

Form Filler

Black Ice Software

MSI Installation Guide for Network Administrators

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Introduction

The MSI installer for the Form Filler is designed for large scale deployment of Form Filler in Active Directory environments. The MSI installer can install the Form Filler application in silent mode without any user interaction and provides a custom installation for users.

The Form Filler MSI installer can either be installed using command line parameters or using Group Policy settings.

With Group Policy Settings, the Form Filler's recommended deployment method is assigned to a computer and not published or assigned to a user.

For Citrix VDI deployment, a special installer is required. You can request a special installer from sales@blackice.com. Please note: VDI deployment is not supported with individual license keys.

The Form Filler MSI installer automatically updates the previously installed Form Filler MSI.

Requirements

.NET framework 4.5 or higher

Command Line Installation

[Installing the Form Filler on VDI](#)

[Installing the Form Filler on Citrix VDI](#)

[Available Parameters of the MSI install](#)

[How to silently install Form Filler](#)

[How to update Form Filler](#)

[How to uninstall Form Filler](#)

[How to silently uninstall Form Filler](#)

[Examples for Command Line installation](#)

[Quick Reference Guide for Windows MSI installers](#)

Installing the Form Filler on VDI

The Form Filler can be installed on Azure VDI, AWS VDI, VMware VDI, or any VDI system from the master image.

The base requirement for **licensing** of the Form Filler is the **Form Filler Special Installer** with the licensing mechanism designed for VDI.

The MSI or Interactive Form Filler Special Installer can be requested from Black Ice Software Sales sales@blackice.com.

The Interactive or MSI Form Filler Special Installer for VDI is not available for a single license and is not available from the online store only directly from Black Ice Software sales.

Installing the Form Filler on Citrix VDI

Installing the Form Filler on Citrix VDI for Citrix Virtual Apps and Desktops.

The diagram below illustrates the **Citrix App Layering**. The Citrix App Layering actually puts **applications** on a plane separate from the OS and splits the **application** into three main **layers**. Each **layer** is stored as a virtual disk. The **base layer** contains the **OS itself**.

The Form Filler should be **installed** and activated/registered on the **OS layer**, otherwise the Form Filler will deactivate as soon as the desktop is delivered to users.

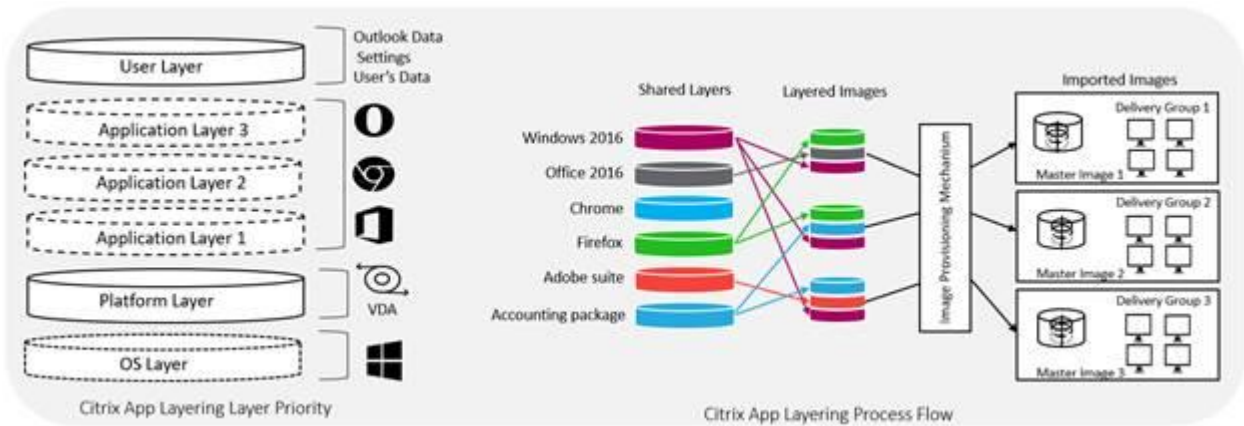
An **alternative** solution is to install the Form Filler on the Master Image and **activate/register** on the **Master Image**. Installing the Form Filler on the Master image could be cumbersome and time consuming. The Form Filler should **not** be **installed** and **activated/registered** on the **Application Layer**.

For the available installation parameters and examples, please see:

[Available Parameters of the MSI install](#)

[Examples for Command Line installation](#)

For Citrix VDI deployment, a special installer is required. You can request a **special installer** from sales@blackice.com. **Please note:** VDI deployment is not supported with individual license keys.



Available Parameters of the MSI install

The Form Filler can be installed using the following commands:

NOTE: If the parameter value has **space** characters, then it is required to use the quotation marks (") on the beginning and end of the parameter.

msiexec /i "FormFillerSetup.msi" /q TARGETDIR="C:\Black Ice\Form Filler"

Parameters	Meaning
/i	Installs the product. Command line only
/x	Uninstalls the product. Command line only
(optional) /q	Silent installation that displays no user interface. Command line only
(optional) /l* log.txt (lowercase "L")	Logs the MSI system calls to install the product to the "C:\temp\log.txt" file. Command line only For more information about the /l (lowercase "L") parameter, please refer to the Quick Reference Guide for Windows MSI installers section.

(optional) ALLUSERS=1	<p>The ALLUSERS property configures the installation context of the Start Menu items and desktop shortcuts. The Windows Installer performs a per-user installation or per-machine installation depending on the access privileges of the user.</p> <p>If ALLUSERS=1 performs a per-machine installation.</p> <p>If ALLUSERS is not set, the installer does a per-user installation.</p>
(optional) TARGETDIR=	<p>Set target installation directory.</p> <p>If this value is not specified, the product will be installed to “\Program Files\Black Ice Software LLC\Form Filler”</p>
(optional) TRANSFORMS=	<p>Install Form Filler with a Transform file.</p>
(optional) FORMLISTINI=	<p>By using the FORMLISTINI parameter Administrators can add custom forms for Form Filler. FORMLISTINI parameter requires an INI file with full path, which contains the file of the forms as in the following example;</p> <pre>[Form 1] File=c:\Temp\Form1.tif [Form 2] File=c:\Temp\Form2.tif ...</pre> <p>MSI parameter example: FORMLISTINI=c:\Temp\FormFiles.ini</p>
(optional) BITRACE= 0 disables the Trace log (default) 1 enables the Trace log	<p>By Enables detailed Trace log, will logs every event in the Custom Action section of the MSI installation, uninstallation, and registration.</p> <p>For more information about the Trace log and location of the Trace log, please refer to Form Filler MSI trace log section.</p>
(optional) CF=	<p>Copy the Black Ice Common Forms to the installed Form Filler Common Form directory.</p> <p>0 Do not copy the Black Ice Common Forms. 1 Copy the Black Ice Common Forms (Default).</p>

Quotation Marks for the parameters:

If the parameter value has **space** characters, then it is required to use the quotation marks (") on the beginning and end of the value.

For example:

msiexec /i "FormFillerSetup.msi" /q TARGETDIR="C:\Black Ice\Form Filler"

Quotation marks are necessary to make sure the installer will take the value as a single parameter.

NOTE: Please make sure that you use regular double quotation marks. (type the command directly to CMD, or copy and paste the command from this installation guide, or from Notepad.)

How to silently install Form Filler

To install the Form Filler MSI installer with silent mode, please open the Command Prompt as Administrator.

Form Filler can be installed silently using the following command:

```
msiexec /i "<<PATH>>\FormFillerSetup.msi" /q
```

How to update Form Filler

To upgrade the Form Filler without uninstalling and reinstalling the Form Filler MSI. The upgrade process will keep the Users current configuration of the Form Filler.

Form Filler MSI can be updated using the following command:

```
msiexec /i "<<PATH>>\FormFillerSetup.msi"
```

Available Parameters of Form Filler MSI update

Parameters	Meaning
(optional) /q	Silent installation that displays no user interface. Command line only
(optional) /l* log.txt (lowercase "L")	Logs the MSI system calls to install the product to the "C:\temp\log.txt" file. Command line only For more information about the /l (lowercase "L") parameter, please refer to the Quick Reference Guide for Windows MSI installers section.
(optional) TARGETDIR=	Set target installation directory.
(optional) TRANSFORMS=	Install Form Filler with a Transform file.
(optional) FORMLISTINI=	By using the FORMLISTINI parameter Administrators can add custom forms for Form Filler.
(optional) BITRACE= 0 disables the Trace log (default) 1 enables the Trace log	By Enables detailed Trace log, will log every event in the Custom Action section of the MSI update
(optional) CF=	Copy the Black Ice Common Forms to the installed Form Filler Common Form directory.

How to uninstall Form Filler

If one clicks on the MSI installer file, while the Form Filler is installed on the computer, then Uninstallation will start.

Proceed with the uninstallation to remove the Form Filler from the computer.

In **specific cases**, for example if the computer has no active internet connection, or there is an issue with the serial number, the following window may appear:

How to silently uninstall Form Filler

The **recommended** command to silently uninstall Form Filler:

Version	Command
1.0	MSIExec.exe /x {2337BE3B-AED1-4EEF-95AB-3CA4AE78CB00} /q

Alternatively, the Form Filler can be uninstalled by using the .msi file in the command:

```
msiexec.exe /x "<<PATH>>\FormFillerSetup.msi" /q
```

Examples for Command Line installation

(Administrator privilege required)

Please run the command line as administrator.

NOTE: If the parameter value has **space** characters, then it is required to use the quotation marks (") on the beginning and end of the parameter.

Example 1: Install Form Filler, silently, the target directory is C:\Black Ice\Form Filler\

```
msiexec.exe /i "<<PATH>>\FormFillerSetup.msi" /q TARGETDIR="C:\Black Ice\Form Filler"
```

Example 2: Install Form Filler silently and generate log from the installation.

```
msiexec.exe /i "<<PATH>>\FormFillerSetup.msi" /q /l* "log.txt"
```

Example 3: Install Form Filler silently to the default target directory into the Program Files folder.

```
msiexec.exe /i "<<PATH>>\FormFillerSetup.msi" /q
```

PowerShell Example (Terminal & Terminal (Admin)):

Example 3: Install Form Filler silently to the default target directory into the Program Files folder.

```
msiexec /i "<<PATH>>\FormFillerSetup.msi" /q TARGETDIR= "C:\Black Ice\Form Filler"
```

Example 4: Install Form Filler silently with a Transform file:

```
msiexec.exe /i "<<PATH>>\FormFillerSetup.msi" TRANSFORMS="<<PATH>>\FormFiller.mst" /q
```

Example 5: Install Form Filler silently, and generate a trace log from installation. Trace log could be very useful to identify and troubleshoot problems during the installation.

```
msiexec.exe /i "<<PATH>>\FormFillerSetup.msi" /q BITRACE=1
```

Example 6: Install Form Filler silently without Black Ice common forms:

```
msiexec.exe /i "<<PATH>>\FormFillerSetup.msi" /q CF=0
```

Example 7: Install Form Filler silently, using the FORMLISTINI parameter to add custom forms to the Form Filler with form list ini file

```
msiexec.exe /i "<<PATH>>\FormFillerSetup.msi" /q FORMLISTINI="c:\Temp\formlist.ini"
```

Example for formlist.ini:

```
[Form 1]
File=c:\Temp\Form1.tif
[Form 2]
File=c:\Temp\Form2.tif
```

Example 8: Silently uninstall Form Filler

```
msiexec.exe /x "<<PATH>>\FormFillerSetup.msi" /q
```

Example 9: Silently uninstall Form Filler if the MSI installer location is unknown:

Version	Command
1.0	MSIExec.exe /x {2337BE3B-AED1-4EEF-95AB-3CA4AE78CB00} /q

Quick Reference Guide for Windows MSI installers

The following section contains information about general parameters, and options which can be used with any Windows MSI installer, including the Black Ice MSI installations.

Applies to Windows® Installer. V 5.0.7601.23432

msiexec /Option <Required Parameter> [Optional Parameter]

Install Options

</package | /i> <Product.msi>
Installs or configures a product

/a <Product.msi>
Administrative install - Installs a product on the network

/j<u|m> <Product.msi> [/t <Transform List>] [/g <Language ID>]
Advertises a product - m to all users, u to current user

</uninstall | /x> <Product.msi | ProductCode>
Uninstalls the product

Display Options

/quiet
Quiet mode, no user interaction

/passive
Unattended mode - progress bar only

/q[n|b|r|f]
Sets user interface level
n - No UI
b - Basic UI
r - Reduced UI
f - Full UI (default)

/help
Help information

Restart Options

/norestart
Do not restart after the installation is complete

/promptrestart
Prompts the user for restart if necessary

/forcerestart
Always restart the computer after installation

Logging Options

/[i|w|e|a|r|u|c|m|o|p|v|x|+|!]* <LogFile> (*lowercase "L"*)

- i - Status messages
- w - Nonfatal warnings
- e - All error messages
- a - Start up of actions
- r - Action-specific records
- u - User requests
- c - Initial UI parameters
- m - Out-of-memory or fatal exit information
- o - Out-of-disk-space messages
- p - Terminal properties
- v - Verbose output
- x - Extra debugging information
- + - Append to existing log file
- ! - Flush each line to the log
- * - Log all information, except for v and x options

/log <LogFile> (*lowercase "L"*)

Equivalent of /!* <LogFile> (*lowercase "L"*)

Update Options

/update <Update1.msp>[;Update2.msp]

Applies update(s)

/uninstall <PatchCodeGuid>[;Update2.msp] /package <Product.msi | ProductCode>

Remove update(s) for a product

Repair Options

/f[p|e|c|m|s|o|d|a|u|v] <Product.msi | ProductCode>

Repairs a product

- p - only if file is missing
- o - if file is missing or an older version is installed (default)
- e - if file is missing or an equal or older version is installed
- d - if file is missing or a different version is installed
- c - if file is missing or checksum does not match the calculated value
- a - forces all files to be reinstalled
- u - all required user-specific registry entries (default)
- m - all required computer-specific registry entries (default)
- s - all existing shortcuts (default)
- v - runs from source and recaches local package

Setting Public Properties

[PROPERTY=PropertyValue]

Consult the Windows[®] Installer SDK for additional documentation on the command line syntax.

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Portions of this software are based in part on the work of the Independent JPEG Group.

Group Policy / Active Directory Installation

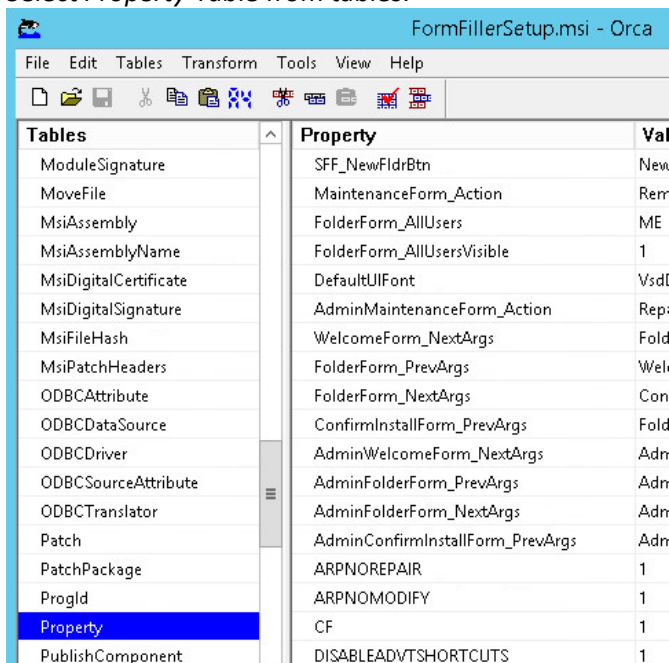
How to create MST (Transform file) for GPO deployment

With the help of Transform files (MST), one can customize the Form Filler MSI installer. Transform files can be created using the ORCA tool. ORCA is available in the *Windows SDK Components for Windows Installer Developers*.

For more information about ORCA please see the following Microsoft Knowledge Base webpage:
<http://support.microsoft.com/kb/255905>

How to use ORCA

1. Open FormFiller.msi with ORCA .
2. Start a new Transform by clicking on *Transform\New Transform*.
3. Select *Property* Table from tables.



4. From the Table menu, select Add Row to display the Add Row dialog box.
5. Select Property name. You can specify the property names describe above. For example, TARGETDIR, FORMLISTINI, CF

ARNOMODIFY	1
CF	0
DISABLEADVTSHORTCUTS	1
TARGETDIR	c:\Black Ice\Form Filler
FORMLISTINI	\\BivM2k12R2Inst\MSI installers\FormList.ini

6. Select Value and enter Property Value.
7. Click OK.
8. Save Transform by clicking *Transform\Generate Transform...* menu.

To assign the Transform file(s) in the Group Policy Manager when specifying the deployable software package (MSI).

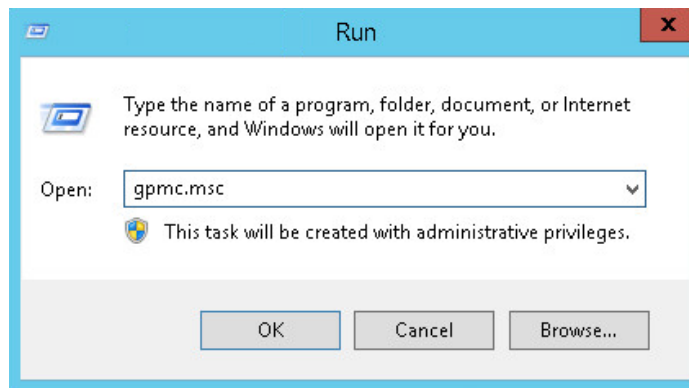
If installing the Form Filler from command line, the Transform file can be entered as follows:

msiexec.exe /i "FormFillerSetup.msi" TRANSFORMS="<<PATH>>\FormFiller.mst" /q

How to set up a Group Policy Object for installing Form Filler MSI on domain computers automatically

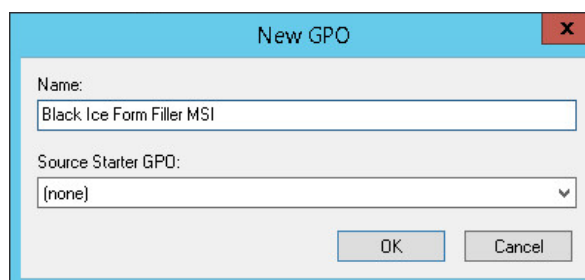
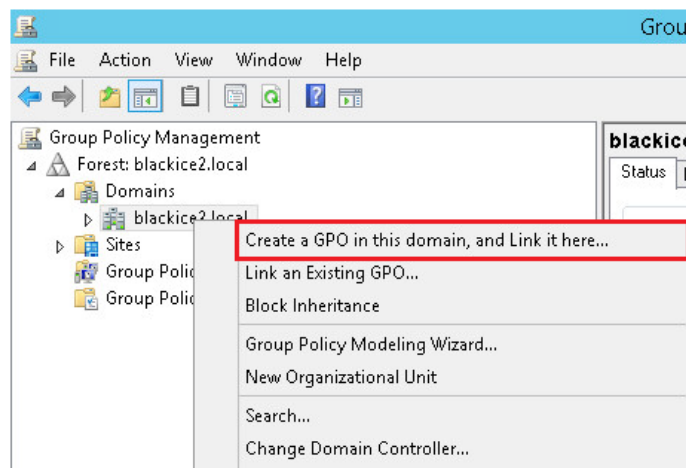
1. Copy the Install packages to a network share that **can be accessed from the computers** where the software needs to be installed.
2. To set up a *Group Policy Object*, start the *Group Policy Management console* on a Domain controller computer.

