

# **Automation Engine 21**

Installation Guide v21

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# 1. How to Install Automation Engine 21

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## 1.1. Before installing Automation Engine 21

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Before you install Automation Engine 21 on your system, prepare or check these topics:

- First make sure you checked the *Pre-Installation IT Requirements Guide*, a chapter in the Automation Engine Complete Manual, available on <https://www.esko.com/en/Support/Product?id=Automation%20Engine>.
- Install Automation Engine 21 on a "clean" system, where no Esko software has been installed yet. If any other version of Automation Engine was installed already, see the section *How to Upgrade to Automation Engine 21* on page 13.
- You will need the DVD: "**Automation Engine 21 installation**".

**Note:** If you downloaded the software from [MySoftware.esko.com](http://MySoftware.esko.com), you will need to mount the corresponding .iso files as virtual DVD, or unpack the .iso files first.

**Note:** Make sure you are aware **which type of installation** you are doing. This is explained in the next page, in *Types of Installations*.

- Your computer must meet the minimum requirements for the installation, as described on [www.esko.com/systemrequirements](http://www.esko.com/systemrequirements).
  - **Windows operating system:**
    - The windows OS on an AE server must be a "**Server**" type. The supported versions of the Microsoft Server OS are listed on <https://www.esko.com/systemrequirements>.
    - The Windows OS must be **64 bit**.
  - **Databases.** Automation Engine server software uses many databases. A standard installation installs the default supplied Microsoft SQL Express edition on the Automation Engine server.
    - The supported versions of Microsoft SQL Server are listed on <http://www.esko.com/systemrequirements>. In the Server Admin web page, use **Server Checks > Databases** to check if the installed database software is supported.
    - Automation Engine can use a full **SQL Server** instead of the default installed Express edition. Learn more about pro's and con's on [this page](#) in the chapter "*Pre-Install IT Requirements Guide*".
- You need (new) **software licenses** for Automation Engine: a product key file. If you do not have a product key file yet, contact [Esko Support](#).
- You need **internet** access from that server computer.
- You need to have **Administrator** privileges.
- Make sure your anti-virus software is not blocking the installation or configuration.
- You may **not** have an IIS web server installed on your system.

## 1.2. Types of Installations

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The installation procedure will ask you which type of installation you want to do.



**Attention:** Before making these decisions, first learn about the possibilities of different database servers on [this page](#) in the chapter *Pre-Install IT Requirements*.

- **Standard Installation**

- **Automation Engine Master, Device Manager or WebCenter OBGE.**

These installations also install the default supplied Microsoft SQL Express edition on the Automation Engine server.

**Note:** A **Device Manager** is a server software limited to communicating with CDI's or Kongsberg table devices. A **WebCenter OBGE** (On Board Graphics Engine) is a limited Automation Engine used to calculate the view files for an Esko WebCenter. This will typically be installed on the WebCenter Application Server.

- **Automation Engine Assistant.**

This installs an Automation Engine that you can (later) configure to be used as an Automation Engine Assistant. This option will *not* install a Microsoft SQL Express server.

- **Installation for use with an existing Microsoft SQL Server**

- **Automation Engine Master, Device Manager or WebCenter OBGE.**

These installations will use a remote SQL Server that is already available in the network. They will *not* install a Microsoft SQL Express server. For example: when you are installing an OBGE and you want it to use the SQL Server already used by your (full) WebCenter.



**Attention:** This type of installation includes an embedded mini database server engine. This embedded engine is not fit for production ; it is a temporary setup until you have chosen a different supported database engine.

## 1.3. How to Perform the Automation Engine 21.03 System Readiness Check

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Before you install Automation Engine 21, a System Readiness Check is required. This checks whether the operating system is suited for installing and running this Esko product.

1. On the DVD, in the section **Software installation**, click the type of installation that fits your purpose (as explained in [Types of Installations](#) on page 4).
2. In the section **Installation**, under **Instructions**, click **Run the Automation Engine Readiness Check**.
3. At the end of the **Readiness Check**, read the resulting messages carefully.
4. If the **Readiness Check** resulted in any problem, correct it before proceeding.
5. Click **Exit**.
6. Proceed to install the [Esko License Server](#).

## 1.4. How to Install the Esko License Server

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Use of the Automation Engine software is protected by licenses. These licenses are distributed as a product key file (in .HTML). To import the licenses into the Esko License Server, the product keys in the product key file must be activated using the **Network License Manager** tool.

