

blueprism[®]

Software Robots - the Virtual Workforce

Login Agent

USER GUIDE

Version: 2.0.0

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Introduction

The Login Agent software provides a mechanism for securely logging into a Windows desktop device for the purposes of executing Blue Prism processes.

This document guides the new user through the process of installing the Blue Prism Login Agent software, and gives some guidance on running and troubleshooting the software afterwards.

Prerequisites

Operating System	Windows XP, Windows Vista, Windows 7, Windows 8.1, Windows 10
Blue Prism	Version 4.1.25 or higher. This document assumes that the machine on which the Login Agent is to be installed already has a fully operating Blue Prism environment installed and configured.
User access	Administrator access is required on the target system
Virtualization Host	Where install is taking place onto a virtual device, the host virtualization technology must support third-party credential providers

Blue Prism Installation

Blue Prism must be installed and configured prior to installing Login Agent. The user guide for the respective version of Blue Prism provides information relating to the installation and configuration of Blue Prism.

Distributable Files

There are two installers available for Login Agent. It is important to use the installer which matches the architecture of the target device. E.g. if installing on a 64-bit edition of Windows, the 64-bit version of Login Agent must be used.

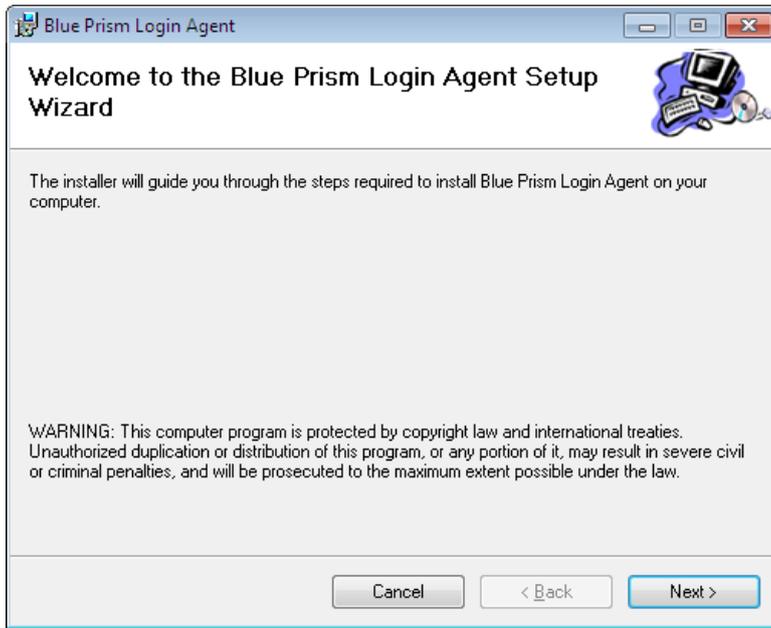
- 32-bit: LoginAgentSetup32.msi
- 64-bit: LoginAgentSetup64.msi

Installation

Log on to the target system and copy the appropriate installer into a local folder. Double click it to begin the installation.

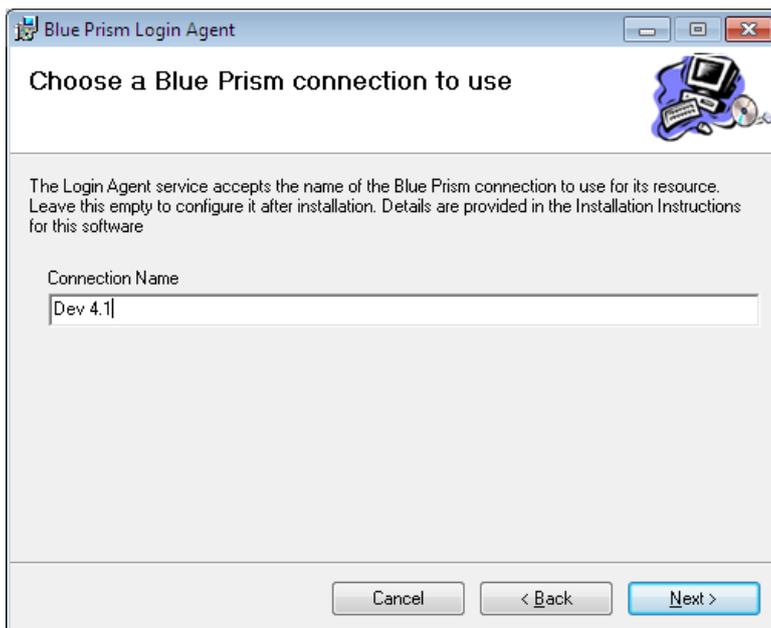
Welcome

On running the installer, the welcome page is displayed. Click Next to continue.