Run *gpmc.msc*



3. Create a new Group Policy

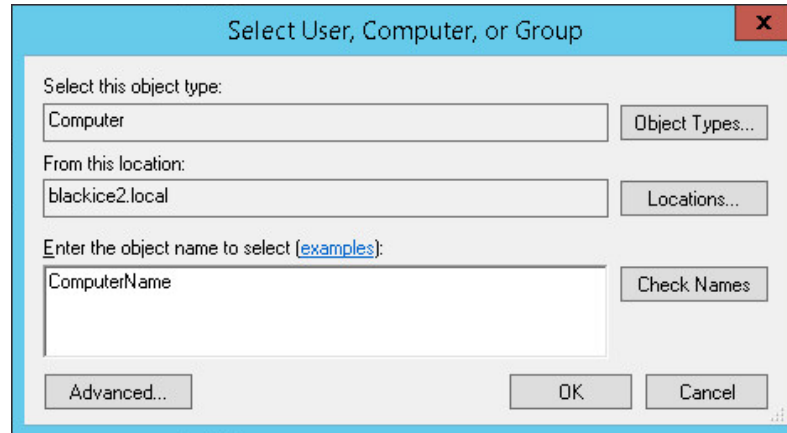
Left click on the desired Domain and select “*Create a GPO in this domain, and Link it here...*”. Define a new GPO by defining the name and press OK.



4. Define computers for the GPO.

Remove the default Groups and Users from the **Security Filtering Options**.
Click **Add** to search and define computers in the domain.

5. Add computers

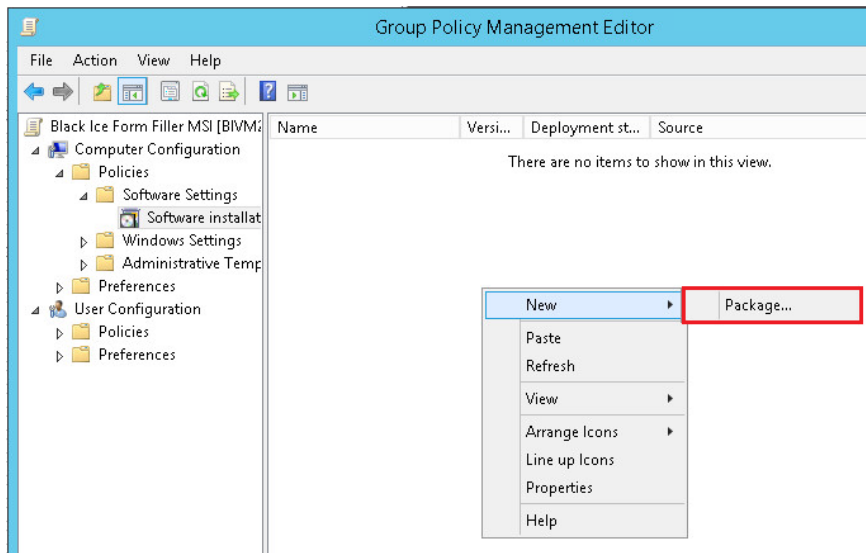


6. Edit Group Policy Object by left clicking on the GPO name and selecting **Edit**.
7. Change Privilege for the installation
Navigate to: **Computer Configuration \ Policies \ Administrative Templates \ Windows Components \ Windows Installer**.

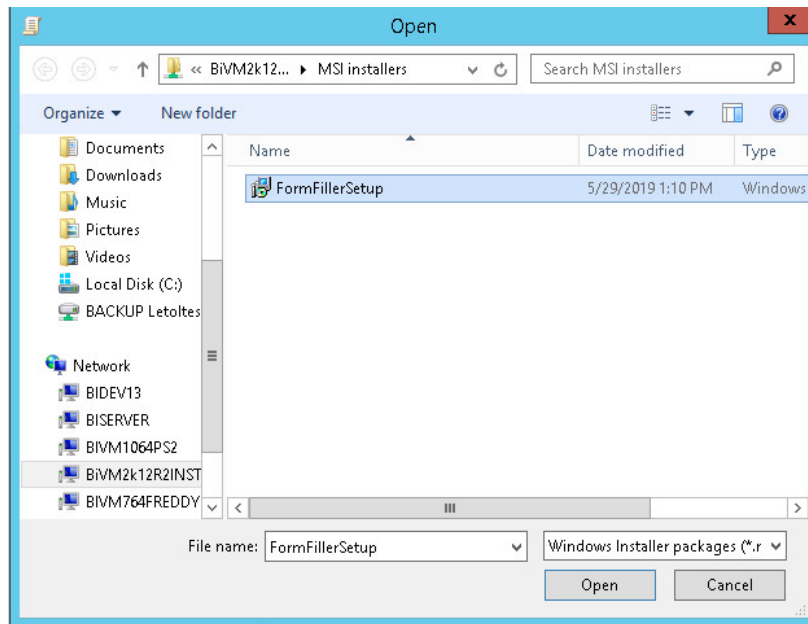
Modify the **Always install with elevated privileges** setting to **Enabled**.
8. Prepare the mst configuration file with ORCA to be used with the install package.

See the **How to create MST (Transform file) for GPO deployment** section of this documentation.
9. Add the Form Filler MSI installer package.
Navigate to: **Computer Configuration \ Policies \ Software Settings \ Software installation**

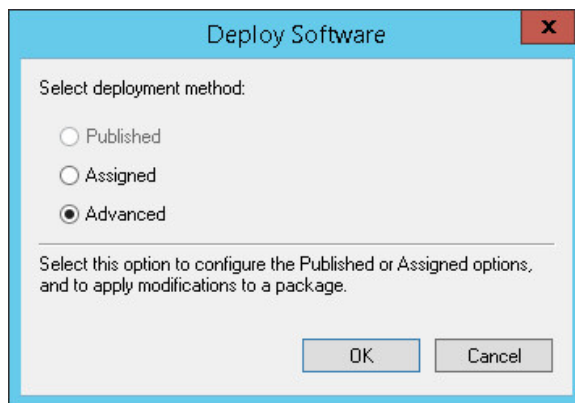
Left click on the right pane, select **New > Package**



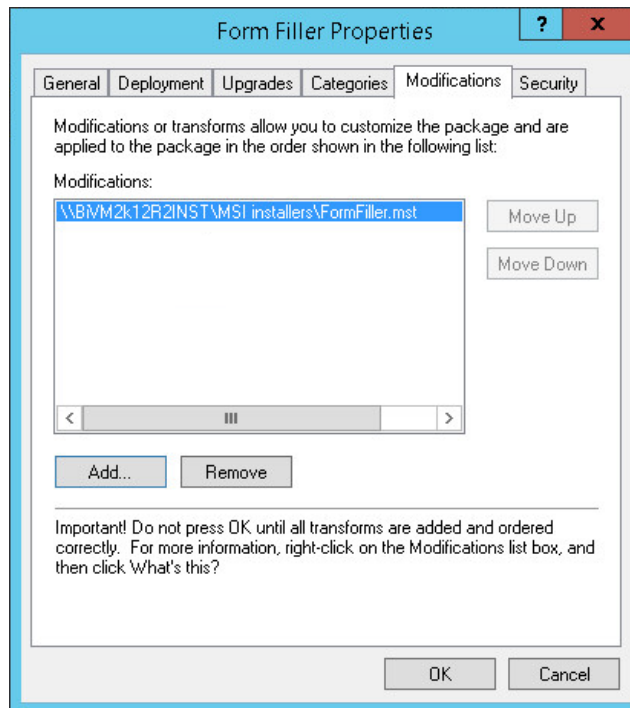
10. **Copy the Install packages to a network share** which is accessible from the computers where the software needs to be installed.



11. Select **Advanced** Software Deployment.

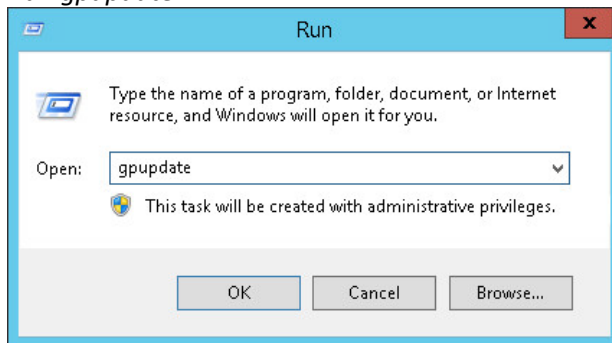


12. On the Modifications tab, please **add the previously created mst** file with the TARGETDIR or other properties. Click OK.



13. To Update the *Group Policies Object* please run the following command on the

Run *gpupdate*

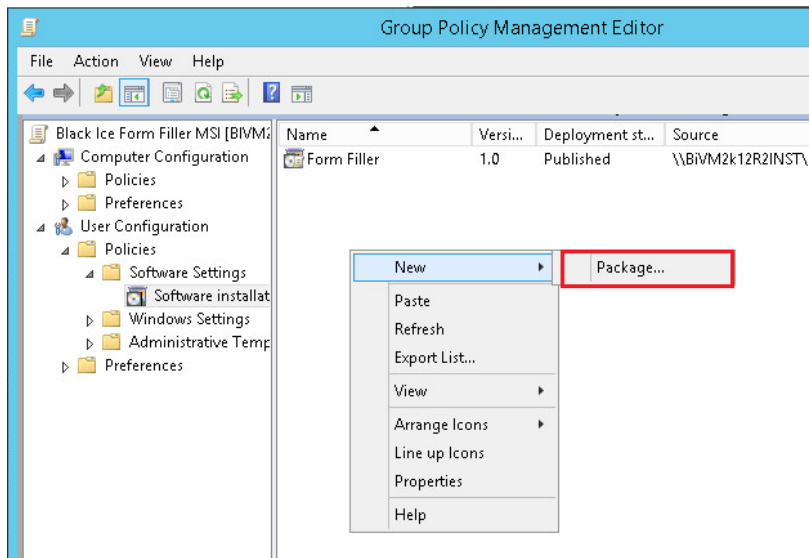


14. Restart the client computers to install the software.

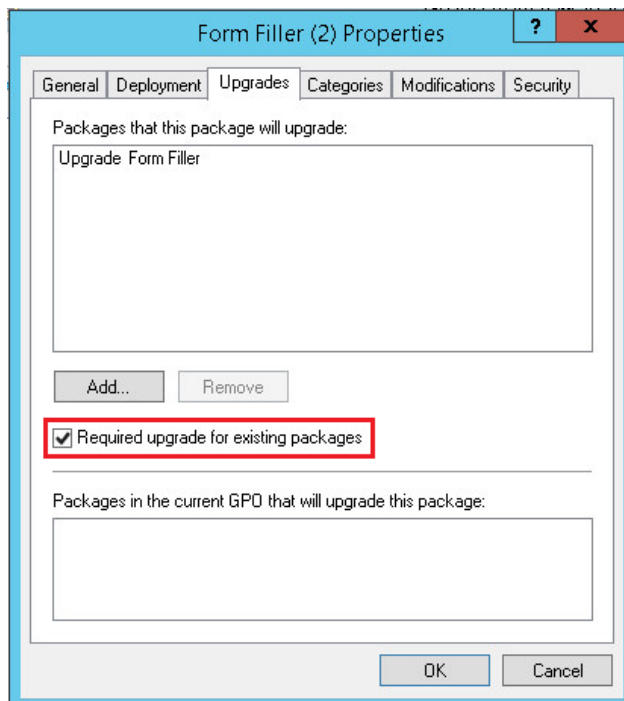
How to upgrade an existing installation of the Form Filler using Group Policy Object

To add the new version of the Form Filler as a Software Package to the same Group Policy Object where the previous version of Form Filler is located please perform the following steps;

1. Navigate to **Policies > Software Settings > Software installation**

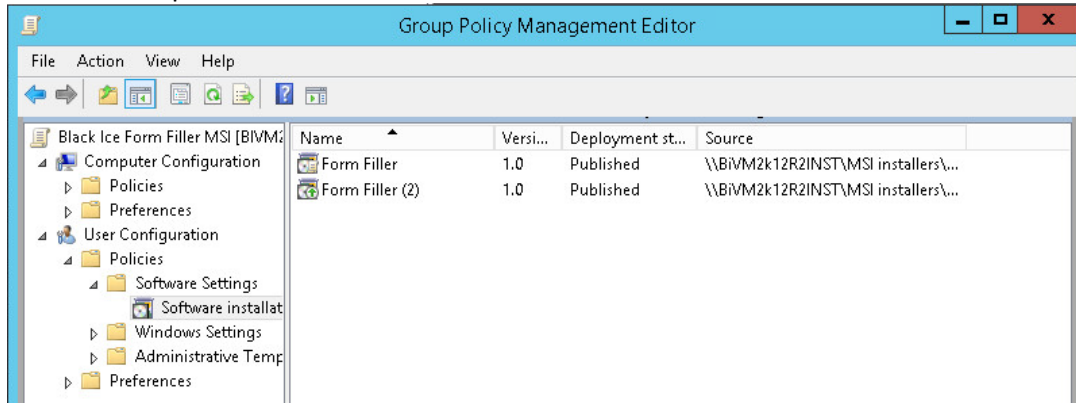


2. Right click in the open area, choose **New > Package...**
3. Navigate to the new version of the Form Filler MSI you want to use to upgrade your existing installation.
4. In the **Upgrades** tab select “**Required upgrade for existing packages**”.



The rest of the settings should be the same as the old version of the Form Filler software package.

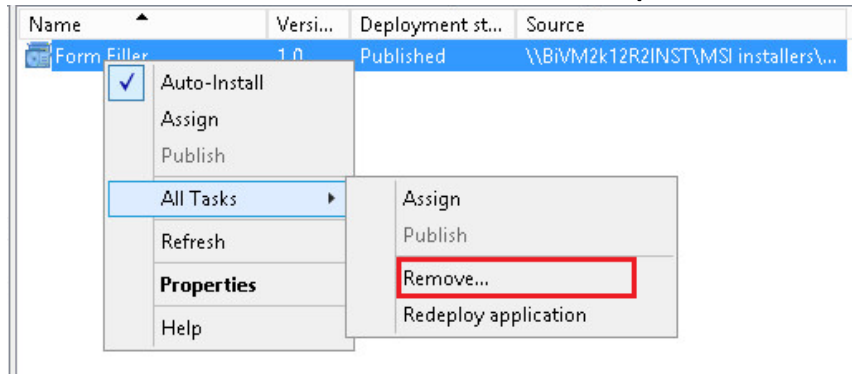
5. When the Group Policy Object configuration is finished the **Software installation** window should look similar to the picture below:



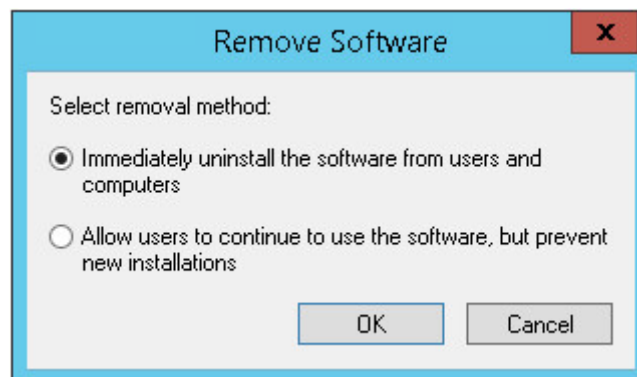
How to uninstall the Form Filler with MSI using GPO

1. Navigate to and Edit the previously created Group Policy Object by left clicking on the GPO name and selecting **Edit**.
2. Select the Form Filler MSI installer package.
Navigate to: **Computer Configuration \ Policies \ Software Settings \ Software installation**

Left click on the Form Filler MSI and select **All Tasks \ Remove...**



3. Select “**Immediately Uninstall the Software from users and computers**” option to remove the software from the computers.



4. Restart the client computers to uninstall the software.
Note: Please make sure the new Group Policy has been updated on the client computers. In certain situations, the client computers might need to be rebooted twice.

Intune Deployment of product using MSI Packages

This section includes a step-by-step description on how to deploy the MSI package to enrolled users and devices with the help of Microsoft Intune.

The following section demonstrates how to install any Black Ice product using Intune. We use the Black Ice Printer Driver as an example to show the simplicity of the process.

