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 manipulated.

There are two Blue Prism browser extensions:

- **Chrome** – Used to automate applications and web pages in Chrome and Chromium-based Edge versions.
- **Firefox** – Used to automate applications and web pages in Firefox.

Browser extension compatibility

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

Install Blue Prism browser extensions

The Blue Prism browser extensions should be installed on any machine that will be used to automate Chrome, Edge, and/or Firefox. The following installation methods are available:

- Install using the Blue Prism installer – The Firefox extension is packaged with the installer and is deployed directly into the Firefox browser. For the Chrome extension, the installer applies a registry key that installs the extension the next time Chrome is run. Users can run the installer using the graphical user interface or the command line. This method ensures the correct version of the extension is installed for the version of the Blue Prism client on the machine.
- Install using Group Policy – This method uses Group Policy or Local Security Policy to create a registry key or to add the appropriate value to an existing key that installs the extension the next time Chrome, Edge, or Firefox are run.
- Install manually – The Chrome extension is installed directly from the Chrome store using a URL and for Firefox the browser extension file from the Blue Prism install location can be included as an add-on.

Prerequisites

Browser access

For all installation methods:

- For the Chrome extension, access to the Chrome Store is required.
- For both the Chrome and Firefox extensions, the ability to configure add-ons in the respective browsers is required.

Firefox settings

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

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

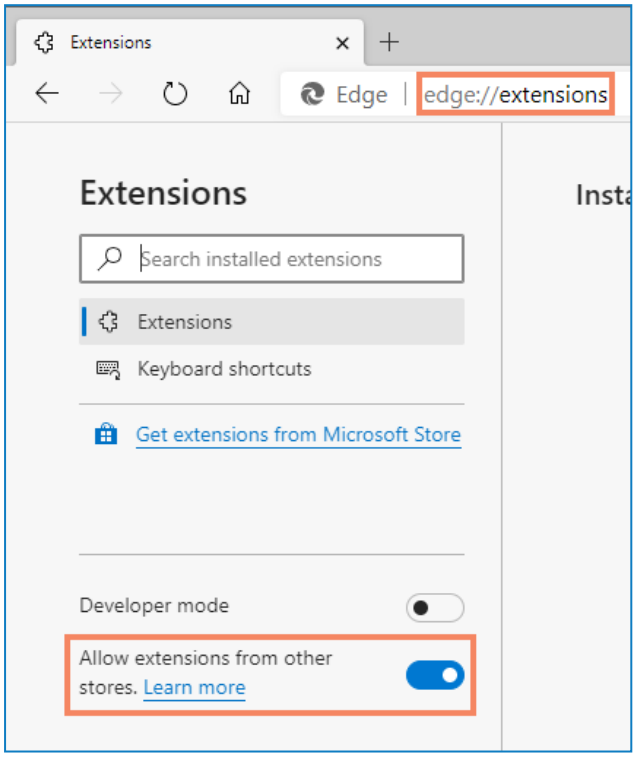
For default Firefox installations, the values are automatically applied when the Blue Prism extension is installed. If Firefox is not installed to the default location, the values must be set manually. Enter *about:config* in the Firefox address bar to access the settings.

Chromium-based Edge versions

The Chrome browser extension is used to automate the Chrome browser and Chromium-based versions of Edge. For Edge, the browser extension must be manually installed.

Prior to installation, you must allow extensions from other stores to be used in Edge:

1. Enter *edge://extensions* in the Edge address bar.
2. Enable the **Allow extensions from other stores** setting.



Considerations

Extensions for 32-bit and 64-bit browsers

When installed using the Blue Prism installer or via Group Policy the following behavior is expected:

- **Chrome** – Both 32 and 64-bit versions of the Chrome extension are installed, providing compatibility with both versions of Chrome and Edge, irrespective of which Blue Prism installer is used.
- **Firefox** – Installs the extension appropriate for the installed version of Firefox.

Firefox version 74 and above

The Blue Prism Firefox extension is installed automatically when selected during a custom Blue Prism installation or upgrade. However, for applications and websites using Firefox version 74 and above, the extension must be manually installed.

