



Bluebeam Revu 2017 Enterprise Installation Guide

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INTRODUCTION

Typically, large organizations face a wide range of challenges, such as finding the most efficient deployment method, and properly configuring an application for use in networked, multi-user settings. With this in mind, we've presented guidelines in the following pages for planning and implementing your Bluebeam Revu deployment.

It's important to note that this guide is written under the assumption that the reader understands the fundamentals of concepts such as software installation, the Windows Command Line, as well as writing and running batch files.

Note: You can find guidelines for post-installation management of your deployment in the [Bluebeam Revu Enterprise Administration Guide](#).

If you're looking for information about using Revu in your Citrix environment, please refer to [Bluebeam Revu in a Citrix Environment](#), which can also be found on the [Bluebeam Technical Services website](#).

PLANNING YOUR DEPLOYMENT

The importance of properly planning your deployment can never be overstated, so to help ensure that everything goes smoothly, let's take a look at some details that must be considered before you start running your installations.

Compatibility & System Requirements

The last thing you want to do is attempt to install and run an incompatible combination of hardware and software in your environment. To prevent this, please make sure you're familiar with the following recommendations and requirements in this section before going any further.

Supported Operating Systems

- Windows 10 (32-bit and 64-bit)
- Windows 8.1 (32-bit and 64-bit)
- Windows 7 Service Pack 1 (32-bit and 64-bit)

Microsoft Windows Installer and .Net Framework

- Windows Installer 4.5 and above.
- .NET Framework 4.5.2 and above.

Windows Installer and .Net Framework requirements for older Revu versions can be found on our [website](#).

Note: *The MSI Installation Package also includes a Visual C++ Redistributable for Visual Studio 2015. If it hasn't already been installed on the machines, it must be deployed prior to deploying the MSI.*

Recommended Minimum Hardware

A general class computer that meets the following requirements may be used with Revu for general office tasks:

- Processor:
For desktops and laptops: 1 GHz processor or equivalent.
For tablets: Intel i3 processor or equivalent.
- RAM:
4 GB on a 32-bit Windows system
8 GB on a 64-bit Windows system
- At least 4 GB of available hard drive space
- Display: 1024 x 768 high color, 32-bit

If your end-users will be working with large PDF drawing sets, or running the Optical Character Recognition (OCR) feature, you should make sure their systems meet or exceed the following requirements:

- Processor:
Intel i5 Dual Core or better
- RAM:
8 GB on a 64-bit Windows system

The latest compatibility information can be found on our [website](#).

Gathering Your Resources

Assuming your environment meets or exceeds the requirements in the previous section, make sure you have everything you'll need before you begin the deployment process. This ensures your implementation is organized and runs as smoothly as possible. With that in mind, this Installation Guide is the best place to start.

The Bluebeam Revu Enterprise Administration Guide

The [Revu Enterprise Administration Guide](#) covers various post-installation topics such as license management, Bluebeam Studio, the Bluebeam Administrator application, Revu Preferences and settings, as well as electronic and digital signatures.

It's a good idea to read through this and compare the information to your current and anticipated end-user requirements. Once you've done this, you'll know how to plan for and provide them with the various options they need, such as digital signatures, custom settings, and even custom Tool Sets for use by multiple users.

The Enterprise Installation Packages

There are two different installation packages available for download from our [Enterprise Installation page](#), and which one you choose depends on whether or not you're doing a full installation or updating an existing installation.

Note: Both installers utilize the [Microsoft Windows Installer](#) framework (*msiexec.exe*), so it's very important that the [correct Windows Installer version](#) is already installed on your machines.

The MSI Installer

This is the file you'll use for deploying a full installation of any Revu Edition.

It's very important that you download the correct Enterprise installation package for your environment. Once you've done that, open the .zip file and become familiar with its contents, which are:

- A ReadMe file listing the contents of the MSI package and installation pre-requisites.
- The Revu MSI installation file
- The Microsoft .NET Framework 4.5.2 offline installer
- A Visual C++ Redistributable for Visual Studio 2015.

If this hasn't already been installed on the machines, it must be deployed prior to deploying the MSI.

- A script for removing older Revu versions. (*Uninstall Previous Version.txt – The file extension must be changed to .bat before it can be run.*)
- An Add-Remove-Programs (ARP) Modifier, in case you want to display the Edition of your Revu software, in addition to the product name and version number.

The process for running this installer is covered [later on in this guide](#), and you should carefully follow the instructions. Please do not take shortcuts or otherwise modify the workflow. Most of all, [do not edit the MSI](#) directly as it will invalidate the digital signature.

