blueprism®

Blue Prism 6.10

Chrome, Edge, and Firefox Integration

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Contents

Chrome, Edge, and Firefox integration

Native support for automating web pages and applications in Google Chrome, the Chromium-based version of Microsoft Edge, and Mozilla Firefox web browsers is provided in Blue Prism® using Blue Prism browser extensions. The extensions allow Blue Prism to interact with web pages and applications presented in these browsers, so that business processes that rely on such applications and web pages can easily be modelled.

The Blue Prism extensions establish connectivity with Blue Prism, allowing Blue Prism to interact with web pages in Chrome, Edge, and Firefox, so data can be exchanged and elements automated. The communication is established either via a fixed browser port (31924) or a port dynamically selected from the ephemeral range (see Browser automation via ephemeral ports versus fixed ports for more details).

- From 6.8 onwards, the default communication is via an ephemeral port. The system setting Use fixed browser extension port (31924) only must be enabled if a fixed port connection is required. See 6.8 upgrade notices for more details.

- From 6.10.3 onwards, the communication between browser extensions and Blue Prism depends on the deployment scenario. See 6.10.3 upgrade notices for more details.

There are three Blue Prism browser extensions:

- **Chrome** – Used to automate applications and web pages in Chrome.
- **Firefox** – Used to automate applications and web pages in Firefox.
- **Edge** – Used to automate applications and web pages in Microsoft Edge.

Browser extension compatibility

For up-to-date testing and compatibility data about the Blue Prism browser extensions, see the Browser extension compatibility matrix.

Chrome browser extension

The Blue Prism Chrome browser extension establishes connectivity with Blue Prism, allowing Blue Prism to interact with Chrome applications and web pages so data can be exchanged and elements manipulated.

The Blue Prism browser extensions should be installed on any machine that will be used to automate Chrome.

> For details of browser extension and Blue Prism versions, see browser extension compatibility.

Prerequisites

The following are required:

- Access to the Chrome web store for online installations
- Extension package for offline installations
- The ability to configure Chrome add-ons

Install the Chrome browser extension using the Blue Prism installer

The Blue Prism installer applies a registry key that installs the Blue Prism extension the next time the browser is started. The installer can be run using the graphical user interface or from the command line.

Install from the Blue Prism installer

Using the advanced installation option, you can determine which browser extensions (and other optional features) are installed.

1. Run the appropriate Blue Prism installer for your system – 32-bit or 64-bit.

2. Select **Advanced install** from the Install location page of the install wizard.

3. Click **Next** and select the Chrome browser extension and any other features you want to install.
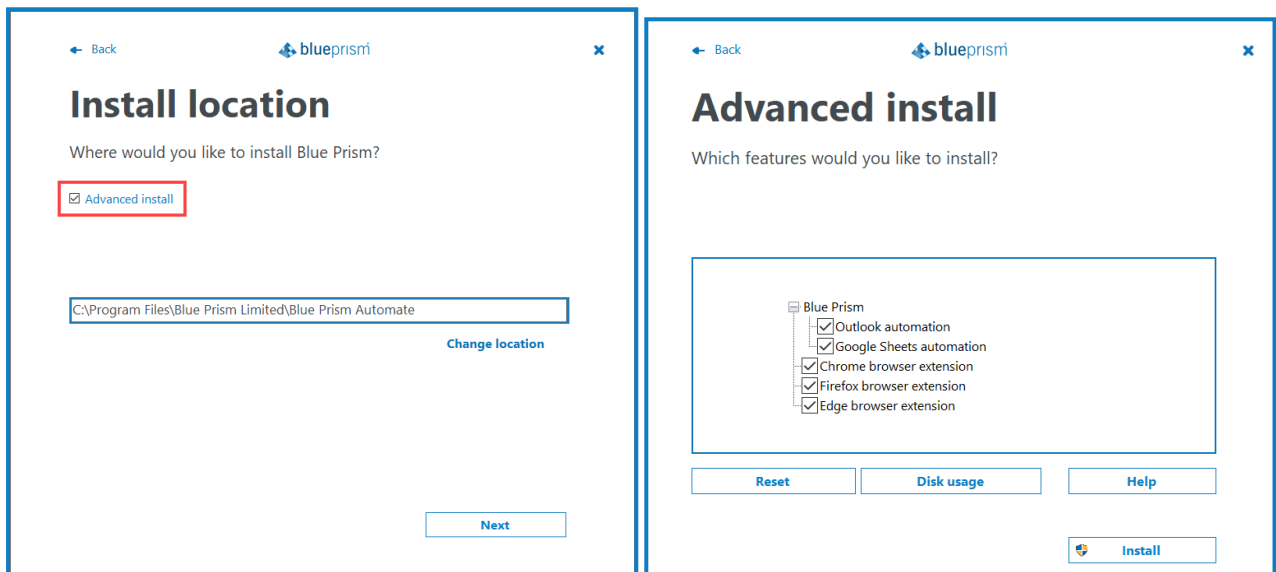
4. Click **Install** and complete the installation.

> 🖊 During an upgrade, the settings already applied for the current installation are maintained unless edited in the advanced install options.

Install from the command line

The following command line options are available for installing Blue Prism and setting the registry key for the Chrome extension. The example commands are for the 6.10 version of Blue Prism – update the version number as required.

Command	Description
`msiexec /i BluePrism6.10.3_x64 /qn` `msiexec /i BluePrism6.10.3_x86 /qn`	Installs Blue Prism and sets Chrome extension registry key as well as those for Edge and Firefox.
`msiexec /i BluePrism6.10.3_x64 ADDLOCAL=BluePrism,BPServer /qn` `msiexec /i BluePrism6.10.3_x86 ADDLOCAL=BluePrism,BPServer /qn`	Installs Blue Prism without setting the browser extension registry keys.
`msiexec /i BluePrism6.10.3_x64 ADDLOCAL=ChromePlugin /qn` `msiexec /i BluePrism6.10.3_x86 ADDLOCAL=ChromePlugin /qn`	Adds the Chrome extension registry key to an existing installation of Blue Prism.

The ADDLOCAL property can also be used to install multiple Blue Prism components by separating them with a comma. The following command installs 64-bit versions of Blue Prism, and the Chrome, Edge, and Firefox extensions:

```
msiexec /i BluePrism6.10.3_x64
ADDLOCAL=BluePrism,BPServer,ChromePlugin,EdgePlugin,FirefoxPlugin /qn
```

The *BluePrism* and *BPServer* components must both be specified to install or upgrade Blue Prism when using the ADDLOCAL parameters. They cannot be used in isolation.

Install the Chrome browser extension from the web store

The Blue Prism Chrome extension can be installed via the Chrome web store using the appropriate URL for your version of Blue Prism.

- **Blue Prism version: 6.10.3** – compatible extension version: 6.10.3

  https://chrome.google.com/webstore/detail/blue-prism-6103-browser-e/oiapacjhgpaojehgcndepionkjphanoe

- **Blue Prism version: 6.10.2** – compatible extension version: 6.10.2

  https://chrome.google.com/webstore/detail/blue-prism-6102-browser-e/bnkfnbanaddcalcbanfmlbeljhbhjmba

- **Blue Prism version: 6.10.1** – compatible extension version: 6.10.1

  https://chrome.google.com/webstore/detail/blue-prism-6101-browser-e/ocmhoiiilbobfmailfagflkbgagjddem

- **Blue Prism version: 6.10** – compatible extension version: 6.10.0

  https://chrome.google.com/webstore/detail/blue-prism-610-browser-ex/aaoedoanmdcohhdbadkgjjfdmbbmiffe

To install the browser extension for Chrome:

1. Open Chrome.
2. Paste the URL for the required version into the address bar of the browser.
3. Click **Add to Chrome** and confirm the installation when prompted.