Install using the Blue Prism installer

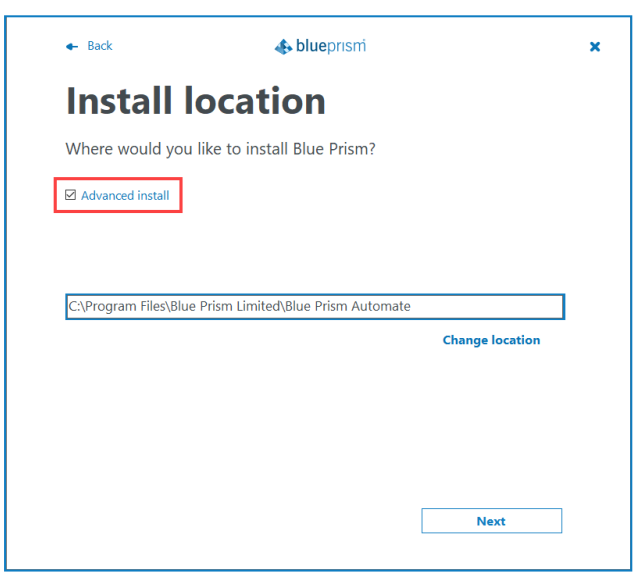
The Blue Prism installer applies a registry key that installs the Blue Prism extension next time the browser is started.

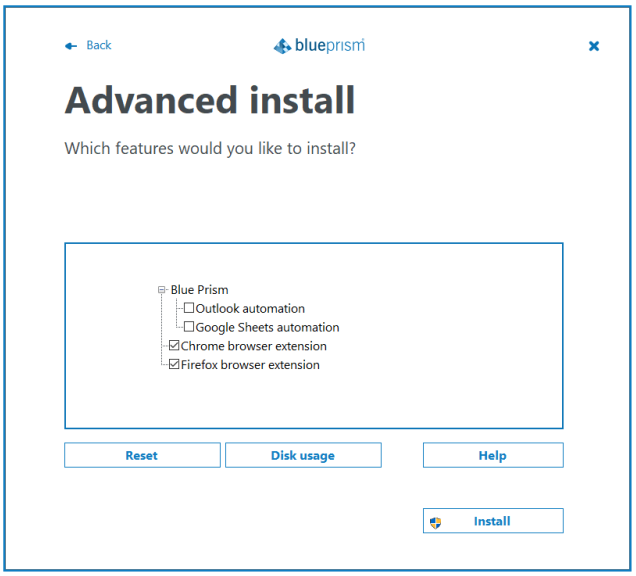
Run the Blue Prism installer

By default, the Blue Prism installer automatically sets the required registry keys that install the browser extensions.

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 which 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.

Use the command line

The following command line options are available for installing Blue Prism and setting the registry key for the Chrome and Firefox extensions. The example commands are for the 6.8 version of Blue Prism – update the version number as required.