The MSP Installer

This installer is used for patch updates from one dot release to another within a major version number. The advantage of the MSP file is that it doesn't require any additional configuration because it's being applied to an existing installation of the same major version and Edition, using the same license.

Note: Please make sure you take a look at the ReadMe file included in the MSP package.

Custom Settings and Assets

If your organization uses *optional* custom or shared settings and assets, such as Preferences, Profiles, Tool Sets, and Stamps, we suggest working with a point person from each department within your user community to find out what they are and gather them. The [Revu Enterprise Administration Guide](#) contains information about the best practices for exporting, gathering and staging these items. The process for including them in your deployment is described later in this guide.

Setting Up a Staging Computer

There may be certain situations where you'll be required to create any required custom settings and assets of your own. In these instances, you'll need to manually install Revu on a machine that you'll use for creating these assets, as described in the Managed Net Configuration section of the [Revu Enterprise Administration Guide](#).

For this single installation you can download the installer from our [Downloads and Updates](#) page.

THE DEPLOYMENT PROCESS

Now that you've finished planning your deployment, let's take a look at the best practices and instructions for performing your enterprise installation of Revu.

Side-By-Side Installation

Revu 2017 can be installed and run side-by-side with *Revu 2016.x and above*, which lets your end-users run Revu 2017 as a fully-functional 30-day trial. This lets users evaluate Revu 2017 while your organization decides whether or not it's time to upgrade.

Note: When you do decide to upgrade to Revu 2017 you must remove the older software first by pushing out the "Uninstall Previous Versions" script included in the [Revu 2017 MSI Deployment Package](#). Otherwise it can be removed via Programs and Features in the Windows Control Panel.

Best Practices

Microsoft Windows Installer

Regardless of which installation package or deployment vehicle you use, your Command Line script will call up the Windows Installer (msiexec.exe.exe) during the course of your installations. With this in mind, there are various deployment tools which utilize the command line for running an MSI or MSP installer, such as System Center Configuration Manager (SCCM), Dell KACE, and Group Policy.

Working with the MSI

Although it is possible to directly edit the MSI (or MSP) file and save it, we don't recommend doing so, as it will invalidate the files' digital signature. Also, doing a "Save As" may corrupt the file, and renaming it will cause the installation to fail.

With this in mind, the best way to work with the file is to use an MSI editor such as [InstEd](#) to create and edit an MST file, then pass the properties as described in the [MST installation steps below](#).

Important Notes about Revu Upgrades

- If you're upgrading from Revu 2015.x to Revu 2017, you should not run the "Uninstall Previous Versions" script included in the [Revu 2017 MSI Deployment Package](#). In this instance, the Revu 2017 installer will detect, unregister and uninstall the older software.
- Do not run the "Uninstall Previous Versions" script if you're going to perform [Side-by-Side installations](#).
- Side-By-Side installation of Revu 2017 is not supported with Revu 2015.x and below.

Authorization

In order to make sure your software is successfully authorized, your firewall or proxy server must be configured to allow access to our licensing servers listed below, via HTTPS on port 443.

Authorization Servers

For installations of Revu 2016 and above:

<https://login.microsoftonline.com/>

For Revu 2015.5 and 2015.6 installations:

<https://bluebeam-us-east.accesscontrol.windows.net>

Activation Server

For all Revu installations:

<https://activation.bluebeam.com>

Delayed Authorization

Delayed Authorization is the best registration method when using deployment software such as SCCM, and/or in situations where the System account doesn't have access to the internet. In this instance, Revu won't attempt to communicate with the licensing servers until the end-user opens Revu post-installation, and tries to save a document. The registration process runs "silently" in the background as long as the correct licensing information was used and the machine successfully connects to the internet.

To enable Delayed Authorization you will need to use the [DA](#) property found in the [MSI Properties Table](#).

The MSI Properties Table

In addition to specifying the required Revu Serial Number, Product Key, and Edition used for authorizing your installations, this list of editable parameters includes optional items which let you customize your software.

Mandatory Properties

As implied above, these properties are required to successfully authorize the software.

The Serial Number and Product Key will only work with the version and Edition listed on your License Certificate. If you've lost your License Certificate, please [contact us](#) to request another copy.

