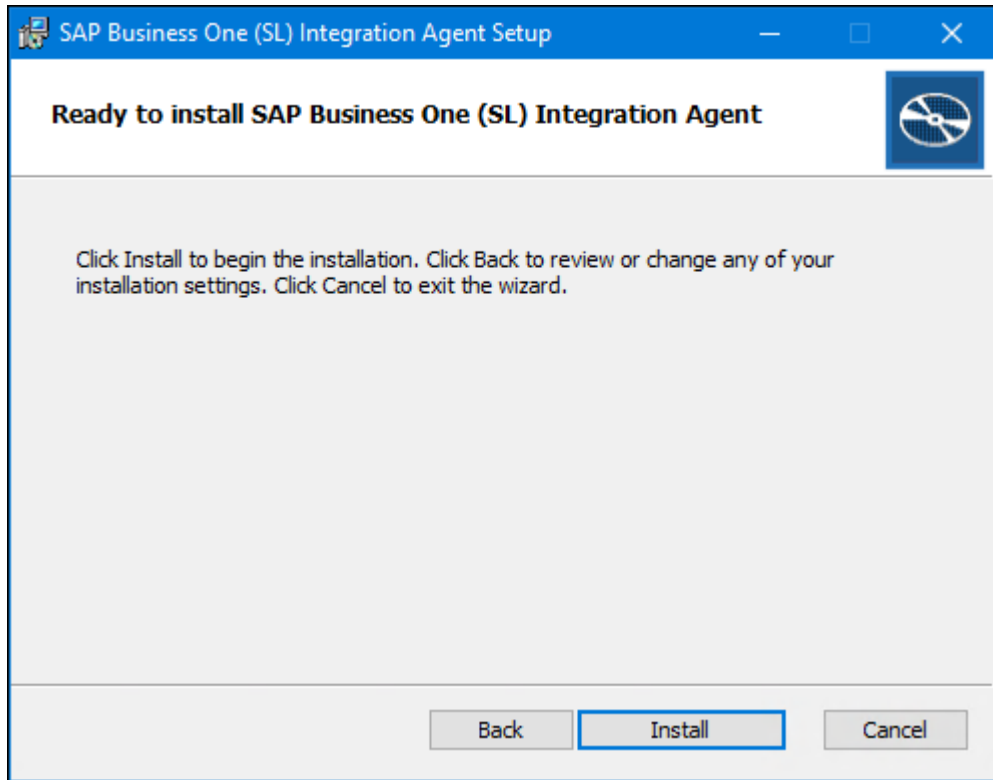
3. Click **Next** at the installation launch window to start the process.



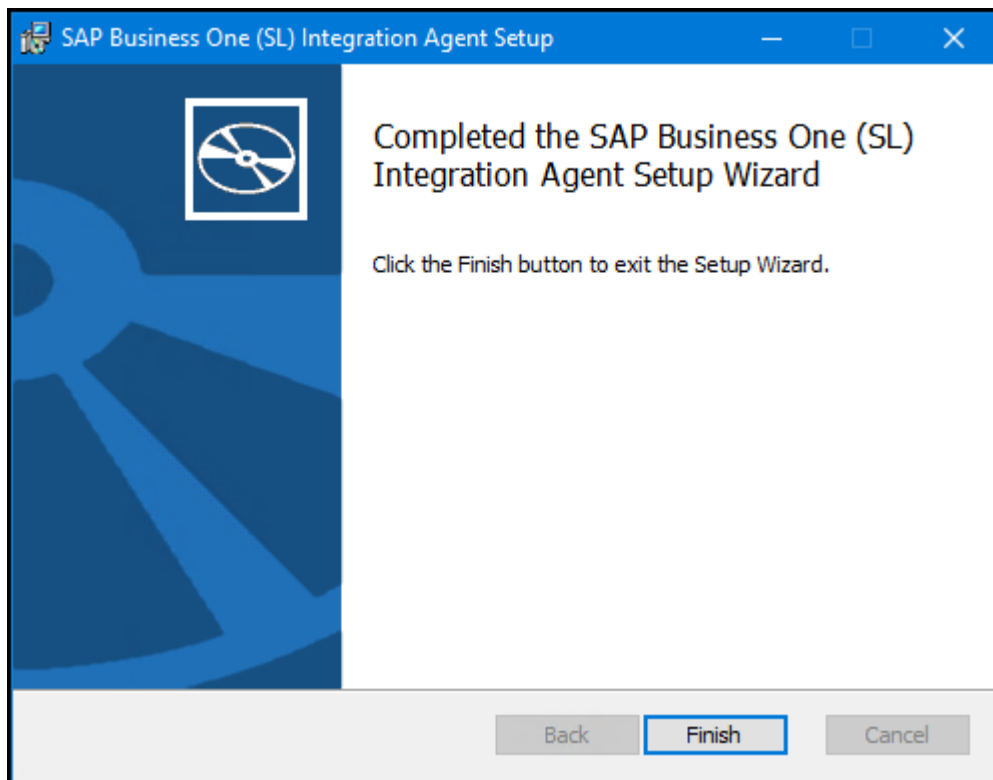
4. By default, the SAP Business One (SL) Integration Agent is installed to the **C:\Program Files (x86)\SAP Business One (SL) Integration Agent** folder. If required, click **Change** to install to a non-default location, else click **Next** to continue. Note that when upgrading, the installer does an “uninstall, re-install”, so if a custom folder was specified during the original installation, you must re-enter the custom folder path.



5. Click **Install** to start the installation process. Progress is displayed on screen.



6. When completed, click **Finish** to close the installation wizard.



Upgrading Remote Agents and Connectors

To maintain communication to the BPA Platform server and to make full use of all **Agent**-related features in this release, ensure you upgrade all remote **SAP Business One (SL) Integration Agents**.

You must also ensure you upgrade any remote installations of the **SAP Business One (SL) Integration Connector** to maintain communication to the BPA Platform server.

How to Install the SAP Business One (SL) Integration Tool

This section describes how to install the **SAP Business One (SL) Integration** tool.

It is recommended you perform the installation locally rather than over the network.

NOTE: The upgrade procedure is the same unless explicitly stated. If upgrading from an earlier version of the tool pack, you must ensure all previously installed components are upgraded to the same version. Failure to do so may result in errors during configuration and runtime, as well as task failure.

Pre-Installation Checklist

For a detailed description of external software prerequisites, including supported operating systems, refer to the [BPA Platform System Dependencies Matrix](#).

