

Automation Engine

AE Server Management

06 - 2020

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1. The AE Server Config web page

Concept

This web page serves to administer only very specific parts of the configuration.



Attention: This page can only be accessed from a browser on the Automation Engine server computer itself.

Q: Why is this a separate tool than the [other Server Admin web page](#)?

- A: The signing in to a server admin page requires you to have credentials that correspond to a Windows user on your AE server computer that has administrative rights. The main reason for this is that even when the AE server software is down, you still need to be able to administer some of that server software..

There are 2 ways to open the Server Config web page. On the AE server computer,

- either type this URL in the browser: `http://localhost:9897/`
- or go to **Start > (Programs) > Esko > Automation Engine Server Config**

Note: When you open this page at a moment when there is no administrator account yet on that Automation Engine (typically right after a first installation), then the **Get Started** page is presented first. This page serves to create that initial administrator account. Learn more in .

This page offers 2 tabs:

- [Server Config](#).
- [Server Admin](#).

1.1. The Get Started page

You need an administrator account to start working with Automation Engine.

This page enables you to create such an administrator account and get started.

- Fill in these fields (all are required):
 - **User Name**
 - **Full Name**
 - **E-mail Address**
 - **Password**
 - **Confirm Password**
- Then click **Create Account**. The user account will be created and the [Server Config page](#) will be shown.

1.2. Server Config tab

Tab 'Identity Providers'

Learn the basics about Automation Engine's user model in [Accounts Views](#) and more technical detail on the page [Users and Groups](#).

- **LDAP:** Select **LDAP authentication** when you want to have LDAP accounts able to sign in to Automation Engine.



Attention: In v20.0 the support for LDAP is still in pre-release.

- **LDAP Server:** LDAP server name.
- **System user Name:** System user name of the LDAP server.
- **System user Password:** System password of the LDAP server.
- **User Distinguished Name (DN):** A comma separated list.
- **Required Group Membership:** A comma separated list.
- **Use Secure Connection (LDAPS):**
- **Internal:** The default IdP, internally in Automation Engine.
 - **Enforce complex passwords:** Select this when you require the Automation Engine internal users to have complex passwords. It then sets these password requirements:
 - at least 8 characters
 - at least 1 digit
 - at least 1 uppercase character
 - at least 1 special character ! @ # \$ % ^ & * () _ +
 - excluding spaces

When signing in, the enabled authentication methods will be used in this order: LDAP, Internal and Windows.

- **Windows**
 - **Windows Authentication:** Select this when you still want to use local Windows users in Automation Engine.



Attention: Windows based authentication will become obsolete in a next major version.

Tab 'Browser Client'

- **Enable Browser Client**
 - **Protocol**
 - HTTP

- **HTTP Port.** Default is 9000. When changing this number, you will be asked to confirm.



Attention: Do not change this port number when tasks are running on the server.

- **HTTPS**

- **HTTPS Port:** Default is 9443. When changing this number, you will be asked to confirm.



Attention: Do not change this port number when tasks are running on the server.

- **SSL Certificate Port:** By default, a self-signed certificate will be used. The browser will show a warning when accessing the browser client. The actual message depends on the used browser and its version.

You can add a certificate to the list by installing an SSL certificate on the server using Window Certificate Manager. It should be installed in the Personal store for the System Account <servername>\BGSYSTEM. Select

- **Redirect HTTP to HTTPS:** When selected, type in the **HTTP Port**. The default HTTP port is 9000. When changing this number, you will be asked to confirm.



Attention: Do not change this port number when tasks are running on the server.

- **Disable Browser Client:** When disabling this button, the browser client can no longer be accessed on the LAN.

When applying any changes, you will be asked to confirm.



Attention: Do not make these changes when tasks are running on the server.

1.3. Server Admin tab

All below tools are also part of the [main Server Admin web page](#), as described [here](#).

Status Overview

- **Server Status**
 - **Stop Server**
 - **Activate Server**
 - **Download Log Files**

Status info shown:

- **Connected Clients**
- **Executing Tasks**

- **Current Role**
- **Web Server**
 - **Restart Web Server**
 - **Download Log Files**

2. The AE Server Admin web page (:9999)

The **Automation Engine Server Web Page** allows you to administer and diagnose your server, to define backups, to download client applications, etc. , .

Open the **Automation Engine Server Web Page** by entering `http://<name of your server>` or `http://<name of your server>:9999` in the address field of your browser.

In this tool, the section **Server Admin** offers the features to manage your Automation Engine server. Its sub-pages are documented below.



Attention: When you come to this page right after doing a fresh install where you choose a *Special* installation (one that does not install the default MS SQL Server Express), you will be prompted to first the create all Automation Engine databases. Alternatively, you can also continue using the "Embedded" database (for test-purposes only). Learn more below in *When No Databases were Installed Yet* on page 23.

2.1. Status Overview

The **Status Overview** shows

- **Server Status:**
 - Use the **Stop/Start Server** button to stop or start the Automation Engine server software. Starting or stopping the Automation Engine server software can take several

minutes. This page will indicate the status during this process. You can refresh manually or visit other pages while it is processing.

- **Activate Server** also restarts the software but adds extra processes. When activating the server, a log window will indicate the server activation progress. Only use this on advise of Esko specialists.
- The number of connected clients and executing tasks is shown here. You can see more of their details in the next page [Server Activity](#).
- The **Log Files** button downloads a ZIP file to your computer. The ZIP file contains a folder named `egappsrvlogs` with Viewer log files (`ImageList*.log`), a folder `jbosslogs` with Application Server log files and also the installation logfiles `fastserver_*.log` and `dvd_*.log`.
- **Server version:** Learn more about the installed software in the page [About](#).
- **Current Role.** Learn more about Master and Assistant servers in the page [Server Setup](#).
- **Server Databases:** You can perform detailed checks on databases in the section **Server Checks**. This is documented in [Troubleshooting the Server](#).
- **Web Server:** Use this to restart the Automation Engine web service. This web server is used for HTTP based integration with external systems and is also used to run this web tool. This page is automatically refreshed when the web server is restarted. You can also refresh manually.

The **Log Files** button downloads a ZIP file to your computer containing the log files of the web server and of the **Server Admin** page.

Log files for Client Apps are not shown in the **Server Admin** page because they are executed on the client computer.

2.1.1. FAQs on Restarting and Reactivating the Server

Can I Stop or Activate a Server that still has Connected Clients?

If you try stopping or activating a Master or Assistant server with connected clients and/or executing tasks, you will be asked to close all the Automation Engine applications. If you fail to do so, the open applications will be interrupted and the server will be automatically stopped or activated within five minutes.

