Bluebeam Revu in a Citrix Environment

Version 2018

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Introduction

This guide contains information for IT Administrators, and assumes that the reader has a firm understanding of fundamental concepts, such as software installation, and Citrix® Administration. Its purpose is to provide guidance when configuring, using and licensing Bluebeam® Revu® in different Citrix virtual environments.

Further details about Revu installation, configuration and licensing can be found on the [Bluebeam Technical Support site](#).

Compatibility

Revu 2018 is [certified Citrix Ready®](#) for XenApp 7.6 and XenDesktop® 7.15 LTSR, as well as XenDesktop 7.14, 7.16, 7.17, and 7.18, on Windows Server 2012 R2.

The Revu.exe application is the only part of the Revu suite that is certified for installation in a Citrix environment. Other parts of the Revu suite can be used but are not officially supported.

When Revu is used as part of a published desktop, all features – such as PDF creation using the Bluebeam PDF printer and application plugins – operate and perform as they would when installed on a physical system. In a published application environment, additional steps must be taken to enable and manage processes outside of the Revu application, such as PDF creation via the PDF printer and Office plugins.

> *Note: Although some customers have successfully deployed and used Bluebeam Revu in other virtual environments – such as terminal services, VMware®, or Microsoft® App-V – these use cases are not officially supported.*

Please refer to the [Revu Compatibility](#) page for additional hardware and software requirements.

Installation & Licensing

Because [Perpetual](#) and [Enterprise](#) licenses are per-user and not concurrent licenses, Open Licensing is the recommended method for licensing in any virtual environment. In order to maintain compliance with the End User License Agreement (EULA), licenses need to be purchased for all users who might have access to Revu.

> *Note: The Enterprise and Open licenses require an active internet connection to allow communication with the Bluebeam license server.*

For more information on licensing, see our [Licensing & Registration](#) page.

Managing your Open and Enterprise Licenses

In a Citrix environment, the Citrix administrator will install Revu on the server like any other desktop, and then through Citrix tools, publish Revu as a shared application. Then, using Citrix tools, the administrator publishes Revu as a shared application. When a user accesses Revu, mouse, keyboard, and graphics information is sent back and forth

between the virtual machine and the Citrix server. Because Revu is registered on the server rather than on the individual environments, each installation uses one license seat. This means that all users who launch the application will be using the same registered copy of Revu.

With an Enterprise License, Revu takes up one seat for each server it is installed on. If a server with an Enterprise License is inactive for 15 days, the seat will automatically be released from the Citrix environment and made available once again.

With an Open License, Revu is not actually registered on the server; it activates for the user each time the application is launched. This means that the administrator doesn't need to audit, restrict number of authorized users, or manage the registration and un-registration process.

> **Note:** *Open Licenses are only available in Revu eXtreme.*

In the cases of both Open and Enterprise licenses, only one seat of Revu is registered, so customers should ensure there are as many seats on the license as users who access the shared copy of Revu.

Persistent virtual desktops

If you're planning to install Revu in a persistent virtual desktop environment, you'll be able to use any of the licensing models and manage the license like you would on a physical machine. A Perpetual license will need to be manually released when the desktop is de-commissioned.

Persistent virtual desktops created from a master image or template
When the persistent virtual desktops are created from a master image or template where Revu is already installed, the registration can be completed on the master using the Delayed Authorization option. This allows you to enter the serial number and product key when Revu is installed on the master, but the registration isn't completed until Revu is run for the first time on a newly created desktop.

Non-persistent virtual desktops

The Open or Perpetual licenses are ideal for non-persistent set-ups. In these environments, Revu is not registered on the virtual desktop's master image. The Enterprise license is usually not a good fit for these environments because a license will only be released once it has been left inactive for 15 days.

With an Open license, Revu will register its license automatically when it is launched. With a Perpetual license, the license will register when the user saves a document or uses a plugin. In the cases of both Open and Perpetual licenses, only one seat of Revu is registered, so customers must have as many seats on the license as users who will be accessing the shared copy of Revu.

Published Applications

Perpetual and Open licenses are supported in this environment.

The Perpetual node-lock license is registered on the server and Revu is only registered once. All users are essentially using the same seat of Revu, so customers must ensure there are as many seats on the license as users who will be accessing the shared copy of Revu.

The Open license is recommended for this environment because licenses are checked out when Revu is opened, then automatically released after the user closes Revu.

Using Multiple Servers

When Revu is installed on multiple servers, it must be registered separately on each server. Cloning a registered server links the licenses of the master with its clones; therefore, if one server is unregistered or revoked, that change is applied to all servers. There are two ways to avoid this:

Install Revu as a trial by clicking the "Use as Trial" button in the "Bluebeam Registration" window at the end of the installation. If you are deploying using the MSI, omit the serial number and product key. Register Revu after cloning with a Bluebeam Administrator command line option. For details, see Migrating Multiple Revu Installations to a New License, which describes the process.