When installing the **SAP Business One (SL) Integration** tool, the following should be considered:

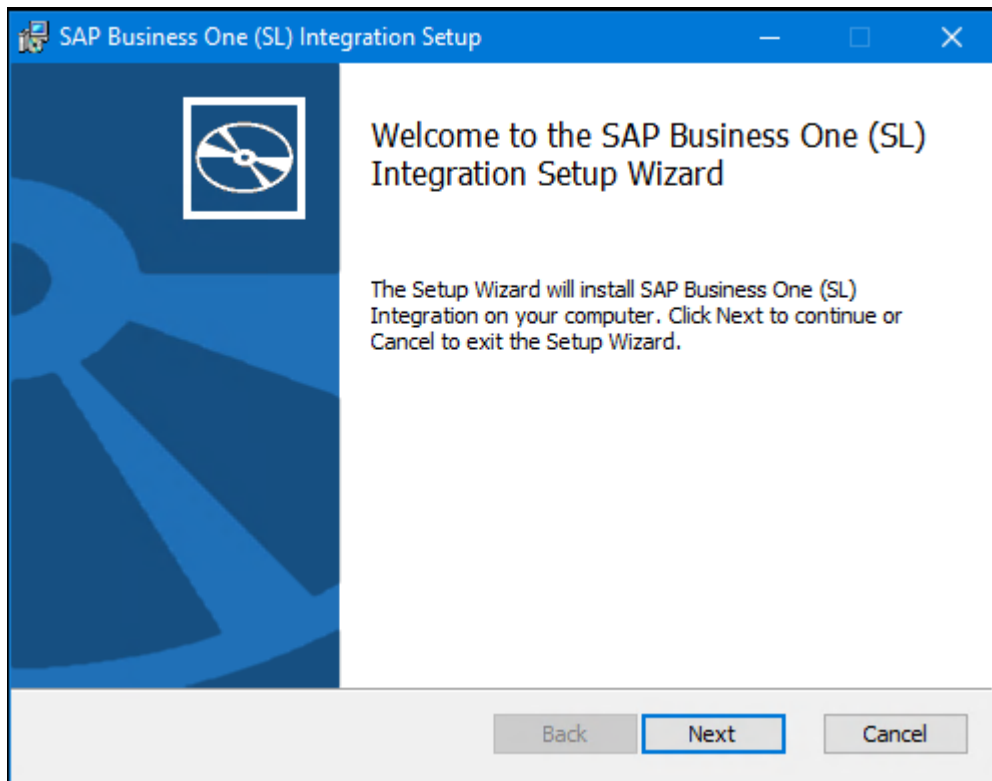
Item	Description	Prerequisite
Supported BPA Platform versions	All components of the SAP Business One Integration Tool Pack require BPA Platform (formerly “TaskCentre”) 2020 Update 1 or higher. The BPA Platform client is also required on the same computer as the SAP Business One Event Agent . The client must also be BPA Platform 2020 Update 1 or higher.	Installed Y / N
Connectivity Considerations	The SAP Business One (SL) Integration tool requires access to the following ports: ▶ 4209 — To communicate with the SAP Business One (SL) Integration Agent Use of custom ports is permitted; ensure the relevant ports are open on all computers involved.	Access to SAP Business One (SL) Integration Agent port Y / N Custom ports in use Y / N
SAP Business One Event Agent Software	Download the SAP Business One Integration Tool Pack release from the Partner Area — note that a Codeless Platforms account is required to access this.	Downloaded Y / N
(Upgrades Only) Current Installation Folder	If a custom installation location was used for the previous version of SAP Business One (SL) Integration tool , make a note of it now.	Custom location:

Installing the SAP Business One (SL) Integration Tool

You must install the **SAP Business One (SL) Integration** tool on the BPA Platform server as well as any remote BPA Platform client machines that run **SAP Business One (SL) Integration** tasks.

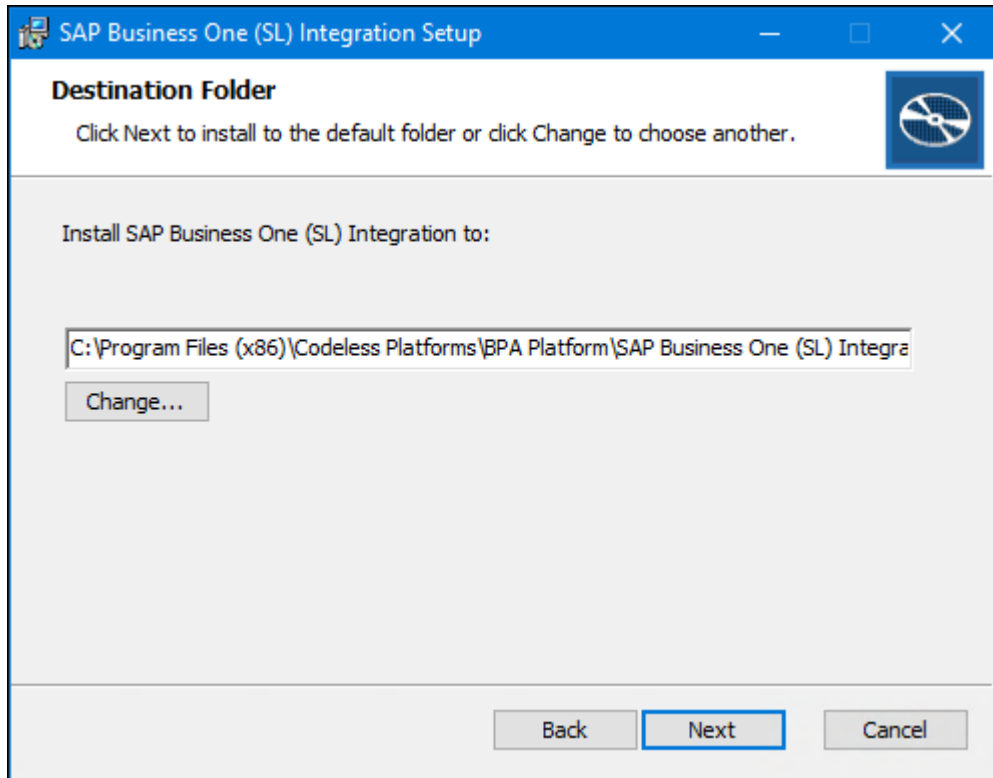
To install the tools, do the following:

1. Unzip the [SAP Business One Integration Tool Pack software](#) to your preferred location on the computer.
2. Double-click `SBOIntegrationSL.msi`.
3. Click **Next** at the installation launch window to start the process.