[Install the MSI installer with the “Line-of-business app” option](#)

[Install the MSI installer with the Windows app \(Win32\) option](#)

[Sync an app to the enrolled device](#)

[Status/Monitoring – Intune MSI Application Deployment](#)

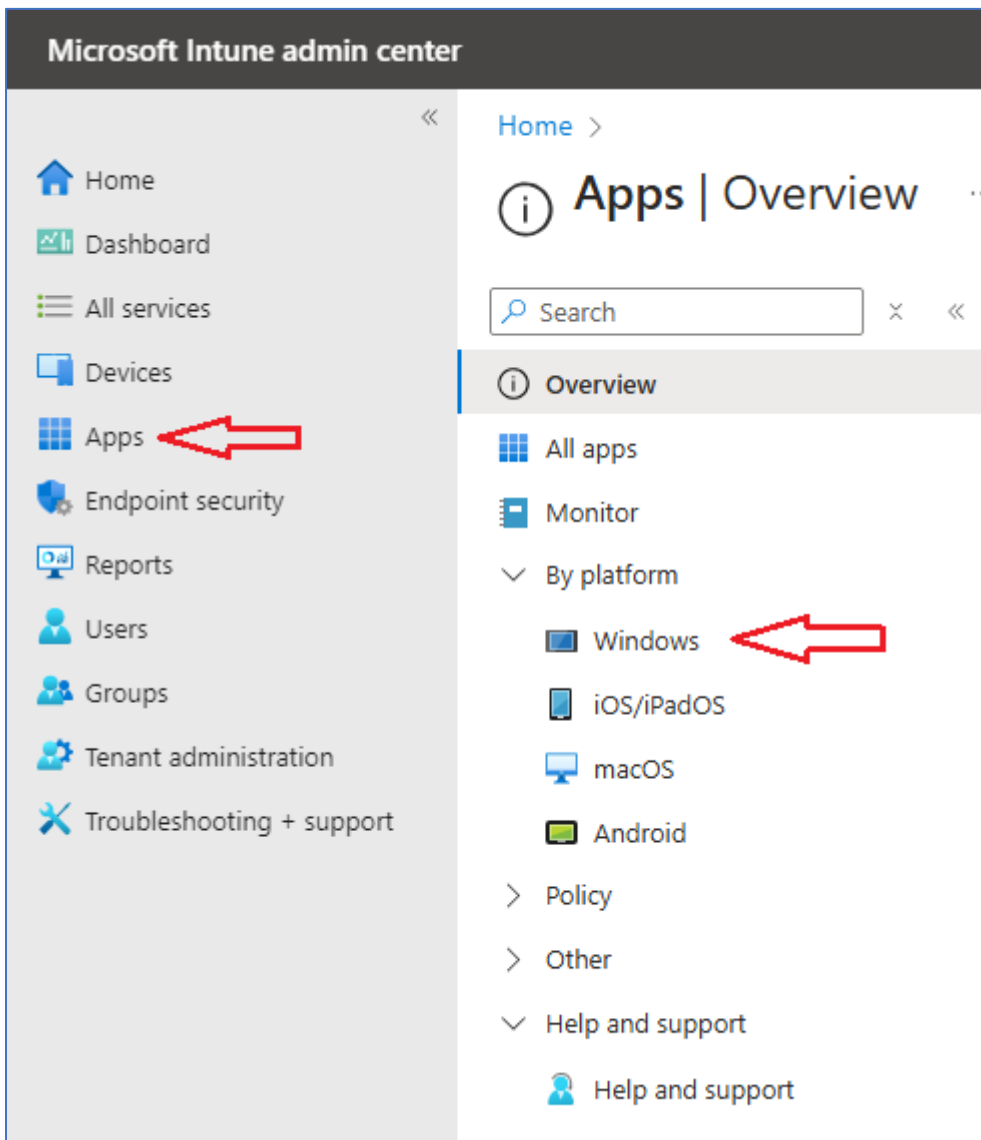
[Update/Upgrade a Printer Driver](#)

[Uninstall a Printer Driver](#)

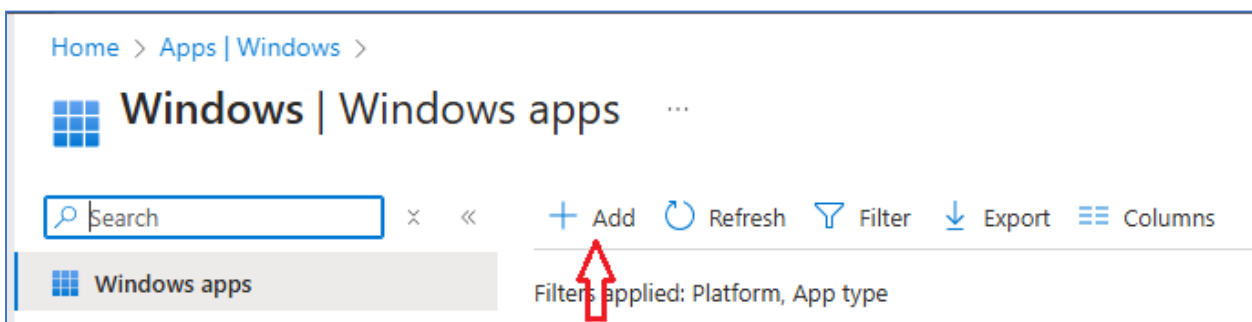
Install the MSI installer with the “Line-of-business app” option

Login to [Microsoft Intune admin center](#)

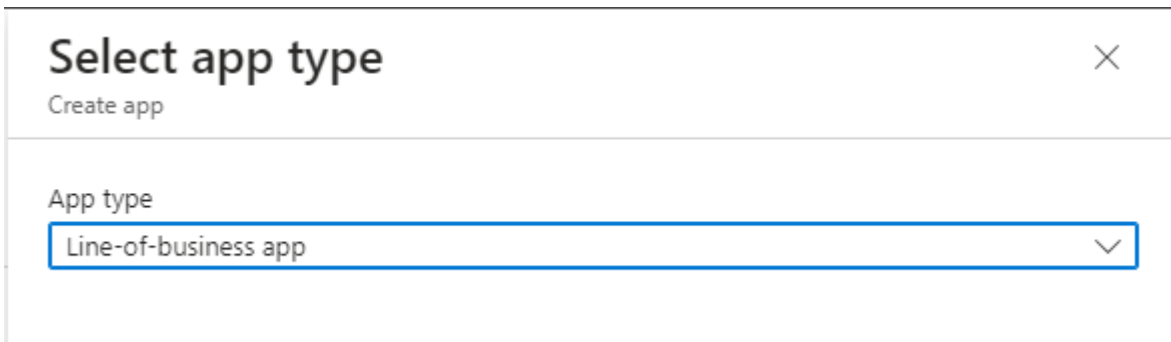
Navigate to the Apps -> Windows:



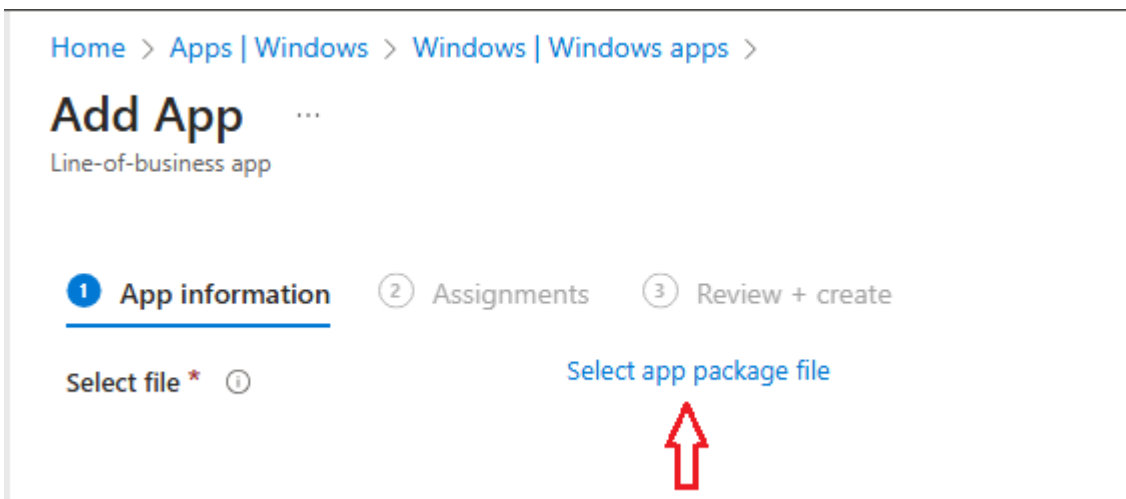
Click on **+Add** to add a new Intune application for deployment.



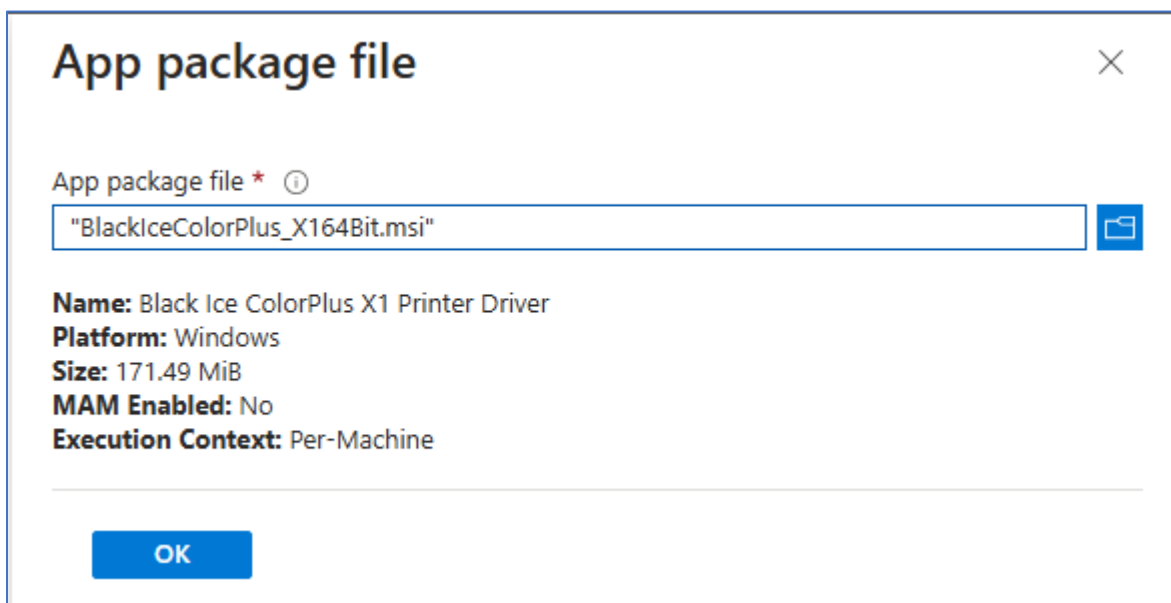
Select the **Line-of-Business app** - App Type drop-down menu from the Add app.



Click on the "Select app package file" to upload the BlackIceColorPlus_X164Bit.msi file to Intune.:



On the App package file, check out the following settings Name:



Click on OK on the App Package file.

Click on the App Information option from Add App in Intune Application Information Details.

Home > Apps | Windows > Windows | Windows apps >

Add App

Windows MSI line-of-business app

Description * ⓘ

[Edit Description](#)

Publisher * ⓘ

App install context ⓘ User Device

Ignore app version ⓘ Yes No

Command-line arguments

Category ⓘ

Show this as a featured app in the Company Portal ⓘ Yes No

Information URL ⓘ

Privacy URL ⓘ

Developer ⓘ

Owner ⓘ

Notes ⓘ

Logo ⓘ [Select image](#)

Fill in the following information details in App Information.

Command-line Argument: /q REGNUM="XXXXX-XXXXXXXX-XXXXXXXXX"

Note: the XXXXX-XXXXXXXX-XXXXXXXXX must be the serial number of the customer.

After filling in the information, click the Next option.

The next page will appear for Intune MSI Application Deployment - Assignment Options.

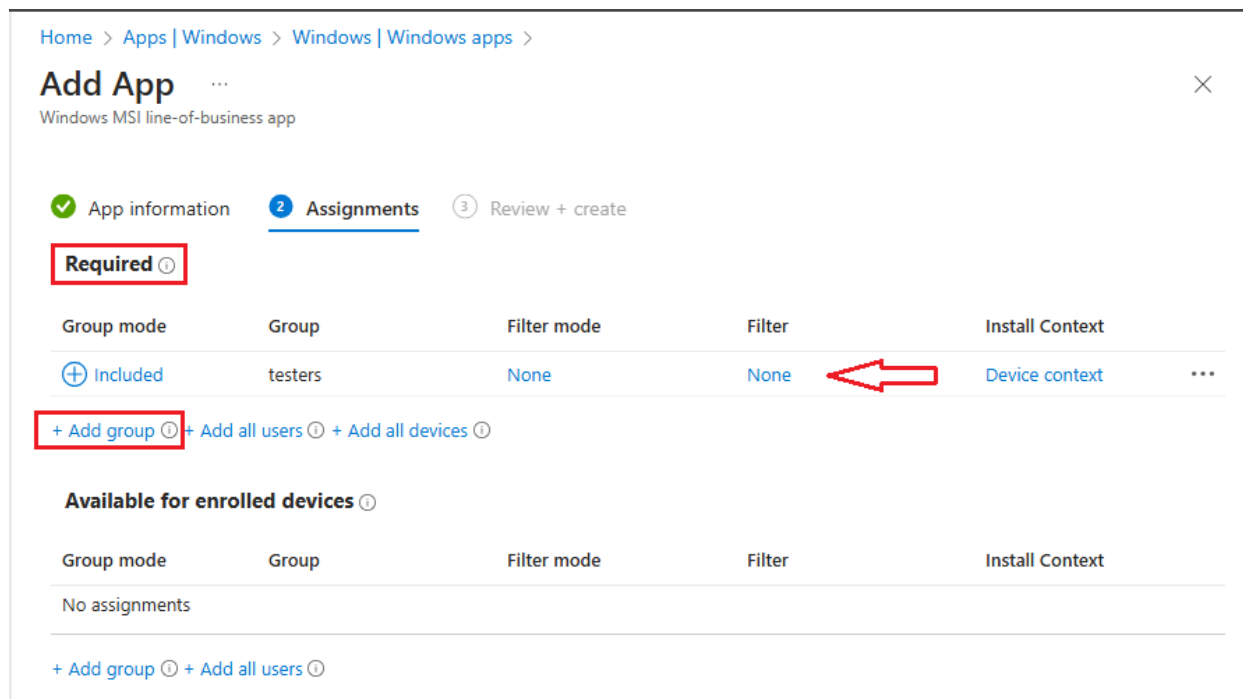
Click on the Add Group button from the Assignment tab of the application created.

Select groups where you want to assign this app from Add Group.

There are 3 (three) Assignment types - Select one assignment type.

You can deploy the MSI application to **some group of devices** or **users** as required. The MSI application is per machine then it will get installed in the machine context. Select Required or Available for Enrolled Devices. Click on Included Groups from **Add Group**.

Select the groups you want to make this app required or available from Assign. Click on Select Groups to select a Group for the required assignment from Assign. Search the Device/user Group in the search option in Select Groups and select the DEVICE/USER group that you want to deploy.



Click **Next** to save the Assignment.

On the following page, Review the values and settings you entered for the app.

Add App ...

Windows MSI line-of-business app

App package file	BlackIceColorPlus_X164Bit.msi
Name	Black Ice ColorPlus X1 Printer Driver
Description	<input type="text" value="Black Ice ColorPlus X1 Printer Driver"/>
Publisher	Black Ice Software LLC
App install context	Device
Ignore app version	No
Command-line arguments	/q REGNUM="XXXXX-XXXXXXXX-XXXXXXXXXX"
Category	No Category
Show this as a featured app in the Company Portal	No
Information URL	No Information URL
Privacy URL	No Privacy URL
Developer	No Developer
Owner	No Owner
Notes	No Notes
Logo	No logo

Assignments






Group mode	Group	Filter mode	Filter	Install
> Required				
	Available for enrolled devices			
	Uninstall			

When you are done, click **Create** to add the app to Intune.

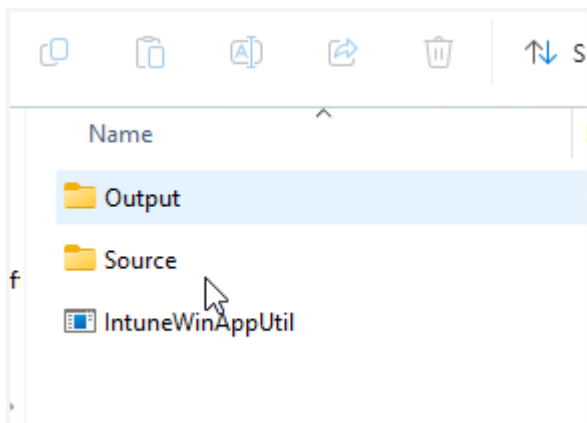
Install the MSI installer with the Windows app (Win32) option

First, the .MSI package needs to be converted into an .INTUNEWIN format so it can be uploaded to Intune.

Download the Microsoft Win32 Content Prep tool from [Microsoft's official link](#). This tool is essential for converting your .MSI files into .INTUNEWIN format, suitable for Intune.

nikyusof-zz Fixing an issue where the Win32 content prep tool crashes (#124)		2d0afcf · 9 months ago	🕒 47 Commits
 IntuneWinAppUtil.exe	Fixing an issue where the Win32 content prep tool crashes (...)	9 months ago	
 Microsoft License Terms For Win32 Content Pr...	Add license	6 years ago	
 README.md	Fixing an issue where the Win32 content prep tool crashes (...)	9 months ago	
 ReleaseNotes.txt	Fixing an issue where the Win32 content prep tool crashes (...)	9 months ago	
 SECURITY.md	Microsoft mandatory file (#77)	2 years ago	

Organize Your Files: Create a dedicated folder, such as 'Microsoft Win32 Content Prep', and within it, establish Source and Output subfolders for better management of the original and converted files.