You need:

- A product key file for the Automation Engine 21 product components. If you do not have a product key file yet, contact [Esko Support](#).
- Internet access, to activate the licenses.
- An **Esko ID** in order to activate the licenses. Get one at <http://www.esko.com/licensing/CreateAccount>.

Follow these steps:

1. On the DVD, in the section **Installation**, under **Instructions**, click **Install the License Server Components**.
2. Install the Esko License Server by clicking **Install the Network License Manager**.
3. Follow the instructions of the installation wizard.
4. When the installation is finished, click **Network License manager > Network License Manager**.
5. **Local License Manager**: If you want to activate the license on your local computer (recommended in case of an Automation Engine Master), follow these steps:
  - a) In the **Esko Network License Manager**, click **Activate**.
  - b) Follow the instructions of the **Activate License Wizard**.
  - c) When asked how to activate the licenses, choose **on-line activation**.
  - d) When asked about the product keys, choose **I have a file containing one or more product keys**.
  - e) Click **Browse** to select the product key file.
  - f) When asked, fill in your **Account Name** and **Password**.
  - g) Click **Finish**.

The licensed products you can use are now visible in the Esko License Server.
  - h) Close the License Manager and click **Go back** in the top-right corner of the page to return to the **Installation** page.
6. **Remote License Manager**: If you are using a remote license manager (typical in case of an Automation Engine Assistant), you only need to indicate where it is. Follow these steps:
  - a) In the **Network License manager**, open the **Help** menu and click **License client configuration**.
  - b) In the License Client Configuration window, in the field "**computer name of the License server**" type in the host name of the license server and click **Apply**.
  - c) Click **Exit**.
7. Now continue by clicking on [Install the prerequisite components](#).

## 1.5. How to Install the Automation Engine Prerequisite Components

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Depending on the products to be installed on this particular system, various components are required for installation. The installation wizard for these prerequisite components checks the licenses, lists the prerequisite components to install, requests confirmation for installation and then installs the required components.

The installation wizard installs the following components:

- **Microsoft Visual Studio Redistributables**
- **Esko CAD-X components** for Standard and Enterprise Editions.

**Note:** Do not install the CAD-X components when ArtiosCAD is already installed on that server.

- **Database Engine for the Automation Engine** components (if you choose a **Standard** Automation Engine Installation)

Follow these steps:

1. On the DVD, in the section **installation**, click **Install the Prerequisites Components**.
2. Follow the instructions of the installation wizard.
3. When you choose a **Standard** installation, when asked to enter a password for the SQL Server, enter a **Password**, confirm it and click **Use Password** to use a different password, for example because of "Strong Password" requirements.

You can know more about Installation of Automation Engine in this [KB article](#)

**Note:** During the pre-installation of the Database Engine for Automation Engine, the Microsoft .NET Framework will be installed. You may get a warning saying that the system needs to be rebooted, followed by a fatal error "The SQL Server instance is not installed". If this happens, reboot your server and install the prerequisites again.

4. The installation wizard will ask you to close all Esko applications. Click **Yes** when asked **Ready to continue?**
5. Follow the instructions of the installation wizard.
6. Click **Continue**. Click **Yes** in the **Installshield Wizard Complete** message window.
7. Depending on your activated licenses, the **Automation Engine Prerequisite Components Installation** process may ask you separately about the **CAD-X** component installation for both the Standard Edition component and the Enterprise Edition component. If the Automation Engine is installed on the Application server, In both cases, click **Yes** when asked **Ready to continue?.**
8. Follow the instructions of the installation wizard.
9. Click **Exit**.

You will be redirected to the installation page to continue with the next step.

## 1.6. How to Install Automation Engine 21.03

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1. After running the **System Readiness Check** and installing the **License Server Components**, when all prerequisites are fulfilled, you can start the installation.
2. Click the **Install Automation Engine 21.03** link on the installation page. The **Automation Engine 21.03 Software Installation** wizard will open up.
3. Follow the instructions of the installation wizard.
4. Read the **Software and Data license agreement** carefully and select **Yes, I accept the license agreement**.

5. When asked to select the products to install on this system, select **Automation Engine 21.03**.  
The group **Common Components** cannot be deselected and will be installed on all systems.
6. Select the **Destination Folder** for the chosen products or accept the defaults.
7. Follow the instructions of the installation wizard.
8. At the end of the installation, click **Finish**.