BB_SERIALNUMBER	Enter the Revu Serial Number. Enter <i>TRIAL</i> to install as a 30-day trial.
BB_PRODUCTKEY	Enter the Revu Product Key. <i>All upper-case characters.</i>
BB_EDITION	Standard = 0 CAD = 1 eXtreme = 2 (default)

Supported Optional Properties

BB_ANALYTICS	Send usage info to Bluebeam (default) = 1, Don't send = 0 (See notes.)
BB_DEFAULTVIEWER	Set as the default application (default) = 1, Do not change the default = 0 (See notes.)
BB_DESKSHORTCUT	Revu desktop shortcut (default) = 1, No shortcut = 0
BB_DESKSTAPLER	Bluebeam Stapler desktop shortcut = 1, No shortcut (default) = 0
BB_FEATURES	Disables various Revu features. All Features Enabled = 65535 (default). See Enabling and Disabling Revu Features with BB_FEATURES for more information.
BB_IE_PLUGIN	Install and enable = 1, Disable (default) = 0
BB_JOBOPTIONS	Enter the UNC or fully-qualified path to your custom <i>.jobOptions</i> file.
BB_NETCONFIG	Enter the UNC or fully-qualified path to your managed NetConfig folder.
BB_NEW_INSTALL_PATH	Enter the fully-qualified path.
BB_PAGESIZE	Enter "A4" to override default page size for the Bluebeam PDF printer.
BB_QUICKLAUNCH	Enable Quick Launch = 1, Disable (default) = 0
BB_REDICON	Red Revu file icon = 1, Blue (default) icon = 0
BB_REVUPREFERENCES	Enter the UNC or fully-qualified path to your <i>RevuPreferences.xml</i> file.
DA	Delayed Authorization = 1, Standard Authorization (default) = 0
IGNORE_RBT	Disable Check for Pending Reboot = 1, Check for Pending Reboot = 0. (See notes below.)
MBCODE	Determines which of the Bluebeam plugins are enabled. The default value of 1023 enables all of them. See Enabling the Bluebeam Plugins with MBCODE for more information

The BB_ANALYTICS Property

By default, Revu is set to send usage data to us in order help improve the application. This information is anonymous and will not be shared with third parties. Bluebeam will not collect personal information about you. The data tracking we have implemented helps us understand which Revu functions and features you are using, and how well the application is performing

If you want to disable this, you must deploy your installations with the BB_ANALYTICS Property set to Zero (BB_ANALYTICS=0) in your MSI command line script or MST file.

Setting the Default PDF Program with BB_DEFAULTVIEWER

Microsoft has changed how default applications are selected in Windows 8 and above, which result in the BB_DEFAULTVIEWER setting being overridden. This means that your users will have to follow the steps found in our [FAQ article on setting Revu as the default PDF program](#). Further information can be found on the [Microsoft website](#).

Enabling and Disabling Revu Features with BB_FEATURES

The first thing to know is that each Revu feature has an assigned numerical value as shown in the list below. To disable a feature, subtract its numerical value from the default value shown in the preceding table (65535) and enter the answer as the value for the BB_FEATURES property. For example, to disable the Redaction feature in a Revu eXtreme deployment, you would subtract the value of that feature (2) from 65535, and then enter the balance (65533) as the value for BB_FEATURES.

To disable multiple features, add their values together, subtract the total from 65535, then enter the remainder as the BB_FEATURES value.

Revu Features and Their Numeric Values:

Administrator Button (Help Menu) = 128	Product Updates Button (Help menu) = 16
AllFeatures = 255	Redaction in eXtreme (Includes Cut Content & Erase Content in all Editions) = 2
DigitalSignatures = 4	Registration Button (Help Menu) = 256
EditText = 1	SelfSignCertificates = 8
ExportToOffice = 64	TranslateMarkups = 32

Disabling “Check for Pending Reboot”

It's important to note that this should only be done (IGNORE_RBT = 1) if Microsoft .Net Framework version 4.5.2 or above has already been installed on the end-user's machine, and if it was restarted after the .Net installation.

The pending reboot must eventually be carried out at some point after the installation has completed.

Enabling the Bluebeam Plugins with MBCODE

As with the Revu features listed in the preceding table, each of the Bluebeam plugins for supported third-party software has an assigned numerical value, as shown in the table below. If you only want to enable a single plugin – for example, the AutoCAD plugin — you would replace the default MBCODE value of 1023 (all plugins enabled) with the number 2. In cases where you need to enable more than one plugin, you would add up their numerical values and enter the total as the MBCODE value. Changing the MBCODE value to 0 disables all of the plugins.

Note: Please refer to the [Revu Compatibility Chart](#) to ensure that your third-party applications will work with the plugins in your Revu software.

Revu Plugins and Their Numeric Values:

All Plugins Disabled = 0	Microsoft Outlook = 128
AutoCAD = 2	ProjectWise = 64
AutoCAD LT (32 & 64-bit) = 4	Revit & Navisworks = 16
Internet Explorer = 32	SketchUp Pro = 256
Microsoft Office = 1	SolidWorks = 8

Language Transforms (TRANSFORMS)

By default, Revu will be installed in the language of the host operating system. However, it is possible to deploy installations in a different language from what Windows uses, by setting the TRANSFORMS Property to one of the language codes listed below. Command line examples for an [MST](#) and [MSI](#) installation can be found later in this guide.