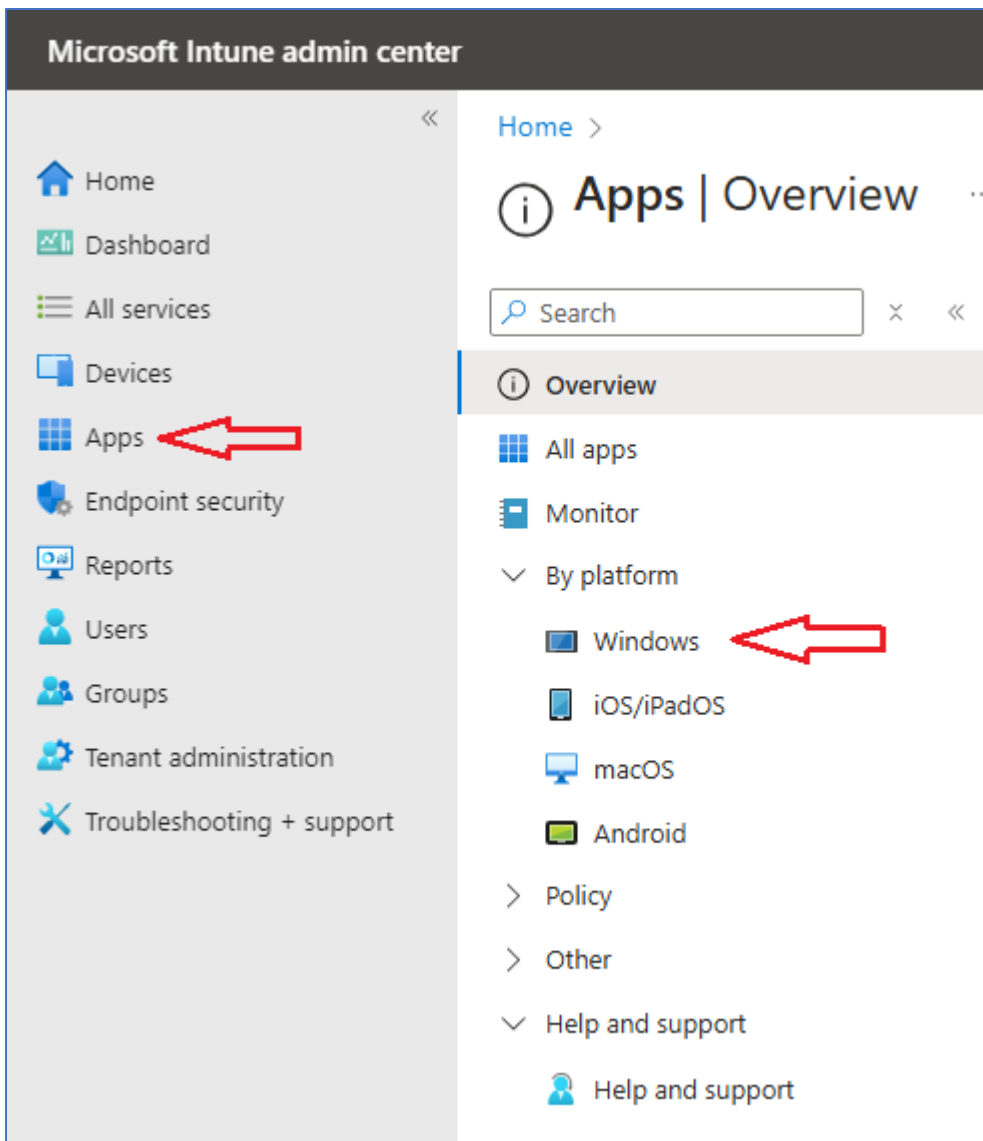
Run the **IntuneWinAppUtil** tool with the following parameters:

```
IntuneWinAppUtil.exe -c "C:\Microsoft Win32 Content Prep\Source" -s "BlackIceColorPlus_X164Bit.msi" -o "C:\Microsoft Win32 Content Prep\Output"
```

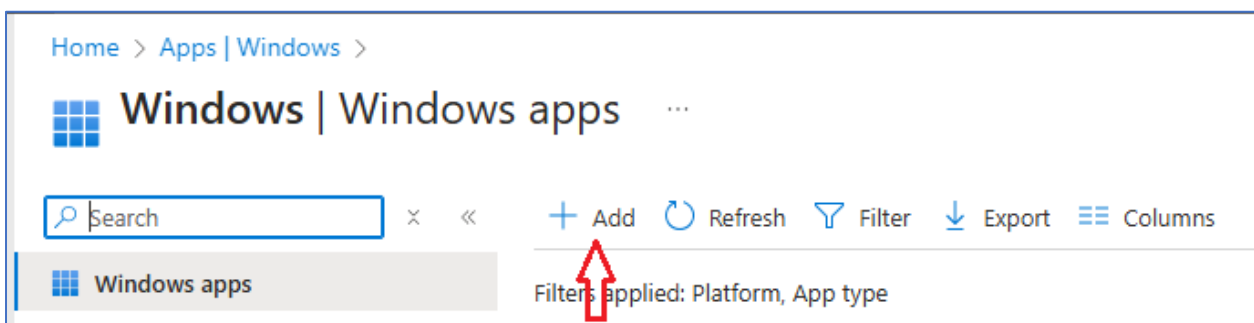
The **Output** folder contains the .INTUNEWIN file for installation.

Login to [Microsoft Intune admin center](#)

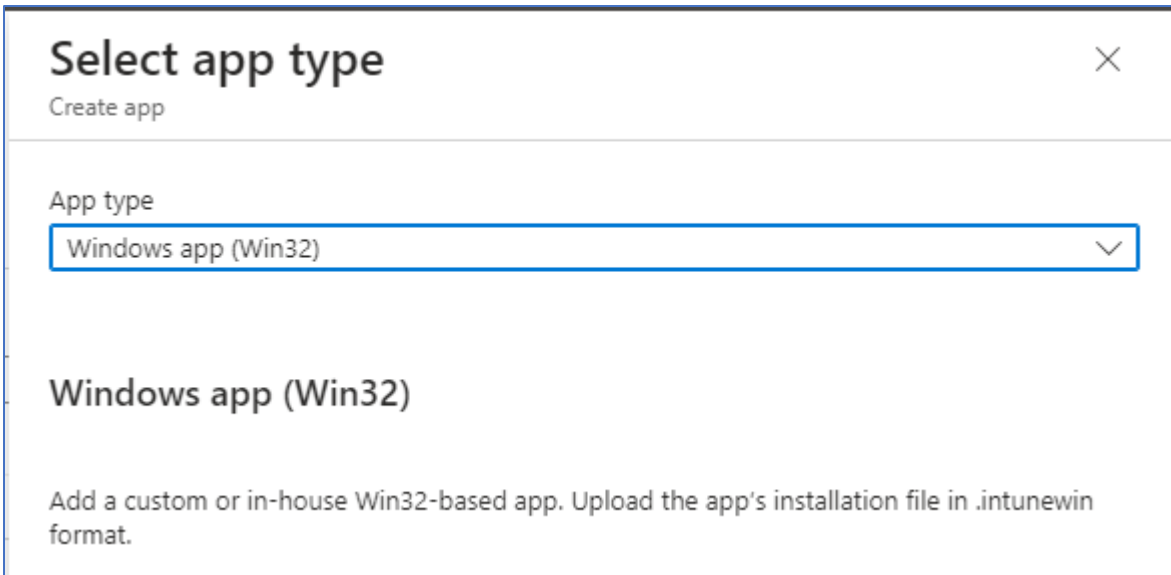
Navigate to the Apps -> Windows:



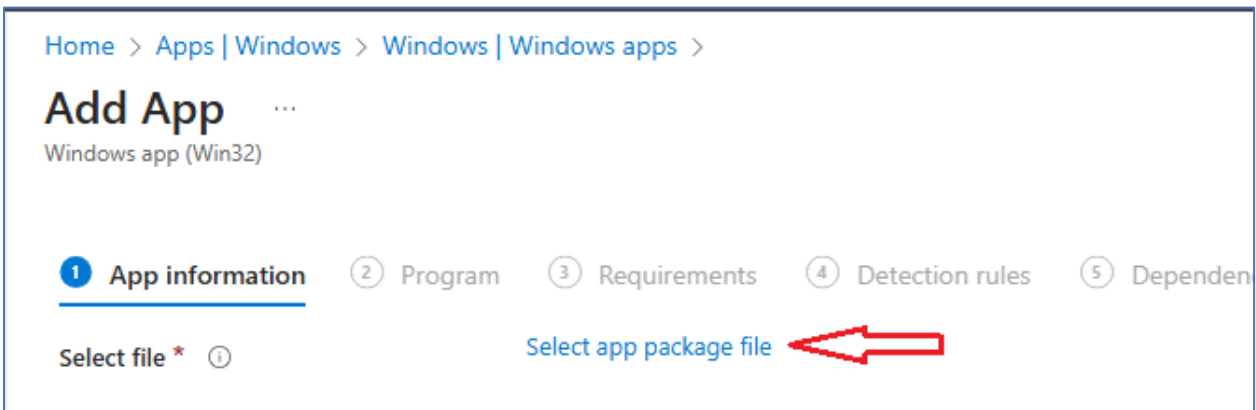
Click on **+Add** to add a new Intune application for deployment.



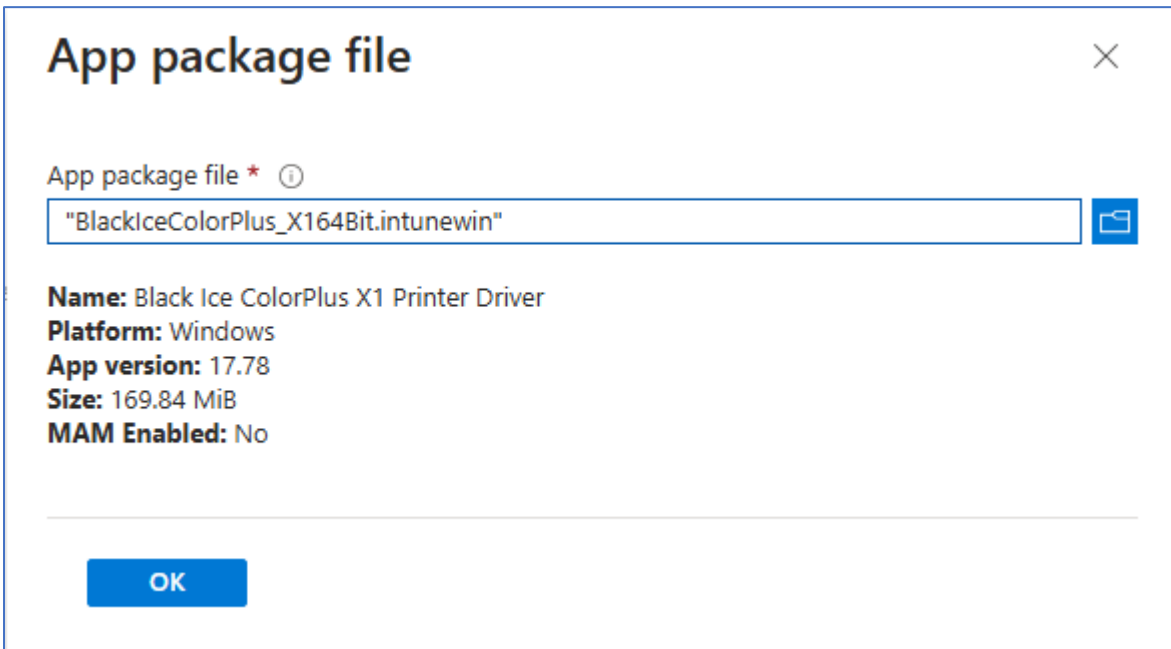
Select the **Line-of-Business app** - App Type drop-down menu from the Add app.



Click on the “Select app package file” to upload the BlackIceColorPlus_X164Bit.intunewin file to Intune.:



On the App package file, check out the following settings Name:



Click on OK on the App Package file.

Click on the **App Information** option from Add App in Intune Application Information Details.

Need to specify the Publisher field.

The screenshot shows the 'Add App' configuration page in Microsoft Intune. The breadcrumb navigation is 'Home > Apps | Windows > Windows | Windows apps >'. The page title is 'Add App' with a sub-label 'Windows app (Win32)'. There are six numbered tabs: 1. App information (selected), 2. Program, 3. Requirements, 4. Detection rules, 5. Dependencies, and 6. Supers. The 'App information' tab contains the following fields:

- Select file ***: BlackIceColorPlus_X164Bit.intunewin
- Name ***: Black Ice ColorPlus X1 Printer Driver
- Description ***: Black Ice ColorPlus X1 Printer Driver
- Publisher ***: Black Ice Software LLC (highlighted with a red arrow)
- App Version**: 17.78
- Category**: 0 selected
- Show this as a featured app in the Company Portal**: Yes/No (No is selected)
- Information URL**: Enter a valid url
- Privacy URL**: Enter a valid url
- Developer**: (empty)
- Owner**: (empty)
- Notes**: (empty)
- Logo**: Select image

The Intune automatic field is the Install and Uninstall command field.

Important: Add the REGNUM="XXXXX-XXXXXXXX-XXXXXXXXXX" to the Install command field.

Note: the XXXXX-XXXXXXXX-XXXXXXXXXX must be the serial number of the customer.

✓ App information
2 Program
3 Requirements
4 Detection rules
5 Dependencies
6 Supersede

Specify the commands to install and uninstall this app:

Install command * ⓘ ✓

Uninstall command * ⓘ ✓

Installation time required (mins) ⓘ

Allow available uninstall ⓘ Yes No

Install behavior ⓘ System User

Device restart behavior ⓘ

On the Requirements page, specify the rules for the app to be installed on the device. I am going to require 64-bit for Operating System architecture and the Minimum operating system of Windows 10 1607. Specify the best choices based on your company's needs.

✓ App information
✓ Program
3 Requirements
4 Detection rules
5 Dependencies
6 Supersede

Specify the requirements that devices must meet before the app is installed:

Operating system architecture * ⓘ

Minimum operating system * ⓘ

Disk space required (MB) ⓘ

Next, the **Detection rules** allow us to check the device to see whether the application being deployed is already on that device or not. If the application version is already on that device, it will not install. However, if nothing is detected it will go ahead and deploy. There are two options: one is to Manually configure detection rules and the other is to use a custom detection script. We will use Manually configure detection rules > + Add:

✓ App information
✓ Program
✓ Requirements
4 Detection rules
5 Dependencies
6 Supersede

Configure app specific rules used to detect the presence of the app.

Rules format * ⓘ

Type	Path/Code
No rules are specified.	

[+ Add](#) ⓘ

There are three Rule types to choose from: MSI, File, and Registry. Since we used an MSI package, it will automatically populate the MSI product code, so we will go ahead and click MSI.

See the rule here requires using the MSI Product code and I have the option to use the MSI Product version check. We will not need it in this case.

Detection rule ✕

Create a rule that indicates the presence of the app.

Rule type * ⓘ

MSI product code * ⓘ ✓

MSI product version check ⓘ

Next, **Dependencies** enables us to add apps that might need to be paired together for this application to be installed. We are selecting no dependencies in this case.

App information
 Program
 Requirements
 Detection rules
 5 Dependencies
 6 Supersedence

Software dependencies are applications that must be installed before this application can be installed. To automatically install a child dependency app before installing the current parent app, enable the automatically install option. To only install the current parent app if the child dependency app is already detected on the device, disable the automatically install option. There is a maximum of 100 child dependency apps, including references to other apps outside of this view, forming a graph of apps. The total size of the dependency app graph is limited to the maximum of 100 plus the parent app (101 total). [Learn more](#)

Name	Automatically Install
No results.	

[+ Add](#) ⓘ

Next, **Supersedence** enables us to specify which apps will be either updated or replaced.

Note: If you want to update an app, disable the “Uninstall previous version” option. If you want to replace an app, however, you can enable that choice. In this case, there is nothing under Supersedence, but I may write another blog on this topic shortly if people are interested.

App information
 Program
 Requirements
 Detection rules
 Dependencies
 6 Supersedence

When you supersede an application, you can specify which apps will be directly updated or replaced. To update an app, disable the uninstall previous version option. To replace an app, enable the uninstall previous version option. There is a maximum of 10 updated or replaced apps, including references to other apps outside of this view, forming a graph of apps. The total size of the supersedence app graph is limited to the maximum of 10 plus the parent app (11 total). [Learn more](#)

Apps that this app will supersede

Name	Publisher	Version	Uninstall previous version
No results.			

[+ Add](#) ⓘ

The next page will appear for Intune MSI Application Deployment - Assignments Options.

Click on the **Add Group** button from the Assignment tab of the application created.
Select groups where you want to assign this app from Add Group.

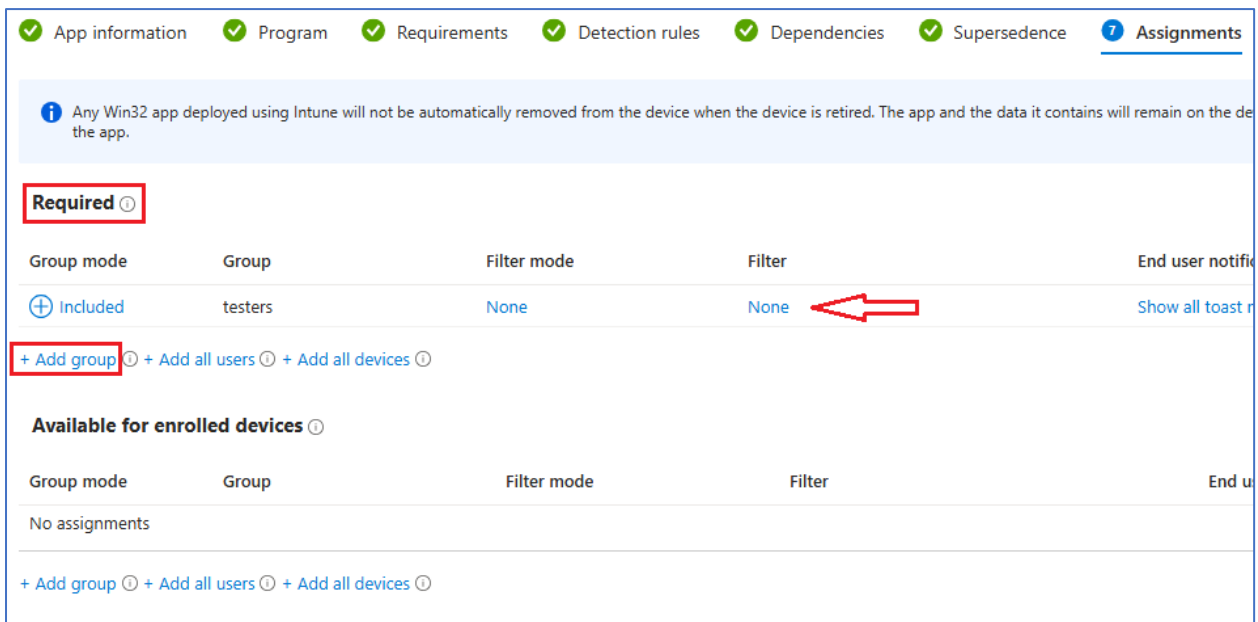
There are 3 (three) Assignment types - Select one assignment type.
You can deploy the MSI application to some group of devices or users as required.
The MSI application is per machine then it will get installed in the machine context.
Select Required or Available for Enrolled Devices.

Click on Included Groups from Add Group.

Select the groups you want to make this app required or available from Assign.

Click on Select Groups to select a Group for the required assignment from Assign.

Search the Device/user Group in the search option in Select Groups and select the DEVICE/USER group that you want to deploy.



Review your MSI installation and click **Create** when you are ready.