Note: Stopping or Activating the server makes it impossible to login via a new client or start a new task on this Automation Engine server.

Note: In Master-Assistant setups, you can restart an Assistant server and continue working on the Master and/or other Assistants. Only the running tasks on that restarting Assistant server will be stopped.

Can I Cancel the Stop and Activate Processes?

You can cancel the **Stop** or **Activate** process by clicking on **Cancel** . You will be able to login again from a client and start new tasks.

You can also **Force Stop** or **Force Activate** while waiting for the open applications to close. The server will then break the connection with clients and will cancel all the executing tasks.

2.2. Server Activity

This page provides details about the connected clients and about the tasks that are currently executing.

- Status Overview
- Server Activity**
- Server Setup
- System Account
- Maintenance
 - Backup
 - Restore
- Databases
- SQL Server
- About

Server RDVMAEDEMO

● running

» Log in to another server

» **SERVER ACTIVITY**


Connected clients: 1

Computer	User	Application
eaw11dl306.esko-graphics.com	wde	Automation Engine Pilot

Executing tasks: 4

Task	User	File
LINKEDGETASK	wde	01_Disappearin Back.ai
LINKEDGETASK	wde	11106_helmet_front.pdf
LINKEDGETASK	wde	200100_banana juice.pdf
LINKEDGETASK	wde	200101_carrot juice.pdf

2.3. Server Setup

Server **RDVMAEDOC02** ● running  [» Sign in to another server](#)

» **SERVER SETUP (THIS COMPUTER)**

Current role

Assistant servers

Processing capabilities

Run tasks

Maximum number of inspection tasks that can be run simultaneously:

The inspection tasks require a lot of computer memory. Only increase this number if your server system has sufficient memory available.

Prepare and view files (Viewer)

Maximum number of files that can be viewed simultaneously:

Calculate layouts (Gang run printing)

Maximum number of layouts that can be calculated simultaneously:

» **TASK QUEUES**

Dynamically manage the number of tasks.


» **CLUSTER SETUP**

Processing channels channels

Reserved channels channels

Specify how many channels should be reserved for synchronous access points for processing incoming requests.

Central resource server

 Click the lock to make changes.

- **Server Setup**

- The **Current role** of an Automation Engine server can be '**Master**', '**Assistant**' or '**Idle**'. Learn more below in [Server Roles](#) on page 11.
- Learn more about **Processing capabilities** [here](#).

- **Task Queues**

Automation Engine's internal CPU queues that handle the task load can work in dynamic or in static mode.

When **Dynamically manage the number of tasks** is

- selected, the CPU queues manage the tasks in dynamic mode. This means that the amount of tasks that are allowed to run concurrent depends on the current load. As always, the maximum amount is defined by the licensed number of processing channels.
- not selected, the CPU queues manage the tasks in static mode. You then can, per [type of processing queue](#), set the maximum number of tasks that can be run concurrent. Warnings appear when you set a number too high.

- **Cluster Setup**

A cluster is the group of an Automation Engine Master and his Assistant servers.

- **Processing channels:** This shows you how many were calculated to be active. This number will be the same as mentioned for the "CPU" queue in the above topic on task queues (when in static mode).
- **Reserved channels** for the Automation Engine web service.
Especially when you use **synchronous** communication in [Web Service access points](#), you need to make sure that the HTTP response back to the external system does not have to wait for other processing tasks.

Note: This number needs to be lower than the available processing channels (mentioned above).

- **Central resource server:** Define here which computer in the cluster serves the central resources.

Learn more in the pages below.

2.3.1. Server Roles

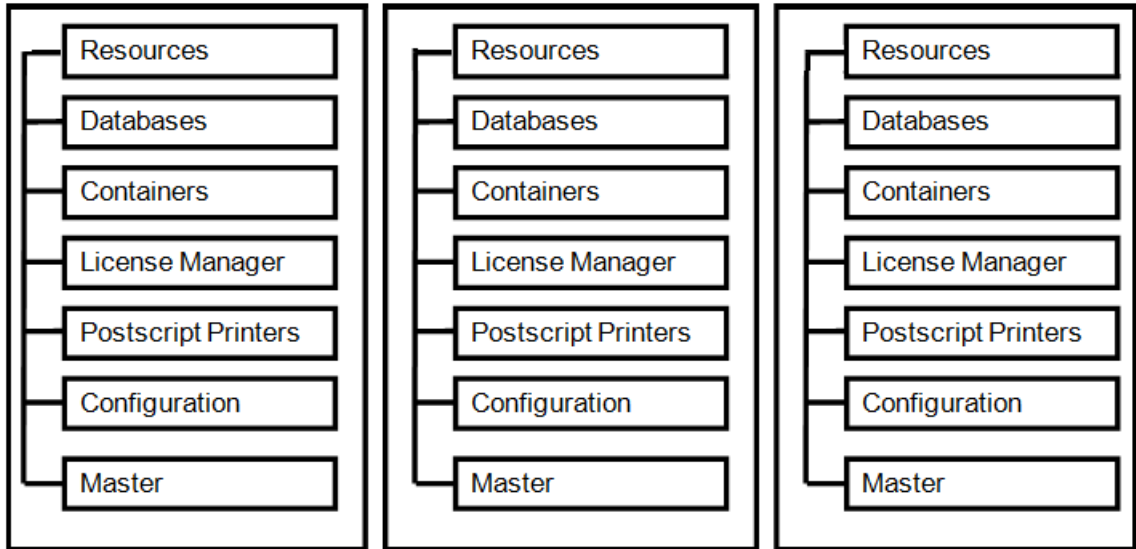
You can configure an Automation Engine server installation as Automation Engine **Master**, Automation Engine **Assistant** or **Idle** (used as Data Server). These setups act as a set of co-operating servers to distribute the workload and provide recovery when one of them goes down.

Automation Engine server Standalone Setup

The simplest configuration is a standalone Automation Engine server setup. You can configure more than one such setups. In this setup,

- each system has its own set of resources (such as Color Engine data, DGC data, font data, custom data, marks data, ink planner data, task history database). They function independently without sharing the workload.
- each system has separate local license management.
- you can create containers on shares of other systems.

