## **Automation Engine 20.1**

Installation Guide





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## 1. How to Install Automation Engine 20.1

## 1.1. Before installing Automation Engine 20.1

Before you install Automation Engine 20.1 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 <a href="http://help.esko.com/products/Automation%20Engine">http://help.esko.com/products/Automation%20Engine</a>.
- Install Automation Engine 20.1 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 20.1* on page 12.
- You will need the DVD: "Automation Engine 20.1 installation".

**Note:** If you downloaded the software from *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.
  - 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 <a href="http://www.esko.com/systemrequirements">http://www.esko.com/systemrequirements</a>.

**Note:** Windows Server 2008 R2 is only supported for doing an upgrade from a previous version of Automation Engine. A new install on that OS is no longer supported.

- The Windows OS must be a 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 <a href="http://www.esko.com/systemrequirements">http://www.esko.com/systemrequirements</a>. 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

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 20.1 System Readiness Check

Before you install Automation Engine 20.1, 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

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 **Activate Server Licenses** tool.

#### You need:

- A product key file for the Automation Engine 20.1 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

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, click Use Default to use the default sa password. Or you can enter a Password, confirm it and click Use Password to use a different password, for example because of "Strong Password" requirements.

**Note:** During the pre-installation of the Database Engine for Automation Engine, the Microsoft .NET Framework 4.6.1 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 First**Installation process may ask you separately about the **CAD-X** component installation for both the
  Standard Edition component and the Enterprise Edition component. 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 20.1

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 20.1 link on the installation page.

  The Automation Engine 20.1 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 20.1**. 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.

The pre-installation task checks the password complexity rules and domain policies. If the default password for the **BGSYSTEM** user does not fulfill the requirements, a pop-up dialog requests a password.

During installation, only a **BGSYSTEM** user is created. This user will be used as Automation Engine **System Account** (you can choose to change it later using *the System Account page*). A clean installation ends with two empty local user groups: **BGUSERS** and **BGADMIN**. Add the **BGSYSTEM** user to the **BGADMIN** local user group.

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

The Automation Engine client software is distributed via the **Server Web Page**.

**Note:** Whenever your Automation Engine server is updated, the Pilot or Shuttle will request an update. The automatic update mechanism alerts you to update when hot-fixes and minor version updates (for example 18.1 to 18.1.1) are available. If you are doing 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).

**Note:** Installing the Pilot is shown in detail in one of the old eLearning modules offered in on https://docs.esko.com/docs/en-us/automationengine/18/quickstartguide/home.html (an example on Windows).

- 1. Open your web browser and go to http://servername:9999/or http://servername, where servername 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.





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

- the tab "Client Apps" 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. Click Download.
- **4.** Start the installation by double-clicking the downloaded executable.
- **5.** Follow the instructions of the installation wizard.
- Read the Software and Data license agreement carefully and select Yes, I accept the license agreement.
- 7. Follow the instructions of the installation wizard.
- 8. At the end of the installation, click Finish.
- 9. Double-click the Automation Engine Pilot or Shuttle shortcut on the desktop.



**10.** 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 rules. 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 the Browser Client

To open the 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.

**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.



**Note:** Configuring an Automation Engine browser client is shown in the eLearning module about Installation and Configuration. This eLearning module is a summary of what is described in the chapter 'Post-Install Configuration' in this manual.

#### 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 20.1

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 20.1

You need to upgrade to Automation Engine 20.1 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 20.1

Before you upgrade to Automation Engine 20.1, prepare the following:

- Check the document Pre-Install IT Requirements, a separate chapter in the Automation Engine complete manual.
- You will need the DVD "Automation Engine 20.1 installation".

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

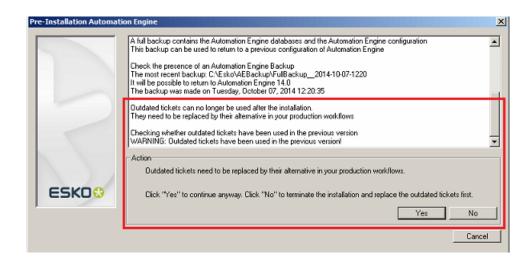
- You must have a working version of Automation Engine 16 or higher.
- Your computer must meet the minimum requirements for the installation, as described on www.esko.com/en/SystemRequirements.



