

# **Document Converter Server**

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**Black Ice Software**

## **MSI Installation Guide for Network Administrators**

**04042025-R437**

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## Introduction

The MSI installer for Document Converter Server designed for large scale deployment of Document Converter Server in Active Directory environments. The MSI installer can install Document Converter Server in silent mode without user interaction and provides custom installation for users.

Document Converter Server MSI cannot be used for evaluation! This version can only be installed as a full Release version with a purchased serial number. In case the serial number is not correct or missing the Document Converter Server MSI will abort the installation, delete every installed files and an entry will be generated in the Windows Event log.

To see examples of the entries in the Windows Event log please see the **Licensing Error codes and Event Viewer error messages** section in this Installation Guide.

The Document Converter Server MSI installer can either be installed using command line parameters or using Group Policy settings.

With the Group Policy Settings the Document Converter Server's recommended deployment method is assigning to computer and not publishing or assigning to users.

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

Caution: Before proceeding to install Document Converter Server MSI all other Document Converter Server version must be uninstalled from the computers where the MSI will be installed.

## ***Supported Operating Systems***

- Windows Server 2025
- Windows Server 2022
- Windows Server 2019
- Windows Server 2016
- Windows Server 2012 R2

## ***Requirement***

.NET framework 4.0 or later

The update can be found at:

<http://download.windowsupdate.com/msdownload/update/v3/static/trustedr/en/rootupd.exe>

# Command Line Installation

[Installing the Document Converter on VDI](#)

[Installing the Document Converter on Citrix VDI](#)

[Available Parameters of the MSI install](#)

[How to silently install Document Converter Server](#)

[How to update Document Converter Server](#)

[Unavailable Parameters of Document Converter Server MSI update](#)

[How to silently uninstall Document Converter Server](#)

[Examples for Command Line installation](#)

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

## *Installing the Document Converter on VDI*

The Document Converter 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 Document Converter is the **Document Converter Special Installer** with the licensing mechanism designed for VDI.

The MSI or Interactive Document Converter Special Installer can be requested from Black Ice Software Sales [sales@blackice.com](mailto:sales@blackice.com).

The Interactive or MSI Document Converter 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 Document Converter on Citrix VDI*

Installing the Document Converter on Citrix VDI for Citrix Virtual Apps and Desktops.

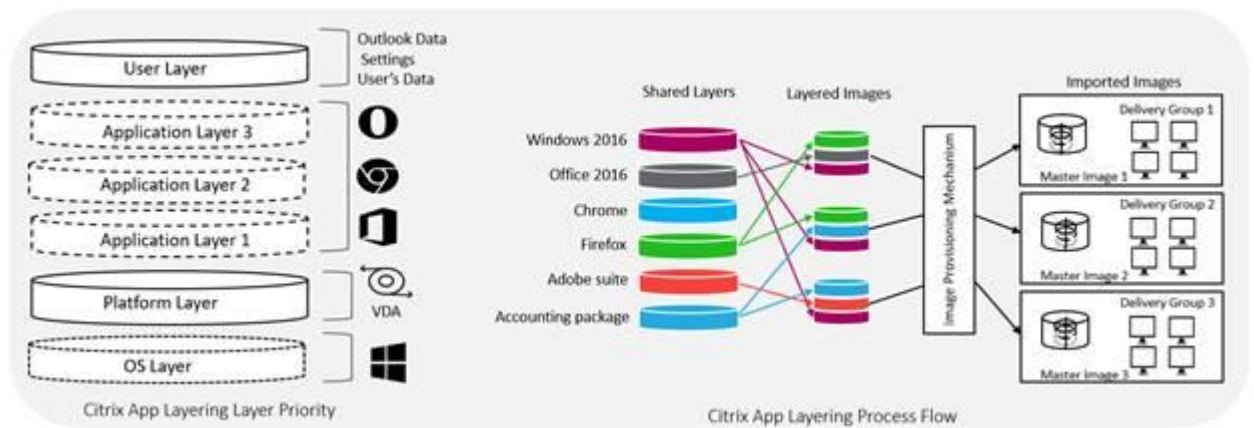
The diagram below illustrates the Citrix App Layering. The **Citrix App Layering** actually puts **applications** on a plane separate from the OS and splits the **application** into three main **layers**. Each **layer is** stored as a virtual disk. The **base layer** contains the **OS itself**.

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

An **alternative** solution is to install the Document Converter on the Master Image and **activate/register** on the **Master Image**. Installing the Document Converter on the Master image could be cumbersome and time consuming. The Document Converter 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](mailto:sales@blackice.com). **Please note:** VDI deployment is not supported with individual license keys.



## Available Parameters of the MSI install

Parameters	Meaning
/i	Installs the product. Command line only
/x	Uninstalls the product. Command line only
(optional) /q  Can be used for updating the Document Converter Server.	Silent installation that displays no user interface. Command line only
(optional) /l* log.txt ( <i>lowercase "L"</i> )  Can be used for updating the Document Converter Server.	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 ( <i>lowercase "L"</i> ) parameter, please refer to the <a href="#">Quick Reference Guide for Windows MSI installers</a> section.
(optional) ALLUSERS=1	The <b>ALLUSERS</b> 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.  If <b>ALLUSERS=1</b> performs a per-machine installation.  If <b>ALLUSERS</b> is not set, the installer does a per-user installation.
(optional) REGNUM=  Can be used for updating the Document Converter Server.	Use the serial number received during purchase with the REGNUM parameter to automatically register the product for every user on the computer.  To install for evaluation (demo registration), use <b>REGNUM=evaluation</b> .  <b>NOTE: Evaluation will expire after 15-days.</b>
(required) USERNAME=	The username with domain or local machine for installing and running the Document Converter Service. The specified user must have administrator right.  For example: . \Administrator myDomain\Administrator

(required) <b>USERPASSWORD=</b>	The password for the specified username.
(optional) <b>TARGETDIR=</b>	Set target installation directory. If this value is not specified, the product will be installed to " <code>\Program Files\Black Ice Software LLC\DocumentConverter</code> "
(optional) <b>CUSTOMINI=</b>  <b>Can be used for updating the Document Converter Server.</b>	The full path to the custom INI file. Path cannot contain variables. (Full path need to be specified even if the the INI file is located right next to the msi) The full path needs to be accessible from the computers where it will be installed by the GPO.
(optional) <b>BITRACE=</b> 0 disables the Trace log 1 enables the Trace log  <b>Can be used for updating the Document Converter Server.</b>	By Enables detailed Trace log, will logs every event in the Custom Action section of the MSI installation, uninstallation, and registration.  For more information about the Trace log and location of the Trace log, please refer to <a href="#">DocumentConverter MSI Installer Trace log</a> section.
(optional) <b>DPD=</b> 0: Keep the current Default Printer 1: Set Up Default Printer for current user 2: Set Up Default Printer for all users  <b>Can be used for updating the Document Converter Server.</b>	The DPD parameter sets up the Document Converter Server as default printer for current user or all users. Otherwise the installation will keep the current default printer.
(optional) <b>LICSER=</b>  <b>Can be used for updating the Document Converter Server.</b>	License server domain name.  "licenseserver.blackice.com"
(optional) <b>CPORT=0</b> (default) Port number (0, 65536)  <b>Can be used for updating the Document Converter Server.</b>	Client port is out going port to connect to the Black Ice License server. Default and Recommended port parameter value is 0.  When using port parameter CPORT=0, the installation automatically selects a TCP/IP port which is currently not used by any other process on the system.  When using a specific port number for CPORT parameter, the installation uses the specified port on the system/PC for the registration. If the specified port is used by another process on the system/PC, the registration will be unsuccessful.
(optional) <b>SPORT=1</b>	The SPORT parameter defines the TCPI/IP port to connect to Black Ice License Server port.

<p><b>Can be used for updating the Document Converter Server.</b></p>	<p>Default port is HTTPS port 443 the <b>SSL parameter must be 1.</b></p> <p>Alternatively, the following TCP/IP ports can be used for the registration: 80, 3500, 15000</p> <p><b>NOTE: For using alternative TCP/IP ports (80, 3500, 15000) for the registration set the SSL parameter to 0.</b></p>
<p>(optional) <b>SSL=</b> 1 enable the SSL (default) 0 disable the SSL</p> <p><b>Can be used for updating the Document Converter Server.</b></p>	<p>Set SSL parameter used for authentication for connecting to the license server.</p> <p>Parameter value set to 1, if using License Server port 443 for the registration. If the SSL= parameter is not specified, port 443 will be used by default.</p> <p>Parameter value set to 0, if using license server TCP/IP port 80, 3500, 15000 for the registration.</p>
<p>(optional) <b>PTYPE=</b> 0: Not using proxy server 1: Attempt to discover automatic proxy settings 2: Use HTTP proxy 3: Use SOCKS proxy</p> <p><b>Can be used for updating the Document Converter Server.</b></p>	<p>Set proxy server type for the connection.</p> <p>In a secured environment where the port 443 cannot be enabled, the product can be registered through proxy server with the PTYPE parameter.</p> <p>The PTYPE=1 - Using the system proxy settings. (Optional parameters: PIP, PPORT, PUSER, PPW)</p> <p><b>NOTE:</b> Automatic Proxy Configuration (PTYPE=1) uses the proxy settings of Internet Explorer, and it is only able to discover the proxy address and port. The MSI Installer cannot read the User Name and Password of the Proxy Server automatically. Please use (Permit all connection) without user name and password parameter, with the PTYPE=1.</p> <p>If you need <b>authentication</b> for the Proxy Server connection, please use the PTYPE=2 (HTTP proxy) or PTYPE=3 (SOCKS proxy) options.</p> <p>The PTYPE=2 – Using HTTP proxy settings (Required parameter: PIP, PPORT, Optional parameter: PUSER, PPW)</p>

	<p>The PTYPE=3 – Using SOCKS proxy settings (Required parameter: PIP, PPORT, Optional parameter: PUSER, PPW)</p> <p><b>NOTE: Please make sure, that what type of proxy is using the Proxy server.</b> For example: If the proxy server using HTTP proxy, than use the <b>PTYPE=2</b> parameter.</p>
<p>(optional) <b>PIP=</b></p> <p><b>Can be used for updating the Document Converter Server.</b></p>	<p>The proxy server host name or IP address</p> <p><b>NOTE: The PIP parameter is required, if the server using HTTP (PTYPE=2) or SOCKS (PTYPE=3) proxy settings.</b></p>
<p>(optional) <b>PPORT=</b></p> <p><b>Can be used for updating the Document Converter Server.</b></p>	<p>Port number on the PC to communicate with the Proxy server. The installation uses the specified port to reach the Proxy server.</p> <p><b>NOTE: The PPORT parameter is required, if the server using HTTP (PTYPE=2) or SOCKS (PTYPE=3) proxy settings.</b></p>
<p>(optional) <b>PUSER=</b></p> <p><b>Can be used for updating the Document Converter Server.</b></p>	<p>User name for proxy servers which require authentication.</p> <p><b>NOTE: The PUSER parameter is optional, if the server using HTTP (PTYPE=2) or SOCKS (PTYPE=3) proxy settings.</b></p> <p><b>NOTE: If the Proxy server and the computer, where you are doing the installation are in the same domain, please do not use the domain name in the PUSER parameter.</b></p>
<p>(optional) <b>PPW=</b></p> <p><b>Can be used for updating the Document Converter Server.</b></p>	<p>User password for proxy servers which require authentication.</p> <p><b>NOTE: The PPW parameter is optional, if the server using HTTP (PTYPE=2) or SOCKS (PTYPE=3) proxy settings.</b></p>
<p>(optional) <b>FORCEU=</b></p>	<p>Possible values:</p> <p>1: Force uninstallation of the FORCEU, even if it was registered with a transferable license, and the license cannot be validated with the Black Ice License server. Caution: Upon network problems, this option could result that a transferable license will not be removed properly from the Black Ice License server. This parameter can be used when there is no active internet connection.</p> <p>0 (default): The uninstaller will notify the user</p>

	of the occurring errors during the uninstallation.
(optional) <b>FORCECHECK=</b> 0: Disabled (default) 1: Enabled.	The FORCECHECK parameter can be used during the uninstallation. This parameter uninstalls the Document Converter and forces license type validation (static or transferable). This scenario is recommended, if product was initially registered and installed with a static serial number, but after installation the serial number was upgraded and converted to a transferable serial number by the Black Ice Sales team. Using the FORCECHECK parameter will allow the user to transfer the serial number. This parameter requires an active internet connection.
(optional) <b>DCSWEB=1</b>	To install the Web interface for Document Converter Server
(optional) <b>WEBSITE=</b>	Name of the website in IIS (Default is DCSWeb)
(optional) <b>WEBPORT=</b>	Port of the website in the IIS (Default is 808)

*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 "DocumentConverterServer .msi" /q TARGETDIR="C:\Black Ice\DocumentConverter" CREGNUM=XXXXX-XXXXXXXX-XXXXXXXXXX
```

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.)**

**\*Note: To connect to the Black Ice License Server (licenseserver.blackice.com) it is required to use secure internet connection (HTTPS) on port 443. The Document Converter Server MSI Installer attempts to reach the Black Ice License Server three times during the registration to avoid momentary internet connection issues.**

## ***How to silently install Document Converter Server***

To install the MSI with custom INI file, please open the Command Prompt 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 value.

Document Converter Server can be installed using the following command:

```
msiexec /i "<<PATH>>\DocumentConverterServer.msi" /q USERNAME=".\\Administrator"  
USERPASSWORD="12345678" TARGETDIR="C:\Document Converter" REGNUM=XXXXX-  
XXXXXXXXXX-XXXXXXXXXX
```

*Note: the XXXXX-XXXXXXXXXX-XXXXXXXXXX must be the serial number of the customer, and the Administrator, 12345678 must be substituted with a valid Administrator credential.*

## ***How to update Document Converter Server***

This section covers information about how to upgrade the Document Converter Server without uninstalling and reinstalling the Document Converter Server MSI.

The upgrade process will keep the Users current configuration of the Document Converter Server.

**The Document Converter Server update does NOT require restarting the computer.**

The Document Converter Server update is backward compatible with Document Converter Server version 1.10 and above.

To Document Converter Server **prior to version 1.10**, the Document Converter Server must be **uninstalled** and the system **must be rebooted**.

The Document Converter Server MSI can be updated using the following command:

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

## ***Unavailable Parameters of Document Converter Server MSI update***

Please make sure that following parameters are **not used in the Document Converter Server Update**.

The following parameters will be ignored.

<i>Parameters</i>	<i>Meaning</i>
(optional) <b>ALLUSERS=1</b>	<p>The <b>ALLUSERS</b> 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 <b>ALLUSERS=1</b> performs a per-machine installation.</p> <p>If <b>ALLUSERS</b> is not set, the installer does a per-user installation.</p>
(required) <b>USERNAME=</b>	<p>The username with domain or local machine for installing and running the Document Converter Service. The specified user must have administrator right.</p> <p>For example:  .\Administrator  myDomain\Administrator</p>
(required) <b>USERPASSWORD=</b>	The password for the specified username.
(optional) <b>TARGETDIR=</b>	Set target installation directory. If this value is not specified, the product will be installed to " <code>\Program Files\Black Ice Software LLC\DocumentConverter</code> "
(optional) <b>DCSWEB=1</b>	To install the Web interface for Document Converter Server
(optional) <b>WEBSITE=</b>	Name of the website in IIS (Default is DCSWeb)
(optional) <b>WEBPORT=</b>	Port of the website in the IIS (Default is 808)

## ***How to silently uninstall Document Converter Server***

**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 value.

The **recommended** command to silently uninstall the Document Converter Server:

```
MSIExec.exe /x {F034DBC1-F946-438D-82CE-9BCC311F07BE} /q
```

Alternatively the Document Converter Server can be uninstalled by using the .msi file in the command:

```
msiexec.exe /x "DocumentConverterServer.msi" /q
```

You must use the MSI file which was used for the installation. For example if Document Converter Server MSI 4.08 is installed on the computer, you must use the same version 4.08 MSI file for the uninstallation.

Use this command before installing a newer versions or reinstalling previous versions. The above command will work even if there was no prior Document Converter Server msi installation.

## ***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 value.

Example 1: Install Document Converter Server silently, the target directory is C:\Temp

```
msiexec.exe /i "<<PATH>>\DocumentConverterServer.msi" /q  
USERNAME=".\\Administrator" USERPASSWORD="12345678"  
TARGETDIR="C:\Temp" REGNUM=xxxxx-xxxxxxxx-xxxxxxxxxxx
```

Example 2: Install Document Converter Server silently with default settings

```
msiexec.exe /i "<<PATH>>\DocumentConverterServer.msi" /q  
USERNAME=".\\Administrator" USERPASSWORD="12345678" REGNUM=xxxxx-  
xxxxxxxx-xxxxxxxxxxx
```

Example 3: Install Document Converter Server silently with a transformation file:

```
msiexec.exe /i "<<PATH>>\DocumentConverterServer.msi"  
USERNAME=".\\Administrator" USERPASSWORD="12345678"  
TRANSFORMS="DocumentConverterServer.mst" /q
```

Example 4: Silently uninstall Document Converter Server

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

Example 5: Silently uninstall Document Converter Server if the MSI installer location is unknown:

```
msiexec.exe /x {F034DBC1-F946-438D-82CE-9BCC311F07BE} /q
```

Example 6: Silently install Document Converter Server and generate log from the installation:

```
msiexec.exe /i "<<PATH>>\DocumentConverterServer.msi" /q  
USERNAME=".\\Administrator" USERPASSWORD="12345678" /l* "log.txt"  
REGNUM=xxxxx-xxxxxxxxx-xxxxxxxxxxx
```

Example 7: Install Document Converter Server with a custom INI file. Please specify the full path of the INI file:

```
msiexec.exe /i "<<PATH>>\DocumentConverterServer.msi" /q  
USERNAME=".\\Administrator" USERPASSWORD="12345678"  
CUSTOMINI="C:<<PATH>>\DocumentConverterServer.ini" REGNUM=xxxxx-  
xxxxxxxxx-xxxxxxxxxxx
```

PowerShell Example (Terminal & Terminal (Admin)):

Example 7: Install Document Converter Server silently with a custom INI file. Please specify the full path of the INI file:

```
msiexec /i "<<PATH>>\DocumentConverterServer.msi" /q USERNAME=  
".\\Administrator" USERPASSWORD= "12345678" TARGETDIR= "C:\Black  
Ice\Document Converter Server" CUSTOMINI=  
"C:<<PATH>>\DocumentConverterServer.ini" REGNUM=xxxxx-xxxxxxxx-  
xxxxxxxxxxx
```

Example 8: Install Document Converter Server 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>>\DocumentConverterServer.msi" /q  
USERNAME=".\\Administrator" USERPASSWORD="12345678" REGNUM=xxxxx-  
xxxxxxxxx-xxxxxxxxxxx BITRACE=1
```

Example 9: Install Document Converter Server silently and sets up the Document Converter Server as default printer for all users.

```
msiexec.exe /i "<<PATH>>\DocumentConverterServer.msi" /q  
USERNAME=".\\Administrator" USERPASSWORD="12345678" REGNUM=xxxxx-  
xxxxxxxxx-xxxxxxxxxxx DPD=2
```

Example 10: Install and register Document Converter Server silently using a port 80 to contact the Black Ice License Server, without SSL authentication.

```
msiexec.exe /i "<<PATH>>\DocumentConverterServer.msi" /q  
USERNAME=".\\Administrator" USERPASSWORD="12345678" REGNUM=xxxxx-  
xxxxxxxxx-xxxxxxxxxxx LICSER=licenseserver.blackice.com CPORT=0 SPORT=80 SSL=0
```

Example 11: Install and register Document Converter Server silently, and contact the Black Ice License Server through an automatically discovered proxy server.

```
msiexec.exe /i "<<PATH>>\DocumentConverterServer.msi" /q  
USERNAME=".\\Administrator" USERPASSWORD="12345678" REGNUM=xxxxx-  
xxxxxxxx-xxxxxxxx PTYPE=1
```

Example 12: Install and register silently, and contact the Black Ice License Server through a HTTP proxy server.

```
msiexec.exe /i "<<PATH>>\DocumentConverterServer.msi" /q REGNUM=xxxxx-  
xxxxxxxx-xxxxxxxx PTYPE=2 PIP=192.168.0.100 PPORT=8080 PUSER=John.Doe  
PPW=mypassword
```

The **PPORT** parameter specifies the HTTP Proxy server port that Document Converter Server will use for connecting to the HTTP Proxy Server.

Please note that most HTTP Proxy Servers by default uses **port 8080**, therefore in most cases, the PPORT should be 8080.

If the specified HTTP Proxy server IP address or the HTTP Proxy server port is incorrect, **error code 57** occurs.

If the **PUSER** or **PPW** (Proxy User / Password) is incorrect **error code 81** occurs.

If the **PUSER** or **PPW** (Proxy User / Password) is **correct** and HTTP Proxy Server cannot connect to the Black Ice License Server, **error code 81** occurs.

Example 13: Install and register silently, and contact the Black Ice License Server through a SOCKS proxy server.

```
msiexec.exe /i "<<PATH>>\DocumentConverterServer.msi" /q REGNUM=xxxxx-  
xxxxxxxx-xxxxxxxx PTYPE=3 PIP=192.168.0.100 PPORT=1080 PUSER=John.Doe  
PPW=mypassword
```

The **PPORT** parameter specifies the SOCKS Proxy server port that Document Converter Server will use for connecting to the SOCKS Proxy Server.

Please note that most SOCKS Proxy Servers by default uses **port 1080**, therefore in most cases, the PPORT should be 1080.

If the specified SOCKS Proxy server IP address or the SOCKS Proxy server port is incorrect, **error code 57** occurs.

If the **PUSER** or **PPW** (Proxy User / Password) is incorrect **error code 81** occurs.

If the **PUSER** or **PPW** (Proxy User / Password) is **correct** and SOCKS Proxy Server cannot connect to the Black Ice License Server, **error code 81** occurs.

Example 14: Install the Web interface for Document Converter Server silently with default value (Website is DCSWeb and port is 808):

```
msiexec.exe /i "<<PATH>>\DocumentConverterServer.msi" /q  
USERNAME=".\\Administrator" USERPASSWORD="12345678" DCSWEB=1
```

Example 15: Install the Web interface for Document Converter Server silently with WEBSITE and WEBPORT parameters

```
msiexec.exe /i "<<PATH>>\DocumentConverterServer.msi" /q  
USERNAME=".\\Administrator" USERPASSWORD="12345678" DCSWEB=1  
WEBSITE="Test website" WEBPORT="8080"
```

Example 16: Force uninstallation of the Document Converter silently, even if it was registered with a transferable license, and the license cannot be validated with the Black Ice License server. Caution: Upon network problems, this option could result that a transferable license will not be removed properly from the Black Ice License server. This parameter can be used when there is no active internet connection.

```
msiexec.exe /x "<<PATH>>\DocumentConverterServer.msi" /q FORCEU=1
```

Example 17: Uninstalls the Document Converter silently and forces license type validation (static or transferable). This scenario is recommended, if product was initially registered and installed with a static serial number, but after installation the serial number was upgraded and converted to a transferable serial number by the Black Ice Sales team. Using the FORCECHECK parameter will allow the user to transfer the serial number. This parameter requires an active internet connection.

```
msiexec.exe /x "<<PATH>>\DocumentConverterServer.msi" /q FORCECHECK=1
```

## ***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.

# How to set up Group Policy to install the Document Converter Server

This section covers the following descriptions:

[How to create MST \(transform file\) for Group Policy Object deployment](#)

[How to use ORCA](#)

[How to set up a Group Policy Object for installing Document Converter Server MSI on domain computers automatically](#)

## ***How to create MST (transform file) for Group Policy Object deployment***

With the help of transformation files (MST), one can customize the Document Converter Server MSI install. Transformation 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>

### ***Supported Installation methods using Group Policy***

- Assign to Computer (silent install)
- Assign to User (silent install)
- Publish

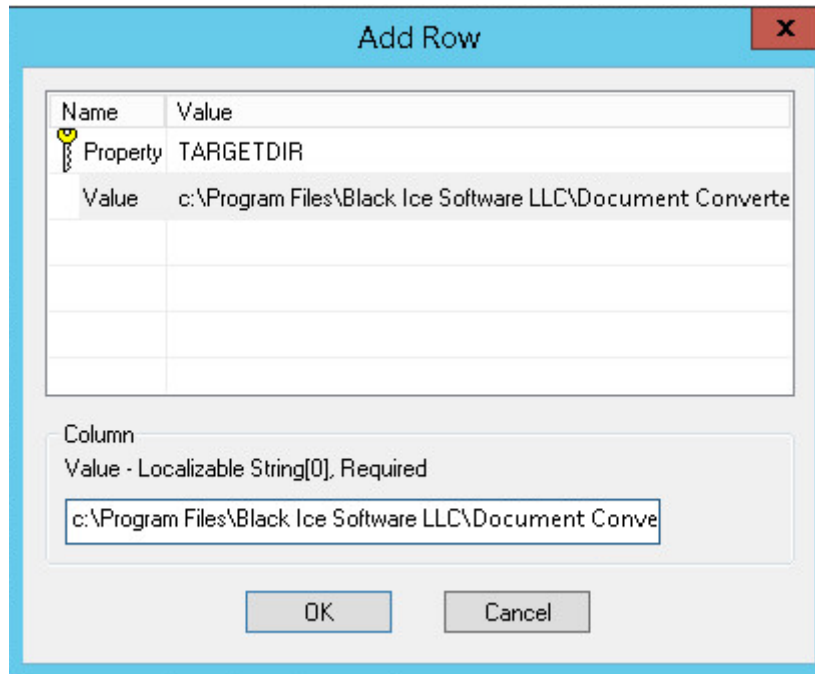
## How to use ORCA

1. Open DocumentConverterServer.msi with ORCA .
2. Start a new transform by clicking on *Transform\New Transform*.
3. Select *Property* Table from tables (Figure 1).

Property	Value
VSDNETMSG	This setup requires the .NET Framework version [1]. Please install the .NET Framework ...
YSDINVALIDURLMSG	The specified path '[2]' is unavailable. The Internet Information Server might not be run...
VSDVERSIONMSG	Unable to install because a newer version of this product is already installed.
MaintenanceForm_Action	Remove
DefaultUIFont	VsdDefaultUIFont:524f4245_5254_5341_4c45_534153789400
FolderForm_AllUsers	ME
FolderForm_AllUsersVisible	0
AdminMaintenanceForm_Action	Repair
ErrorDialog	ErrorDialog
SFF_UpFldrBtn	UpFldrBtn
SFF_NewFldrBtn	NewFldrBtn
AdminWelcomeForm_NextArgs	AdminFolderForm
AdminFolderForm_PrevArgs	AdminWelcomeForm
AdminFolderForm_NextArgs	AdminConfirmInstallForm
AdminConfirmInstallForm_PrevArgs	AdminFolderForm
WelcomeForm_NextArgs	FolderForm
FolderForm_PrevArgs	WelcomeForm
FolderForm_NextArgs	ConfirmInstallForm
ConfirmInstallForm_PrevArgs	FolderForm
ALLUSERS	1
DirectoryTable100_x86.E281B893_10D7_34C...	DirectoryTable
ARNOREPAIR	1
ARNOMODIFY	1
PM	2
NPI	0
DISABLEADVTSHORTCUTS	1
REGNUM	12345-12345678-123456789A
TARGETDIR	c:\Program Files\Black Ice Software LLC\Document Converter Server
CUSTOMINI	\\domainserver\install\BulniNT.in

Figure 1

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, REGNUM, CUSTOMINI, PRINTERNAME... etc.
6. Select Value and enter Property Value, for example the Target directory in most systems is the c:\Program Files\Black Ice Software LLC\Document Converter Server.



7. Click OK.

8. Save Transform by clicking Transform\Generate Transform... sub-menu. For Example: "DocumentConverterServer.mst" transform file.

Assign the transform file(s) in the Group Policy Manager when specifying the deployable software package (MSI).

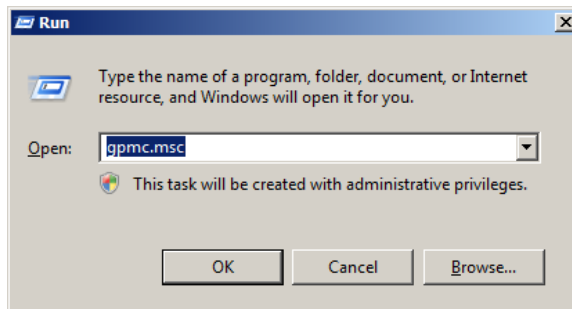
If installing the Document Converter Server from command line, the transformation file can be entered like this:

```
msiexec.exe /i "DocumentConverterServer.msi"  
TRANSFORMS="DocumentConverterServer.mst" /q USERNAME=".\\Administrator"  
USERPASSWORD="12345678"
```

## How to set up a Group Policy Object for installing Document Converter Server MSI on domain computers automatically

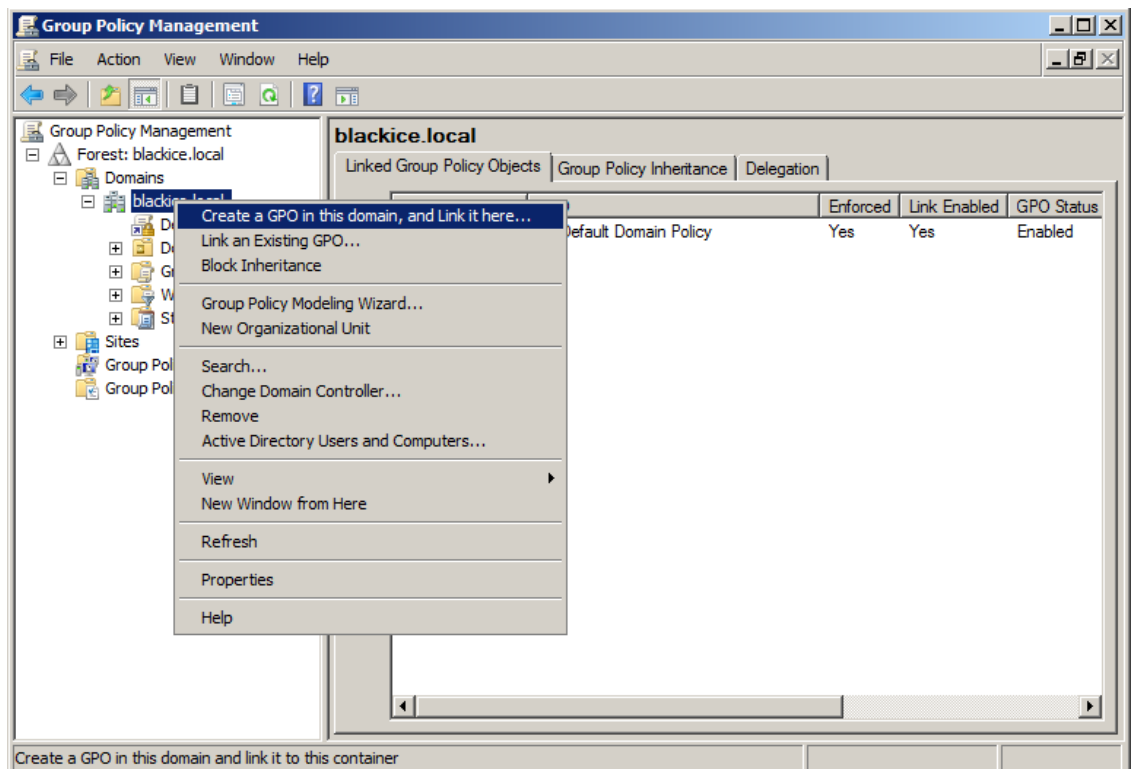
1. Copy the Install packages to a network share that **can be accessed from the computers** where the software needs to be installed.
2. To set up a *Group Policy Object*, start the *Group Policy Management console* on a Domain controller computer.