Standalone Master Server Setup



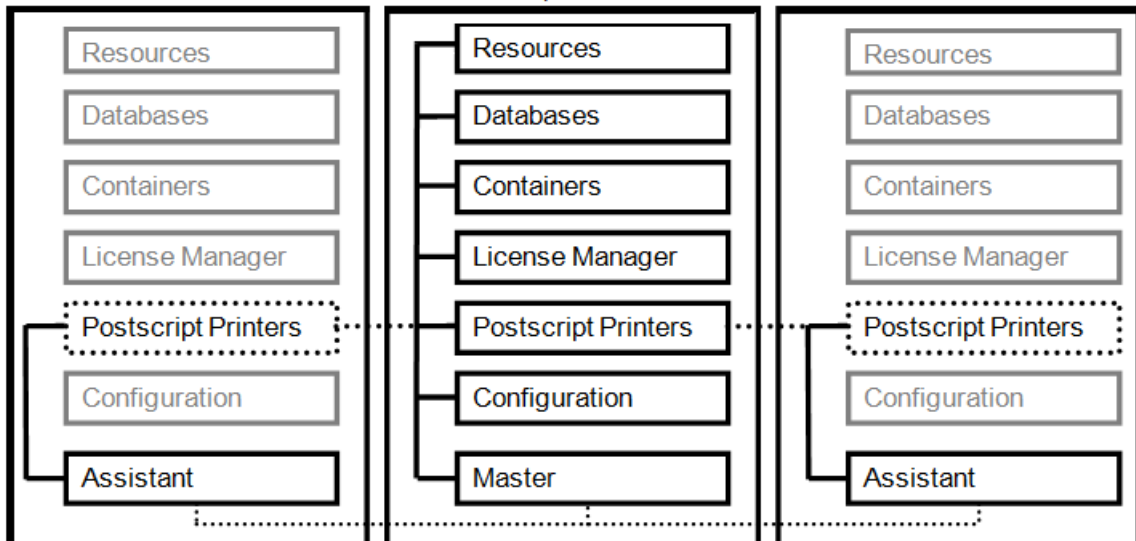
Automation Engine server setup with Assistant system(s)

This consists of an Automation Engine Master server and one or more Automation Engine Assistant systems. In this setup,

- the Assistants use Master resources to execute tasks.
- Automation Engine clients (Pilot, Shuttle, Browser) connect to the Master computer, not to the Assistants.
- the workload on these systems is allocated to the system with the smallest load, preferably another Assistant. If one of the Assistant systems goes down, it is automatically removed from the configuration and the other systems take over the workload.

If the Master system goes down, the complete system shuts down. After one of the Assistants has been promoted to Master, the system can be restarted. The backup of the Master is to be stored on another computer.

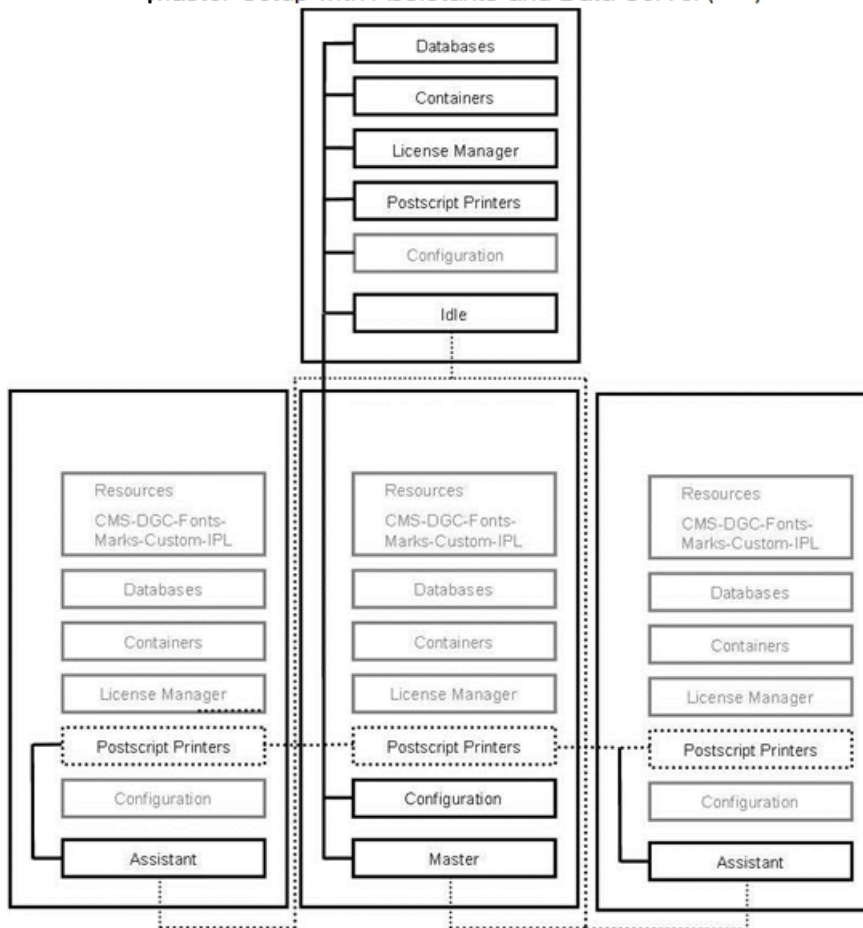
Master Setup with Assistants



Automation Engine server setup with Assistant system(s) and Data Server

You can configure an Automation Engine Data Server (Idle) which can be accessed when the Master goes down along with the Assistants. A Data Server system can be set up for all the resources required to facilitate the take over of the Master role by one of the Assistant systems.

Master Setup with Assistants and Data Server (Idle)



General Remarks

- When you use the **Print Task** to output on PostScript printers, you should define and configure the PostScript printers on all the systems (Master and Assistant).

We recommend installing the PostScript printers

- locally on the Master system (in Master-Assistant Setups)
- or locally on the Data Server (Data Server-Assistant server setups).

Configure them on the network so that you can access them on all other systems as network printer.

- The Application Server software is used by the page workflow applications (Page/Plate/Proof views) and by some tools in the Layout module.

2.3.2. Licensing Requirements for Different Server Setups

You need specific licenses to install or convert systems to Automation Engine Assistants and/or Master.

These licenses are installed on the Master (in Master-Assistant Server setups) and on the Data Server (in Assistant-Data Server Setups). These systems act as remote license manager systems for the Assistant or Master.

2.3.3. Processing Capabilities

What do you allow this server to do?

Can Run Tasks

Select this option to allow this server to execute tasks. If you have a Master server with (several) Assistants and the Master is heavily loaded, you can disable this option for the Master server, and so allocate all workload related to tasks to the Assistant server(s).

Note: Even when you disable the Master server from running tasks, many types of (light) tasks will still run on the Master server.