A notification displays when installation is complete and the Blue Prism extension icon is added to the browser toolbar.
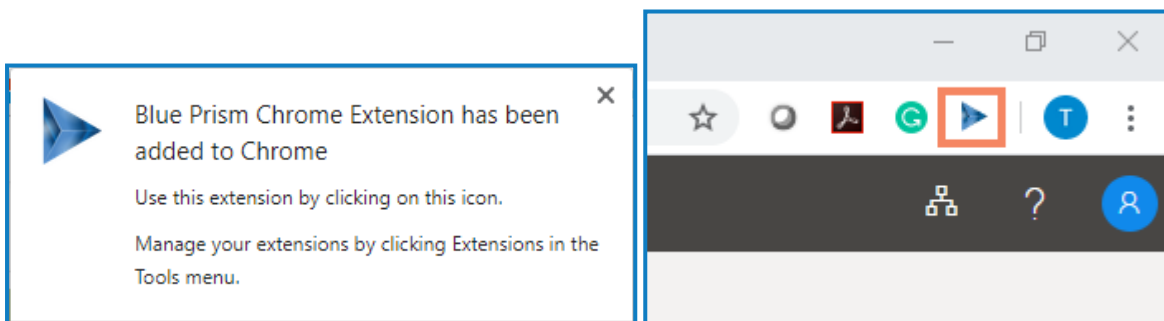
Install the Chrome browser extension using an offline package

If the browser extension has already been installed, updated extensions that are made available after a Blue Prism release are automatically updated when the browser is loaded if there is an active internet connection. For devices that are not connected to the internet, the Blue Prism Chrome extension can be installed offline using an independent package. The extension will need to be installed separately for each user on each device that needs to use the extension.

To install the browser extension for Chrome:

1. Download the required extension package from the web store, see URLs for applicable Blue Prism version above.

2. Create a ZIP file of the downloaded extension.

   Extensions are stored in the folder C:\Users\'Username'\Appdata\Local\'extension-path', for example for Blue Prism 6.10.0: C:\Users\'Username'\Appdata\Local\Google\Chrome\User Data\Default\Extensions\aaoedoanmdcohhdbadkgjjfdmbbmiffe

   Select all files in the 6.10.0.0_0 folder and add them to a ZIP file.

3. Open Chrome.

4. Click the menu (...) icon and select **More Tools** > **Extensions**.
   chrome://extensions displays with the existing extensions.

   > If you have installed Blue Prism using the installer, you will see a Blue Prism extension on this page. This is a managed extension (indicated with the managed icon), as such, you can not remove or turn off the extension from this page.

5. Switch the page into **Developer mode** using the slider.

6. In Windows Explorer, navigate to the extension ZIP file then drag and drop it into the Chrome Developer page.

   The extension installs and displays on the page.

7. Switch the page back into standard mode using the **Developer mode** slider.

> Ensure you turn off Developer mode after installing the extension. Leaving your browser in Developer mode can be a security risk.

Chrome browser extension registry keys

The following registry keys are applied when installing the browser extension with the Blue Prism installer to instruct the browser to add the Blue Prism extension.

For situations where the browser extension is to be installed independently or, where the registry value applied by the installer is prevented from persisting, such as if network restrictions override them, the setting can be applied using an alternative deployment method, such as Group Policy or Local Security Policy.

Registry Key	HKEY_LOCAL_ MACHINE\SOFTWARE\Policies\Google\Chrome\ExtensionInstallForcelist
Name	1
Type	REG_SZ
Data	6.10.3: oiapacjhgpaojehgcndepionkjphanoe;https://clients2.google.com/service/update2/crx 6.10.2: iocdkbelimmjibfmcmaejoalnlmdfjje;https://clients2.google.com/service/update2/crx 6.10.1: ocmhoiiilbobfmailfagflkbgagjddem;https://clients2.google.com/service/update2/crx 6.10.0: aaoedoanmdcohhdbadkgjjfdmbbmiffe;https://clients2.google.com/service/update2/crx

Remove the Chrome Blue Prism extension

Remove using browser options

Select **Remove from Chrome** from the extension options.
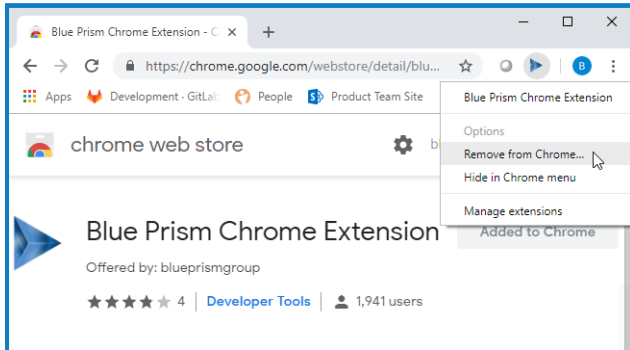
Remove using the Blue Prism installer

Run the Blue Prism installer and on the Advanced Install page, select **Change features** and deselect the Chrome extension.
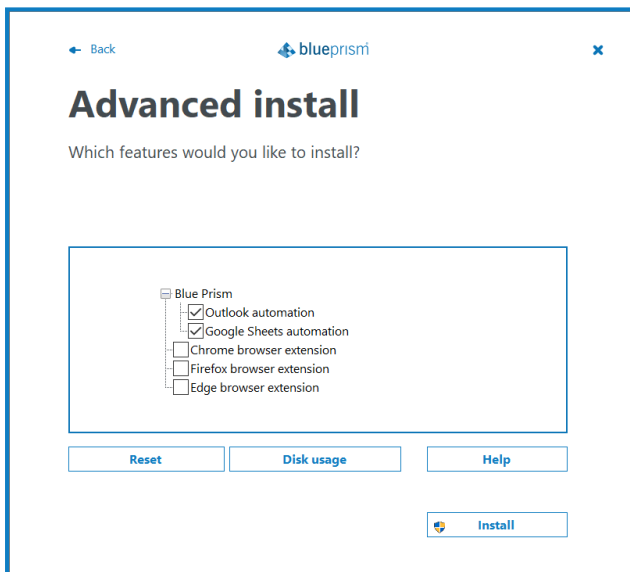
The registry key is deleted and the extension is removed. Alternatively, delete the registry key manually using a registry editor.

Remove using Local Security Policy or Group Policy

To uninstall the Blue Prism Chrome extension, remove the value from the specified registry key or delete the entire key if none of the associated settings are required.

Edge browser extension

The Blue Prism Edge browser extension establishes connectivity with Blue Prism, allowing Blue Prism to interact with Chromium-based Edge applications and web pages so data can be exchanged and elements manipulated.

The Blue Prism browser extension should be installed on any machine that will be used to automate Edge.

> For details of browser extension and Blue Prism versions, see browser extension compatibility.

Prerequisites

The following are required:

- Access to the Edge web store for online installations
- Extension package for offline installations
- The ability to configure Edge add-ons

Install the Edge browser extension using the Blue Prism installer

The Blue Prism installer applies a registry key that installs the Blue Prism extension the next time the browser is started. The installer can be run using the graphical user interface or from the command line.

Install from the Blue Prism installer

Using the advanced installation option, you can determine which browser extensions (and other optional features) are installed.