Revu Language Transform Codes:

Danish = 1030	Italian = 1040
Dutch = 1043	Japanese = 1041
English = 1033	Korean = 1042
Finnish = 1035	Norwegian = 1044
French Standard = 1036	Spanish = 1034
German = 1031	Swedish = 1053

Optional Pre-Installation Check

If you're unsure about which Revu Editions are already installed in your user community, it may be a good idea to consider writing a script which queries the following Windows Registry keys. This information comes in handy in situations where you have to [deploy multiple Editions of Revu](#):

HKLM\SOFTWARE\Bluebeam Software\RevuVersion#

- "Edition" – Key Data value shows the current [Revu Edition](#).

HKLM\SOFTWARE\Bluebeam Software\RevuVersion#\Licenses

- "Registered" – Key Data value displays the Revu Serial Number

Deployment Methods

In this section we'll cover topics such as Windows Installer Switches, how to write scripts for either full installations using the MSI or patch updates using the MSP, as well as how to deploy multiple Revu Editions – or in different languages within your environment.

A Note about Windows Installer Switches

There are three important Windows Installer switches to be aware of when writing a script for MST, MSI, or MSP installations:

- `/i` – Tells the Windows Installer to call up `msiexec.exe` to run an installation
- `/qn` – This switch lets you run unattended and silent installations.
- `TRANSFORMS` – Used if you've created an MST that needs to be called up. This is done by entering the folder path to where the MST file is located and the filename of the MST. `TRANSFORMS` also lets you [install Revu in different languages](#).

Writing an Installation Script

Let's take a look at the different methods for deploying your Revu software, each of which utilize the command line in slightly different ways.

Using a Microsoft Transform (MST) file

This is the preferred method of deploying your installations because:

- a. It minimizes typographical errors, as all property/parameter changes are done in the MST file, which is called up by a short command line script. This means you can double-check your changes to the Properties table before they're passed on during the installations.
-And-
- b. It allows you to hide the licensing information from your end-users.

Creating and Editing an MST File

If you haven't done so already, you'll need to download and install an MSI editor such as [InstEd](#). Once you've done that, please follow the steps listed below:

1. Launch InstEd, click the **File** menu, and open the original MSI.
2. Click the **Transform** menu and select **New Transform**.
3. When the New Transforms dialog opens, name the MST file then click **Save**.

Note: The file should not be called "Transforms.mst," and must be saved in the same folder as the original MSI installer.

4. Click the **Tables** tab on the left, select **Property** in the **Tables** list. *At this point, it might help to click the **Property** column heading to alphabetically sort the **Properties** list.*
5. Edit the [Properties](#) to suit your requirements.

Note: Only edit the properties and parameters [listed in this guide](#).

6. Click the **File** menu and **Save** the file.

Writing a Command Line Script that Uses Your MST File

Here are a couple of installation script examples that call up an MST file:

```
msiexec.exe /i "Bluebeam Revu x64 17.msi" TRANSFORMS=YourMSTFile.mst /qn
```

A silent German Language Installation:

```
msiexec.exe /i "Bluebeam Revu x64 17.msi" TRANSFORMS=:1031;MyTransforms.mst /qn
```

Note: It's very important that you test your script in an elevated command prompt on a test machine, before deploying the installation to ensure that it runs correctly.

Do not double-click the MSI file. Doing so will install Revu without the required elevated privileges, or any customizations you may have set in the MSI Properties.

Using the MSI Properties Directly

Another method of building your deployment is to write a complete installation script which calls up the Revu MSI file, and lists all relevant mandatory and optional [property changes](#).

Note: To make sure there aren't any syntax errors, it's a good idea to write and proofread your script in a text editor, and then run it in an elevated command prompt on a test machine, before deploying to your end-users.

Do not double-click the MSI file. Doing so will install Revu without the required elevated privileges, or any customizations you may have set in the MSI Properties.