- **Maximum number of inspection tasks that can be run simultaneously:** If you use the [Global Vision inspection tasks](#), indicate here how many you want to have executed at the same time.

Note: These tasks are run in a separate CPU queue named "CPU_GV". Learn more in [Queue Monitor](#).

Can Prepare and View Files (Viewer)

Select this option to allow this server to run file streaming sessions. These sessions support the Automation Engine Viewer's deep zoom which is started when you view a file that has no prepared view data or when you zoom deeper than the resolution of the prepared view data.

Note: In the Windows Task Manager, these processes are named **sdbserver.exe**.

The **Maximum number of files that can be viewed simultaneously** is important when your server also needs to run other tasks. Learn more about when such sessions automatically close in [Limiting How Many Files you can Open](#).

Important: We strongly recommend that only experienced system administrators or Esko support staff modify this setting.

Can Calculate Layouts (Gang Run printing)

Select this option to allow this server to calculate layouts for **Gang Run Printing**.

The Gang Run Printing uses a nesting server that starts processes to calculate the optimal nested layouts (PDFPLA) of Gang Run jobs for one particular substrate queue at the time. These calculations can be time consuming. You can here define how many substrate queues are allowed to calculate simultaneously.



Attention: The default maximum number is 1. Increasing this number may lead to the Automation Engine server slowing down.

Learn more about Gang Run Printing in its dedicated chapter [Gang Run Printing](#).

2.3.4. Central Resource Server

By default, the Master server uses the locally installed resources.

These resources are:

- `bg_data_cms_v010` – the Color Engine database
- `bg_data_custom_v010` - a folder containing various resources like ArtPro action lists, Print Rule Checker profiles, etc.
- `bg_data_dgc_v010` - the Curve Pilot database contains dot gain curves
- `bg_data_fonts_v040` – the central fonts repository
- `bg_data_ipldata_v010` – the Ink planner data
- `bg_data_marks_v010` – the SmartMarks repository
- `bg_data_screens_v020` - the Imaging Engine screens.

On the Master server, you can use this page to redirect these resources to another system. To do this, type in the name of the other (Data server) system in the server name field.



Attention: However, for performance reasons, Esko advises to keep these resources on the master server.

Note: You can not redirect individual resources.

2.4. System Account

By default, the Automation Engine server service (`BGMD`) and the Automation Engine Web Service (`egwebsrv`) by default run on the service account **BGSYSTEM**.

Changing the password of the default System Account of Automation Engine

This important account initially has a default password. When you in doubt what this password is, contact Esko support.

Many customers insist on changing the user name and password of this account, usually due to IT regulations.

This is possible but needs to happen with the dedicated tool in the [Server Admin web page](#) (**Server Admin > System Account**).

Changing the System Account of Automation Engine

- You can change the user name to another existing Windows user. This user should be a member of the Windows Administrators group on the Master computer.
- Modifying the System Account will, in one operation, modify the service account of the Automation Engine server service (BGMD) and of the Automation Engine Web Service (egwebsrv).

You can use either the local or domain user name.

- If you have configured a Container or Resource on a computer other than the Master, Assistant or Data Server, you have to modify the system account manually.
- If you have configured an Imaging Engine on a computer other than the Master, Assistant or Data Server, then the modification of the system account will be pushed to the Imaging Engine.

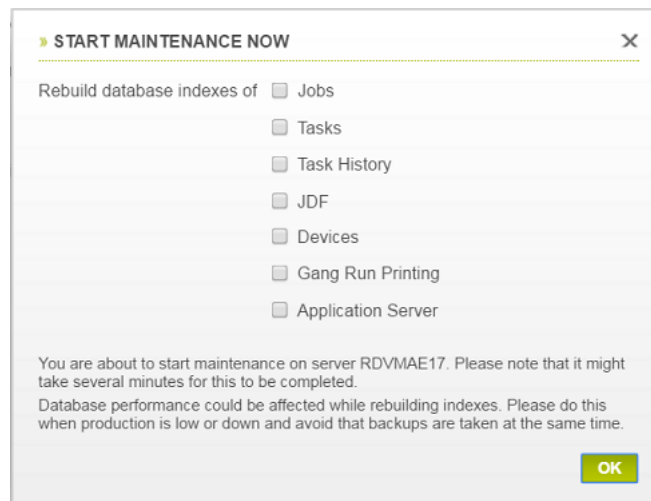
Important: This requires that the new user was added as a member of the Windows Administrators group of the Imaging Engine host. When that is done, also a stop/start of Imaging Engine is required (see **Automation Engine Pilot > Configure > Imaging Engine**)).

2.5. Maintenance

This page serves to rebuild database indexes. Heavily fragmented indexes can cause Automation Engine to respond slowly. You can remedy index fragmentation by reorganizing or rebuilding an index.


Click on **Start Maintenance Now**, select the databases you want to rebuild and click **OK**.

Please mind the dialog's disclaimer:



Note: The **Application Server** database index cannot be rebuild when the database is not running.

Scheduling Maintenance

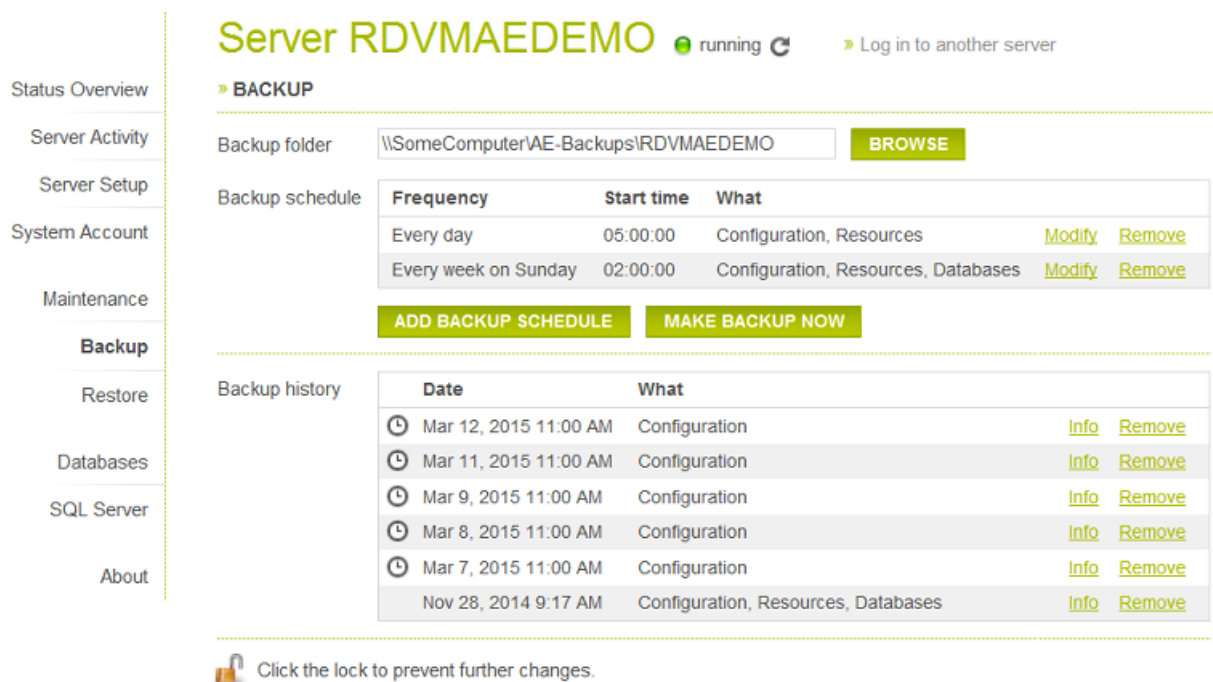
When you want to schedule this maintenance to happen later, unlock the  and click **Add Maintenance Schedule**. Select the databases, frequency and start time. Click **OK**. Please mind the dialog's disclaimer.