1. Run the appropriate Blue Prism installer for your system – 32-bit or 64-bit.

2. Select **Advanced install** from the Install location page of the install wizard.

3. Click **Next** and select the Edge browser extension and any other features you want to install.
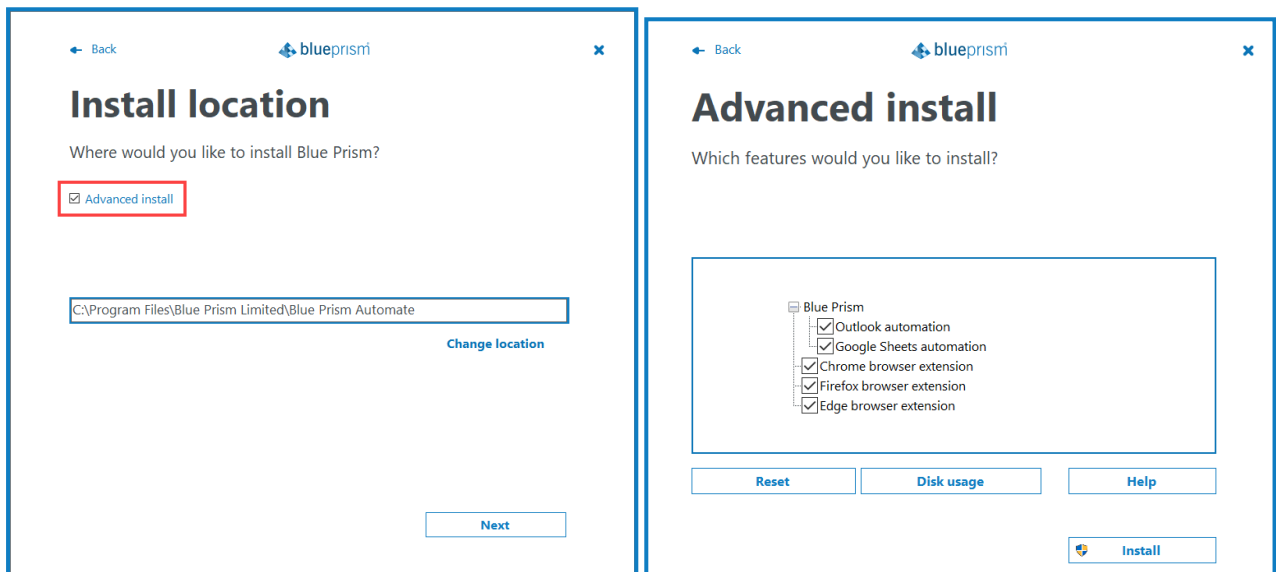
4. Click **Install**.

5. Click **Install** and complete the installation.

6. When installation is complete, open Edge and type *edge://extensions* in the address bar.

7. Enable the browser extension using the slider.
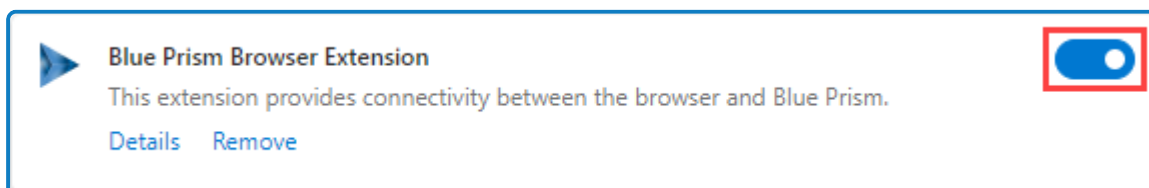
During an upgrade, the settings already applied for the current installation are maintained unless edited in the advanced install options.

Install from the command line

The following command line options are available for installing Blue Prism and setting the registry key for the Edge extension. The example commands are for the 6.10 version of Blue Prism – update the version number as required.

Command	Description
`msiexec /i BluePrism6.10.3_x64 /qn` `msiexec /i BluePrism6.10.3_x86 /qn`	Installs Blue Prism and sets Edge extension registry key as well as those for Chrome and Firefox.
`msiexec /i BluePrism6.10.3_x64 ADDLOCAL=BluePrism,BPServer /qn` `msiexec /i BluePrism6.10.3_x86 ADDLOCAL=BluePrism,BPServer /qn`	Installs Blue Prism without setting the browser extension registry keys.
`msiexec /i BluePrism6.10.3_x64 ADDLOCAL=EdgePlugin /qn` `msiexec /i BluePrism6.10.3_x86 ADDLOCAL=EdgePlugin /qn`	Adds the Edge extension registry key to an existing installation of Blue Prism.

The ADDLOCAL property can also be used to install multiple Blue Prism components by separating them with a comma. The following command installs 64-bit versions of Blue Prism, and the Chrome, Edge, and Firefox extensions:

```
msiexec /i BluePrism6.10.3_x64
ADDLOCAL=BluePrism,BPServer,ChromePlugin,EdgePlugin,FirefoxPlugin /qn
```

> The *BluePrism* and *BPServer* components must both be specified to install or upgrade Blue Prism when using the ADDLOCAL parameters. They cannot be used in isolation.

Enable the Edge extension

When installation is complete, open Edge and type *edge://extensions* in the address bar. Enable the extension using the slider.

Install the Edge browser extension from the web store

The Blue Prism Edge browser extension can be installed via the Microsoft Edge add-ons store using the following URL:

- **Blue Prism version: 6.10.3** – compatible extension version: 6.10.3

  https://microsoftedge.microsoft.com/addons/detail/blue-prism-6103-browser/iopomglpadeamepdjjnhcmacjhhpbcda

- **Blue Prism version: 6.10.2** – compatible extension version: 6.10.2

  https://microsoftedge.microsoft.com/addons/detail/blue-prism-6102-browser/mpdplhcjcmelfpjnbhipheipoekblggm

- **Blue Prism version: 6.10.1** – compatible extension version: 6.10.1

  https://microsoftedge.microsoft.com/addons/detail/blue-prism-6101-browser/gdapppmgmiaanopfdghgjbkafmiaidlb

- **Blue Prism version: 6.10** – compatible extension version: 6.10.0

  https://microsoftedge.microsoft.com/addons/detail/hekghghgjpohegdkkakdkgpcgelmemkk

To install the browser extension for Edge:

1. Open Microsoft Edge.
2. Paste the URL for the required version into the address bar of the browser.
3. Click **Get** and confirm the installation when prompted.

A notification displays when installation is complete and the Blue Prism extension icon is added to the browser toolbar.

Install the Edge browser extension using an offline package

If the browser extension has already been installed, updated extensions that are made available after a Blue Prism release are automatically updated when the browser is loaded if there is an active internet connection. For devices that are not connected to the internet, the Blue Prism Edge extension can be installed offline using an independent package. The extension will need to be installed separately for each user on each device that needs to use the extension.

To install the browser extension for Edge:

1. Download the required extension package from the web store, see URLs for applicable Blue Prism version above.

2. Create a ZIP file of the downloaded extension.

   Extensions are stored in the folder C:\Users\'Username'\Appdata\Local\'extension-path', for example for Blue Prism 6.10.0: C:\Users\'Username'\Appdata\Local\Microsoft\Edge\User Data\Default\Extensions\hekghghgjpohegdkkakdkgpcgelmemkk

   Select all files in the 6.10.0.0_0 folder and add them to a ZIP file.

3. Open Edge.

   Click the menu (...) icon and select **Extensions**.
   edge://extensions displays with the existing extensions.

   > ✏️ If you have installed Blue Prism using the installer, you will see a Blue Prism extension on this page.

4. Switch the page into **Developer mode** using the slider.

5. In Windows Explorer, navigate to the extension ZIP file then drag and drop it into the Edge Developer page.
   The extension installs and displays on the page.

6. Switch the page back into standard mode using the **Developer mode** slider.

> ✏️ Ensure you turn off Developer mode after installing the extension. Leaving your browser in Developer mode can be a security risk.

Edge browser extension registry key

The following registry keys are applied when installing the browser extension with the Blue Prism installer to instruct the browser to add the Blue Prism extension.

For situations where the browser extension is to be installed independently or, where the registry value applied by the installer is prevented from persisting, such as if network restrictions override them, the setting can be applied using an alternative deployment method, such as Group Policy or Local Security Policy.