Command	Description
`msiexec /i BluePrism6.8.0_x64 /qn` `msiexec /i BluePrism6.8.0_x86 /qn`	Installs Blue Prism and sets the Chrome and Firefox extension registry keys.
`msiexec /i BluePrism6.8.0_x64 ADDLOCAL=BluePrism,BPServer /qn` `msiexec /i BluePrism6.8.0_x86 ADDLOCAL=BluePrism,BPServer /qn`	Installs Blue Prism without setting the Chrome or Firefox extension registry keys.
`msiexec /i BluePrism6.8.0_x64 ADDLOCAL=ChromePlugin /qn` `msiexec /i BluePrism6.8.0_x86 ADDLOCAL=ChromePlugin /qn`	Adds the Chrome extension registry key to an existing installation of Blue Prism.
`msiexec /i BluePrism6.8.0_x64 ADDLOCAL=FirefoxPlugin /qn` `msiexec /i BluePrism6.8.0_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 and Firefox extensions:

```
msiexec /i BluePrism6.8.0_x64 ADDLOCAL=BluePrism,BPServer,ChromePlugin,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 using Group Policy

To install the extensions using Group Policy, apply the registry key and value specified in Browser extension registry keys.

Install manually

Chrome and Edge

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: 6.5 or later – compatible extension version: 2.1.0 (Chrome and Edge compatible)

https://chrome.google.com/webstore/detail/blue-prism-browser-extens/nadpbbdaaifbaebnniobcfpiifbfokij

Edge compatibility is only available from Blue Prism 6.8 and is only appropriate for Chromium-based versions of Edge.

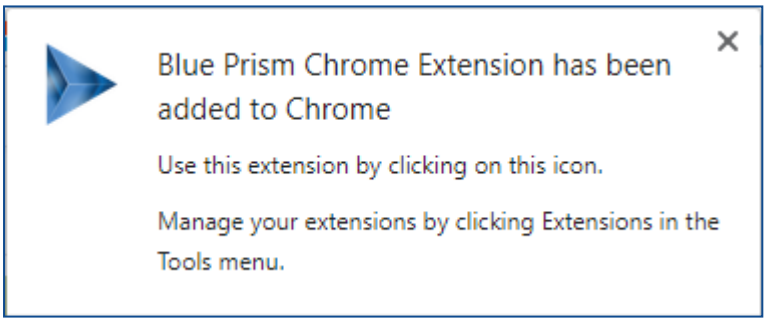
Blue Prism version: 6.3 and 6.4 – compatible extension version: 1.0.6.3 (Chrome only)

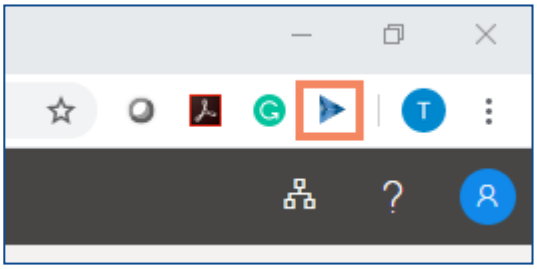
https://chrome.google.com/webstore/detail/blue-prism-browser-extens/oaflhlmnamdgbgdgakpihkkdfapkebfp