2.6. Backup

This page serves to make backups of the server's **Configuration, Resources** and **Databases**.

Tip: It is always a good idea to write the backup on a different computer than where the data originally are. You can of course keep a local path as destination and then for example copy the backup data onto a DVD or USB. The backup is created in a subfolder named `Backup__YYYY-MM-dd-HHMM`. A full backup is named `FullBackup__`

Tip: You can use a UNC path as location. Just make sure that the corresponding share is accessible.



Server **RDVMAEDEMO** running [Log in to another server](#)

» **BACKUP**






Backup folder: **BROWSE**


Backup schedule

Frequency	Start time	What		
Every day	05:00:00	Configuration, Resources	Modify	Remove
Every week on Sunday	02:00:00	Configuration, Resources, Databases	Modify	Remove

ADD BACKUP SCHEDULE **MAKE BACKUP NOW**

Backup history

Date	What		
 Mar 12, 2015 11:00 AM	Configuration	Info	Remove
 Mar 11, 2015 11:00 AM	Configuration	Info	Remove
 Mar 9, 2015 11:00 AM	Configuration	Info	Remove
 Mar 8, 2015 11:00 AM	Configuration	Info	Remove
 Mar 7, 2015 11:00 AM	Configuration	Info	Remove
Nov 28, 2014 9:17 AM	Configuration, Resources, Databases	Info	Remove

 Click the lock to prevent further changes.

You can schedule a backup or run it instantly.

- When choosing **Make Backup Now**, you will first be asked which data set you want.
- When scheduling, you can define when and what to backup and also how many backups you want to keep.

Important: Especially backups of databases can be large. Use the setting **Keep only last 'x' backups** to avoid filling up the disk where you keep the backups.

In **Backup history**,

- the icon  indicates a scheduled backup.

- click on **Info** to see the server name, date, time, size and composition of the backup.
- click **Remove** to manually remove a backup.

To restore a backup, go to the page [Restore](#) .

2.6.1. FAQs on Backing Up the Server Configuration

Is the Configuration of the Automation Engine Backed Up Automatically?

No. You need to schedule backups yourself. Learn more in [Backup](#) on page 17.

Can an Automation Engine Backup be made while the system is running ?

Yes. And you can also make backups when the server software is not running.

What is included in the Automation Engine Backup ?

The backup always includes the basic **Configuration** like tickets, workflows, SmartNames, configuration settings etc. Additionally, you can include **Resources**: these are the DGC files, Marks, Color Engine data, Fonts and Imaging Engine screens. And you can also include the **Databases**.


Note: A backup of the databases is also called a **Restore Point**. When you plan an upgrade, we refer to the specific chapter in the separate installation documentation. [chapter with the Installation Guide](#).

2.7. Restore

In the **Restore** page, you can

- restore, duplicate or migrate your server configuration,
- restore resources or databases only.



Attention: The server software should be stopped before you can open the lock  and choose a backup to restore.

The screenshot shows the 'RESTORE' interface for server 'RDVMAEDEMO'. On the left is a navigation menu with items: Status Overview, Server Activity, Server Setup, System Account, Maintenance, Backup, Restore (highlighted), Databases, SQL Server, and About. The main content area has a header 'Server RDVMAEDEMO' with a 'running' status and a 'Log in to another server' link. Below this is a '» RESTORE' section. A 'Backup folder' text box contains the path '\\homer\AE-Backups\RDVMAEDEMO'. A 'Backup history' table lists several backup entries with columns for Date, What, Info, and Restore. A 'SELECT BACKUP FOLDER' button is below the table. At the bottom, there is a lock icon and text: 'Click the lock to make changes. The Automation Engine Server should be stopped to restore a backup.'

Date	What	Info	Restore
Mar 12, 2015 11:00 AM	Configuration	Info	Restore
Mar 11, 2015 11:00 AM	Configuration	Info	Restore
Mar 9, 2015 11:00 AM	Configuration	Info	Restore
Mar 8, 2015 11:00 AM	Configuration	Info	Restore
Mar 7, 2015 11:00 AM	Configuration	Info	Restore
Nov 28, 2014 9:17 AM	Configuration, Resources, Databases	Info	Restore

2.7.1. How to Restore the Server

When you choose a backup and click on **Restore**, you can choose to

- **Restore configuration:** This is used to go back in time, probably to correct some mistakes, for example when you deleted too many workflow tickets. This **restores everything from the selected backup**.

Note: This action is only possible when you restore on the server where the backup has been taken.

- **Duplicate configuration (test):** This is used when building test setups, for example to test pre-release software or to set up a shadow production server.



Attention:

- This function **does not restore:** Central Resources, Databases, Container setups, Customers, HotFolders, etc. These data are not taken over from the backup and are so left untouched. Mind that the data inside Containers was not part of the backup.
- This function **always restores** (if available in the backup): (workflow) Tickets, SmartNames, Users, DFS information and all data related to the folder `bg_data_custom_v010`.

Note: To build a test setup, you first need to install a full Automation Engine server on the testing computer. This will also require a separate set of licenses. And then you can use this mode to restore the configuration on that testing computer. This way, you can have your production and testing/shadow systems run in parallel.