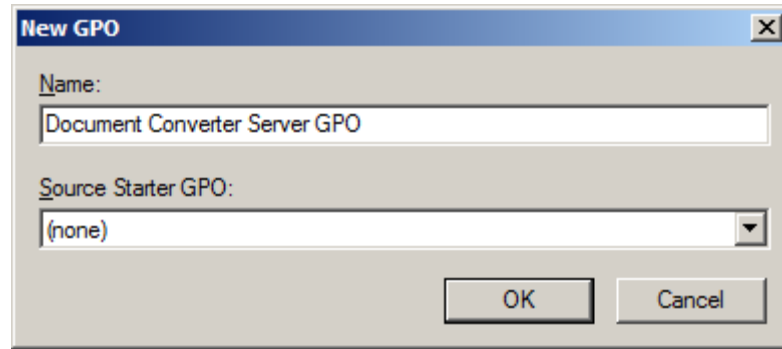
Run *gpmc.msc*



3. Create a new Group Policy

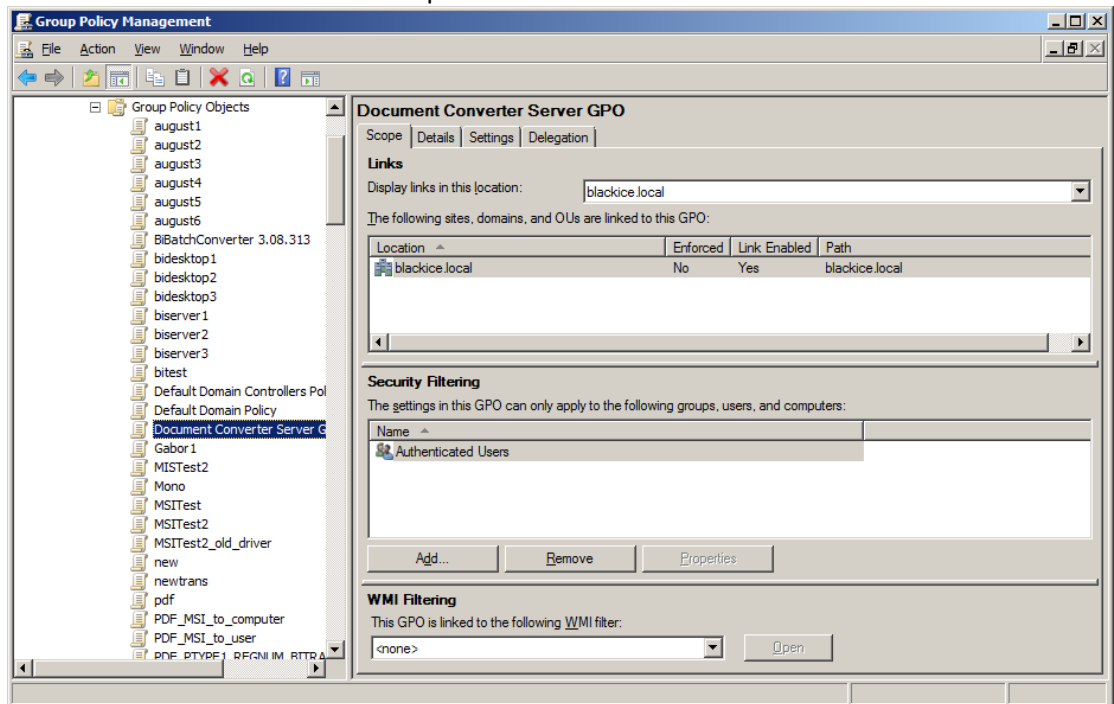
Left click on the desired Domain and select “*Create a GPO in this domain, and Link it here...*”. Define a new GPO by defining the name and press OK.



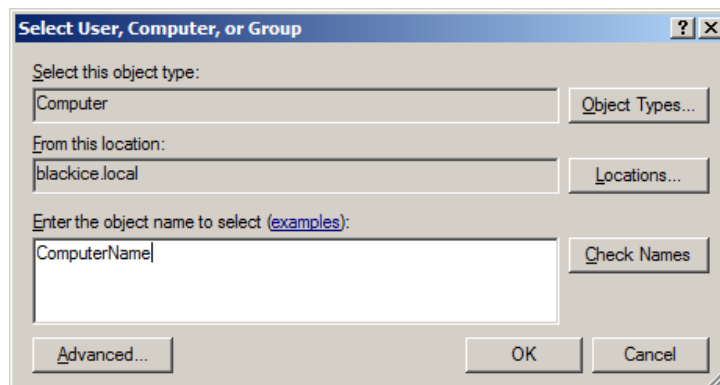


4. Define computers for the GPO.

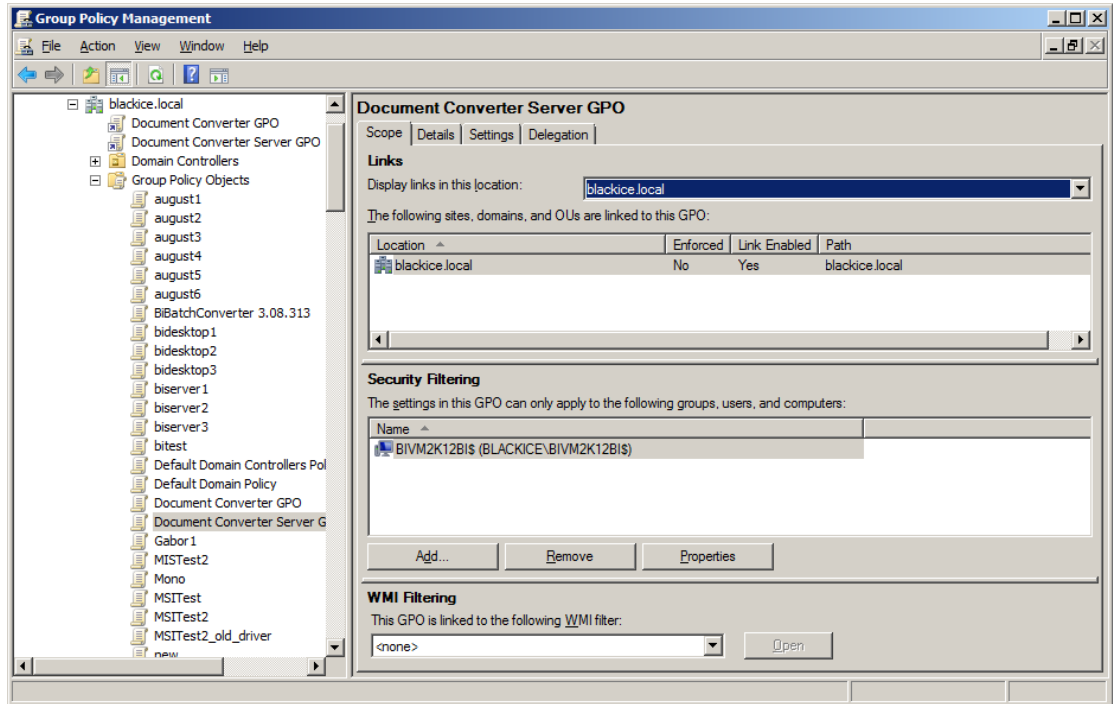
Remove the default Groups and Users from the **Security Filtering Options**.  
Click **Add** to search and define computers in the domain.



5. Add computers

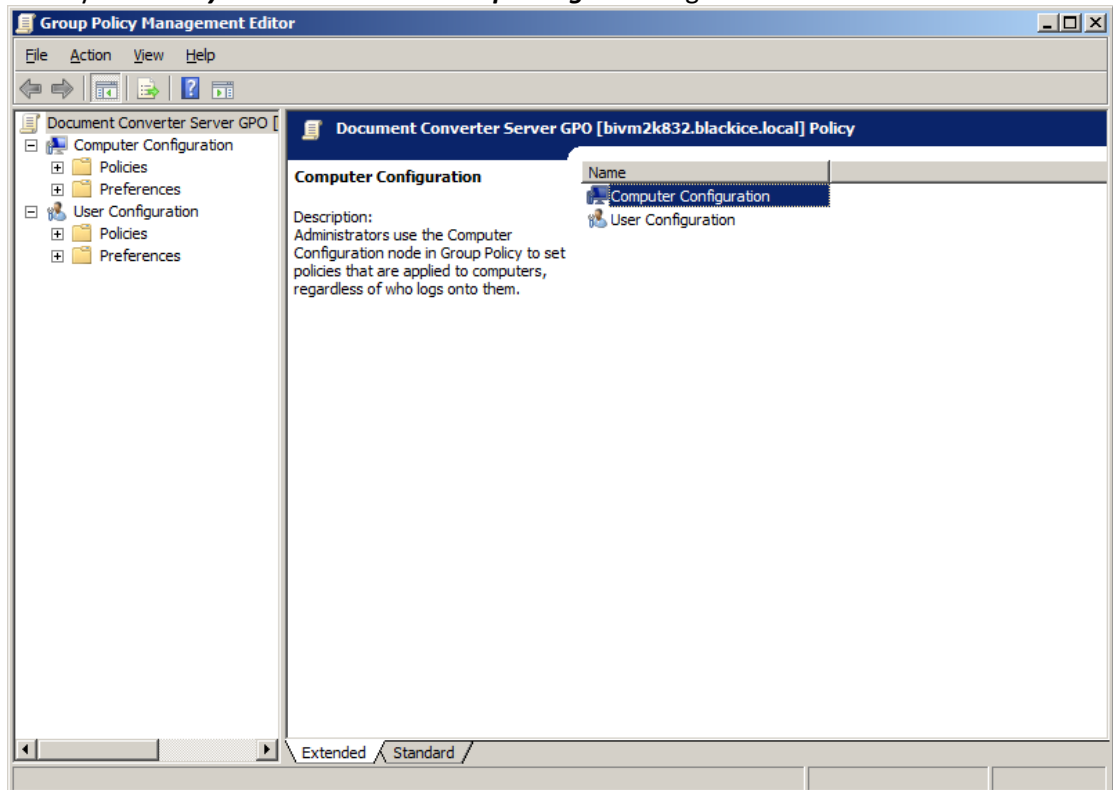


6. Edit Group Policy Object by left clicking on the GPO name and selecting **Edit**.



- 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**.

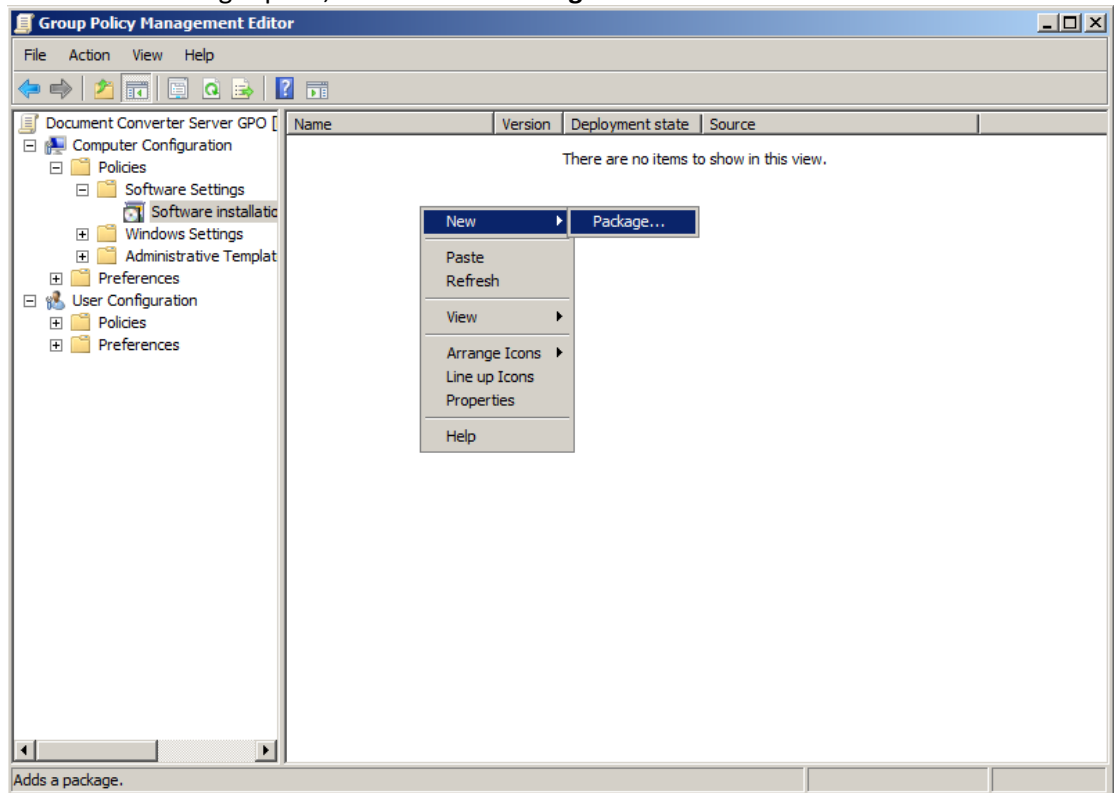


- Prepare the mst configuration file with ORCA to be used with the install package.

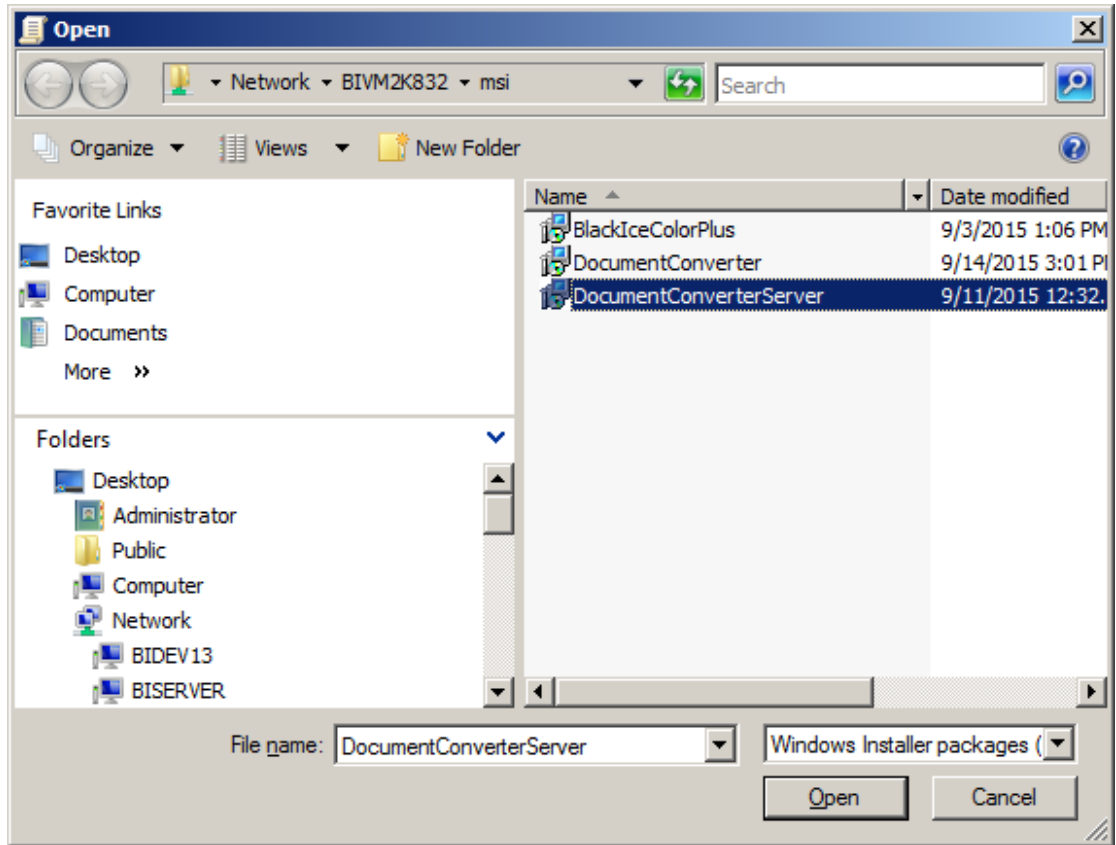
See the [How to create MST \(transform file\) for GPO deployment](#) section of this documentation.

9. Add the Document Converter Server MSI installer package.  
Navigate to: **Computer Configuration \ Policies \ Software Settings \ Software installation**

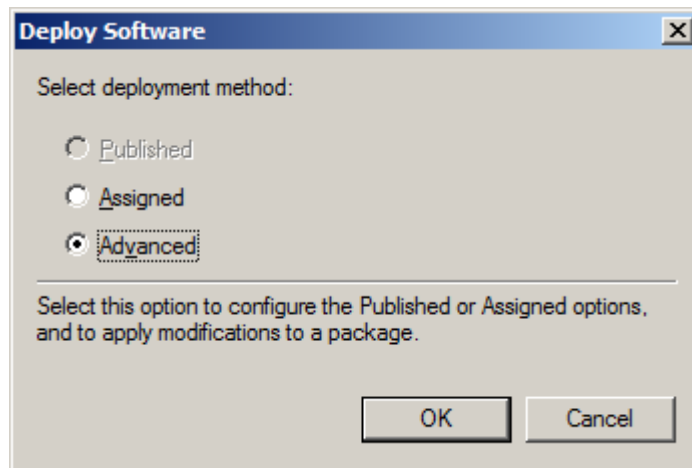
Left click on the right pane, select **New > Package**



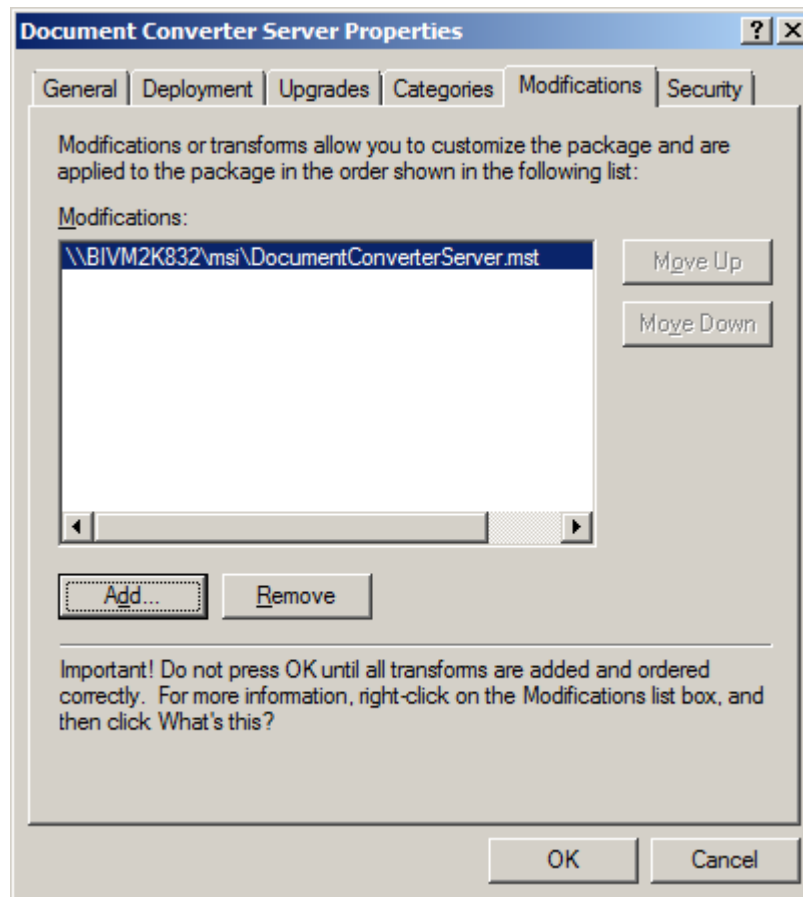
10. **Copy the Install packages to a network share** which is accessible from the computers where the software needs to be installed.



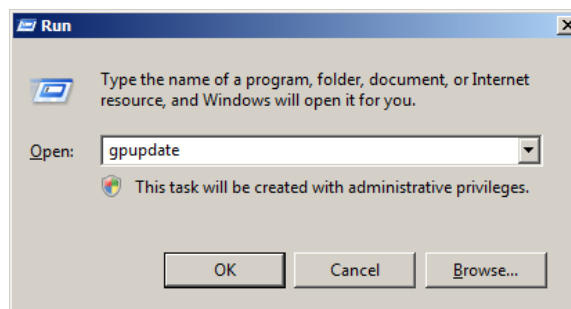
11. Select **Advanced** Software Deployment.



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



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

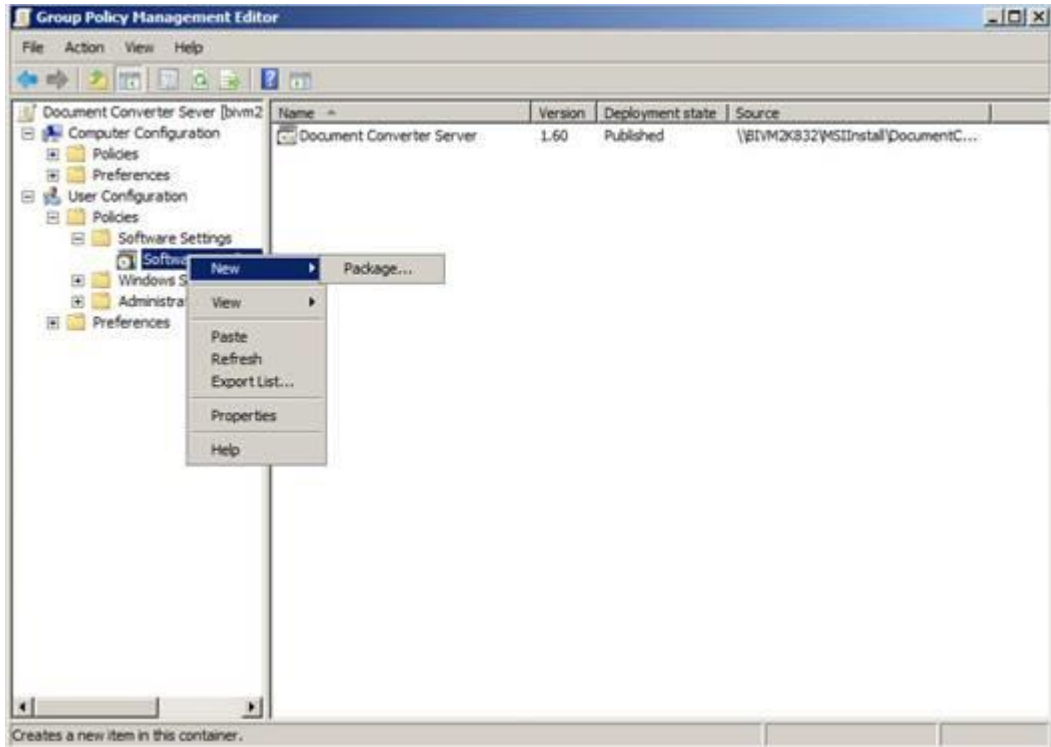


14. Restart the client computers to install the software.

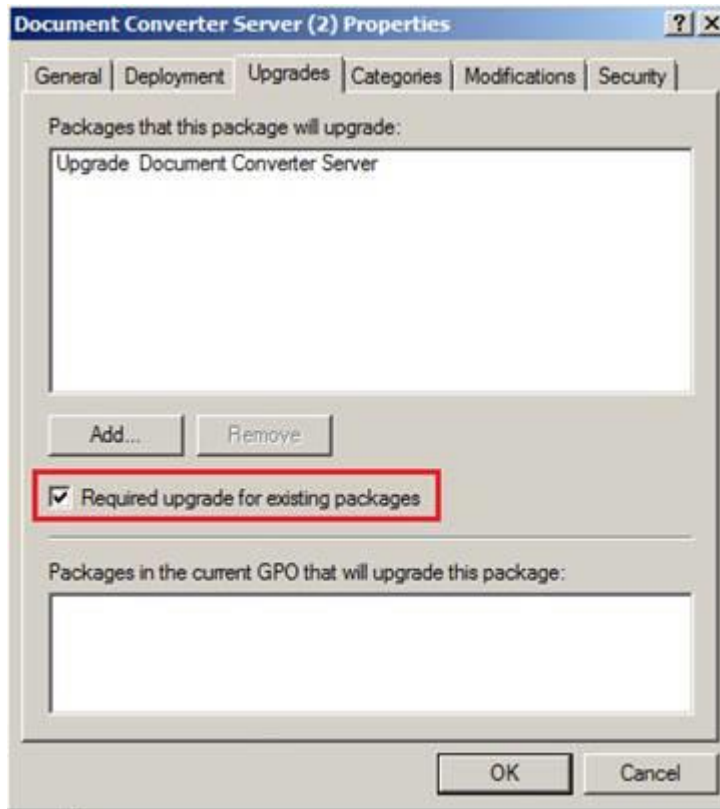
## ***How to upgrade existing installation of Document Converter Server using Group Policy Object***

One needs to add the new version of Document Converter Server as a Software Package to the same Group Policy Object where the previous version of Document Converter Server is located.

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

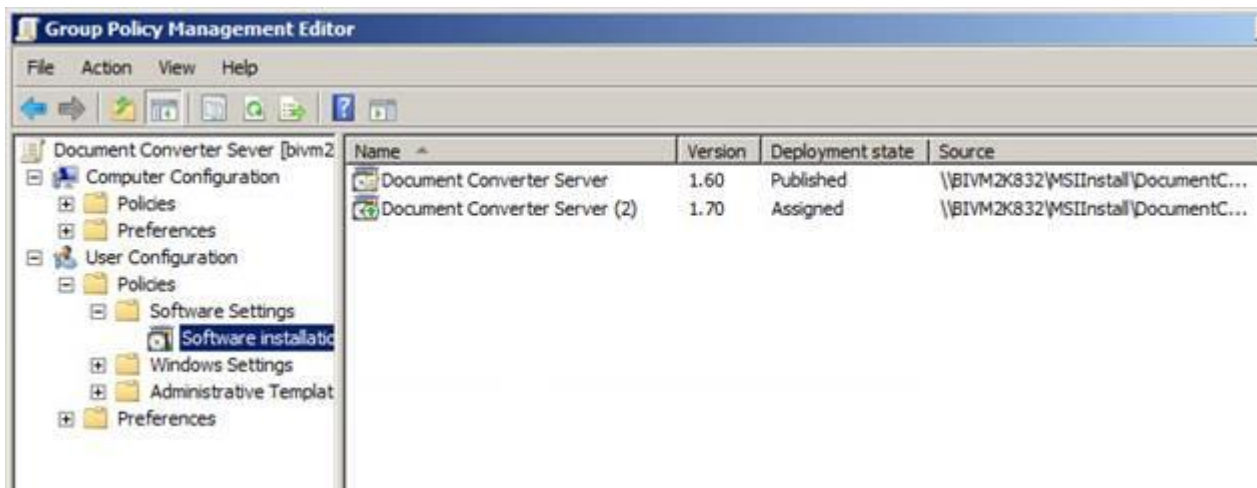


2. Right click in the open area, choose **New > Package...**
3. Navigate to the new version of the Document Converter Server MSI you want to use to upgrade your existing installations.
4. In the **Upgrades** tab select "**Required upgrade for existing packages**".



The rest of the settings should be the same as the old version of the Document Converter Server software package.

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



## 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](#)

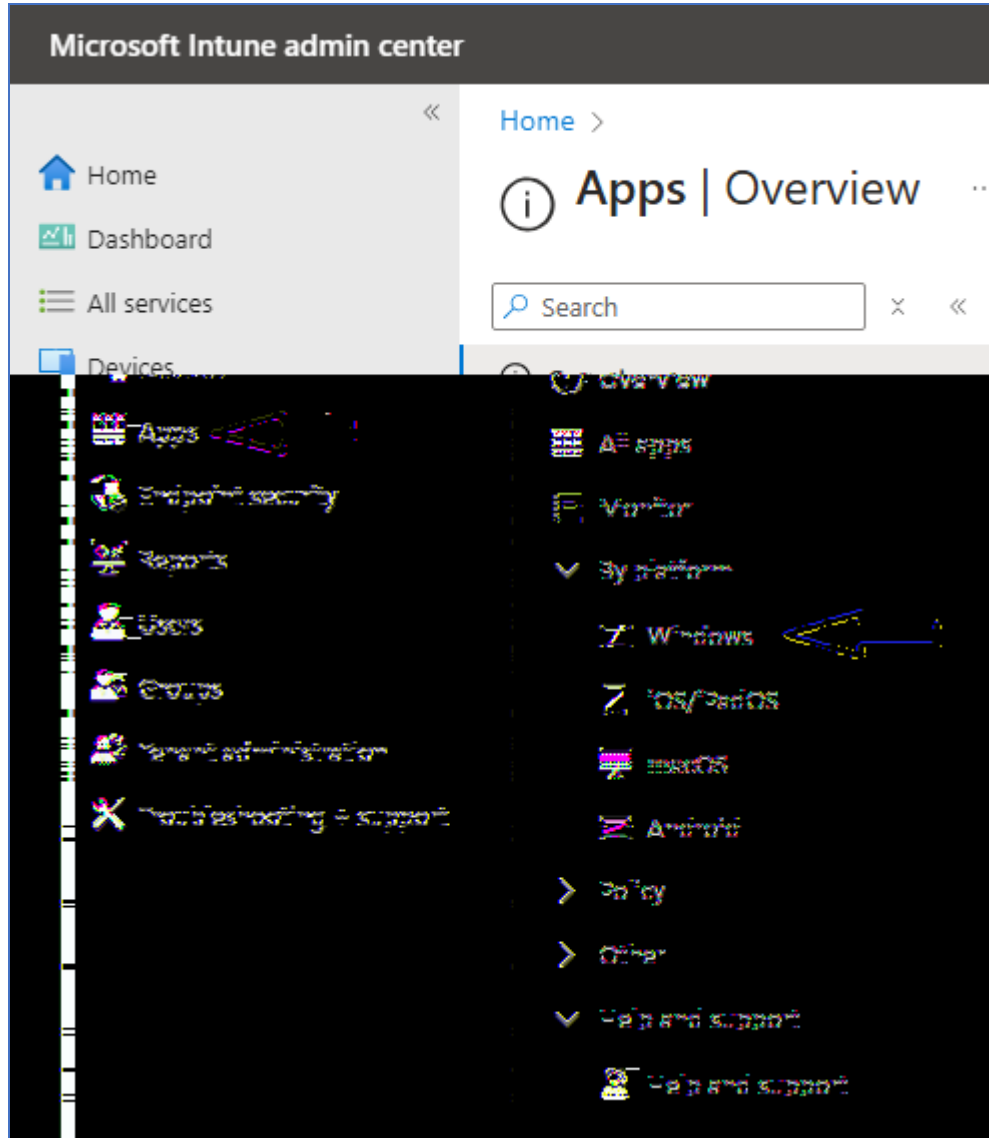
[Update/Upgrade a Printer Driver](#)

[Uninstall a Printer Driver](#)

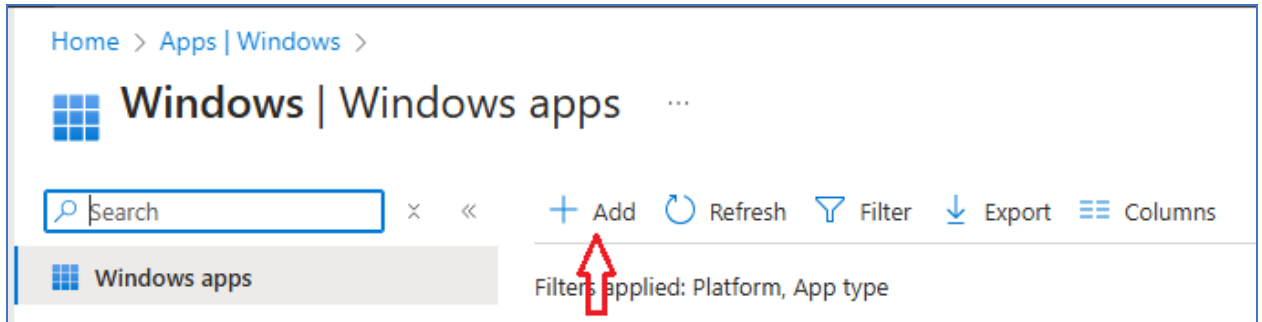
## Install the MSI installer with the “Line-of-business app” option

Login to [Microsoft Intune admin center](#)

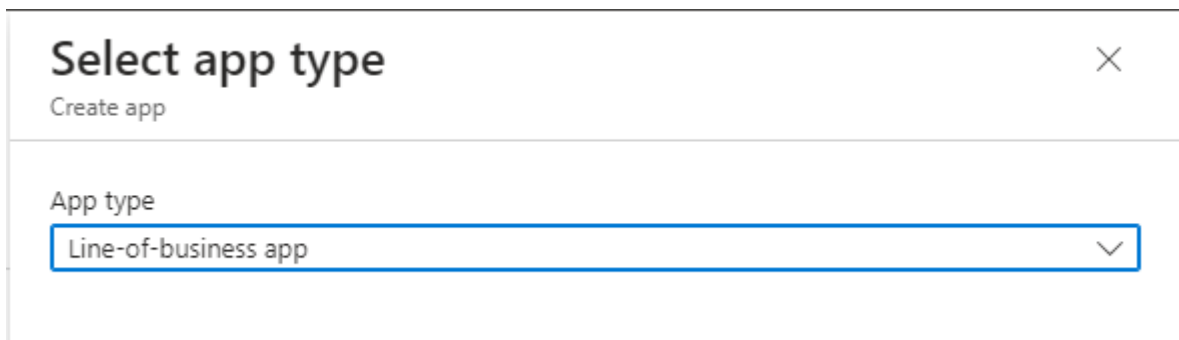
Navigate to the Apps -> Windows:



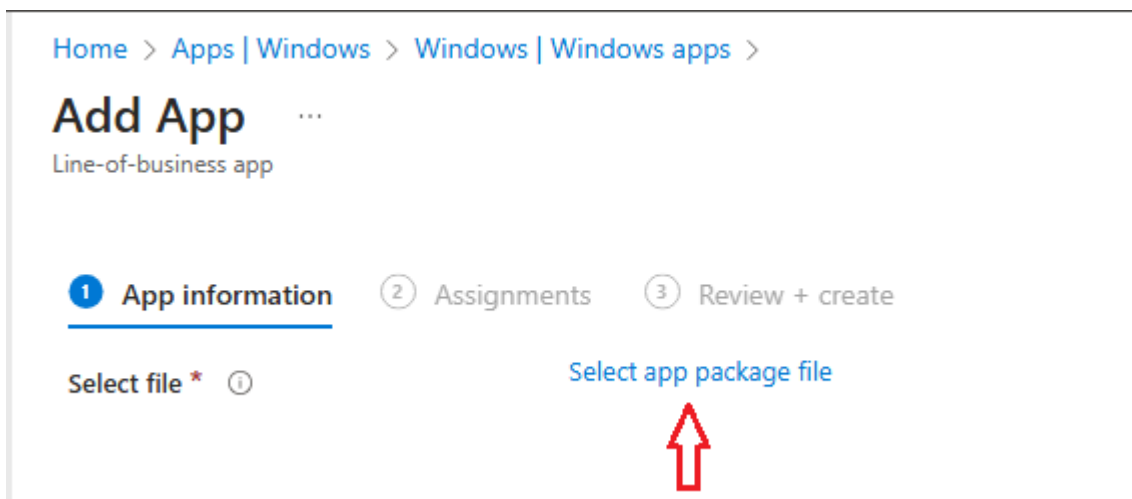
Click on **+Add** to add a new Intune application for deployment.