To install the Chrome browser extension for Chrome and Edge:

1. Open Chrome or a Chromium-based version of Edge.
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.

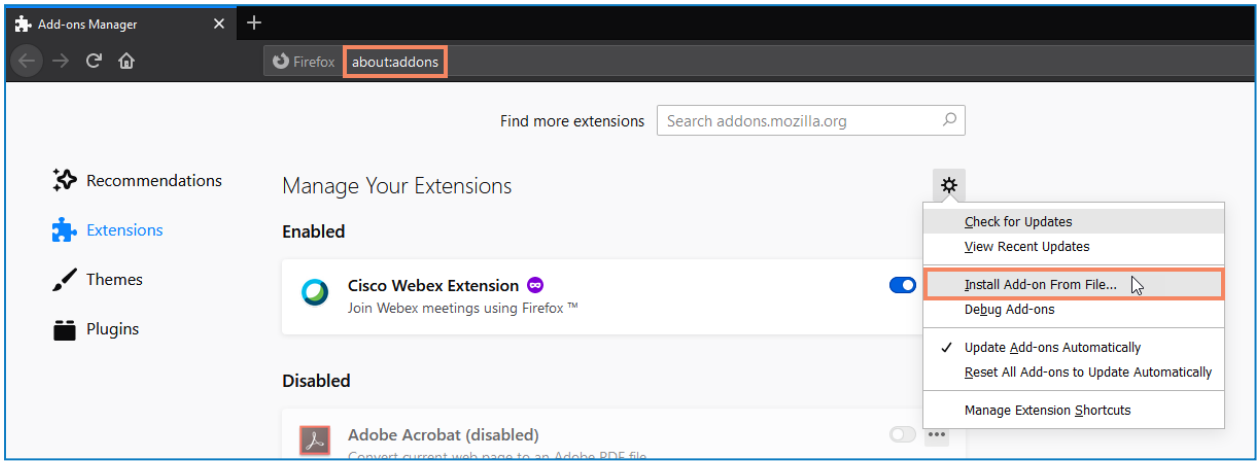




Firefox

The Firefox browser extension installs automatically for Firefox versions up to 73. If you are using version 74 or later, the extension must be installed manually.

1. Install Blue Prism.
2. In Firefox, enter *about:addons* in the address bar.
3. From the tools menu, select **Install Add-on From File**.



4. From the Blue Prism install directory, select the **FirefoxPlugin.xpi** file.

   The default install location is: C:\Program Files\Blue Prism Limited\Blue Prism Automate
5. Click **Add**.

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

Browser extension registry keys

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

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

Chrome extension

Registry Key	HKEY_LOCAL_MACHINE\SOFTWARE\Policies\Google\Chrome\ExtensionInstallForcelist
Name	1
Type	REG_SZ
Data	nadpbbdaaifbaebnniobcfpiifbfokij;https://clients2.google.com/service/update2/crx

Firefox extension

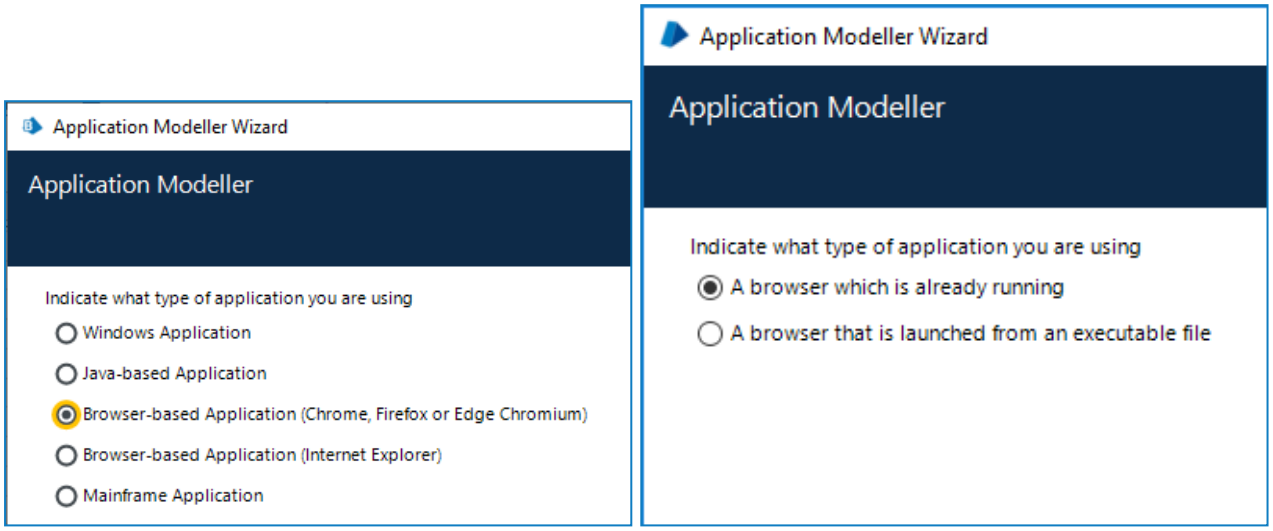
Registry Key	HKEY_LOCAL_MACHINE\SOFTWARE\Mozilla\Firefox\Extensions
Name	{e385850c-828c-4c0e-96fc-c5dcc5bf947f}
Type	REG_SZ
Data	C:\Program Files\Blue Prism Limited\Blue Prism Automate\FirefoxPlugin.xpi

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

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.

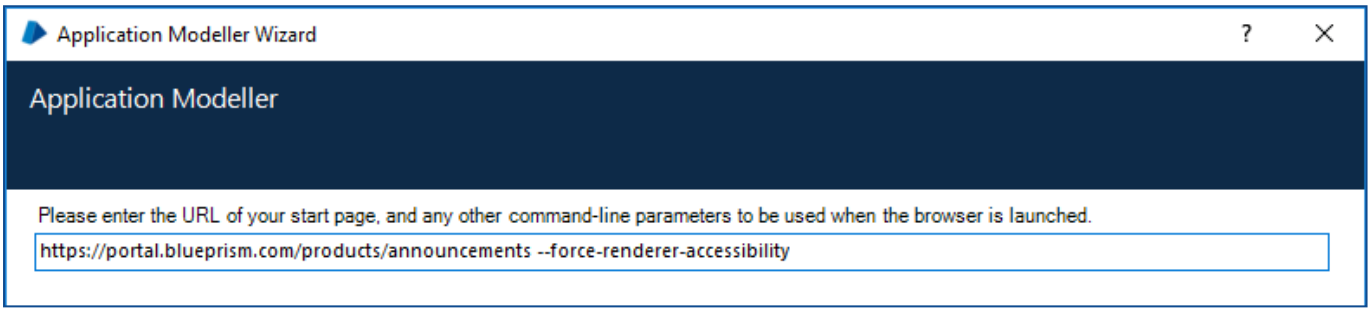
