Autodesk SketchBook Designer2012

Autodesk®

Contents

Introduction Installing SketchBook Designer

Before you begin: checklist

Review the following checklist before installing and licensing SketchBook Designer.

- **Review the requirements section for your platform:**

  System requirements (Windows) (page 3)

  The most up-to-date information on specific hardware system qualifications for your computer can be found on the Autodesk Web site:

  http://www.autodesk.com/qual-charts

  Your computer system must meet specific hardware and software requirements for you to successfully install and run SketchBook Designer.

  Autodesk does not support hardware and software configurations that do not meet these requirements.

- **If you do not have administrator privileges on your computer, contact your system administrator.**

  You must have administrator privileges to install SketchBook Designer. (You do not need to be an administrator to launch SketchBook Designer after it has been installed.)

- **Uninstall SketchBook Designer before installing the same SketchBook Designer version as the one installed. See**

  Uninstall SketchBook Designer (page 15)

  If you have a previous version of SketchBook Designer on your system, you can choose to keep it or uninstall it. However, you must uninstall before installing the same SketchBook Designer version as the one installed.

- **Before installing:**
  - **Close all programs**

  - **Disable any virus detection software**

  To avoid any conflicts when installing SketchBook Designer, we recommend that you close all other programs and disable virus detection software before launching the installer.

- **Determine how you will implement licensing.**

  During the installation process, you must enter your license type and license information to initialize the process. Will the licensing be local to the machine or are you using a license server? For more information, see Licensing SketchBook Designer (page 17).

You are now ready to install SketchBook Designer. Please follow your platform-specific installation instructions:

Installing SketchBook Designer for Windows (page 3)

Installing SketchBook Designer for Windows

2

Installing SketchBook Designer for Windows

This chapter describes the prerequisites for installing and describes how to install SketchBook Designer for Windows, as well as uninstalling and options.

This chapter also includes information for installing SketchBook Designer for AutoCAD.

NOTE

These general instructions apply to all products in the installer, but add-ins for other applications that are included with this installer may have different system and installation requirements. This installer will not install the required host applications for these items.

To prepare for installation, you should review the system requirements, understand administrative permission requirements, locate your SketchBook Designer serial number and product key, and close all running applications. Complete these tasks, and you are ready to begin installing SketchBook Designer.

System requirements for Windows

Autodesk certifies certain system configurations as meeting the requirements to work with SketchBook Designer software. Check that your system meets the following minimum requirements.

NOTE

The system requirements for SketchBook Designer for AutoCAD are identical to the host version of AutoCAD. The following system requirements only apply to SketchBook Designer.

You can examine your system capabilities using system diagnostic tools. Select **Start > Programs > Accessories > System Tools > System Information**.

Hardware requirements

■ An 800MHz CPU

■ 2 GB RAM (4 GB or more is highly recommended)

■ A DVD-ROM drive on this machine or a shared DVD drive accessed via a networked mapped drive

■ An input device for drawing and sketching. Intuos 3 or higher tablet or Wacom Cintiq® active tablet highly recommended, using a tablet driver of 6.1.2-5 or higher.

Graphics requirements

DirectX 9.0 capable graphics card with 256 MB or greater dedicated video memory with a minimum screen resolution of 1280 x 1024 with True Color or 32-bit Color.

See Set up your graphics card (Windows) (page 5).

Operating system requirements

■ Microsoft® Windows Vista® Enterprise Service Pack 2 (SP2), 32-bit and 64-bit

■ Microsoft® Windows Vista Business Service Pack 2 (SP2), 32-bit and 64-bit

■ Microsoft® Windows Vista Ultimate Service Pack 2 (SP2), 32-bit and 64-bit

■ Microsoft® Windows 7 Enterprise 32-bit and 64-bit

■ Microsoft® Windows 7 Ultimate 32-bit and 64-bit

■ Microsoft® Windows 7 Professional 32-bit and 64-bit

■ Microsoft® Windows® XP Professional Service Pack 2 (SP2) or later, 32-bit and 64-bit Edition*****

*Certain elements of the application will have a different appearance when compared with Windows Vista or Windows 7.

■ Microsoft Windows® XP, Windows® Vista, Windows® 7

> **NOTE** The installer will automatically detect whether your system is 32 or 64-bit, and will install the appropriate version of the software. The 32-bit software version cannot be installed on a 64-bit OS.

Disk space requirements

■ 5 GB of hard drive space for installation

Other software

■ Autodesk AutoCAD 2011 is required to install and use the SketchBook Designer for AutoCAD add-in. For more information on the add-in and on AutoCAD software, see *http://www.autodesk.com/autocad*

■ Adobe® Acrobat® Reader version 6 or higher, is required to view the PDF documentation. You can download a free copy of Acrobat Reader from *http://www.adobe.com*.

■ Microsoft Internet Explorer® 6 or later Web browser is required to view the online help.

■ Flash plug-in to view animated tutorial sequences in your browser. Free plug-ins are available from *http://www.flash.com*.

■ If a Wacom table is being used, update to the latest Wacom driver software (*http://www.wacom.com*).

Graphics card setup

The graphics display performance in SketchBook Designer depends on the quality of your graphics card and on the option settings in the Display Properties window of your graphics card.

To learn the option settings for graphics cards that are certified for use with SketchBook Designer, see the latest qualification chart, at *http://www.autodesk.com/qual-charts*.

If your graphics card is not certified, perform the following steps. These steps offer general guidelines only because each manufacturer has a unique set of display options.

To set up your graphics card.

1 Right-click your desktop, select **Properties**, then select the **Settings** tab in the **Display Properties** window.

2 From the **Color quality** menu, select 32-bits of color for best color quality in displayed images.

3 Drag the **Screen resolution** slider to the best display resolution supported by your hardware. The higher you set the display resolution, the more graphics card main memory you need. This is called VRAM on some computers.

Administrative Permission Requirements

To install SketchBook Designer, you must have administrator permissions. You do not need to have domain administrative permissions. See your system administrator for information about administrative permissions.

You do not need administrator permissions to run SketchBook Designer. You can run the program as a limited user.

Locating Your Serial Number and Product Key

When you install SketchBook Designer, you are prompted for your serial number and product key in the Product and User Information page, or the option of installing the product in trial mode. You may enter your product information at any time during your trial mode period if you opt to install the product in that mode.
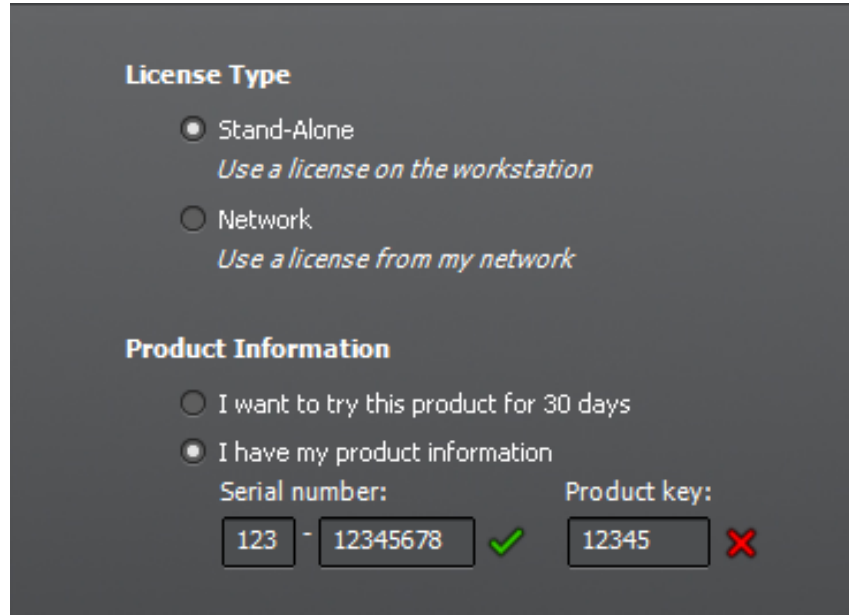
NOTE The licensing and activation of both SketchBook Designer and the add-in SketchBook Designer for AutoCAD is shared. Activating one will automatically activate the other. Also, their trial periods are linked, so that a trial for one will start the trial period for the other, even if it is not yet installed.

The serial number and product key are located on the outside of the product packaging, or in the Autodesk Upgrade and Licensing Information email. Make sure to have these available before you install the program so that you don't have to stop in the middle of the installation.

The serial number must contain a three-digit prefix followed by an eight-digit number. The product key consists of five characters.

License Type

○ Stand-Alone
   Use a license on the workstation

○ Network
   Use a license from my network

Product Information

○ I want to try this product for 30 days
● I have my product information
   Serial number: Product key:
   [123] - [12345678] ✓   [12345] ✗

NOTE When you enter the serial number and product key, if you make a mistake, an X will appear next to the entry. If it's correct, a check appears.

The information you enter is permanently retained with the product. Because you can't change this information later without uninstalling, take care when entering the information. To review this product information later while the product is running, on the InfoCenter toolbar, click the drop-down arrow next to the Help button (the question mark). Then click About SketchBook Designer.

NOTE If you have lost your serial number or product key, contact the Autodesk Business Center (ABC) at 800-538-6401 for assistance.

Installing and Running the Product

To use the product, you must install the product, register and activate it, and then launch it. You must have administrative permissions to install SketchBook Designer.

NOTE

SketchBook Designer for AutoCAD 2012 requires that AutoCAD 2012 already be installed on the system for this software to be installed.

This section provides instructions for installing and activating SketchBook Designer for an individual user on a stand-alone computer. For information about installing network-licensed versions of the program, see Network Licensing (page 28).

Installing SketchBook Designerand SketchBook Designer for AutoCAD

The SketchBook Designer Installation wizard contains all installation-related material in one place. From the Installation wizard, you can access installation documentation, change the installer language, select a language for your product (if supported), and install supplemental tools.

■ **Review the installation documentation.** It is recommended that you take the time to familiarize yourself with the complete installation process before you install SketchBook Designer. You can access information on installation from the installation wizard by selecting the *Read this Documentation* option, the *Documentation and information* links on the install dialogs, or through the Help system.

For late-breaking information, it is also recommended that you review the product *Readme*.

To install SketchBook Designer using default values on a stand-alone computer

Using the default installation settings is the fastest way to install SketchBook Designer on a single, stand-alone system. A default installation does the following:

■ Uses a Typical installation, which installs the most common application features.

■ Installs SketchBook Designer to the default install path of *C:\Program Files\Autodesk\ SketchBook Designer2012*.

■ Installs SketchBook Designer for AutoCAD to the default install path of *C:\Program Files\Autodesk\ SketchBook Designer for AutoCAD*2012

　1 Start the SketchBook Designer Installation wizard.

2 On the initial page, select a language for Product language. Click Install.
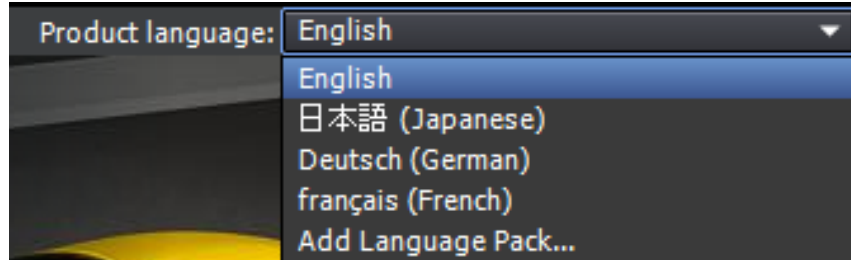
3 On the Select the Products to Install page, select your product(s) and the product language. Click Next.