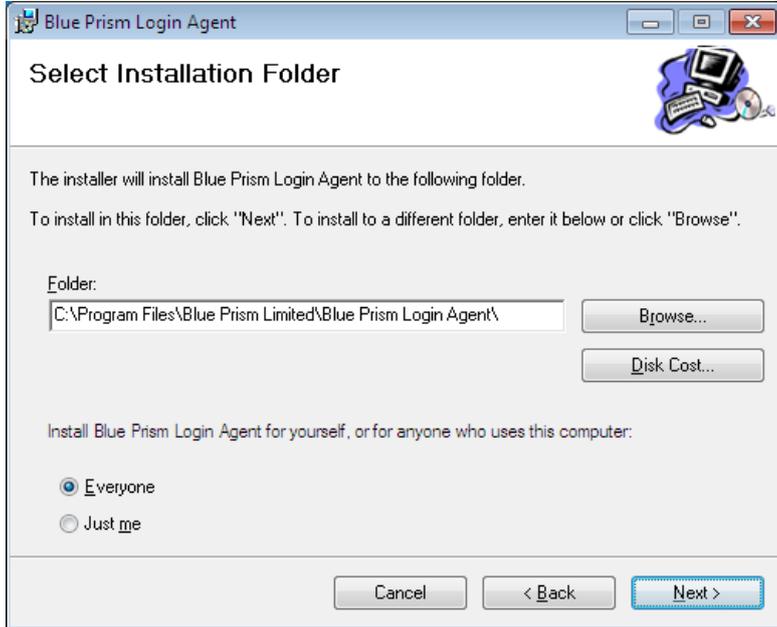
Connection Name

This page accepts the name of the Blue Prism connection which should be used on this PC. The name should correspond to one of the connections defined in the installed Blue Prism software. If left blank, it will not be created or changed in this install.



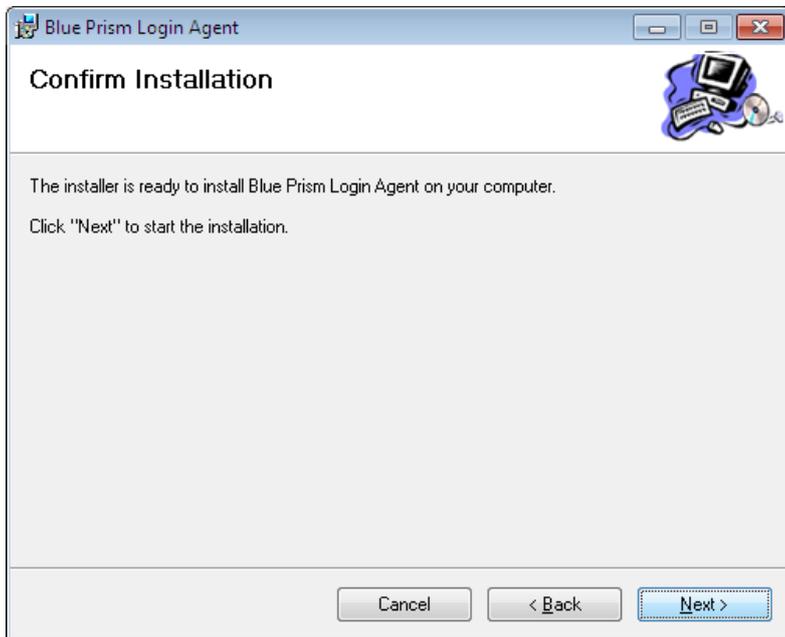
Installation Path

The next page allows you to choose where on the hard drive the program should be installed. Select the desired folder path and press “Next”.