If you are installing using the MSI, include the "NoAuth" delayed authorization option. This lets you include the serial number and product key during the installation. However, the registration process is deferred until the first time Revu requires a license.

> **Note:** *Open licensing is recommended for multiple-server environments as it eliminates the need to register each server, install Revu as a trial, and to use Delayed Authorization.*

Frequent Server Reimaging

If the Citrix server is frequently reimaged, register Revu on the master image and then push out the registered server image. The license won't be affected (as in cloning), because the machine's name remains the same.

Restricting Access to View Mode Only

This setting is intended to allow administrators to restrict access to View Mode for some users. The below registry key is not part of the Revu deployment process, but you can write a separate script or Group Policy to push this key per-user.

Create a new registry key of type DWORD in "HKEY_CURRENT_USER\Software\Bluebeam Software\<RevuVersion>

> **Note:** *This registry key is only valid in Revu 2018.1 and above.*

Set the value to an integer value of 1 and Revu will start in View mode. The option to switch to markup mode is hidden, as well as the option to register/unregister. To allow the user to switch to Markup Mode, either delete the registry key or set the value to 0.

Files and Folders used by Revu

All the folders where Revu installs files are fixed; the Suite installer does not allow the install destination to change. Revu installs to these folders:

> *Program Files\Bluebeam Software\Bluebeam Revu\2018*

> *Program Files (x86) \Bluebeam Software\Bluebeam Revu\2018*

> *Program Files\Common Files\Bluebeam Software\2018*

> *Program Files (x86)\Bluebeam Software\Bluebeam Revu\2018*

> *ProgramData\Bluebeam Software\Bluebeam Revu\2018*

On a physical machine, Revu saves files in several locations that store customizations to the Revu interface, custom tools, and cached files to improve performance and reduce internet bandwidth. Studio Projects stores the work-in-progress of checked out files.

In a Citrix environment, these settings should be stored in a user's folder on the server to provide a persistent environment for the user and so work will not be lost.

User Settings & Preferences (Reset Settings)

Profiles provide an easy way to store a user's favorite toolbars, menus and other display settings within Revu. The Revu and user created tools sets store tools and symbols that can be used quickly.

Profiles, configuration files, and the "Recents" list are stored in the following folder:

> *%AppData%\Bluebeam Software\Revu\2018*
> or
> *C:\Users\<User Name>\AppData\Roaming\Bluebeam Software\Revu\2018*

Custom tool sets for your environment can also be stored in a central location so they can be accessed by all users. See the [Revu Enterprise Administrators Guide](#) for more information.

Resetting the Revu settings

The Revu settings can be reset back to the defaults. Revu will restore the original profiles and tool sets the next time it starts.

- In a virtual desktop, users' settings can be returned to the default using the [Revu tab in the Bluebeam Administrator](#).

- This can be done with in a virtual app environment by deleting or renaming the folder *%AppData%\ Bluebeam Software\Revu*. Custom tool sets and profiles can be backed up by copying them before they are deleted.

Log and Temporary Files

Revu log and temporary files are written to a folder in the TEMP folder:

> *%TEMP%\Bluebeam Software*
> or

> *C:\Users\<user_name>\AppData\Local\Temp\Bluebeam Software*

Exporting from Revu to external formats, like Word and Excel, writes temporary files to:

> *%TEMP%*

Recovery Files

Revu creates recovery files in the folder *%TEMP%\Bluebeam Software\Revu*. Files in this folder allow unsaved work to be recovered if Revu closes unexpectantly. This folder should be maintained in the user's folder on the server to enable crash recovery.

Sets Cached Files

Revu creates cached files for Sets thumbnails in the folder *%TEMP%\Bluebeam Software\Revu*. These files help improve performance and reduce network traffic when working with sets that include many files.

Bluebeam Studio™ File Caching

Revu saves network bandwidth and lets users work offline by storing copies of Project and Session files in a persistent location within the user's environment. These files need to be stored in a persistent location in the user's environment so that they remain accessible between Revu sessions.

Sessions stores pending updates for offline files, and the markup information is uploaded to Studio the next time the user connects to Studio. Projects stores locally-saved changes for checked-out files, which are uploaded to Studio when the server copy is updated.

> *Note: These cached files should not be removed until confirming that the user doesn't have any Sessions with pending offline changes or checked-out Project files.*

Studio Sessions and Projects store files in the following location:

> *%LocalAppData%\Bluebeam*

> Example: *C:\Users\<user name>\AppData\Local\Bluebeam*

Using the Bluebeam PDF printer and plugins

The Bluebeam PDF printer and plugins for Microsoft® Office® can be used to create PDF files using the information below.

> *Note: Neither the Bluebeam PDF printer or the Bluebeam plugins for Microsoft Office are certified or officially supported; however, there are some users who are successfully using them in these environments.*

The Bluebeam PDF printer and plugins create temporary files during the creation process. The user must have permissions to these locations so PDFs can be created.