Registry Key	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Edge\Extensions
Name	hekghghgjpohegdkkakdkgpcgelmemkk
Type	REG_SZ
Data	32-bit Windows: HKEY_LOCAL_MACHINE\Software\Microsoft\Edge\Extensions 64-bit Windows: HKEY_LOCAL_MACHINE\Software\Wow6432Node\Microsoft\Edge\Extensions

Remove the Edge browser extension

Remove using browser options

Select **Remove from Microsoft Edge** from the extension options.
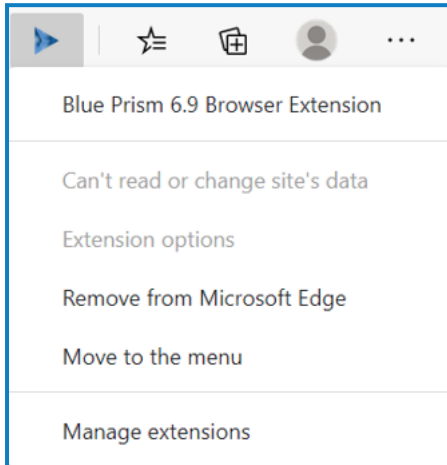
Remove using the Blue Prism installer

Run the Blue Prism installer and on the Advanced Install page, select **Change features** and deselect the Edge extension.
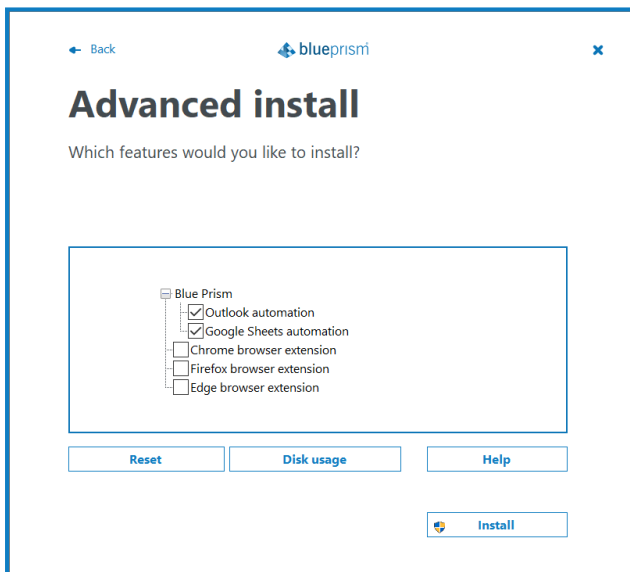
The registry key is deleted and the extension is removed. Alternatively, delete the registry key manually using a registry editor.

Remove using Local Security Policy or Group Policy

To uninstall the Blue Prism Edge extension, remove the value from the specified registry key or delete the entire key if none of the associated settings are required.

Firefox browser extension

The Blue Prism Firefox browser extension establishes connectivity with Blue Prism, allowing Blue Prism to interact with Firefox applications and web pages so data can be exchanged and elements manipulated.

The Blue Prism browser extensions should be installed on any machine that will be used to automate Firefox.

> 🖊 For details of browser extension and Blue Prism versions, see browser extension compatibility.

Prerequisites

The following are required:

- Access to the Firefox web store for online installations
- Extension package for offline installations
- The ability to configure Firefox add-ons

Firefox settings

The Blue Prism Firefox extension requires the following Firefox settings to be applied:

Setting	Value
extensions.autoDisableScopes	0
network.websocket.allowInsecureFromHTTPS	true

For default Firefox installations, the values are automatically applied when the Blue Prism extension is installed. If Firefox is not installed to the default location, the values must be set manually. Enter *about:config* in the Firefox address bar to access the settings.

Install the Firefox browser extension using the Blue Prism installer

The Blue Prism installer applies a registry key that installs the Blue Prism extension the next time the browser is started. The installer can be run using the graphical user interface or from the command line.

Install from the Blue Prism installer

Using the advanced installation option, you can determine which browser extensions (and other optional features) are installed.

1. Run the appropriate Blue Prism installer for your system – 32-bit or 64-bit.

2. Select **Advanced install** from the Install location page of the install wizard.

3. Click **Next** and select the Firefox browser extension and any other features you want to install.
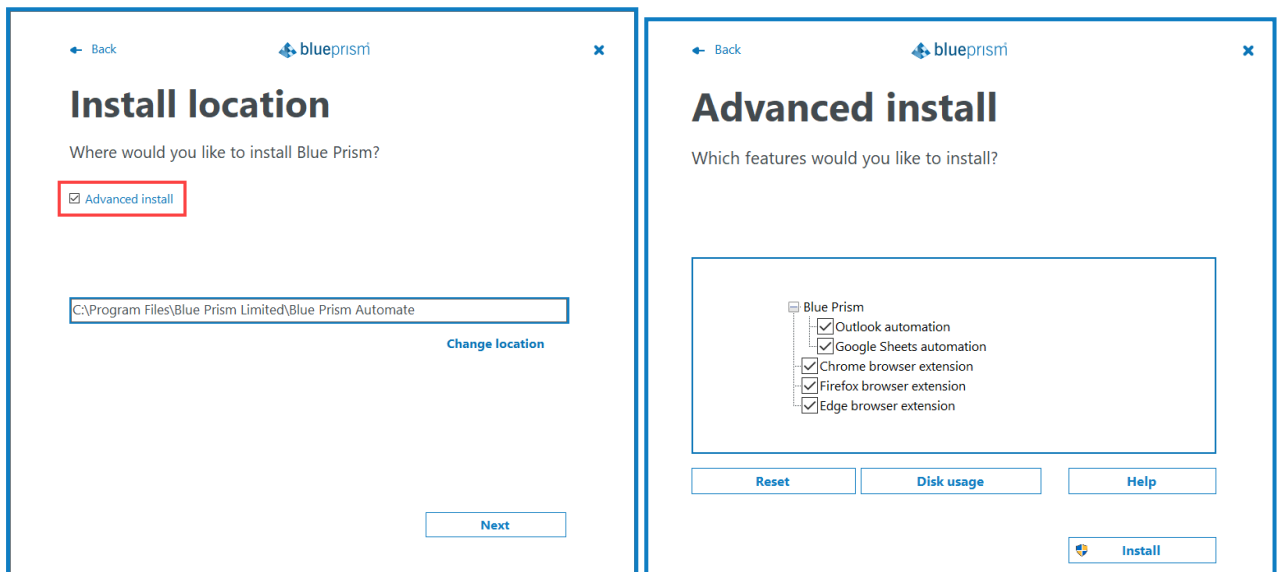
4. Click **Install**.

5. A notification displays prompting you to add the Firefox browser extension. Click **Add** if you want to add the extension now, or **Cancel** if you want to add it from the web store at a later stage.
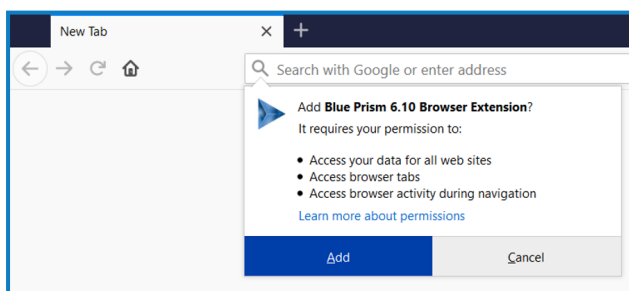
6. Complete the installation.

> During an upgrade, the settings already applied for the current installation are maintained unless edited in the advanced install options.

Install from the command line

The following command line options are available for installing Blue Prism and setting the registry key for the Firefox extension. The example commands are for the 6.10 version of Blue Prism – update the version number as required.