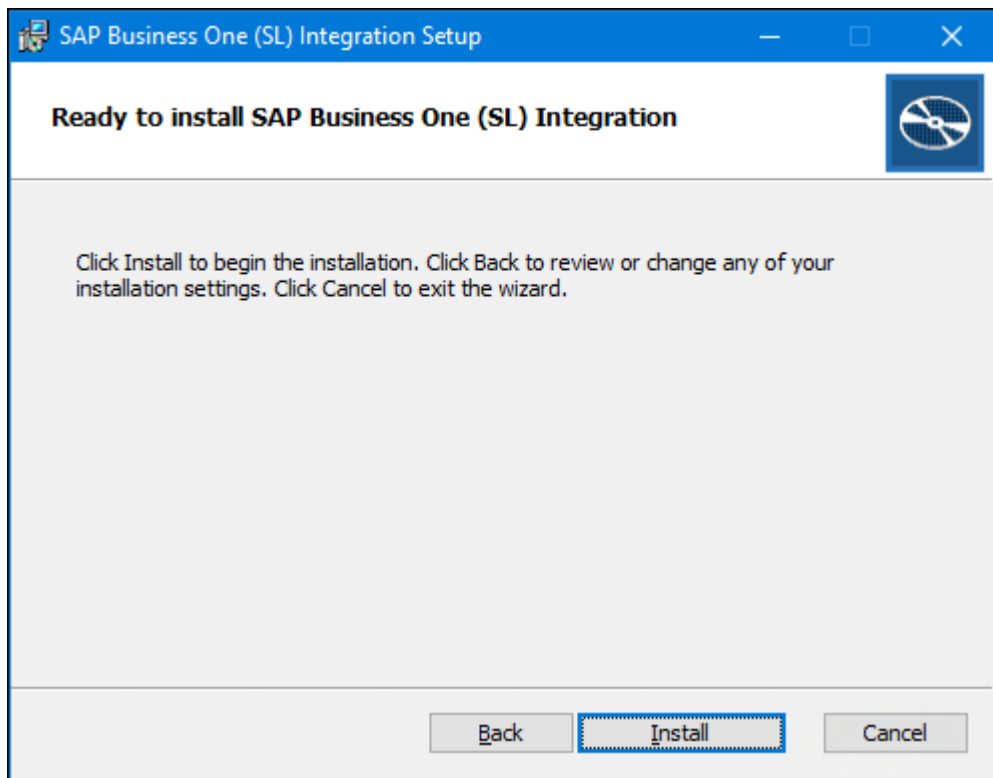


4. By default, the SAP Business One (SL) Integration Agent is installed to the **C:\Program Files (x86)\Codeless Platforms\BPA Platform\SAP Business One (SL) Integration** folder. If required, click **Change** to install to a non-default location, else click **Next** to continue. Note that when upgrading, the installer does an “uninstall, re-install”, so if a custom folder was specified during the original installation, you must re-enter the custom folder

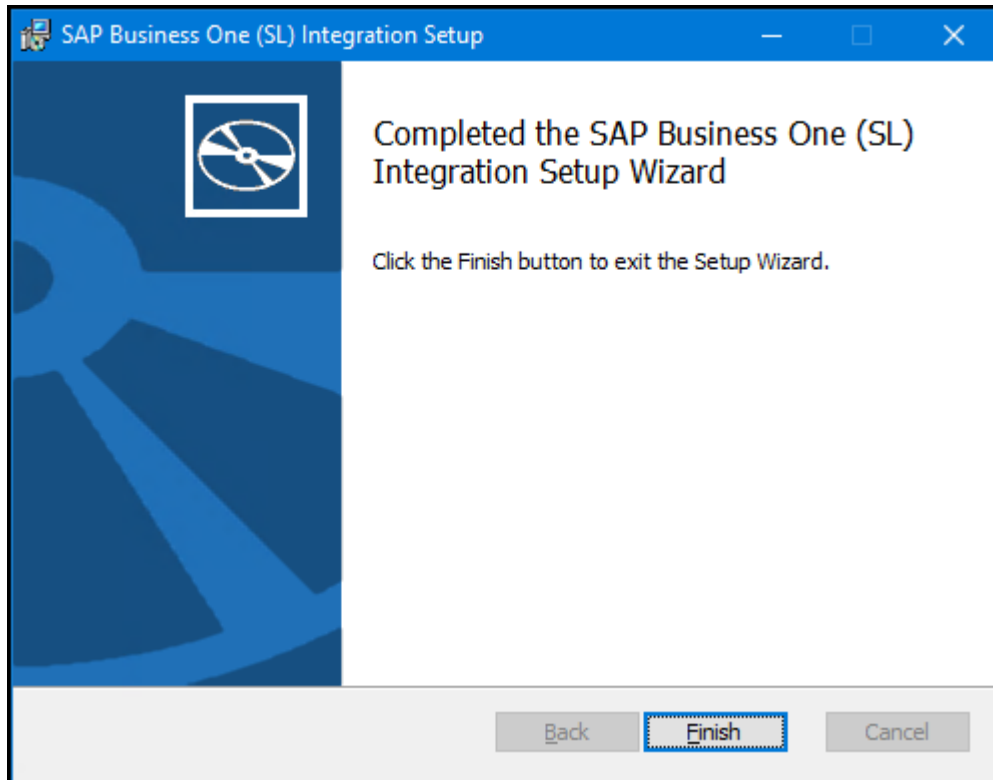
path.



5. Click **Install** to start the installation process. Progress is displayed on screen.



- When completed, click **Finish** to close the installation wizard.



Upgrading Remote Connectors and Agents

To maintain communication to the BPA Platform server and to make full use of all features in this release, ensure you upgrade all remote **SAP Business One (SL) Integration Connectors**.

You must also ensure you upgrade any remote installations of the **SAP Business One (SL) Integration Agents** to maintain communication to the BPA Platform server.

How to Add an SAP Business One Trigger Task Step

To add a **SAP Business One Trigger** step to an existing task, do the following. For a detailed description of how to create a new task, refer to the BPA Platform product help.

This article assumes you have installed the **SAP Business One (DIAPI) Integration** component of the **SAP Business One Integration Tool Pack** — see [How to Install the SAP Business One \(DIAPI\) Integration and SAP Business One Trigger Tools](#).

Pre-Task Checklist

The following prerequisites must be met before creating the **SAP Business One Trigger** step.