To get an idea of how this is done, take a look at the following example of a basic installation script written so that Revu Standard installs silently, with [Delayed Authorization](#):

The Revu Serial Number, Product Key and Edition must be included in all MSI installation scripts, and the quotation marks must be included in the MSI filename.

```
msiexec.exe /i "Bluebeam Revu x64 17.msi"  
BB_SERIALNUMBER=YourRevuSerialNumber BB_PRODUCTKEY=YourRevuProdKey  
BB_EDITION=0 DA=1 /qn
```

Additional MSI Script Examples

To help give you a better idea of how command line scripts can be written for various installation requirements and configurations please refer to the following examples:

Basic silent installation of CAD Edition:

```
msiexec.exe /i "Bluebeam Revu x64 17.msi" BB_SERIALNUMBER=YourRevuSerialNumber  
BB_PRODUCTKEY=YourRevuProdKey BB_EDITION=1 /qn
```

Basic silent German installation of CAD Edition:

```
msiexec.exe /i "Bluebeam Revu x64 17.msi" BB_SERIALNUMBER=YourRevuSerialNumber  
BB_PRODUCTKEY=YourRevuProdKey BB_EDITION=1 TRANSFORMS=:1031 /qn
```

Basic silent installation specifying A4 as the default page size for the Bluebeam PDF Printer:

```
msiexec.exe /i "Bluebeam Revu x64 17.msi" BB_SERIALNUMBER=YourRevuSerialNumber  
BB_PRODUCTKEY=YourRevuProdKey BB_EDITION=YourRevuEdition BB_PAGESIZE=A4 /qn
```

Basic silent installation specifying a centralized NetConfig location for the Bluebeam settings:

The client machine must be restarted before Revu or the Bluebeam Administrator are launched for the first time. Failure to do so will revert the Net Configuration to default unmanaged settings.

```
msiexec.exe /i "\\MyServer\Bluebeam Deployment\Bluebeam Revu x64 17.msi"  
BB_SERIALNUMBER=YourRevuSerialNumber BB_PRODUCTKEY=YourRevuProdKey  
BB_EDITION=YourRevuEdition  
BB_NETCONFIG=\\MyServer\Bluebeam?Deployment\netconfig /qn
```

Basic silent installation without a desktop shortcut, that doesn't set Revu as the default PDF viewer:

```
msiexec.exe /i "Bluebeam Revu x64 17.msi" BB_SERIALNUMBER=YourRevuSerialNumber  
BB_PRODUCTKEY=YourRevuProdKey BB_EDITION=YourRevuEdition BB_DEFAULTVIEWER=0  
BB_DESKSHORTCUT=0 /qn
```

Basic silent installation specifying the location of the .JobOptions files:

```
msiexec.exe /i "\\MyServer\Bluebeam Deployment\Bluebeam Revu x64 17.msi"  
BB_SERIALNUMBER=YourRevuSerialNumber BB_PRODUCTKEY=YourRevuProdKey  
BB_EDITION=YourRevuEdition  
BB_JOBOPTIONS=\\MyServer\Bluebeam?Deployment\joboptions /qn
```

Basic silent installation that also deploys a specific RevuPreferences.xml file:

```
msiexec.exe /i "\\MyServer\Bluebeam?Deployment\Bluebeam Revu x64 17.msi"  
BB_SERIALNUMBER=YourRevuSerialNumber BB_PRODUCTKEY=YourRevuProdKey  
BB_EDITION=YourRevuEdition  
BB_REVUPREFERENCES=\\MyServer\Bluebeam?Deployment\RevuPreferences.xml /qn
```

Basic silent German installation that also deploys a specific RevuPreferences.xml file:

```
msiexec.exe /i "Bluebeam Revu x64 17.msi"  
BB_SERIALNUMBER=YourRevuSerialNumber BB_PRODUCTKEY=YourRevuProdKey  
BB_EDITION=YourRevuEdition TRANSFORMS=:1031  
BB_REVUPREFERENCES=RevuPreferences.xml /qn
```

Basic silent installation which deploys a specific RevuPreferences.xml file, and uses Delayed Authorization:

```
msiexec.exe /i "Bluebeam Revu x64 17.msi"  
BB_SERIALNUMBER=YourRevuSerialNumber BB_PRODUCTKEY=YourRevuProdKey  
BB_EDITION=YourRevuEdition BB_REVUPREFERENCES=RevuPreferences.xml DA=1 /qn
```

Basic silent installation that uses the red Revu PDF file icon:

```
msiexec.exe /i "Bluebeam Revu x64 17.msi"  
BB_SERIALNUMBER=YourRevuSerialNumber BB_PRODUCTKEY=YourRevuProdKey  
BB_EDITION=YourRevuEdition BB_REDICON=1 /qn
```

Basic silent Revu CAD installation where the MSI is located in a specific UNC folder path:

```
msiexec.exe /i "\\BluebeamServer\Software\bb\Bluebeam Revu x64 17.msi"  
BB_SERIALNUMBER=YourRevuSerialNumber BB_PRODUCTKEY=YourRevuProdKey  
BB_EDITION=1 /qn
```

Basic silent Revu eXtreme installation specifying a centralized NetConfig location for the Bluebeam settings when the MSI is located in a specific UNC folder path:

The client machine must be restarted before Revu or the Bluebeam Administrator are launched for the first time. Failure to do so will revert the Net Configuration to default unmanaged settings.