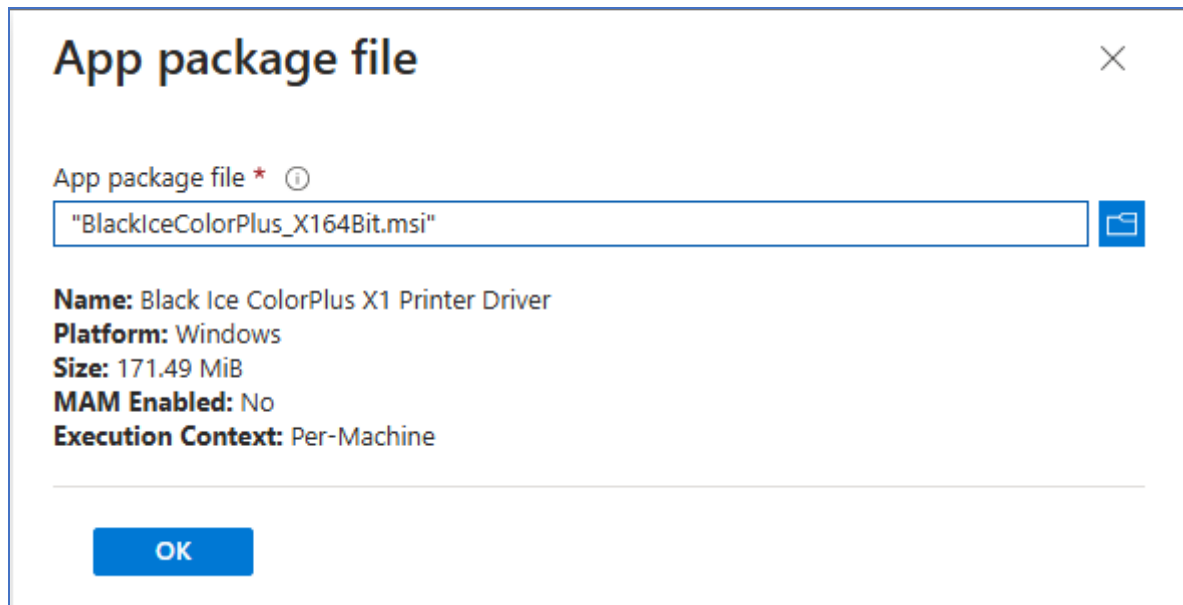
Select the **Line-of-Business app** - App Type drop-down menu from the Add app.



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.

Home > Apps | Windows > Windows | Windows apps >

## Add App

Windows MSI line-of-business app

1 App information 2 Assignments 3 Review + create

**Required**

Group mode	Group	Filter mode	Filter	Install Context
Included	testers	None	None	Device context

+ Add group + Add all users + Add all devices

**Available for enrolled devices**

Group mode	Group	Filter mode	Filter	Install Context
No assignments				

+ Add group + Add all users

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.

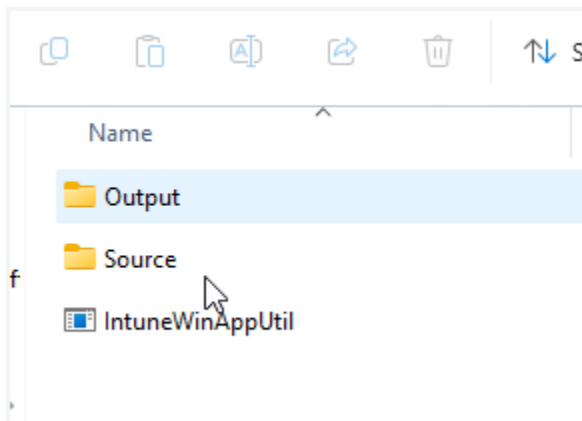
## Install the MSI installer with the Windows app (Win32) option

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.



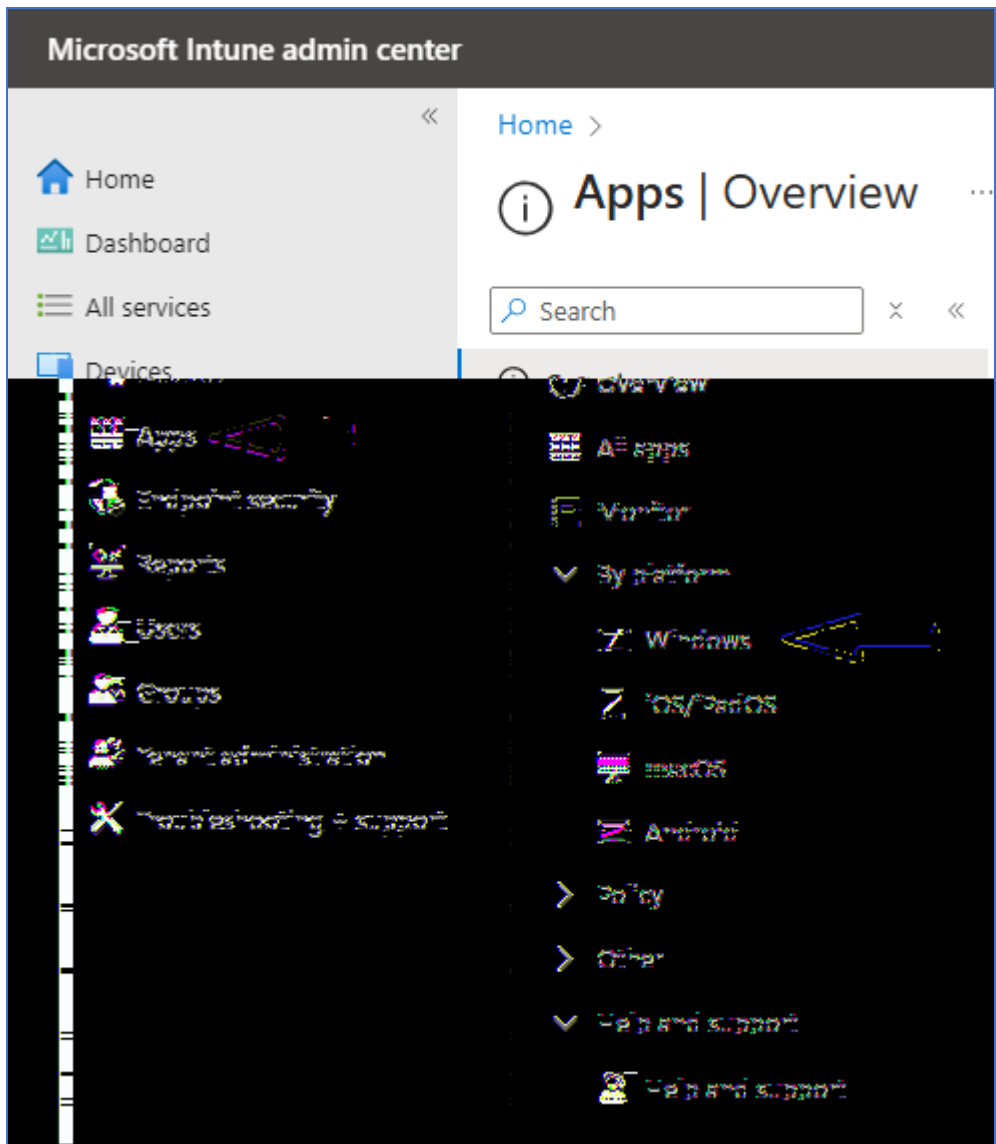
Run the **IntuneWinAppUtil** tool with the following parameters:

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

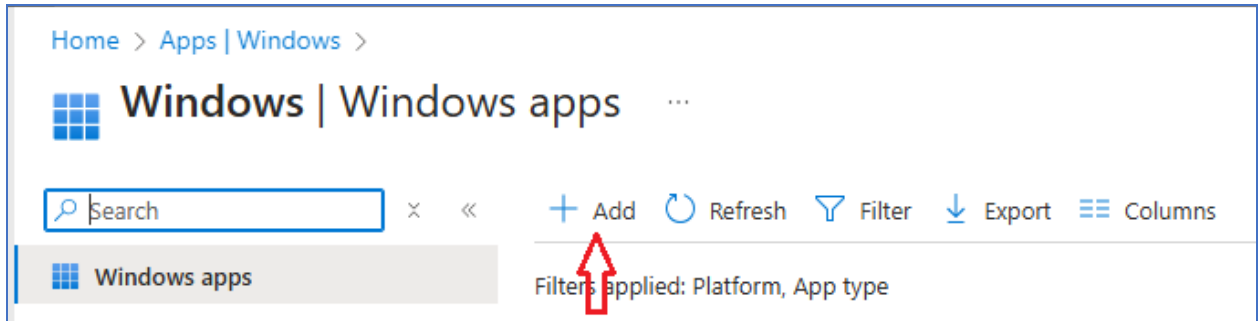
The **Output** folder contains the .INTUNEWIN file for installation.

Login to [Microsoft Intune admin center](#)

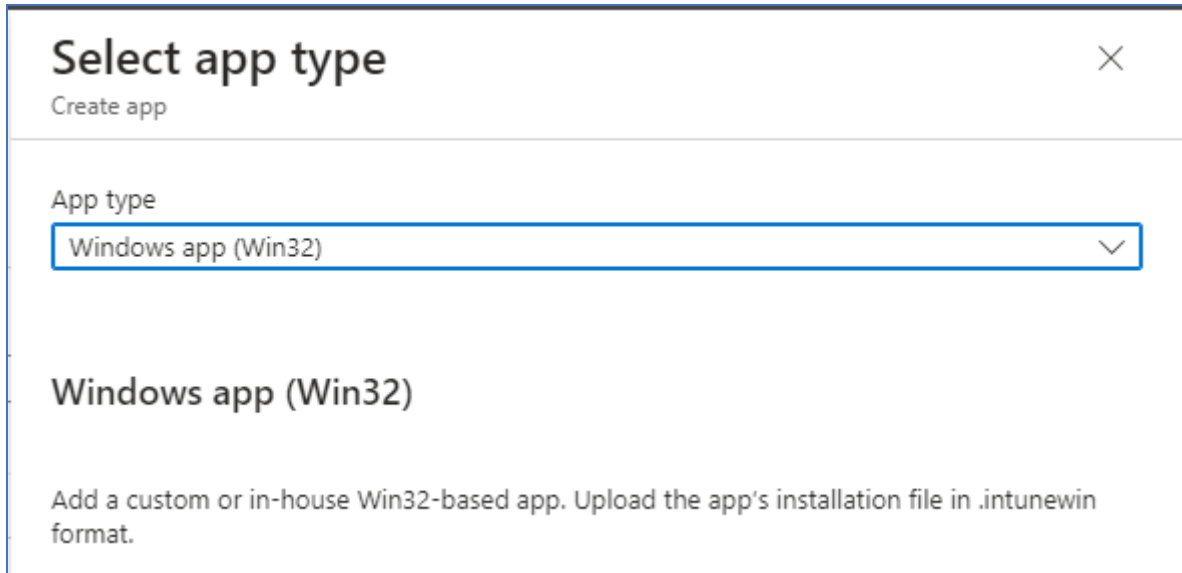
Navigate to the Apps -> Windows:



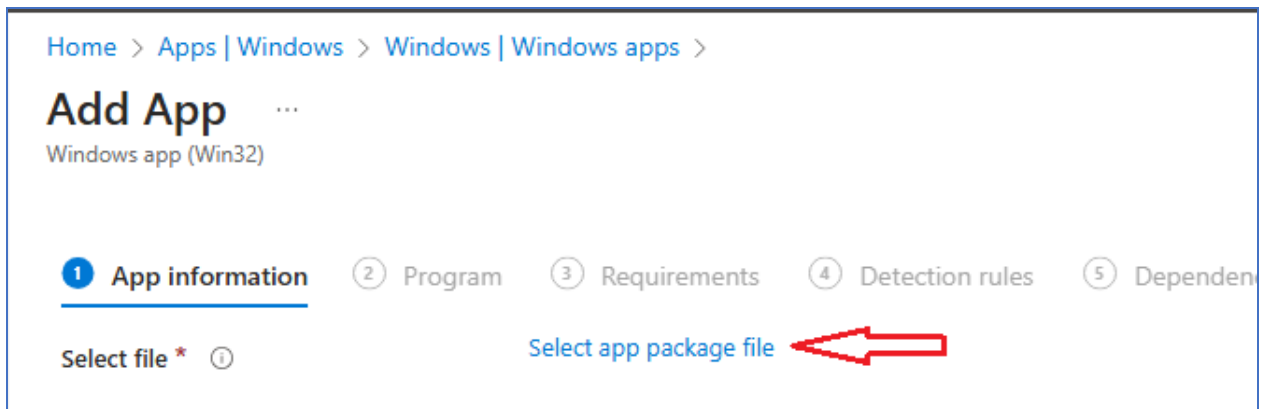
Click on **+Add** to add a new Intune application for deployment.



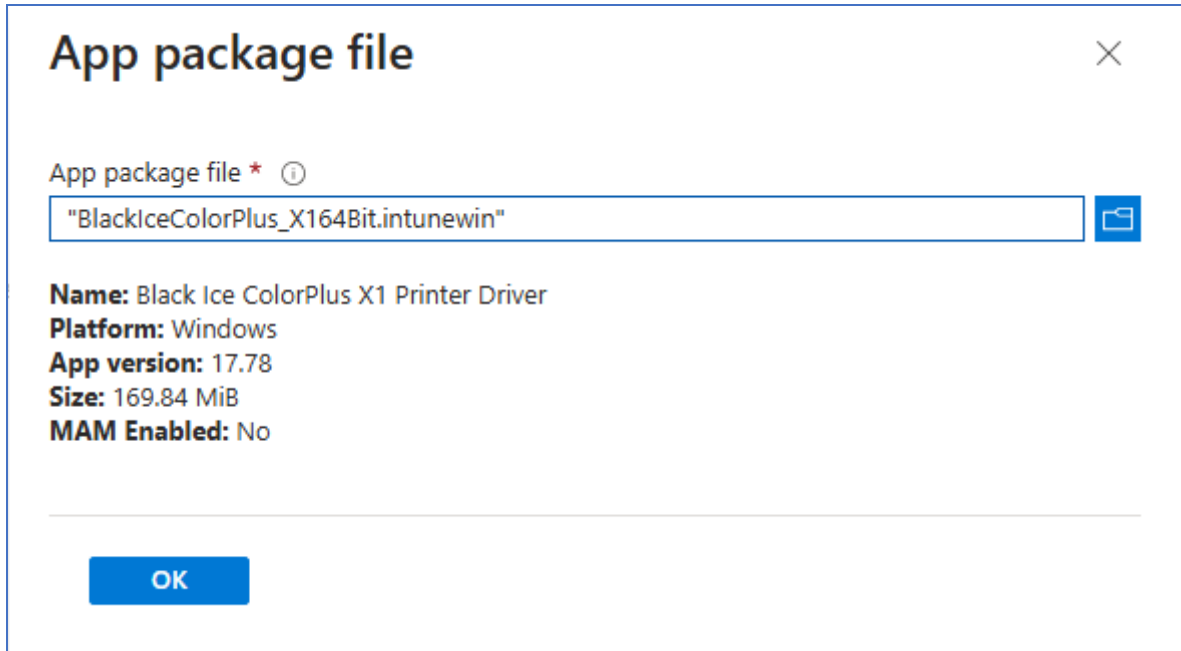
Select the **Line-of-Business app** - App Type drop-down menu from the Add app.



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.

Home > Apps | Windows > Windows | Windows apps >

## Add App


Windows app (Win32)

1 App information 2 Program 3 Requirements 4 Detection rules 5 Dependencies 6 Supers

Select file \* ⓘ [BlackIceColorPlus\\_X164Bit.intunewin](#)

Name \* ⓘ

Description \* ⓘ   
[Edit Description](#)

Publisher \* ⓘ 

App Version ⓘ

Category ⓘ

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

Information URL ⓘ

Privacy URL ⓘ

Developer ⓘ

Owner ⓘ

Notes ⓘ

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 Supersede](#)

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.

[✓ App information](#)
[✓ Program](#)
[✓ Requirements](#)
[✓ Detection rules](#)
[✓ Dependencies](#)
[✓ Supersede](#)
[7 Assignments](#)

Any Win32 app deployed using Intune will not be automatically removed from the device when the device is retired. The app and the data it contains will remain on the device.

**Required** ⓘ

Group mode	Group	Filter mode	Filter	End user notification
Included	testers	None	None	Show all toast notifications

+ Add group ⓘ + Add all users ⓘ + Add all devices ⓘ

**Available for enrolled devices** ⓘ

Group mode	Group	Filter mode	Filter	End user notification
No assignments				

+ Add group ⓘ + Add all users ⓘ + Add all devices ⓘ

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

## Sync an app to the enrolled device

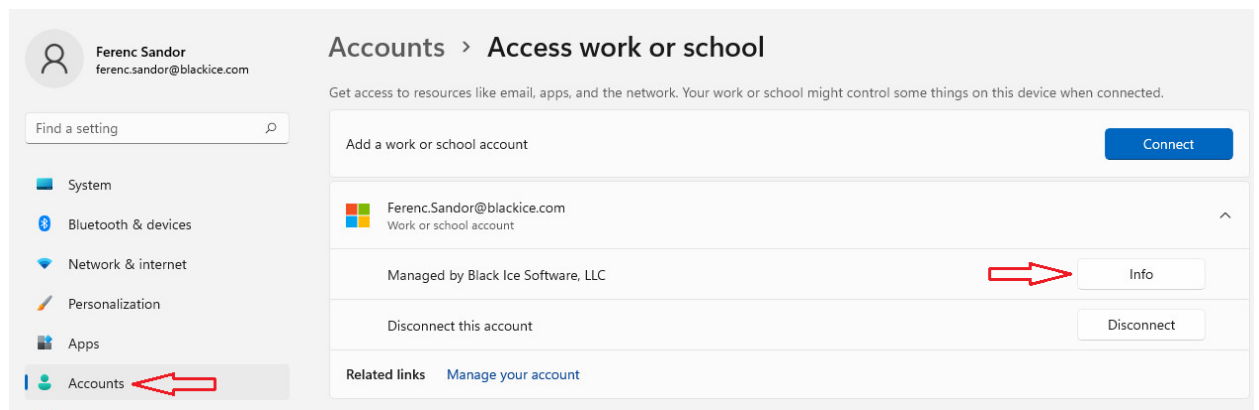
Once the application is deployed from Microsoft Intune, it can be synced to a device by following the below steps:

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.

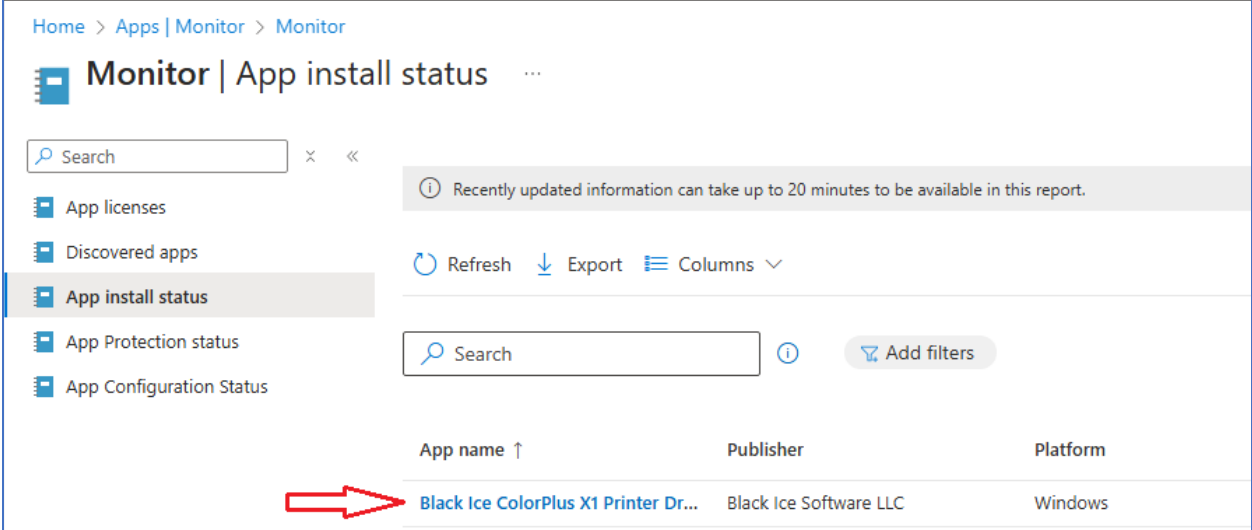
Optional: Restart your machine if the app does not appear on your device.

## 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 breadcrumb navigation is 'Home > Apps | Monitor > Monitor'. The page title is 'Monitor | App install status'. A search bar is present at the top left. A notification states: 'Recently updated information can take up to 20 minutes to be available in this report.' Below this, there are controls for 'Refresh', 'Export', and 'Columns'. A second search bar is located above the table. The table has three columns: 'App name ↑', 'Publisher', and 'Platform'. A red arrow points to the first row of the table.

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

Search

Delete

## Overview

Manage

Properties

Monitor

Device install status

User install status

Dependency viewer

Supersedence viewer

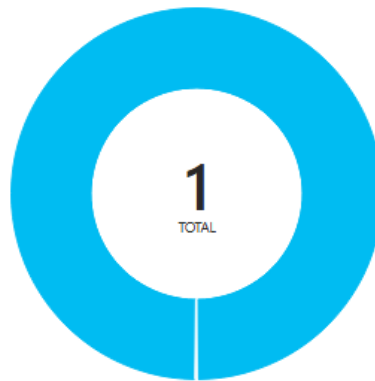
## Essentials

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.

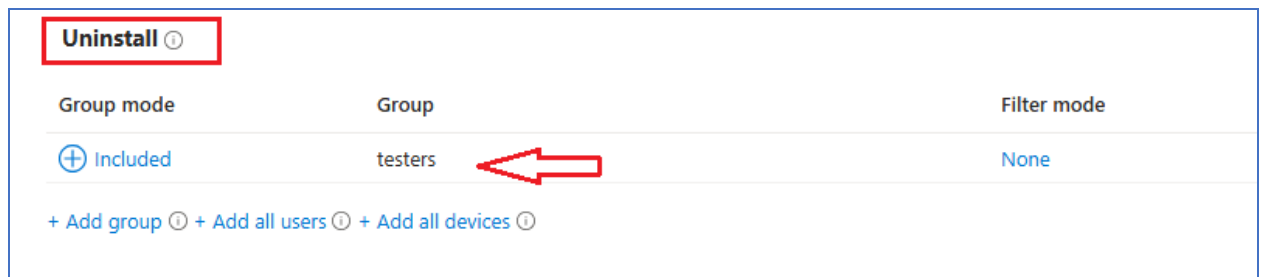
In the **Add group** pane, select **Uninstall**.

Select **Included Groups** to select the groups of users that are affected by this app assignment.

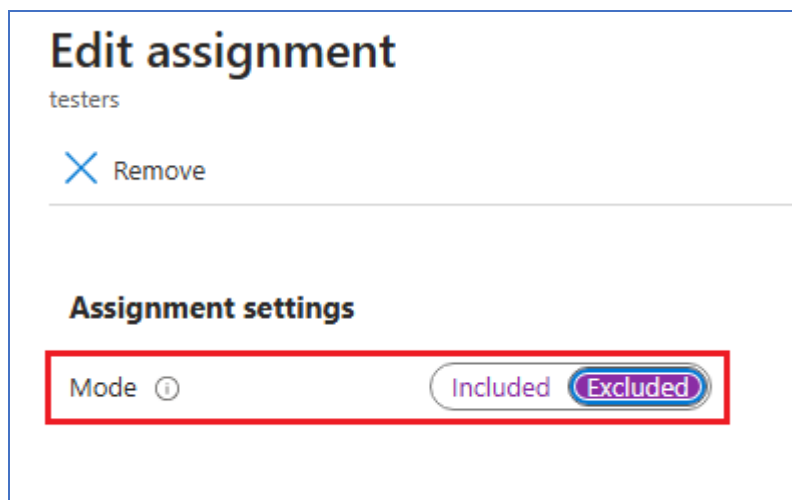
Select the groups that you want to apply the uninstall assignment.

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**.



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

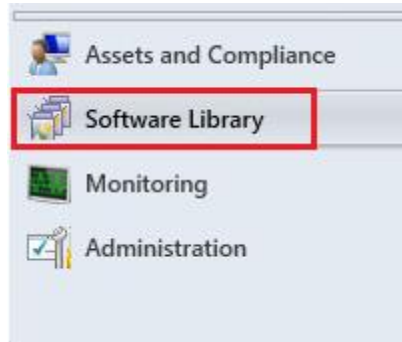
Select **Review and Save** in the app **Assignments** pane.

# Installing the Document Converter Server with SCCM

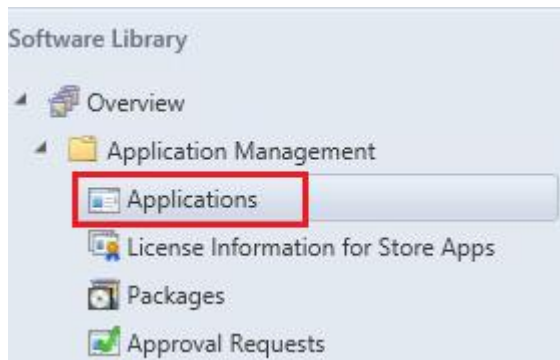
To deploy Document Converter Server MSI installer with SCCM (System Center Configuration Manager), please follow the steps below how to create an Application package for Document Converter Server in SCCM.

Open the System Center Configuration Manager

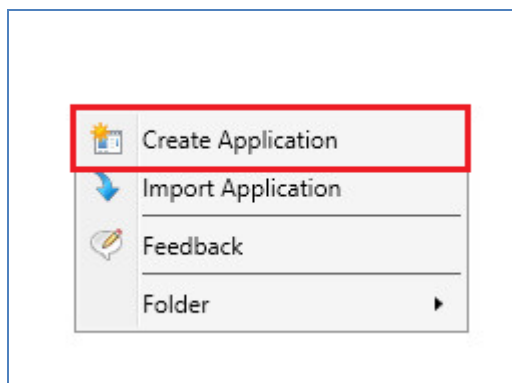
Navigate to Software Library



Select Applications



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



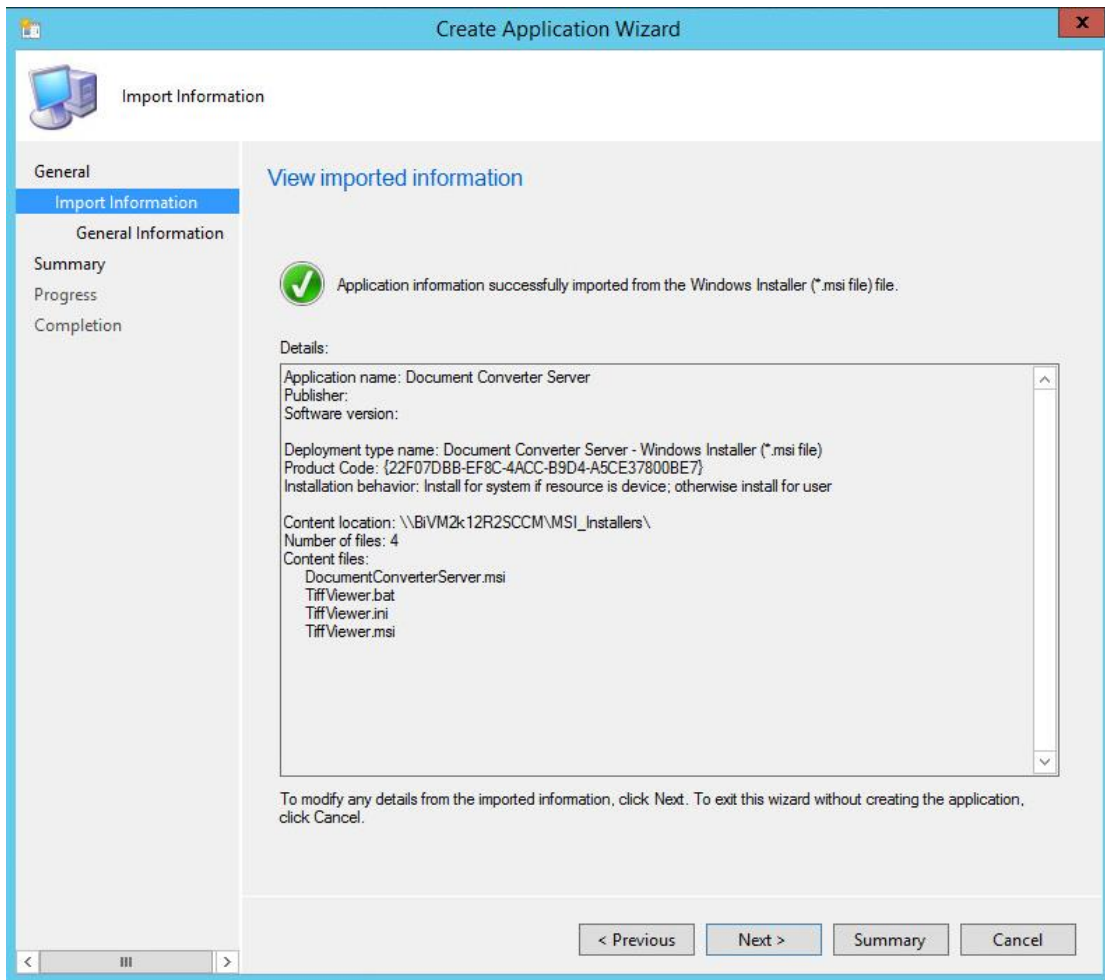
Add MSI installer file (Example:  
[\\BiVM2k12R2SCCM\MSI\\_Installers\DocumentConverterServer.msi](\\BiVM2k12R2SCCM\MSI_Installers\DocumentConverterServer.msi))

**Type:** Windows Installer (\*.msi file)

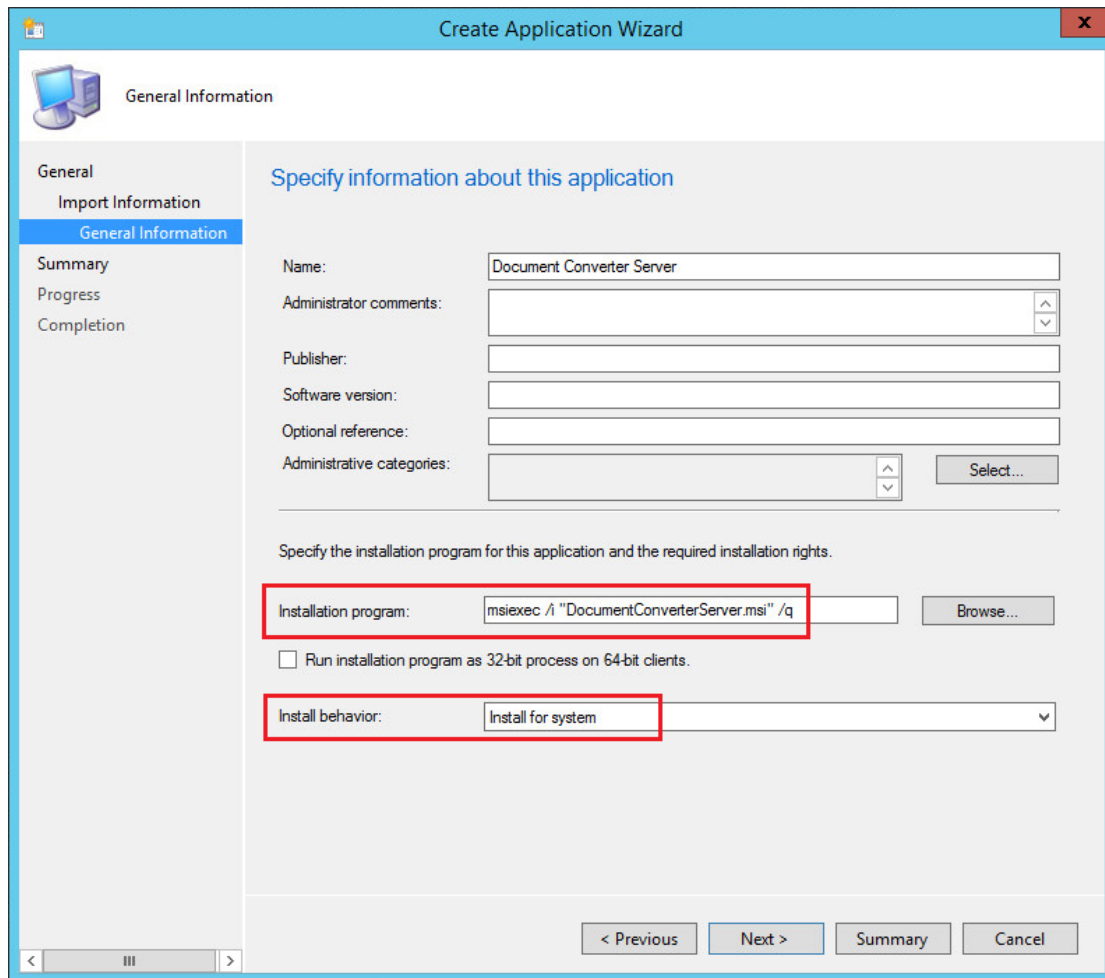
**Note:** The location file from shared directory on SCCM server.