Command	Description
`msiexec /i BluePrism6.10.3_x64 /qn` `msiexec /i BluePrism6.10.3_x86 /qn`	Installs Blue Prism and sets Firefox extension registry key as well as those for Chrome and Edge.
`msiexec /i BluePrism6.10.3_x64 ADDLOCAL=BluePrism,BPServer /qn` `msiexec /i BluePrism6.10.3_x86 ADDLOCAL=BluePrism,BPServer /qn`	Installs Blue Prism without setting the browser extension registry keys.
`msiexec /i BluePrism6.10.3_x64 ADDLOCAL=FirefoxPlugin /qn` `msiexec /i BluePrism6.10.3_x86 ADDLOCAL=FirefoxPlugin /qn`	Adds the Firefox extension registry key to an existing installation of Blue Prism.

The ADDLOCAL property can also be used to install multiple Blue Prism components by separating them with a comma. The following command installs 64-bit versions of Blue Prism, and the Chrome, Edge, and Firefox extensions:

```
msiexec /i BluePrism6.10.3_x64
ADDLOCAL=BluePrism,BPServer,ChromePlugin,EdgePlugin,FirefoxPlugin /qn
```

> The *BluePrism* and *BPServer* components must both be specified to install or upgrade Blue Prism when using the ADDLOCAL parameters. They cannot be used in isolation.

Install the Firefox browser extension from the web store

The Blue Prism Firefox extension can be installed via the Firefox add-ons store using the appropriate URL for your version of Blue Prism:

1. Open Firefox.

2. Paste the URL for the required version into the address bar of the browser.

    *   **Blue Prism version: 6.10.3** – compatible extension version: 6.10.3

        https://addons.mozilla.org/en-US/firefox/addon/blue-prism-6-10-3-extension/

    *   **Blue Prism version: 6.10.2** – compatible extension version: 6.10.2

        https://addons.mozilla.org/en-GB/firefox/addon/blue-prism-6-10-2-extension/

    *   **Blue Prism version: 6.10.1** – compatible extension version: 6.10.1

        https://addons.mozilla.org/en-GB/firefox/addon/blue-prism-6-10-1-extension/

    *   **Blue Prism version: 6.10** – compatible extension version: 6.10.0

        https://addons.mozilla.org/en-GB/firefox/addon/blue-prism-6-10-extension/

3. Click **Add to Firefox** and confirm the installation when prompted.

A notification displays when installation is complete and the Blue Prism extension icon is added to the browser toolbar.
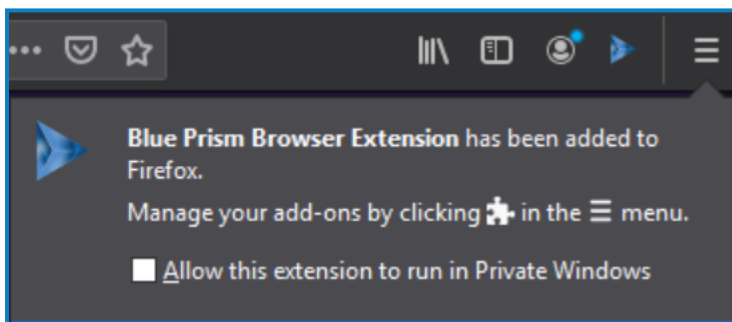
Install the Firefox browser extension using an offline package

If the browser extension has already been installed, updated extensions that are made available after a Blue Prism release are automatically updated when the browser is loaded if there is an active internet connection. For devices that are not connected to the internet, the Blue Prism Firefox extension can be installed offline using an independent package. The extension will need to be installed separately for each user on each device that needs to use the extension. The xpi file for the extension is available from the Blue Prism installation folder.

To install the browser extension for Firefox:

1. Download the required extension package from the web store, see URLs for applicable Blue Prism version above.

2. In Window Explorer, navigate to the Blue Prism installation location, for example, C:/Program Files/Blue Prism Limited/Blue Prism Automate/ and locate Firefox Plugin.xpi.
   If the file is not there, you will need to:

   a. From Start, open Add or Remove Programs, find Blue Prism and select **Modify**.
      The Blue Prism Change, fix, remove wizard displays.

   b. Click **Change features**.

   c. Select Firefox browser extension, click **Install** and complete the installation.

3. Open Firefox.

4. Click the menu icon and select **Options**.
   about:preferences displays.

5. Click **Extensions & Themes** and then click **Extensions**.
   about:addons displays with the existing and recommended extensions.

   > ✎ If you have installed Blue Prism using the installer, you will see a Blue Prism extension on this page.

6. Drag and drop the Firefox Plugin.xpi from Windows Explorer to the Extensions page.
   A confirmation message displays.

7. Click **Add**.
   The extension installs and displays on the page.

Firefox browser extension registry keys

The following registry keys are applied when installing the browser extension with the Blue Prism installer to instruct the browser to add the Blue Prism extension.

For situations where the browser extension is to be installed independently or, where the registry value applied by the installer is prevented from persisting, such as if network restrictions override them, the setting can be applied using an alternative deployment method, such as Group Policy or Local Security Policy.

Registry Key	HKEY_LOCAL_MACHINE\SOFTWARE\Mozilla\Firefox\Extensions
Name	{e385850c-828c-4c0e-96fc-c5dcc5bf947f}
Type	REG_SZ
Data	Example: https://addons.mozilla.org/en-GB/firefox/addon/blue-prism-6-10-extension/ or C:\Program Files\Blue Prism Limited\Blue Prism Automate\FirefoxPlugin.xpi

For custom install locations the path in the data value for the Firefox key is updated accordingly.

Remove the Firefox browser extension

Remove using browser options

Click **Disable** from the Manage Extension options.
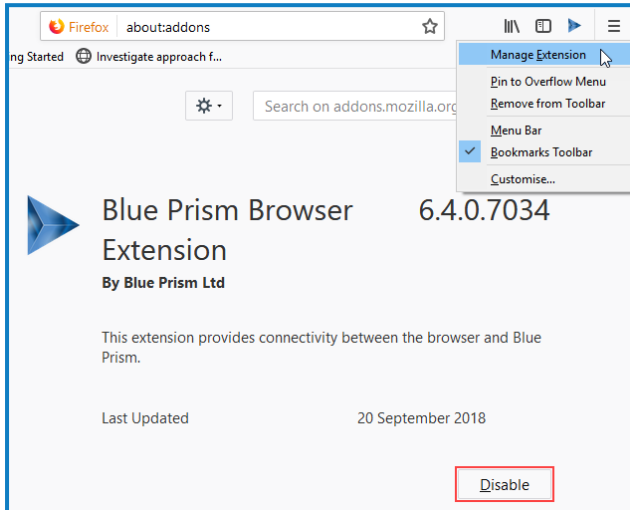
Remove using the Blue Prism installer

Run the Blue Prism installer and on the Advanced Install page, select **Change features** and deselect the Firefox extension.
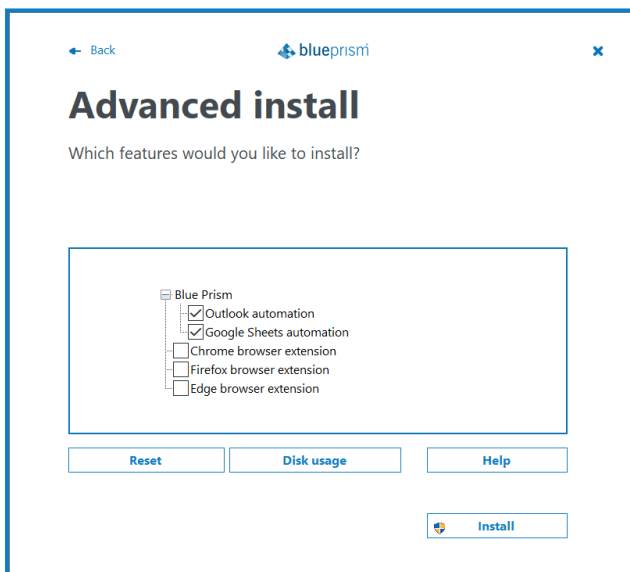
The registry key is deleted and the extension is removed. Alternatively, delete the registry key manually using a registry editor.