Bluebeam PDF printer:

> *%AllUsersProfile%\ Bluebeam Software\Print Jobs*
>   or
> *C:\Users\All Users\Bluebeam Software\Print Jobs*

Office plugins create files in the above folder and:

> *%TEMP%\Bluebeam Software*

Published Desktop

When running Revu as part of a published desktop, all features – such as PDF creation and application plugins – operate and behave in the same way as when installed on a physical system.

Published Application

When running in a Citrix-published application environment, the Revu application (Revu.exe) is the only application in the Revu suite that is certified. Additional steps need to be taken to enable and manage processes outside of the Revu application, such as PDF creation via the Bluebeam PDF printer and plugins for Microsoft Office.

> **Note:** *The CAD plugins are not supported in a published application environment.*

Plugins for Microsoft Office

The plugins for Word, Excel, PowerPoint and Outlook can be used in a published app environment if Office and Revu are both installed on the same server; however, they are not officially supported.

Enabling the PDF Printer

The Bluebeam PDF printer and some versions of the plugins for Microsoft Office (see above) rely on the Print Monitor (BBPrint.exe), which is a separate application that's always running in the background when Revu is installed on a desktop system. In a published app environment, the BBPrint.exe application must be running as the user and available to the application using the printer or plugin.

An instance of BBPrint can be started with the application by using a script to launch BBPrint and the application together, or BBPrint can be started using a login script.

Starting BBPrint with the published application

One way is to start this process with a script when a user launches a published application. For example, point the command line for the published application (in this example, PowerPoint) to a .bat file containing commands to launch BBPrint.exe and the application. Below are examples that show starting different versions PowerPoint with BBPrint.exe:

Revu 2018 and PowerPoint 2016:

```
start "PrintMon" "C:\Program Files\Bluebeam Software\Bluebeam Revu\2018\Revu\BBPrint.exe"

start "PowerPoint" "C:\Program Files\Microsoft Office\Office16\PowerPnt.exe"
```

Starting BBPrint in a Login Script

Another option is to start BBPrint.exe as part of a user's login script so that BBPrint, Bluebeam PDF printer and plugins are always available.

Because there are numerous ways to configure and manage a server, there is no single way that will work for every use case. These suggestions are meant to educate server administrators about how the printer and plugins work so you can implement the best solution for your environment.

> **Note:** *In a published application environment, there will be instances of BBPrint.exe running for each logged in user.*

Restricting Access to Markup Mode

To set any or all of your users' Revu installations to only enable View Mode (Revu 2018.1 and above), create a new DWORD registry key called ViewModeOnly in "HKEY_CURRENT_USER\Software\Bluebeam Software\2018" and set the value to 1.

When Revu launches in this state, the Markup Mode and Register/Unregister options in the Revu menu will be hidden.

> **Note:** *Setting the key Value to 0 or deleting it altogether enables the option for the user to enter Markup mode.*

Disabling Plugins for Microsoft Office for Non-Bluebeam Users

If there are some Citrix users that should not have access to these plugins, they can be disabled globally for those users to prevent them from loading the plugins. Blocking a user's read access to the following registry keys will stop the plugins from loading.

Revu 2018

Office 32-bit

Word: HKEY_LOCAL_MACHINE\SOFTWARE\Classes\WOW6432Node\CLSID\{A60EF190-192B-42CE-A5B3-40935DD42018}\ InprocServer32

Excel: HKEY_LOCAL_MACHINE\SOFTWARE\Classes\WOW6432Node\CLSID\{B5352C6B-5F84-4A81-A7F5-C63A83692018}\InprocServer32

PowerPoint: HKEY_LOCAL_MACHINE\SOFTWARE\Classes\WOW6432Node\CLSID\{26CE225D-AA52-4337-B8D4-3089C0312018}\InprocServer32

Outlook: HKEY_LOCAL_MACHINE\SOFTWARE\Classes\WOW6432Node\CLSID\{D00818B2-EB9F-4D2C-8F53-75413C9B2018}\InprocServer32

Office 64-bit

Word: HKEY_LOCAL_MACHINE\SOFTWARE\Classes\CLSID\{A60EF190-192B-42CE-A5B3-40935DD42018}\ InprocServer32

Excel: HKEY_LOCAL_MACHINE\SOFTWARE\Classes\CLSID\{B5352C6B-5F84-4A81-A7F5-C63A83692018}\InprocServer32

PowerPoint: HKEY_LOCAL_MACHINE\SOFTWARE\Classes\CLSID\{26CE225D-AA52-4337-B8D4-3089C0312018}\InprocServer32

Outlook: HKEY_LOCAL_MACHINE\SOFTWARE\Classes\CLSID\{D00818B2-EB9F-4D2C-8F53-75413C9B2018}\InprocServer32