Item	Description	Prerequisite
Install the SAP Business One Event Agent	<p>The SAP Business One Trigger tool uses the SAP Business One Event Agent to monitor for events in the SAP Business One company database — see How to Install and Configure the SAP Business One Event Agent.</p> <p>No other global configuration is required for either the SAP Business One Trigger tool or SAP Business One Event Agent.</p>	Installed Y / N
Install the SAP Business One (DIAPI) Integration Agent	<p>Even though your task or even your SAP Business One Integration Tool Pack solution might not make use of the SAP Business One (DIAPI) Integration tool, you must install the SAP Business One (DIAPI) Integration Agent for the SAP Business One Trigger tool to pull the objects list from the company database — see How to Install the SAP Business One (DIAPI) Integration Agent.</p>	Installed Y / N
SAP Business One Database Account Credentials	<p>The SAP Business One (DIAPI) Integration Agent requires a dedicated database user to access the company database. It is recommended you create the account specifically for the SAP Business One (DIAPI) Integration Agent to use to ensure transactions are isolated from each other users.</p>	SAP Business One database credentials Username: Password:

Item	Description	Prerequisite
SAP Business One User Credentials	<p>To access the DI API, the SAP Business One (DI-API) Integration Agent requires a dedicated SAP Business One user account.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>TIP: If you are using an SAP HANA database instance, the username must have Super User permissions.</p> </div>	<p>SAP Business One user credentials</p> <p>Username:</p> <p>Password:</p>
Create Global or Task Variables	<p>Create task or global variables that make details of the event available to other steps in the task. Ensure they have the following features configured:</p> <ul style="list-style-type: none"> ▶ Type — Variant ▶ Parameter — Selected (All global variables are Parameter variables by default) ▶ Parameter Attributes — In, Out ▶ Scope — Task Instance (This ensures the variable value is reset after each task run) <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>TIP: For ease of use later on in the task, name the variables the same as the fields where the data is mapped from.</p> </div> <p>Whether you use global or task-level variables is down to the design of the task. For more information, refer to the product help.</p>	<p>Variable names:</p>

Creating the Connection to the SAP Business One (DI-API) Integration Agent

Although the **SAP Business One Trigger** tool itself does not require its own global connection to the SAP Business One company database, it uses the connection to the **SAP Business One (DI-API) Integration Agent** instead. To create the connection do the following:

1. Log into the BPA Platform client and from the resources tree, go to **System > Tools > Data Connectors > SAP Business One (DI-API) Integration**.
2. Click **Add**.
3. Enter a unique and meaningful **Connection Name**.

4. Enter the **Integration Agent Server** (hostname, IP address, or URL) where the **SAP Business One (DIAPI) Integration Agent** is installed.
5. If you are connecting to SAP Business One v9.3 or earlier, go to the **Licence Server** tab, else you can skip this step.
 - a. Select **Specify Licence Server Details**.
 - b. Enter the SAP **Licence Server's** hostname or IP address and **Port Number**.
6. Go to the **Database** tab.
7. Enter the **Backend Server Name**. Use the following formats:
 - For SQL Server connections, all SAP Business One versions — `<hostname_or_URL>`
Use of the IP address for SQL Server connections is not supported by SAP Business One
 - For HANA v9.3 or earlier — `<hostname_or_IP_address>:<port>`
For example, `SAP93-1:30015`
 - For HANA v10.0 or higher — `<hostname_or_IP_address_or_URL>:<port>`
For example, `SAP10-1:30015`
 - For HANA v10.0 or higher, with multi-tenancy — `<tenant>@<hostname_or_IP_address_or_URL>:<port>`
For example, `HDB@SAP10-1:30013`
8. Enter the database credentials allocated to the **SAP Business One (DIAPI) Integration Agent**.
9. Click **Detect** to auto-select the **Backend Server Version**.
10. Go to the **Authentication** tab.
11. Enter the credentials for the allocated SAP Business One user — see [SAP Business One User Credentials](#).
12. Go to the **Company** tab.
13. If the details entered into the **Database** and **Authentication** tabs are correct, the **Select Company** drop-down is populated. Choose the relevant database for this **Agent**.
14. Click **OK** to save the changes.

Adding a New Task Step

When creating new tasks, the **SAP Business One Trigger** tool is located under **Event** of the Task Browser.

To add a new **SAP Business One Trigger** step to an existing task, do the following:

From the relevant task, either:

- ▶ Click and drag the **SAP Business One Trigger** icon from the **Task Browser** to the task **Design** area.
- ▶ From the task's **Design** tab, right-click on empty space and select **New > Event > SAP Business One Trigger**.

For a detailed description of how to create new tasks, refer to the product help.

1. **Name** and describe (**Description**) this task step.
2. Go to the **Main** tab.

The screenshot shows the 'SAP Business One Trigger' dialog box with the 'Main' tab selected. The configuration is as follows:

- Agent:** SAP Business One Agent (MSSQLSERVER\SBDemoGB)
- Object:** Goods Issue (OIGE)
- Event type:** Update (checked), Add, Delete, Close, Cancel
- Select:** All, None, Toggle
- Trigger task on change of (no selection = any field):** CANCELED (checked), CancelDate, CardCode, CardName
- Mapping:**

Name	Type	Attributes	Parameter
cancelled	Variant	[in,out]	OwnerCode

3. From the **Agent** drop-down, choose the **Event Agent** for the required company database.
4. From the **Object** drop-down, choose the object whose events trigger this task to run. This list is populated by the **SAP Business One (DIAPI) Integration** tool's global configuration to the same company database.
5. Configure the type of event trigger this task to run.

HOW DO I DO THIS?

Choose the **Event Type** used as the trigger (multiple **Event Types** can be selected):

- ▶ **Add** — The step is triggered when a new record is added to the **Object**
- ▶ **Delete** — The step is triggered when an existing record is deleted

▶ **Close** — The step is triggered when an existing record is closed

▶ **Cancel** — The step is triggered when an existing record is cancelled

▶ **Update** — The step is triggered when an update occurs for an existing record

You can also create **Update** triggers on a specific field for an object. Either:

- Select the relevant field(s) to trigger on
- Click **All** to trigger when all fields for that object are updated

Use **None** to clear the selection of all fields. Having no fields selected means the step triggers when *ANY* field is updated for that **Object**.

Use **Toggle** to switch between all fields selected and none.

For a list of those objects that expose fields for use with **Update** triggering, refer to the product help.

TIP: You can capture the "before" values of a field (before the **Update** event was triggered) using variable mapping. To capture the before value, map a variable to the `previousValue` field. Note that only those objects that provide history data have the `previousValue` field.