Sync an app to the enrolled device

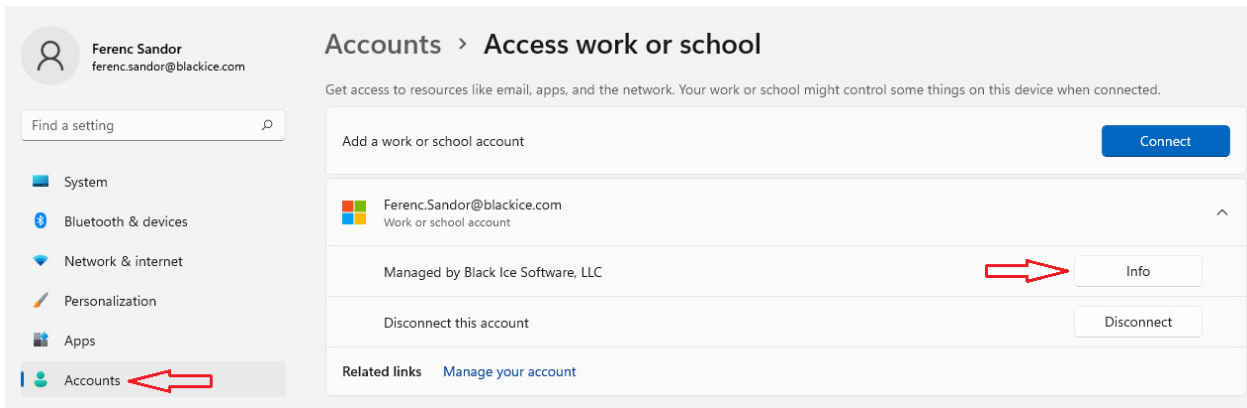
Once the application is deployed from Microsoft Intune, it can be synced to a device by following the below steps:

Go to an enrolled device, in our case we used a Windows 11 machine.

Right-click on the Windows icon and then go to Settings.

Click on Accounts -> Access work or school.

Click on the **Info** button.



Click on sync for syncing apps and policies.

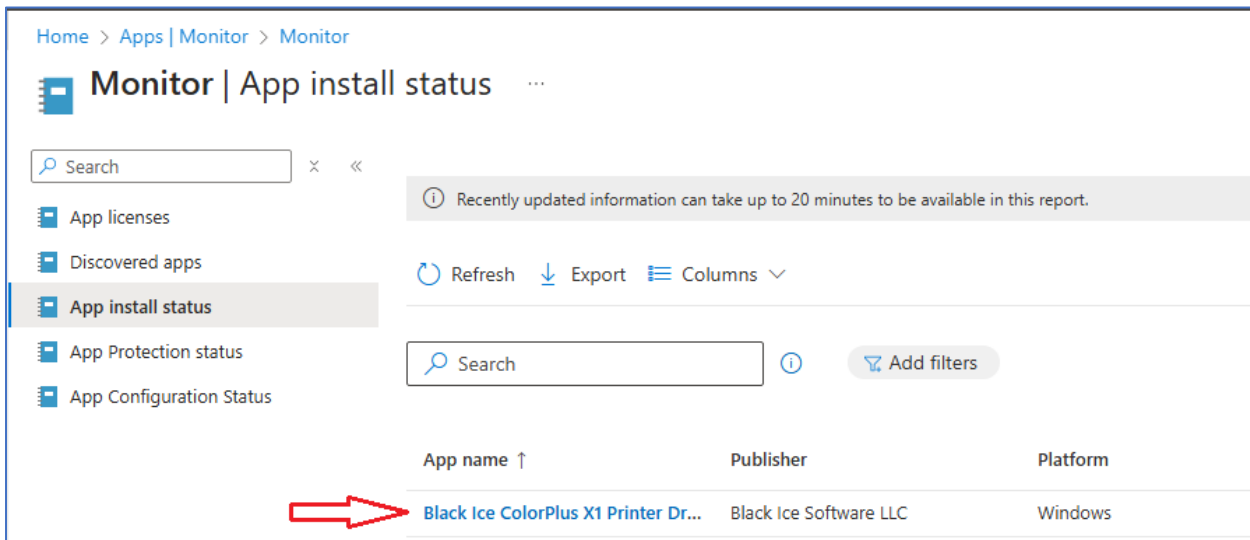
Optional: Restart your machine if the app does not appear on your device.

Status/Monitoring – Intune MSI Application Deployment

You can check the state of the deployed application.

Navigate via Microsoft Intune - Apps > **Monitor**.

Click on **App Install Status** and select the application you want to know the status of the application.



The screenshot displays the 'Monitor | App install status' page in Microsoft Intune. The left sidebar contains navigation options: App licenses, Discovered apps, App install status (highlighted), App Protection status, and App Configuration Status. The main content area features a search bar, a refresh button, an export button, and a columns dropdown menu. A table lists applications with columns for App name, Publisher, and Platform. A red arrow points to the application 'Black Ice ColorPlus X1 Printer Dr...'.

App name ↑	Publisher	Platform
Black Ice ColorPlus X1 Printer Dr...	Black Ice Software LLC	Windows

From the application (this will be in the application name), click on Overview to get a graphical view of the MSI application deployment status.

Black Ice ColorPlus X1 Printer Driver ...


Client Apps

× <<


 Delete


Overview


Manage


 Properties

Monitor

 Device install status

 User install status

 Dependency viewer

 Supersedence viewer

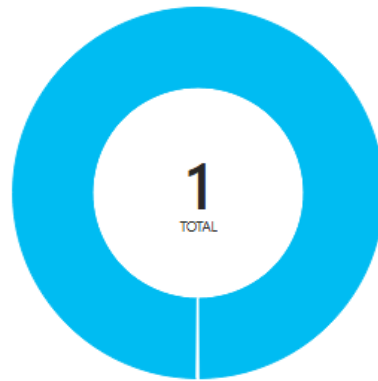
Essentials






Publisher : Black Ice Software LLC

Operating system : Windows

Version : 17.78

Device status



-  Installed 1
-  Not Installed 0
-  Failed 0
-  Install Pending 0
-  Not Applicable 0

Update/Upgrade a Printer Driver

Intune will automatically reinstall, update, or remove a required app based on the following conditions:

- If an end user uninstalls an app that you have required to be installed on the end user's device, Intune will automatically reinstall the app.
- If a required app install fails or somehow the app is not present on the device, Intune evaluates compliance and reinstalls the app.
- If the admin deploys uninstall intent and the app is present on the device and failed to uninstall, Intune evaluates compliance and uninstalls the app.

When you need to update or upgrade an already installed app, use the following steps:

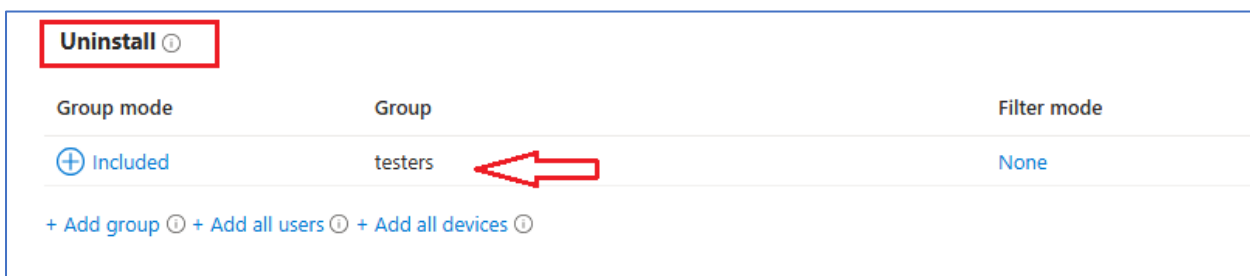
Navigate via Microsoft Intune – Apps > **All apps**.
Find and select your app from the list of apps.
Select **Properties** under Manage from the app pane.
Select **Edit** next to **App information**.
Click on the listed file next to **Select file to update**.
The **App package file** pane is displayed.

Uninstall a Printer Driver

When you need to uninstall an app from a user's device, use the following steps:

Navigate via Microsoft Intune – Apps > All apps > Black Ice ColorPlus X1 Printer Driver > Manage > Properties > Assignments > Edit.


In the **Add group** pane, select **Uninstall**.
Select **Included Groups** to select the groups of users that are affected by this app assignment.
Select the groups that you want to apply the uninstall assignment.
Click **Select** on the **Select groups** pane.
Click **OK** on the **Assign** pane to set the assignment.



Note: If you want to exclude any groups of users from being affected by this app assignment, select **Exclude Groups**.

Edit assignment

testers

 Remove

Assignment settings

Mode ⓘ

Included

Excluded

Select **OK** in the **Add group** pane.

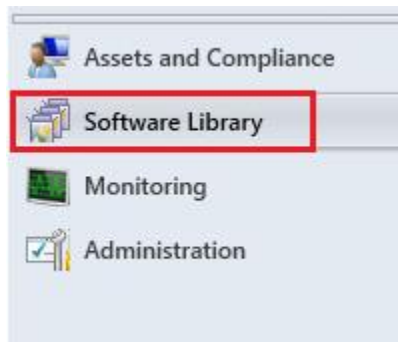
Select **Review and Save** in the app **Assignments** pane.

Installing the Form Filler with SCCM

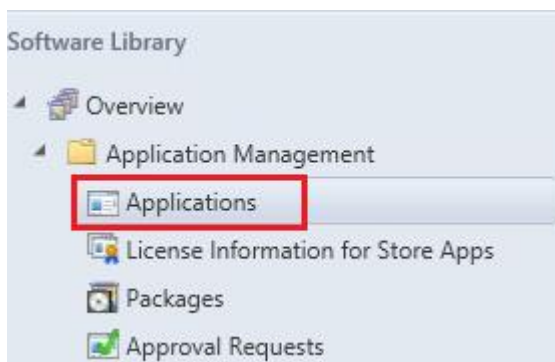
To deploy the Form Filler MSI installer with SCCM (System Center Configuration Manager), please follow the steps below on how to create an Application package for the Form Filler in SCCM.

Open the System Center Configuration Manager

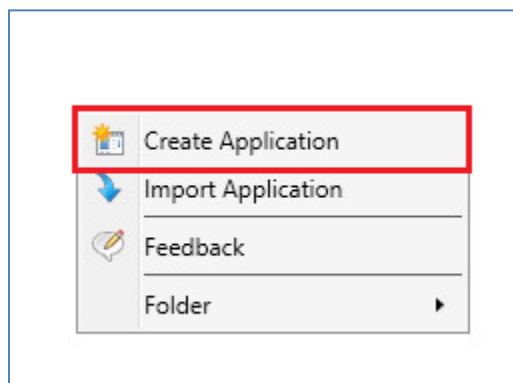
Navigate to Software Library



Select Applications



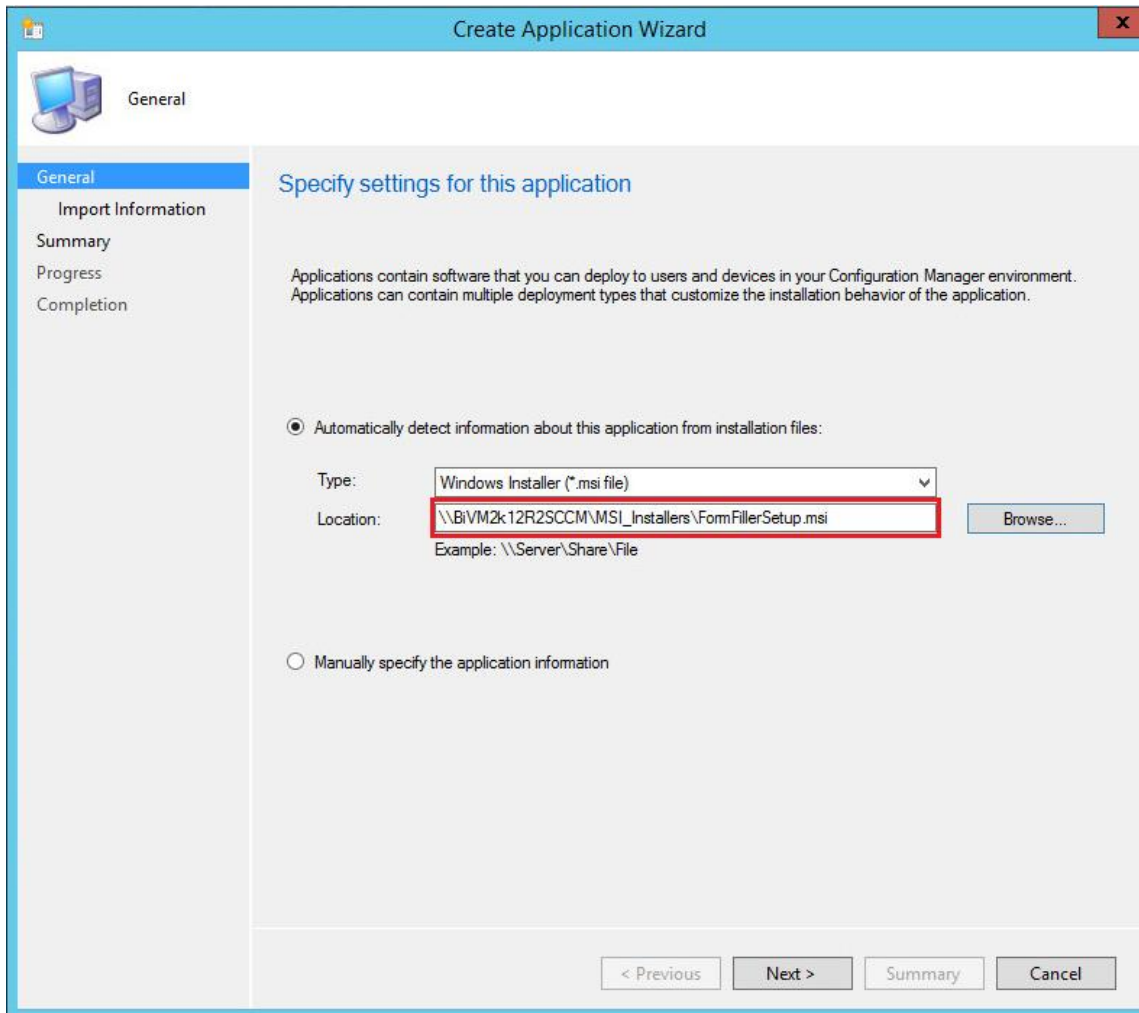
Right click on form and select **Create Application**



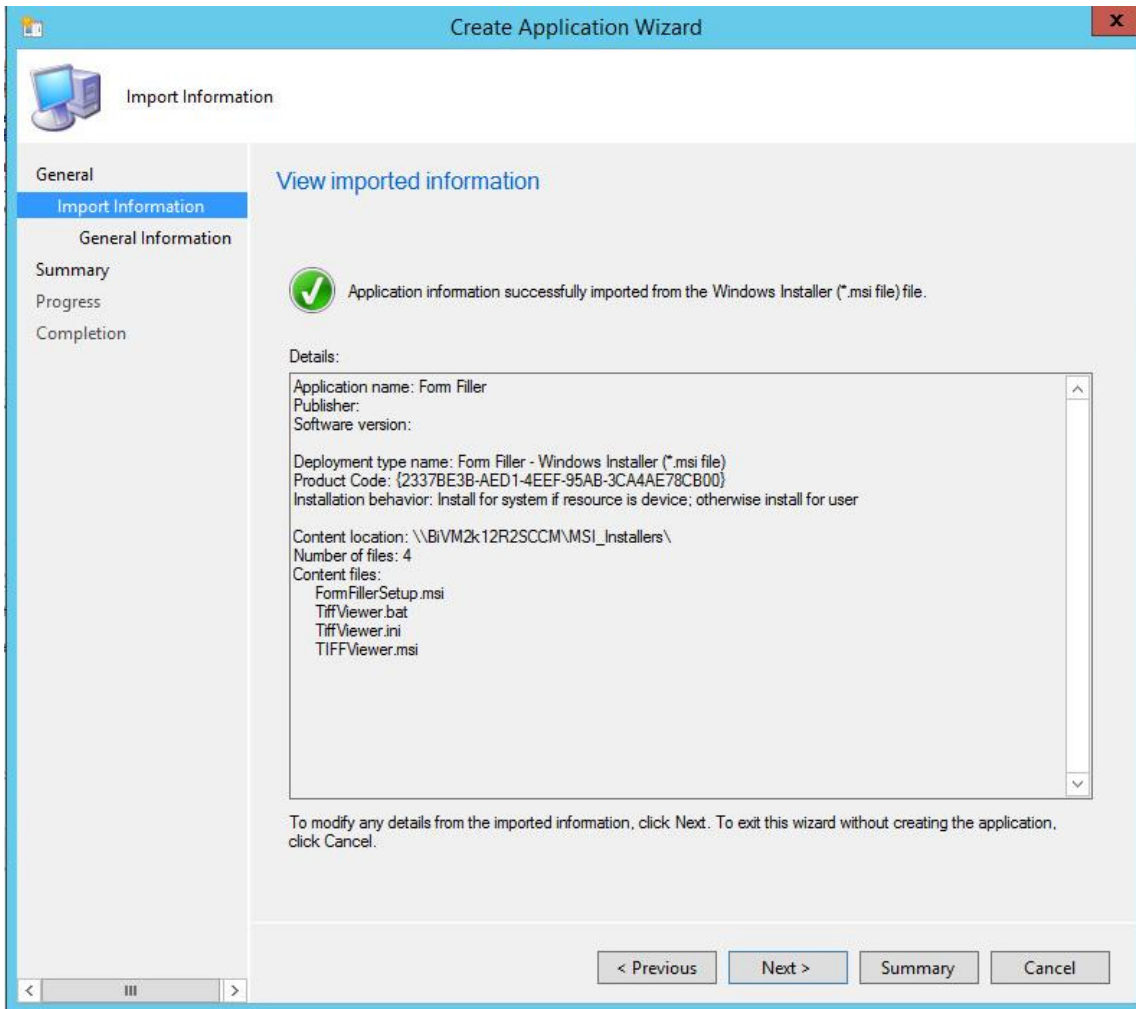
Add MSI installer file (Example: [\\BiVM2k12R2SCCM\MSI_Installers\FormFillerSetup.msi](#))

Type: Windows Installer (*.msi file)