4 Review the Autodesk software license agreement. Click I Accept, and then click Next.

5 On the Product Information page, enter your user information, serial number, and product key. Click Next.
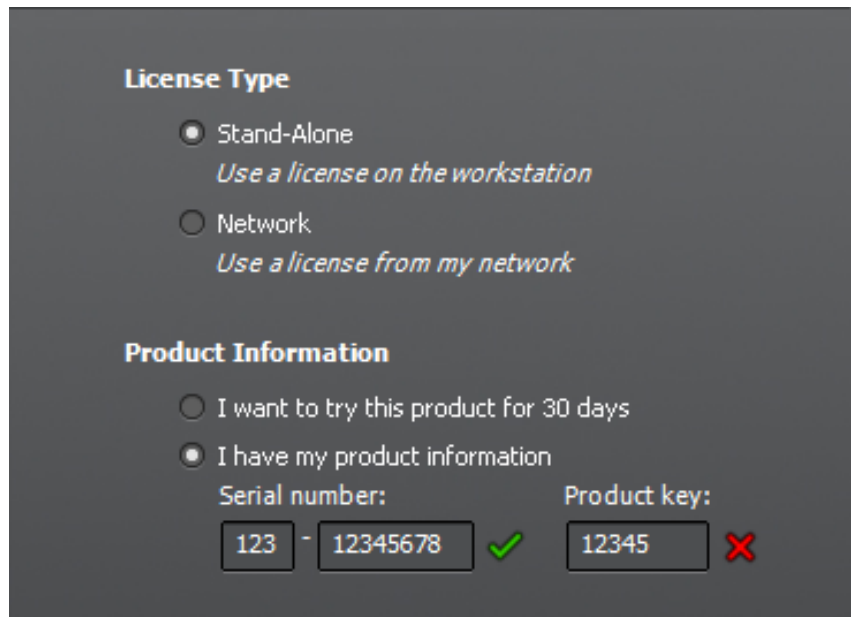
NOTE When you enter the serial number and product key, if you make a mistake, an X will appear next to the entry. If it's correct, a check appears.

WARNING After you click Next, you cannot change the information entered on this page unless you uninstall the product.

6 On the Begin Installation page, select Install, then select Yes to the configuration warning message. This will install the product with the default configuration.
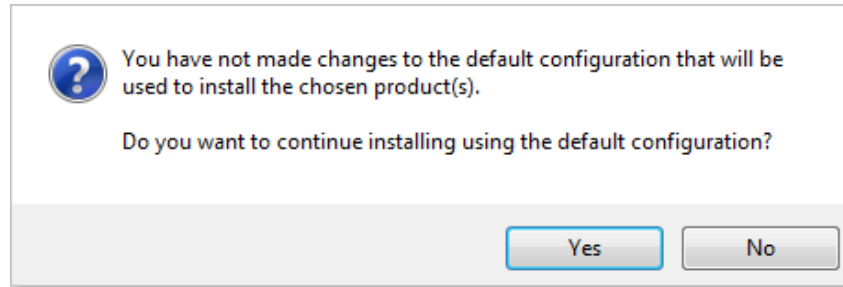
7 On the Installation Complete page, you can view the installation log and SketchBook Designer Readme.

8 Click **Finish**.

To install SketchBook Designer using customized values on a stand-alone computer

With this method, you can customized your installation.

1 Start the SketchBook Designer Installation wizard.

2 On the initial page, select a language for the Product language. Click Install.

3 On the Select the Products to Install page, select your product(s) and the product language. Click Next.

4 Review the Autodesk software license agreement. Click I Accept, and then click Next.

5 On the Product Information page, enter your user information, serial number, and product key. Click Next.

WARNING After you click Next, you cannot change the information entered on this page unless you uninstall the product.

6 On the Begin Installation page, click Configure.

7 On the Select the Installation Type page, specify the following:

- *Installation Type*. Select Typical to install the most common application features. Select Custom to install only the application features that you select from the Select Features to Install list.

- *Create the Desktop Shortcut for SketchBook Designer* - <Language>. Clear the check box if you do not want to create a shortcut to the program.

- *Product Install Path* - Specify the drive and location where you want to install SketchBook Designer.

Click Next.

8 On the Include Service Pack page, specify whether to include available service packs. The installer automatically checks *autodesk.com* for available updates.

9 Click another product tab to configure another product, or click Next and then Configuration Complete to return to the Begin Installation page. Click Install.

NOTE To retain a copy of your configuration settings, click Copy to Clipboard.

10 On the Installation Complete page, you can view the installation log

11 Click Finish.

You have successfully installed SketchBook Designer. You are now ready to register your product and start using the program. To register the product, start SketchBook Designer and follow the on-screen instructions.

Activate the software from a serial number

The first time you launch SketchBook Designer, the product activation window appears.

1 Click **Enter Serial Number** to enter your serial number and product key.

WARNING When pasting the serial number emailed to you, ensure there are no spaces anywhere within, before, or after the number. A space will cause the installation to fail. If in doubt, manually enter the serial number.

2 Click **OK**.

Entering a serial number

Besides going through the procedure above, there is another place where a serial number can be entered.

1 Select **Help > Enter Serial Number** to open the SketchBook Designer Product Activation window.

2 Enter the serial number and product key from the product packaging or online purchase confirmation, then click **OK**.

NOTE If you don't have a serial number, you can still use SketchBook by clicking **Use Trial** to install a 15 non-consecutive day trial version.

Register and Activate SketchBook Designer

The first time you start SketchBook Designer, the Product License Activation wizard is displayed. You can either activate SketchBook Designer at that time, or Try SketchBook Designer and activate it later. Until you register and enter a valid activation code for SketchBook Designer, you are operating the program in *trial mode* and the Product License Activation wizard is displayed for 30 days from the first time that you run the program.

If after 30 days of running SketchBook Designer in trial mode you have not registered and provided a valid activation code, your only option is to register and activate SketchBook Designer. You will not be able to run in trial mode after the 30 days expires. Once you register and activate SketchBook Designer, the Product License Activation wizard is no longer displayed.

NOTE

The licensing and activation of both SketchBook Designer and the add-in SketchBook Designer for AutoCAD are shared. Activating one will automatically activate the other. Also, their trial periods are linked, so that a trial for one will start the trial for the other, even if not yet installed.

The fastest and most reliable way to register and activate your product is by using the Internet. Simply enter your registration information and send it to Autodesk over the Internet. Once you submit your information, registration and activation occur quickly.

To register and activate SketchBook Designer

1   Do one of the following:
    ■   (Windows XP) Click Start menu ➤ Programs ➤ Autodesk ➤ *SketchBook Designer* ➤ *SketchBook Designer* .

    ■   (Windows Vista and Windows 7) Click Start menu ➤ All Programs ➤ Autodesk ➤ *SketchBook Designer* ➤ *SketchBook Designer* .

    ■   If the SketchBook Designer for AutoCAD add-in is installed, you must launch AutoCAD to access the add-in.

        NOTE

        Registering and activating either SketchBook Designer or SketchBook Designer for AutoCAD will register and activate both products on your system, even if they are installed at different times.

2   In the SketchBook Designer Product License Activation wizard, select **Activate**, and then click **Next**.
    This starts the activation process.

3   Click **Register and Activate** (Get an Activation Code).

4   Click **Next** and follow the on-screen instructions.
    If you do not have Internet access, or if you want to use another method of registration, you can register and activate SketchBook Designer in one of the following ways:

Email Create an email message with your registration information and send it to Autodesk.

Fax or Post/Mail Enter your registration information, and fax or mail the information to Autodesk.

Launch SketchBook Designer

Assuming that you followed all of the previous steps outlined in this installation section, you can launch SketchBook Designer and start taking advantage of its new and updated features. For more detailed information about the new features, learning videos, online Help, or SketchBook Designer services and support, see the Welcome screen after you launch the product.

You can start SketchBook Designer in the following ways:

■ **Desktop shortcut icon.** When you install SketchBook Designer, an SketchBook Designer shortcut icon is placed on your desktop unless you cleared that option during installation. Double-click the SketchBook Designer icon to start the program.

■ **Start menu.** On the Start menu (Windows XP), click Programs or (Windows Vista and Windows 7) All Programs ➤ Autodesk ➤ *SketchBook Designer* ➤ *SketchBook Designer* .

■ **Location where SketchBook Designer is installed.** If you have administrative permissions, you can run SketchBook Designer in the location where you installed it. If you are a limited-rights user, you must run SketchBook Designer from the Start menu or from the desktop shortcut icon. If you want to create a custom shortcut, make sure that the Start In directory for the shortcut points to a directory where you have write permissions.

Launch SketchBook Designer for AutoCAD

If you have installed SketchBook Designer for AutoCAD, you must launch AutoCAD first to use the add-in and its features. For more detailed information about the features, including learning videos, or SketchBook Designer for AutoCAD services and support, see the Online Help after you launch the product.

Uninstall SketchBook Designer

When you uninstall SketchBook Designer, all components are removed. This means that even if you've previously added or removed components, or if you've reinstalled or repaired SketchBook Designer, the uninstall removes all SketchBook Designer installation files from your system.

To uninstall SketchBook Designer

1 Do one of the following:
   - (Windows XP) Click Start menu ➤ Settings ➤ Control Panel ➤ Add or Remove Programs.
   - (Windows Vista and Windows 7) Click Start menu ➤ Control Panel ➤ Programs and Features ➤ Uninstall or Change a Program.

2 Then, do one of the following:
   - (Windows XP) In the Add or Remove Programs window, select SketchBook Designer, then click Change/Remove.
   - (Windows Vista and Windows 7) In the Uninstall or Change a Program window, select SketchBook Designer, then click Uninstall.

   The SketchBook Designer Installation wizard re-opens in Maintenance mode.

3 Click Uninstall.

4 On the Uninstall *SketchBook Designer* page, click Next to remove SketchBook Designer from the system.

5 When informed that the product has been successfully uninstalled, click Finish.

NOTE Even though SketchBook Designer is removed from your system, the software license remains. If you reinstall SketchBook Designer at some future time, you will not have to register and re-activate the program.

Installing Multiple or Bundled Products

Some Autodesk packages are comprised of multiple products or are part of multi-product bundles.

In the installation wizard, for packages containing multiple products, you can choose which products and languages you want to install. During the install

process, you are informed whether a copy of the software is already installed. You are also warned if your system does not meet the minimum system requirements for the product. Each product name is displayed on its own tabbed panel; you can configure them individually.

If you purchased a package that is a multi-product bundle, such as an educational or institutional package, you may have a package that includes several Autodesk products. For these bundled packages, an Installer disc contains information for all the products in the package. The Installer disc helps you install all of the products.

Licensing SketchBook Designer

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Licensing SketchBook Designer

This chapter describes how to receive and install a license, for either a stand-alone installation or in a network-licensed installation.

NOTE These instructions apply to both SketchBook Designer and SketchBook Designer for AutoCAD. The availability of particular license types for each product may vary.

License Types and Behaviors

Autodesk provides two main types of licenses:

- A **stand-alone license** supports one or more Autodesk products for an individual user. Similarly, a multi-seat stand-alone license supports a specific number of users. While the software can be installed on additional computers in your facility, the licensed number of users cannot be exceeded.

- A **network license** supports a specific maximum number of users who are connected to a network. A software utility known as the Network License Manager (NLM) issues licenses to users, up to the number of licenses purchased. At this point, no more computers can run the Autodesk product until a license is returned to the NLM.

Autodesk supports dynamic product usage and license behaviors. You can purchase a specific type of behavior with a specific license and change that license at a later date without having to uninstall and reinstall the Autodesk product.

License usage types

NOTE All license types are available as stand-alone and network except for the Student Portfolio license, which is available as stand-alone only.

Commercial A license for a product that was purchased commercially.

Not for Resale A license for a product that is not sold commercially.

Educational (EDU)/Institution A license designed specifically for educational institutions.

Student Portfolio A license for students who are using an Autodesk product as part of their curriculum.

License behaviors

Trial A license that allows individuals to run a product or suite in trial mode for a specified time period, usually 30 days. The trial period starts the first time you launch the product, or one of the products in the suite. You can activate and register the license at any time, before or after the trial period expires.

Permanent Allows permanent use of an Autodesk product.

Term Extendable Allows access to an Autodesk product for a limited time. The term can be extended at any time.

Term Non-Extendable Allows access to an Autodesk product for a limited time. The term cannot be extended.

Activation

You can activate your Autodesk product either on startup or while you are running the product. Click **Getting Started ➤ Help ➤ About ➤ Product Information**.

When you activate your product, you receive an activation code. If you activate through an Internet connection, your activation code is automatically retrieved from Autodesk and the product starts. If you do not have an active Internet connection, some products provide instructions for offline registration. Otherwise, you need to connect to the Internet to activate the product.