Use the **Mapping** panel to map parameter-type task variables to an **Object** field. These variables can then be used in another task step. All relevant variables are shown under **Name**. Use the **Parameter** drop-down to map to the relevant field.

6. Click **OK** to save your task step.

How to Add an SAP Business One (DI-API) Integration Task Step

To add a **SAP Business One (DI-API) Integration** step to an existing task, do the following. For a detailed description of how to create a new task, refer to the BPA Platform product help.

This article assumes you have installed the **SAP Business One (DI-API) Integration** component of the **SAP Business One Integration Tool Pack** — see [How to Install the SAP Business One \(DI-API\) Integration and SAP Business One Trigger Tools](#).

Pre-Task Checklist

The following prerequisites must be met before creating the **SAP Business One (DI-API) Integration** step.

Item	Description	Prerequisite
Install the SAP Business One (DI-API) Integration Agent	The SAP Business One (DI-API) Integration Agent interfaces directly with the SAP Data Interface (DI) API and the SAP Business One (DI-API) Integration tool. It must be installed on the same computer hosting the DI API. See How to Install the SAP Business One (DI-API) Integration Agent .	Installed Y / N
SAP Business One User Credentials	To access the DI API, the SAP Business One (DI-API) Integration Agent requires a dedicated SAP Business One user account. TIP: If you are using an SAP HANA database instance, the username must have Super User permissions.	SAP Business One user credentials Username: Password:

Creating the Connection to the SAP Business One (DI-API) Integration Agent

To create the connection, do the following:

1. Log into the BPA Platform client and from the resources tree, go to **System > Tools > Data Connectors > SAP Business One (DI-API) Integration**.
2. Click **Add**.
3. Enter a unique and meaningful **Connection Name**.

4. Enter the **Integration Agent Server** (hostname, IP address, or URL) where the **SAP Business One (DIAPI) Integration Agent** is installed.
5. If you are connecting to SAP Business One v9.3 or earlier, go to the **Licence Server** tab, else you can skip this step.
 - a. Select **Specify Licence Server Details**.
 - b. Enter the SAP **Licence Server's** hostname or IP address and **Port Number**.
6. Go to the **Database** tab.
7. Enter the **Backend Server Name**. Use the following formats:
 - For SQL Server connections, all SAP Business One versions — `<hostname_or_URL>`
Use of the IP address for SQL Server connections is not supported by SAP Business One
 - For HANA v9.3 or earlier — `<hostname_or_IP_address>:<port>`
For example, `SAP93-1:30015`
 - For HANA v10.0 or higher — `<hostname_or_IP_address_or_URL>:<port>`
For example, `SAP10-1:30015`
 - For HANA v10.0 or higher, with multi-tenancy — `<tenant>@<hostname_or_IP_address_or_URL>:<port>`
For example, `HDB@SAP10-1:30013`
8. Enter the database credentials allocated to the **SAP Business One (DIAPI) Integration Agent**.
9. Click **Detect** to auto-select the **Backend Server Version**.
10. Go to the **Authentication** tab.
11. Enter the credentials for the allocated SAP Business One user — see [SAP Business One User Credentials](#).
12. Go to the **Company** tab.
13. If the details entered into the **Database** and **Authentication** tabs are correct, the **Select Company** drop-down is populated. Choose the relevant database for this **Agent**.
14. Click **OK** to save the changes.

Adding a New Task Step

When creating new tasks, the **SAP Business One (DIAPI) Integration** tool is located under **Data Connectors** of the Task Browser.

To add a new **SAP Business One (DIAPI) Integration** step to an existing task, do the following:

From the relevant task, either:

- ▶ Click and drag the **SAP Business One (DIAPI) Integration** icon from the **Task Browser** to the task **Design** area.

- ▶ From the task's **Design** tab, right-click on empty space and select **New > Data Connectors > SAP Business One (DIAPI) Integration**.

For a detailed description of how to create new tasks, refer to the product help.

NOTE: It is not possible to add the tool into the task until at least one connection to a company database has been defined in the tool's Global Configuration — see [Global Configuration](#).

1. Use the **General** tab to choose the BPA Platform data source to be mapped to the SAP Business One objects. You can map data source objects from either an XML or recordset source.

HOW DO I DO THIS?

The screenshot shows a dialog box titled "SAP Business One (DIAPI) Integration" with a blue header bar. It has five tabs: "General", "Connection", "Recordset", "Mapping", and "Options". The "General" tab is active. The "Name" field contains "SAP Business One (DIAPI) Integration". The "Description" field is empty. Under the "Data source" section, the "Task step" radio button is selected, and the dropdown menu shows "Results from DBQ - Types". There is a "Define" button next to the "Custom schema" option. The "Input source variable" field is empty. At the bottom, there are "OK" and "Cancel" buttons. A small instruction at the bottom of the dialog reads: "Drag a variable that will contain the XML data from the Task browser window to the text box above."

Provide a meaningful **Name** and **Description** for this step.

TIP: If this task instance makes use of two or more **SAP Business One (DIAPI) Integration** steps, ensure the **Name** used is unique for each individual step.

Data source can either be:

- ▶ **No data source** — If you don't make use of a dedicated XML or recordset input source, select this option to use BPA Platform variables in place of the XML or recordset objects' fields.

For example, you can extract various bits of information from an email and store them in BPA Platform variables. The variables are mapped to SAP Business One operational objects and fields to store in the database for later use.
- ▶ **Task step** — The data source can be set to an available BPA Platform XML or recordset data source.

Only those steps that are capable of natively exposing an XML document or recordset at runtime are listed. This may be another **SAP Business One (DIAPI) Integration** step, or a tool such as **Retrieve Text Message** or **Database Query (ODBC)**.
- ▶ **Custom schema** — If using a recordset input data source, this option does not apply. An XML schema defines the structure of the parsed XML: what tags are present, and the nesting of the tags. You **Define** the schema of the XML that is used as the input data source for this step. The **SAP Business One (DIAPI) Integration** tool uses the industry standard XSD format. Any XML processed by this step must conform to this schema else an error will be reported.

If the XSD schema is available, either import it into the **Custom Schema Configuration** (use the **Import XSD/XML File** button), or copy and paste it into the configuration box.

If the XSD schema is not available, you can import an example of the runtime XML (**Import XSD/XML File**), or copy and paste it into the configuration box. Use the **Parse** button to create the schema.
- Input source variable** — If using a recordset input data source, this option does not apply. As well as defining the schema, specify the BPA Platform variable that contains the XML data at runtime.

2. Go to the **Connection** tab and select the relevant global connection for this task step. Although you can setup multiple global connections, each to a individual SAP Business One company database, the **Connector** can only process data from a single connection.