The screenshot shows the 'Create Application Wizard' dialog box with the 'General' tab selected. The 'Specify settings for this application' section is active. Under the 'Automatically detect information about this application from installation files' radio button, the 'Type' dropdown is set to 'Windows Installer (\*.msi file)'. The 'Location' text box contains the path '\\BiVM2k12R2SCCM\MSI\_Installers\DocumentConverterServer.msi', which is highlighted with a red rectangle. Below the text box is an example: 'Example: \\Server\Share\File'. A 'Browse...' button is to the right of the text box. At the bottom of the dialog, the 'Next >' button is highlighted in grey, indicating it is the next step to take.

Click **Next** button.



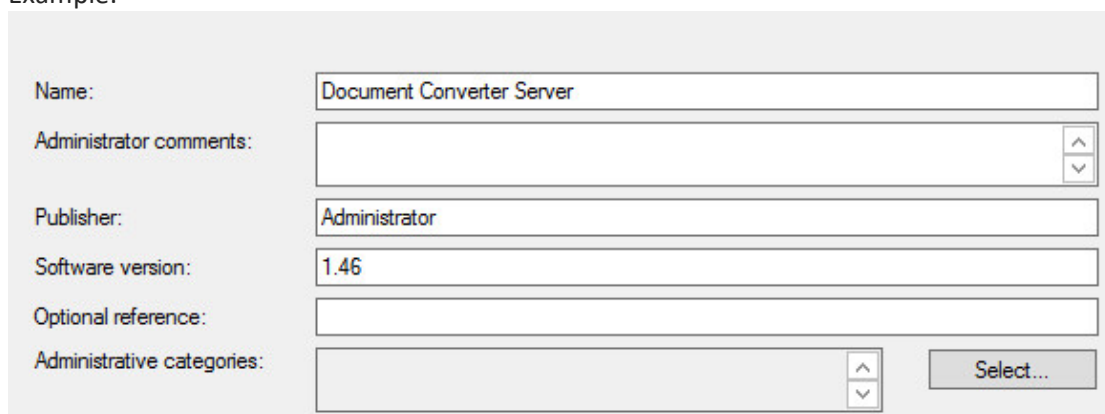
Click **Next** button.



Configure the following entries:

- Publisher
- Software version

Example:



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

**Install with TRANSFORM parameter.**

Create transforms (MST) file with Orca", read the "How to use ORCA" section.  
Add the TRANSFORM parameter with transformation file with full path.

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

**Note:** The location file from shared directory on SCCM server.

Installation program:

The MSI installer does not support the environments variable.

If using the environments variable for the CUSTOMINI or TARGETDIR parameters, create a batch file with the following text:

```
msiexec /i "DocumentConverterServer.msi"  
CUSTOMINI="%randomname%DocumentConverterServer.ini" CREGNUM=xxxxx-xxxxxxx-  
xxxxxxxxx /q
```

Installation program:

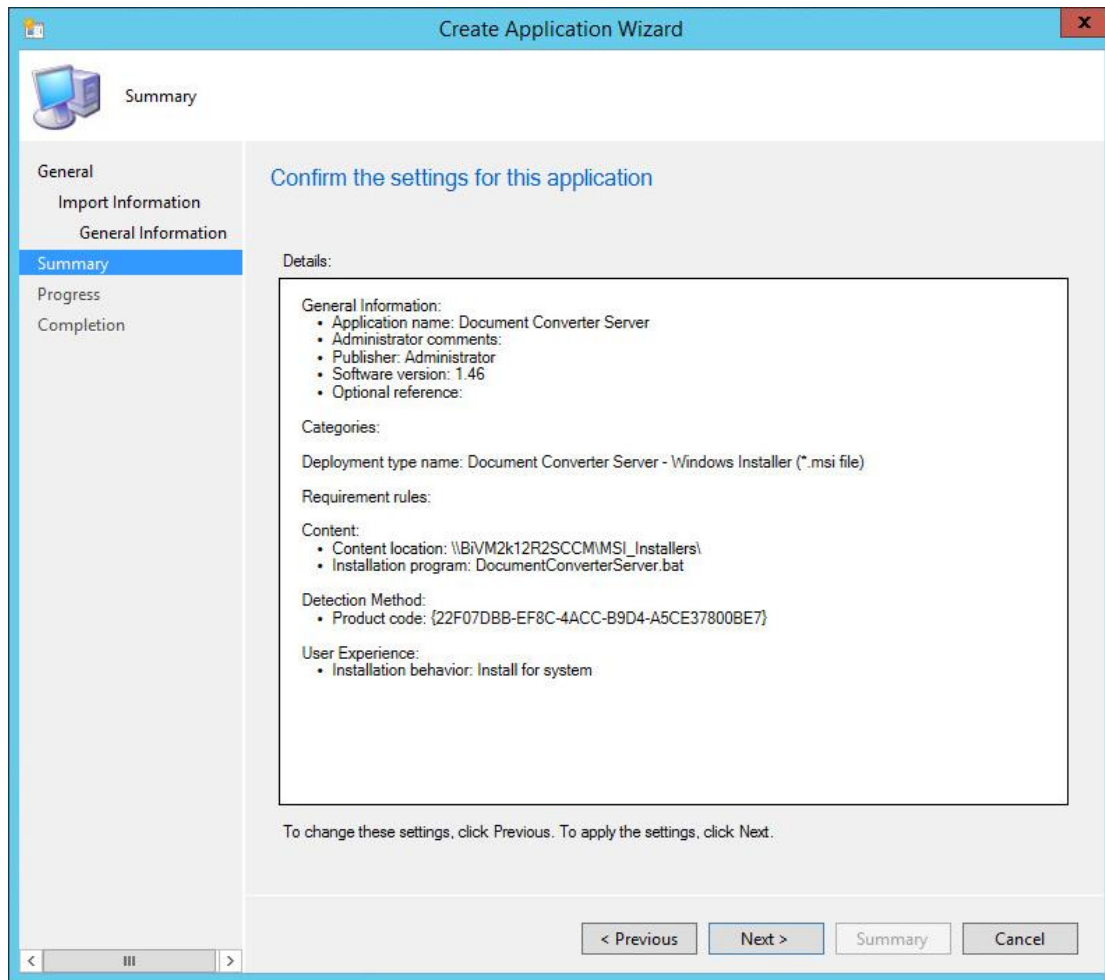
**NOTE:** The Installer behavior is **Install for system**.

Install behavior:

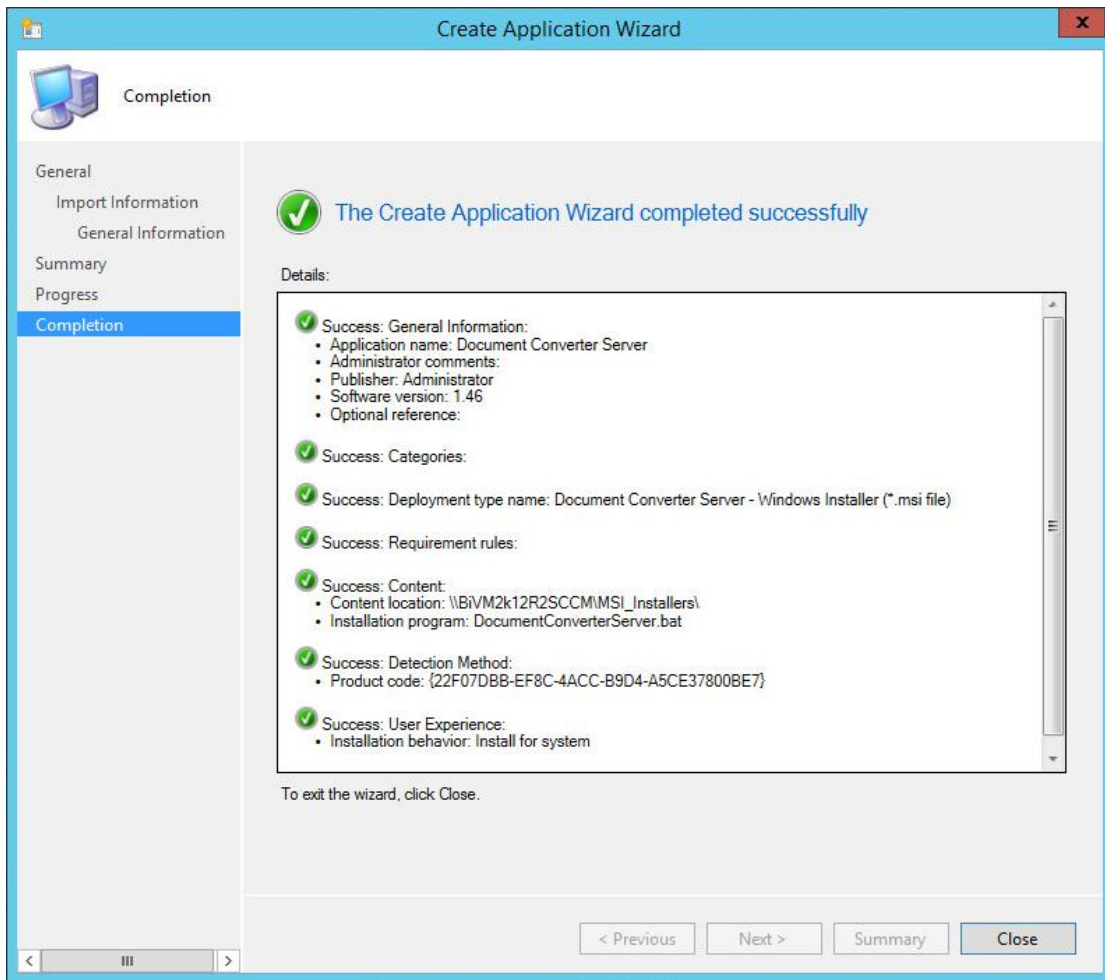
Check the **Run installation program as 32-bit process on 64-bit clients**.

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

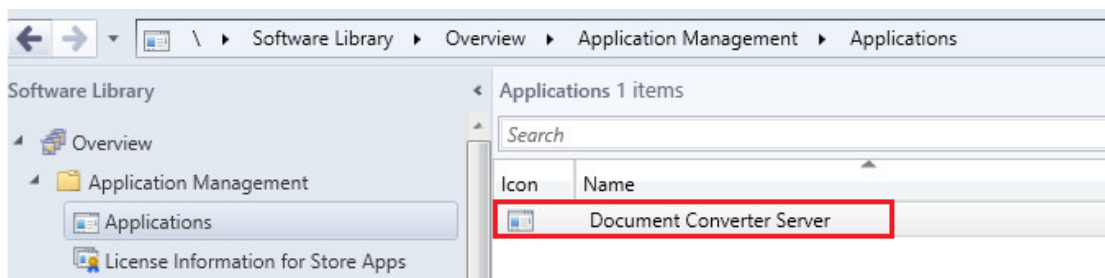
Click **Next** button.



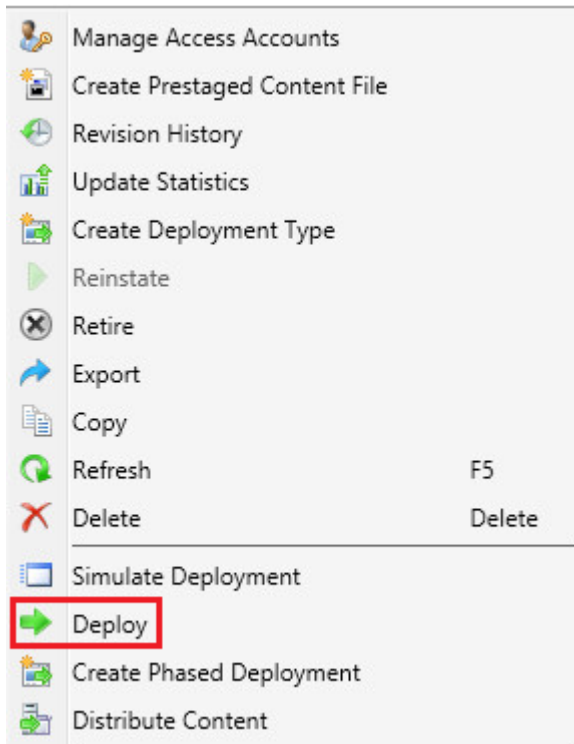
Click **Next** button.



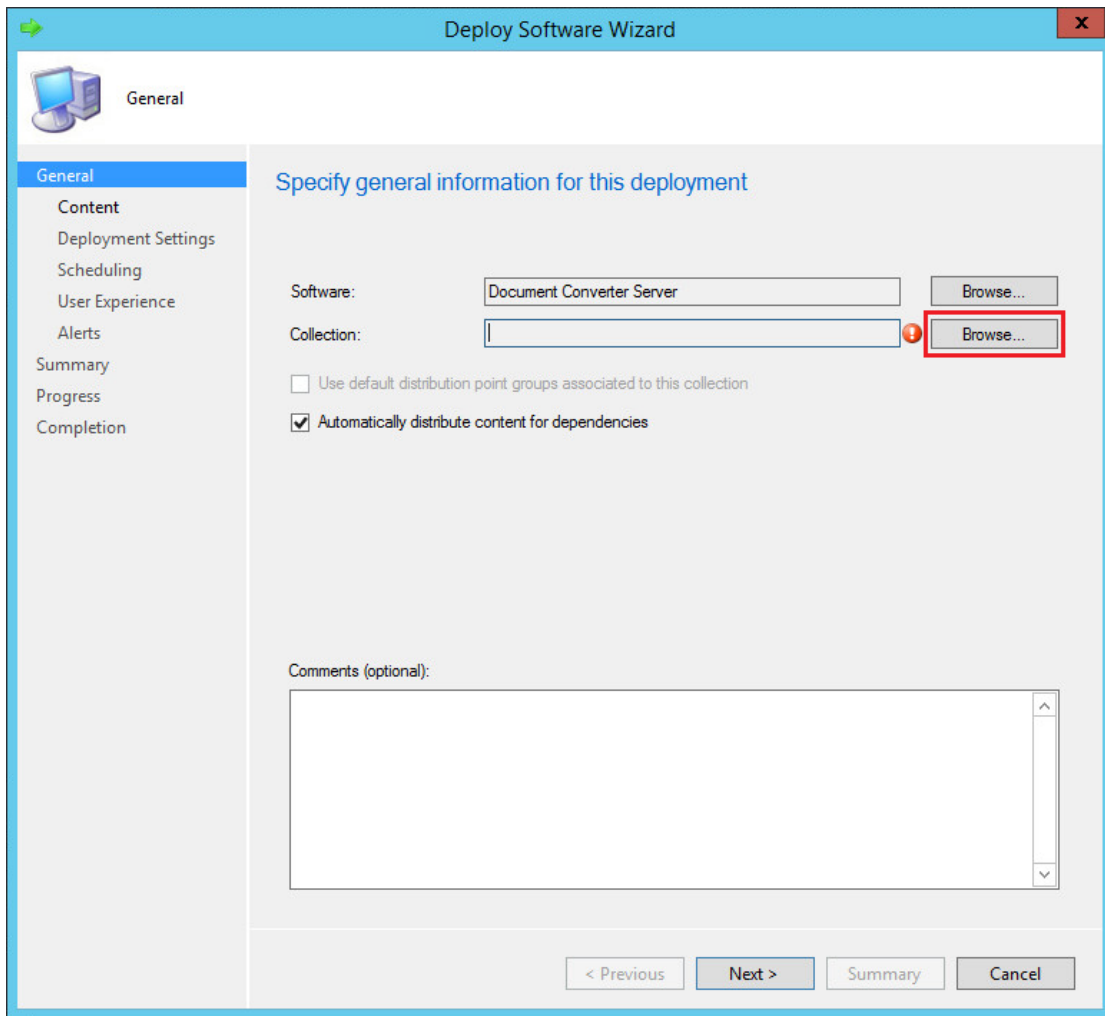
Click the **Close** button.  
Finished the install package:



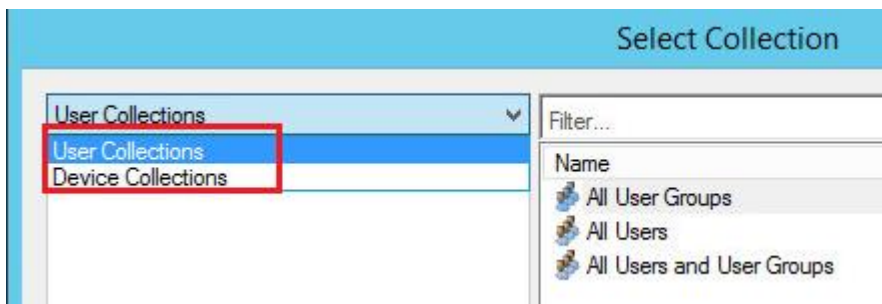
Install (**Deploy**) the Application to client(s)  
Right click on Application (Example: Document Converter Server)  
Select the Deploy:



Click to Collection -> Browse... button.



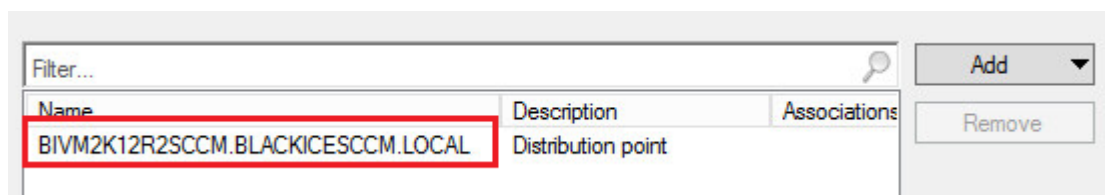
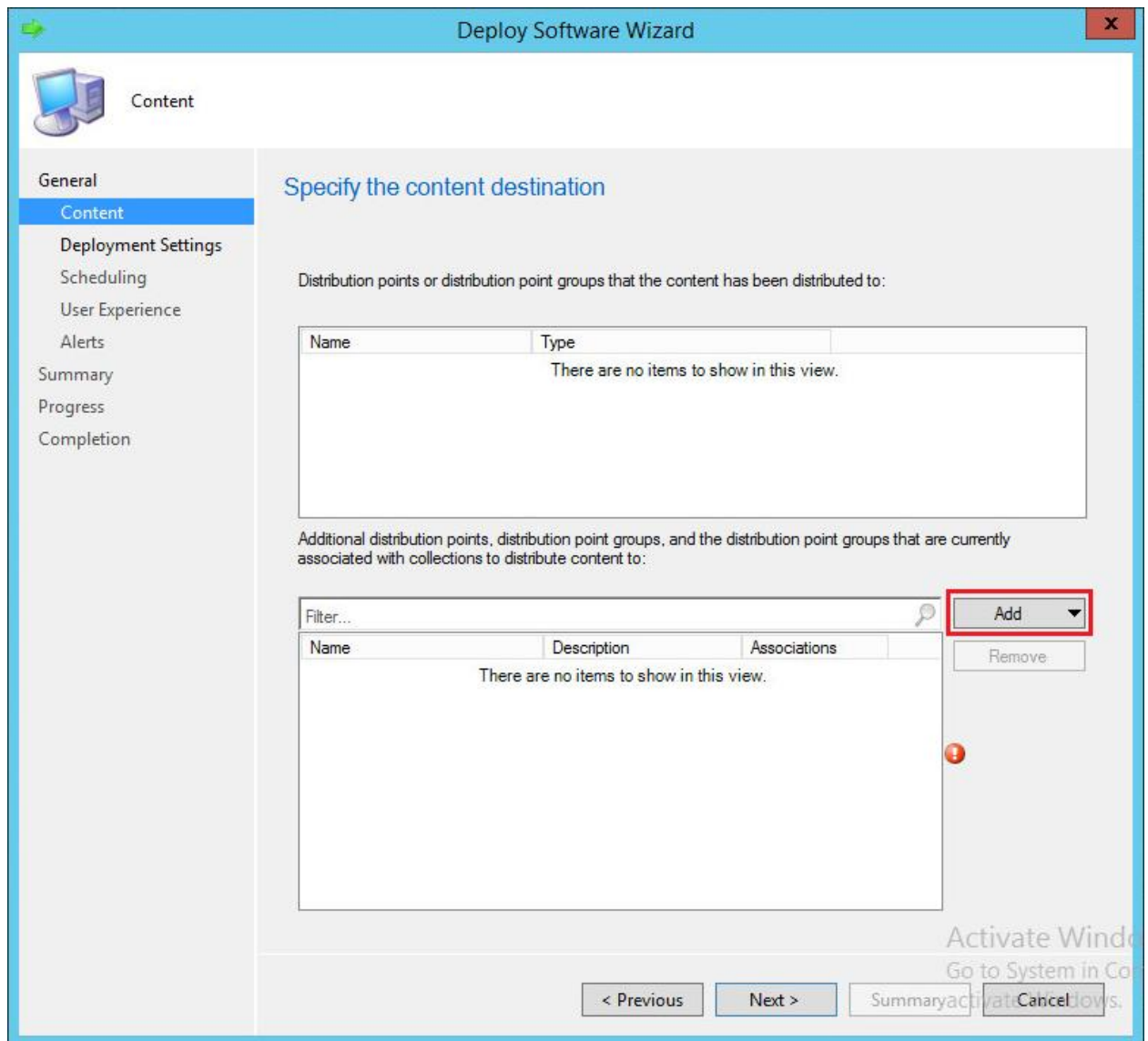
You can add Application to Users or Devices



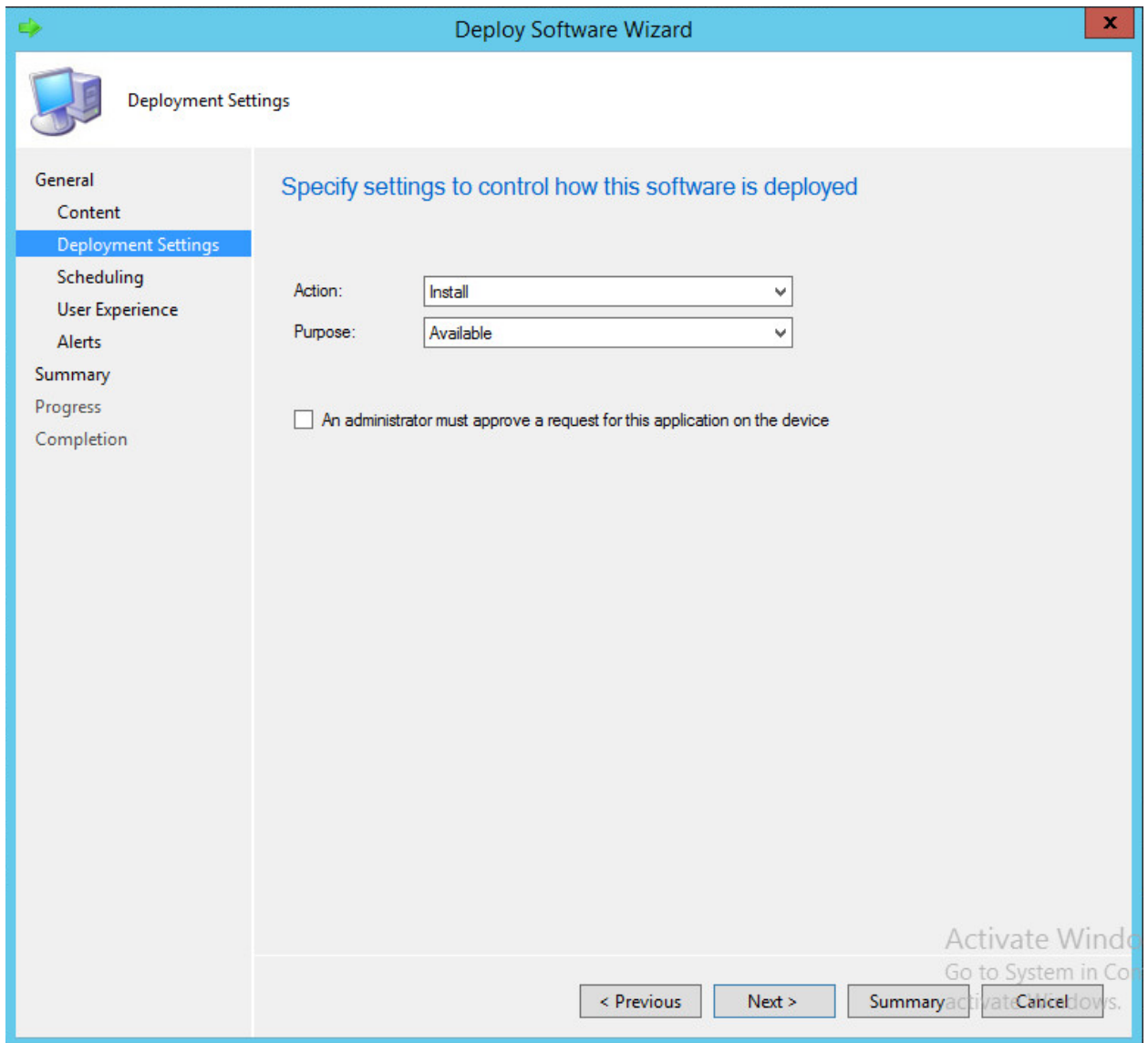
Install for Users, select the User Collections  
Install for Computers, select the Device Collections

Example for User:  
Select the Testers  
Click **Next** button.

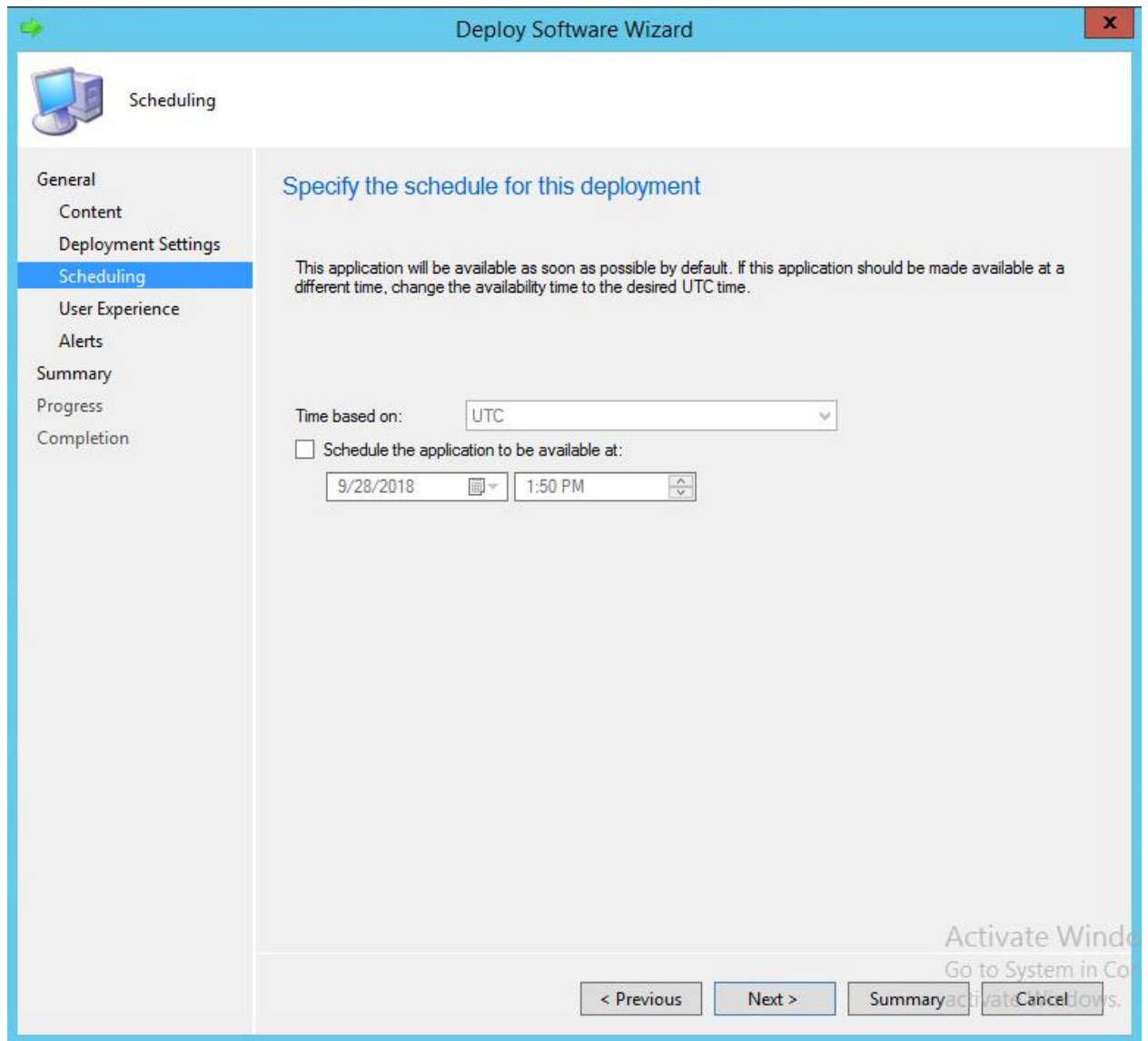
Click **Add** button and select the Distribution Point



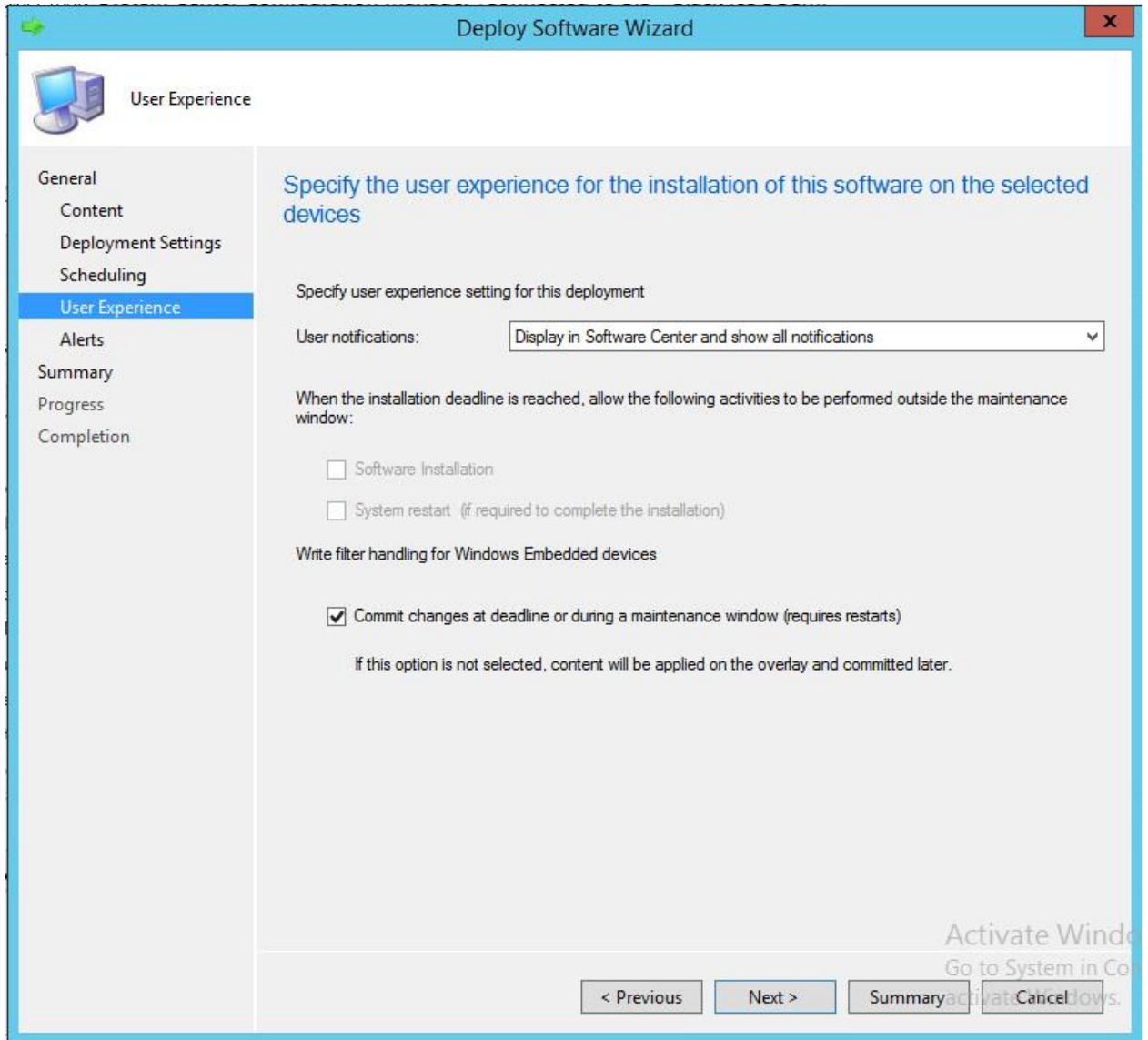
Click **Next** button.