Remove using Local Security Policy or Group Policy

To uninstall the Blue Prism Firefox extension, remove the value from the specified registry key or delete the entire key if none of the associated settings are required.

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Blue Prism 6.10 | Chrome, Edge, and Firefox Integration
Automate Chrome, Edge, and Firefox with the Application Modeller

Automate Chrome, Edge, and Firefox with the Application Modeller

A dedicated spy mode is available in the Application Modeller for interacting with Chrome, Edge, and Firefox.

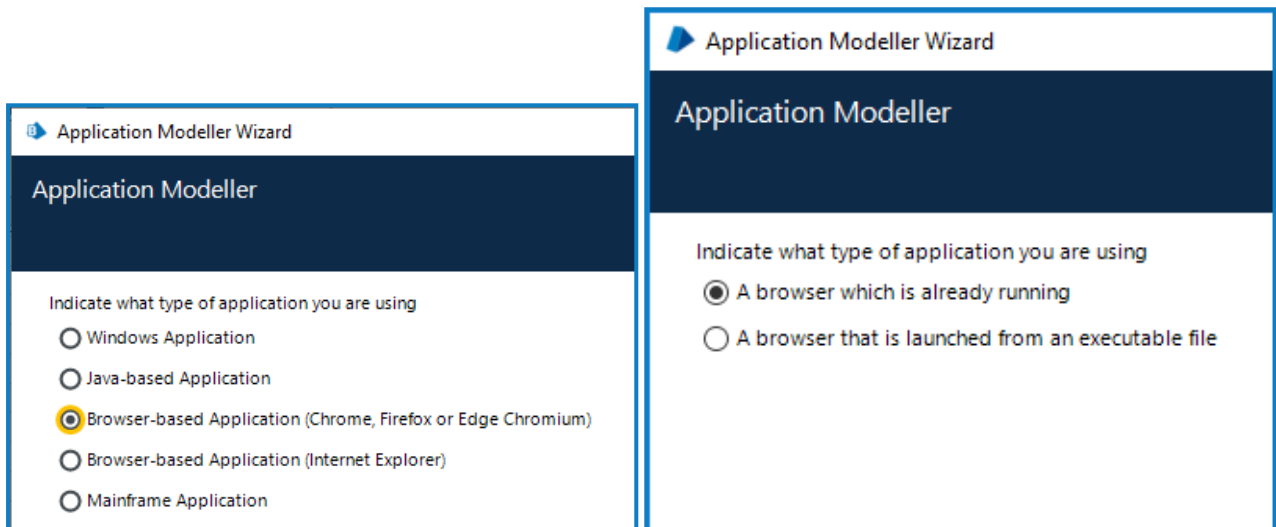1. In the Application Modeller wizard, enter a name for the application model and click **Next**.

2. Select the **Browser-based Application (Chrome, Firefox or Edge Chromium)** option. You can then choose to continue using a browser that is already running or a browser launched from an executable.

3. Continue through the wizard, completing the following fields:

    - **Target page title** – When configuring the Application Modeller using a browser that is already running, the window title can be specified. This ensures that the correct tab or window is identified when attaching to the browser. The visible window title is sometimes appended with further text that is not visible to users. Blue Prism adds a * wildcard at the end of the entered text to ensure that the window can be correctly identified. If the window title is not found for attaching, Blue Prism uses the executable to open Chrome, Edge, or Firefox. If the executable path is left blank, an error occurs if Blue Prism fails to attach.

      > 🖊️ This option is only available when modelling a browser that is running.

    - **Executable path** – The location of the Chrome, Edge, or Firefox executable required by Blue Prism to open the application. This must be the full path, including the file type.

    - **Start page URL** – The address of the browser application or web page to be spied. Several URLs can be added, separated by a space. Command line parameters can be appended to a URL, also separated by a space.

      If a URL is not entered, the browser opens the home page set on the machine when using the fixed browser extension port. When using an ephemeral port, the browser opens an about:blank URL and the user must enter a valid URL.

    - **Application manager mode** – The browser extension is only compatible with the *Embedded (Default)* Application Modeller mode when launching or attaching to Chrome, Edge, or Firefox.

A list of web page attributes and their descriptions for Chrome, Edge, and Firefox automation is available here.

Browser automation via ephemeral ports versus fixed ports

The browser automation capabilities are dependent on whether the communication is established via a fixed browser port (31924) or a port dynamically selected from the ephemeral range.

Ephemeral port	Fixed port
Multiple instances of Blue Prism can launch multiple browser windows. Multiple browser windows can be spied on the same device without conflict.	Only one instance of Blue Prism can launch a browser at any one time. A single instance can launch multiple browser windows via separate objects but when an action is performed it is done against all web pages. For example, if a Terminate action is performed, all the connected browsers would close.
A tracking ID can be used to restrict actions to specific browsers when automating multiple browsers from one or more instances of Blue Prism.	A tracking ID can only be used in environments configured to use ephemeral ports. An error message displays if the user attempts to use it in environments configured to use a fixed port.

Browser automation in environments configured to use ephemeral ports

In environments configured to use ephemeral ports, you can open multiple instances of Blue Prism and spy multiple browser instances on the same device without conflict. If a user has two or more separate instances of Blue Prism on the same Windows environment, they can launch a browser from each Blue Prism instance and only spy the browsers launched by a particular instance.

A unique **Tracking ID** field can be used in the input or output parameters of various stages to restrict spying to a specific browser.