If you upgrade your product from an earlier version, you may need to provide your old serial number. For more information on activation, go to *Autodesk Licensing* and select the FAQ link.

NOTE If you are installing and using an Autodesk product on both operating systems of a dual-boot operating system, you must obtain a separate activation code for each operating system.

Registration

Depending on your product, registration is optional or required. If required, you are prompted to create an Autodesk User ID associated with an individual or company account. If registration is optional, you can choose to postpone it, and you will be reminded periodically to register. The Autodesk website where you register products is *https://registeronce.autodesk.com*.

Stand-Alone Licensing

A stand-alone license allows you to run an Autodesk® product on a single workstation.

Introduction

A stand-alone license authorizes a single user to use the specified Autodesk product. The product can be installed on more than one computer, but multiple instances of the same product cannot be running concurrently on different computers.

NOTE

The licensing and activation of both SketchBook Designer and the add-in SketchBook Designer for AutoCAD on a single Windows workstation are shared. Activating one will automatically activate the other. Also, their trial periods are linked, so that a trial for one will start the trial for the other, even if not yet installed.

Stand-alone licensing allows you to use your Autodesk product in trial mode for a specified period, usually 30 days, from the first time you start the product. For a product suite, the trial period countdown begins when the first product

is started, and it applies to all Autodesk products in the suite. You can activate your license at any time before or after the trial period expires.

The licensing process creates a license file and a minor change to the computer's file system. These changes remain on your computer when you uninstall your product. If you reinstall your Autodesk product on the same computer, the license remains valid. You do not have to reactivate the product.

Manage Your Stand-Alone License

This section provides information about advanced stand-alone licensing tasks such as license types and behaviors, viewing product information, saving your license file as a text file, updating your serial number, and transferring a license.

View Product License Information

You can view detailed information about your Autodesk product license, such as the license usage type and the license behavior.

To view product license information

1 Start your Autodesk product.
2 Click **Getting Started ➤ Help ➤ About ➤ Product Information**.

Save License Information as a Text File

You can view detailed information about your Autodesk product and your product license (such as the license usage type and the license behavior), and then save this information as a text file for future reference.

To save license information as a text file

1 Start your Autodesk product.
2 Click **Getting Started ➤ Help ➤ About ➤ Product Information**.
3 In the Product License Information dialog box, click Save As.
4 In the Save As dialog box, name the file, choose a location where you want to save the file, and then click Save.
5 In the Product License Information dialog box, click Close.

Update Your Serial Number

You typically update your serial number for a stand-alone license when you purchase a new license in order to change the license type or behavior. For example, you would do this if you want to convert an educational license to a commercial license, or if you want to extend the term of a term extendable license. When you update a license, you do not need to uninstall and reinstall the product. The new license includes a new serial number that you enter into the Product License Information field.

Your serial number is located on the outside of the product packaging or in the *Autodesk Upgrade and Licensing Information* email you received when you downloaded your product.

When you register and activate your product, your serial number is submitted to Autodesk over the Internet, if a connection is available.

If you have a suite of products that use a single serial number, only the first product you register and activate displays the updated serial number. For other products to display the serial number, you must update them from the Help menu.

To update your serial number

1 Start your Autodesk product.

2 Click **Getting Started ➤ Help ➤ About ➤ Product Information**.

3 In the Product License Information dialog box, click Update.

4 In the Update the Serial Number dialog box, enter your product serial number.

   NOTE If you have lost your serial number, go to *www.autodesk.com/contactus* for assistance.

5 Click OK. The updated serial number is displayed.

   NOTE In some cases, you must restart the product to display the updated serial number.

6 In the Product License Information dialog box, click Close.

Transfer Your Stand-Alone License

You can use an Autodesk product on more than one computer without purchasing a separate license for each computer. License transfers are only supported for products that require the creation of an Autodesk ID as part of the registration and activation process.

About the License Transfer Utility

The License Transfer Utility is used only with stand-alone licenses. It transfers a product license online from one computer to another, and ensures that the product works only on the computer that contains the license. A single license applies to all products in a product suite. When you transfer the license, any installed products of the suite are disabled on the exporting computer, and enabled on the importing computer.

For Windows-based products, you can install the License Transfer Utility from the Install Tools & Utilities tab of the installer.

IMPORTANT To transfer a license, the Autodesk product must be installed on both computers. In addition, you need an Internet connection, and an Autodesk user ID and password, available from the Autodesk Register Once website(*https://registeronce.autodesk.com*).

IMPORTANT If you are using Autodesk products on Mac OS X or Linux platforms, see your product appendix for more information on how to install and start the License Transfer Utility. After the utility is started, the procedures for exporting and importing licenses are the same on all platforms.

The License Transfer Utility is a custom stand-alone installation option. During installation, a shortcut is created. A shortcut is installed once per product, per computer.

You can transfer a license to another computer temporarily or permanently. For example, a temporary transfer enables you to use the Autodesk product on a mobile computer while your main computer is being repaired or replaced.

License transfers rely on the product serial number. Before an Autodesk license can be exported, it must be activated with the serial number and product key. During license import, a previously activated and exported license is imported to a product or suite installed with the same serial number. The activation is transferred to the importing computer, completing the license transfer.

The number of concurrent license exports allowed is equal to the number of seats you own. For example, if you own five seats you can have one export in progress at a time.

When you upgrade your Autodesk product, you can no longer perform online license transfers of the previous license.

Although the License Transfer Utility allows you to transfer your product license between computers, your license agreement may not allow the installation of an Autodesk product on more than one computer. Read your license agreement to find out whether your product license permits the use of the License Transfer Utility.

Install the Autodesk Product

Before you can use the License Transfer utility to transfer licenses, you must have an Autodesk product installed on all computers involved in the transfer.

To install the Autodesk product

1   Install and activate the Autodesk product on a computer. See the following for complete details:

    Installing SketchBook Designer for Windows (page 3)

2   Install the Autodesk product on any other computer that will be using the License Transfer Utility. You do not have to register or activate the product on this computer.

    See your product's installation instructions for complete details.

Export a License

A license is exported when the License Transfer Utility moves a product license from a computer to the online Autodesk server.

The license can be exported as public or private:
- **Public** means that anyone using the same serial number and their own user ID and password can import that license.
- **Private** means that you are reserving that license for yourself and the license can only be imported with the same serial number, user ID, and password that were used when it was exported.

If it has not been imported, a private license becomes public after 14 days.

NOTE

An Internet connection is required to export a license.

To export a license

1   On the computer where you want to export the license, do one of the following:
    ■   (Windows XP) Click Start ➤ Programs ➤ Autodesk ➤ *[Autodesk Product]* ➤ License Transfer Utility.
    ■   (Windows Vista) Click Start ➤ All Programs ➤ Autodesk ➤ *[Autodesk Product]* ➤ License Transfer Utility.

    The Export the License dialog box displays the Autodesk product name and serial number.

2   Click Sign In.

3   On the Log In page, enter your Autodesk user ID and password and click Log In.

4   On the License Export page, confirm the export information.

5   If you want to make the license available as a public import, click Make the license available as a public import.

6   Click Export.

7   On the License Export Confirmation page, click Finish.

Import a License

NO LABEL A license is imported when the License Transfer Utility moves a previously exported product license from the online Autodesk server to a computer. The import action completes the license transfer process, and transfers the product activation to the importing computer. The presence of an active license allows your Autodesk product to run on that computer.

NOTE

An Internet connection is required to import a license.

To import a license

1 On the computer where you want to import the license, do one of the
   following:

   ■ (Windows XP) Click Start ➤ Programs ➤ Autodesk ➤ *[Autodesk
     Product]* ➤ License Transfer Utility.

   ■ (Windows Vista) Click Start ➤ All Programs ➤ Autodesk
     ➤ *[Autodesk Product]* ➤ License Transfer Utility.

   The Import the License dialog box displays the Autodesk product name
   and serial number.

   NOTE If you are importing a license to replace a trial license, you will see
   the Update the Serial Number and Product Key dialog box. In this case, enter
   the required data, and then click Update.

2 In the Import the License dialog box, click Sign In.

3 On the Log In page, enter your Autodesk user ID and password and click
   Log In.

4 On the License Import Confirmation page, click Finish.

   The license is now imported to the computer and you can run your
   Autodesk product on this computer. If you want to transfer the license
   to another computer, repeat the export and import procedures.

To import a license to replace a trial license

1 On the computer where you want to import the license, do one of the
   following:

   ■ (Windows XP) Click Start ➤ Programs ➤ Autodesk ➤ *[Autodesk
     Product]* ➤ License Transfer Utility.

   ■ (Windows Vista) Click Start ➤ All Programs ➤ Autodesk ➤
     [Autodesk Product] ➤ License Transfer Utility.

   The Update the Serial Number and Product Key dialog box displays the
   Autodesk product name and serial number.

2 In the Update the Serial Number and Product Key dialog box, enter the
   serial number and product key to update your Autodesk product. Click
   Update.

   The Import the License dialog box displays the Autodesk product name
   and updated serial number.

3 In the Import the License dialog box, click Sign In.

4 On the Log In page, enter your Autodesk user ID and password and click Log In.

5 On the License Import Confirmation page, click Finish.

The license is now imported to the computer and you can run your Autodesk product on this computer. If you want to transfer the license to another computer, repeat the export and import procedures.

Troubleshoot a Stand-Alone License Error

When you activate your Autodesk product, only the computer that you used to activate the product is licensed to run the product. If you make certain changes to your computer, your stand-alone license might fail. You will receive a license error and you will not be able to use your product. This section discusses ways in which you can troubleshoot a license error.

Some license errors require you to reactivate your product. If you need to reactivate your product, the Product Activation wizard is displayed when you try to run the product. To reactivate your product, follow the instructions in the Product Activation wizard.

The following topics offer more details regarding specific errors.

Preserving a License When Hardware Changes

If you replace or reconfigure hardware on the computer where your Autodesk product license resides, the stand-alone license might fail, with the result that you will not be able to use your product.

To prevent damage to your product license, use the License Transfer Utility to export your license file before changing the hardware. After the hardware change, you can import the license file back. For information about using the License Transfer Utility, see About the License Transfer Utility (page 22).

NOTE If you get a license error when you change your hardware, you may have to reactivate your license. See Activation (page 18).

Reinstalling an Operating System

If you reinstall your operating system on the computer where your Autodesk license resides, the license might fail. You will not be able to use your product. To resolve a license error in this case, you must reactivate your product. See Activation (page 18).

NOTE The following procedure is for the Windows operating system. If you are running Autodesk products on Mac OS X or Linux platforms, see your product appendix for more information.

To prevent a license error when you reinstall an operating system

NOTE If using Norton Ghost or another image utility, do not include the Master Boot Record.

1 Locate one of the following folders and make a backup copy:
   - (Windows XP) C:\Documents And Settings\All Users\Application Data\FLEXnet
   - (Windows 7/Windows Vista) C:\ProgramData\FLEXnet

2 Reinstall the operating system and reinstall the Autodesk product.

3 Paste the license folder to the same location from which you originally copied the folder in step 1.

   You can now run your Autodesk product.

Changing the System Date and Time

Your product license allows for time changes to the system clock within two days of the current time. If you set your system clock back more than two days, the next time you start your product, you will receive a message that gives you the option of correcting the system clock. If you do not correct the system clock, you receive a license error.

To prevent a license error due to a change in system date and time, ensure that your computer's system date and time are accurate when you install and activate your Autodesk product.

Preserving a License on a Re-imaged Computer

On a network license server, licenses are maintained on the server. No additional steps are needed to preserve network licenses.

For a stand-alone license, you need to export the license before re-imaging the computer. You can use the License Transfer Utility to export the license to the Autodesk server. After the re-imaging, import the license to the correct computer.

Network Licensing

A network license allows you to run an Autodesk product on a network. Network licenses can be purchased through your Authorized Autodesk Reseller.

Setting up network licenses for an Autodesk product requires careful planning and execution. This section gives you instructions about how to set up a network licensed environment, and assumes that you are familiar with the terminology and processes required to set up an Autodesk product to run on a network.