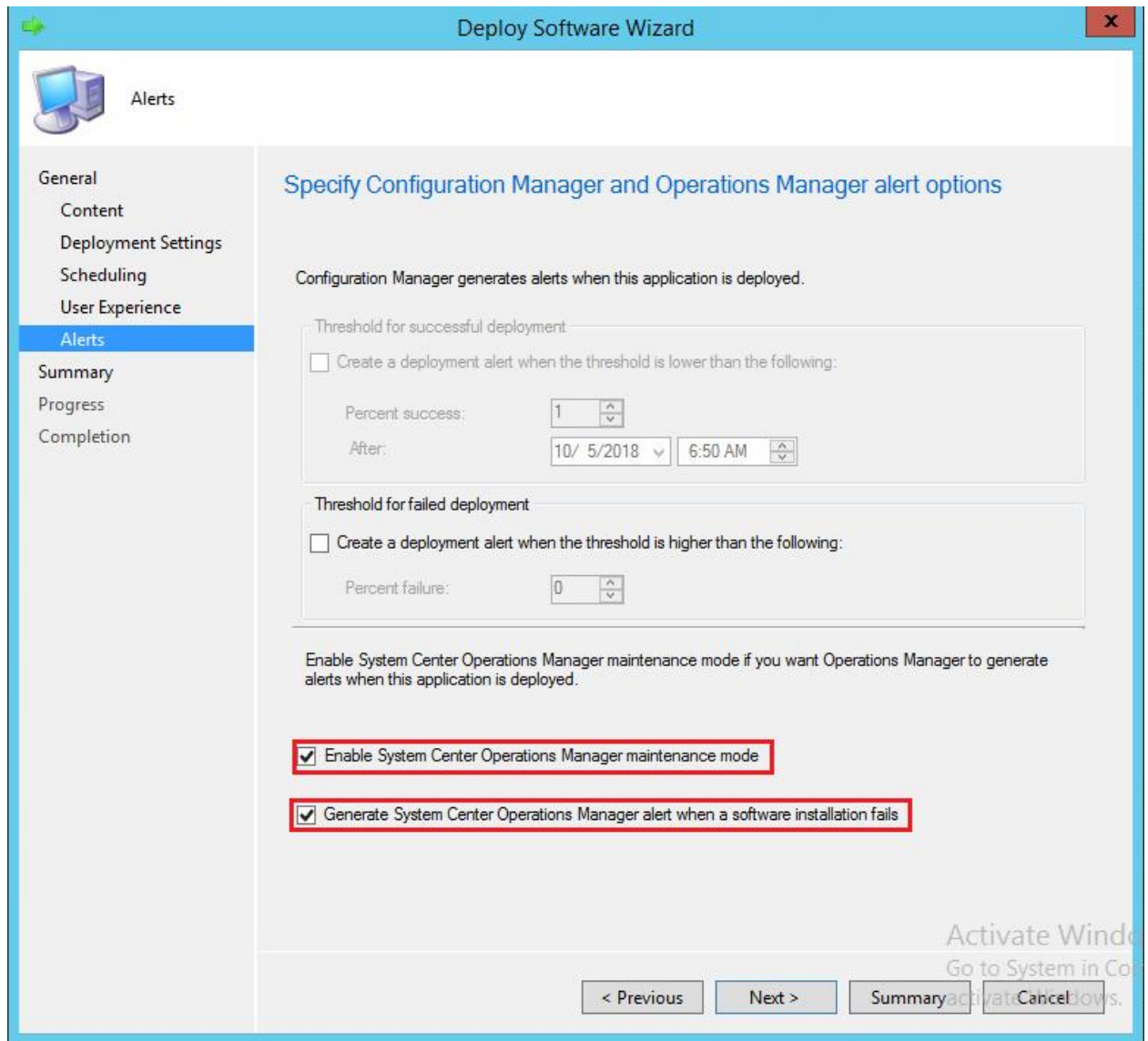
Use default settings and click **Next** button.  
You can configure the installation time.



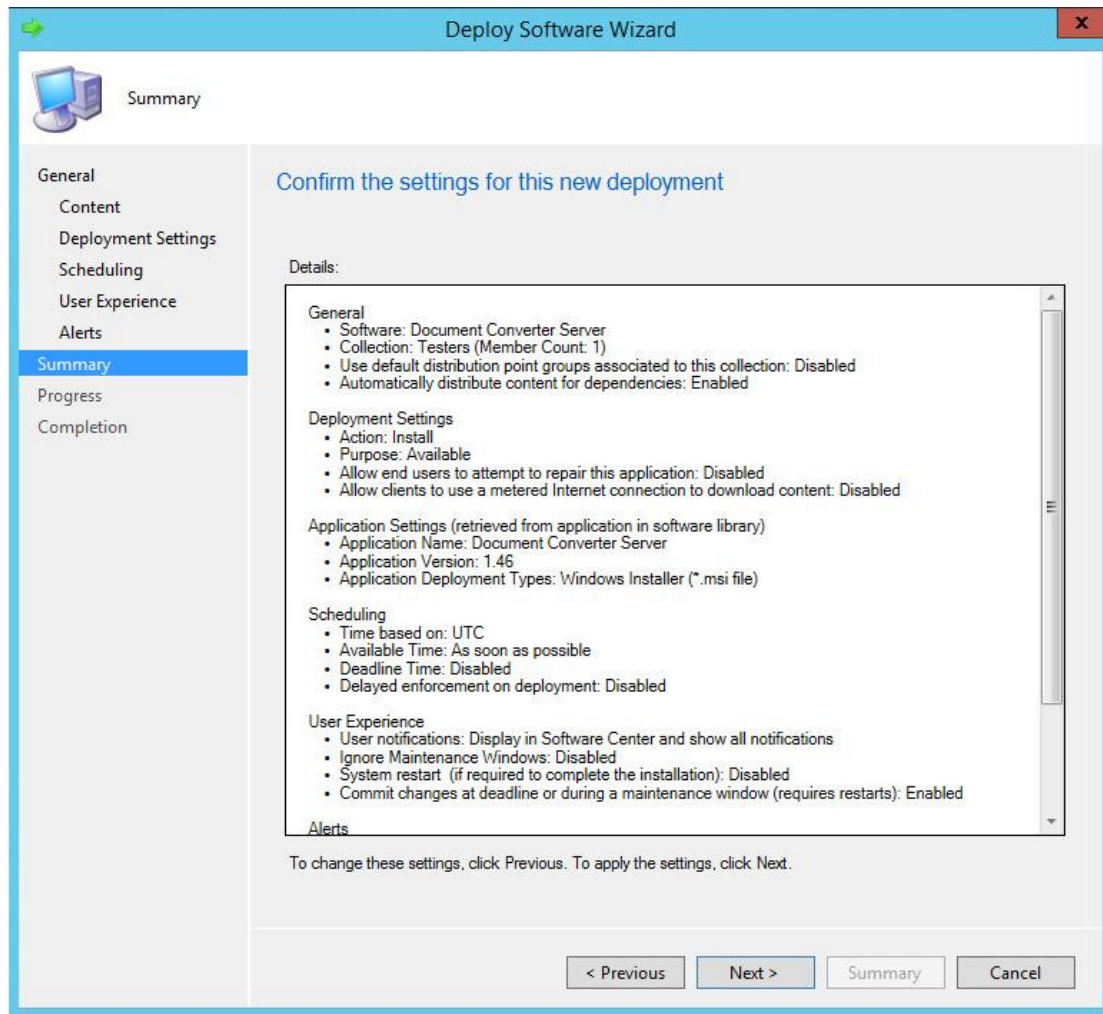
Click **Next** button.



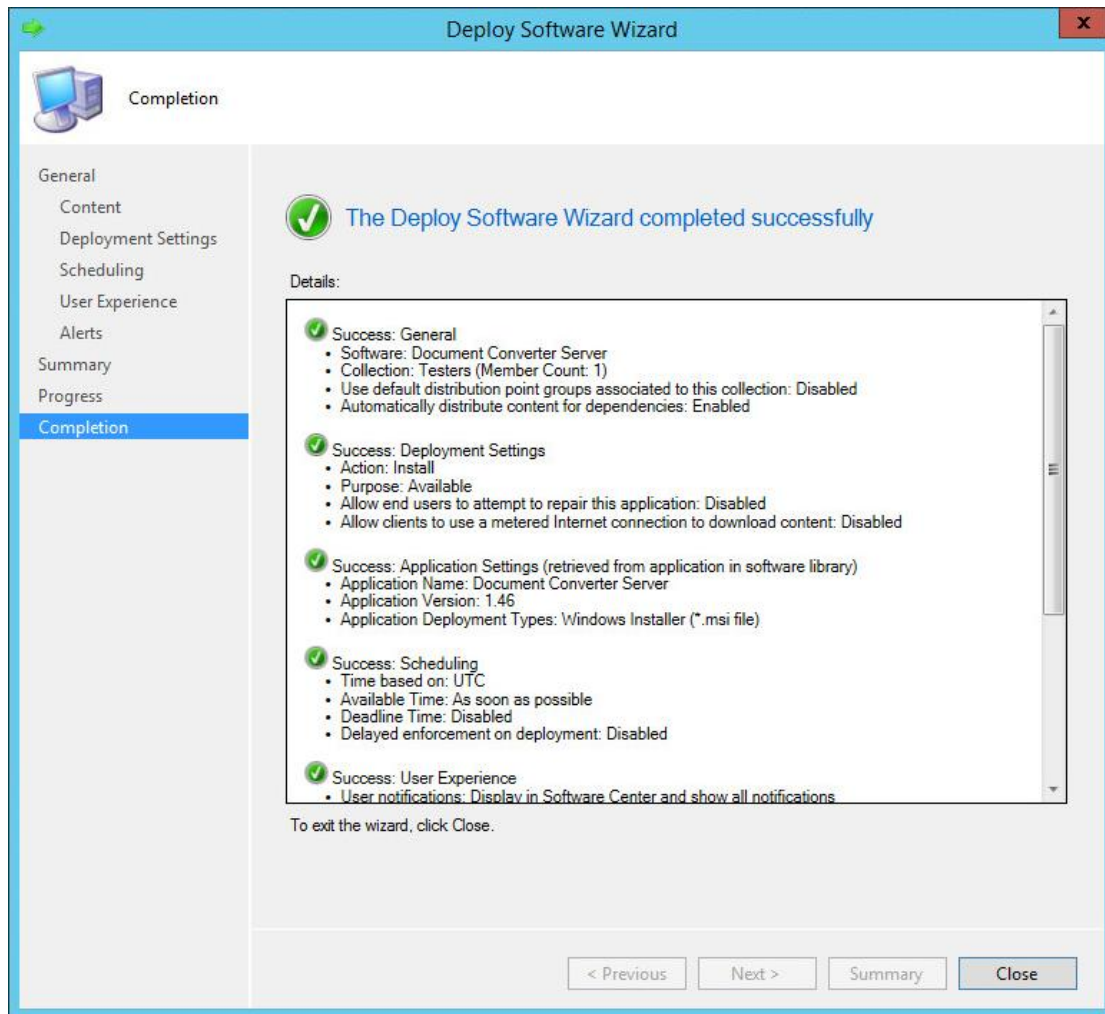
Click **Next** button.



Click **Next** button.



Click **Next** button.



Click **Close** button.  
Finished the installation.

Applications 1 items

Search

Icon	Name	Deployment Types	Deployments	Status
	Document Converter Server	1	1	Active

Document Converter Server

Icon	Collection	Deployment Start Time	Purpose	Compliance %	Action
	Testers	11/23/2018 11:39 AM	Available	0.0	Install

Summary	Deployment Types	Deployments	Phased Deployments
---------	------------------	-------------	--------------------

Check **Installation**.

Select the Monitoring -> Overview -> Deployments

Monitoring

- 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

Software Library

Monitoring

Deployments 1 items

Search

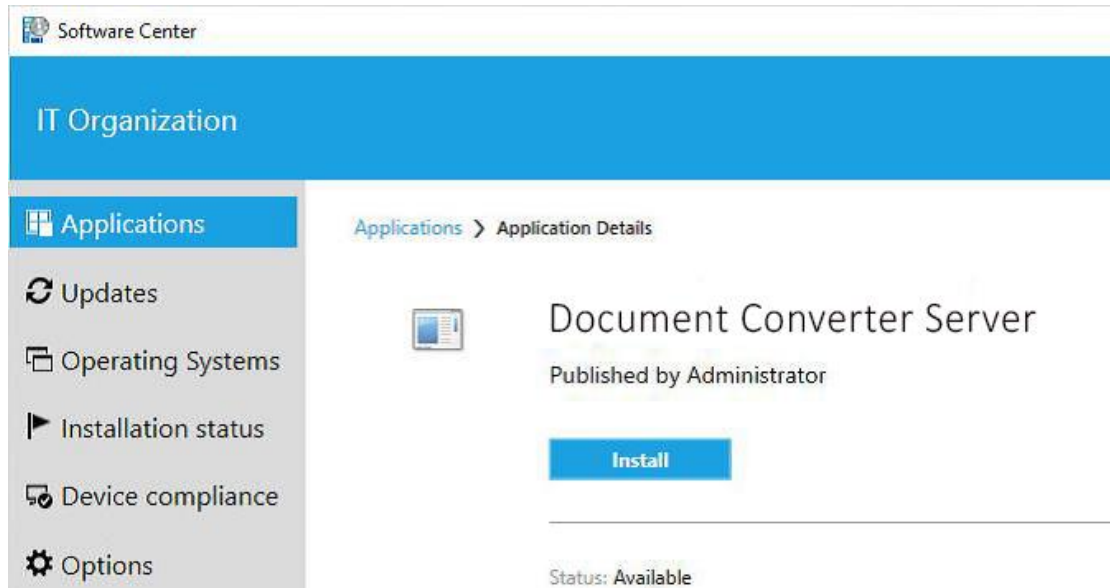
Icon	Software	Collection	Purpose
	Document Converter Server	Testers	Available

Document Converter Server Status to Testers

General		Completion Statistics
Software:	Document Converter Server	<p>Success: 0 In Progress: 0 Error: 0 Requirements N</p> <p><b>No Data</b> (Last Update: Neve</p>
Collection:	Testers	
Feature Type:	Application	
Purpose:	Available	
Date Created:	11/23/2018 3:39 AM	
Last Date Modified:	11/23/2018 3:39 AM	

## ***Install the Document Converter Server MSI on client computers***

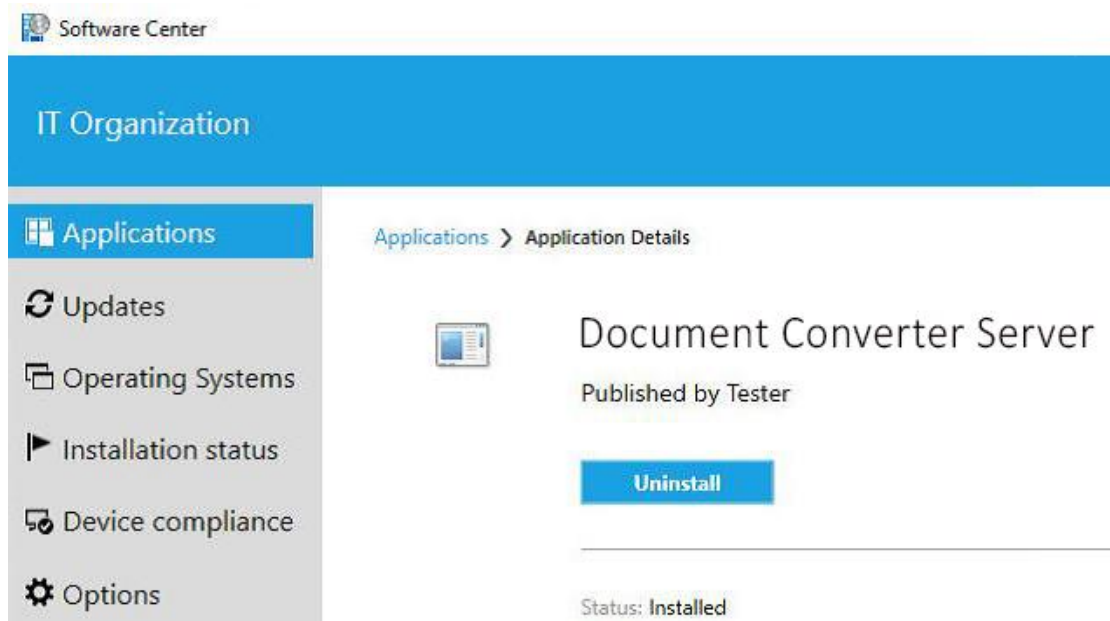
Open the **System Center** and select **Applications**.



Click **Install** button.

## ***Uninstall the Document Converter Server MSI from client computer***

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



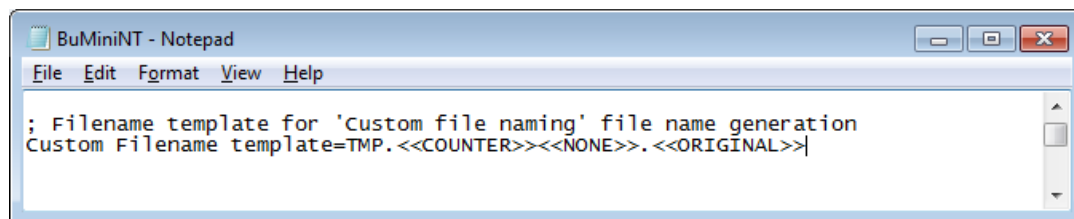
Click **Uninstall** button.

# Configuring the Document Converter Server with Custom configuration INI file

Document Converter can be preconfigured through the Custom INI file with the CUSTOMINI parameter.

The User can modify the INI file with almost any text editor (e.g. Notepad) However, **it's very important that the custom INI file must contain all values (the whole INI file), not just what the User wants to modify.** The MSI Installation with a truncated or insufficient INI file will not be applied to the Document Converter Server.

Furthermore, **some of the settings in the default INI file are just examples.** If the ; semicolon mark is at the beginning of the line, the installer will ignore the line. So if you need to modify the **Custom Filename Template** for example, you should change it as you can see on the following image (delete the ; semicolon mark);



**When using a CUSTOM INI please take into account that by default the Document Converter Server is installed to an operating system specific location. Please note that some parameters need full path, make sure that the correct paths are set in the INI file for the computer the Document Converter Server will be installed to.**

***The Default INI files can be found in the following directories;***

*32 bit Windows operating systems*

C:\Windows\System32\Spool\Drivers\w32x86  
C:\Windows\System32\Spool\Drivers\w32x86\3

*64 bit Windows operating systems*

C:\Windows\System32\spool\drivers\x64  
C:\Windows\System32\spool\drivers\x64\3

***The name of the INI file;***

*BuDiniNT.ini – For Document Converter*

*BuDiniTS.ini – For Document Converter Server*

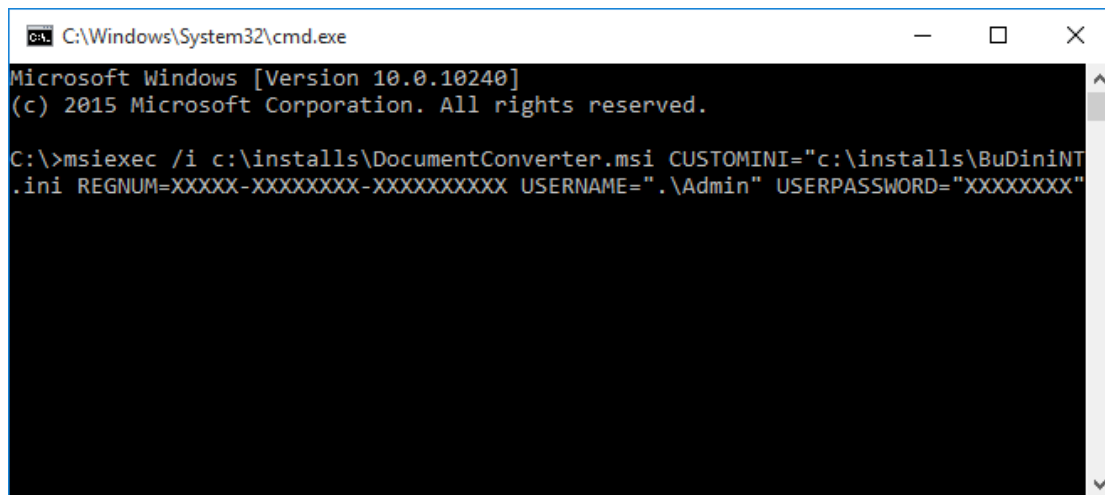
***How to Install the Document Converter Server MSI with custom INI file***

To install the MSI with custom INI file, please open the Command Prompt;  
On Windows 7 > Go to **Start menu** and type “cmd”. The cmd will appear, right click on it and select run as administrator.

Command line installation will be the following with the custom INI file;

```
msiexec /i "<<PATH>>\DocumentConverterServer.msi" /q  
TARGETDIR="C:\DocumentConverter" CUSTOMINI="<<PATH>>\BuDiniNT.ini"  
REGNUM=XXXXX-XXXXXXXX-XXXXXXXXXX USERNAME=".\\Administrator"  
USERPASSWORD="12345678"
```

For example, if the MSI Install file and the custom INI located in C:\installs folder, the command line have to be the following;



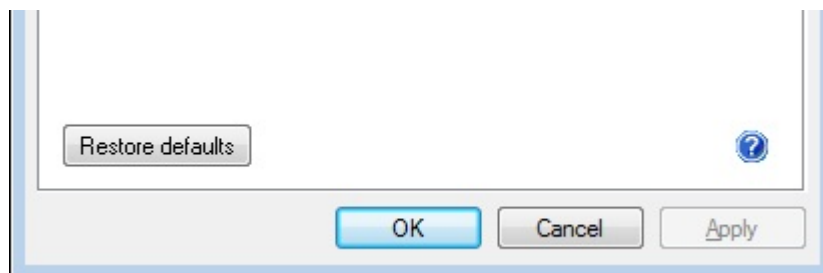
```
C:\Windows\System32\cmd.exe  
Microsoft Windows [Version 10.0.10240]  
(c) 2015 Microsoft Corporation. All rights reserved.  
C:\>msiexec /i c:\installs\DocumentConverter.msi CUSTOMINI="c:\installs\BuDiniNT  
.ini REGNUM=XXXXX-XXXXXXXX-XXXXXXXXXX USERNAME=".\\Admin" USERPASSWORD="XXXXXXXX"
```

```
msiexec /i C:\installs\DocumentConverter.msi CUSTOMINI="C:\installs\BuDiniNT.ini"  
REGNUM=XXXXX-XXXXXXXX-XXXXXXXXXX USERNAME=".\\Admin"  
USERPASSWORD="XXXXXXXX"
```

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

## How to test your INI file

The easiest way to test your configuration is to replace the default INI file for the already installed DocumentConverter with your modified INI file(please see: The Default INI files locations below), and Restore the Default Settings on the Device Settings tab for the DocumentConverter.



The Restore Default Settings will load the settings from your INI file, and on the DocumentConverter Printing Preferences you can check that the desired modifications are shown. Please see example below.

The Default INI files locations;

32 bit

C:\Windows\System32\Spool\Drivers\w32x86  
C:\Windows\System32\Spool\Drivers\w32x86\3

64 bit

C:\Windows\System32\spool\drivers\x64  
C:\Windows\System32\spool\drivers\x64\3

The INI file name is:

*BuDiniNT.ini – For Document Converter*

*BuDiniTS.ini – For Document Converter Server*

If the Document Converter Server does not find the INI file or the INI file contains incorrect values, the default printer settings will be applied. The default printer settings are hard coded in the Document Converter Server.

Any change to the INI file after installation will have no effect on the Document Converter Server until the system is rebooted or the “**Restore defaults**” button of the “**Device Settings**” Tab of the Document Converter Server is clicked on.

### ***Email Configuration through MSI Document Converter Server Installation***

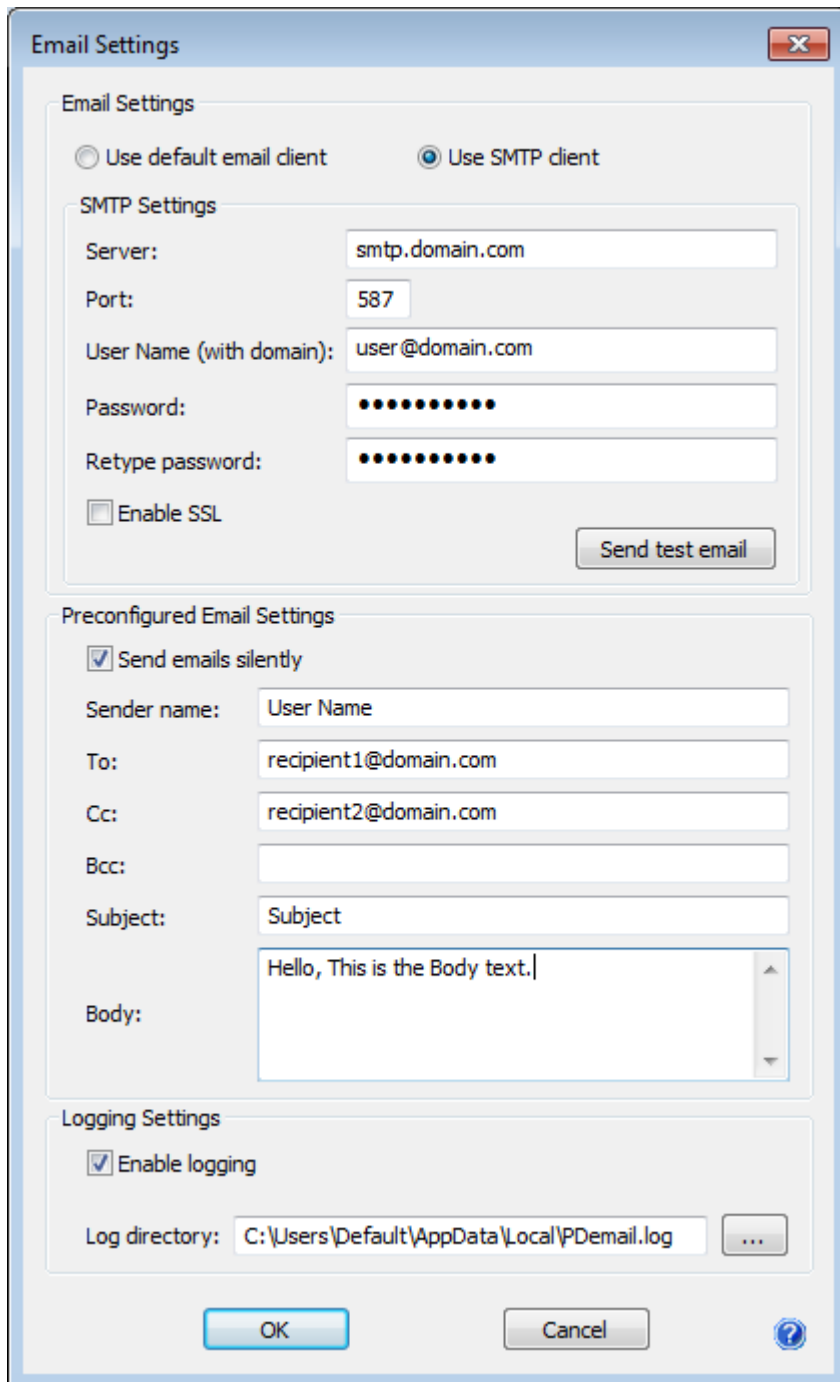
Email Configuration can be preconfigured before a large scale deployment through the INI file. To change the default email sending configurations in the INI file, open the file with Notepad, and search the following part;

#### **[Email Settings]**

Configure the following entries under the [Email Settings] part;

```
Sender Client=1
SMTP Server=smtp.domain.com
SMTP Port=587
SMTP UserName=user@domain.com
SMTP Password=*****
Email Send Silently=Yes
Email Sender=User Name
Email To=recipient1@domain.com
Email Cc=recipient2@domain.com
Email Subject=Subject
Email Body=Hello, This is the Body text.
Logging Enabled=Yes
Logging Directory=C:\Users\Default\AppData\Local\PDemail.log
```

Save the file to another location, and then overwrite the original INI file. If the Document Converter Server will be installed through MSI Installation with this custom INI file, the same Email Configurations will be used by default on every installed system;



### ***SharePoint Configuration through MSI Document Converter Server Installation***

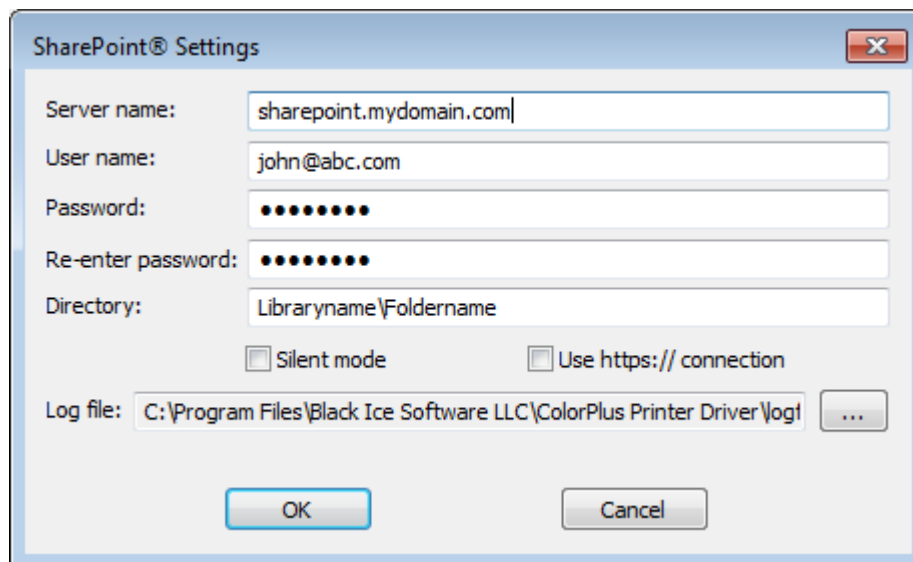
Upload to SharePoint configuration can be preconfigured before a large scale deployment through the INI file. To change the default upload to SharePoint configurations in the INI file, open the file with Notepad, and search the following part;

#### **[Post Print Options]**

Configure the following entries under the [Post Print Options] part;

SharePoint Upload=1  
SharePoint Server=sharepoint.mydomain.com  
SharePoint Directory=Libraryname\Foldername  
SharePoint User=john@abc.com  
SharePoint Pass=\*\*\*\*\*  
SharePoint Logfile=C:\Program Files\Black Ice Software  
LLC\DocumentConverter\logfile.log

Save the file to another location, and then overwrite the original INI file. If the Document Converter Server will be installed through MSI Installation with this custom INI file, the same SharePoint settings will be used by default on every installed system;



## Using the custom configuration INI file from a shared network drive

To use the custom INI file from a shared network drive, one has to specify the full UNC path of the shared network drive in the CUSTOMINI parameter.