In case of a clean installation, a pop-up dialog asks the user name and password to use as the System Account for installing the Windows services. The proposed default user name is BGSYSTEM and the password must be provided, either for an existing local user or domain user, or for a local user to be created. The check continues until a strong enough password is provided. If the password does not match for the existing user, an error dialog will indicate "wrong user name and password".

**Note:** You can later change this system user using the [Server Config tool](#) on the AE server itself.

**Note:** Learn more about [Users and Groups](#) in the separate chapter [Pre-Install IT Requirements](#).

After installation of Automation Engine, a shortcut named "**Automation Engine Client Apps**" is put on the desktop of the server computer.

Double-click this shortcut to open the Automation Engine **Client Apps** web page in your default browser.

This page describes the two types of client applications:

- Desktop client applications (Pilot or Shuttle): These need to be installed on each workstation from where you want to use Automation Engine.
- Browser based client applications: These run inside a browser and do not need to be installed. You may want to bookmark some specific pages.

## 1.7. How to Install Pilot or Shuttle

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The Automation Engine client software is distributed via the standard browser client

**Note:** Before version 20, this was done via the **Server Admin web page**.

**Note:** Whenever your Automation Engine server is updated, the Pilot or Shuttle will request an update. The automatic update mechanism alerts client users to update when hot-fixes and minor version updates (for example 18.1 to 18.1.1) are available. When the server had a major version upgrade (for example: 18.1 to 20, or 20 to 20.1), you need to re-install the client applications (and when ready, remove the old ones).

1. Open your web browser and go to `http://AEServername:9000/`, where `AEServername` is the name of the computer running the Automation Engine server software.
2. The first time you install one of the client applications, you will be asked to create an **Administrator** account.

**» CREATE AN ADMINISTRATOR ACCOUNT**

You need an Administrator account to access the Server Admin. Please fill in the details below to create an Administrator account and get started.

User name:

Full name:

Email address:

Password:

Confirm password:

Description:

**CREATE**

Once you have created the **administrator account**, you will be directed to either

- the tab "**Apps & Tools**" of the downloads page, where you can download Client Applications if you did install a Standard Automation Engine.
- or to the **Create Automation Engine Database** page if you did install an **Automation Engine Master for use with an existing Microsoft SQL Server**. This is where you then need to configure and create your Automation Engine databases.

In the **Create Automation Engine Database** window, select your **Microsoft SQL Server** and **Instance** name, type in the **sa** password and type in the **Database folder** and either

- click **create** to start the automatic creation and configuration of the databases,
- or, if you want to create and configure the databases manually, click **Continue using embedded databases**.



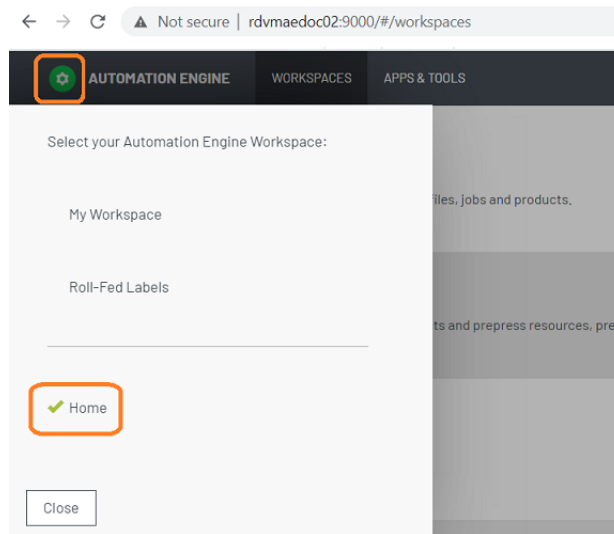
**Attention:** It is not supported to use Automation Engine with embedded databases in a production environment.

Learn more about creating databases for Automation Engine in [Creating a Database](#). Learn more about configuring an Automation Engine database in [Automation Engine Database](#).