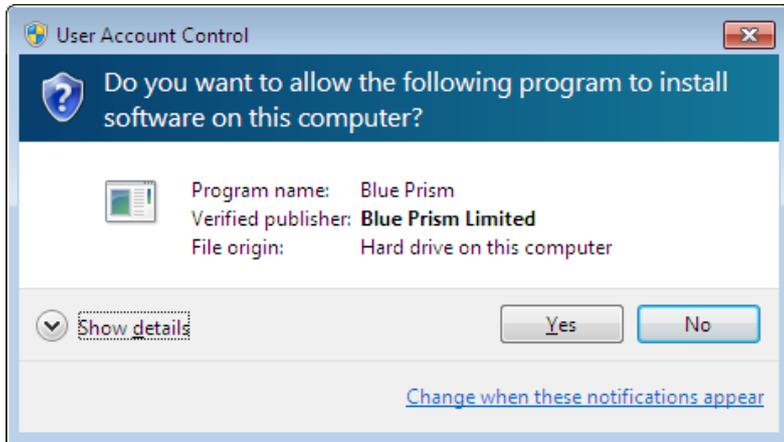
Confirm

The confirmation screen will show before the files are copied. Press Next to copy the files.



User Account Control

Windows will request administrator access to continue with the installation. You may have to enter an administrator username and password if you are not logged on as administrator. Click “Yes” to continue.



Progress / Complete

The installer should now run to completion. If the installer detects a missing prerequisite (e.g. a Blue Prism version before 4.1.25 is installed, or an attempt is made to install the login agent on a Windows version earlier than Windows XP), it will display a warning from which you can choose to continue or cancel the installation.

Configuration

Login Agent Service

The “Blue Prism Login Agent” service is installed and configured to run automatically on boot. It can be started or stopped from the Windows Services administrative tool.

It uses a configuration file to hold the Blue Prism software working directory and the arguments which should be used to start the Runtime Resource it maintains before log on. The file is located at:

```
C:\ProgramData\Blue Prism Limited\Automate V3>LoginAgentService.config
```

If the file is not there, it can be created by starting and stopping the service. A typical file looks like:

```
<?xml version="1.0" encoding="utf-8"?>
<configuration>
  <workingdirectory path="C:\Program Files\Blue Prism Limited\Blue Prism Automate\" />
  <startuparguments>
    <argument name="resourcepc" />
    <argument name="public" />
    <argument name="port">
      <value>8001</value>
    </argument>
    <argument name="dbconname">
      <value>Dev 4.1</value>
    </argument>
  </startuparguments>
</configuration>
```

The `workingdirectory` element points to the installation directory for the Blue Prism software. The `startuparguments` element gives the arguments to pass to the Automate program to start the Runtime Resource before Windows is logged on. For example, the above configuration indicates that the command line to start the Runtime Resource should be

```
"C:\Program Files\Blue Prism Limited\Blue Prism Automate\Automate.exe" /resourcepc /public
/port 8001 /dbconname "Dev 4.1"
```

If any other arguments are required for the pre-logout resource, they should be added here in a similar fashion. For example, to add a DB password for a SQL Server authenticated database add the XML below before the closing

`</startuparguments>` tag:

```
<argument name="setdbpassword">
  <value>Password$123</value>
</argument>
```

Leaving the connection empty

Note that if no connection is specified in the configuration file (using the `dbconname` argument), the first database connection specified in the connection list in Blue Prism will be used.

Logged On Blue Prism Resource

A Blue Prism Runtime Resource needs to be configured to run on Windows logon to allow for the normal handling of processes within the Blue Prism environment. This can be done by creating a shortcut to Automate.exe in the logon user's Startup directory (typically in "%USERPROFILE%\Startup") with the appropriate command line arguments configured in it.

These arguments typically mirror those specified in the Login Agent service's configuration file.

Login Agent Release

The actual logging on and off and locking of the screen is done via Blue Prism processes. These are installed alongside the Login Agent software in the install directory - by default, this is at C:\Program Files\Blue Prism Limited\Blue Prism Login Agent. The release file is called Login Agent Release.bprelease, and it can be imported into any Blue Prism environment using Release Manager, or the File|Import menu option within the Blue Prism client.

Logon Credential

Each resource configured with the Login Agent software will require a credential defined in the Blue Prism environment to hold its logon credentials. The format of the credential used by the Login Agent processes is defined in the 'Get Credential Name' action within the 'Login Agent' VBO. The default format used by the VBO installed in the Login Agent Release is: "Windows Login: {MachineName}" where {MachineName} is replaced by the name of the machine on which the process is running. E.g. for a logon process running on a resource UKPCS003:8001 where UKPCS003 is the name of the machine and the resource is running on port 8001, the credential that the process will look for to log onto Windows with is "Windows Login: UKPCS003"

Using Login Agent

Architecture Overview

On booting a resource with the Login Agent Service enabled, a Runtime Resource is executed in a system session. This Runtime Resource is limited - e.g. it cannot drive programs which interact with the user desktop directly. Though it is connected to the wider Blue Prism environment, it is designed largely to execute the processes defined in the Login Agent Release.