To install the Document Converter using the custom INI file from a shared network drive, one has to run the command prompt as Administrator, and execute the following command:

```
msiexec /i "C:\temp\DocumentConverterServer.msi"  
CUSTOMINI="//servername\TestMSI\custom.ini" REGNUM= XXXXX-XXXXXXXX-  
XXXXXXXXXX
```

Please note the Document Converter cannot be installed with the CUSTOMINI parameter if the custom INI files path is defined with a network drive letter.

```
For example: msiexec /i "C:\temp\DocumentConverterServer.msi"  
CUSTOMINI="T:\TestMSI\custom.ini" REGNUM= XXXXX-XXXXXXXX-XXXXXXXXXX
```

# The Document Converter Server INI Files

The Document Converter Server can be configured to use a developer defined group of settings at installation time by using the INI file associated with the driver. Settings specified in the ini file will be used to configure the Document Converter Server at installation time as the default settings for any Document Converter Server user on the system. To set the Document Converter Server settings at install time a specific INI file can be used and modified to reflect the desired settings.

## ***The name of the INI file;***

*BuDiniNT.ini – For Document Converter*

*BuDiniTS.ini – For Document Converter Server*

The name of the INI file can be changed in the custom install packages. In your case you change the INI file name in the MSI project, you need to specify the new INI file name the same way as the driver name.

Copy the modified INI (which contains the settings of the printer) file into the following directories:

### **32 bit**

C:\Windows\System32\Spool\Drivers\w32x86

C:\Windows\System32\Spool\Drivers\w32x86\3

### **64 bit**

C:\Windows\System32\spool\drivers\x64

C:\Windows\System32\spool\drivers\x64\3

Modify the contents of this INI file to match your requirements.

Replace the INI file located in your installation project with the new modified INI file.

Rebuild the installation project to use the updated INI file.

If the Document Converter Server does not find the INI file, which contains the modified printer settings, the default printer settings will be applied. The default printer settings are hard coded in the Document Converter Server.

Any change to the INI file after installation will have no effect on the Document Converter Server until the system is rebooted or the “Restore defaults” button of the “Device Settings” Tab of the Document Converter Server is clicked on.

## Description of the INI file values

### **[Default Settings]**

***Paper Size=<number>***

Specifies the paper format used by the printer.

***Paper Width=<number>***

The width of the paper in tenths of millimeter. Must be specified if *Variable Paper size* selected. Value can be between 1 and 65535.

**Paper Length=<number>**

The length of the paper in tenths of millimeter. Must be specified if *Variable Paper size* selected. Value can be between 1 and 65535.

**X DPI =<number>**

The horizontal DPI of the image. Can be a value between 1 and 1500.

**Y DPI =<number>**

The vertical DPI of the image. Can be a value between 1 and 1500.

**File Format=<number>**

The output file format for the printer.  
The value can be one of the following:

File format	<number>
BMP	0
PCX	1
DCX	2
TIFF uncompressed	3
TIFF Group 3 1 D	4
TIFF Group 3 1 D NOEOL	5
TIFF Group 3 2 D	6
TIFF Group 4	7
TIFF Packed	8
TIFF LZW	9
TIFF Jpeg	10
CALS	11
RAW CCITT TIFF Group 3 1 D	12
RAW CCITT TIFF Group 3 1 D NOEOL	13
TIFF CCITT Group 3 2 D	14
TIFF CCITT Group 4	15
JPEG	16
JPEG I*a*b	17
EMF	18
IBM MMR IOCA	19
IMAGE PDF v. 1.4	20
TIFF DIALOGIC	21
TIFF NMS	22
TIFF GAMMALINK,	23
PNG	24
GIF	25
HTML GIF	26
HTML PNG,	27
HTML JPEG	28

HTML BMP,	29
TIFF for CISCO	30
XML GIF	31
XML PNG	32
XML JPEG	33
XML BMP	34
XML PDF	35
PDF version 1.5	36
HTML – editable	37
PDF/A	38

**Orientation=<number>**

The orientation of the paper. Set <number> to 1 for portrait or 2 for landscape.

**BitsPerPixel=<number>**

The bits per pixel in the image. Can be 1, 8, 8gray or 24

**Flags=<number>**

To set the enable or disable features of the printer at install time simply add or remove the value of the required flag. The values of the flags are defined in the 'devmode.h' file located in the Resource Toolkit. The value of the flag can be one or a combination of the following values:

Flag Name	Value	Sets
BLF_INTERNETTIF	0x00000004	Internet TIFF Format
BLF_PAGENUMBERING	0x00000008	Add Page Numbering Tag
BLF_REVERSEFILLORDER	0x00000010	Reverse Bit Order in TIFF
BLF_MULTIIIMAGE	0x00000020	Enable "Save each page as separate file" which generates Multi page image TIFF, DCX files
BLF_WRITETEXT	0x00000040	Write Text File
BLF_UNICODETEXT	0x00000080	Eastern Character Support
BLF_MAILMERGE	0x00000100	Mail Merge
BLF_ADVANCEDTEXT	0x00000200	Save position and style (Text)
BLF_DISABLEIMAGE	0x00000400	Disable Image
BLF_DISABLEGROUPFILE	0x00000800	Disable Group file
BLF_SENDMESSAGE	0x00002000	Enable Messaging Interface
BLF_ENABLETIFFDLL	0x00004000	Enable the use of the TIFF32.dll
BLF_ENABLEJPEGDLL	0x00008000	Enable the use of the JPEG32.dll
BLF_FAXOUTPUT	0x00010000	Create Faxable Image
BLF_ROTATEPAPER <sup>(1)</sup>	0x00040000	Rotate Landscape image to Portrait
BLF_DELETEGROUPFILE	0x00080000	Delete group file after printing
BLF_KEEFILES	0x00100000	Disables "Combine/Merge multiple documents into a single file" checkbox
BLF_CUSTOMEXT	0x00400000	Use Custom Extension
BLF_LOWFAXRES	0x00800000	204x98 DPI Fax resolution
BLF_FORCEPRINTERDPI	0x01000000	Force to printer resolution to the document
BLF_REDIRECT_PRINTING	0x02000000	Redirect printing to a physical printer
BLF_MEMIMAGE	0x04000000	Create TIFF, DIB or EMF images in memory
BLF_BATES <sup>(3)</sup>	0x08000000	Enable Bates Numbering
BLF_INVERTIMAGE <sup>(1)</sup>	0x10000000	Print inverted image
BLF_FLIPHORIZONTAL <sup>(2)</sup>	0x20000000	Print image horizontally flipped

BLF_FLIPVERTICAL <sup>(2)</sup>	0x40000000	Print image vertical flipped
BLF_ENABLESAVEAS	0x80000000	Enable 'Save As Option'

1: This feature is not supported when using the PDF, HTML, XML or EMF output file format.

2: This feature is not supported when using the HTML, XML or EMF output file format.

3: This feature is not supported when using the EMF file format.

The **BLF\_ENABLETIFFDLL** and **BLF\_ENABLEJPEGDLL** flags should be set to generate image files.

For example if you want to use the Page Numbering, and BLF\_MULTIIMAGE the value of the Flags in the INI file can be calculated like this:

```
(BLF_ENABLETIFFDLL) 0x00004000 +
(BLF_ENABLEJPEGDLL) 0x00008000
(BLF_PAGENUMBERING) 0x00000008
(BLF_MULTIIMAGE) 0x00000020
```

---

0x0000C028

C028 HEX value in decimal is 49192.

You have to write in the INI file:

Flags=49192

If you don't need the flags specified in the INI file, simply comment the line with the ';' like this:

;Flags=49192

**Brightness=<number>**

The brightness value for the image. Can be a value between 1 and 199. Not used by the EMF driver.

**PaperWidthInPixels=<number>**

Specify the paper width in pixels when Variable Paper Size In Pixels is set for the paper size. Can be a value between 1 and 65535.

**PaperHeightInPixels=<number>**

Specify the paper height in pixels when Variable Paper Size In Pixels is set for the paper size. Can be a value between 1 and 65535.

**FAXheader=<number>**

The size in pixels for the fax header. Can be a value between 0 and 65535.

**LossRatio=<number>**

The loss ration setting for the Jpeg images. Can be a value between 0 and 100. Used only by the color driver.

### ***UseWindowsSessionID=< string>***

Available values: Yes, No

The default value used in the installations is “Yes”.

If the value is not specified, “No” is used.

This value is used only on Terminal Servers. When set to “Yes”, the Document Converter Server will use the current Windows session ID of the user as the messaging interface session ID, and the “SessionID” key is ignored. If set to “No”, the driver will use the session ID specified in the “SessionID” key.

### ***SessionID=<number>***

Default value: 0

This value is used only on Terminal Servers, when the “UseWindowsSessionID” key is set to “No”. The Session ID value is used in the Message Interface name. If one wants to force the Document Converter Server to use one session ID for every print job, regardless of the user’s current Windows session ID, set this value to any number and set “UseWindowsSessionID” to “No”

The SessionID is an optional value. This is for advanced users only. Changing this value after installation is not recommended, because the value might not propagate and the old value might get used by some applications that store the printer settings themselves.

### ***Dithering=<number>***

Set the dithering method. The value can be :

Description		<number>
NONE (disable photo quality)	0	
Floyd-Steinberg	1	
Jarvis-Judice-Ninke	2	
Smooth		3
Sharp		4
Stucki		5
Threshold		6

### ***FileNameGenerationFlags=<number>***

Set the file name generation method. The value can be:

Description		<number>
Use this prefix and extension	0	
Prefix and extension from the registry	1	
Prefix and extension from INI file	2	
Exact filename		3
Exact Filename from registry	4	
Exact Filename from INI		5
Use document’s name		6
Custom file naming	7	

**FileNamePrefix=AAA**

Sets the prefix for the generated file. Can be maximum 3 characters

**FileExtension=TIF**

Sets the extension for the generated file. Can be maximum 3 characters.

**INIFileName=<string>**

This will specify the name of the INI file if the File Generation Method is “Prefix and extension from the INI file” or “Exact Filename from INI”

If the File Generation Method is “Prefix and extension from the Registry” or “Exact Filename from the registry” this will represent the registry key.

**FixedFileName=<string>**

This is the name of the file to be generated by the Document Converter Server if the File Generation Method is “Exact filename”

**Custom Filename template=<string>**

This is the file name template to be used for generating the output filename when the filename generation method is ‘Custom file naming’. The filename template has to be valid. For more information please see the SetCustomFilenameTemplate function.

**ApplicationPath=<string>**

Full path and filename for the start application to be launched by the Document Converter Server. The ApplicationPath parameter can also be configured by using a valid environment variable.

**LaunchFlags=<number>**

Set the flags for the application launching. Can be one or a combination of the following values.

Description	<number>
Enable launch application	0x00000001
Start before printing	0x00000002
Star for messaging	0x00000080
Enable pass parameters	0x00000004
Start application in normal window	0x00000008
Start application minimized	0x00000010
Start application hidden	0x00000020
Do not start in user context	0x00000040
Start for Messaging	0x00000080

**InterfaceName=<string>**

The name of the messaging interface

***ResourceDLLName=<string>***

The name and full path for the resource dll.

***TIFFDLLName=<string>***

The name and full path for the TIFF32.dll.

***JPEGDLLName=<string>***

The name and full path for the JPEG32.DLL

***AppStarterEXENAME=<string>***

The name and full path for the application starter, Bu\*App\*.exe.

***UNICODE Group File=<0 or 1>***

Set this value to 1 if you want to create UNICODE group file

***OutputDirectory=<string>***

The output directory for the printer. The image files will be generated here.

***AnnotationText=<string>***

Specifies a user definable string that will appear in the annotation text. Default value is the empty string. The annotation text can contain any ASCII characters and field definitions.

Fields are marked with the << and >> character pair. The following fields are supported:

<<DOMAINNAME>> - the Document Converter Server will replace the field's name with the name of the domain where the printing user is currently logged on to print.

<<USERNAME>>- the Document Converter Server will replace the field's name with the name of the printing user.

<<COMPUTERNAME>>- the Document Converter Server will replace the field's name with the name computer where the printing has been initiated.

<<IPADDRESS>>- the Document Converter Server will replace the field's name with the IP address of the computer where the printing has been initiated.

<<DOCNAME>>- the Document Converter Server will replace the field's name with the name of the document that is currently printed.

<<PAGENUM>>- the Document Converter Server will replace the field's name with the current page number.

<<PRINTERNAME>>- the Document Converter Server will replace the field's name printer's name.

<<ANY\_ENVIRONMENT\_VARIABLE>> - if a valid environment variable name is specified, the Document Converter Server will replace the field's name with the value of the specified environment variable.

The total length of the annotation string (including the length of the fields) can be 128 characters. Longer text will be cut.

Example: to specify the name of the printing user and the IP address of the printing machine use the following line in the INI file Default Settings section:

*AnnotationText=User name is: <<USERNAME>>, IP Address is: <<IPADDRESS>>.*

***AnnotationSeparator=<string>***

Specifies a character or text that will separate the annotation text, the date, and the time. Default value is the empty string. Maximum number of characters are 128.

### ***AnnotationFlags=<number>***

The value of the AnnotationFlag is the decimal value of the sum of all the selected hexadecimal flags. The default values are in bold.

Annotation is not supported when using the EMF output file format.

```
#define BLF_ANNOTATION_ENABLED                0x00000001
#define BLF_ANNOTATION_TEXT_ENABLED          0x00000002
#define BLF_ANNOTATION_DATE_ENABLED          0x00000004
#define BLF_ANNOTATION_DATE_FORMAT_MMDDYYYY 0x00000008
#define BLF_ANNOTATION_DATE_FORMAT_MDY      0x00000010
#define BLF_ANNOTATION_DATE_FORMAT_DDMMYYYY 0x00000020
#define BLF_ANNOTATION_DATE_FORMAT_DDMMYYYY 0x00000040
#define BLF_ANNOTATION_DATE_FORMAT_YYYYMMDD 0x00000080
#define BLF_ANNOTATION_DATE_FORMAT_JULIAN   0x00000100
#define BLF_ANNOTATION_TIME_ENABLED          0x00000200
#define BLF_ANNOTATION_TIME_FORMAT_12HOUR   0x00000400
#define BLF_ANNOTATION_TIME_FORMAT_24HOUR   0x00000800
#define BLF_ANNOTATION_TIME_FORMAT_MINUTES  0x00001000
#define BLF_ANNOTATION_TIME_FORMAT_SECONDS  0x00002000
#define BLF_ANNOTATION_TIME_FORMAT_TIMEZONE 0x00004000
#define BLF_ANNOTATION_TRANSPARENT          0x00008000
#define BLF_ANNOTATION_OPAQUE                0x00010000
#define BLF_ANNOTATION_POSITION_TOP_LEFT     0x00020000
#define BLF_ANNOTATION_POSITION_TOP_RIGHT    0x00040000
#define BLF_ANNOTATION_POSITION_CENTER      0x00080000
#define BLF_ANNOTATION_POSITION_BOTTOM_LEFT  0x00100000
#define BLF_ANNOTATION_POSITION_BOTTOM_RIGHT 0x00200000
#define BLF_ANNOTATION_UNITS_MM              0x00400000
#define BLF_ANNOTATION_UNITS_INCH            0x00800000
#define BLF_ANNOTATION_UNITS_PIXELS         0x01000000
```

### ***AnnotationRotation=<number>***

Specifies the number of degrees the text will be rotated. Default value is 0. Value can range from -180 to 180.

### ***AnnotationColor=<number>***

Specifies the color of the annotation text as a COLORREF value. Default value is 0.

### ***AnnotationXOffset=<number>***

Specifies the horizontal distance of the the annotation from the origin point. Default value is 0. Maximum 6 digit number can be defined. The origin point and the unit can be set using Annotation Flags. By default the origin point is center and the unit is measured in pixels.

### ***AnnotationYOffset=<number>***

Specifies the vertical distance of the top left corner of the annotation from the origin point. Default value is 0. Maximum 6 digit number can be defined. The origin point and the unit can be set using Annotation Flags. By default the origin point is center and the unit is measured in pixels.

### ***Plugin Filename=<string>***

Specifies the full path or file name of the plugin dll. If the entry is missing from the INI file, the default "BiPlugin.dll" name is used.

If the full path is not specified, the driver will look for the dll in the windows system directory first (C:\Windows\System32 by default), then in the directories specified in the PATH environment variable. For details, please see: [http://msdn.microsoft.com/en-us/library/windows/desktop/ms682586\(v=vs.85\).aspx#search\\_order\\_for\\_desktop\\_applications](http://msdn.microsoft.com/en-us/library/windows/desktop/ms682586(v=vs.85).aspx#search_order_for_desktop_applications)

***WatermarkDirectory=<string>***

Full path for the watermarks of the Document Converter Server. The WatermarkDirectory parameter can also be configured by using a valid environment variable.

***WatermarkFlags=<number>***

The value of the WatermarkFlags is the decimal value of the sum of all the selected hexadecimal flags. The selected values must be added together and converted to a decimal number. The default values are in bold.

BLF_WATERMARK_ENABLE	0x00000001
BLF_WATERMARK_FIRST_PAGE_ONLY	0x00000002
BLF_WATERMARK_POSITION_PORTRAIT_STRETCH_TO_FIT	0x00000004
BLF_WATERMARK_POSITION_PORTRAIT_STRETCH_TO_WIDTH	0x00000008
<b>BLF_WATERMARK_POSITION_PORTRAIT_CENTER</b>	<b>0x00000010</b>
BLF_WATERMARK_POSITION_PORTRAIT_TILE	0x00000020
BLF_WATERMARK_POSITION_LANDSCAPE_STRETCH_TO_FIT	0x00000040
BLF_WATERMARK_POSITION_LANDSCAPE_STRETCH_TO_WIDTH	0x00000080
<b>BLF_WATERMARK_POSITION_LANDSCAPE_CENTER</b>	<b>0x00000100</b>
BLF_WATERMARK_POSITION_LANDSCAPE_TILE	0x00000200
BLF_WATERMARK_UNIQUE_FIRST_PAGE	0x00000400
BLF_WATERMARK_POSITION_PORTRAIT_BOTTOM	0x00000800
BLF_WATERMARK_POSITION_LANDSCAPE_BOTTOM	0x00001000
BLF_WATERMARK_POSITION_PORTRAIT_BOTTOM_STRETCH	0x00002000
BLF_WATERMARK_POSITION_LANDSCAPE_BOTTOM_STRETCH	0x00004000

For example to enable the watermark feature and stretch the image to the page add the hexadecimal values 0x00000001, 0x00000004 and 0x00000040. The result is hexadecimal 0x00000045 = decimal 69. So the INI file should contain the following line:

WatermarkFlags=69

***WatermarkFilePortrait=<string>***

Full path for the watermarks when printing documents to portrait orientation. The WatermarkFilePortrait parameter can also be configured by using a valid environment variable.

***WatermarkFileLandscape=<string>***

Full path for the watermarks when printing documents to landscape orientation. The WatermarkFileLandscape parameter can also be configured by using a valid environment variable.

***FirstWatermarkFilePortrait=<string>***

Full path for the watermarks printing on the first page only to portrait orientation. The FirstWatermarkFilePortrait parameter can also be configured by using a valid environment variable.

***FirstWatermarkFileLandscape=<string>***

Full path for the watermarks printing on the first page only to landscape orientation. The FirstWatermarkFileLandscape parameter can also be configured by using a valid environment variable.

***CHM Help File=<string>***

Full path for the CHM Help file of the Document Converter Server. The CHM Help File parameter can also be configured by using a valid environment variable.

***Redirect Printing Log File=<string>***

Full path for the Log File of the redirect printing. The Redirect Printing Log File parameter can also be configured by using a valid environment variable.

***Show Compatibility Warning=<0 or 1>***

If this value is set to 1 and the Document Converter Server detects an application that is incompatible with the driver, it will show a warning message with a possible workaround and aborts the print job.

Set this value to 0 if you do not want to receive compatibility warnings and do not want the print job to be aborted (please note this may result in an application or Document Converter Server crash). The default value is 1.

## **[UI Tabs Settings]**

***Display File Format Tab=<0 or 1>***

***Display Filename Generation Tab=<0 or 1>***

***Display Start Application Tab=<0 or 1>***

***Display Watermark Tab=<0 or 1>***

***Display Annotation Tab=<0 or 1>***

***Display Bates Tab=<0 or 1>***

***Display Redirect Printing Tab=<0 or 1>***

***Display Barcode Tab=<0 or 1>***

***Display OCR Tab=<0 or 1>***

Using these values you can display or hide individual tabs on the Document Converter Server User Interface. The default values are 1, the values can be 0 or 1:

Hide the tab                    0

Display the tab                1

The “Device settings” tab cannot be hidden and will always be displayed.

Please note, if you use the API functions *EnableTab* or *DisableTab* from the BlackIceDEVMODE dll or ActiveX control, it will override the settings of the INI file until you reinstall the driver or delete the following registry key:

HKEY\_CURRENT\_USER\Software\Black Ice Software LLC\<Name of the Black Ice Printer>\UI Tabs Settings

***StartApplicationParameterOrder=<number>***

Parameter for the application launched by the printer.

Specify the parameter order by specifying which parameter would you like to have on which position. For example the value 12345678 means pass all parameters (the first parameter is the document name, etc.). The default parameter list is 12345680 (Custom Parameter is not passed).

To specify the parameter list in reverse order enter  
StartApplicationParameterOrder=87654321 to the INI file.

To pass the printer name and the group file name only, enter  
StartApplicationParameterOrder=32000000 into the INI file specifying 0 for the unused parameters.

In order to pass only the group file name as parameter enter the following line in the INI file:  
StartApplicationParameterOrder=20000000

Values of each parameter:

PARAMETER_NONE	= 0
PARAMETER_DOCUMENT_NAME	= 1
PARAMETER_GROUP_FILE_NAME	= 2
PARAMETER_PRINTER_NAME	= 3
PARAMETER_NUMBER_OF_PAGES	= 4
PARAMETER_MULTIPAGE	= 5
PARAMETER_ORIENTATION	= 6
PARAMETER_CUSTOM	= 7
PARAMETER_OUTPUT_FILENAME	= 8

***CustomStartApplicationParameter=<string>***

Custom parameter for the application launched by the printer.

***Start Application Timeout=<number>***

Start Application Timeout=5000

If the start before print option is enabled the Document Converter Server will wait for the specified time before every print job. The value is specified in milliseconds and it is read at the beginning of each print job, so changes take effect immediately, without restoring the default printer settings. The default value is 5 seconds.

***Messaging Timeout=<number>***

Messaging Timeout=10000

If the "Start for Messaging" option is enabled the Document Converter Server will wait for the specified time for the application to start listening to messages. The value is specified in milliseconds and it is read at the beginning of each print job, so changes take effect immediately, without restoring the default printer settings. The default value is 10 seconds.

***StartDoc Delay=<number>***

StartDoc Delay=0

For compatibility with applications started by the driver. This value sets the waiting time before the Document Converter Server raises the StartDoc event. It is specified in milliseconds and it is read at the beginning of each print job.

***EndPage Delay=<number>***

EndPage Delay=0

This value sets the waiting time before the Document Converter Server raises the EndPage event. It is specified in milliseconds and it is read at the beginning of each print job.

***EndDoc Delay=<number>***

EndDoc Delay=0

This value sets the waiting time before the Document Converter Server raises the EndDoc event. It is specified in milliseconds and it is read at the beginning of each print job.

***PDF Flags:***

Enter the following into the INI file:

PDFFlags=

Value can be any of the followings:

```
#define BLF_PDF_FILTER_NO_COMPRESSION 0x0020
#define BLF_PDF_FILTER_FLATE_DECODE 0x0200
#define BLF_PDF_FILTER_RUNLENGTH_DECODE 0x0400
#define BLF_PDF_FILTER_CCITT_FAX_DECODE 0x0800
#define BLF_PDF_FILTER_DCT_JPEG_DECODE 0x1000
```

Important! Make sure that the color depth matches the compression, such as BLF\_PDF\_FILTER\_DCT\_JPEG\_DECODE can be used only for 24 bit images, BLF\_PDF\_FILTER\_CCITT\_FAX\_DECODE can be used only for 1 bit images.

## **[Redirect Printing]**

***Number of printers=<number>***

This value specifies the number of printers to redirect printing jobs. If this value is zero the redirect printing feature is disabled. If this value is greater than zero you have to specify the printer names in the INI file. For example:

```
[Redirect Printing]
Number of printers=2
Printer1=Printer_name_1
```

Printer2=Printer\_name\_2

## [UI FileName Generation Methods]

The available filename generation methods can be specified in the *UI FileName Generation Methods* INI file section. By default all filename generation methods are enabled at the *Filename Generation* tab of the printing preferences. If you set a filename generation method to 0 in the INI file the specified method will not be displayed among the filename generation methods and can't be used. See the following example:

```
[UI FileName Generation Methods]
Use this prefix and extension=0
Prefix and extension from the registry=0
Prefix and extension from the INI file=0
Exact filename=1
Exact filename from the registry=0
Exact filename from the INI file=0
Use the document name=1
Custom file naming=0
```

In this case only the *Use document name* and *Exact filename* can be used at the *Filename Generation* tab.

Note: At least one filename generation method must be enabled.

## [PDF Settings]

```
Document Title=
Document Subject=
Document Author=
Document Keywords=
Document User Password=
Document Owner Password=
Document Encryption=
Document Security Flag=
JPEG Quality=
Color Image Compression=
Mono Image Compression=
Stream Compression=
Embed all fonts=
Create subset=
Embed licensed fonts=
Embed Adobe fonts=
Embed Windows fonts=
Linearized=
Transparency=
```

URL Parsing=  
Resampling Method=  
Resampling Rate=  
Color Patterns=  
Brightness=  
BitsPerPixel=  
EnableColorPatterns=

***Document Title=<string>***

This value specifies the title of the PDF documents.

***Document Subject=<string>***

This value specifies the subject of the PDF documents.

***Document Author=<string>***

This value specifies the author of the PDF documents.

***Document Keywords=<string>***

This value specifies the keywords of the PDF documents.

***Document User Password=<string>***

This value specifies the user password of the PDF documents.

***Document Owner Password=<string>***

This value specifies the owner password of the PDF documents.

***Document Encryption=<number>***

Available values:       0: no encryption  
                          1: 40bit encryption

Default value: 0 (no encryption)

This value specifies the encryption of the PDF documents.

***Document Security Flag=<number>***

Available values:       0: no flag set  
                          1: print flag  
                          2: copy flag  
                          4: comment flag  
                          8: edit flag

More flags can be specified in this value.

Default value: 0 (no flag set)

This value specifies the security flags of the PDF documents.

***Stream Compression=<number>***

Available values:       0: no stream compression  
                          104: LZW compression  
                          105: flate compression

Default value: 105 (flate compression)

This value specifies the stream compression of the PDF documents.

***Mono Image Compression=<number>***

Available values:       0: no compression

- 304: LZW compression
- 305: flate compression
- 306: Runlength
- 307: CCITT Fax

Default value: 307 (CCITT Fax compression)

This value specifies the compression of the monochrome images in the PDF documents.

***Color Image Compression=<number>***

- Available values:
- 0: no compression
  - 204: LZW compression
  - 205: flate compression
  - 206: Runlength
  - 207: JPEG compression

Default value: 207 (JPEG compression)

This value specifies the compression of the color images in the PDF documents.

***Resampling Method=<number>***

- Available values:
- 0: no resampling applied to the images
  - 1: Bilinear interpolation
  - 2: Cubic spline interpolation

Default value: 0

This value specifies, by using which method should be the resampling done on the images (to reduce the resulting file size)

***Resampling Rate=<number>***

- Available values: Positive integer value between 1 and 200.

Default value: 100

This value specifies, how the height and the width of the images should change after resampling (expressed as a percentage)

***Color Patterns=<number>***

- Available values:
- 0: color patterns disabled, threshold will be applied for the colors
  - 1: patterns will be generated for the stroking and filling colors for better visual accuracy

Default value: 0

This value specifies if color patterns should be used for the stroking and filling colors in the resulting PDF document or a threshold should be applied for them.

***Jpeg quality=<number>***

- Available values: Positive integer value between 1 and 100.

Default value: 85

This value specifies the quality of JPEG compressed images in the PDF documents.

***Brightness=<number>***

The percentual value of the brightness for the image(relative to the original image brightness which is 100%). Can be a value between 1 and 199.

Default value is 100.

***BitsPerPixel=<number>***

The bits per pixel in the image.

Available values: 0 = 1 bit monochrome  
1 = 8bit color  
2 = 8bit grayscale  
3 = 24bit

Default value = 3

**EnableColorPatterns=<number>**

Available values: 0= threshold will be applied for the colors  
1 = patterns will be generated for the stroking and filling colors for better visual accuracy

Default value=0

This value specifies if color patterns should be used for the stroking and filling colors in the resulting pdf or a threshold should be applied for them.

## [PDF Force Font Settings]

Count=

Font 1=

This section specifies the 'Force to embed' fonts in PDF documents.

***Count=<number>***

Number of the specified fonts.

***Font 1, Font2, ...=<string>***

Name of the font to force to embed.

## [PDF Forbidden Font Settings]

Count=

Font 1=

This section specifies the 'Forbidden to embed' fonts in PDF documents.

***Count=<number>***

Number of the specified fonts.

***Font 1, Font2, ...=<string>***

Name of the font to forbidden to embed.

***Embed all fonts=<number>***

The *Embed all fonts* entry specifies the default font embedding mode. It can be the followings:

0: disable default embedding. Only the forced fonts will be embedded.

1 (default): enables default embedding. All fonts will be embedded, except the forbidden ones.

The *Create subset* entry specifies the font subsetting. It can be the followings:  
0: disable font subsetting. The fonts will be embedded in original form.  
1 (default): enables font subsetting for TrueType/OpenType fonts.

***Embed licensed fonts=<number>***

Available values: 0, 1

Default value: 0

If this value is 1 the licensed fonts will be embedded into the PDF documents. This value can be 1 if the 'Embed all Fonts' is 1 also.

***Embed Adobe fonts=<number>***

Available values: 0, 1

Default value: 0

If this value is 1 the Adobe standard fonts will be embedded into the PDF documents. This value can be 1 if the 'Embed all Fonts' is 1 also.

***Embed Windows fonts=<number>***

Available values: 0, 1

Default value: 0

If this value is 1 the Windows standard fonts will be embedded into the PDF documents. This value can be 1 if the 'Embed all Fonts' is 1 also.

***Linearized=<number>***

Available values: 0, 1

Default value: 0

If this value is 1, a linearized PDF is generated.

***Transparency=<number>***

Available values: 0, 1

Default value: 0

If this value is 1 the transparency option is turned on.

***URL Parsing=<number>***

Available values: 0, 1

Default value: 0

If this value is 1 URLs in the PDF document are turned into clickable links.

**[PDF/A Settings]**

Document Title=

Document Subject=

Document Author=

Document Keywords=

Stream Compression=

Color Image Compression=

Mono Image Compression=

JPEG Quality=

Transparency=

URL Parsing=

Resampling Method=

Resampling Rate=

Color Patterns=

Brightness=  
BitsPerPixel=  
EnableColorPatterns=

This section contains the settings of the PDF/A output format.

***Document Title=<string>***

This value specifies the title of the PDF/A documents.

***Document Subject=<string>***

This value specifies the subject of the PDF/A documents.

***Document Author=<string>***

This value specifies the author of the PDF/A documents.