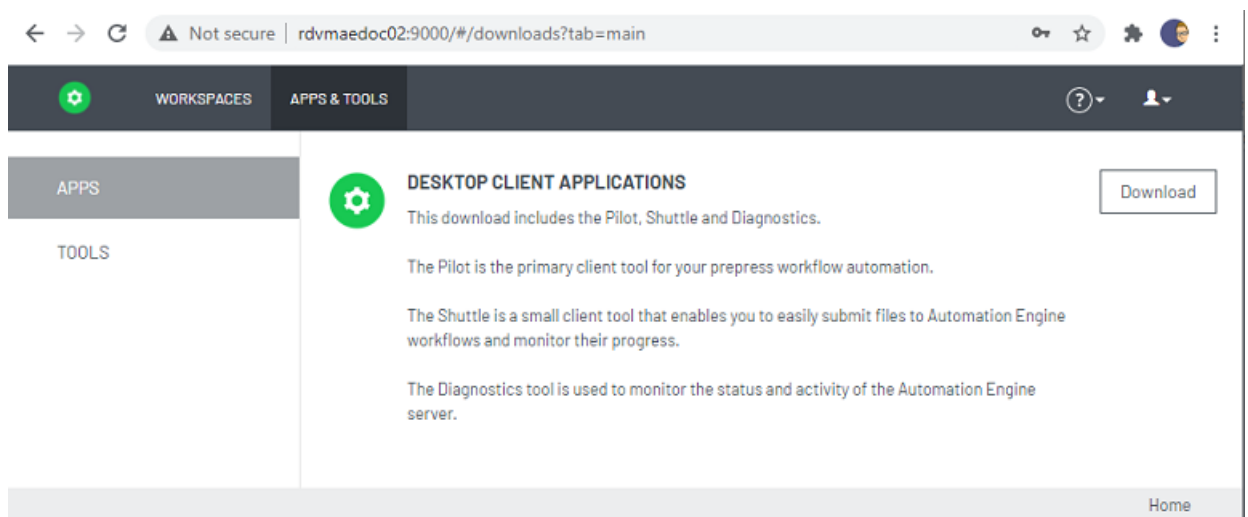
After creation and configuration of the databases, you will be redirected to the **Main** page of the tab "**Client Apps**", where you can download the client applications.

3. In the browser client, go to its home page (click on the AE product icon and below the available client workspace(s), click **Home**).





4. In the tab **Apps**, click **Download** and save the executable somewhere on the client computer.



5. Start the installation by double-clicking the downloaded executable.
6. Follow the instructions of the installation wizard.
7. Read the **End User License Agreement** carefully, select **Yes, I accept the license agreement** and click **Next**.
8. Follow the instructions of the installation wizard.
9. At the end of the installation, click **Finish**.
10. Double-click the **Automation Engine Pilot** or **Shuttle** shortcut on the desktop.  
 This install of the client components also installed the Diagnostics tool (no desktop shortcut). Learn more in [Troubleshooting the Software](#).
11. Fill in the **User name**, **Password** and **Server Name**. You can here use the administrator account that you created earlier. Click **OK**.

The Pilot or Shuttle will start up.

### 1.7.1. Initial Configuration (Pilot)

After an initial installation of Automation Engine, you typically want to configure a minimal setup that includes:

- **Containers.** Define which existing or new data shares contain the data that Automation Engine will be able to work with.

Learn more in [Containers](#).

**Note:** An initial installation already creates an **ExampleJobContainer** on the disk where you installed the server software.

- **Users.** An initial installation creates a default user and user group.

Learn more in [Accounts Views](#).

- **Task Cleanup Rules:** This is needed to avoid that your tasks database becomes too large and then slows down your server.

**Note:** A new installation will also have created a default Task Cleanup rule. Learn more about changing or adding such rules in [Task Cleanup Rules](#).

- **Temporary data.**

Automation Engine creates a lot of temporary data on the folder defined by the Windows variable %BG\_TMP.

The folder where this variable is set to should be a fast drive with >50 GB free space.

By default this is installed on the same drive as where the software is installed. In case that disk threatens to fill up, we advise to redirect that variable to another place. Learn how to do this in [this KB article](#).

## 1.8. How to Open a Browser Client

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To open an Automation Engine browser client, open a web browser on your workstation and go to `http://servername:9000`, where `servername` is the name of the computer running the Automation Engine server software.

Configuring an Automation Engine browser client is shown in the eLearning module 'About Installation and Configuration' of the [course about the workspace 'Roll-Fed Labels'](#) (on the [Esko Blended Learning platform](#)). This eLearning module is a summary of what is described in [the chapter 'Post-Install Configuration'](#) in this manual.