Plan Your Network Licensing

This section contains information that you need to know before you set up a network license server. The section includes information about supported license server models, license operation and availability, network license file definitions and parameters, license file examples, license types and behaviors, and the license server heartbeat signal.

System Requirements for the Network License Manager (Windows)

Make sure that your network license server meets the minimum recommended requirements. See the following tables for hardware and software requirements.

NOTE

The Network License Manager supports Ethernet network configurations only.

Hardware and software requirements for the network license server (Windows)	
Hardware/Software	**Requirement**
Operating System	Windows® 7® 32-bit Windows 7 64-bit ■ Windows 7 Starter (32-bit) ■ Windows 7 Home Basic (32-bit) ■ Windows 7 Home Premium ■ Windows 7 Professional ■ Windows 7 Ultimate ■ Windows 7 Enterprise
	Windows Vista 32-bit SP2 or later Windows Vista 64-bit SP2 or later ■ Windows Vista Enterprise ■ Windows Vista Business ■ Windows Vista Ultimate ■ Windows Vista Home Premium and Basic (32-bit) ■ Windows Vista Home Premium (64-bit)
	Windows XP 32-bit SP2 or later Windows XP 64-bit SP2 or later ■ Windows XP Home ■ Windows XP Professional
	Windows Server 32-bit SP1 or later Windows Server 64-bit SP1 or later ■ Windows 2008 Server R2 ■ Windows 2008 Server ■ Windows 2003 Server R2

Hardware and software requirements for the network license server (Windows)	
Hardware/Software	**Requirement**
	■ Windows 2003 Server
Computer/processor	Intel® Pentium® III or higher 450 Mhz (minimum)
Network interface card	Compatible with existing Ethernet network infrastructure **NOTE** The Network License Manager supports multiple network interface cards, but at least one must be an Ethernet card.
Communication protocol	TCP/IP **NOTE** The Network License Manager uses TCP packet types.
Browsers	Internet Explorer® 6 Internet Explorer 7 Internet Explorer 8
FLEXnet	11.7.0.0

Virtual Machine Support (Windows)		
Hardware	**Virtualizer**	**Virtual OS**
Intel PC 64	Windows 2008 or Windows 2003R2 servers running on VM-ware® ESX3.5 Update 3 (License Manager Only)	Vista 64-bit, Vista 32-bit, Windows XP 32-bit, Windows 7 32-bit (Home Premium, Professional, Ultimate, and Enterprise), Windows 7 64-bit, Windows Server 32-bit, Windows Server 64-bit

System Requirements for the Network License Manager (Linux)

Make sure that your network license server meets the minimum recommended requirements. See the following tables for hardware and software requirements.

NOTE

The Network License Manager supports Ethernet network configurations only.

Hardware and software requirements for the network license server (Linux)	
Hardware/Software	**Requirement**
Operating system	Red Hat® Enterprise Linux 5.0 WS (U4)
Computer/processor	Intel Pentium 3 or higher 450 Mhz (minimum)
Network interface card	Compatible with existing Ethernet network infrastructure **NOTE** The Network License Manager supports multiple network interface cards, but at least one must be an Ethernet card.
Communication protocol	TCP/IP **NOTE** The Network License Manager uses TCP packet types
FLEXnet	11.7.0.0

Plan Your License Server Configuration

You must decide which license server model to use for managing your Autodesk product licenses on a server. Autodesk supports the following network license server models:

■ Single license server model

■ Distributed license server model

■ Redundant license server model

Single License Server Model

In the single license server model, the Network License Manager is installed on a single server, so license management and activity is restricted to this server. A single license file represents the total number of licenses available on the server.

Advantages of the Single License Server Model

■ Because all license management takes place on a single server, you have just one point of administration and one point of failure.

■ Of the three license server models, this configuration requires the least amount of maintenance.

Disadvantage of the Single License Server Model

■ If the single license server fails, the Autodesk product cannot run until the server is back online.

Distributed License Server Model

In the distributed license server model, licenses are distributed across more than one server. A unique license file is required for each server. To create a distributed license server, you must run the Network License Manager on each server that is part of the distributed server pool.

Advantages of the Distributed License Server Model

■ Servers can be distributed across a wide area network (WAN); they do not need to exist on the same subnet.

■ If one server in the distributed server pool fails, the licenses on the remaining servers are still available.

- If you need to replace a server in the distributed server pool, you do not need to rebuild the entire pool.

- Server replacement is easier than in a redundant server pool, where you must reactivate the entire pool.

Disadvantage of the Distributed License Server Model
- If a server in the distributed server pool fails, the licenses on that server are unavailable.

Redundant License Server Model

In the redundant license server model, you use three servers to authenticate a single license file. One server acts as the master, while the other two provide backup if the master server fails. With this configuration, licenses continue to be monitored and issued as long as at least two servers are still functional. The license file on all three servers is the same. You must install the Network License Manager on each server.

In the redundant license server model, all servers must reside on the same subnet and have consistent network communications. (Slow, erratic, or dial-up connections are not supported.)

Advantage of the Redundant License Server Model
- If one of the three servers fails, all licenses that are managed in the server pool are still available.

Disadvantages of the Redundant License Server Model
- If more than one server fails, no licenses are available.

- All three servers must reside on the same subnet and have reliable network communications. The redundant server pool does not provide network fault tolerance.

- If one of the three servers is replaced, the complete redundant server pool must be rebuilt.

- If your Autodesk product supports license borrowing and licenses are borrowed from a redundant license server pool, you must restart the license server after you stop the Network License Manager.

Learn About Your License

In this section, you learn about license operation and availability, the license file, license types and behaviors, and the heartbeat signal.

License Operation and Availability

When you start an Autodesk product, the product determines the server from which it should try to obtain a license. The product then requests a license through the TCP/IP network protocol to the license server.

If the number of available licenses has not been exceeded on the license server, the Network License Manager assigns a license to the workstation. A product session then starts on the workstation, and the number of available licenses on the license server is reduced by one.

Likewise, when you exit a product, the Network License Manager frees a license for another user. If you run multiple sessions of an Autodesk product on an individual workstation, only one license is used. When the last session is closed, the license is freed.

The following three processes manage the distribution and availability of licenses:

■ **License manager daemon** (*lmgrd.exe*). Handles the original contact with the application, and then passes the connection to the vendor daemon. The *lmgrd.exe* daemon is used to communicate with the vendor daemon only; *lmgrd.exe* does not authenticate or dispense licenses, but rather passes user requests to the vendor daemon. By using this approach, a single *lmgrd.exe* daemon can be used by multiple software vendors to provide license authentication. The *lmgrd.exe* daemon starts and restarts the vendor daemons as needed.

■ **Autodesk vendor daemon** (*adskflex.exe*). Tracks the licenses that are checked out and the workstations that are using them. Each software vendor has a unique vendor daemon to manage vendor-specific licensing. As its name implies, the *adskflex.exe* vendor daemon is specific to Autodesk products.

NOTE If the *adskflex.exe* vendor daemon terminates for any reason, all users lose their licenses until *lmgrd.exe* restarts the vendor daemon or the problem causing the termination is resolved.

■ **License file**. A text file that has vendor-specific license information.

License Files

The network license file you receive from Autodesk contains licensing information required for a network installation. You obtain license file data when you register your Autodesk product.

The license file contains information about network server nodes and vendor daemons. It also contains an encrypted digital signature that is created when Autodesk generates the file.

The license file is located in a network location that you specify. That network location must be accessible to every user who runs the product from a network installation.

The following table defines each license file parameter.

Definitions of license file parameters			
Line	Parameter	Definition	Example
SERVER	Host Name	Host name of the server where the Network License Manager resides	LABSERVER
	Host ID	Ethernet address of the server where the Network License Manager resides	03D054C0149B
USE_SERVER	[None]		
VENDOR	Vendor Daemon	Name of the server-side Autodesk vendor daemon	*adskflex.exe*
	Port Number	Network port number reserved and assigned for use only by Autodesk products running the Autodesk vendor daemon	port=2080
PACKAGE	Name	Name of feature code group	*SERIES_1*
	Version	Internal version number reference	1.000

Definitions of license file parameters			
Line	Parameter	Definition	Example
	COMPONENTS	List of feature codes supported in the package	COMPONENTS= "526000REVIT_9_OF\ 51200ACD_2007_OF\ 513001INVBUN_11_OF"
	OPTIONS		OPTIONS=SUITE
	SUPERSEDE	Replacement for any existing Increment line of the same feature code from any license files on the same license server that have a date earlier than the defined Issue Date	SUPERSEDE
	SIGN	Encrypted signature used to authenticate the attributes of the license file	SIGN=0 SIGN2=0
INCREMENT	Feature Code	Product supported by the license file	51200ACD_2007_0F
	Expiration Date	Amount of time the licenses are available	permanent
	Number of Licenses	Number of licenses supported by the license file	25
	VENDOR_STRING	License usage type and license behavior of the product that is supported by the license file	COMMERCIAL
	BORROW	Definition of the license borrowing period for the licenses defined under the same increment line. In this example, the maximum period that licenses can be borrowed is 4320 hours (180 days), unless otherwise noted (for example, BORROW=2880	BORROW=4320

Definitions of license file parameters			
Line	Parameter	Definition	Example
		means that licenses can be borrowed for a maximum of 2880 hours, or 120 days). License borrowing is disabled when this parameter is absent in the license file.	
	DUP_GROUP	Definition of multiple license requests when the same user and same host share the same license	DUP_GROUP=UH
	ISSUED	Date that the license file was generated by Autodesk	15-jul-2006
	Serial Number	Serial number of the Autodesk product	123-12345678
	SIGN	Encrypted signature used to authenticate the attributes of the license file	SIGN=6E88EFA8D44C

License File Examples

License file examples are provided in this document to help you understand how the license files work for your particular network setup. Autodesk provides a standard license file for individual products and a license file with additional parameters for products that are sold both individually and as part of a product set.

■ **Standard License File.** If you purchase one or more individual products that are not offered as part of a suite of products, you receive a standard license file.

■ **Standard License File with Additional Parameters.** If you purchase Autodesk products that are included in a product set and are also sold as an individual product, you receive a standard license file with additional parameters included in the license file. The additional parameters define

the sequence for license usage so that the individual product license is used before the license for the product set.

Autodesk license file examples include a license file not specific to a product, completed license files for single, distributed, and redundant server models, a combined product version license file, and an example of additional parameters added to a standard license file.

Example of a License File Not Specific to a Product

Here is an example of the contents of a license file and the parameters associated with each line:

```
SERVER ServerName HostID
USE_SERVER
VENDOR adskflex port=portnumber
INCREMENT feature_code Adskflex Version ExpDate
NumberofLicenses \

  VENDOR_STRING=UsageType:Behavior BORROW=4320 SUPERSEDE \
   DUP_GROUP=DupGrp ISSUED=IssueDate SN=SerialNumber SIGN=
   \
```

Example of a License File for a Single or Distributed Server

Here is an example of a completed license file for a single or distributed license server model:

```
SERVER XXHP0528 0019bbd68993
USE_SERVER
VENDOR adskflex port=2080
INCREMENT 57600ACD_2009_0F adskflex 1.000 permanent 5 \
   VENDOR_STRING=commercial:permanent BORROW=4320 SUPERSEDE
 \
   DUP_GROUP=UH ISSUED=09-Jan-2008 SN=123-12345678
SIGN="1393 \
   E368 816E D417 C1CD 7DBD 7B90 1354 D6F0 48FE EBB8 9C84
```

```
  C3AF \
     7D79 BEE1 0181 0655 76FF 996C B707 14B5 D4DE A3FE 0B2D
  2D36 \
     057C A579 7866 26BF 44E2" SIGN2="1280 943B 53A7 9B93
  E00B D967 \
     D821 BD37 BE6D B78A F074 B223 88AA 242C DD0A 1292 D56F
  4108 \
     62CD FA35 E365 0736 A011 7833 8B35 7BFF DAD8 34A8 452F
  2EB4"
```

Example of a License File for a Redundant Server

Here is an example of a completed license file for a redundant license server
model:

```
SERVER CCN12378042 001cc4874b03 27005
SERVER XXHP0528 0019bbd68993 27005
SERVER CCN12378043 001cc4874b10 27005
USE_SERVER
VENDOR adskflex port=2080
INCREMENT 57600ACD_2009_0F adskflex 1.000 permanent 5 \
   VENDOR_STRING=commercial:permanent BORROW=4320 SUPERSEDE
 \
   DUP_GROUP=UH ISSUED=10-Jan-2008 SN=123-12345678
SIGN="11C4 \
   CA79 07FC 7AD0 409A 6E04 6E98 D76C 197C 0416 076C B211
 1CDD \
   D0AB 698B 16BF 7A0E D4F8 1CFE 2985 644F 64CD CECE 0DDB
 5951 \
   3262 7C31 13A8 F08F 55B2" SIGN2="19A6 FDA3 2ED5 5301
8675 7B81 \
   1B0E 451B 19F1 1A99 C8E9 CBA6 8CB3 6AC3 8B38 1519 13F2
 2373 \
   82AE 55E5 1A25 4952 4458 F3A2 6F28 D25D 1DC0 E066 209B
 0953"
```

NOTE

The redundant server model requires the addition of a port number (the default
is 27005) for each server.