***Document Keywords=<string>***

This value specifies the keywords of the PDF/A documents.

***Stream Compression=<number>***

Available values:       0: no stream compression  
                          105: flate compression

Default value: 105 (flate compression)

This value specifies the stream compression of the PDF/A documents.

***Mono Image Compression=<number>***

Available values:       0: no compression  
                          305: flate compression  
                          306: Runlength  
                          307: CCITT Fax

Default value: 307 (CCITT Fax compression)

This value specifies the compression of the monochrome images in the PDF/A documents.

***Color Image Compression=<number>***

Available values:       0: no compression  
                          205: flate compression  
                          206: Runlength  
                          207: JPEG compression

Default value: 207 (JPEG compression)

This value specifies the compression of the color images in the PDF/A documents.

***Jpeg quality=<number>***

Available values:       Positive integer value between 1 and 100.

Default value: 85

This value specifies the quality of JPEG compressed images in the PDF/A documents.

***Transparency=<number>***

Available values: 0, 1

Default value: 0

If this value is 1 the transparency option is turned on.

***URL Parsing=<number>***

Available values: 0, 1

Default value: 0

If this value is 1 URLs in the PDF document are turned into clickable links.

***Resampling Method=<number>***

Available values:       0: no resampling applied to the images  
                          1: Bilinear interpolation  
                          2: Cubic spline interpolation

Default value: 0

This value specifies, by using which method should be the resampling done on the images (to reduce the resulting file size)

***Resampling Rate=<number>***

Available values:       Positive integer value between 1 and 200.

Default value: 100

This value specifies, how the height and the width of the images should change after resampling (expressed as a percentage)

***Color Patterns=<number>***

Available values:       0: color patterns disabled, threshold will be applied for the colors  
                          1: patterns will be generated for the stroking and filling colors for better visual accuracy

Default value: 0

This value specifies if color patterns should be used for the stroking and filling colors in the resulting PDF/A document or a threshold should be applied for them.

## **[HTML Settings]**

Html content output directory=C:\HTML

CSS settings=0

Page size setting=0

Vector graphics display mode=0

Embed all fonts=

Create subset=

Separate pages=

The *HTML Settings* section defines the default values of the HTML settings.

***Html content output directory=<string>***

The *Html content output directory* entry specifies the full path of the contents directory of the HTML file format.

The *Page size setting* entry specifies the page size settings. It can be the followings:

0 (default): page size based on page width

1: page size based on page height

2: page size based on the specified paper size

***CSS settings=<number>***

The *CSS settings* entry specifies the CSS settings. It can be the followings:

- 0 (default): Only one CSS file will be generated for all printed pages.
- 1: Every printed pages have own CSS file separated from the HTML.
- 2: Every printed pages have own CSS file embedded in the HTML.

***Vector graphics display mode=<number>***

The *Vector graphics display mode* entry specifies the vector graphics display mode. It can be the followings:

- 0: disable vector graphics
- 1 (default): display as PNG image

***Embed all fonts=<number>***

The *Embed all fonts* entry specifies the default font embedding mode. It can be the followings:

- 0: disable default embedding. Only the forced fonts will be embedded.
- 1 (default): enables default embedding. All fonts will be embedded, except the forbidden ones.

***Create subset=<number>***

The *Create subset* entry specifies the font subsetting. It can be the followings:

- 0: disable font subsetting. The fonts will be embedded in original form.
- 1 (default): enables font subsetting for TrueType/OpenType fonts.

***Separate pages=<number>***

The *Separate pages* entry specifies page processing. It can be the followings:

- 0 (default): disable page separation. The document will be saved to one HTML file.
- 1: enables page separation. The document pages will be saved to different HTML files.

## **[XML Settings]**

XML content output directory=

Include Text=

Include Images=

Include Path=

Include DTD=

Image Format=

This section contains the settings of the editable XML output format.

***XML content output directory=<string>***

The *XML content output directory* entry specifies the full path of the contents directory of the XML file format.

***Include Text=<number>***

Enables or disables the use of text tags in the XML output.

- 0: disable text tags.
- 1 (default): enable text tags.

***Include Images=<number>***

Enables or disables the use of image tags in the XML output.

- 0: disable image tags.
- 1 (default): enable image tags.

***Include Path=<number>***

Enables or disables the use of path tags in the XML output.

0: disable path tags.

1 (default): enable path tags.

***Include DTD=<number>***

Enables or disables the inclusion of the DTD chunk in the XML output.

0: disable DTD chunk.

1 (default): enable DTD chunk.

***Image Format=<number>***

Available values:       0: PNG  
                          1: JPEG  
                          2: GIF  
                          3: BMP

Default value: 0 (PNG)

This value specifies the image format used in the XML output.

## **[HTML Force Font Settings]**

Count=

Font 1=

This section specifies the 'Force to embed' fonts in HTML documents.

***Count=<number>***

Number of the specified fonts.

***Font 1, Font2, ...=<string>***

Name of the font to force to embed.

## **[HTML Forbidden Font Settings]**

Count=

Font 1=

Embed Licensed fonts=

This section specifies the 'Forbidden to embed' fonts in HTML documents.

***Count=<number>***

Number of the specified fonts.

***Font 1, Font2, ...=<string>***

Name of the font to forbidden to embed.

***Embed Licensed fonts=<number>***

Available values: 0, 1

Default value: 0

If this value is 1 the licensed fonts will be embed into the HTML document.

## **[Bates Numbering]**

Number of Formats=1  
Selected Bates Format=1  
Bates Numbering Enabled=0

### ***Number of Formats=<number>***

Number of bates formats are defined in the INI file. For example this value is 2 “Bates Number 1” and “Bates Number 2” sections have to be defined in the INI file.

### ***Selected Bates Format=<number>***

This value specifies the selected bates format. If this value is 1 values of the “Bates Number 1” section will be selected in the printing preferences.

### ***Bates Numbering Enabled=<number>***

If this value is zero the bates numbering feature is disabled, if this value is 1 the bates numbering is enabled and the “Enable Bates Numbering” checkbox is checked in the printing preferences.

Bates numbering is not supported when using the EMF output file format.

## **[Bates Number 1]**

Name=Default Bates Format  
Use prefix=1  
Prefix=Case number  
Start with=1  
Transparent=0  
X Offset=0  
Y Offset=0  
Offset unit=1  
Rotation=0  
Color=4145215  
Position=2  
Font Height=-16  
Font Width=0  
Font Escapement=0  
Font Orientation=0  
Font Weight=400  
Font Italic=255  
Font Underline=0  
Font Strikeout=0  
Font Charset=1  
Font Outprecisions=3  
Font Quality=1  
Font Clipprecisions=2  
Font PinchAndFamily=34  
Font Facename=Verdana

Bates Number Length=0  
Bates Padding Character=  
Reset bates number at every printing=  
Reset bates number=

***Name=<string>***

Name of the bates numbering format

***Use prefix=<number>***

Available values: 0, 1.

0: Use prefix checkbox is unchecked in the printing preferences.

1: Use prefix checkbox is checked in the printing preferences.

***Prefix=<string>***

Specifies the prefix text. The maximum number of characters is 29.

***Start with=<number>***

Specifies the starting bates number. The default value is 1.

***Transparent=<number>***

Available values: 0, 1.

0: The Bates Number is opaque on the printed page.

1: The Bates Number is transparent on the printed document.

***X Offset, Y Offset=<number>***

Specifies the offset values of the Bates Number position.

***Offset unit=<number>***

Specifies the unit of the offset. Available values:

0: 0.1 mm

1: 0.01 inch

2: pixel

***Rotation=<number>***

Specifies the rotation value in degrees 0-360.

***Color=<number>***

Specifies the color of the Bates Number as COLORREF value.

***Position=<number>***

Specifies the bates numbering position on the page. Available values:

0: Top left

1: Top right

2: Center

3: Bottom left

4: Bottom right

***Font Height=<number>***

***Font Width=<number>***

***Font Escapement=<number>***

**Font Orientation=<number>**  
**Font Weight=<number>**  
**Font Italic=<number>**  
**Font Underline=<number>**  
**Font Strikeout=<number>**  
**Font Charset=<number>**  
**Font Outprecisions=<number>**  
**Font Quality=<number>**  
**Font Clipprecisions=<number>**  
**Font PinchAndFamily=<number>**  
**Font Facename=<string>**

These values specify the font information of the Bates Number.

**Bates Number Length=<number>**

Number of characters of the Bates number (excluding prefix text). This value can be an integer value between 0 and 16. This value specifies the length of the bates number. If the length of the Bates number is less than this value, padding character will be added, otherwise no padding characters will be inserted. If you are using "Bates Number 1" and the Bates number is 12588, the printed document will contain 00012588 as Bates number. If "Bates Number 2" is selected the created Bates number will be 12588 (No padding character will be added.).

**Bates Padding Character=<character>**

This value specifies the padding character. This value can be only any one ANSI character. For example the Bates number is 1258, the Bates Number length is 5 and you are using \* as Bates Padding Character, the generated text will be \*1258 on the printed document.

**Reset bates number at every printing=<number>**

Available values:0, 1

0: The "Reset Bates Number at every printing" feature is disabled.

1: The "Reset Bates Number at every printing" feature is enabled.

**Reset bates number=<number>**

If the "Reset Bates Number at every printing" is enabled this value specifies the starting Bates Number. For example this value is 3 the bates number will start from 3 at every printed document.

## **[Post Print Options]**

View in default viewer=

Send in email=

Email sending program 32bit=

Email sending program 64bit=

Open output folder=

SharePoint Upload=

SharePoint Server=

SharePoint Directory=

SharePoint User=

SharePoint Pass=

SharePoint Silent=  
SharePoint Logfile=  
SharePoint utility=

***View in default viewer=<string>***

Available values: Yes, No

Default value: No

If this value is 'Yes' every printed document will be opened in the default viewer.

***Send in email=<string>***

Available values: Yes, No

Default value: No

If this value is 'Yes' every printed document will be sent after printing automatically using the email sending utility.

***Email sending program 32bit=<string>***

This value specified the path and name of the 32 bit version of the email sending utility. This value shouldn't be changed manually. Basically the name of the email sending utility is PDEmailSender.exe. This application is installed by Black Ice Printer Manager or OEM release Document Converter Server. The Email sending program 32bit parameter can also be configured by using a valid environment variable.

***Email sending program 64bit=<string>***

This value specified the path and name of the 64 bit version of the email sending utility. This value shouldn't be changed manually. Basically the name of the email sending utility is PDEmailSender.exe. This application is installed by Black Ice Printer Manager or OEM release Document Converter Server. The Email sending program 64bit parameter can also be configured by using a valid environment variable.

***Open output folder=<string>***

Available values: Yes, No

Default value: No

If this value is 'Yes' the output directory will be opened after every printing.

***SharePoint upload=<number>***

Available values: 0, 1

Default value: 0

If this value is 1 the SharePoint® uploading will be enabled.

***SharePoint Server=<string>***

Name of the SharePoint® server.

***SharePoint Directory=<string>***

Name of the SharePoint® repository. Use '/' character instead of '\' in the path specification.

***SharePoint User=<string>***

This value is the SharePoint® user.

***SharePoint Pass=<string>***

This value is the SharePoint® password.

**SharePoint Logfile=<string>**

This value is the path and name of the log file where the SharePoint utility writes logging information to. The SharePoint Logfile parameter can also be configured by using a valid environment variable.

**SharePoint Silent=<number>**

Available values:0, 1

Default value: 0

If this value is 1 the SharePoint® utility will upload the documents silently without user interaction. In this case the logging feature can be used for getting information about the uploading.

**SharePoint Utility=<string>**

This value specified the path and name of the SharePoint® utility. This value shouldn't be changed manually. Basically the name of the email sending utility is PDS SharePoint Uploader.exe. The SharePoint Utility parameter can also be configured by using a valid environment variable.

**[Email Settings]**

Sender Client=

SMTP Server=

SMTP Port=

SMTP UserName=

SMTP Password=

SMTP Enable SSL=

Email Send Silently=

Email Sender=

Email To=

Email Cc=

Email Bcc=

Email Subject=

Email Body=

Logging Enabled=

Logging Directory=

This section defines the default settings of the email settings utility. These settings can be reached at Email Settings dialog in the Printing Preferences.

**Sender Client=<number>**

Available values: 0, 1

Default value: 0

0: Use default mail client

1: Use SMTP client

**SMTP Server=<string>**

Name of the SMTP server. Maximum length is 127 characters. This value is only has to be specified when the selected Sender Client is 1.

***SMTP Port=<number>***

Port of the SMTP server. Maximum length is 3 characters. This value is only has to be specified when the selected Sender Client is 1.

***SMTP UserName=<string>***

SMTP user name (with domain). Maximum length is 31 characters. This value is only has to be specified when the selected Sender Client is 1.

***SMTP Password=<string>***

SMTP password. Maximum length is 31 characters. This value is only has to be specified when the selected Sender Client is 1.

***SMTP Enable SSL=<string>***

Available values: No, Yes

Default value: No

If this value is 'Yes' the Document Converter Server uses SSL to connect to the specified SMTP server. This value is only has to be specified when the selected Sender Client is 1.

***Email Send Silently=<string>***

Available values: No, Yes

Default value: No

If this value is 'Yes' the Document Converter Server will send the printer documents to the prefedined email addresses without user interaction.

***Email Sender=<string>***

Name of the email sender. Maximum length is 127 characters. This value is only used when the silent mail sending is enabled.

***Email To=<string>***

To recipients. More email address can be specified using ; character. Maximum length is 127 characters. This value is only used when the silent mail sending is enabled.

***Email Cc=<string>***

Cc recipients. More email address can be specified using ; character. Maximum length is 127 characters. This value is only used when the silent mail sending is enabled.

***Email Bcc=<string>***

Bcc recipients. More email address can be specified using ; character. Maximum length is 127 characters. This value is only used when the silent mail sending is enabled.

***Email Subject=<string>***

Subject of the email. Maximum length is 63 characters. This value is only used when the silent mail sending is enabled.

***Email Body=<string>***

Body of the email. Maximum length is 515 characters. This value is only used when the silent mail sending is enabled.

***Logging Enabled=<string>***

Available values: No, Yes

Default value: No

If this value is 'Yes' the Document Converter Server will generate log files about email sending.

***Logging Directory=<string>***

Full path of the log directory. Maximum length is 260 characters. This value is only used when the email logging is enabled. The Logging Directory parameter can also be configured by using a valid environment variable.

## **[Text Output Settings]**

Filter Junk Characters=0  
Glyph Conversion Method=0

This section defines the settings of the Document Converter Server text output.

***Filter Junk Characters=<number>***

Available values: 0, 1

Default value: 0

Some text is passed by the printing application to the Document Converter Server as a series of glyph indexes of a font instead of regular characters. If this value is set to 0, the Document Converter Server tries to convert these indexes to characters using the method defined by the "Glyph Conversion Method" value, but this is not guaranteed to work every time and may result in Junk characters appearing in the text output. Setting this value to 1 will filter glyph indexes from the text output

***Glyph Conversion Method=<number>***

Method for converting glyph indexes to text. Try to change this if you get junk characters. Default value is 0, available values:

0: Try to guess the best method (default) – Note this methods depends on the "Eastern Character Support" setting of the driver. For English text, it is recommended to leave this off in the Printing Preferences.

1: Use glyph table from the font file

2: Shift values (mainly for printing from Adobe Reader)

## **[Barcode Settings]**

Enable=

Type=

Value Source=

Value=

Value File=

RegExp File=

RegExp Format File=

First Page Only=

Transparency=

Align=

Vertical Align=

X Offset=  
Y Offset=  
Orientation=  
Unit=

1D Subtype=  
1D Write Text=  
1D Minimal Bar Width=  
1D Minimal Space Width=  
1D Ratio=  
1D Quiet Zone=

QR EC Level=  
QR Module Size=  
QR Quiet Zone=

DM Module Size=  
DM Quiet Zone=  
DM Append=  
DM Append Index=  
DM Append Total=  
DM Append Chain ID=

P417 Truncated=  
P417 EC Level=  
P417 Quiet Zone=  
P417 Columns=  
P417 Rows=  
P417 Column Width=  
P417 Column Height=

***Enable=<number>***

Available values: 0, 1

Default value: 0

If this value is 1, barcode printing is enabled

Bates numbering is not supported when using the EMF output file format.

***Type=<number>***

Available values: 0-3

0: QR

1: Data Matrix

2: PDF 417

3: 1D (Linear) – Set the “1D Subtype” key to set the 1D barcode standard

Default value: 0

***Value Source=<number>***

Available values: 0-2

0: The “Value” key is used, the barcode value is set directly

1: The “Value File” key is used, a file is given as barcode value

2: The text of the printed page is used as barcode value or the barcode value is generated from the page content using a regular expression (using the “RegExp File” and “RegExp Format File” keys)

Default value: 0

***Value=<string>***

Used as barcode value if “Value Source” is 0

***Value File=<string>***

Path to a file that is used as barcode value if “Value Source” is 1

***RegExp File=<string>***

Path to a Unicode text file (UTF-16 little-endian with byte-order mark) that contains a regular expression that is used for generating the barcode value from the page content if “Value Source” is 3. If this key is not set and “Value Source” is 3, the whole page text is used as barcode value.

***RegExp Format File=<string>***

Path to a Unicode text file (UTF-16 little-endian with byte-order mark) that contains a regular expression format that is used for generating the barcode value from the page content if “Value Source” is 3. If this key is not set and “Value Source” is 3, the whole page text is used as barcode value. Please see the SetBarcodeRegExpFormatFile API function for the details of this file.

***First Page Only=<number>***

Available values: 0, 1

Default value: 0

If this value is 1, the barcode is only printed on the first page of the document.

***Transparency=<number>***

Available values: 0, 1

Default value: 0

If this value is 1, the barcode is printed with transparent background instead of white.

***Align=<number>***

Sets the horizontal alignment of the barcode.

Available values: 0, 1, 2

0: Left

1: Center

2: Right

Default value: 0

***Vertical Align=<number>***

Sets the vertical alignment of the barcode.

Available values: 0, 1, 2

0: Top

1: Middle

2: Bottom

Default value: 0

***X Offset=<number>***

Sets the horizontal position of the barcode on the printed page. If “Align” is set to 2, this key specifies the distance of the right side of the barcode from the right side of the page.

Default value: 0

***Y Offset=<number>***

Sets the vertical position of the barcode on the printed page. If “Vertical Align” is set to 2, this key specifies the distance of the bottom of the barcode from the bottom of the page.

Default value: 0

***Orientation=<number>***

Sets the barcode rotation.

Available values: 0, 1, 2, 3

0: Do not rotate

1: Rotate 90 degrees clockwise

2: Rotate 180 degrees clockwise

3: Rotate 270 degrees clockwise

Default value: 0

***Unit=<number>***

Sets the units used by the “X Offset” and “Y Offset” keys

Available values: 0, 1, 3

0: the offsets are specified in pixels.

1: the offsets are specified in tenths of millimeters.

2: the offsets are specified in hundredths of inches.

Default value: 0

***1D Subtype=<number>***

Sets the used barcode standard if the “Type” key is set to 3 (1D)

Available values: 0-11

0: Codabar

1: Code 11

2: Code 128

3: Code 39

4: EAN 8

5: EAN 13

6: Industrial 2 from 5

7: Interleaved 2 from 5

8: Matrix 2 from 5

9: Plessey

10: UPC-A

11: UPC-E

Default value: 0

***1D Write Text=<number>***

Available values: 0, 1

Default value: 0

If this value is 1, the value of 1D barcodes is printed under the barcode.

***1D Minimal Bar Width=<number>***

Sets the minimal width of the bars in pixels. Cannot be less than 1.  
Default value: 4

**1D Minimal Space Width=<number>**

Sets the minimal width of the spaces between bars in pixels. Cannot be less than 1.  
Default value: 4

**1D Ratio=<number>**

Sets the minimal width difference between two neighboring logical level bars or spaces.  
Cannot be less than 1, it is specified in pixels.  
Default value: 4

**1D Quiet Zone=<number>**

Sets the size of the empty white frame around the barcode. Cannot be less than 1, it is specified in pixels.  
Default value: 4

**QR EC Level=<number>**

Sets the strength of the error correction used in QR codes. The QR code size increases with the error correction level.

Available values: 0-4

- |                           |                                   |
|---------------------------|-----------------------------------|
| 0: Level L (Low)          | 7% of codewords can be restored.  |
| 1: Level M (Medium)       | 15% of codewords can be restored. |
| 2: Level Q (Quartile)[33] | 25% of codewords can be restored. |
| 3: Level H (High)         | 30% of codewords can be restored. |

Default value: 2

**QR Module Size=<number>**

Sets the size of a single QR module (a single black or white rectangle) in pixels.  
Default value: 8

**QR Quiet Zone=<number>**

Sets the size of the empty white frame around the barcode. Cannot be less than 1, it is specified in pixels.  
Default value: 8

**DM Module Size=<number>**

Sets the size of a single data matrix cell (a single black or white rectangle) in pixels.  
Default value: 10

**DM Quiet Zone=<number>**

Sets the size of the empty white frame around the barcode. It is specified in logical units. One unit is the size of a single data matrix module. (Specified by the "DM Module Size" key)  
Default value: 1

**DM Append=<number>**

Available values: 0, 1

Default value: 0

If this value is set to 1, the Document Converter Server will add structured append information to the data matrix code. Using the structured append feature, up to 16 Data

Matrix symbols can be linked. The original data or file can be reconstructed from the linked symbols regardless of the order of the symbols.

***DM Append Index=<number>***

Available values: 1-16

Sets the index of the data matrix symbol that identifies its position in the current group. The index must be between 1 and 16 and must be smaller than or equal to the number of symbols in the group. The structured append feature must be enabled with the "DM Append" key.

Default value: 1

***DM Append Total=<number>***

Available values: 2-16

Sets the total number of symbols in the current group. The number must be between 2 and 16. The structured append feature must be enabled with the "DM Append" key.

Default value: 2

***DM Append Chain ID=<number>***

Available values: 0-64515

Sets the chain ID (File ID / FID) of the group. The number must be between 0 and 64515. The structured append feature must be enabled with the "DM Append" key.

Default value: 0

***P417 Truncated=<number>***

Available values: 0, 1

Default value: 0

If this value is set to 1, truncated PDF 417 symbols are enabled. Truncated PDF 417 symbols are smaller but they are less tolerant to damage.

***P417 EC Level=<number>***

Available values: 0-8, 9

Sets the strength of the error correction used in PDF 417 codes. The code size and the tolerance to damage increase with the error correction level.

Values between 0-8 are the normal error correction levels, 9 means automatic.

Default value: 9

***P417 Quiet Zone=<number>***

Sets the size of the empty white frame around the barcode. It is specified in logical units.

One unit is the size of a single cell size. (Specified by the "P417 Column Width" and "P417 Column Height" keys)

Default value: 1

***P417 Columns=<number>***

Sets the number of data columns in the symbol. If this value is 0, the data columns will be automatically counted.

Default value: 0

***P417 Rows=<number>***

Sets the number of data rows in the symbol. If this value is 0, the data rows will be automatically counted.

Default value: 0

***P417 Column Width=<number>***

Sets the width of a single module in pixels.

Default value: 4

***P417 Column Height=<number>***

Sets the height of a single module in pixels.

Default value: 48

**[OCR Settings]**

Enabled=

BiOCR.Dll=

BiOCRx.Dll=

Output Directory=

Open Output=

Text Editor=

First Page Only=

Select Area=

Area Unit=

Area Top=

Area Left=

Area Width=

Area Height=

Languages=

***Enabled=<string>***

Available values: Yes, No

Default value: No

If this value is set to “Yes”, the OCR (Optical Character Recognition) feature of the Document Converter Server is enabled. Please note that enabling the OCR feature will slow down printing.

***BiOCR.Dll=<string>***

Default value: empty

Specifies the path to the 32-bit OCR dll. (BiOCR.dll) The value should be an absolute path to the dll. If the driver cannot find the dll, the OCR feature will be disabled, and the OCR tab will be hidden from the Printing Preferences page.

***BiOCRx.Dll=<string>***

Default value: empty

Specifies the path to the 64-bit OCR dll. (BiOCRx.dll) The value should be an absolute path to the dll. If the driver cannot find the dll, the OCR feature will be disabled, and the OCR tab will be hidden from the Printing Preferences page.

***Output Directory=<string>***

Default value: empty

Specifies the folder where the output of the OCR will be generated. If set to an empty string, the normal Document Converter Server output directory will be used.

***Open Output=<string>***

Available values: Yes, No

Default value: No

If this value is set to “Yes”, the driver will open the OCR output with the editor specified in the “Text Editor” key. If the “Save each page as separate file” option is turned on, only the first page will be opened, after the whole document is finished printing.

***Text Editor=<string>***

Default value: empty

Specifies the path to the text editor used for opening the OCR output. If set to an empty string, the default text editor will be used.

***First Page Only=<string>***

Available values: Yes, No

Default value: No

If this value is set to “Yes”, the OCR is only enabled for the first page of the document.

***Select Area=<string>***

Available values: Yes, No

Default value: No

Enables or disables Area Selection for the OCR feature of the Document Converter Server. When enabled, you can use the “Area Unit”, “Area Top”, “Area Left”, “Area Width” and “Area Height” keys to set a rectangular area on the page where the OCR will operate.

***Area Unit=<number>***

Available values: 1-3

1: Pixel

2: 0.1\*mm

3: 0.01\*Inch

Default value: 1

***Area Top=<number>***

Default value: 0

Sets the distance of the OCR area from the top of the page. The unit can be specified using the “Area Unit” key.

***Area Left=<number>***

Default value: 0

Sets the distance of the OCR area from the left edge of the page. The unit can be specified using the “Area Unit” key.

***Area Width=<number>***

Default value: 0

Sets the width of the OCR area. The unit can be specified using the “Area Unit” key.

***Area Height=<number>***

Default value: 0

Sets the height of the OCR area. The unit can be specified using the “Area Unit” key.

***Languages=<string>***

Default value: eng

Selects the languages used in the OCR. The list should be a string of language codes separated by '+' characters. (E.g.: "eng+deu+fra+jpn"). On the Document Converter Server user interface, it is only possible to select a single language at a time, but with the SetOCRLanguages API function or this INI file key, multiple languages can be selected. The list of available languages can vary depending on the language packs installed. See the following page for the list of possible language codes.

### ***Upload to FTP configuration through BIFTP.INI file***

The BIFTP.INI file with the BIFTP parameter can be used to preconfigure the Upload to FTP feature of the Document Converter Server.

*For example:*

```
msiexec /i "DocumentConverterServer.msi" REGNUM="XXXXX-XXXXXXXX-XXXXXXXXXX"  
BIFTP="c:\BIFTP.ini" BITRACE=1
```

*Example of how the BIFTP INI file structure and available flags:*

[BIFTP]

[FTP Upload Setting]

FTP Enable=

FTP Selected Connection=

[FTP Connection 1]

FTP Connection Name=

FTP Security mode=

FTP Server Address=

FTP Login Name=

FTP Password=

FTP Port=

FTP Remote Directory=

FTP Is Passive=

FTP Proxy Server Address=

FTP Proxy Port=

FTP Proxy User Name=

FTP Proxy User Password=

FTP Proxy Type=

FTP Proxy Authentication=

FTP Proxy Domain=

FTP Trusted Certificate=

FTP Transfer Method=

FTP Action on Existing Files=

FTP Logging=

FTP Logfile=

### **Description of the BIFTP.INI file flags:**

[BIFTP]

**[FTP Upload Setting]**

**FTP Enable**=Enable or disable FTP upload feature (max length: 1 character)

Available values:

0: Disable FTP upload

1: Enable FTP upload

**FTP Selected Connection**=The ID of the selected FTP connection (max length: 3 characters).

Multiple ftp connections can be specified in the [FTP Connection XXX] sections.

For example: to use the settings specified in the [FTP Connection 2] section, set "FTP Selected Connection=2"

**[FTP Connection 1]** Multiple connections can be specified, this is an example of the first connection.

**FTP Connection Name**=Name of the connection (max length: 128 characters)

**FTP Security mode**=FTP Security mode. (max length: 1 characters)

Available values:

0: FTP without security

1: FTP with explicit SSL/TLS encryption (FTPES)

2: FTP with implicit SSL/TLS (FTPS)

3: SFTP

**FTP Server Address**=URL of the FTP Server or IP Address (max length: 128 characters)

**FTP Login Name**=FTP Server User name (max length: 128 characters)

**FTP Password**=FTP Server User password (max length: 64 characters)

**FTP Port**=FTP server port (max length: 5 characters)

**FTP Remote Directory**=Destination Directory on the FTP Server (max length: 260 characters)

**FTP Is Passive**=Passive mode (max length: 1 character)

Available values:

0: not passive

1: Passive

**FTP Proxy Server Address**=URL of the Proxy Server or IP Address (max length: 128 characters)

**FTP Proxy Port**=Proxy server port (max length: 5 characters)

**FTP Proxy User Name**=Proxy Server User name (max length: 128 characters)

**FTP Proxy User Password**=Proxy Server User password (max length: 64 characters)

**FTP Proxy Type**=Proxy server type (max length: 1 character)

Available values:

- 0: None
- 1: Socks4
- 2: Socks4A
- 3: Socks5
- 4: HttpConnect

**FTP Proxy Authentication**=Proxy Authentication if proxy type is HttpConnect (max length: 1 character). Available values:

- 0: Basic
- 1: Ntlm

**FTP Proxy Domain**=Proxy Domain if proxy type is HttpConnect and Proxy Authentication is Ntlm (max length: 128 characters)

;To use Proxy Domain, one must use "HttpConnect" and "Ntlm" Authentication

**FTP Trusted Certificate**=Trusted certificate (max length: 1 characters)

Available values:

- 0: Always show certificate warning
- 1: never show certificate warning

**FTP Transfer Method**=Transfer method (max length: 1 character)

Available values:

- 0: Printed files are copied
- 1: Files are moved to the target destination (Printed files are deleted in the source location)

**FTP Action on Existing Files**=Action on Existing files (max length: 1 character)

Available values:

- 0: Overwrite All (Existing files are to be always overwritten)
- 1: Overwrite Different Size (Existing files with different size are to be overwritten)
- 2: Overwrite Older (Existing files are to be overwritten if they are older than source files. This is strongly discouraged because modification dates are often misreported by FTP and SFTP server, making this mode highly unreliable.)
- 3: Rename (Existing files are to be renamed according the pattern "filename[number].extension".)
- 4: Resume If Possible (Existing files are to be resumed if they are smaller than source files.)
- 5: Skip All (Existing files are to be always skipped)

**FTP Logging**=Enable or disable logging for FTPUploader (max length: 1 character).

Available values:

- 0: Disable FTP logging
- 1: Enable FTP logging

**FTP Logfile**=Log file for FTPUploader (max length: 260 characters). The default location is [User document folder]\Document Converter Server\Log\FTPUuploader.log

## ***Modifying the INI File and frequently used INI configurations***

Any modification to the INI file, after installation, requires to reload the INI file into the Document Converter Server by clicking on the “Restore defaults” option on the bottom of the “Device Settings” Tab. The Document Converter Server reads the INI file only once during installation. Any change to the INI file after installation will have no effect on the Document Converter Server until the system is rebooted or clicked on the “Restore defaults” bottom on the “Device Settings” Tab.

The INI file name is:  
BuDiniNT.ini

#### **The Document Converter Server INI files location:**

##### **On 32 bit operating system:**

C:\Windows\System32\Spool\Drivers\w32x86  
C:\Windows\System32\Spool\Drivers\w32x86\3

##### **On 64 bit operating system:**

C:\Windows\System32\spool\drivers\x64  
C:\Windows\System32\spool\drivers\x64\3

*Note: The Modified INI files must be copied into both location!*

#### **Modifying the INI Flags:**

For Example:

Certain driver configuration Flags can represent multiple driver configuration definitions. Each driver configuration definition represent a bit position in the Flag. Each bit value defines a feature such as use of the TIFF DLL. The defines for using the TIFF DLL is “BLF\_ENABLETIFFDLL”, and it is specified with HEX value. The Computed HAX value for multiple defines must be converted decimal number. The Flags value is specified in decimal numbers.

If one would like to generate a separate TIFF or JPEG file for every page of the printed document with page numbering, the value of the “Flags” in the INI file can be calculated in the following way:

(BLF_ENABLETIFFDLL)	0x00004000 +
(BLF_ENABLEJPEGDLL)	0x00008000 +
(BLF_PAGENUMBERING)	0x00000008 +
(BLF_MULTIIMAGE)	0x00000020 +
<hr/>	
Sum of	0x0000C028

The C028 HEX value in decimal is 49192.