HOW DO I DO THIS?

All connections created in the global configuration window are presented here.

Alternatively, you can use a BPA Platform variable or formula to create a dynamic connection, where the connection used is determined by runtime circumstances. At runtime, the contents of the variable must match the name of one of the Global Configuration connections — this is case-sensitive.

3. (Optional) The **Recordset** tab is only available if a recordset is set as the **Data Source** in the **General** tab. You must create the input XML from the recordset before you map SAP Business One fields. However, if your

recordset data is of a simple structure, that is the recordset columns map to a flat XML structure, skip directly to the **Mapping** tab.

HOW DO I DO THIS?

The **Recordset** tab is only available when a recordset is chosen as the **Data Source** in the **General** tab . SAP Business One only accepts XML from the **SAP Business One (DIAPI) Integration** tool, therefore you must use this tab to create the XML structure expected by the **Mapping** tab based on the parent and child relationships of an SAP Business One object.

NOTE: Grand-parenting, that is, having an XML depth of more than one level, is not permitted.

An additional feature is that you can create an XML structure to enable looping on child elements of an object — for example, adding multiple addresses and contact details to a single business partner. For such a case, you would create the structure with a parent **Key** element which determine when a new header is found. For more information, refer to our knowledge base article, [The recommended SQL structure to generate multiple child records](#).

The **Recordset Columns** pane displays the recordset columns as a flat list; the XML Structure pane displays the XML as you build it.

Select **Enable Recordset Shaping** to map recordset data to an XML structure.

The **SAP Business One (DIAPI) Integration** tool creates a basic XML structure based on the recordset data source. To set an XML element as the key, right-click on the XML element (right-hand pane) and select **Set as Key**.

TIP: If the XML structure you are creating contains multiple child elements, remove the XML elements from the XML structure now (right-click on the field and select **Remove**) to ensure you don't create duplicate elements.

To create a new child element, right-click on the required recordset column name and select **Add new child element**.

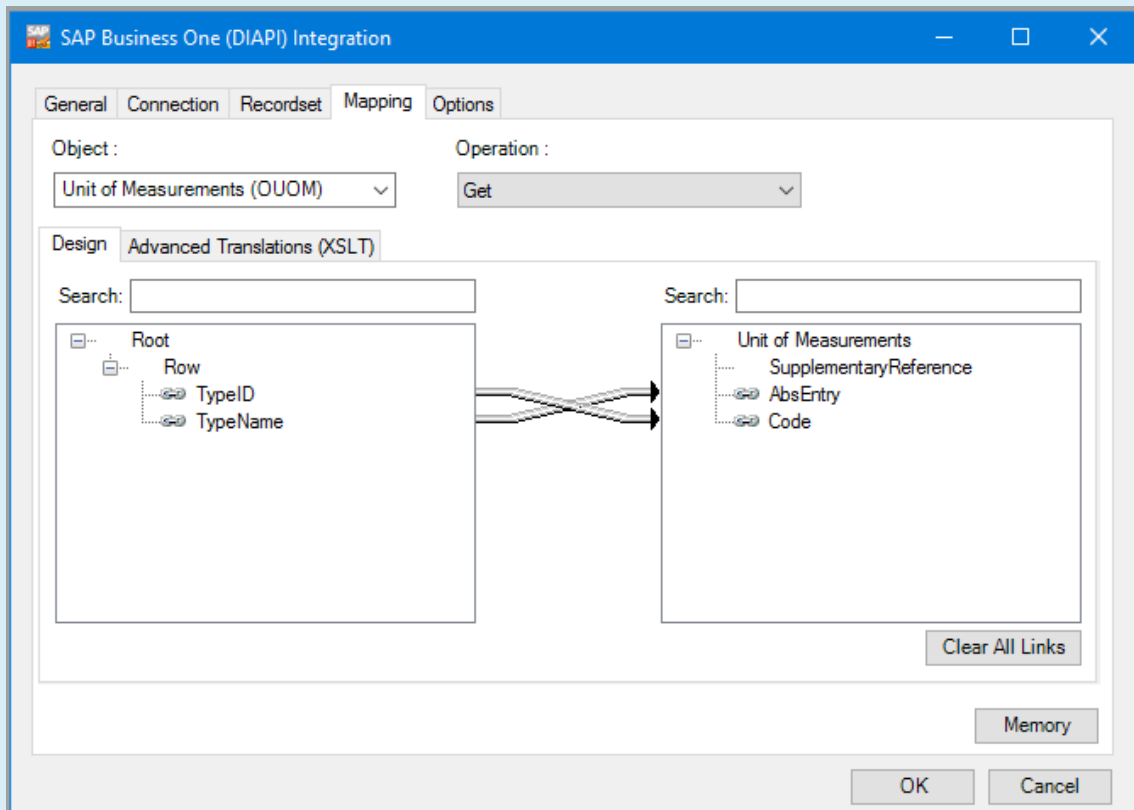
Provide a **Name** for the child element. This has a maximum of 64 characters and uses XML-supported characters only. The new child element appears in the **XML Structure** pane with the chosen recordset column as a field.

To add a recordset column to the new child node, right-click on the relevant column name and select **Add to**. Repeat until the child element has been built.

To remove a field from a child element, right-click on the field in the **XML Structure** pane and select **Remove**. To remove a child element in its entirety, you must remove each field first. Removing the final field removes the child element.

4. Go to the **Mapping** tab and map the relevant input data source elements to the SAP Business One operation and elements.

HOW DO I DO THIS?



The **Object** drop-down shows the SAP Business One objects. If exposed, user-defined fields, objects, and tables are also made available for selection here. The **Operations** drop-down shows the operations available for the selected **Object**.

Further down, the left-hand XML tree structure shows those data source fields available for mapping. The right-hand XML tree structure displays those input fields for the selected **Object** and **Operation**.

TIP: If you have selected **No data source** in the **General** tab, you must add BPA Platform formulas and variables to the left-hand data source XML tree structure before mapping.

Creating Mappings

Create links by dragging and dropping a data source field (left) onto its corresponding **SAP Business One (DIAPI) Integration** input field (right). Only linked fields are used in the output XML.

BPA Platform formulas and variables can be included in the source data even when using a **Task step** or **Custom schema** — drag them from the BPA Platform Browser to the data source's XML; these can then be linked to the relevant input fields. BPA Platform recordsets must first be converted to XML using either the **Convert Recordset to XML** or **Transform Data** tool before they can be used here.