- **Migrate configuration (production):** This is used when you plan to move your server to another computer or when you upgrade onto a separate computer.

Note: To do this, you first need to install a full Automation Engine server on the new computer. You then use **Migrate Configuration** to restore the old/previous production settings onto the new computer.

You can also use **Migrate Configuration** to give the Master's configuration to an Assistant when the Master goes down.

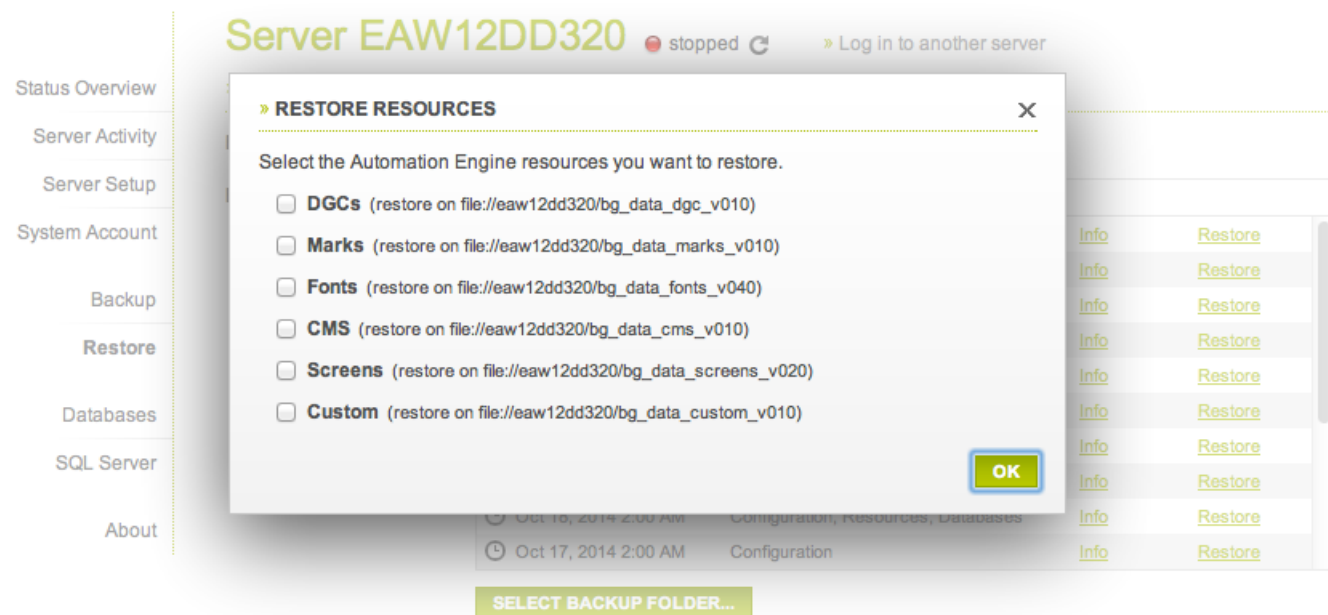
Note: The Master backup can be found on the Assistant computer (by default on C:\Esko\AEBackup).

- **Restore databases only:** Click **OK** to see a further selection of which databases you want to restore: **Jobs** (also includes Customers, Access Points..), **Tasks**, **Task History**, **Application Server** (page workflows), **WFMgr** (internal), **Gang Run**, **JDF**, etc.
- **Restore resources only:** Click **OK** to see a further selection of which resources you want to restore: **DGCs**, **MarksFonts**, **CMS**, **Screens**, **Custom**, etc.

2.7.2. FAQs on Restoring Server Backups

Can I only Restore specific Parts of the Backup?

When you restore Resources, you can specify selections:



How should I use Backup and Restore when I upgrade my Automation Engine server software?

For all questions on upgrades, we refer to the [Installation Guide](#), which is a specific chapter in AE's Complete manual.

2.8. Databases

In the **Databases** page you can manage all databases that are on any accessible **SQL server** in your network. Depending on the permissions on the selected SQL **Instance**, you can:

- View the SQL server status.
- View the properties and status for each database.
- Backup or Restore databases.
- Repair databases (for example to repair access rights.)
- Move databases.
- Create or remove databases.

Note: Even when you are logged in to the **Server Admin** page, you also need to log in to the SQL Server instance separately. For example via the user `sa`.

The screenshot shows the 'Automation Engine Server' interface. The top navigation bar includes 'CLIENT APPS', 'SERVER ADMIN', and 'SERVER CHECKS'. The main content area is titled 'Server RDVMAE03' and shows the 'Databases' section. A dropdown menu for 'SQL server' is set to 'RDVMAE03' and 'Instance' is set to 'MSSQLSERVER'. A list of databases is shown on the left, with 'BSJobs' selected. The details for 'BSJobs' are displayed on the right, including its creation date (2017-07-17 16:41:21.337), size (20 MB), and used space (2.68 MB). A red box highlights the 'You're currently logged in as sa' notification in the top right corner. Another red box highlights a lock icon with the text 'Click the lock to prevent further changes.' at the bottom of the database list.

Note: When you use **Gang Run Printing**, it is possible to have a setup where this mode uses its own database, separated from the `BSJobs` database. You can then see it here listed as a separate database named `GangRunPrinting`.

The database **Status** can be any of these:

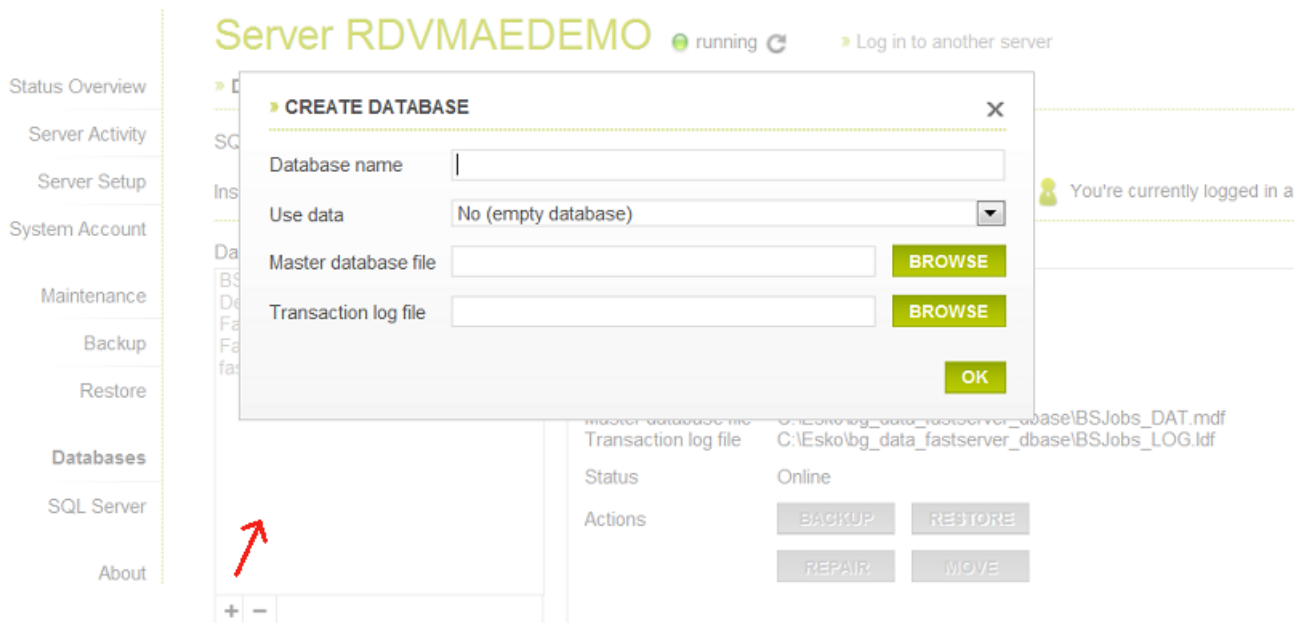
- **Online:** The SQL Server instance where the server database is located is running. This also implies that the user name and password used to login to the SQL Server instance are correct. The server database is online and available for access.
- **Not Accessible:** The SQL Server instance where the server database is located is running. Valid credentials (user name and password) are used. But the server database on the SQL Server instance is not accessible.
- **Not Found:** The SQL Server instance where the server database should be located is running and the credentials used to login to the SQL Server instance are valid. But the server database could not be found on the SQL Server instance.
- **Login Failed:** The SQL Server instance where the server database should be located is running. The server database is not available because the credentials used to login to the SQL Server instance are invalid.
- **Offline:** The server database is not available because the SQL Server instance where it is located is currently not running.
- **Unknown:** The status of the server database on the SQL Server instance is unknown.

2.8.1. Creating a Database

These are cases when this tool is useful:

- Some customers want to run the Automation Engine databases on an own full SQL Server that they are already using. They then use this tool to create the necessary databases. It also creates the required users and sets the required user rights.
- When your (default) SQL Server Express edition is having trouble with one or more too large databases, Esko advises to upgrade to a full SQL Server. In case you do not do this, it is possible to use this tool to create multiple smaller databases. For example customers who heavily use both the Jobs tool and the Gang Run printing tool. In this case they can create an extra database for the gang run printing and indicate that one in **Configure > Automation Engine Database**.

1. Click on + to open the **Create database** dialog.



2. Fill in a **Database name** that is currently not used.

3. In **Use data**, choose which database you want to create: A new empty database (**No (empty database)**) or **From a backup** or **From existing database files**.
4. When they do not appear automatically, enter the location and the file name for the **Master database file** and the **Transaction log file**. Alternatively, **Browse** to set a specific location for these files.

Note: The file names can be either a local or a UNC path. If the selected SQL Server is not the local SQL Server, the **Browse** button will be disabled. In such cases, fill in the UNC path.

5. Click **OK** to create the database.

2.8.2. When No Databases were Installed Yet

When you first come to the **Server Admin** page after doing a fresh install where you choose a *Special* installation (one that does not install the default MS SQL Server Express), you will be prompted to first create all the required Automation Engine databases.

Creating the databases is what you want when you decided to use a MS (full) SQL Server from the beginning. Alternatively, in stead of creating new databases, you can here also choose to continue using the "embedded" databases (for test-purposes only). Both cases are described below:

In the case as described above, the **Server Admin** page will first present you the **Create Automation Engine Databases** dialog:

» **CREATE AUTOMATION ENGINE DATABASES**

You chose to use an already existing SQL Server to host the Automation Engine databases. Please fill in the details below to create the databases.

SQL server » Select another SQL Server

Instance ● running

User name

Password

Database folder

» Continue using embedded databases

Creating new databases on a MS SQL Server

- Select the (remote) **SQL Server** and **Instance** where you want to create the Automation Engine databases.
 - When the SQL Server you want to use is not in the list, you can add it by clicking '**Select another SQL Server**'. In the dialog, fill in a valid server and click **OK**.

- When the running instances on the selected SQL Server can not be detected (because for example the SQL Server Browser is not running on that host), you can then still choose an instance by typing its port number in the **Instance** field.
- Provide a **user name** and **password** with sufficient privileges, typically the user 'sa'.
- Fill in the local path to the **folder** on the (remote) SQL Server host in which the database files should be stored.
- Click **Create** to start the creation process. When the creation process was successful, you will be asked to restart the server.

Continue using the embedded databases

Click **Continue using embedded databases** to skip creating databases.

Choose this option

- when you want a custom setup, for example one where the databases are spread out over multiple instances. To configure such a custom setup, go to the [Automation Engine Database](#) section in the Pilot's [Configure](#) tool.
- when Esko support staff advises this. For example as part of a solution for a database problem.

In both cases, you will see a warning that embedded databases are not at all fit to use in production environment. Learn more in the page describing options in the **Configure** panel: [Generic setting \(Setup tab\): DBMS Type](#).

Choosing this option still allows you to cancel.

2.8.3. Deleting a Database

You can delete a database if it is not used by Automation Engine. If it is running, trying to delete it will trigger a warning.

1. Select a database from the list and click the - button.
2. In the confirmation dialog, choose either or both of the options:
 - **Delete database files from disk**
 - **Close existing connections**
3. Click **OK** to confirm.

2.8.4. Database Back Up

- Select a database and click **Backup**. The **Backup database** dialog will open.
- Enter the location and the file name for the **Backup file** or use **Browse** to choose an existing backup file.

Note: The file names can be either a local or UNC path. If the selected SQL Server is not the local SQL Server, the **Browse** button will be disabled. In such cases, fill in the UNC path.

- Click **OK**.

If the selected SQL Server does not have access to the UNC path you entered, the Server Admin Web Tool will show this warning: "Backup file for database X could not be created. Please make sure the path for the backup file is correct.".