You have to write in the INI file:

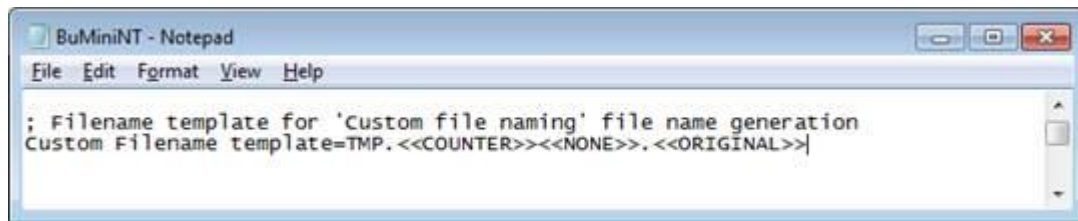
Flags=49192

#### **Frequently used INI file examples and configurations**

The following sections contains examples of how to configure a Black Ice INI file to preconfigure commonly used configurations, such as Merge, Split, Fine Fax Resolution, Standard Fax Resolution.

The examples can be used to easily create CUSTOM INI files for large scale deployments for MSI Installers, and to preconfigure the Document Converter Server settings right after the installation.

**Some of the settings in the default INI file are just examples.** If the semicolon ; mark is at the beginning of the line, the Document Converter Server will ignore the line. So if you need to modify the **Custom Filename Template** for example, you should change it as you can see on the following image (*delete the ; mark*);



### **Split multipage documents to separate single page output documents**

Find the following line in the INI file:

Flags=-2147424224

Change the line to the following:

Flags=-2147424256

### **Merge documents to multipage documents**

Find the following lines in the INI file:

Flags=-2147424224

Change the line to the following:

Flags=1105952

FileNameGenerationFlags=6

Change the line to the following:

FileNameGenerationFlags=3

FixedFileName=

Change the line to the following:

FixedFileName=Merged-documents

### **Printing to 204x196 DPI Fine Fax Compatibility**

Find the following lines in the INI file:

X DPI=300

Change the line to the following:

X DPI=200

Y DPI=300  
Change the line to the following:  
Y DPI=200

File Format=36  
Change the line to the following:  
File Format=4

Flags=-2147424224  
Change the line to the following:  
Flags=-2147096542

FileExtension=PDF  
Change the line to the following:  
FileExtension=TIF

PaperWidthInPixels=2550  
Change the line to the following:  
PaperWidthInPixels=1700

PaperHeightInPixels=3300  
Change the line to the following:  
PaperHeightInPixels=2200

**Printing to 204x98 DPI Standard Fax Compatibility**

X DPI=300  
Change the line to the following:  
X DPI=204

Y DPI=300  
Change the line to the following:  
Y DPI=98

File Format=36  
Change the line to the following:  
File Format=4

Flags=-2147424224  
Change the line to the following:  
Flags=-2147092448

FileExtension=PDF  
Change the line to the following:  
FileExtension=TIF

PaperWidthInPixels=2550  
Change the line to the following:  
PaperWidthInPixels=1734

PaperHeightInPixels=3300  
Change the line to the following:  
PaperHeightInPixels=1078

### **Start Application with parameters**

LaunchFlags=12  
Change the line to the following:  
LaunchFlags=13

StartApplicationParameterOrder=12345680  
Change the line to the following:  
StartApplicationParameterOrder=80000000

ApplicationPath=  
Change the line to the following:  
ApplicationPath=C:\test\MyApplication.exe

Once the desired settings are changed in the customized INI file, it can be used for customized MSI Installations with the CUSTOMINI parameter.

For example:

```
msiexec /i "<<PATH>>\DocumentConverterServer.msi"  
CUSTOMINI="<<PATH>>\BuDiniNT.ini" REGNUM=XXXXX-XXXXXXXX-XXXXXXXXXX
```

**BuDiniNT.ini must be substituted with the customized INI file name, the DocumentConverterServer.msi must be substituted with the MSI installer name and the XXXXX-XXXXXXXX-XXXXXXXXXX must be substituted with a valid serial number.**

### ***Hiding the tabs on the Document Converter Server User Interface***

In order to set which tabs are being displayed in the Document Converter Server User Interface, modify the following section in the Document Converter Server INI file.

[UI Tabs Settings]

Display File Format Tab=1 - if the value is 1 (default), the "File format" tab is displayed, if the value is 0, the "File format" tab is hidden.

Display Filename Generation Tab=1 - if the value is 1 (default), the "Filename generation" tab is displayed, if the value is 0, the "Filename generation" tab is hidden.

Display Start Application Tab=1 - if the value is 1 (default), the "Start application" tab is displayed, if the value is 0, the "Start application" tab is hidden.

Display Watermark Tab=1 - if the value is 1 (default), the "Watermark" tab is displayed, if the value is 0, the "Watermark" tab is hidden.

Display Annotation Tab=1 - if the value is 1 (default), the "Annotation" tab is displayed, if the value is 0, the "Annotation" tab is hidden.

Display Bates Tab=1 - if the value is 1 (default), the “Bates Numbering” tab is displayed, if the value is 0, the “Bates Numbering” tab is hidden.

Display Profile Manager Tab=1 - if the value is 1 (default), the “Profile Manager” tab is displayed, if the value is 0, the “Profile Manager” tab is hidden.

Display Redirect Printing Tab=1 - if the value is 1 (default), the “Redirect Printing” tab is displayed, if the value is 0, the “Redirect Printing” tab is hidden.

Display Barcode Tab=1 - if the value is 1 (default), the “Barcode” tab is displayed, if the value is 0, the “Barcode” tab is hidden.

To hide and show the tabs programmatically you can also use the *EnableTab* and *DisableTab* functions from the BlackIceDEVMODE dll or ActiveX control. To get the state of a tab, use the *IsTabEnabled* function.

The “Device settings” tab cannot be hidden and will always be displayed.

Please note, if you use the API functions, it will override the settings of the INI file until you reinstall the driver or delete the following registry key:

*HKEY\_CURRENT\_USER\Software\Black Ice Software LLC\<Name of the Black Ice Printer>\UITabs Settings*

### ***Configure the printer setting for every users through the INI file***

It is possible to use the Document Converter Server INI file to set the default settings for all users.

Windows 8/7/Vista operating systems allow each user to have their own printer settings. Each Document Converter Server has so called default settings. The default settings are used by the system to create the initial settings for new users who have never used that particular printer. The default settings can be set using the Document Converter Server’s INI file. At install time the Document Converter Server will read the settings from the INI file and will use those settings as the default. If a setting is not specified in the INI file, or the specified value is incorrect, the Document Converter Server will use the setting that is hardcoded in the driver. These settings are reloaded from the INI file each time the restore defaults button is pressed.

After installation the settings can be changed for all users if the Document Converter Server is reinstalled. At reinstall the Document Converter Server will reload the INI file settings for each users at the first use. Install allows to change the settings for all users by providing a custom configuration dialog. Otherwise without reinstallation, every user would need to press the restore defaults button on the Printing Preferences after the modification of the INI file.

The Install and Uninstall DLL were enhanced with a workaround feature which removes all existing Document Converter Server settings at uninstall time.

**TIP:** Always double check that the flags value in the INI file is set correctly because if it is incorrect, the Document Converter Server will use the default settings that are hard-coded in the driver.

### ***Removing space after every text command in the generated text file***

When the Document Converter Server extracts text out of the input files, by default it adds an extra space after each text command received. This is important when extracting text out of an excel spreadsheet. It will ensure that there will be a space between each cell.

In some cases these extra space characters may not be necessary. In order to stop inserting a space character after every text command in the generated text file, add the following section to the Document Converter Server INI file.

```
[Text Output Settings]
Add Space=0 // Default value is 1. To remove extra space set it to 0
```

### ***Creating position and style entry for each word in the generated text file***

By default the Document Converter Server creates one “style and position” entry for text having the same style. For example:

```
[[1063,300,1488,344][10][,,][Courier New]]New Text Document
```

If you would like to generate an entry for each word, you should add the following section to the INI file of the Document Converter Server:

```
[Text Output Settings]
Display Word Coordinates=1
```

If this section is in the INI file, the generated text output file will contain style and position information separated for each word. For example:

```
[[1063,300,1138,344][10][,,][Courier New]]New[[1138,300,1163,344][10][,,][Courier New]]
[[1163,300,1263,344][10][,,][Courier New]]Text[[1263,300,1288,344][10][,,][Courier New]]
[[1288,300,1488,344][10][,,][Courier New]]Document
```

### ***Ignoring the application devmode when printing***

Some printing applications, most notable Microsoft Office Products, will store printer settings in the document itself, and will ignore the current printer settings in favor of the stored settings. Using this feature will instruct the Document Converter Server to ignore the Black Ice specific settings received from the printing application, such as image file format, output directory, start application parameters, etc. The non Black Ice specific settings such as paper size, DPI, and orientation will be applied

as passed from the application in order to allow the printing application to correctly format the document.

Enter the following into the Document Converter Server's INI file:

```
[Default Settings]
Ignore Application Devmode=1
```

If this section is not present, or if the value is 0, the driver will use the devmode provided by the printing application. The computer must be restarted in order to use the new value if this setting has been changed.

### ***Ignoring the application DPI when printing***

Some printing application doesn't take into consideration the DPI of the Document Converter Server when the EMF meta data created. In this case the printed document has incorrect DPI values. This situation can be avoid if the Ignore Application DPI is set in the printer's INI file.

Enter the following into the Document Converter Server's INI file:

```
[Default Settings]
Ignore Application Devmode=1
Ignore Application DPI=1
```

To enable the 'Ignore Application DPI' the 'Ignore Application Devmode' has to be set too.

If this section is not present, or if the value is 0, the driver will use the devmode provided by the printing application. The computer must be restarted in order to use the new value if this setting has been changed.

### ***Changing the name of the BiGroup.ini file***

In order to specify a custom BiGroup.ini file, add the following section to the Document Converter Server INI file.

```
[BiGroup.ini]
INI File=MyBiGroup.ini
```

If this section is not present in the INI file BiGroup.ini will be used.

### ***Ignore Application Devmode***

Using the Ignore Application Devmode will instruct the Document Converter Server to ignore the Black Ice specific setting received from the printing application such as image file format, output directory, start application parameter, etc.

The non Black Ice specific settings such as paper size, DPI and orientation will be applied as passed from the application in order to allow the printing application to correctly format the document for printing.

### **How to enable the Ignore Application Devmode**

Enter the following into the Document Converter Server's INI file:

```
[Default Settings]
Ignore Application Devmode=1
```

If the value is 0 or missing, the driver will use the devmode provided by the printing application. If the value is set to 1, the settings provided by the printing application will be ignored, and the printing user's settings will be used.

The computer must be restarted in order to use the new value if this setting has been changed.

When the Ignore Application Devmode=1 is set in the Document Converter Server INI file, the Black Ice specific settings cannot be changed using the BlackIceDEVMODE.DLL or BlackIceDEVMODE.OCX control. The printer settings can be specified at install time, and they also can be changed manually by the user from Control Panel -> Printers -> Printing Preferences.

The changes made manually from inside an application (such as File -> Print Setup) will be ignored.

Developers can use the Real Time Printer Hook or the BIPlugIn DLL to change printer settings for specific print jobs when the Ignore Application Devmode is used.

### ***Creating group file in UNICODE file format***

By default the Document Converter Server generates group files in ANSI file format. In this case if you are printing documents containing UNICODE characters in the document name (for example Asian characters) the group file doesn't contain the document name correctly. You can create UNICODE group file by setting "UNICODE Group File" value in the Document Converter Server INI file. For example:

```
[Default Settings]
UNICODE Group File=1
```

If this value is 1 the group file will be generated in UNICODE file format, if this value is zero or not specified the group file will be generated in ANSI file format.

### ***Adding padding characters to Bates numbering***

You can add any padding characters in front of a Bates number. You can enable and specify the padding feature using the Document Converter Server INI file. By default no padding character is added to the Bates number.

You can specify the padding separately for every Bates number. Below is an example of how to set the padding in case you have 2 Bates number types:

[Bates Number 1]  
Bates Number Length=8  
Bates Padding Character=0  
[Bates Number 2]  
Bates Number Length=5  
Bates Padding Character=\*

**Bates Number Length:** Number of characters of the Bates number (excluding prefix text). This value can be an integer value between 0 and 16. This value specifies the length of the bates number. If the length of the Bates number is less than this value, padding character will be added, otherwise no padding characters will be inserted. If you are using “Bates Number 1” and the Bates number is 12588, the printed document will contain 00012588 as Bates number. If “Bates Number 2” selected the created Bates number will be 12588 (No padding character will be added.).

**Bates Padding Character:** This value specifies the padding character. This value can be only anyone ANSI character. For example the Bates number is 1258 and you are using “Bates Number 2” settings, the generated text will be \*1258 on the printed document.

### ***Compatibility Warning***

Show Compatibility Warning=<0 or 1>

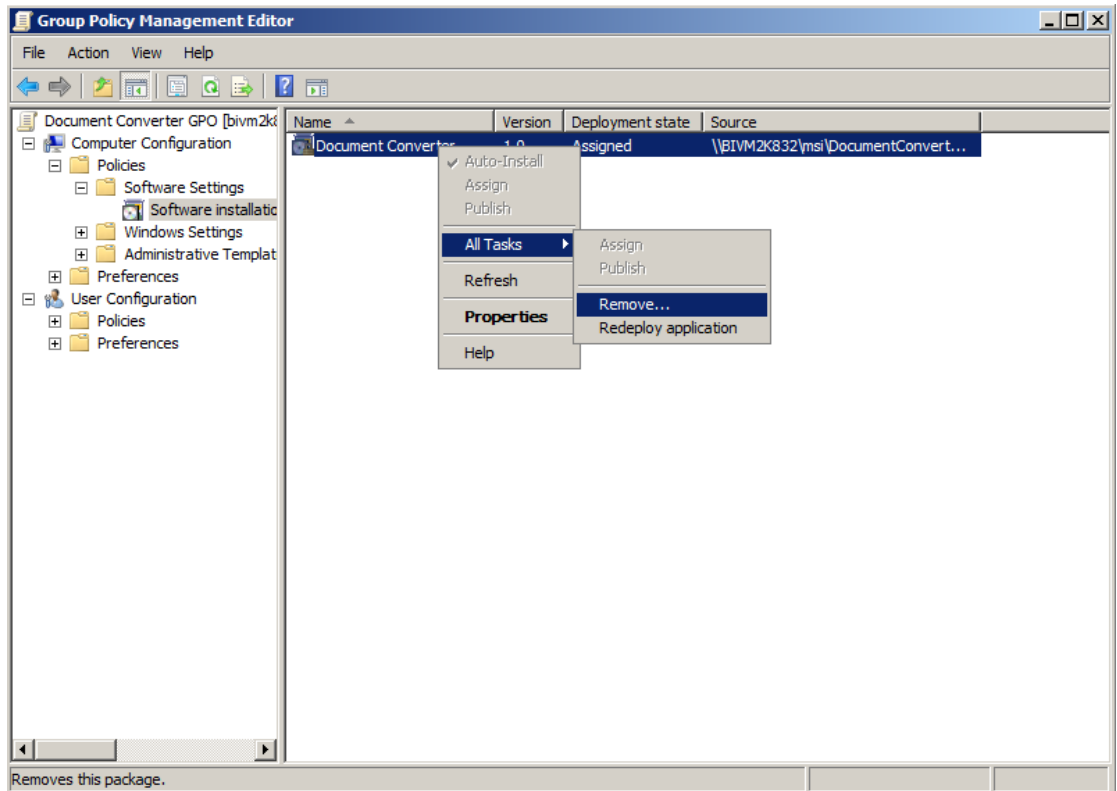
If this value is set to 1 and the Document Converter Server detects an application that is incompatible with the driver, it will show a warning message with a possible workaround and aborts the print job.

Set this value to 0 if you do not want to receive compatibility warnings and do not want the print job to be aborted (please note this may result in an application or Document Converter Server crash). The default value is 1.

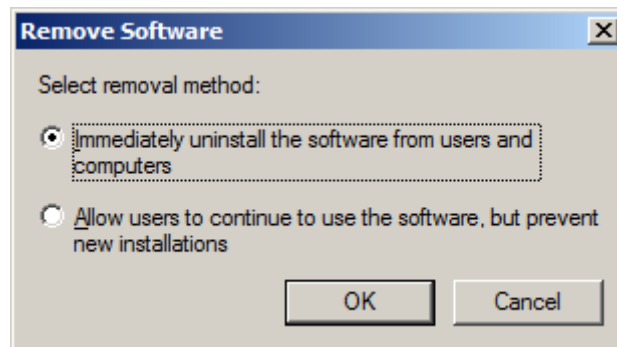
## **How to uninstall the Document Converter Server MSI from computers with the Group Policy Object**

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

Right click on the Document Converter Server 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.

## Licensing Error codes and Event Viewer error messages

The Document Converter Server MSI Installation automatically logs the Product Licensing registration process during the installation in the BiDCMSIRegistrationDataLog.txt file located in the User's temp folder.

(for example: c:\Users\Administrator\temp\BiDCMSIRegistrationDataLog.txt)

If the registration was successful, the log file contains the following message:

**Registration was successful.**

Otherwise the error code could be the one of the followings:

**Error code 15 - The specified Serial Number is not valid for this product.**

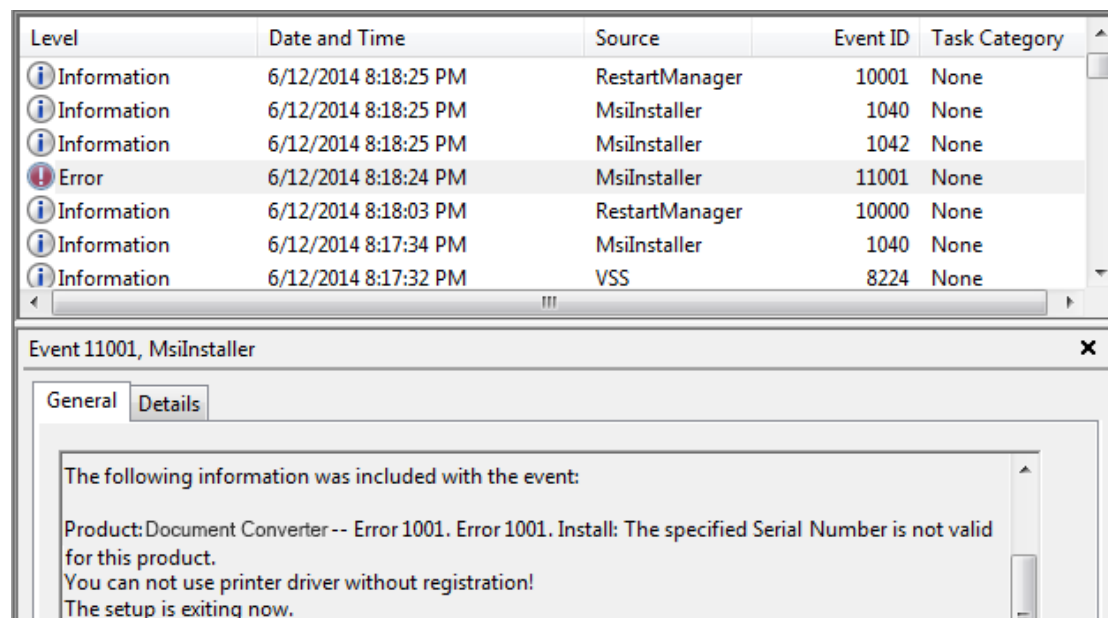
**Error code 23 - Error receiving answer from the Black Ice Software License Server.**

**Error code 28 - Error sending license number to the Black Ice Software License Server.**

**Error code 34 - Error registering the product.**

**Error code 200 - The Document Converter Server is already registered.**

In case the **format** of the serial number used with REGNUM is not correct the following entry will be added to Windows Event Log:



Level	Date and Time	Source	Event ID	Task Category
Information	6/12/2014 8:18:25 PM	RestartManager	10001	None
Information	6/12/2014 8:18:25 PM	MsiInstaller	1040	None
Information	6/12/2014 8:18:25 PM	MsiInstaller	1042	None
Error	6/12/2014 8:18:24 PM	MsiInstaller	11001	None
Information	6/12/2014 8:18:03 PM	RestartManager	10000	None
Information	6/12/2014 8:17:34 PM	MsiInstaller	1040	None
Information	6/12/2014 8:17:32 PM	VSS	8224	None

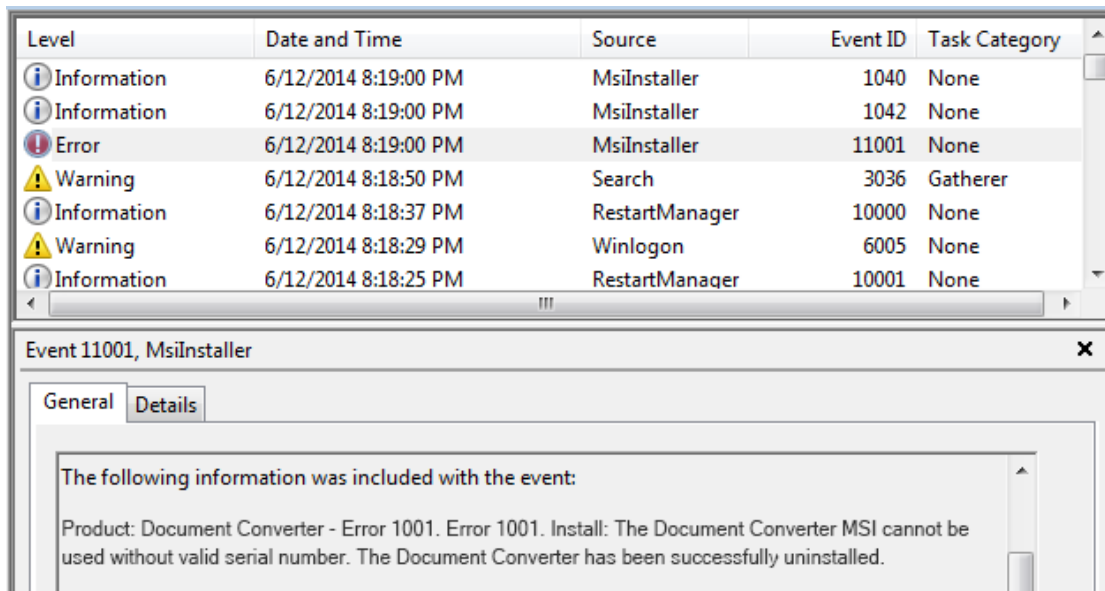
Event 11001, MsiInstaller

General Details

The following information was included with the event:

Product: Document Converter -- Error 1001. Error 1001. Install: The specified Serial Number is not valid for this product.  
You can not use printer driver without registration!  
The setup is exiting now.

In case the serial used with REGNUM is **not valid** for the product the following entry will be added to Windows Event Log:



## Document Converter Server MSI Installer Trace log

The Printer Driver 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 [BiDCMSITraceDataLog.txt](#) file located in the User's temp folder (%TEMP%). The MSI installer log feature of /I\* "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 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\BiDCMSITraceDataLog.txt)

### Enable Trace log

To enable the Trace log for the Document Converter Server MSI Installation, include the following parameter in the MSI Installation.

<b>BITRACE</b> =(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 "DocumentConverterServer.msi" /q TARGETDIR="C:\Document Converter"
BITrace=1 REGNUM=xxxxx-xxxxxxxx-xxxxxxxxxx USERNAME="Administrator"
USERPASSWORD="12345678"
```

## Using environment variable in installation

The Document Converter Server can be configured during installation with an INI file, to use a System Administrator defined configuration settings. Configuration Settings specified in the INI file will be used by the MSI installation process, to configure the Document Converter Server default settings for every user on the system.

The Document Converter Server can be configured through the INI file, to handle the differences between the x64 and x86 operating systems, by configuring the following entries in the INI file through valid **environment variables**;

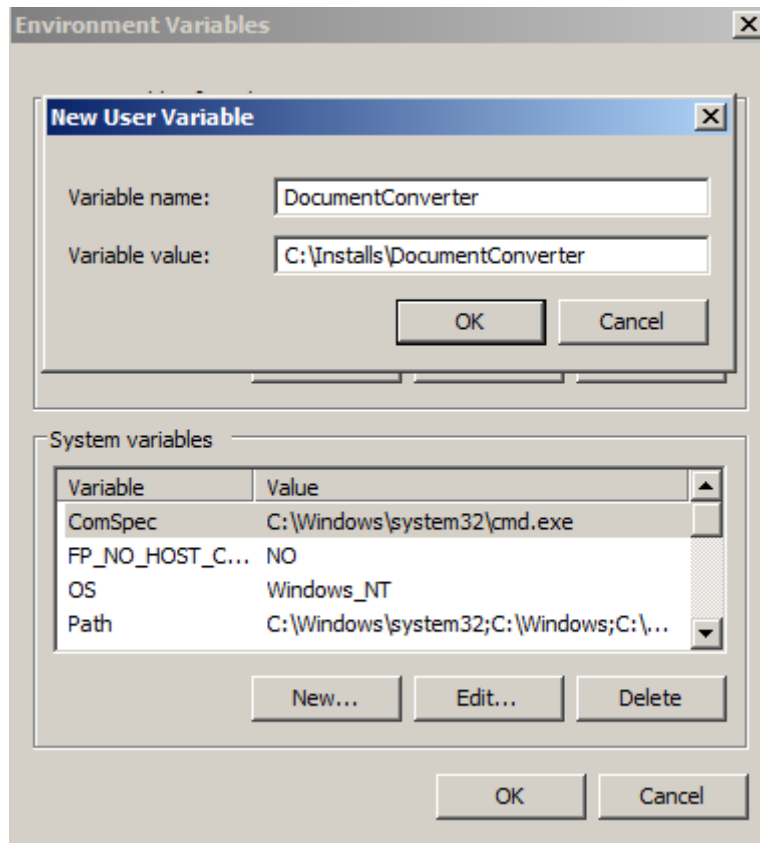
*OutputDirectory*  
*ApplicationPath*  
*WatermarkDirectory*  
*WatermarkFilePortrait*  
*WatermarkFileLandscape*  
*FirstWatermarkFilePortrait*  
*FirstWatermarkFileLandscape*  
*CHM Help File*  
*Redirect Printing Log File*  
*SharePoint Logfile*  
*SharePoint utility*  
*Email sending program 32bit*  
*Email sending program 64bit*  
*Logging Directory (Email settings)*

For example the administrator can configure the **SharePoint utility** entry in the INI file with valid environment variable already added on the system. First the administrator have to define an environment variable with the desired name and path in the *Control Panel > System and Security > System > Advanced System Settings > Environment Variables* and use the name of this environment variable in the INI file in the following format;

<<**environment variable name**>>

**NOTE: The user must have read and write access to the defined path and directory in the environment variable.**

If the defined environment variable name is **PrinterDriverDir** as on the picture;



The SharePoint utility entry in the INI file must look like the following;  
**SharePoint utility=<<PrinterDriverDir>>**



# Troubleshooting

[Common installation error codes](#)

[MSI Installation error - This installation package could not be opened.](#)

[Why is the Document Converter Server MSI Installs into the Program Files\(x86\) on a 64-bit Operating System?](#)

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

## *Common installation error codes*

The following list includes the most commonly occurring installation error codes, and the meanings of the error:

**Error code 34** - Error registering the product.

**Solution:** This error code covers several different registration errors on the server and on the client. This should be followed by the exact error message received from the server. In case the exact error message cannot be resolved, please contact our technical support with the occurring error codes.

**Error code 37** - Error getting information for creating serial number. No MAC address or Volume ID could be obtained from the system.

**Solution:** Please make sure that the computer has an enabled Network Card with valid MAC address.

**Error code 51** - Failed to get proxy setting value for the installation.

**Solution:** Please start the installation (or command line in case of command line installation) as Administrator.

**Error code 81** - Error sending license number to the eLicense Server. Check the network settings and connection.

**Solution:** Please check the network connection, and if the computer have active internet connection. If you are using proxy, please check the proxy server connection, and please make sure that the Proxy server IP address or name is correct.

**Error code 1603** – This error code can cover several issues during the installation.

**Solution:** Please generate a BITRACE log, and contact our technical support with the generated log file.

**Error code 1612 / Error code 1714** – Windows cannot find the original MSI installer required for uninstallation or update. For more details, please see the [System Error 1612 when uninstalling or updating using the MSI installer](#) section.

**Error code 1001** - This error code can cover several issues during the installation in the install script.

**Solution:** Please generate a BITRACE log, and contact our technical support with the generated log file.

## ***MSI Installation error - This installation package could not be opened.***

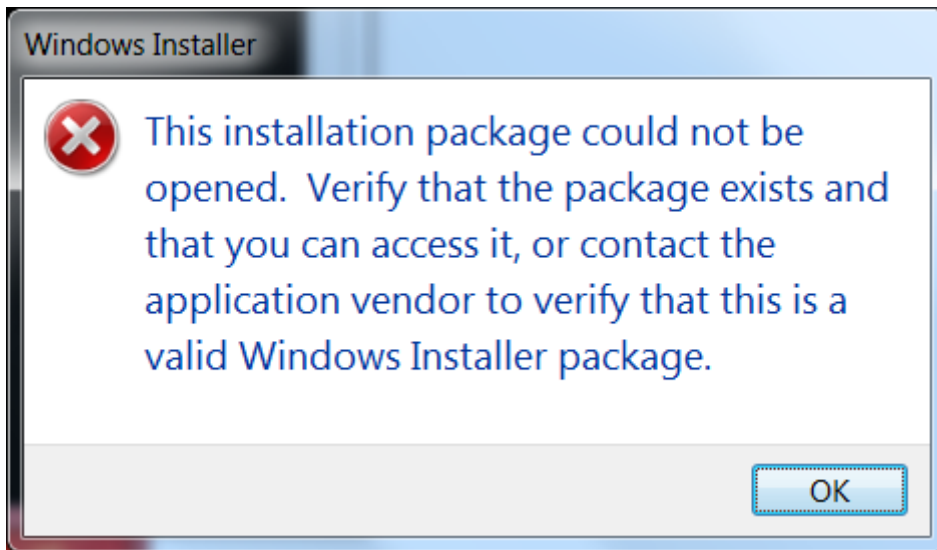
### **Description of the problem:**

Running the MSI installer and display "This installation package could not be opened."

```
msiexec /i "DocumentConverterServer.msi" REGNUM=XXXXX-XXXXXXXX-XXXXXXXXX  
USERNAME="Administrator" USERPASSWORD="12345678"
```

There are several causes of for the problem:

- MSI package is damaged.
- The MSIEXEC command is not executed in the same directory as the "DocumentConverterServer.msi" file.
- The quotation mark is not standard quotation marks around the .msi file ("DocumentConverterServer.msi"). MS Office product and Word has different quotation marks. To avoid quotation mark errors, please type the MSI command into notepad before you cut and paste it to the command line.



## ***Why is the Document Converter Server MSI Installs into the Program Files(x86) on a 64-bit Operating System?***

The Document Converter Server MSI installer installs files under Program Files(x86) on 64 bit operating system, since the MSI installers are 32 bit installers and optimized for 32 bit operating system folder structure.

The Document Converter Server Installation folder can be changed during the installation at the Installation Folder window and also can be changed through the command line Installation with TARGETDIR parameter.

## ***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: Document Converter Server -- Error 1714. The older version of Document Converter Server 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.

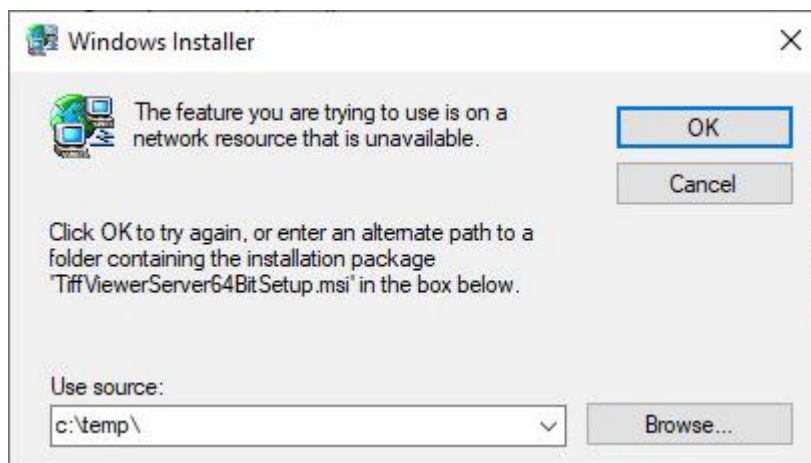
System Error 1612 indicates that Windows cannot find the original MSI installer used for installing the product either at the location used for installation or in the C:\Windows\Installer directory.

**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.