Please refer to the NetConfig section of the [Bluebeam Revu Enterprise Administration Guide](#) for more information.

```
msiexec.exe /i "\\MyServer\Bluebeam?Software\Bluebeam Revu x64 17.msi"  
BB_SERIALNUMBER=1234567 BB_PRODUCTKEY=YourRevuProdKey BB_EDITION=2  
BB_NETCONFIG=\\MyServer\Bluebeam?Software\Netconfig /qn
```

Basic silent Revu Standard installation with just the Microsoft Office and AutoCAD plugins enabled using the MBCODE parameter:

```
msiexec.exe /i "Bluebeam Revu x64 17.msi"  
BB_SERIALNUMBER=YourRevuSerialNumber BB_PRODUCTKEY=YourRevuProdKey  
BB_EDITION=1 MBCODE=3 /qn
```

Deploying Multiple Editions of Revu

As the MSI installer includes Revu Standard, CAD, and eXtreme, a single MSI can deploy multiple Editions within your end-user community by staging a single MSI file in a shared location, which can be called up by any of the three installation scripts (one for each Revu Edition) that you'll need to write. Each script must include the corresponding values for the [BB_SERIALNUMBER](#), [BB_PRODUCTKEY](#), and [BB_EDITION](#) Properties.

Once you've written and checked your scripts in an elevated command prompt on a test machine, you can use Group Policy or a task sequence in your deployment vehicle to determine the Revu Edition they should be running, and then automatically run the correct deployment script.

An alternative method of confirming the Edition and Serial Number of an existing Revu installation is to write a script which queries the following Windows Registry keys:

```
HKLM\SOFTWARE\Bluebeam Software\<RevuVersion#>
```

- "Edition" – Key Data value shows the current [Revu Edition](#).

```
HKLM\SOFTWARE\Bluebeam Software\<RevuVersion#>\Licenses
```

- "Registered" – Key Data value displays the Revu Serial Number

Updating Existing Installations with an MSP File

As mentioned earlier in this guide, this installation file is used for patch updates from one dot release to another within a major version number, while using the same licensing information.

When writing your command line script, it's important to note that `REINSTALLMODE=omus` and `REINSTALL=ALL` are both required parameters, and are case-sensitive. Additional information about `Msiexec.exe` command line options can be found on the [Microsoft website](#).

Note: We recommend writing and proofreading your script in a text editor, and then running it in an elevated command prompt on a test machine, before deploying the update to your end-users.

To deploy a basic patch update you'll need to use the following format:

```
msiexec.exe /p <path to .msp> REINSTALLMODE=omus REINSTALL=ALL
```

Additional MSP Script Examples

Basic silent update:

```
Msiexec.exe /p <path to .msp> REINSTALLMODE=omus REINSTALL=ALL /qn
```

Basic silent update with a suppressed reboot:

```
Msiexec.exe /p <path to .msp> REINSTALLMODE=omus REINSTALL=ALL  
REBOOT=ReallySuppress /qn
```

Silently updating an installation that was deployed with modified Properties:

When patching an installation that was originally deployed with modified [Properties](#), you'll need to include them in your MSP script. Not doing so will reset them to their default values.

For example if the installation was set to use the Red PDF file icon with Quick Launch and the Microsoft Office plugin enabled, the script will be:

```
Msiexec.exe /p <path to .msp> REINSTALLMODE=omus REINSTALL=ALL BB_REDICON=1  
BB_QUICKLAUNCH=1 MBCODE=1 /qn
```

Running and Troubleshooting a Deployment

Assuming you have written your script, and tried it out in an elevated command prompt on a test machine, you can now run it in a deployment vehicle of your choice, such as SCCM, Dell KACE, or Group Policy.

If the installations do not go as intended, or otherwise fail, you'll need to go back and check your work. If your script is calling up an [MST file](#), reopen it with InstEd and make sure you've correctly set the Properties. After that, confirm that you've used the correct syntax in the script you have written which calls up the MST file, and test again in an elevated command prompt on a test machine.

In the case of an [MSI](#) or [MSP](#) script, check the syntax again to make sure it's formatted correctly, and that you've included the relevant Properties with the correct settings. Once you've done that, you should run it on your test machine as described earlier.