Example of a License File for Combined Autodesk Product Versions

You can combine a license file for different releases of the same Autodesk product or for different Autodesk products, and run all products from one license server. For example, you can combine a license file for Autodesk Alias 2011 with license files for Autodesk Maya 2010 and AutoCAD 2009.

Here is an example of the contents of a combined license file for AutoCAD 2008 and AutoCAD 2009:

```
SERVER XXHP0528 0019bbd68993
USE_SERVER
VENDOR adskflex port=2080
INCREMENT 57600ACD_2009_0F adskflex 1.000 permanent 5 \
   VENDOR_STRING=commercial:permanent BORROW=4320 SUPERSEDE
 \
   DUP_GROUP=UH ISSUED=09-Jan-2008 SN=123-12345678
SIGN="1393 \
   E368 816E D417 C1CD 7DBD 7B90 1354 D6F0 48FE EBB8 9C84
 C3AF \
   7D79 BEE1 0181 0655 76FF 996C B707 14B5 D4DE A3FE 0B2D
 2D36 \
   057C A579 7866 26BF 44E2" SIGN2="1280 943B 53A7 9B93
E00B D967 \
   D821 BD37 BE6D B78A F074 B223 88AA 242C DD0A 1292 D56F
 4108 \
   62CD FA35 E365 0736 A011 7833 8B35 7BFF DAD8 34A8 452F
 2EB4"
INCREMENT 54600ACD_2008_0F adskflex 1.000 permanent 3 \
   VENDOR_STRING=commercial:permanent BORROW=4320 SUPERSEDE
 \
   DUP_GROUP=UH ISSUED=09-Jan-2008 SN=123-12345678
SIGN="1E6E \
   4B61 5712 4766 92A0 6782 9EF4 3F47 56A1 1F38 6DE8 C0C7
 90AC \
   7289 152E 0EA2 CC0D 3F10 577A 0489 CEB6 10D5 FBCC B552
 0C9D \
   5966 91A6 59F0 2788 FACE" SIGN2="1DDF 3B9D 3392 71D5
AB08 7E05 \
   8497 111E 092F 0E54 8DC2 2BED 17C2 2CC1 981B 0EC2 BC15
 8F00 \
```

```
      C79A ABFD 2136 BABA 2EDF E941 EA53 32C6 597F F805 5A8A
   599A"
```

Example of Additional Parameters in a License File

For Autodesk products that are included in a product set and are also sold as an individual product, licenses are allocated based on a sequence of priorities defined in the license file. For those products, information similar to the following example appears in a license file:

```
SERVER Server1 1a34567c90d2
USE_SERVER
VENDOR adskflex port=2080
INCREMENT 54600ACD_2008_0F adskflex 1.000 permanent 5 \
   VENDOR_STRING=commercial:permanent BORROW=4320 SUPERSEDE
 \
   DUP_GROUP=UH ISSUED=09-Jan-2007 SN=123-12345678
SIGN="0247 \
   45D6 87C4 27A5 7F9E F24A ED3D 61E4 6B3B CC5C AD77 B865
 9EA8 \
   3D62 0792 0F67 19E7 57E7 FAFA A48B D582 335A EC16 1FE5
 B70D \
   76AB 6488 61CC DE5E F5B7" SIGN2="09FD 0850 7CF1 F447
9F05 9FA3 \
   2A0A 38D6 83FC 1746 F3F5 5A72 6250 E002 DE0B 0E6E F88C
 AC95 \
   136F 87F2 A945 E4C4 A97F 44B5 74EE 83F3 3F3E 1579 B981
 8994"
```

Package License File Examples

Autodesk offers a package license file option, which allows you use of a set of products that are packaged and sold together. The package license file contains a set number of licenses for four different versions of your software. Running an instance of any one of the versions uses one license in the package. Packaged

license files support prior versioning for subscription users. Package license files operate under the following guidelines:

■ Package license files come with the current version of the software and three previous versions of the same product.

■ License files may be combined with license files for different products. For more information about combining license files, see Example of a Package License File for Combined Autodesk Product Versions (page 44).

■ Package license files cannot be combined with non-package license files for product versions contained in the package. For example, you cannot combine a *Autodesk Product* 2009 package license file with a regular license file for *Autodesk Product* 2008, 2007, or 2006.

■ Both the PACKAGE and INCREMENT sections of the license are required for licensing to work properly. When you combine license files, be sure to include both of these sections.

■ License borrowing, option files, and licensing cascading work the same for package licenses as they do for regular license files.

■ A new license file will supersede an older license file.

The following sections provide package license file examples for single, distributed, and redundant license servers, and combined Autodesk product versions.

Example of a Package License File for a Single or Distributed Server

Here is an example of a completed license file for a single or distributed license server model:

```
SERVER Server1 1a34567c90d2
USE_SERVER
VENDOR adskflex port=2080
PACKAGE SERIES_1 adskflex 1.000
COMPONENTS="54700REVIT_2009_0F \
   54600ACD_2009_0F 51300INVBUN_11_0F" OPTIONS=SUITE
SUPERSEDE \
   ISSUED=09-Jan-2008 SIGN="1707 9EAC CBCB 2405 692E 4A89
 \
   AA26 30CC 2AC2 D6B3 A61B AB5E 492E 3EBD 0B48 4E75 193A
 DA82" \
```

```
    FC45 C009 E360 944A 14BA E99C 9B24 5A1B 4A44 083A BE5F
3827 \
  SIGN2="004A FC90 AB47 3F6B 59BC 0E6D 6681 6971 A76A BA52
98E2 \
  5671 26B3 0E78 791B 109F 0591 7DC3 F09F 4D8D 4FB7 E341
4A03 \
  CD68 1D77 27F8 8555 9CF7 DEDD 9380"
INCREMENT SERIES_1 adskflex 1.000 permanent 100 \
  VENDOR_STRING=commercial:permanent BORROW=4320
DUP_GROUP=UH \
  SUITE_DUP_GROUP=UHV SN=123-12345678 SIGN="1707 9EAC CBCB
\
  692E 4A89 FC45 C009 E360 944A 14BA E99C 9B24 5A1B 4A44
BE5F \
  3827 AA26 30CC 2AC2 D6B3 A61B AB5E 492E 3EBD 0B48 DA82"
\
  SIGN2="004A FC90 AB47 3F6B 59BC 0E6D 6681 6971 A76A BA52
\
  5671 26B3 0E78 791B 109F 0591 7DC3 F09F 4D8D 4FB7 E341
4A03 \
  CD68 1D77 27F8 8555 9CF7 DEDD 9380"
```

Example of a Package License File for a Redundant Server

Here is an example of a completed license file for a redundant license server model:

```
SERVER 1a34567c90d2 27005
SERVER 2a34567c90d2 27005
SERVER 3a34567c90d2 27005
USE_SERVER
VENDOR adskflex port=2080
PACKAGE 64300ACD_F adskflex 1.000
COMPONENTS="57600ACD_2009_0F \
  54600ACD_2008_0F 51200ACD_2007_0F 48800ACD_2006_0F" \
  OPTIONS=SUITE SUPERSEDE ISSUED=27-May-2008 SIGN="1092
05D8 \
  A206 276B 2C84 EFAD ACA5 C54B 68A4 653E C61F 31DE C8CE
B532 \
  CFBB 0006 5388 347B FDD6 A3F4 B361 7FD4 CDE4 4AAC 0D11
```

```
  B0EF \
    4B44 BFD6 3426 97DD" SIGN2="0670 B01A D060 0069 FF25
F1CD D06B \
    314E E7C9 3552 5FFA 4AC7 28A7 C897 F56A 19BB FB1C 754E
 6704 \
    DEEA AC4E F859 2E9B 64B6 0DD0 9CCE 9556 269F EAC0 2326"
INCREMENT 64300ACD_F adskflex 1.000 permanent 50 \
   VENDOR_STRING=commercial:permanent BORROW=4320 SUPERSEDE
 \
   DUP_GROUP=UH SUITE_DUP_GROUP=UHV ISSUED=27-May-2008 \
   SN=399-99999999 SIGN="1B5B 8D70 4CAD 32E5 9CA2 82E0 5C47
 291C \
    35AB 9B9C 5B3E 5067 F61B 4139 1B32 0716 1FD3 5105 A991
 B78E \
    9D1E 63AB BC23 0D1E B70C 2A05 E1C1 F605 ABB1 2EA8"
SIGN2="01D6 \
    31F5 2951 4500 E5C8 058F 7490 9789 9EF4 CBED DA27 5F06
 6780 \
    9033 2018 0C3B E1E0 3580 E60E C2BB B4AB 8D6A 4245 3059
 8CA6 \
    2EFE DFAE 027F 2ABE 3F2B"
```

Example of a Package License File for Combined Autodesk Product Versions

Here is an example of a completed license file for combined Autodesk product versions:

```
SERVER servername 123456789111
USE_SERVER
VENDOR adskflex port=2080
PACKAGE 64300ACD_F adskflex 1.000
COMPONENTS="57600ACD_2009_0F \
    54600ACD_2008_0F 51200ACD_2007_0F 48800ACD_2006_0F" \
    OPTIONS=SUITE SUPERSEDE ISSUED=25-Jun-2008 SIGN="03EF
DE18 \
    8046 0124 4EA4 6953 F82D 3169 7C24 D0DE E58E 8168 FFA3
 D891 \
    B43B 08D8 7E7F C6ED CBCC FE2A BB0A 4566 C2AE F1C1 D373
 8348 \
    E6E3 884A E398 1C78" SIGN2="07AC D696 8844 D19F AB00
```

```
8B75 53A3 \
   2F76 91DF AED0 3231 1506 0E6B ADC6 C3B8 1797 93B5 9756
8C0F \
   8811 56E6 B2BA 0523 FE2E 82B7 1628 076F 173B F37C 7240"
INCREMENT 64300ACD_F adskflex 1.000 permanent 2 \
   VENDOR_STRING=commercial:permanent BORROW=4320 SUPERSEDE
\
   DUP_GROUP=UH SUITE_DUP_GROUP=UHV ISSUED=25-Jun-2008 \
   SN=399-99999999 SIGN="1CCB E88D B819 8604 06FA 9AEE 42F1
CBEA \
   37B9 3CFA A0A8 697F 9CB1 8354 6256 05ED 69D4 D2FF D512
6A2E \
   D5DD B722 EF5B 3172 BA95 4625 F8D3 DD24 BB39 6A58"
SIGN2="0DFF \
   FA6F C378 20E0 2622 BE52 B434 F99F 2681 2B93 64F2 CE0C
7F4A \
   7024 B3D1 051A 6920 72BD DE35 8920 E6A1 C8D6 AF23 7BE7
CC91 \
   6916 70B1 9E80 AB07 1644"
PACKAGE 64800INVPRO_F adskflex 1.000 \
COMPONENTS="59600INVPRO_2009_0F \
   55300INVPRO_2008_0F 51400INVPRO_11_0F 49000INVPRO_10_0F"
\
   OPTIONS=SUITE SUPERSEDE ISSUED=25-Jun-2008 SIGN="1306
5990 \
   F8A1 56FB 1D8A 9DA7 D6AE 8E9E F6EC 2862 367A 36E2 C5FB
E6E1 \
   4AAA 0128 8C2D 95FD 09B2 ABA1 6F98 A0A3 70DE 3220 6835
7E51 \
   3849 9D81 8BDC 9DC1" SIGN2="0021 AA08 F2E7 8AEB 5345
341A 7E42 \
   3001 B8C5 DFC2 6EB8 87C5 C04A AE43 A10F 1DA1 EF8A F0FA
10F5 \
   AC81 1E22 789F A18D 650F 6BBB 563A BDA5 DD1C 82EC 27F6"
INCREMENT 64800INVPRO_F adskflex 1.000 permanent 2 \
   VENDOR_STRING=commercial:permanent BORROW=4320 SUPERSEDE
\
   DUP_GROUP=UH SUITE_DUP_GROUP=UHV ISSUED=25-Jun-2008 \
   SN=399-99999966 SIGN="0BE4 51F4 570C DC48 5E66 F952 629E
EDF0 \
   019C 6FF7 0509 1FF0 D4FB 3B16 1981 073F 31EC A241 8CB3
8782 \
   E655 00C6 E097 D5EF B0D8 67D3 199D 699D 2E09 B16F"
```

```
SIGN2="1254 \
   3E37 0CE4 F42D B7CD 858C 92FC A963 5274 770F 9354 FE29
E117 \
   205D C632 0C4E AEC0 7501 9D9E FFEB D84D F154 16A1 E120
339A \
   FDBF 3F07 4477 B8B3 5DA4"
```

License Types and Behaviors

Autodesk supports dynamic product usage and license behaviors. This means that you can purchase a specific type of behavior with a specific license and change that license at a later date without having to uninstall and reinstall the Autodesk product.