**Important:** When your browser client is not using HTTPS in its communication with the AE server, the sign-in dialog will mention this and refer to [this KB article](#) that explains how to set up using HTTPS.

## 1.8.1. Initial Configuration (Browser Client)

After an initial installation of Automation Engine, you typically want to configure a minimal setup that includes:

- **Containers**

At first sign in to the browser client, you will be asked to define a **Data Container**. Define which existing or new data shares contain the data that Automation Engine will be able to work with.

**Note:** An initial installation already creates an **ExampleJobContainer** on the disk where you installed the server software.

- **Users**

At first sign in to the browser client, you will also be asked to create an administrator user.

**Note:** The others can later be created via the menu **Admin > Users**.

- **Task Cleanup Rules**

The product preparation tasks that run on the server will be cleaned up automatically by default 'Task Cleanup rules'.

- **Temporary data.**

Automation Engine creates a lot of temporary data on the folder defined by the Windows variable %BG\_TMP.

The folder where this variable is set to should be a fast drive with >50 GB free space.

By default this is installed on the same drive as where the software is installed. In case that disk threatens to fill up, we advise to redirect that variable to another place. Learn how to do this in [this KB article](#).

## 2. How to Create a full Backup of Automation Engine 21

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You can create backups with the tools available in **Server Admin** section of the **Automation Engine Server Admin web page**.

These tools are documented in the page [Backup](#) of the chapter [Automation Engine Server Management](#).

## 3. How to Upgrade to Automation Engine 21

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You need to upgrade to Automation Engine 21 in the following order:

1. [Create a backup of your current Automation Engine.](#)
2. [Perform the System Readiness Check.](#)
3. [Upgrade the License Manager.](#)
4. [Upgrade the prerequisite components.](#)
5. [Upgrade the Automation Engine software.](#)

### 3.1. Before Upgrading to Automation Engine 21

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Before you upgrade to Automation Engine 21, prepare the following:

- Make sure you have a [backup](#).
- Check the document [Pre-Install IT Requirements](#), a separate chapter in [the Automation Engine complete manual](#).
- You will need the DVD "**Automation Engine 21 installation**".

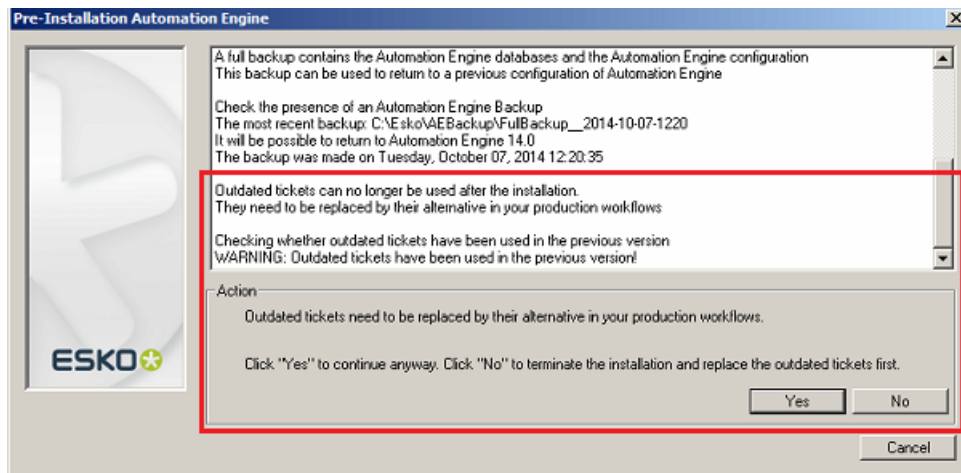
**Note:** If you downloaded the software from [MySoftware.esko.com](http://MySoftware.esko.com), you will need to mount the corresponding .iso file as virtual DVD.

- You must have a working version of **Automation Engine 16** or higher.
- Your computer must meet the minimum requirements for the installation, as described on [www.esko.com/en/SystemRequirements](http://www.esko.com/en/SystemRequirements).



**Attention:** Make sure to check that the version of SQL Server that your previous AE version was using as database server is still supported.