Note: The MSI installer creates a verbose log file in `%TEMP%` directory on the local drive of the machine on which Revu is installed. The naming convention is "`MSIxxxxx.log`" where "xxxxx" are random characters, like "`MSIjfb1d6.log`". Review this log for common Windows installation errors.

If you're using SCCM the log file can be found in `C:\windows\temp` when installed via the SYSTEM account.

A list of Windows Installer error codes and their definitions on the [Microsoft website](#).

POST-INSTALLATION: OPTIONAL CUSTOMIZATION DEPLOYMENT

There are two Bluebeam "system" files containing application settings which can be deployed. The *RevuPreferences.xml* file which can be deployed at any time, and the *UserPreferences.xml* which can only be deployed once a new Revu installation has been finished.

RevuPreferences.xml

This file contains all settings configured in the Revu Preferences dialog (*Ctrl+K*). Clicking Export in the dialog window lets you save the *RevuPreferences.xml* file to any location, such as a centralized folder on a server.

Although it can be deployed as part of an [MST](#) or [MSI](#) installation you can also do so post-installation using a command line option that calls up the Bluebeam Administrator. This allows you to automate changes within the Bluebeam Administrator, such as Revu Preferences, product registration, amongst many others.

The following script uses the `/PREFSPATH:<path>` to deploy the *RevuPreferences.xml* file:

```
"%ProgramFiles%\Bluebeam Software\Bluebeam Revu\<RevuVersion>\PushButton  
PDF\PbMngr5.exe" /setup  
/PREFSPATH:<DriveLetter:\FolderPath\to\RevuPreferences.xml>
```

Note: You can also disable the message asking if Revu should be the [default PDF viewer](#) by adding the `/DVOFF` switch. Launch the Bluebeam Administrator and click Help > Command Line Options for more information and a list of additional command line options.

You can also copy or push the *RevuPreferences.xml* file to:

```
C:\ProgramData\Bluebeam Software\Bluebeam Revu\<RevuVersion>\Revu
```

Note: When Revu launches, it will search for the *RevuPreferences.xml*. When it finds that it's newer than the *UserPreferences.xml* file in the user's `%appdata%` folder, it will merge the contents into the existing *UserPreferences.xml*. You will have to make some form of change to the *RevuPreferences.xml* file to affect the Modified Date, even if you just open it and add a space at the very beginning of the text.

Merging Revu Preferences

If you only want to add new settings while retaining certain pre-existing settings on the destination machine, you should first open the *RevuPreferences.xml* file in a text editor and add `Merge="True"` to the beginning of the file, before staging it for deployment. When the file is found the new settings will be merged into the contents of the existing *UserPreferences.xml*. Refer to the [Revu Enterprise Administration Guide](#) for more information.

Editing the RevuPreferences.xml File

As mentioned above, you need to edit the *RevuPreferences.xml* file in order merge its contents into the existing User Preferences (*UserPreferences.xml*).

To do this, you'll need to open the *RevuPreferences.xml* file in a text editor and type `Merge="True"` (case sensitive) into the header. You can find an example of an edited *RevuPreferences.xml* file this later in this section, but here's what the header should look like:

```
<RevuPreferenceDictionary Version="1" Merge="True">
```

After you have done this we recommend that you delete all the other settings that you do not want to change.

Example of an Edited RevuPreferences.xml File

The following set of Revu Preferences provides a Revu installation with the URL for an organization's SharePoint server, switches on Toolbar integration, and merges these settings into an existing *UserPreference.xml* file:

```
<?xml version="1.0" encoding="utf-8"?>
<RevuPreferenceDictionary Version="1" Merge="True">
<Studio>
<Force.Proxy>False</Force.Proxy>
<ServerCache>{"active":
{"RequestedAuthMode":0,"ServerEmail":null,"ServerPassword":"","ServerURL":"Studio.CompanyXYZ.com","ServerUserName":""},"servers":
[{"RequestedAuthMode":0,"ServerEmail":null,"ServerPassword":"","ServerURL":"Studio.CompanyXYZ.com","ServerUserName":""}]}</ServerCache>
<Toolbar.Integration.Only>True</Toolbar.Integration.Only>
<URL>http://YourCompany.SharePointServer</URL>
</Studio>
</RevuPreferenceDictionary>
```

UserPreferences.xml

This file contains settings for an individual Revu user. Although this file cannot be deployed to existing installations, it can be deployed to a new one, prior to their initial launch, by pushing a modified *UserPreferences.xml* to the following location on each machine:

```
C:\Program Files\Common Files\Bluebeam Software\Bluebeam
Revu\RevuVersion#\Revu
```

Note: Assuming you have already gathered your custom assets such as Profiles and Tool Sets [while planning your deployment](#), you can also copy them into this location.