**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 Create a Backup of your current Automation Engine

As an extra security measure, we advise to create a backup of your current version of Automation Engine before upgrading.

- When your current version is 14.0 or higher, make a backup as described in Backup (in the chapter AE Server Management).
- When your current version is 12.x,
  - first make a backup as described in Backup,
  - then upgrade to either 14.x or 16.0,
  - then again make a backup and then upgrade to 18.x
- When your version is 10 or lower, contact Esko Customer Support.

## 3.3. How to Perform the Automation Engine 20.1 System Readiness Check

- 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 20.1 System Readiness Check on page 4.
- 2. Proceed to install the Esko License Server. Click Install the License Server Components.



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

The Automation Engine 20.1 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 temporary, 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.

## 3.5. How to Upgrade the Prerequisite Components

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 20.1 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.



## 3.6. How to Upgrade Automation Engine software

After the upgrade of the prerequisite components, your system is ready to upgrade to Automation Engine 20.1.

- 1. Click on the **Install the Esko Software 20.1 Automation Engine** link on the installation page. The Automation Engine 20.1 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 20.1**. 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

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.

For example: Automation Engine 16 server is no longer supported on Windows 2003 or Windows 2008 RTM 32/64bit. If your server runs Windows 2003 or Windows 2008 RTM 32/64bit, the hardware will also be too old by now to use it for such a vital production tool. This means you will most probably not change the OS on that old server but install Automation Engine on a new computer with a recent Windows OS. For a list of supported OS, see <a href="http://www.esko.com/systemrequirements">http://www.esko.com/systemrequirements</a>.



#### **Attention:**

- Since Automation Engine 18, Windows 2008 R2 is no longer supported for new installations. However, it will still support Windows 2008 R2 for upgrades.
- A next version of Automation Engine will not support Windows 2008 R2 anymore.

**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 20.1* 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* .



# 5. How to Repair an Automation Engine Server

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

When you uninstall a version of Automation Engine, only that Automation Engine server software and the configuration of that version is removed. Also the "**DeskPackContainer**" is removed.

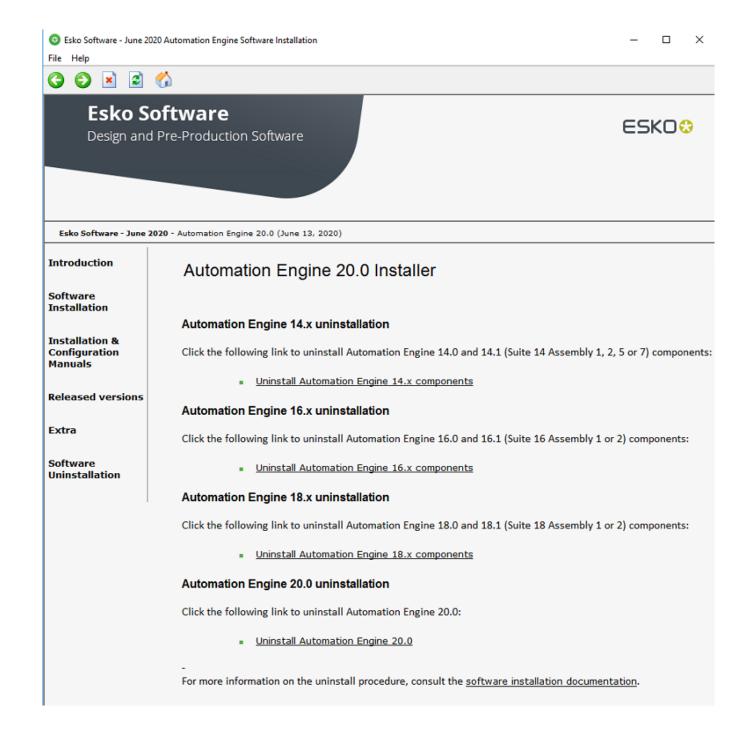
Resource files like color data, fonts or curves are not touched.

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

**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

The **Configuration Manager** tool collects a lot of data regarding software versions, hotfixes, 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 <a href="http://help.esko.com/products/Configuration%20Manager">http://help.esko.com/products/Configuration%20Manager</a>.