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In the example below, when launching a browser instance, a tracking ID can be applied as an output parameter in the Navigate stage and stored in a text data item.
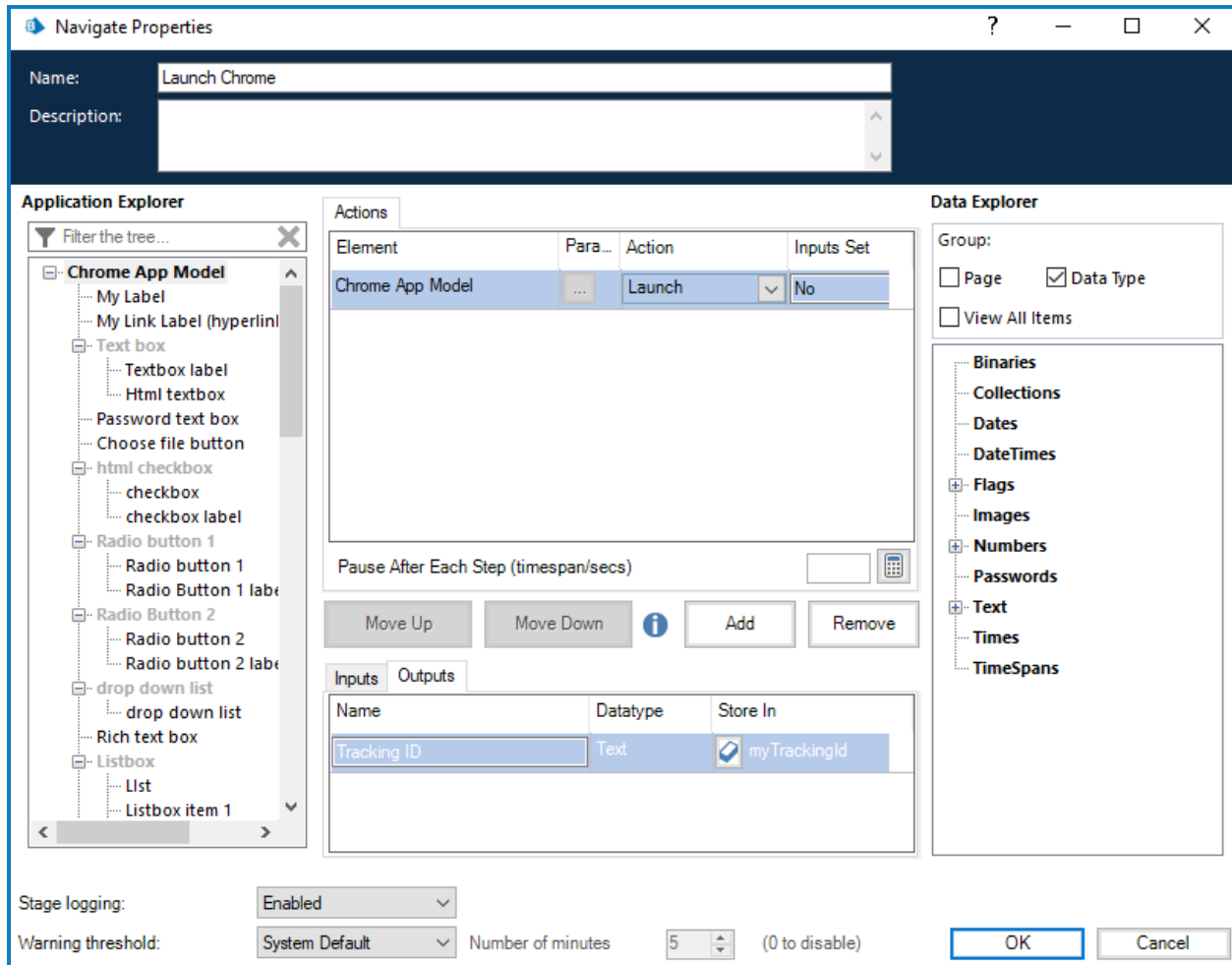
When detaching or terminating a browser instance, a tracking ID can be applied as an input parameter in the Navigate stage and only that instance of the browser will be detached/terminated.

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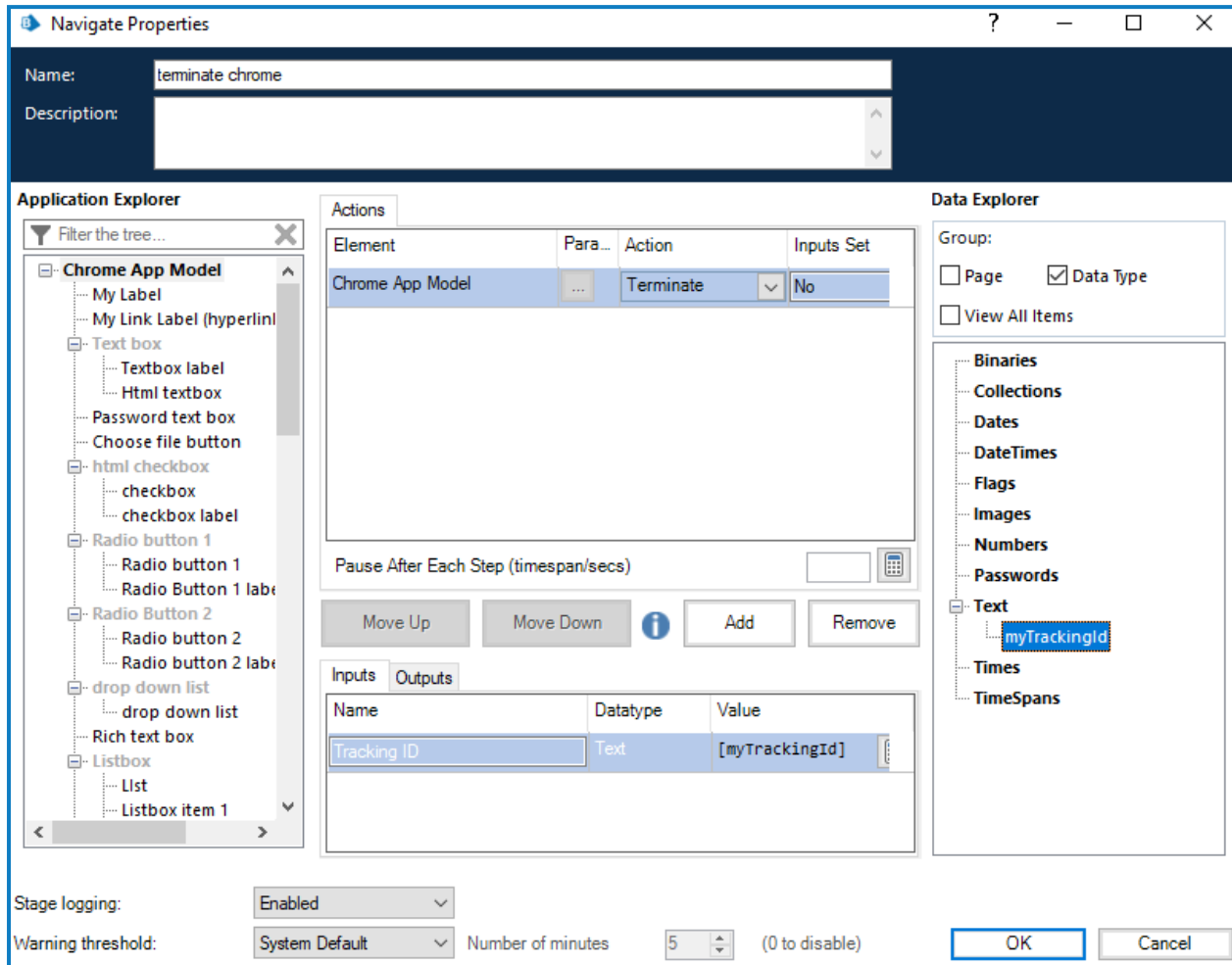
The tracking ID can be used in Read, Write, and Wait stages to restrict Blue Prism to only interact with the browser instance that was created in the Launch action matching the tracking ID. This is useful if you have a process that needs to interact with two instances of the same Single Page Application (SPA), as controls in the first browser instance will also appear on the second instance of the browser resulting in spying errors. If using a tracking ID, only the instance of the browser you want to interact with will respond.
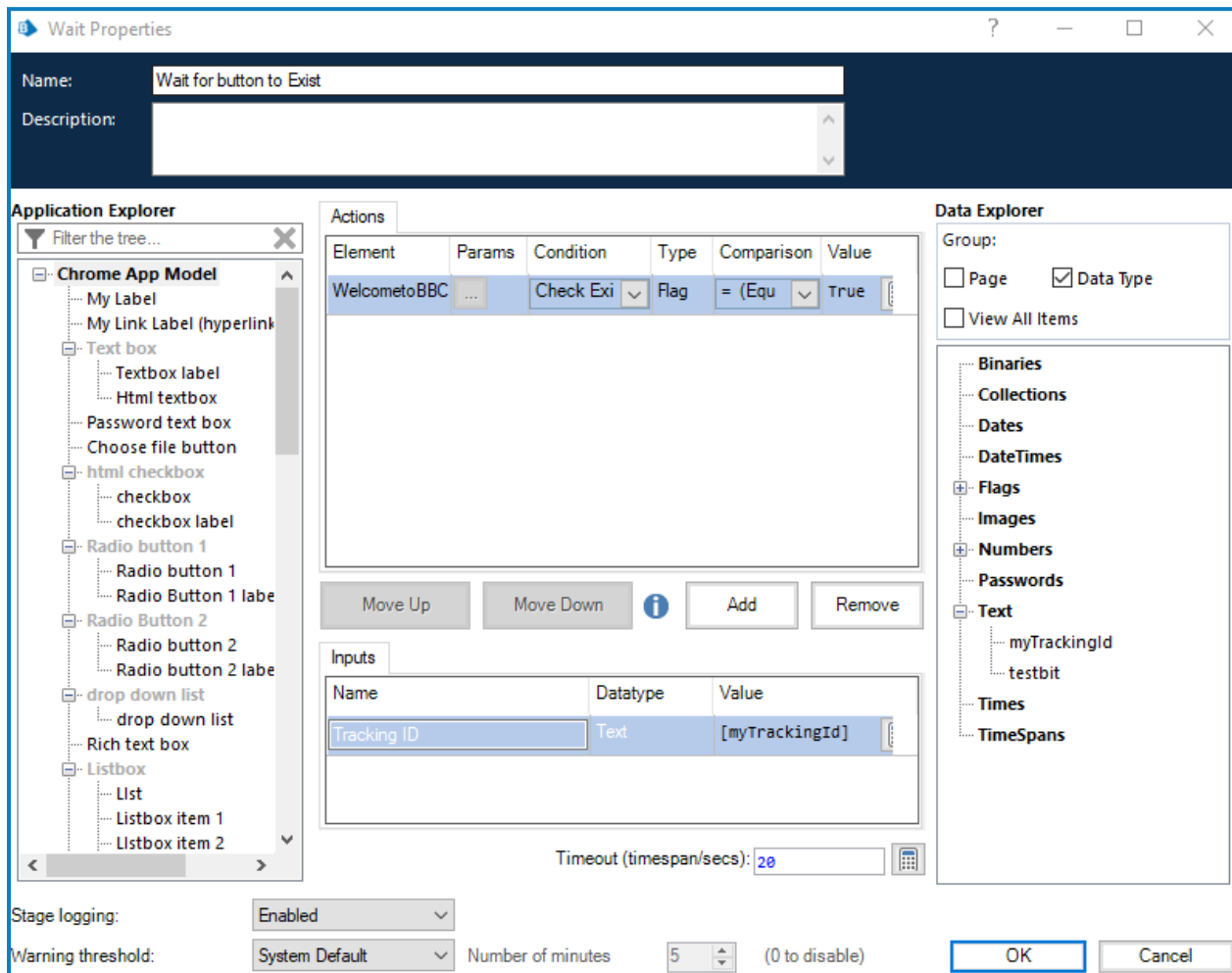
Automate Chrome and Edge with UI Automation (UIA)