Each operation has an additional field, **SupplementaryReference**, which allows for traceability when transferring data from one place to another. When mapped, the data resides locally at runtime. It is added to the output, and creates a record for reference purposes only — you can choose to map any field to **SupplementaryReference** to assist with checking where the data originated from or at what time the data transfer occurred, for example.

The **SAP Business One (DIAPI) Integration** tool uses eXtensible Stylesheet Language Transformations (XSLT) to translate the received XML. The **Advanced Translations (XSLT)** tab shows the XSLT generated for the links created for the object and operation. Use **Enable Free Type Mode** to directly edit the XSLT — this is particularly useful when translating a non-standard requirement.

Refreshing the SAP Business One (DIAPI) Integration's Schema

If new fields, objects, and operations have been added to your SAP Business One company database after this task step was originally created, use **Schema Refresh** to make the latest API metadata available for use.

5. Go to the **Options** tab and select the relevant error handling options for this task step.

HOW DO I DO THIS?

If an error occurs, you can decide whether the step should **Continue** processing, or terminate the step immediately (**Abort Step**).

If the step is aborted, you can choose to **Continue** processing onto the next step in the task, or terminate the whole task immediately (**Abort Task**). By allowing the task to **Continue**, you can use the error XML received back in a **Save File** step for investigation purposes, for example.

6. Click **OK** to save and close the step.

How to Add an SAP Business One (SL) Integration Task Step

To add a **SAP Business One (SL) Integration** step to an existing task, do the following. For a detailed description of how to create a new task, refer to the BPA Platform product help.

This article assumes you have installed the **SAP Business One (SL) Integration** component of the **SAP Business One Integration Tool Pack** — see [How to Install the SAP Business One \(SL\) Integration Tool](#).

PreTask Checklist

The following prerequisites must be met before creating the **SAP Business One (SL) Integration** step.

Item	Description	Prerequisite
Install the SAP Business One (SL) Integration Agent	The SAP Business One (SL) Integration Agent interfaces directly with the SAP Service Layer and the SAP Business One (SL) Integration tool — see How to Install the SAP Business One (SL) Integration Agent .	Installed Y / N
SAP Business One User Credentials	To access the Service Layer, the SAP Business One (SL) Integration Agent requires a dedicated SAP Business One user account. This user must have Super User permissions.	SAP Business One user credentials Username: Password:

Creating the Connection to the SAP Business One (SL) Integration Agent

To create the connection, do the following:

1. Log into the BPA Platform client and from the resources tree, go to **System > Tools > Data Connectors > SAP Business One (SL) Integration**.
2. Click **Add**.
3. Enter a unique and meaningful **Connection Name**.
4. Enter the **Integration Agent Server** name (as hostname, IP address, or URL) for where the **SAP Business One (SL) Integration Agent** is installed.
5. Go to the **Service Layer Connection** tab.
6. Specify the **Server Address** (as hostname, IP address, or URL) of where the Service Layer is located.

7. Connections to the Service Layer must always be over HTTPS.
Click **Advanced** and ensure **Use HTTPS** is selected.
8. Go to the **Authentication** tab.
9. Enter the credentials for the allocated SAP Business One user — see [SAP Business One User Credentials](#).
10. Enter the **Company Database** this instance of the **SAP Business One (SL) Integration Agent** interacts with.
Note that this is case-sensitive.
11. At this point, use **Test Connection** to ensure all entered details are correct and a connection to the various aspects of SAP Business One can be established.
12. Click **OK** to save the changes.

Adding a New Task Step

When creating new tasks, the **SAP Business One (SL) Integration** tool is located under **Data Connectors** of the Task Browser.

To add a new **SAP Business One (SL) Integration** step to an existing task, do the following:

From the relevant task, either:

- ▶ Click and drag the **SAP Business One (SL) Integration** icon from the **Task Browser** to the task **Design** area.
- ▶ From the task's **Design** tab, right-click on empty space and select **New > Data Connectors > SAP Business One (SL) Integration**.

For a detailed description of how to create new tasks, refer to the product help.

NOTE: It is not possible to add the tool into the task until at least one connection to a company database has been defined in the tool's Global Configuration — see [Global Configuration](#).

1. Use the **General** tab to choose the BPA Platform data source to be mapped to the SAP Business One objects.
You can map data source objects from either an XML or recordset source.

HOW DO I DO THIS?

The screenshot shows a configuration window titled "SAP Business One (SL) Integration". It has five tabs: "General", "Connection", "Recordset", "Mapping", and "Options". The "General" tab is active. In the "Name" field, the text "SAP Business One (SL) Integration" is entered. Below it is a large empty text area for the "Description". Under the "Data source" section, there are three radio button options: "No data source", "Task step :", and "Custom schema :". The "Task step :" option is selected, and a dropdown menu next to it shows "Results from DBQ - Types". Below the dropdown is a "Define" button. There is also an "Input source variable :" field which is currently empty. A note below this field says "Drag a variable that will contain the XML data from the Task browser window to the text box above." At the bottom right of the dialog are "OK" and "Cancel" buttons.

Provide a meaningful **Name** and **Description** for this step.

TIP: If this task instance makes use of two or more **SAP Business One (SL) Integration** steps, ensure the **Name** used is unique for each individual step.

Data source can either be:

- ▶ **No data source** — If you don't make use of a dedicated XML or recordset input source, select this option to use BPA Platform variables in place of the XML or recordset objects' fields.

For example, you can extract various bits of information from an email and store them in BPA Platform variables. The variables are mapped to SAP Business One operational objects and fields to store in the database for later use.
- ▶ **Task step** — The data source can be set to an available BPA Platform XML or recordset data source.

Only those steps that are capable of natively exposing an XML document or recordset at runtime are listed. This may be another **SAP Business One (SL) Integration** step, or a tool such as **Retrieve Text Message** or **Database Query (ODBC)**.

▶ **Custom schema** — If using a recordset input data source, this option does not apply. An XML schema defines the structure of the parsed XML: what tags are present, and the nesting of the tags. You **Define** the schema of the XML that is used as the input data source for this step. The **SAP Business One (SL) Integration** tool uses the industry standard XSD format. Any XML processed by this step must conform to this schema else an error will be reported.

If the XSD schema is available, either import it into the **Custom Schema Configuration** (use the **Import XSD/XML File** button), or copy and paste it into the configuration box.

If the XSD schema is not available, you can import an example of the runtime XML (**Import XSD/XML File**), or copy and paste it into the configuration box. Use the **Parse** button to create the schema.

- **Input source variable** — If using a recordset input data source, this option does not apply. As well as defining the schema, specify the BPA Platform variable that contains the XML data at runtime.

