

AS463328

New, Faster Install Experience to Speed Up Workflows

Danny Polkinhorn
Autodesk

Learning Objectives

- Understand why we built a new installer
- Workflows for installing Autodesk software
- Building a deployment for multiple computers
- Tips to help you get the most out of your deployments

Description

As part of our 2022 product releases, many products will include a faster install and easier deployment experience that will automate critical updates, customize and streamline deployment, and let users get up and running instantly without any downtime. Come learn from an expert about the new install experience!

Speaker(s)

Danny has been involved with Autodesk technology for more than 30 years. He has expertise in a variety of Autodesk products (primarily Revit and AutoCAD), as well as training, installation and deployment, and application development experience. He is currently a Senior Product Manager on the Product Delivery team where he works on making installations and deployments of Autodesk's desktop products easier, faster, and more reliable.

Why We Built a New Installer

Challenges

Autodesk's previous installer technology was more than 15 years old. We performed user research sessions for more than 3 years before we embarked on replacing it with something new. We talked to Enterprise customers, customers who purchase and install Autodesk products on their own, and many in-between. There were several common challenges we kept hearing over and over that formed the basis for improvements we could make.

Downloading and installing Autodesk software is slow. Large products take too long to download because of all of the components within the product itself. After installing, customers found many things they didn't want that added to the install time and were taking space on the computer. The installer itself was inefficient at actually installing components, often decompressing files that needed to be decompressed again, or using older install technology that didn't take advantage of modern performance improvements.

There are way too many options during install. With so many choices, many customers would either just accept the defaults or only change a few settings before completing the install. However, they still needed to click through all the dialogs (12 or more in some cases). In addition, many of those settings are application settings and aren't relevant to the install experience.

Installation and uninstallation reliability could be improved. We have seen installations fail for a variety of reasons, some of which are related to application settings or third party applications, and others are simply due to the complexity of the product being installed. We encouraged product teams to reduce the complexity of their products and provide fewer components by combining functionality. Removing options from the installer also has the benefit of making those installs more reliable. When uninstalling the product, we want to make sure that we remove as much of the application and other components as possible leaving your machine as clean as it was before the install.

Technical Pillars

As we built our new installation technology, we wanted to address these challenges. These are the high-level guidelines we used to make decisions on improvements:

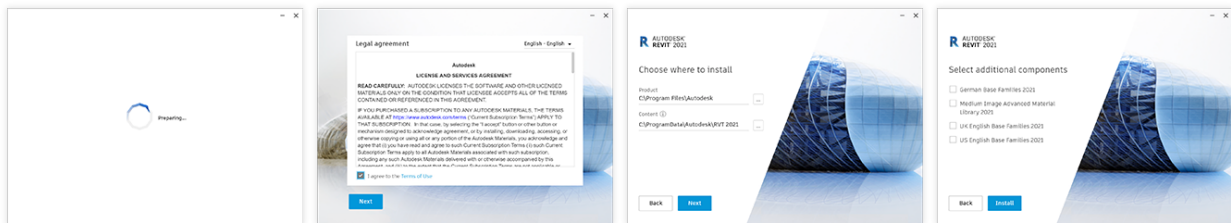
- **Modern Platform** – Evolve with the latest technology and modularize components for ease of install.
- **Simplify Install Logic** – Streamline the installation by moving application settings to run-time.
- **Streaming Delivery** – Deliver bits to customers as they need them, and only what they need.
- **Deployment** – Creation of uniform and optimized product packages with multiple products.
- **Updates** – Fluid delivery and installation of updates

Our vision is to provide an installation experience that is **faster**, **easier**, and **more reliable**. As we go through the workflows, you should get some insight into how we solved many of these

challenges in the new installation workflows as well as guidance on how to perform installations in your environment.

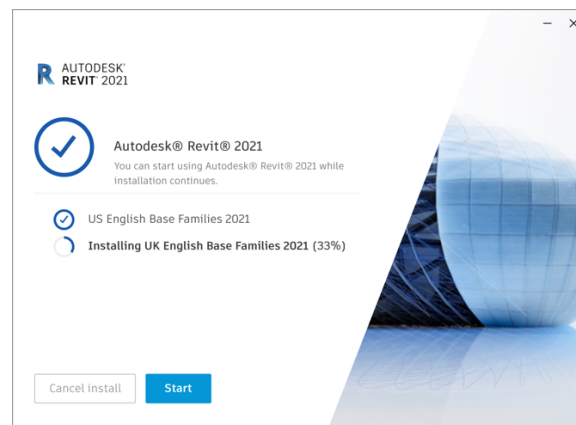
Workflows for Installing Autodesk Software

When downloading and installing a single product, you will find that the installer is much simpler over the older installer. In a Revit install for example, we reduced the number of dialogs from 12 to 5. Some products only have one or two dialogs. For each product you'll need to first accept the end user license agreement, choose an installation path and content location, then you have the ability to choose optional applications to include with your product. That's it.