For situations where the Chrome, Edge, or Firefox extensions are not available or if a different approach is required, UIA can be used to automate Chrome. However, using this method is typically not as performant as using the Blue Prism extensions.

Use UIA to model Chrome and Edge

To use UIA, accessibility mode must be enabled in Chrome and Edge browsers. Append the start page URL with the *--force-renderer-accessibility* parameter to open the browsers in accessibility mode. When launched using this parameter, the UIA spy mode can be used to model and interact with Chrome and Edge browsers.
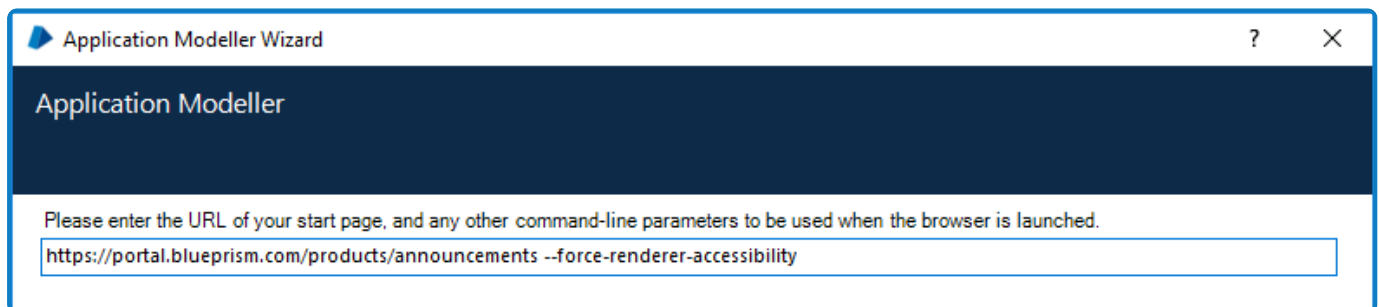
Troubleshooting browser integration

Unable to spy elements on a web site

Using the browser extensions to automate web pages relies on a connection between the extension and Blue Prism. Situations where elements of a website cannot be spied can be improved by increasing the timeout between Blue Prism and the browser to allow sufficient time to make the connection.

Change the timeout setting

1. Navigate to the Blue Prism install location and open the Automate.exe configuration file in a text editor.
2. Increase the BrowserAutomation.DefaultCommunicationTimeout value.

   The default value is 3000 milliseconds – the optimum value is dependent on the responsiveness of the browser.

```xml
<?xml version="1.0" encoding="utf-8"?>
<configuration>
    <startup useLegacyV2RuntimeActivationPolicy="true">
        <supportedRuntime version="v4.0" sku=".NETFramework,Version=v4.7" />
    </startup>
    <appSettings>
        <add key="BrowserAutomation.DefaultCommunicationTimeout" value="3000"/>
    </appSettings>
</configuration>
    <runtime>
```

3. Relaunch the browser and navigate to the required website.

The extension has not installed for Edge

The Blue Prism browser extension does not completely install for Edge via the installer and must be enabled manually under edge://extensions after running the Blue Prism installer.

The Edge browser extension is only compatible with Chromium-based versions of Edge and cannot be used with any earlier version.

The Firefox extension does not load

A Firefox advanced setting can prevent new extensions from being enabled.

Enter *about:config* in the Firefox address bar and ensure the following value is applied:

Setting	Value
extensions.autoDisableScopes	0

This setting is only applicable to the Blue Prism Firefox extension.

Unable to spy websites that use HTTPS in Firefox

A Firefox advanced setting can prevent the extension communicating with Blue Prism from a site that uses the HTTPS protocol.

Enter *about:config* in the Firefox address bar and ensure the following value is applied:

Setting	Value
network.websocket.allowInsecureFromHTTPS	true

This setting is only applicable to the Blue Prism Firefox extension.

Browser extension is not installed or enabled

When launching a Chrome, Edge, or Firefox browser from the Application Modeller, Blue Prism attempts to detect whether the browser extension has been installed or enabled for that browser. If no browser extension is found, a message notifies the user that the browser extension has not been installed or enabled. See the installation instructions on how to install and/or enable the browser extensions.

Browser extension is not compatible with Blue Prism version

Users are notified if the browser extension they are using is not compatible with their installed version of Blue Prism. From 6.10 onwards, the versioning of the Blue Prism browser extensions follow the Blue Prism software versioning pattern, for example 6.10.0 for the first release of Blue Prism 6.10.

Error message "Tracking ID cannot be used in an environment configured to use the fixed browser extension port"

The spy mode used for interacting with Chrome, Edge, and Firefox can interact with multiple browser instances of the same browser type from a single instance of Blue Prism. A unique **Tracking I**D field can be configured in the input and/or output parameters of various stages to restrict spying to a specific browser.

The tracking ID displays as an input and generates an output regardless of whether a fixed or an ephemeral port is used, however it can only be used in an environment configured to use ephemeral ports. The error message "Tracking ID cannot be used in an environment configured to use the fixed browser extension port." displays if the user attempts to use it in an environment configured to use the fixed browser extension port.

If the use of a tracking ID is required, you can enable an ephemeral port connection by deselecting the Use fixed browser extension port (31924) only system setting.