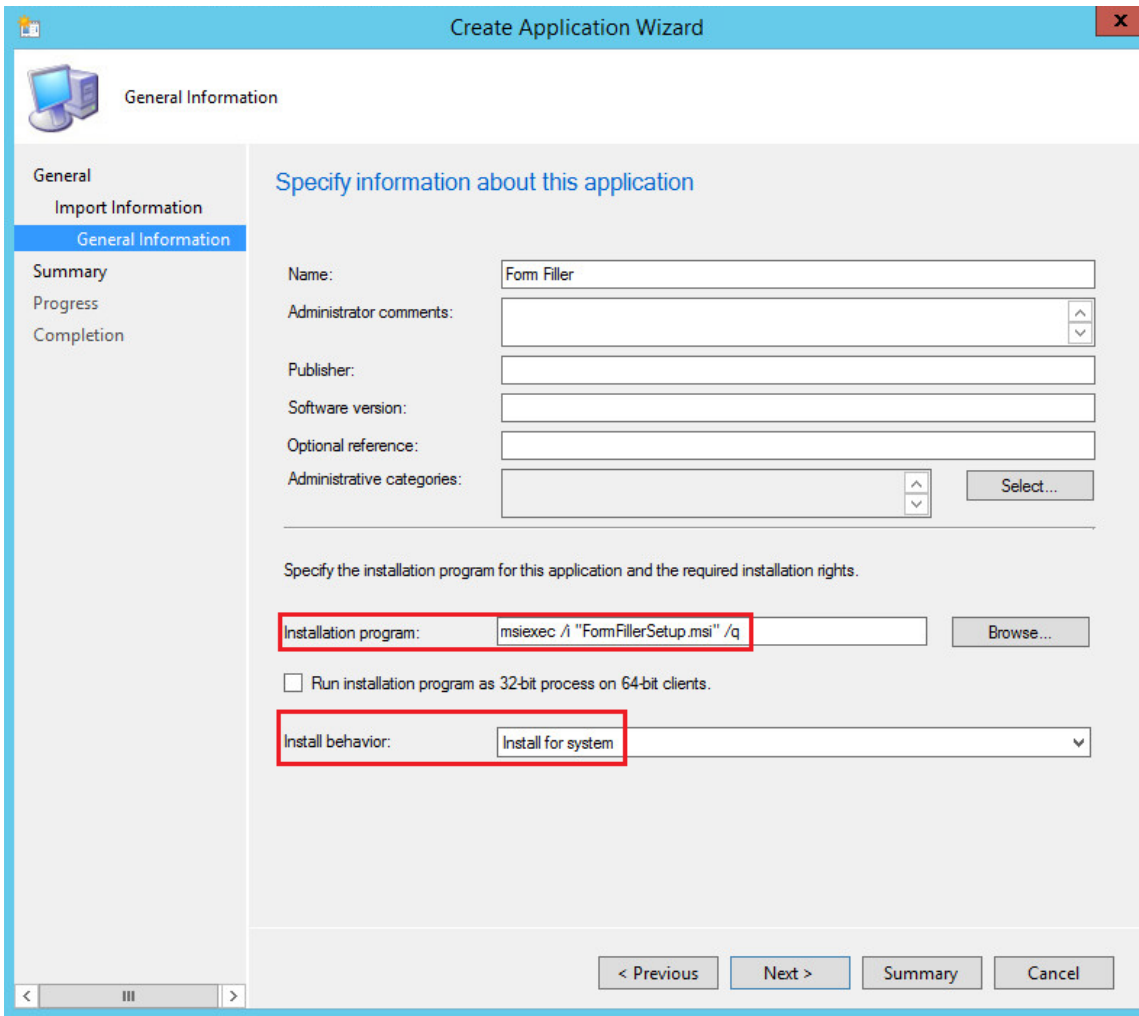
Note: The *.msi file from shared directory is on the SCCM server.



Click **Next** button.



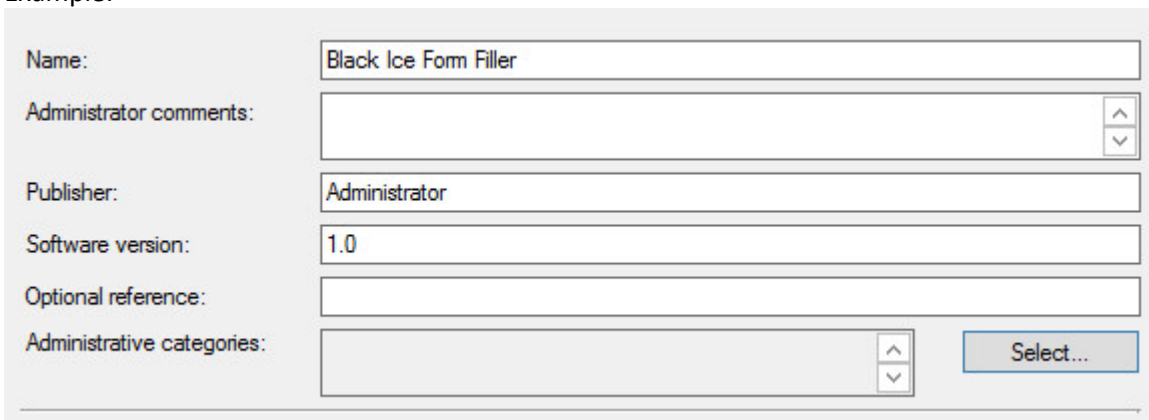
Click **Next** button.



Configure the following entries:

- Publisher
- Software version

Example:



The SCCM automatically fills the Installation program.
Msiexec /i "FormFillerSetup.msi" /q

Install with the TRANSFORM parameter.

To Create a "Transform (MST) file with Orca", please read the "How to use ORCA" section. Add the TRANSFORM parameter with Transform file with full path.

Example: \\[SCCM Server]\MSI installers\FormFiller.mst

Note: The *.mst file from the shared directory is on the SCCM server.

Installation program: `msiexec /i "FormFillerSetup.msi" TRANSFORMS="\\BIVM2k12R2S`

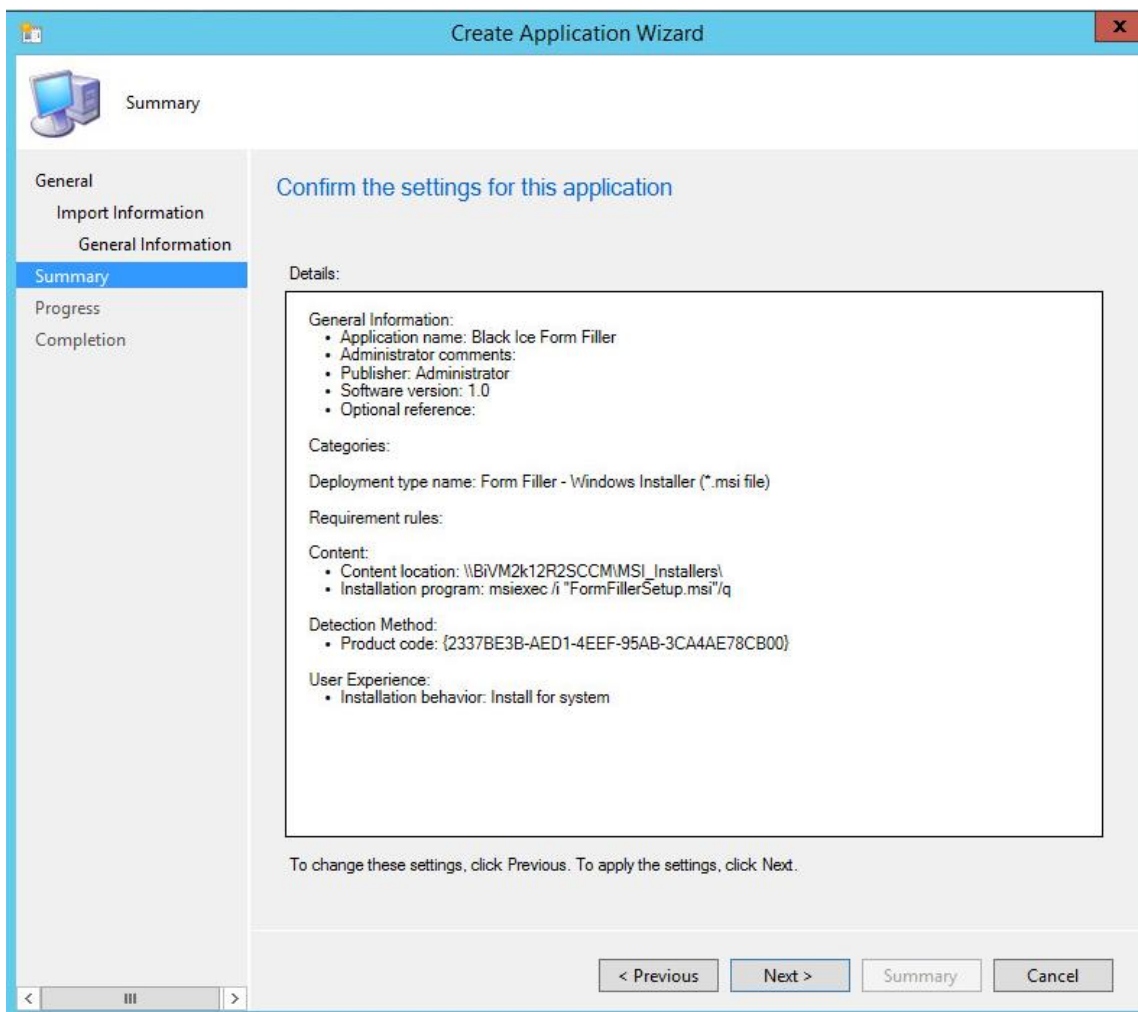
NOTE: The Installer behavior is “Install for system”

Install behavior: `Install for system`

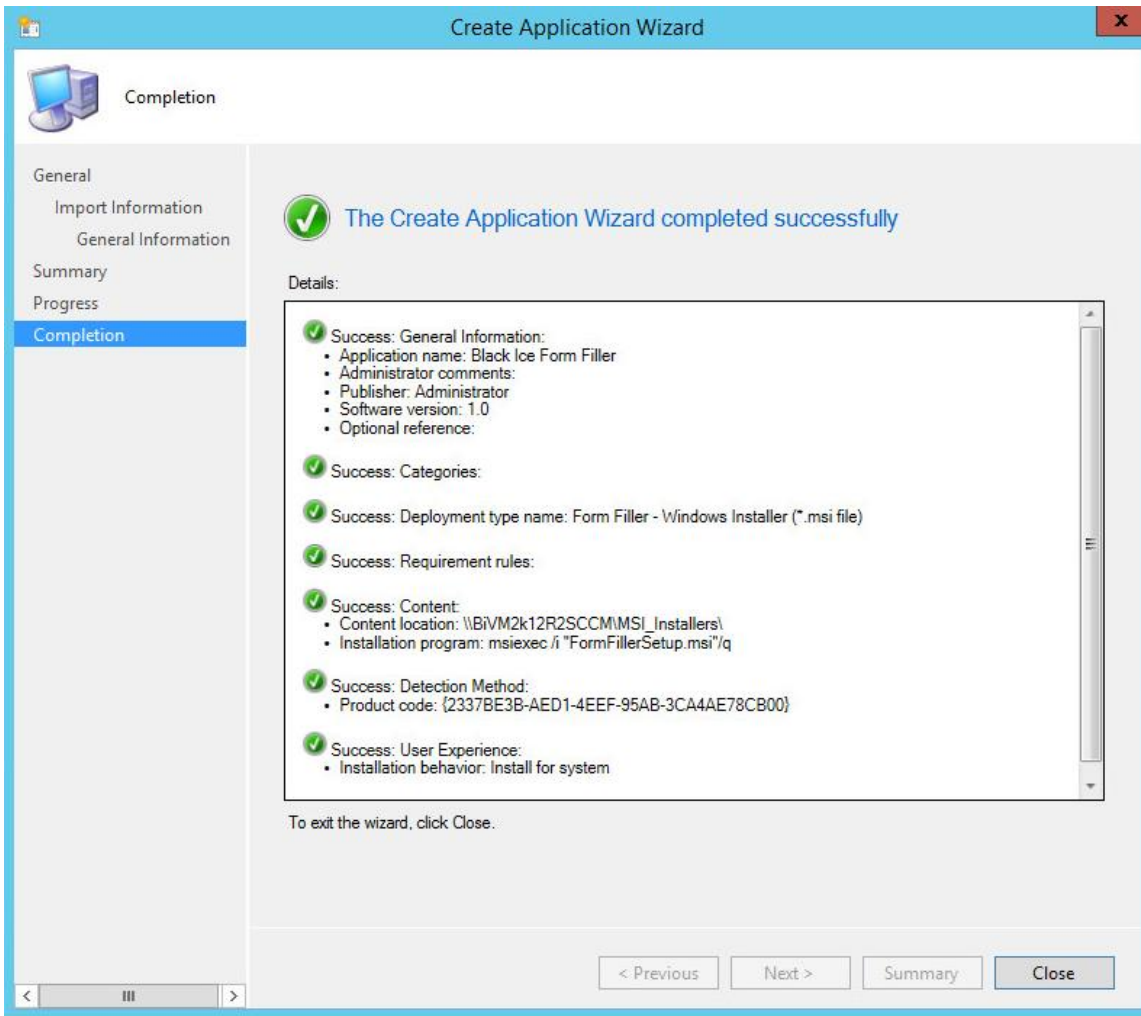
Check the **Run installation program as 32-bit process on 64-bit clients.**

Run installation program as 32-bit process on 64-bit clients.

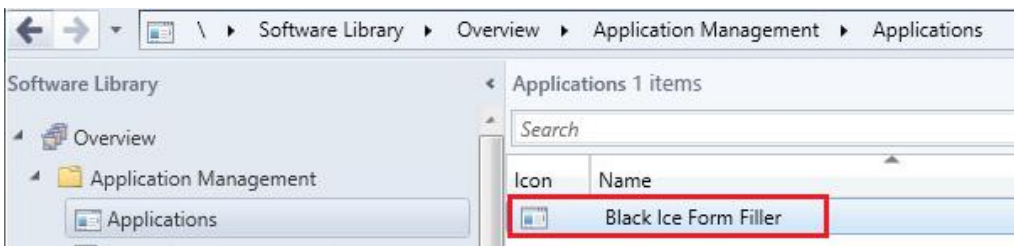
Click **Next** button.



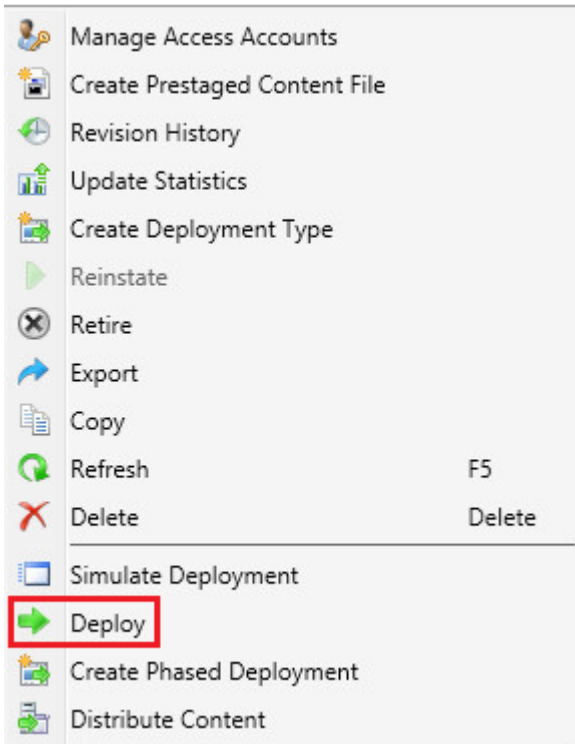
Click the **Next** button.



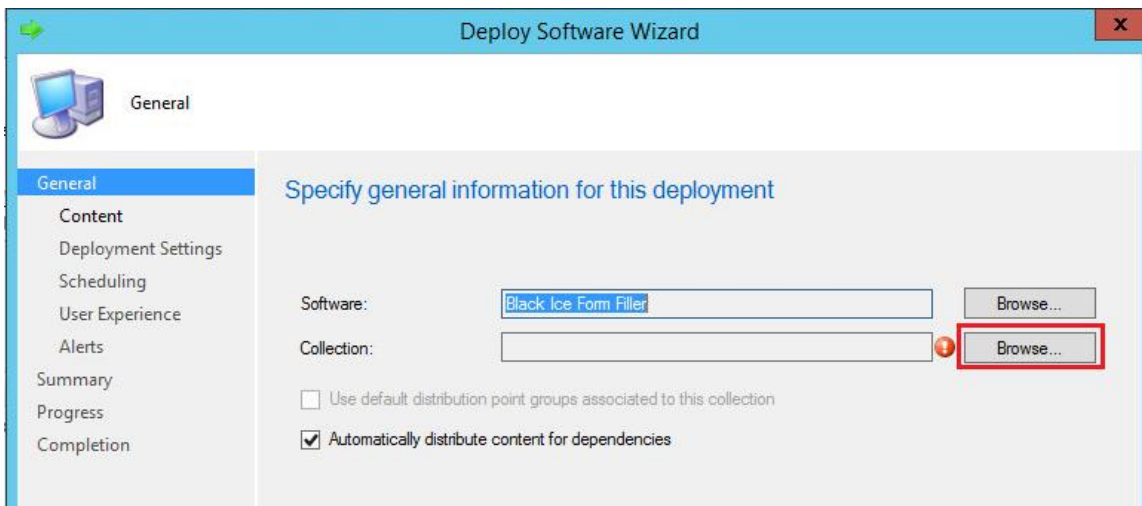
Click the **Close** button to Finish the installation package:



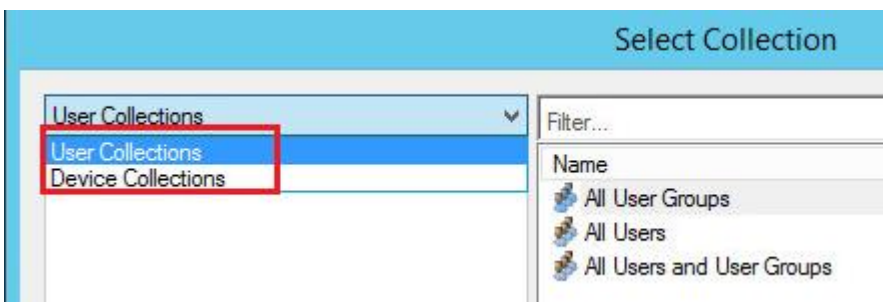
To Install (**Deploy**) the Application to client(s)
Right click on the Application (Example: Black Ice Form Filler)
Select the option to “Deploy” see example below:



Click to Collection -> and then select the Browse option.