License types include the following:

- **Commercial.** A license for a product that was purchased commercially.

- **Not for Resale.** A license for a product that is not sold commercially. Not for Resale products are for evaluation or demonstration purposes only and may not be used for commercial or production use.

- **Educational (EDU)/Institution.** A license designed specifically for educational institutions.

- **Student Portfolio.** A license for students who are using an Autodesk product as part of their curriculum.

License behaviors are as follows:

- **Permanent.** Enables permanent use of an Autodesk product.

- **Term Extendable.** Enables access to an Autodesk product for a limited time. The term can be extended at any time.

- **Term Non-Extendable.** Enables an Autodesk product for a limited time. The term cannot be extended.

Heartbeat Signal

When an Autodesk product is running, it communicates with the license server at regular intervals using a communication method known as the "heartbeat" signal. If the heartbeat signal is lost, the server tries to reconnect. If the server cannot reconnect, the user receives a license error.

If the product stops working because it has lost a connection to the server, you must shut down the product, and then restart it. If the problem causing the original loss of the heartbeat signal is resolved and there are available licenses on the server, the program can be restarted.

Network License Manager

The Network License Manager is used to configure and manage the license servers. The Installation wizard prompts you for information about the license manager, such as license server model and server name.

Install the Network License Manager

You can install the Network License Manager before or after you use the Installation wizard. The order in which you install the network applications does not matter, as long as you install everything you need and you provide consistent license server information across the network applications.

If an earlier version of the Network License Manager is already installed on the computer, you should upgrade by installing the Autodesk Network License Manager into the folder where the older version was located.

To install your Network License Manager

1 In the Autodesk Installation wizard, click Install Tools and Utilities.

2 On the Select the Products to Install page, select Autodesk Network License Manager and click Next.

3 Review the Autodesk software license agreement for your country or region. You must accept this agreement to proceed with the installation. Choose your country or region, click I Accept, and then click Next.

    NOTE

    If you do not agree to the terms of the license and want to terminate the installation, click Cancel.

4 On the Review - Configure - Install page, review your product selection and the current settings. If you do not want to change anything, click Install. If you want to change the install type or installation path, click Configure.

5 On the Select the Installation Type page, select Typical or Custom and accept the default installation path (*C:\Program Files\Autodesk Network License Manager*) or Browse to specify a different path. If you enter a path that does not exist, a new folder is created using the name and location you provide. Click Next.

> **WARNING**
>
> Do not install the Network License Manager on a remote drive. When you install the Network License Manager files, you must provide a path to a local drive. You must specify the drive letter; the universal naming convention (UNC) is not permitted.

6 On the Configuration Complete page, click Configuration Complete to return to the confirmation page.

7 On the Review - Configure - Install page, click Install.

8 When the Installation Complete page displays, click Finish.

Obtain a License Through autodesk.com

You can register and activate your network license by going to *https://registeronce.autodesk.com* and following the on-screen instructions.

Obtain the Server Host Name and Host ID Manually

Autodesk uses the server host name, host ID, and product serial number to generate a license file.

To obtain the information manually, you can use the command prompt or you can run the *lmtools.exe* utility. If you use *lmtools.exe*, do not run it on a remote workstation.

To obtain the host name and ID using the Windows command prompt

1 Do one of the following:
- (Windows XP) Click Start ➤ Programs ➤ Accessories ➤ Command Prompt.
- (Windows Vista) Click Start ➤ All Programs ➤ Accessories ➤ Command Prompt.

2 At the Windows command prompt, enter the following command, and then press ENTER:

ipconfig /all

3 Record the Host Name and Physical Address line. Eliminate dashes from the physical address. This is your twelve-character host ID.

NOTE If your server has more than one network adapter, select the one that corresponds to a physical network adapter. To determine which adapters are physical: in the Windows command prompt, enter **ipconfig /all**, and then view the Description field above each physical address. If there is more than one physical network adapter, it does not matter which one you use. Devices such as VPN adapters, PPP adapters, and modems are not valid.

4 Close the Windows command prompt.

To obtain the host name and ID using lmtools.exe

IMPORTANT Do not run LMTOOLS on a remote computer.

You should be logged in with Administrator rights when working with the LMTOOLS utility.

1 Do one of the following:
- (Windows XP) Click Start ➤ Programs ➤ Autodesk ➤ Network License Manager ➤ LMTOOLS.
- (Windows Vista) Double-click the LMTOOLS icon on the desktop.

2 In the LMTOOLS program, click the Systems Settings tab.

3 Locate the Computer/Hostname box. Copy the host name and paste the information into a text editor.

4 Locate the Ethernet Address box. The 12-character Ethernet address is the host ID. Write down the information.

NOTE If your server has more than one Ethernet adapter, select one that corresponds to a physical network adapter. If you are using a Mac OS X computer with more than one network card, you must use the address of the primary network card.

5 Close *lmtools.exe*.

Configure a License Server (Windows)

You configure a license server so that you can manage your Autodesk product licenses. Configure the license server with the *lmtools.exe* utility.

To configure your license server

You should be logged in with Administrator rights when working with the LMTOOLS utility.

1 Do one of the following:
  - ■ (Windows XP) Click Start ➤ Programs ➤ Autodesk ➤ Network License Manager ➤ LMTOOLS.
  - ■ (Windows Vista) Double-click the LMTOOLS icon on the desktop.

2 In the LMTOOLS program, on the Service/License File tab, make sure the Configure Using Services option is active.

3 Click the Config Services tab.

4 In the Service Name list, select the service name you want to use to manage licenses.

  By default, the service name is *Flexlm Service 1*. If FLEXnet is managing other software on your computer in addition to Autodesk, you can change the service name to avoid confusion. For example, you can rename *Flexlm Service 1* to *Autodesk Server1*.

  NOTE

  If you have more than one software vendor using FLEXnet for license management, the Service Name list contains more than one option. Make sure that only one Autodesk service is listed.

5 In the Path to Lmgrd.exe File field, enter the path to the Network License Manager daemon (*lmgrd.exe*), or click Browse to locate the file.

  By default, this daemon is installed in the *C:\Program Files\Autodesk Network License Manager* folder.

6 In the Path to the License File box, enter the path to your license file, or click Browse to locate the file.

  This is the path to the license file obtained through autodesk.com or the location where you placed the license file if you obtained it offline.

7 In the Path to the Debug Log File box, enter a path to create a debug log, or click Browse to locate an existing log file.

It is recommended that you save to the *C:\Program Files\Autodesk Network License Manager* folder. The log file must have a *.log* file extension. For new log files, you must enter the *.log* extension manually.

8 To run *lmgrd.exe* as a service, select Use Services.

9 To start *lmgrd.exe* automatically when the system starts, select Start Server at Power Up.

10 Click Save Service to save the new configuration under the service name you selected in step 4. Click Yes when prompted if you would like to save the settings to the service.

11 Click the Start/Stop/Reread tab and do one of the following:

- If a service has not yet been defined for Autodesk, click Start Server to start the license server.

- If a service for Autodesk is already defined and running, click ReRead License File to refresh the Network License Manager with any changes made to the license file or Options file.

The license server starts running and is ready to respond to client requests.

12 Close *lmtools.exe*.

NOTE Before performing any system maintenance on your license server, see .

Configure a License Server (Linux)

You configure a license server so that you can manage your Autodesk product licenses.

To configure automatic start-up of your license server

Before configuring your license server for Linux, ensure that the following steps have been completed:

- You have installed the Autodesk Network License Manager which contains the following files: *lmgrd*, *adskflex*, and *lmutil*.

- You have received the network license file from Autodesk that contains the product licenses; for example, *productlicense.lic*.

1 Extract the FLEXnet IPv4 server files into the following directory: */home/<user id>/flexlm11.7*.

NOTE Replace *<user id>* with your user id, not a root user id.

2 Copy the *.lic* file into the *flexlm11.7* directory created in Step 1.
3 Open a terminal window in root mode.
4 Go to the directory */etc/*.
5 Locate the *rc.local* file.
6 Edit the *rc.local* file and start *lmgrd* by entering the following commands in the terminal window:

NOTE Replace *acad.lic* with your license file name.

7

```
/bin/su <user id> -c 'echo starting lmgrd>\
/home/<user id>/flexlm11.7/boot.log'


/usr/bin/nohup/bin/su <user id> -c 'umask 022;\
/home/<user id>/flexlm11.7/lmgrd -c\
/home/<user id>/flexlm11.7/acad.lic >> \
/home/<user id>/flexlm11.7/boot.log '


/bin/su <user id> -c 'echo sleep 5 >> \
/home/<user id>/flexlm11.7/boot.log '


/bin/sleep 5


/bin/su <user id> -c 'echo lmdiag >>\
/home/<user id>/flexlm11.7/boot.log '


/bin/su <user id> -c '/home/<user id>/flexlm11.7/lmutil
 lmdiag -n -c\
/home/<user id>/flexlm11.7/acad.lic >> \
/home/<user id>/flexlm11.7/boot.log '


/bin/su <user id> -c 'echo exiting >>\
/home/<user id>/flexlm11.7/boot.log '
```

8 Save the edited *rc.local* file.

9 Reboot your machine and verify that the *lmgrd* and *adskflex* have started by doing one of the following:

- During the reboot, look for the message that the license server has started.

- Check the *boot.log* file created in */home/<user id>/flexlm11.7/* to see if *lmgrd* and *adskflex* have started.

NOTE Before performing any system maintenance on your license server, see Stop and Restart the License Server (page 55).

Install SAMreport-Lite (Optional)

SAMreport-Lite is a reporting tool that helps you track network license usage. With SAMreport-Lite technology from Flexera™ Software, you can monitor client usage for Autodesk network licensed products.

To learn more about installing and using SAMreport-Lite, see the *SAMreport-Lite User's Guide*.

Uninstall the Network License Manager

You can uninstall the Network License Manager from the license server. When you uninstall the Network License Manager, licenses are no longer available to your users.

To uninstall the Network License Manager

1 Do one of the following:
- (Windows XP) Click Start ➤ Programs ➤ Autodesk ➤ Network License Manager ➤ LMTOOLS.

- (Windows Vista) Double-click the LMTOOLS icon on the desktop.