You can ensure access to the UNC path share by following this procedure:

1. In Windows Explorer, right-click the shared folder and then click **Properties**.
2. Select the **Security** tab.
3. Click **Advanced**. The **Advanced Security Settings** dialog opens.
4. Under the **Permissions** tab, click **Change Permissions**.
5. Click **Add**.
6. Click **Object Types** and make sure the **Computers** check-box is checked. Click **OK**.
7. In the text field, enter the name of the SQL Server computer name for which you want to add permissions. Click **Check Names**. Click **OK**. The **Permission Entry** dialog opens.
8. Make sure the **Allow** check-box next to **Create files / write data** is checked. Click **OK**.
9. Click **OK** and close the open dialogs.

2.8.5. Restoring a Database

Select the database and click **Restore**. Browse to the location and file name and click **OK**.

When you want to restore a database that does not exist (any more) in the list of SQL Server Instance databases, then click on **+** to create a database from a backup file or from existing database files. Learn more in [Creating a Database](#) on page 22.

Note: If the database you are trying to restore is used by Automation Engine and the Automation Engine server is running, it will not be possible to restore the database and you will get a warning.

2.8.6. Moving or Renaming a Database

1. Select the database from the list and click **Move**. The **Move database** dialog will open.
2. Enter the (new) location and the (new) file name for the **Master database file** and for the **Transaction log file** or use the **Browse** button to select to them.

Note: The file names can be either a local or UNC path. If the selected SQL Server is not the local SQL Server, the **Browse** button will be disabled. In such cases, fill in the UNC path.

3. Decide if you want to **Close existing connections**.
4. Click **OK** to move/rename the database.

2.9. SQL Server

This page allows you to manage SQL Server instances.

Server RDVMAE16 ● running [Log in to another server](#)

SQL SERVER

SQL server: [Select another SQL Server](#)

Instance: ● running You're currently logged in as **admin**

STOP THE SERVER

SQL Server version: Microsoft SQL Server 2014 - 12.0.2000.8 (X64) Feb 20 2014 20:04:26 Copyright (c) Microsoft Corporation Express Edition (64-bit) on Windows NT 6.1 <X64> (Build 7601: Service Pack 1) (Hypervisor)

Authentication mode: MIXED

Max. physical memory: 2147483647 MB [Modify](#)

SQL Server logs: [Show](#)

SA Credentials: [Check](#)

Click the lock to prevent further changes.

Note: When the SQL Server Database is installed on the same system as the Automation Engine server, the option **SA credentials** allows to check if the SA credentials used by Automation Engine are still in sync with that database. This option is not shown for other SQL databases. It is also not shown until you are logged in to the SQL server with the right credentials (click to do so).

When the **Check** detects that the credentials are not in sync, a dialog asks to enter the current password for the SA user. Mind that this dialog does not allow you to specify a new password for SA, only to update the stored SA password used by AE.

2.9.1. How to Log in to an SQL Server Instance

- Select an SQL Server from the list of all SQL Servers that could be detected in your local network.
When there is one, the local SQL Server will be selected as default.
- To choose one that is not in the list, click **Select another SQL Server**, enter the name of the SQL Server and click **OK**.


You can see the list of SQL Server Instances and their statuses beneath the SQL Server list. You can select the Server Instance on which you want to manage the databases.

Note: When the SQL Server Browser service is not running or when your access is blocked to the Server Service, the status of the Instance will be unknown.

Note: When the list of SQL Server Instances is not available, you can select an SQL Server Instance by entering its port number. The port number of the default SQL Server Instance will already be filled in.

- After selecting the SQL Server Instance, click the lock at the bottom of the page and enter your credentials to login.
You have to login to an SQL Server Instance to be able to manage its databases.

Note: All SQL instances configured with Automation Engine have two users by default: `sa` and `admin`. The `sa` user has all permissions to manage databases. The `admin` user has a limited set of permissions, you may get warnings while performing certain database actions.

- You can log out from the SQL Server Instance by clicking on the lock .
- You can view the databases installed on an SQL Server Instance by selecting it and logging in. The list of databases will load after logging in. Detailed database information will be available to the right of the selected database.

2.9.2. FAQ on SQL Server Instances

How to Start or Stop an SQL Server Instance?

Select the SQL Server Instance and click on **Start / Stop the server**.

Note: You are not required to login to the SQL Server Instance to start or stop the Server.

How to View the Properties of a SQL Server Instance?

The properties of an SQL Server Instance are shown automatically after you successfully logged in. Learn more in [How to Log in to an SQL Server Instance](#) on page 26.

How to Modify the Maximum Memory of an SQL Server Instance?

Click the **Modify** link next to the **Max. physical memory**. In the dialog, enter a value and click **OK**.

How to View SQL Server Logs?

Click the **Show** link next to **SQL Server logs**. You can see the SQL Server logs in the following dialog.

Note: When you have limited permissions, you will get a warning when you attempt to view the SQL Server logs.

2.10. About

The **About** page shows detailed information about the Automation Engine server software version, updates and hotfixes that were installed on this server.

Server EAW12DD320 ● running [Log in to another server](#)

» ABOUT AUTOMATION ENGINE

Server version 14.1.0 - build 94

Installed on Sep 15, 2014 4:26 PM

Hotfixes

Hotfix	Installed on
Hotfix 1410001 for Automation Engine 14.1.0 Info	Sep 16, 2014 12:12 PM

History

Action	Date
Installed Hotfix 1410001 for Automation Engine 14.1.0 Info	Sep 16, 2014 12:12 PM
Installed Automation Engine 14.1.0 - build 94	Sep 15, 2014 4:26 PM

To learn more details about a hotfix, click its **Info** button. You will see its name, a description what it is for, on what version it should be installed and when it was created.

2.11. How to Redirect the Temporary Files folder

The Automation Engine server requires a folder for creating temporary files. By default, this folder is C:\Esko\bg_data_fastserver_v100\tmp. Because this default folder is located on the system partition, this could lead to disk space problems. To prevent this, you can redirect the folder for these temporary files.

You will need:

- Administrator Rights
- A large disk partition

Follow these steps to create a specific temporary folder for the Automation Engine server:

1. In Windows Explorer, create a folder on a large disk partition, that you want to be used for these temporary files.
2. In **Control Panel**, click **System > Advanced System Settings**.
3. Click the **Advanced** tab.
4. Click **Environment Variables**.
5. In the **Environment Variables** dialog, select the *BG_TMP* variable under **System variables**.
6. Click **Edit**.
7. Fill in the full path specification of the selected temporary folder in the **Variable Value** box and click **OK**.
8. Go to **Automation Engine Server Web Page > Server Admin > Status Overview** page. Click on the **Activate Server**. When activating the server, a log window will indicate the server activation progress.