When a user session begins, either through the Login Agent or directly, the system Runtime Resource is shut down and the service effectively goes on standby until the user session finishes.

Meanwhile, the Runtime Resource configured in the user's Startup settings is created within the user session. This is a normal Runtime Resource which can interact with any programs available to the user.

When the user session ends, the user Runtime Resource is closed along with all of the other user programs and the service starts a new Runtime Resource in the system session.

Login Agent Processes

A number of processes are included in the Login Agent Release, distributed with the software. Many of them require a credential to be configured for each resource hosting the Login Agent. See the Logon Credential configuration section for more details.

Login

Designed to be sent to the system Runtime Resource operated by the Login Agent service. This will use the credential for the resource as defined in the Logon Credential configuration section to log onto Windows. It can be used to log into a local Windows account or into a domain.

The Login Locally startup parameter is used to indicate if local or network credentials are being used:

- **True:** Indicates that the credentials to be used are local to the device where the Login action will be executed. This option will be selected by default if neither True nor False are selected.
- **False:** Indicates that network credentials are to be used for the Login action. When using a domain account, the FQDN of the domain must be used. E.g. mydomain.com



The image shows two configuration panels. The first panel, titled 'Login Locally', has a 'Flag' field with two radio buttons: 'True' (which is selected) and 'False'. The second panel, titled 'Domain', has a 'Text' field containing the value 'mydomain.com' and a small square icon with three dots to its right. Both panels have a green checkmark in the top right corner.

Irrespective of whether a local or network login is used, the action will appear to have been successful as part of the process execution even if the logon is ultimately unsuccessful - it returns after sending the message to log on with the supplied credentials.

Logout

Designed to be sent to the user Runtime Resource operated within the user session. This will close all programs in the user session and log out of windows. An optional delay can be passed in as the parameter 'Delay' which will hold off from logging out for the time specified. The process will still complete immediately, and the session will logout after the delay has passed.

Check Logged In

Can be sent to either the user or system Runtime Resource, it checks the current state of the resource. It is designed to be executed from Control Room, in which the log can be checked to determine the logged in state of the resource.

Change Password

Designed to be sent to the user Runtime Resource, this process will terminate immediately if sent to the system Runtime Resource. It generates a new password in the credential for the resource as defined in the Logon Credential configuration section, and then configures Windows to use the new password. If the password change in Windows fails, the credential is reverted to its previous value and the process is terminated.

The parameters defining what characters to allow in the passwords can be modified in the appropriate data items defined within the process.

Login Agent Actions

Along with the Login Agent processes described above, the Login Agent release contains the Login Agent Visual Business Object which is used by the included processes, and can be used by other processes where appropriate.

There are a few published actions which are available for use in processes, though most are there to support the above Login Agent processes. The following are designed for use in user processes running inside the user session Runtime Resource.

Get Credential Name

Retrieves the name of the credential which serves the running resource. This can be used to retrieve the credential to use in order to, for example, unlock the screen.

Lock Screen

Locks the windows screen such that the desktop is no longer visible and authentication is required to re-enter windows proper. Has no effect if the screen is already locked.

Unlock Screen

Unlocks the currently locked screen. Requires 2 arguments:

- **Password:** *The current password for the current logged on user on the resource*
- **Local:** *Indicates if the user is a local Windows account or a domain account - this is necessary because the method of passing the credential differs between the two.*

Is Locked

Checks if the resource is currently locked or not. Returns a single output parameter:

- **Locked:** *True to indicate that the resource is logged on and locked; False otherwise.*

Is Logged In

The VBO/Action equivalent of the Check Logged In process, this returns a single output parameter:

- **Logged In:** *True to indicate that the resource is logged in and the process is running within the user session; False to indicate that it is not logged in and the process is running within the system session.*

Troubleshooting

Resource stuck on error message: "Incorrect password or username"

If the credentials for a resource are incorrect within the Blue Prism environment, it cannot authenticate to Windows but Windows keeps attempting to resend the authentication and an error message displays repeatedly. The only way to get around this is to reboot the resource.

Once rebooted, the logon prompt should be displayed again. If the correct password is unknown, log on as an administrator and reset the password for the affected user, then update the appropriate credential in Blue Prism System Manager.