2 In the LMTOOLS program, click the Start/Stop/Reread tab.

3 On the Start/Stop/Reread tab, click Stop Server.

4 Close *lmtools.exe*.

5 In the Windows Control Panel, double-click Add/Remove Programs.

6 In the Add/Remove Programs window, click Autodesk Network License Manager. Click Remove.

7 If prompted, restart your computer.

NOTE

You must manually delete files that you created for use with the Network License Manager (such as log files, license files, and the Options file). They are not automatically deleted when you uninstall the Network License Manager.

Network Licensing Tools

Autodesk Network licensing tools include FLEXnet configuration tools, license borrowing, and SAMreport-Lite. Each tool is described in the sections that follow.

This section also includes information for updating FLEXnet and installing and configuring the Autodesk Network License Manager on a network.

FLEXnet Configuration Tools

The Network License Manager uses FLEXnet® license management technology from Flexera Software™. FLEXnet provides administrative tools that help to simplify management of network licenses. You can use FLEXnet tools to monitor network license status, reset licenses lost to a system failure, troubleshoot license servers, and update existing license files on the fly.

Utilities for License Server Management

FLEXnet provides two utilities for managing the license server. These tools are located in the *C:\Program Files\Autodesk Network License Manager* folder.
LMTOOLS Utility (lmtools.exe) Provides a Microsoft Windows graphical user interface for managing the license server.

lmutil.exe Provides a set of command line options for managing the license server.

You can use LMTOOLS or *lmutil.exe* to perform the following server management tasks:
■ Start, stop, and restart the server.

- Configure, update, and reread the license file.
- Diagnose system or license problems.
- View server status, including active license status.

Stop and Restart the License Server

Before you can perform any system maintenance, including uninstalling the
Autodesk License Manager on your license server, you must stop the license
server. When you have completed maintenance, you can restart the license
server.

To stop the license server

You should be logged in with Administrator rights when working with the
LMTOOLS utility.

1 Click Start ➤ All Programs ➤ Autodesk ➤ Network License Manager
   ➤ LMTOOLS Utility.
2 In the LMTOOLS utility, click the Service/License File tab.
3 Select the Configure Using Services option.
4 Select the service name for the license server you want to stop manually.
5 Click the Start/Stop/Reread tab.
6 Click Stop Server.
7 Close LMTOOLS.

To restart the license server

You should be logged in with Administrator rights when working with the
LMTOOLS utility.

1 Click Start ➤ All Programs ➤ Autodesk ➤ Network License Manager
   ➤ LMTOOLS Utility.
2 In the LMTOOLS utility, click the Service/License File tab.
3 Select the Configure Using Services option.
4 Select the service name for the license server you want to start manually.
5 Click the Start/Stop/Reread tab.
6 Click Start Server to restart the license server.

Update FLEXnet from a Previous Version

This release of Autodesk products require FLEXnet version 11.9.0.0 or later. If you are currently using a version of FLEXnet that is earlier than 11.9.0.0, you need to upgrade to version 11.9.0.0 or later.

NOTE If the server where you plan to install the Autodesk Network License Manager has FLEXnet installed for another product, make sure that the version of *lmgrd.exe* is the most current version.

To determine what version of FLEXnet is installed, you need to verify the version of the following files:

Windows

- *lmgrd.exe*
- *lmtools.exe*
- *lmutil.exe*
- *adskflex.exe*

To verify the version of LMTOOLS Utility, lmutil.exe, or adskflex.exe

You should be logged in with Administrator rights when working with the LMTOOLS utility.

1 Click Start ➤ All Programs ➤ Autodesk ➤ Network License Manager ➤ LMTOOLS Utility.

2 In LMTOOLS utility, click the Utilities tab.

3 Enter the location of the file, or click the Browse button to locate the file and click Open. The file location should look something like this:

   *C:\Program Files\Autodesk Network License Manager\lmutil.ex*e

4 Click Find Version.

   The version number of the file you selected is displayed. If necessary, use the following procedure to update your version of FLEXnet.

To update FLEXnet

You should be logged in with Administrator rights when working with the LMTOOLS utility.

1   Back up your license files.

2   Click Start ➤ All Programs ➤ Autodesk ➤ Network License Manager ➤ LMTOOLS Utility.

3   In the LMTOOLS utility, click the Start/Stop/Reread tab.

4   Click Stop Server.

5   Close LMTOOLS.

6   Note the location where the Network License Manager is installed and then uninstall the Network License Manager. For details about uninstalling the Network License Manager, see Uninstall the Network License Manager (page 53).

7   Install the Network License Manager. For details about installing the Network License Manager to the same location as the previous version, see Install the Network License Manager (page 47).

8   Do one of the following:

   ■   (Windows XP) Click Start ➤ Programs ➤ Autodesk ➤ Network License Manager ➤ LMTOOLS.

   ■   (Windows 7/ Windows Vista) Double-click the LMTOOLS icon on the desktop.

9   In the LMTOOLS utility, click the Start/Stop/Reread tab.

10   Click Start Server.

11   Close LMTOOLS.

Set Up and Use an Options File

With an Options file, you set configuration options for managing licenses on each license server that you set up. An Options file sets parameters that the license file reads and the lmgrd program executes.

If you want to have the same license behavior on some or all of your license servers, you must save the same Options file to each of those license servers. If you want to specify different license behavior on different license servers, you must create an Options file for each license behavior. You must save each Options file to the server where you want specific license behavior.

NOTE For Options file changes to take effect on a license server, you must save the Options file, and then use LMTOOLs utility to reread the license file.

Use the Options file to set parameters for the following server-related features:
Report log file A compressed, encrypted file is created that generates accurate usage reports on license activity. See Create_a Report_Log.

License borrowing See Configure_License_Borrowing_with_the Options_File.

License timeout See Set_Up_License_Timeout.

License timeoutall See Set_Up_License_Timeout.

You can also set up advanced license parameters, such as reserving a license, restricting license usage, or defining groups of users. To learn more about setting advanced Options file parameters, see the FLEXnet documentation in the *C:\Program Files\Autodesk Network License Manager\LicenseAdministration.pdf* file.

License Borrowing

If you are running a network-licensed version of an Autodesk product, you can borrow a license from a license server to use the Autodesk product for a specified time when your computer is not connected to the network.

NOTE If you have a stand-alone version of an Autodesk product, you cannot borrow a license. To check your license type, click Help drop-down list ➤ About ➤ Product Information. In the Product License Information dialog box, view your product license type.

Overview

If you are using a network-licensed version of your Autodesk product and your network administrator supports the license borrowing feature, you can borrow a product license from your network license server to use an Autodesk product when your computer is not connected to the network. Your license is automatically returned to the license server at the end of the day on the return date you set when you borrowed the license. You can also return a license early.

NOTE There is a limit to the number of licenses available for borrowing. If you try to borrow a license and are notified that no licenses are available, all network licenses may already be borrowed by other users. If you are unable to borrow a license, see your network administrator for help.

Borrow a License

You can run your Autodesk product when your computer is not connected to the network until your license-borrowing period ends. If you don't remember the date that a license expires, you can check the date by placing your cursor over the Borrowing icon in your Autodesk product's status tray or by clicking Help ➤ About and using the Product License Information dialog box.

When the license-borrowing period expires, the borrowed license is automatically returned to the license server. Once your computer is reconnected to the network, you can run your Autodesk product from the network or borrow a license again.

Interaction with Other License-Borrowing Tools

Using the license borrowing feature in your Autodesk product is the recommended way to borrow a license; however, some third-party borrowing tools may also be available to you. These tools are not supported or compatible with the license borrowing feature in your Autodesk product. Other third-party or legacy license-borrowing tools that may be available to you are the Autodesk License Borrowing utility (shipped with Autodesk products) and the borrowing feature in LMTOOLS utility, a component of the Autodesk Network License Manager.

If another license-borrowing tool is active when you attempt to use the license borrowing feature, you should proceed as follows to borrow a license for your Autodesk product:

■ If you run the Autodesk License Borrowing utility that shipped with your Autodesk product and then turn on the borrowing flag for the Adskflex option or the All option, a license can be borrowed when you start your Autodesk product. However, you cannot return a license until you exit and then restart your Autodesk product.

■ If borrowing is set in LMTOOLS utility for *all* products, you can either *(a)* use the other tool to borrow licenses for your Autodesk product or *(b)* stop the borrowing process in LMTOOLS utility and then use the license borrowing feature in your Autodesk product.

- If borrowing is set in LMTOOLS utility for non-Autodesk products only, you must stop the borrowing process in LMTOOLS utility. You can then use the license borrowing feature to borrow licenses for your Autodesk product. If you do not stop the borrowing process in LMTOOLS utility, the license borrowing feature will not function.

To borrow a license using the Help menu

1   Click Help drop-down list ➤ About.
2   In the About product window, click Product Information.
3   In the Product lIcense Information window, click Borrow License.
4   In the Borrow a License window, on the calendar, click the date when you want to return the license.

    This date must be within the valid date range set by your network administrator. The valid date range is displayed in this window.
5   Click Borrow License.
6   In the License Borrowed message, click OK. The license is borrowed, and you can now use the Autodesk product while your computer is disconnected from the network.

BORROWLICENSE Command

Borrows a product license so that you can run the product outside the network environment.

Help menu: About ➤ Product Information ➤ Borrow License

Command line: **borrowlicense**

The Borrow a License Window is displayed.

Return a License

Your network license is automatically returned to the network license server on the day that the license expires. You can also return a license earlier than the date you originally selected, as long as your computer is connected to the network license server when you attempt to return the borrowed license.

Once a borrowed license is returned, you can borrow a license again as long as your computer is connected to the network license server and a license is available on the server.

To return a borrowed license early, do one of the following:

■ Click Help menu ➤ About ➤ Product Information. In the Product License Information dialog box, click Return License, and then click Yes.

■ In the status tray, right-click the License Borrowing icon. Click Return License Early.

NOTE To use the status tray to return a borrowed license early, the display settings for the status tray must be turned on. To turn on the display settings, right-click an empty area on the status bar. Click Tray Settings.

Your license is returned to the network license server. After you return the borrowed license, you can borrow a license again immediately as long as a license for that product is available on the network.

To check the license return date, do one of the following:

■ In the status tray, right-click the License Borrowing icon. View the expiration date for the borrowed license.

■ Click Help menu ➤ About ➤ Product Information. In the Product License Information dialog box, under License Expiration Date, view the license return date.

RETURNLICENSE Command

Returns a borrowed Autodesk product license earlier than the original return date that you specified when you borrowed the license.

Help menu: About ➤ Product Information ➤ Return License

Status tray: Right-click the License Borrowing icon. Click Return License Early.

Command line: **returnlicense**

Network Licensing FAQs

This section outlines some common questions and their solutions with regards to software licenses and licensing your product(s).

What is the difference between a stand-alone license and a network license?

What is the benefit of using a network licensed version of the software?

Glossary

ADSKFLEX_LICENSE_FILE   In a distributed license server configuration, the environment variable used to point a computer to the distributed license servers.

adskflex or adskflex.exe The Autodesk vendor daemon used with the FLEXnet license technology. This daemon keeps track of the Autodesk licenses that are checked out and the computers that are using the licenses.

borrowed license A type of network license that allows you to use an Autodesk product for a limited period of time disconnected from the network, without having to buy a separate license.

daemon A program that runs continuously in the background of a computer. The daemon handles requests from the computer and then forwards the requests to other programs or processes. The Network License Manager uses two daemons: the vendor daemon (*adskflex or adskflex.exe*) and the license manager daemon (*lmgrd or lmgrd.exe*).

debug log file A file used with FLEXnet to log connection events between the Network License Manager and the user's computer.

deployment A set of files and folders created on a server and used by computers to install Autodesk programs with a consistent configuration.

distributed server A license server configuration option in which several servers are used to manage license distribution. Each distributed license server

has a unique license file and a fixed number of licenses. If one distributed license server fails, the other servers are still able to distribute their licenses.

Ethernet address See *host ID*.

feature code A license file parameter that represents the product that is supported by that license file.