You can add the Application to Users or Devices



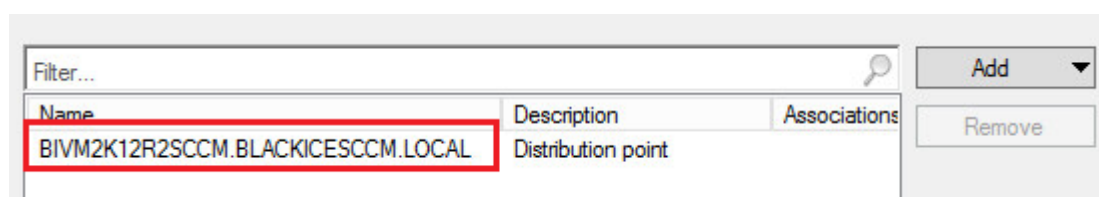
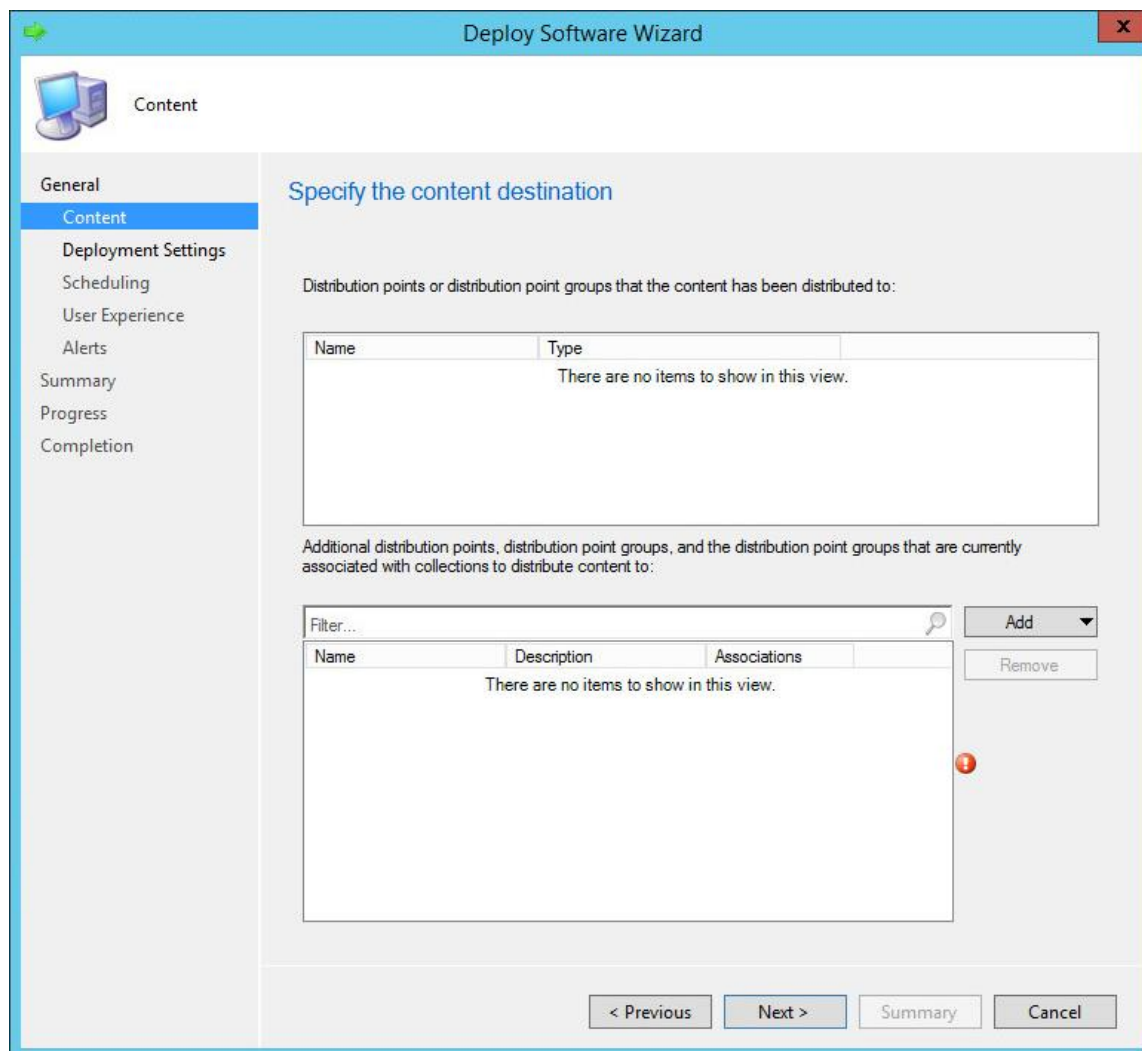
To Install for Users, select the User Collections
To Install for Computers, select the Device Collections

For Example when installing for Users:

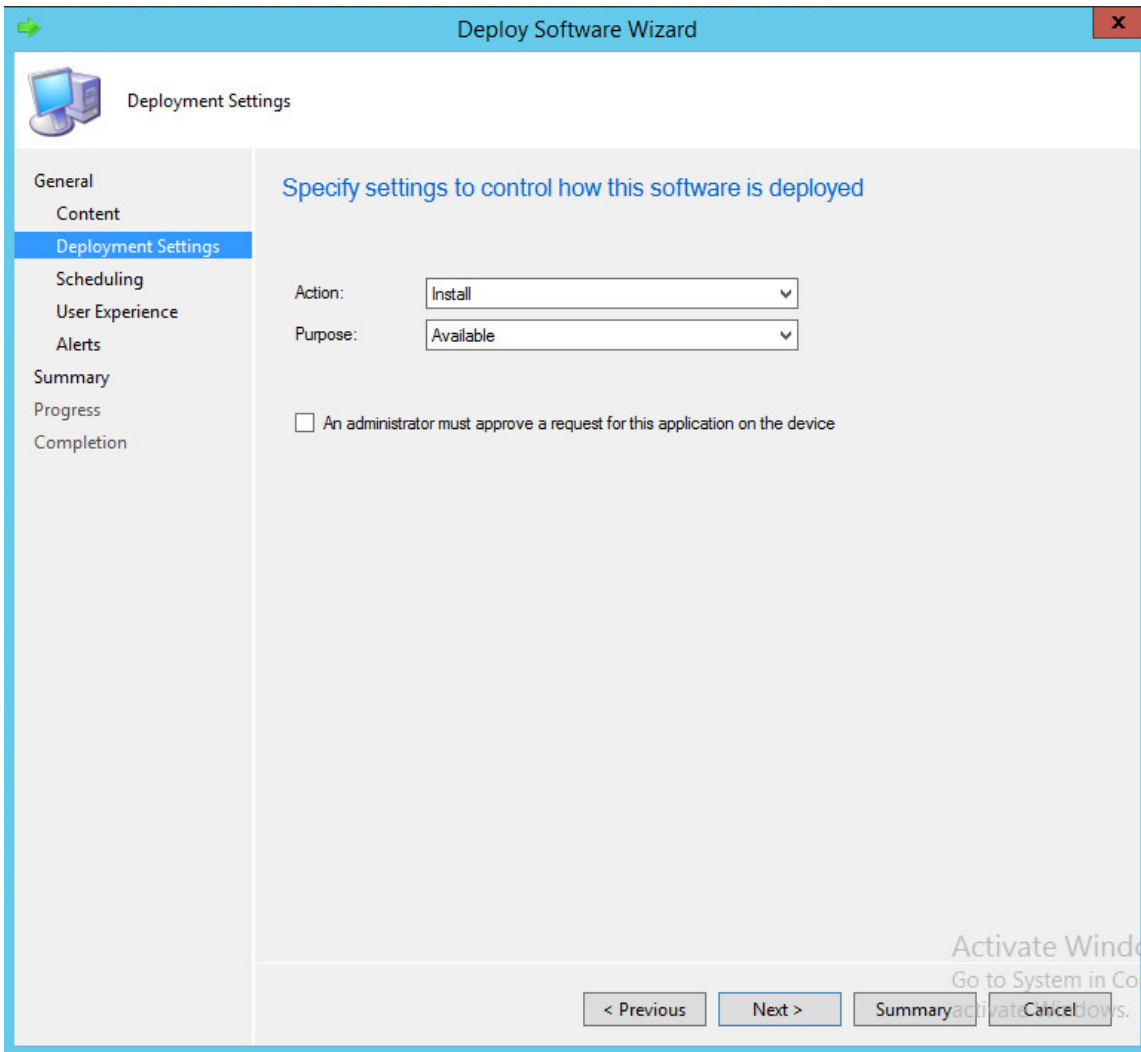
Select the Testers.

Click the **Next** button.

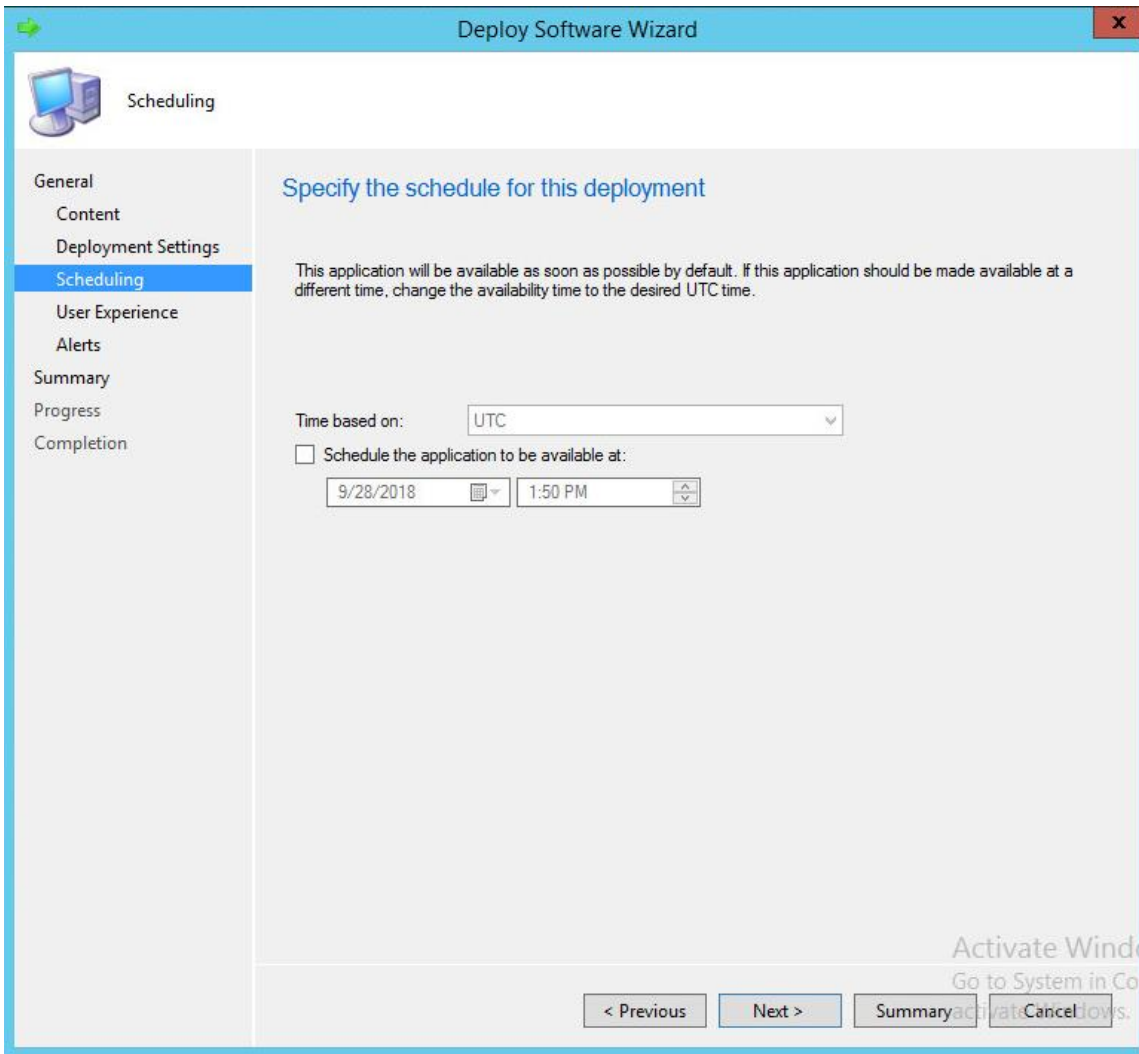
Click the **Add** button and select the Distribution Point



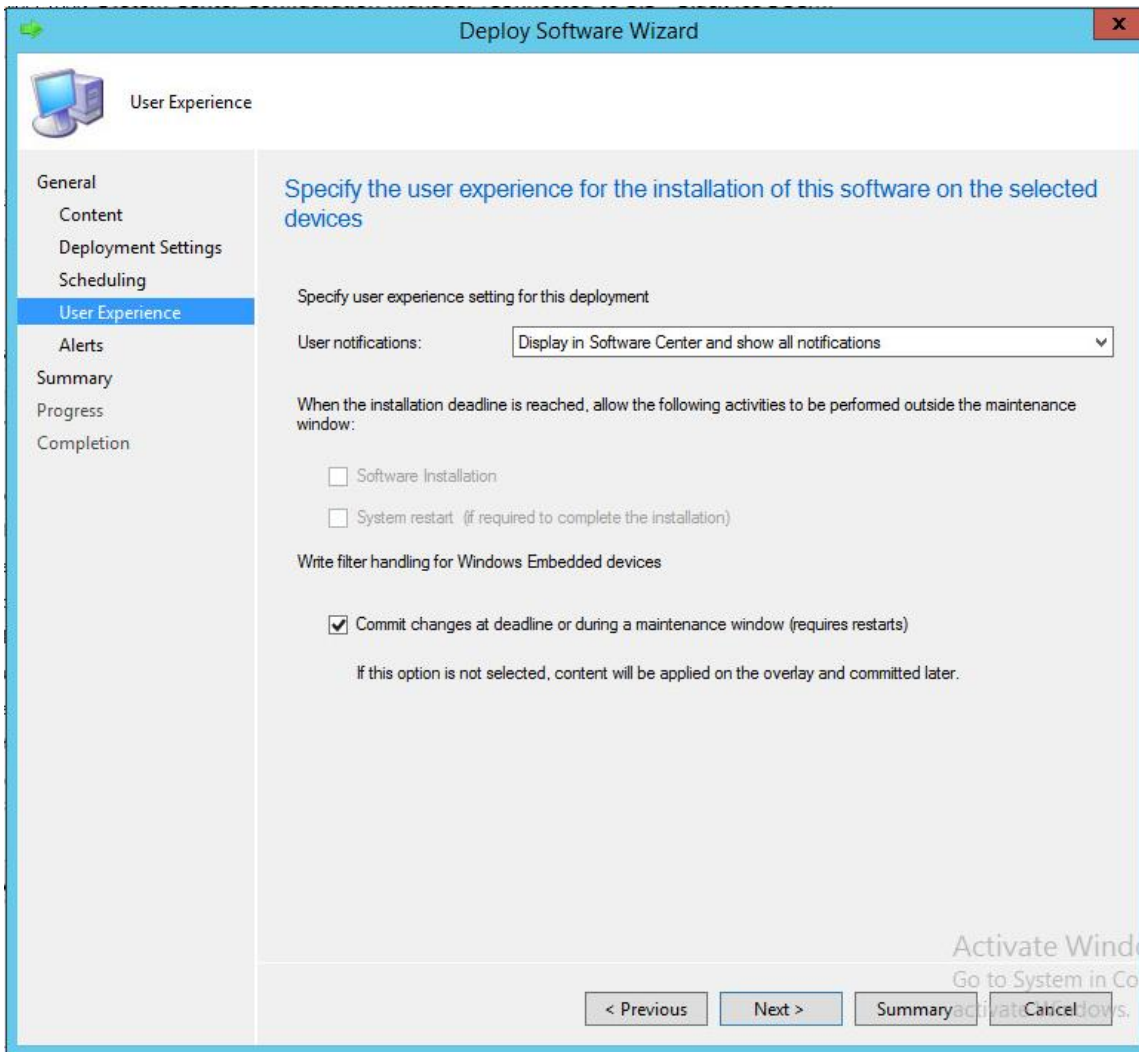
Click the **Next** button.



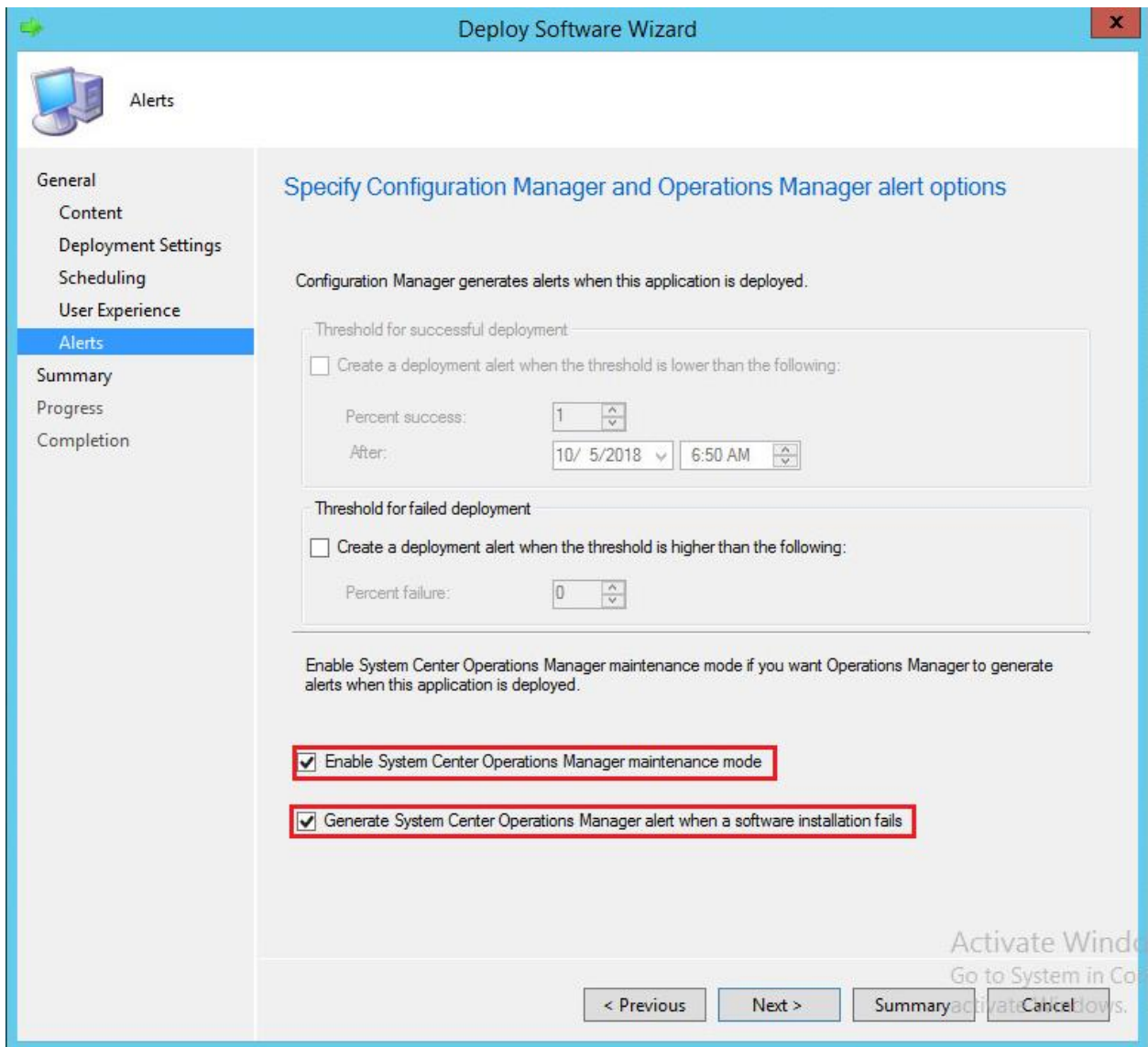
Use the default settings and click the **Next** button.
You can configure the installation time.