DIALOGS SHOWING THE SEQUENCE OF AN INSTALL

You can start using most products before everything is even installed. Content is a great example of where this is beneficial. The core product can be installed and launched without content, and the application will function as expected. Content installing while the product is running is available when it is complete, but it doesn't block the product from running.



DIALOG SHOWING START BUTTON BEFORE INSTALL IS COMPLETE

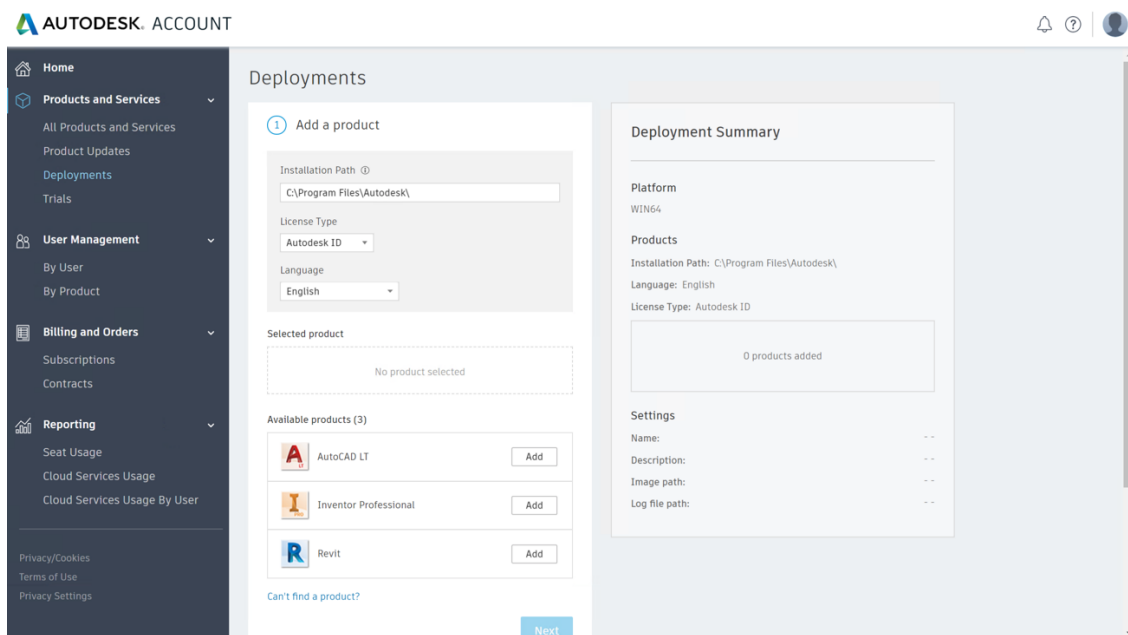
All of the products using the new installer have chosen default values for application settings for you. All default settings will be applied the first time you start using the product. If you want to change any of these settings you can do so within the product itself. If you want to create a custom installer to change application default settings yourself, such as those you've changed in past versions, you can find most of them in the "Custom Install" section of Autodesk account. We'll talk more about how to do this below.

This new installation workflow should provide you with a much faster easier and more reliable install.

Building a Custom Install or Deployment

By far the biggest change with our new installer is customizing installs and deployments. In prior releases we included the deployment wizard with the product download. Today, we have a new online configuration tool that allows you to pre-configure your products. If you want to create an installer with settings you're familiar with from prior installers, you can also use the online configuration tool for this purpose.

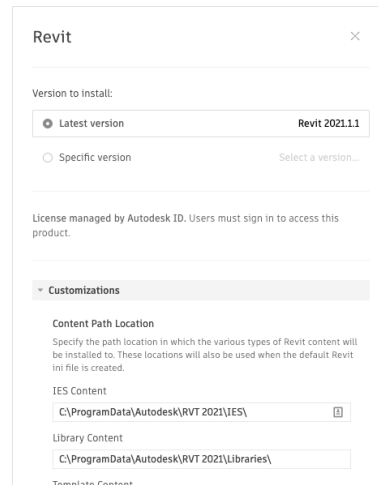
You might be wondering why we don't provide a deployment wizard as before. There are several reasons. First, as you can imagine, we needed a new wizard to partner with the new installer technology. We made the decision to build it as an online tool so that we could continuously add new features over time. With the old deployment wizard, we could only provide new functionality on an annual basis. Also, with the online tool, we can create new features that were not possible before, such as the ability to automatically include updates in the deployment. We have big plans for new capabilities in the future as well. Also, we now have the ability to create multi-product installs that allow you to install as many products as you want in a single deployment or installer. Multi-product installs will install each product sequentially and in the correct order so that any dependencies are resolved at install. You don't need to choose the installation order yourself because we are aware of the dependencies between products. Let's take a look at how to create an installer.