The first time Revu is launched, the files are automatically copied to the following location in their roaming Windows User Profile:

```
%APPDATA%\Roaming\Bluebeam Software\<RevuVersion#>\Revu
```

Deploying Custom Assets & Settings via the Revu.exe Command Line

Another method for deploying custom settings and assets (Profiles, a Shared Profile Directory, or Tool Sets) is to write a Revu.exe command line script which can be run from a batch (.bat) file. The following sample script imports a Revu Profile:

```
"C:\Program Files\Bluebeam Software\Bluebeam Revu\RevuVersion#\Revu\Revu.exe"  
/s /bpximport:[File]"
```

It's important to note that these are user specific settings which only apply to the current user that is running the command line. Therefore the script should run as part of a logon script and not as the Administrator.

Revu.exe Command Line Switches

The following switches allow you to select how the import process runs, as well as which assets you want to copy into a user's default local %appdata% Revu roaming folder:

Note: *Importing assets or settings copies as described above, whereas "Adding" them creates a reference (link) to a shared asset located in a network or other non-default location.*

- /s – You'll notice this switch in the example shown above, which turns off any prompts that would usually appear during the import process.
- /bpximport:[File] – Imports and activates a profile.
- /bpxdir:[Path] – Lets you specify a folder path if you want to designate a new profile directory. This is the path to a network shared location where Profiles are located and shared across an organization.

Note: *To prevent users from making changes to the Profiles in this directory, set its Folder Permissions to "Read Only."*

- /bpxactive:[Name] – Designates a specific Profile as Active in either the users local %appdata% Revu roaming folder, or in a shared Profile directly if you have used /bpxdir: to specify a shared Profile directory in a network location. *Make sure the Profile you set as Active is in the specified directory.*

Note: Setting a Profile as Active suppresses the initial "Select a Revu Profile" and "Studio Sign-in" dialogs that appear the first time a new Revu installation is opened.

- /btxadd:[File] – This tells a Revu installation to use a Tool Set located in a non-default location without importing it.
- /btximport:[File] – Imports a Tool Set into the current profile directory.
- /bhxadd:[File] – Tells Revu to use a Hatch Pattern set located in a non-default location without importing it.
- /bhximport:[File] – Imports a Hatch Pattern set into the current profile directory.
- /blxadd:[File] – Tells Revu to use a Line Style located in a non-default location without importing it.
- /blximport:[File] – Imports a Line Style set into the current profile directory.

Usage Example

The following script silently imports the Power Profile, as well as the "toolset1.btx" and dimensions.btx files, into that profile:

```
"C:\Program Files\Bluebeam Software\Bluebeam Revu\RevuVersion#\Revu\Revu.exe"  
/s /bpximport:"U:\netProfiles\Power.bpx"  
/bpxactive:Power/btximport:"U:\netProfiles\Revu\toolset1.btx"  
/btximport:"U:\netProfiles\Revu\dimensions.btx"
```

Note: When creating and exporting custom Profiles, it's best to include any dependencies such as custom Tool Sets, Hatch Patterns, Line Styles, Custom Columns, or Custom Statuses. Embedding them into the Profile in this manner makes it a lot easier to share these custom resources across an organization.

ARP Modifier

As mentioned earlier in this guide, the MSI Installation package includes an Add-Remove-Programs (ARP) Modifier, in case you want to display the Edition of your Revu software, in addition to the product name and version number.

Note: ARP renaming is determined by the BB_EDITION flag that was set during installation process, and not the Serial Number. You can find further information in the ReadMe file included in the MSI Installation Package.

Default is to run the file without an Edition parameter.

Example:

```
ARP_Modifier_currentversion.exe
```

Optional command line arguments let you customize the behavior of this utility.

Examples:

Forces product name to include "Standard":

```
ARP_Modifier_currentversion.exe 0  
ARP_Modifier_currentversion.exe standard
```

Forces product name to include "CAD":

```
ARP_Modifier_currentversion.exe 1  
ARP_Modifier_currentversion.exe cad
```

Forces product name to include "eXtreme":

```
ARP_Modifier_currentversion.exe 2  
ARP_Modifier_currentversion.exe extreme
```

Restore the product name without the edition (Standard, CAD or eXtreme):

```
ARP_Modifier_currentversion.exe -1  
ARP_Modifier_currentversion.exe clear
```

Calls up the file from a script where the ARP Modifier is located in a network, and sets the installed Edition as eXtreme:

```
"\\MyServer\Bluebeam Software\ARP_Modifier_currentversion.exe" 2
```


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