2. Go to the **Connection** tab and select the relevant global connection for this task step. Although you can setup multiple global connections, each to a individual SAP Business One company database, the **Connector** can only process data from a single connection.

HOW DO I DO THIS?

All connections created in the global configuration window are presented here.

Alternatively, you can use a BPA Platform variable or formula to create a dynamic connection, where the connection used is determined by runtime circumstances. At runtime, the contents of the variable must match the name of one of the Global Configuration connections — this is case-sensitive.

3. (Optional) The **Recordset** tab is only available if a recordset is set as the **Data Source** in the **General** tab. You must create the input XML from the recordset before you map SAP Business One fields. However, if your recordset data is of a simple structure, that is the recordset columns map to a flat XML structure, skip directly to the **Mapping** tab.

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NOTE: Grand-parenting, that is, having an XML depth of more than one level, is not permitted.

An additional feature is that you can create an XML structure to enable looping on child elements of an object — for example, adding multiple addresses and contact details to a single business partner. For such a case, you would create the structure with a parent **Key** element which determine when a new header is found. For more information, refer to our knowledge base article, [The recommended SQL structure to generate multiple child records](#).

The **Recordset Columns** pane displays the recordset columns as a flat list; the XML Structure pane displays the XML as you build it.

Select **Enable Recordset Shaping** to map recordset data to an XML structure.

The **SAP Business One (SL) Integration** tool creates a basic XML structure based on the recordset data source. To set an XML element as the key, right-click on the XML element (right-hand pane) and select **Set as Key**.

TIP: If the XML structure you are creating contains multiple child elements, remove the XML elements from the XML structure now (right-click on the field and select **Remove**) to ensure you don't create duplicate elements.

To create a new child element, right-click on the required recordset column name and select **Add new child element**.

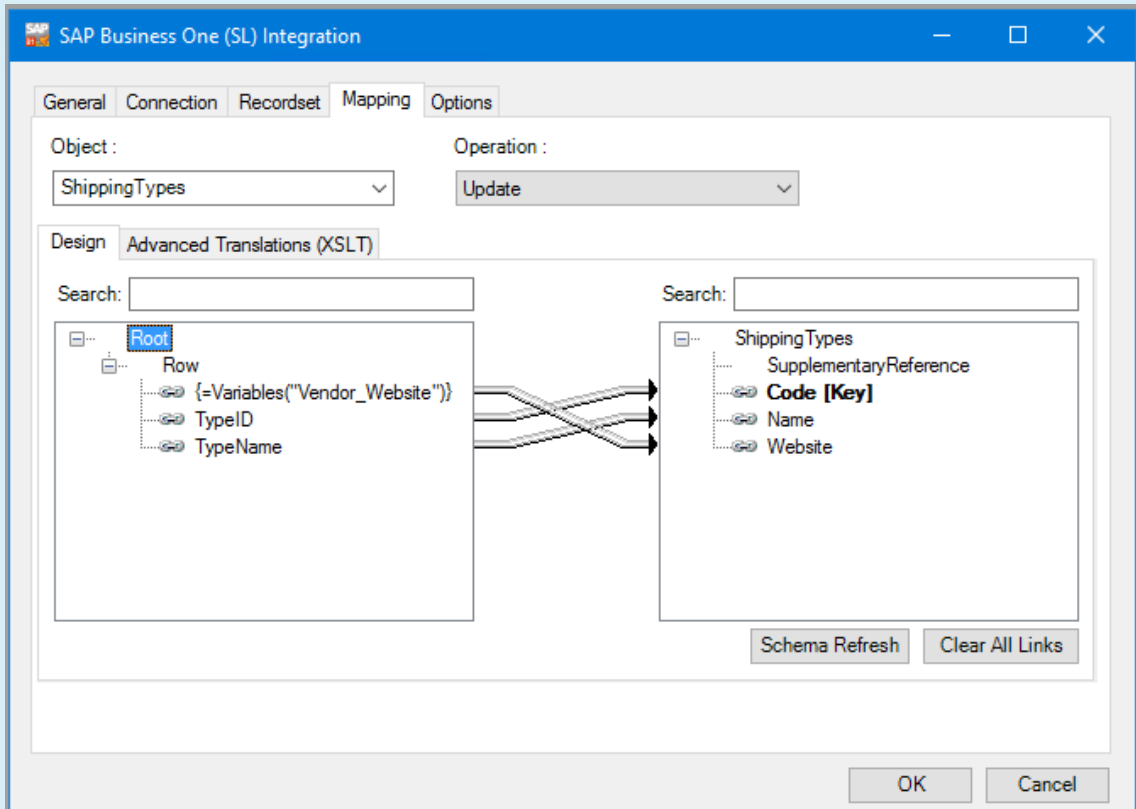
Provide a **Name** for the child element. This has a maximum of 64 characters and uses XML-supported characters only. The new child element appears in the **XML Structure** pane with the chosen recordset column as a field.

To add a recordset column to the new child node, right-click on the relevant column name and select **Add to**. Repeat until the child element has been built.

To remove a field from a child element, right-click on the field in the **XML Structure** pane and select **Remove**. To remove a child element in its entirety, you must remove each field first. Removing the final field removes the child element.

4. Go to the **Mapping** tab and map the relevant input data source elements to the SAP Business One operation and elements.

HOW DO I DO THIS?



The **Object** drop-down shows the SAP Business One objects. If exposed, user-defined fields and objects are also made available for selection here. The **Operations** drop-down shows the operations available for the selected **Object**

Further down, the left-hand XML tree structure shows those data source fields available for mapping. The right-hand XML tree structure displays those input fields for the selected **Object** and **Operation**.

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Creating Mappings

Create links by dragging and dropping a data source field (left) onto its corresponding **SAP Business One (SL) Integration** input field (right). Only linked fields are used in the output XML.

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Refreshing the SAP Business One (SL) Integration's Schema

If new fields, objects, and operations have been added to your SAP Business One company database after this task step was originally created, use **Schema Refresh** to make the latest API metadata available for use.

5. Go to the **Options** tab and select the relevant error handling options for this task step.

HOW DO I DO THIS?

If an error occurs, you can decide whether the step should **Continue** processing, or terminate the step immediately (**Abort**).

If the step is aborted, you can choose to **Continue** processing onto the next step in the task, or terminate the whole task immediately (**Abort Task**). By allowing the task to **Continue**, you can use the error XML received back in a **Save File** step for investigation purposes, for example.

6. Click **OK** to save and close the step.

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