   - **Executable path** – The location of the Chrome or Firefox executable required by Blue Prism to open the application. This must be the full path, including the file type.
   - **Start page URL** – The address of the browser application or web page to be spied. If a URL is not supplied, the browser opens the home page set on the machine. Command line parameters can be appended to a URL, separated by a space.
   - **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.

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 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>
    <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.

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

The extension has not installed for Firefox version 74 and later

Although the Firefox browser extension can be installed automatically using the installer for Firefox versions up to and including 73, for version 74 and later the extension must be installed manually.

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

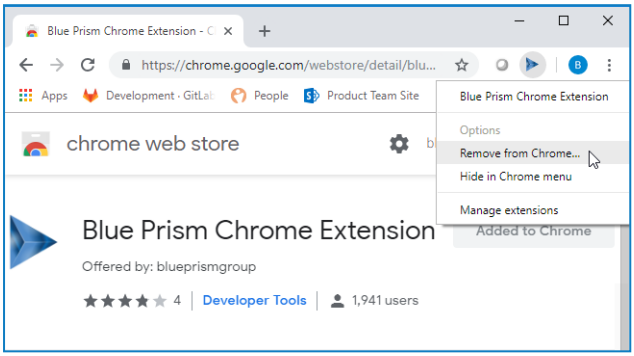
This setting is only applicable to the Blue Prism Firefox extension.

Remove the Blue Prism extension

Remove using browser options

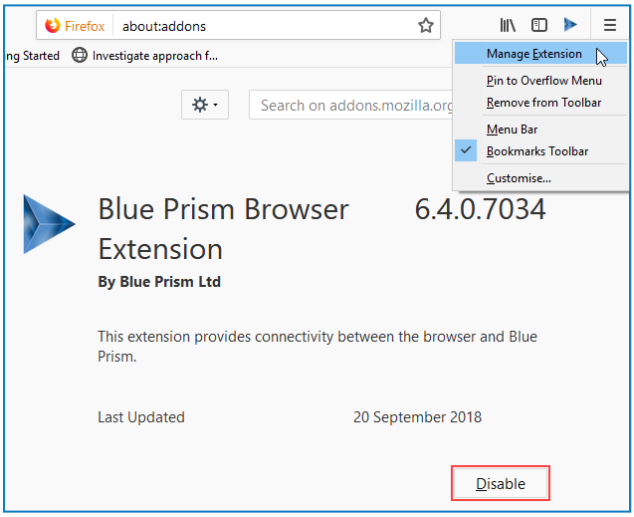
Chrome and Edge

Select **Remove from Chrome** or **Remove from Microsoft Edge** from the extension options.



Firefox

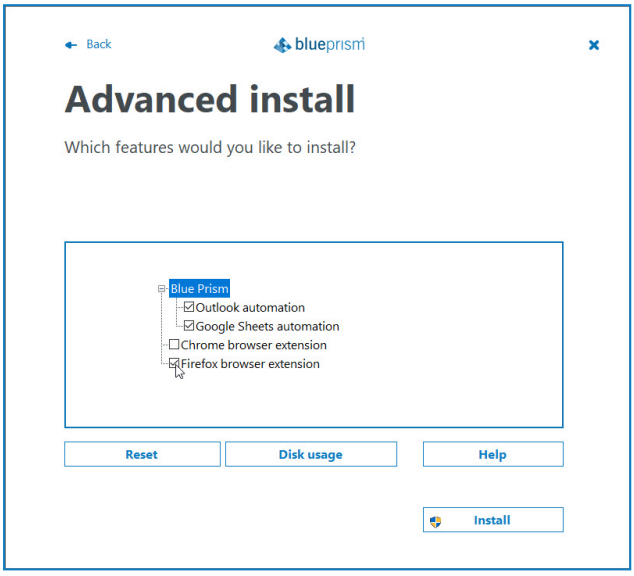
Click **Disable** from the Manage Extension options.



Remove using the Blue Prism installer

Run the Blue Prism installer and page, select **Change features** and select the extensions you no longer require.

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.