FLEXnet The Flexera Software license management technology implemented in the Autodesk family of products.

heartbeat signal The communication signal between the Network License Manager and the computer to verify that the computer is accessible and has an active Autodesk product session running.

host ID The unique hardware address of a network adapter. Also known as *Ethernet address* or *physical address*.

host name The TCP/IP name associated with a computer. FLEXnet technology uses the host name as a parameter; the host name must be distinguished from the NetBIOS (server) name.

idle A state of inactivity in your product that prompts a network license server to reclaim a license. Inactivity is due to no mouse or keyboard activity and no commands, LISP expressions, menu macros, or scripts in progress for the period of time that is defined in the options file. See also *license timeout.*

JRE (Java Runtime Environment) A program that is required to run Java programs.

license file A file used with FLEXnet that controls the number of available seats. This file must be in ASCII plain text format.

license server A server that contains the Network License Manager and manages the distribution of licenses to users.

license timeout For network licenses, this is a time period that starts counting when a computer that is using a license is idle. If the timeout period elapses and the computer remains idle, the license is returned to the license server and is available for use again.

licpath.lic In both single and redundant server configurations, the file used to point the computer to the FLEXnet license server. *Licpath.lic* is located in the root installation folder.

lmgrd or lmgrd.exe The license manager daemon. This daemon handles the original contact with the program, and then passes the connection to the vendor daemon, *adskflex or adskflex.exe*.

lmtools or lmtools.exe A graphical user interface utility for administering the FLEXnet license technology. *See also lmutil or lmutil.exe*.

lmutil or lmutil.exe A command-line utility used to administer the FLEXnet license technology. *See also lmtools or lmtools.exe*

master daemon See*lmgrd or lmgrd.exe*.

network license installation A type of Autodesk product installation that requires the Network License Manager installed on one or more network servers to manage the distribution of product licenses to users.

Network License Manager The technology used by Autodesk for network license management.

options file The file used by FLEXnet to set network license management parameters, such as the location of report logs and the time period for license borrowing.

physical address See *host ID*.

redundant server A license server configuration option in which three servers are used to administer licenses. The redundant servers share a license file and a pool of licenses. The redundant server pool remains functional as long as two of the three servers are running and communicating with each other.

report log file A file used with FLEXnet to provide information about network license usage. The options file sets parameters for the report log.

vendor daemon See *adskflex or adskflex.exe*.

Troubleshooting

4

Troubleshooting

Learn debugging techniques to resolve common problems when installing SketchBook Designer software and licenses.

Online help and support information

This Installation Guide can be found at the top level of the software DVD, along with the Readme and System Requirements. HTML help for SketchBook Designer can be found in the Help menu.

CHM help for SketchBook Designer for AutoCAD can be found in the Help menu.

Additional resources

■ For information about SketchBook Designer issues, see the Autodesk Web site: *http://www.autodesk.com*. Click the **Services & Support** tab and choose the product Autodesk SketchBook Designer from the drop-down list of supported products. The Autodesk Support organization provides you with prompt and professional technical support when you need it.

■ For information about various Windows issues, see the Web site *http://www.microsoft.com*

■ For details on installation and performance issues, check the Web site of your graphics card manufacturer.

■ Bookstores provide an array of helpful books on Windows for various types of users and administrators.

Licensing troubleshooting

Brief description	Question	Solution
Run two copies of SketchBook Designer	Q. Can I run two copies of SketchBook Designer at the same time on the same machine?	A. Yes. If your computer gets its SketchBook Designer license from a license server, it uses only one license even if you run multiple copies of SketchBook Designer on the same machine. Note that on Mac OS, to run two copies of SketchBook Designer at the same time, you must copy the application file (.app) itself and then double-click the copy.
Kill SketchBook Designer	Q. How do I kill the SketchBook Designer program when I can't exit?	A. The Windows Task Manager lets you kill a task that for some reason no longer responds to your commands. To display the Task Manager, press the Ctrl + Shift + Esc keys. On Mac OS, use Force Quit Application to kill a task. To display Force Quit Application, press the Command + Option + Q + Esc keys. If possible, do not quit SketchBook Designer in this way, because you are likely to lose some of your work. Instead, click **File > Exit.**
Version info	Q. How do I find out which version of SketchBook Designer I have?	A. In SketchBook Designer, click **Help > About SketchBook Designer**; or on your Windows desktop, right-click on the icon and choose **Properties**.

Brief description	Question	Solution
Start time	Q. How long does it take SketchBook Designer to start?	A. This depends on the speed of your computer. In any case, SketchBook Designer should start within ten seconds.
Operating Systems	Q. Can I run SketchBook Designer for Windows on Windows 95, Windows 98, or Windows 2000?	A. No. Refer to System requirements for Windows (page 3)to determine which versions of Windows are qualified to run SketchBook Designer.

Installation Troubleshooting

This section provides solutions to installation issues and answers to commonly asked questions that may arise while installing your product(s). Additional troubleshooting information and support is also available at *http://autodesk.com/servicesandsupport*

Frequently Asked Questions

For advice and assistance with topics not covered here, go to *Autodesk Support*, click your product name, and search in the Knowledgebase for your product.

What if I have lost my serial number or product key?

Check your product packaging or purchase records, if available, or contact *Autodesk Customer Service* for assistance.

Why do I need to activate a product after installation?

Activation verifies for Autodesk and for you as a license holder that your Autodesk product is installed on an eligible computer. The activation process improves license security and management. For example, it ensures that a multi-seat license is not in use by more than the authorized number of users.

How does a trial license work in a product suite or bundle?

A single trial period, usually 30 days, applies to all Autodesk products in the suite or bundle. When the first product is started, the trial period countdown begins for all products. If the user does not activate one of the products before the trial period ends, access to all of the products is denied. After the trial period ends, the user can restore access to the products by entering an activation code.

How do I switch my license from stand-alone to network or network to stand-alone?

If you simply entered the wrong license type by mistake, and are still running the installer, use the Back button to return to the Product Information dialog, and change the license type.

If you want to change the license type for an installed product, contact your Autodesk reseller or license supplier to obtain the new license and serial number. Then uninstall your product and run a new install to change the license type and enter the new serial number.

After installation, how can I change product configuration, repair, or uninstall the product?

1 Go to the Windows control panel:

- Windows XP: On the Start menu, click Settings ➤ Control Panel ➤ Add or Remove Programs.

- Windows Vista or 7: On the Start menu, click Settings ➤ Control Panel ➤ Programs/Uninstall a Program.

2 In Windows control panel, click the product name, and then click Change/Remove (Windows XP) or Uninstall/Change (Windows Vista and 7).

The Installer opens in maintenance mode, and directs you through the process.

General Installation Issues

This section outlines common issues and their solutions that may arise while performing a general install of your product(s).

How can I check my graphics card driver to see if it needs to be updated?

It is recommended that you verify and update your graphics card driver to optimize your program. Use the following procedure to identify your current graphics card driver.

To identify your graphics card driver on Windows

1 On the Start menu (Windows), click Settings ➤ Control Panel.

2 Click the Display icon to access the Display Properties.

In Vista, click Settings ➤ Control Panel ➤ Personalization ➤ Display Settings.

3 Open the Settings tab and click the Advanced button.

4 Click the Adapter tab to check the adapter type.

5 Click the Properties button and open the Driver tab to check driver version and see if newer drivers are available.

TIP

Many newer graphic cards offer tabbed pages where you can learn more precise information about your specific graphic card. If specific tab pages are present, refer to them instead of the Adapter tab.

Where are my product manuals?

Documentation for Autodesk products are available in two formats: CHM and HTML.

- CHM files are available after the product is installed; they are accessed in the Help menu in the product.
- HTML files are available after the product is installed; they are accessed in the Help menu in the product.

For late-breaking information see the product's *Readme* file, on the product disc. The Readme is also available from the Installation Complete page, or through the Help system.

Where can I find product license information after installation?

Select Help menu ➤ About, or About *[Product Name]*. If your product uses InfoCenter, that is where you can find the Help menu.

Networking Issues

This section outlines common issues and their solutions with regards to performing a network installation or configuring your network license server(s).

Where do I find my server name on Windows?

When installing a network licensed product, you must specify the name of the server that will run the Network License Manager. If you don't know the server name, you can quickly find it by opening a Windows command prompt on the system that will be the Network License Manager. At the prompt, enter **ipconfig /all** and note the Host Name entry.

Uninstall and Maintenance Issues

This section outlines common issues and their solutions with regards to adding and removing features, reinstalling or repairing your installation, and uninstalling products.

Uninstall and Maintenance Questions

How can I see what is included in a default installation?

To see what is installed during a default installation, go through the installation process to the Product Configuration page. The products selected here are installed in a default installation. If you click a selected product box to open the configuration panel, you can see the default settings for subcomponents and features.

Is it possible to change the installation folder when adding or removing features?

After your product is installed, you cannot change the installation path. Changing the path while adding features results in program corruption, so it is not an option.

How do I install tools and utilities after installing my product?

Run the installer again from the original media, and click Install Tools & Utilities on the first screen. The installer guides you through the process of selection, configuration and installation of tools and utilities.

When should I reinstall the product instead of repairing it?

Reinstall your product if you accidentally delete or alter files that are required by the program. Missing or altered files adversely affect the performance of your product and cause error messages when you try to execute a command or find a file.

If an attempt to repair an installation fails, reinstalling is the next best option.

Do I need the original media to reinstall my product?

Yes. When reinstalling a product, you are prompted to load the original media. If the product was installed from a network deployment, you need access to the original deployment, unaltered by later changes such as the addition of a service pack.

When I uninstall my software, what files are left on my system?

If you uninstall the product, some files remain on your computer such as files you created or edited (for example, drawings or custom menus).

Your license file also stays on your computer when you uninstall your product. If you reinstall on the same computer, the license information remains valid; you do not have to reactivate the product.

Glossary

activate Part of the Autodesk software registration process, it allows you to run a product in compliance with the product's end-user license agreement.

administrative image A collection of shared file resources created by the deployment process and used to install the program to network computers.

deployment The process of installing Autodesk products to one or more computers on a network.

hot fix Autodesk terminology for a minor application patch that contains a few code fixes.

installation image A deployment that consists of one or more MSI files and their associated data files, any associated transforms, additional user-specified custom files, profile, and registry settings.

language pack A set of installed files, used by some Autodesk products, that enable the user to work in the application in the language specified by the language pack.

language family A set of languages (core product, plus language packs) that are distributed together, typically based on a geographic grouping. Languages are not distributed in this way for all Autodesk products.

License Transfer Utility A tool used to transfer a stand-alone license for an Autodesk product from one computer to another, using Autodesk servers. Both the source and target computers require Internet access.

multi-seat stand-alone installation A type of installation in which multiple stand-alone seats of the product are installed using a single serial number.

network license installation A type of installation in which the product is installed on multiple computers, but the distribution of licenses is handled by the Network License Manager.

patch A software update to an application.

service pack Autodesk terminology for a major application patch that typically includes many code fixes.

silent mode An installation that proceeds without any explicit user input. No dialog boxes are presented that require interaction from the user.

Index

A

activating programs   12, 18
activation   68
activation by serial number   12
activation code   19
AdLM (Network License Manager)   47
administrator permission requirements
      stand-alone installation   6
Adskflex option   59
adskflex.exe (Autodesk vendor
            daemon)   34, 56
Alias
      Windows system requirements   3
Autodesk
      License Transfer Utility   22
      products
            activating   18
Autodesk License Borrowing utility   59
Autodesk License Manager   47
Autodesk Network License Manager   59
Autodesk products
      borrowing network licenses for   58
      using off network   58
Autodesk vendor daemon   56

B

borrowing licenses
      about   58
      reconnecting and borrowing
                  again   59, 60
      returning licenses   60
borrowing periods   59
BORROWLICENSE command
      about   60
bundled products   15

C

cascading license files   41

change license type   68
Commercial licenses   18, 46
configuration
      defaults   71
configuring
      license servers   50, 51, 57
copying
      licenses   22, 26

D

daemons
      license manager daemons   34
      vendor daemons   34
      versions of   56
date and time, system   27
dates
      expiration   59
default installation   71
disk space
      Windows   5
display product license information   20
distributed license server model
      about   32
      license file example   38

E

early returns of licenses   60
Educational (EDU)/Institution
            licenses   18, 46
entering, serial number   12
Ethernet address   48
expiration dates for licenses
      about   59
exporting licenses   22
      transfer files   23

F

faxing registration information   14