- You need a product key file for the upgrade (every new major version requires a new license set). If you do not have a product key file yet, contact [Esko Support](#).
- Use [Status Overview](#) to make sure no more users are connected or using the system.
- The upgrade will check if you are still using tasks that have become **Outdated** in the version that you are installing. If any are found, you will have the chance to abort the installation. Learn more about such tasks in [Outdated and Soon Outdated Tasks in this Version](#).



- Reboot the server before upgrading Automation Engine.

## 3.2. How to Perform the Automation Engine 21 System Readiness Check

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1. On the DVD, in the section **Installation**, under **Instructions**, click **Run the Automation Engine Readiness Check**.  
 Learn more in [How to Perform the Automation Engine 21.03 System Readiness Check](#) on page 4.
2. Proceed to install the **Esko License Server**. Click **Install the License Server Components**.

## 3.3. How to upgrade the Esko License Server Components

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The Automation Engine 21 product is protected by (new) licenses. These licenses are distributed as a product key file (a .HTML file). To import these new licenses into the Esko License Server, you must first upgrade the Esko License Server components.

1. On the DVD, in the section **Installation**, click **Install the License Server Components**.
2. Follow the instructions of the installation wizard.  
 During the upgrade of the **Network License Manager**, the current Esko License Server will be stopped temporarily, during which the currently used licenses will be unavailable.
3. When the installation has finished, click **Load the new licenses**.
4. In the **Load new licenses** window, click **Activate Server Licenses**.
5. In the **Network License Manager**, click **Activate**.
6. Follow the instructions of the **Activate License Wizard**.
7. Select **on-line activation**.
8. Select **I have a file containing one or more product keys**.
9. Click **Browse** to select the product key file.
10. Fill in your **Account Name** and **Password**.

11. Click **Finish**.  
The licenses for the upgraded products are now listed in the License Manager.
12. Close the License Manager and click **Go back** in the top-right corner of the page.
13. Click on **Continue with the installation of the prerequisite components** link.

## 3.4. How to Upgrade the Prerequisite Components

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Follow these steps to upgrade the **Prerequisite Components**:

1. On the installation page, click **Install the prerequisite components**.
2. Follow the instructions of the installation wizard.
3. The installation wizard will ask you to close all Esko applications. Click **Yes** when asked **Ready to continue?**
4. Follow the instructions of the installation wizard.
5. Click **Continue**. Click **Yes** in the **Installshield Wizard Complete** message window.
6. **Automation Engine 21 Prerequisite Components Installation** window will ask you about **CAD-X** component installation, both 'Standard' and 'Enterprise'. Click **Yes** if ArtiosCAD is not installed.
7. Follow the instructions of the installation wizard
8. Click **Exit**.  
You will be redirected to the installation page to continue with the next step.

## 3.5. How to Upgrade Automation Engine software

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After the upgrade of the prerequisite components, your system is ready to upgrade to Automation Engine 21.

1. Click on the **Install the Esko Software 21 Automation Engine** link on the installation page.  
The Automation Engine 21 Software Installation wizard will open up.
2. Follow the instructions of the installation wizard.
3. Read the **Software and Data license agreement** carefully and select **Yes, I accept the license agreement**.
4. When asked to select the products to install on this system, select **Automation Engine 21**.  
The group **Common Components** cannot be deselected and will be installed on all systems.
5. Follow the instructions of the installation wizard.
6. Select the **Destination Folder** for the chosen products or accept the defaults.
7. During the pre-installation this question will appear "If you continue Automation Engine <number-of-the-new-version> will be installed but it may not be possible to return to <number-of-your-current-version>. Do you want to continue the installation anyway?". Answer **Yes**.
8. Follow the instructions of the installation wizard.
9. At the end of the installation, click **Finish**.
10. Now install Automation Engine Client Applications. Learn more in [How to Install Pilot or Shuttle](#) on page 7.

## 4. How to Upgrade onto a New Server Computer

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These are the typical cases when you want to change the hardware (computer) of your Automation Engine server:

- You decided yourself that the server computer needs to be updated, usually for performance reasons.
- Your server computer no longer matches Esko's requirements for an Automation Engine server. A typical case is when the Windows OS is no longer supported.

**Note:** Your new server computer can have a different name than the old server computer.

To move your Automation Engine server configuration to a new server, follow these main steps:

### 1. Install Automation Engine on the new server

First you install Automation Engine on this 'virgin' new server. Follow the standard procedure as described in [How to Install Automation Engine 21](#) on page 3.