VIEW OF THE AUTODESK ACCOUNT PORTAL SHOWING THE DEPLOYMENT CONFIGURATION TOOL

1. Log in to manage.autodesk.com
2. Choose the Deployment option in the left navigation. Note that currently you need to be an administrator in your Account to see this item.
3. If you have more than one license type (Autodesk ID, Network, Standalone), you'll need to pick one to use.

4. Select the product or products you want to include in the installer by checking the box next to each product icon.
5. As you select each item, you will see a customization panel appear on the right. Here are some things you will see in this panel, depending on the product and license type.



CUSTOMIZATION PANEL FOR REVIT

- a. Updates – you have the ability to choose exactly the version you want to include. By default, we give you the latest version. You can also specify a different version.
 - b. Serial Number and Product Key
 - c. Product Settings – Default application settings are shown under the Customization section where you can change them, and these will be specific to the selected product.
 - d. Extensions – This section will show any optional applications and extensions you may want to include in the installer. These extensions provide additional features for the application.
 - e. Content – This section will allow you to select Autodesk content to include. Often, you will see regional content in this section as well.
 - f. Language Packs – For products that use language packs, you can now include as many as you want within a single installer. You no longer need to create an installer for each language.
 - g. Plugins – These are like extensions, but are installed into other products, and often provide interoperability workflows, such as Object Enablers or applications like the Vault Client for Microsoft Office.
6. When you are finished configuring products, click the Next button in the left panel.
 7. Choose whether you want to create an Installer or a Deployment. Installers are for installing on a single machine, and Deployments are best for installing on multiple machines. If you choose the Deployment option, you'll also need to provide a name for the deployment image and a location where you want to store it.
 8. If you accept the Terms of Use, check the checkbox.
 9. Click Install or Create (for Deployments)
 10. A very small file will download that contains the configuration. Run this file to begin creating the local installer or deployment.

Tips to help you get the most out of your deployments

Including Updates

In the past, you had to hunt around Autodesk Account for product updates to include in your deployment. Now, with the new online tool, all you have to do is select the version of the product you want, and we will automatically include the updates necessary to get that version installed on the computer. By default, the latest version of the product available is selected. You can even re-run the deployment install on a machine that already has an earlier version of the product, and it will only run the updates needed and exit quickly.

If you have an existing deployment image locally on your network/computer, you can easily update it with new settings or product updates, or even including new extensions. Just create a new configuration online and specify the same deployment image path. When you run the file that downloads (step 10 above), the tool will look at what's already in the image folder, only download the differences, and update the configuration to install them.

Desired State

The new deployment images are like a “desired state” of an installation. You’ve added products, updates, extensions, etc and added your desired configuration settings. When you deploy it to your computers, the installer will make sure that it matches this state.

If you update the deployment by adding product updates or changing configuration, you can re-run that deployment on your machines, and it will update them to match the new state of the deployment. If a computer is already up to date, or matches the state of the deployment already, the deployment installer will exit quickly. This makes it easy to keep all your computers up to date with the settings you want.

Using Deployment Tools like SCCM

At the end of the deployment configuration and creation process, you will have a deployment image on your local network/computer. You can ingest this deployment as is into any of your existing deployment tools. We have included a batch file which contains command lines for installing and uninstalling. The default option if you double-click the batch file is to install the deployment with a minimal UI showing only a progress bar. There is a silent script that is commented out along with the uninstall command.

For products that have full update installers instead of patch updates, such as Maya and 3ds Max, you will need to use the full installer in your SCCM package. This means that you will have the full size of the installer to sync to your distribution points and individual computers. Consider this in your planning.

For products that have patch updates, we recommend continuing your current process of creating a deployment with the Release version (or .0) of the product, and create a separate SCCM package that contains just the patch update.

Moving the Deployment, Offline Deployments, and Dark Sites

The deployment image created locally is completely self contained and no longer needs a connection to Autodesk. Further, only the batch file mentioned above has any reference to the original location where the deployment image was created. Edit the batch file to remove the reference to the original location, and replace it with the new location, or a relative path. You can also then move this deployment to an offline network or dark site.

Additional Help

Products using this new installation workflow have a common set of instructions in their online help showing how to prepare for a deployment, create or modify them, and a section for SCCM-specific help. It is the same content, regardless of the product. [Here's an example within the 3ds Max help.](#)