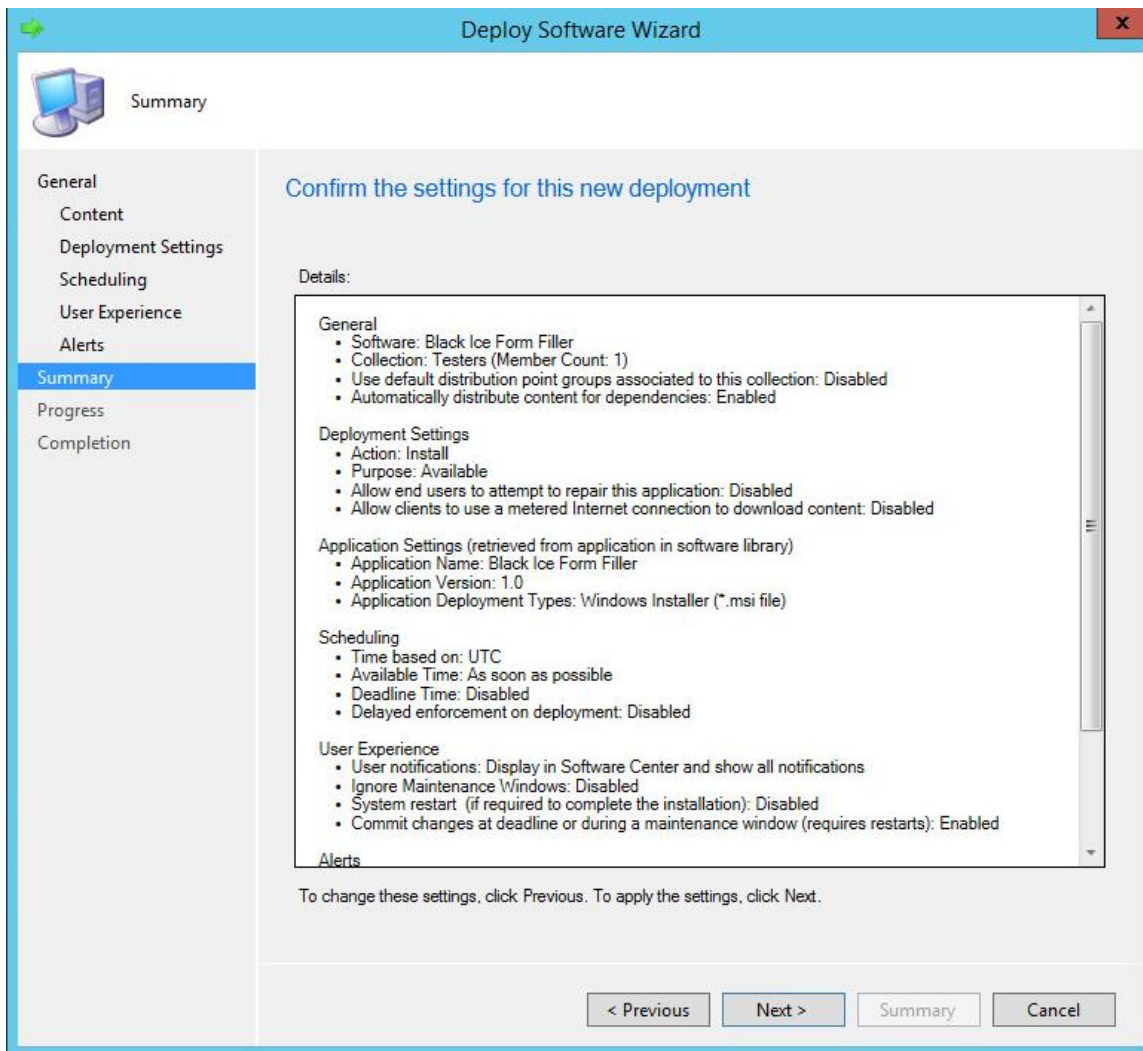
Click the **Next** button.

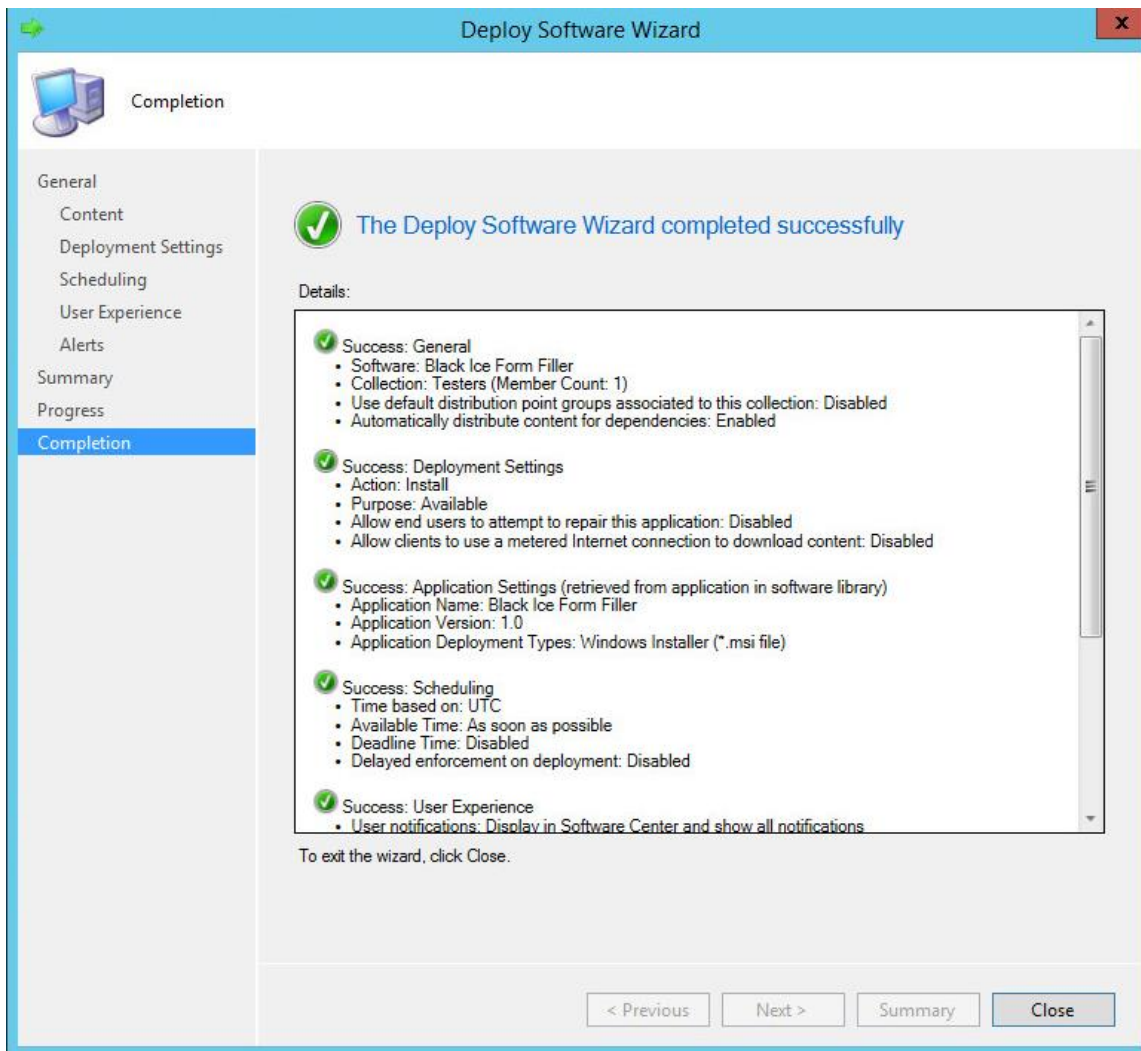


Click the **Next** button.



Click the **Next** button.





Click the **Close** button to complete the installation.

Applications 1 items

Search

Icon	Name	Deployment Types	Deployments	Status
	Black Ice Form Filler	1	1	Active

Black Ice Form Filler

Icon	Collection	Deployment Start Time	Purpose	Compliance %	Action
	Testers	5/29/2019 1:10 PM	Available	0.0	Install

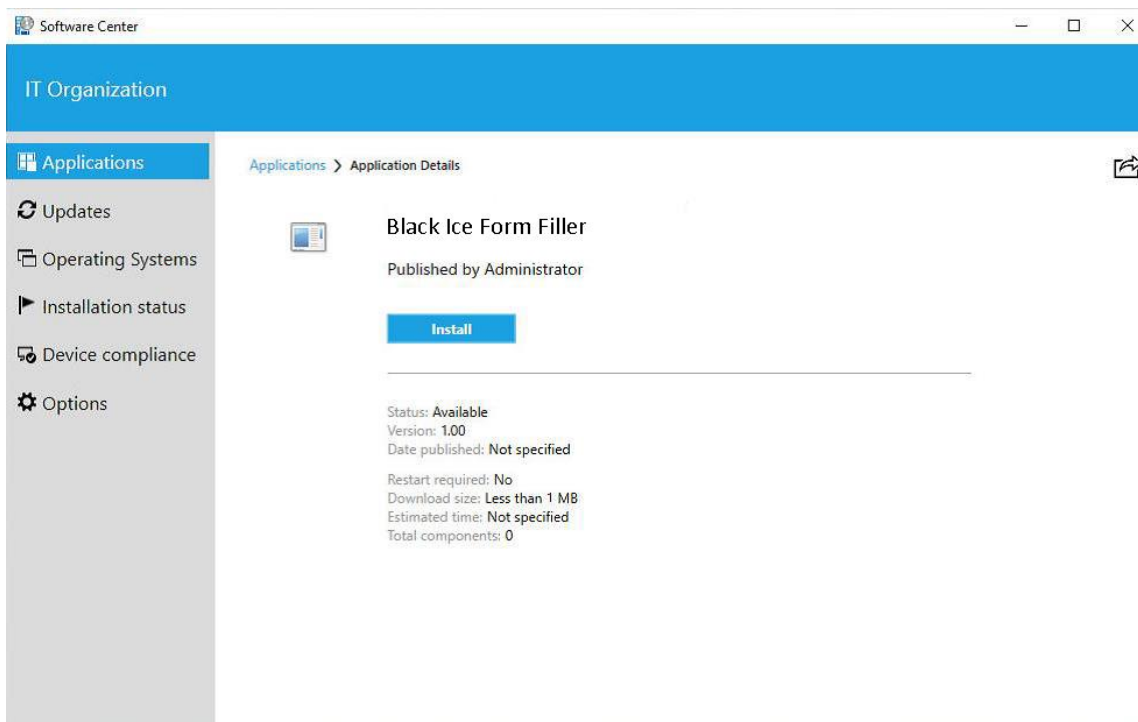
Summary | Deployment Types | **Deployments** | Phased Deployments

To Check the **Installation**.
Please Select Monitoring -> Overview -> Deployments

The screenshot shows the Monitoring console interface. On the left, a navigation tree includes 'Overview', 'Alerts', 'Queries', 'Reporting', 'Site Hierarchy', 'System Status', 'Deployments', 'Client Operations', 'Script Status', 'Client Status', 'Database Replication', 'Distribution Status', 'Software Update Point Synchronization Stz', 'Site Server Status', 'Assets and Compliance', and 'Software Library'. The 'Deployments' item is selected and highlighted with a red box. The main content area shows a table with one deployment item: 'Black Ice Form Filler' (highlighted with a red box), associated with the 'Testers' collection, with a purpose of 'Available' and an 'Install' action. Below the table, the 'Black Ice Form Filler Status to Testers' section is visible, containing a 'General' tab with details like 'Software: Black Ice Form Filler', 'Collection: Testers', 'Feature Type: Application', 'Purpose: Available', 'Date Created: 5/29/2019 6:10 AM', and 'Last Date Modified: 5/29/2019 6:10 AM'. To the right, the 'Completion Statistics' section shows a pie chart and a legend with 'Success: 0', 'In Progress: 0', 'Error: 0', and 'Requirements Not Met: 0', with a 'No Data (Last Update: Never)' message.

Install the Form Filler MSI on client computers

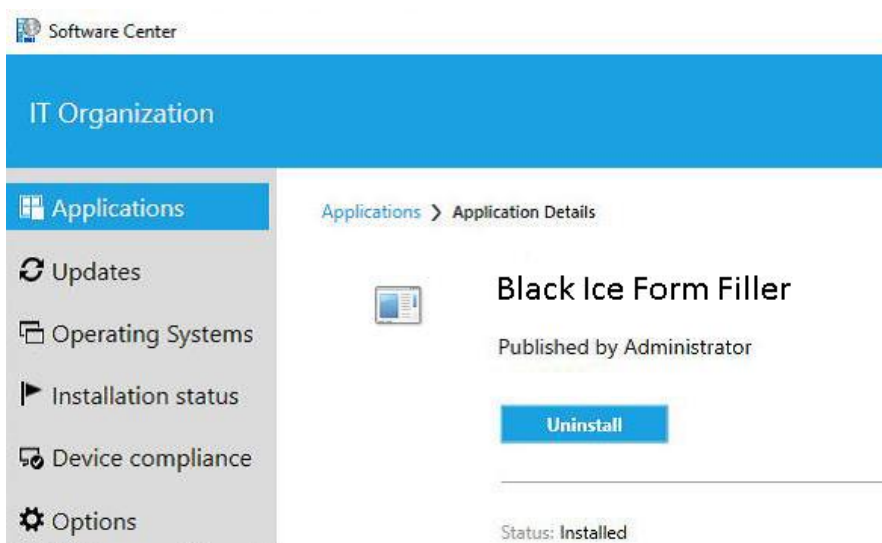
Open the **System Center** and select **Applications**.



Click the **Install** button.

Uninstall the Form Filler MSI from the client computer

Open the **System Center** and select **Applications**.



Click the **Uninstall** button.

Form Filler MSI Trace log

The Form Filler MSI Installation Trace Log is an optional parameter which logs every event of the Black Ice installation Custom Action scripts. The MSI installer saves the logging information in the BiFFMSITraceDataLog.txt file located in the User's temp folder (%TEMP%). The MSI installer log feature of /!*"C:\temp\MSI.log" saves System installation related information and does not records any information during the Custom Action script execution that is specific for the Black Ice printer driver Installation/Uninstallation and registration.

The generated log file is located in the User's TEMP folder. To navigate to the User's TEMP folder, open up a folder window and insert %TEMP% into the Address bar then press Enter.

Alternatively, you can open a Command Line (cmd.exe), navigate to TEMP directory (cd %TEMP%). (for example: c:\Users\Administrator\temp\BiFFMSITraceDataLog.txt)

Enable Trace log

To enable the Trace log for the Form Filler MSI Installation, include the following parameter in the MSI Installation.

BITRACE =(optional) 0 disables the Trace log 1 enables the Trace log	Enables detailed Trace log which logs every event of the MSI Custom Action script during installation/uninstallation and registration.
---	--

For example:

msiexec.exe /i "FormFillerSetup.msi" /q BITRACE=1

Example of the Form Filler MSI Trace log

Here is an example of the Form Filler MSI Trace log:

05/29/19 03:48:19: Install: Black Ice Form Filler version: 1.0.0.291

05/29/19 03:48:19: Install: Target directory: C:\Program Files (x86)\Black Ice Software LLC\Form Filler

05/29/19 03:48:19: Check the FORMLISTINI Parameter: Start

05/29/19 03:48:19: Check the FORMLISTINI Parameter: finished

05/29/19 03:48:19: Install: Finished

Troubleshooting

[System Error 1612 when uninstalling or updating using the MSI installer](#)

System Error 1612 when uninstalling or updating using the MSI installer

When uninstalling or updating the application using the MSI installer, you may receive the following error in the log files or the Event Viewer:

Product: Form Filler -- Error 1714. The older version of Form Filler cannot be removed.
Contact your technical support group. System Error 1612.

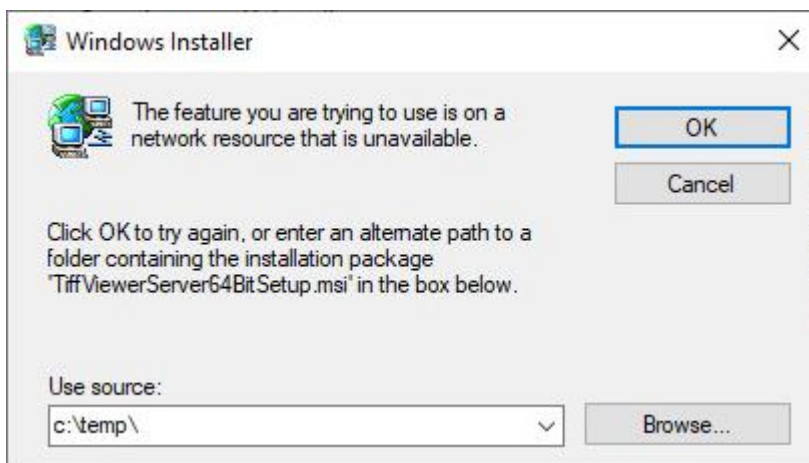
When installing a product using an MSI installer, the MSI installer is copied to the **C:\Windows\Installer** directory, because the MSI package is necessary for uninstallation or update. System Error 1612 indicates that Windows cannot find the original MSI installer used for installing the product either at the location used for installation or in the C:\Windows\Installer directory.

To solve the problem, you will need to find the original MSI installer used for installing the application.

If you are trying to uninstall the application, uninstall the product by running the original MSI installer instead of using the Windows Control Panel or Settings.

If you are updating the application, run the installer of the new version manually, or remove the "/q" silent switch from the command line.

During the update process, you will receive the following error message:



Click on the **Browse...** button and find the installer of the old version. After clicking OK, the update should proceed normally.