### 2. Backup your old server configuration, using the backup tool from your old Automation Engine server software

To get the configuration of your old server onto your new one, use the backup tool that is offered in the **Automation Engine Server Web Page** of the old server (go to `http://<name-of-your-OLD-server>:9999/` and sign in).

### 3. Restore that backup on your new Automation Engine server.

To do this, use the **Restore** function as documented in [Restore](#) . Most important is that the restore type "**Migrate Configuration**" is chosen.



## 5. How to Repair an Automation Engine Server

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You typically need to repair a system when software program files got deleted or became corrupt. For example a virus can cause such damage.

**Note:** Only Automation Engine components of the same version as the one on the DVD can be repaired/re-installed.

To repair the Automation Engine server software, proceed as follows:

1. Open the **Automation Engine Software Installation** window:
  - If you insert the distribution DVD into the DVD drive, or mount the corresponding .iso file, the window appears automatically.
  - If you unpacked a downloaded .iso file, or if the window doesn't open automatically, double-click `setup.exe` in the root folder.
2. Select the installation language.
3. Click **Proceed to the installation**.
4. Click **Repair / re-install Automation Engine** and **Choose** which component you want to repair.

# 6. How to Uninstall Automation Engine server software

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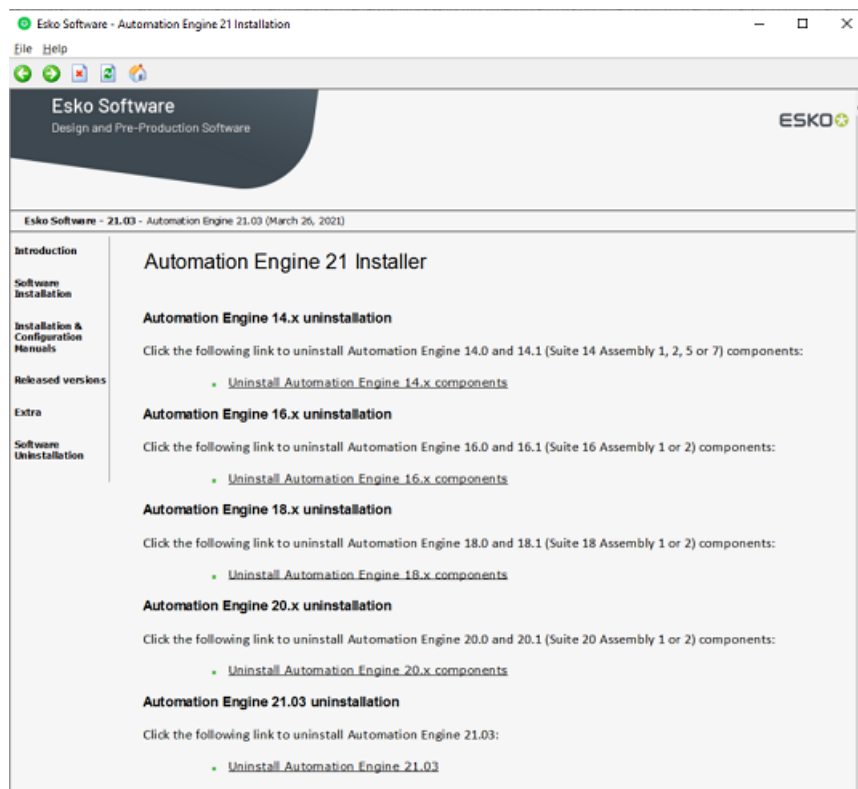
When you uninstall a version of Automation Engine, only that Automation Engine server software is removed.

Resource files like color data, fonts or curves are not touched.

You can choose to uninstall the current version or an older version.

The uninstaller opens a dialog showing all installed software specific to the Automation Engine version that can be uninstalled. The user can select which software to uninstall.

**Note:** Although technically not required, it is a good standard practice to make a [backup](#) of your current configuration before doing an uninstallation.



## 7. How to Install the Configuration Manager

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The **Configuration Manager** tool collects a lot of data regarding software versions, hot-fixes, OS etc. This information can be useful for Esko customer support. It can also alert you on expiring licenses.

Only install the **Configuration Manager** if there is no **Configuration Manager** active on your network yet. **There can only be one Configuration Manager** active on the network.

How to install the **Configuration Manager** is described in its own (installation) manual. Find it on <http://help.esko.com/products/Configuration%20Manager>.