# Adabas Manager

## Installation

Version 9.3.0

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ADABAS & NATURAL

This document applies to Adabas Manager Version 9.3.0 and all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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# Preface

This documentation describes the installation of Adabas Manager on Windows and Linux.

Adabas Manager is installed using the Software AG Installer, which you download from the Software AG Empower website at ***https://empower.softwareag.com/***.

This documentation provides product-specific instructions for installing Adabas Manager. It is intended for use with *Using the Software AG Installer*. That guide explains how to prepare your machine to use the Software AG Installer, and how to use the Software AG Installer and Software AG Uninstaller to install and uninstall your products. The most up-to-date version of *Using the Software AG Installer* is always available at ***http://documentation.softwareag.com/***.

This documentation is organized under the following headings:

| | |
|---|---|
| **System Requirements** | Supported operating system platforms and prerequisites. |
| **Important Information** | Important information that you should be aware of before you start the installation. |
| **Installing Adabas Manager** | How to install Adabas Manager with the Software AG Installer. |
| **Upgrading Adabas Manager** | How to move to the current version. |
| **Uninstalling Adabas Manager** | How to uninstall Adabas Manager. |
| **Migrating from System Management Hub (SMH) to Adabas Manager (AMN)** | How to migrate the administration of existing Net-Work components from SMH to AMN. |

For important last-minute information, see the readme file that is provided with Adabas Manager. You can find it in the Adabas Manager product documentation at ***http://documentation.softwareag.com/*** (Empower login required).

# 1 About this Documentation


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## Document Conventions

| Convention | Description |
|---|---|
| **Bold** | Identifies elements on a screen. |
| `Monospace font` | Identifies service names and locations in the format *`folder.subfolder.service`*, APIs, Java classes, methods, properties. |
| *`Italic`* | Identifies:<br><br>Variables for which you must supply values specific to your own situation or environment.<br>New terms the first time they occur in the text.<br>References to other documentation sources. |
| `Monospace font` | Identifies:<br><br>Text you must type in.<br>Messages displayed by the system.<br>Program code. |
| { } | Indicates a set of choices from which you must choose one. Type only the information inside the curly braces. Do not type the { } symbols. |
| \| | Separates two mutually exclusive choices in a syntax line. Type one of these choices. Do not type the \| symbol. |
| [ ] | Indicates one or more options. Type only the information inside the square brackets. Do not type the [ ] symbols. |
| ... | Indicates that you can type multiple options of the same type. Type only the information. Do not type the ellipsis (...). |

## Online Information and Support

### Product Documentation

You can find the product documentation on our documentation website at **https://documentation.softwareag.com**.

### Product Training

You can find helpful product training material on our Learning Portal at **https://learn.softwareag.com**.

### Tech Community

You can collaborate with Software GmbH experts on our Tech Community website at **https://techcommunity.softwareag.com**. From here you can, for example:

- Browse through our vast knowledge base.
- Ask questions and find answers in our discussion forums.
- Get the latest Software GmbH news and announcements.
- Explore our communities.
- Go to our public GitHub and Docker repositories at **https://github.com/softwareag** and **https://containers.softwareag.com/products** and discover additional Software GmbH resources.

**Product Support**

Support for Software GmbH products is provided to licensed customers via our Empower Portal at **https://empower.softwareag.com**. Many services on this portal require that you have an account. If you do not yet have one, you can request it at **https://empower.softwareag.com/register**. Once you have an account, you can, for example:

- Download products, updates and fixes.
- Search the Knowledge Center for technical information and tips.
- Subscribe to early warnings and critical alerts.
- Open and update support incidents.
- Add product feature requests.

## Data Protection

Software GmbH products provide functionality with respect to processing of personal data according to the EU General Data Protection Regulation (GDPR). Where applicable, appropriate steps are documented in the respective administration documentation.

# 2 System Requirements


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## Supported Operating System Platforms

Adabas Manager supports the following operating system platforms:

- Windows Server 2016 (Datacenter and Standard Edition, x86-64)
- Windows Server 2019 (Datacenter and Standard Edition, x86-64)
- Windows Server 2022 (Datacenter and Standard Edition, x86-64)
- Windows 10 (Pro and Enterprise Edition, x86-64)
- Windows 11 (Pro and Enterprise Edition, x86-64)
- SUSE Linux Enterprise Server 12 (x86-64)
- SUSE Linux Enterprise Server 15 (x86-64)
- Red Hat Enterprise Linux AS 8 (x86-64)
- Red Hat Enterprise Linux AS 9 (x86-64)

Home Editions of Microsoft Windows are not supported.

**Note:** We suggest that you install all of the manufacturer's recommended patches before you start the installation.

## Memory Space Requirements

The memory space required by Adabas Manager largely depends on the number of users. It is recommended to use a system with a memory of at least 4 GB.

## Disk Space Requirements

Approximately 2 GB of hard-disk space is required for Adabas Manager (including all preselected Adabas and Software AG Installer packages). This value depends on the installation hardware.

# Software Requirements

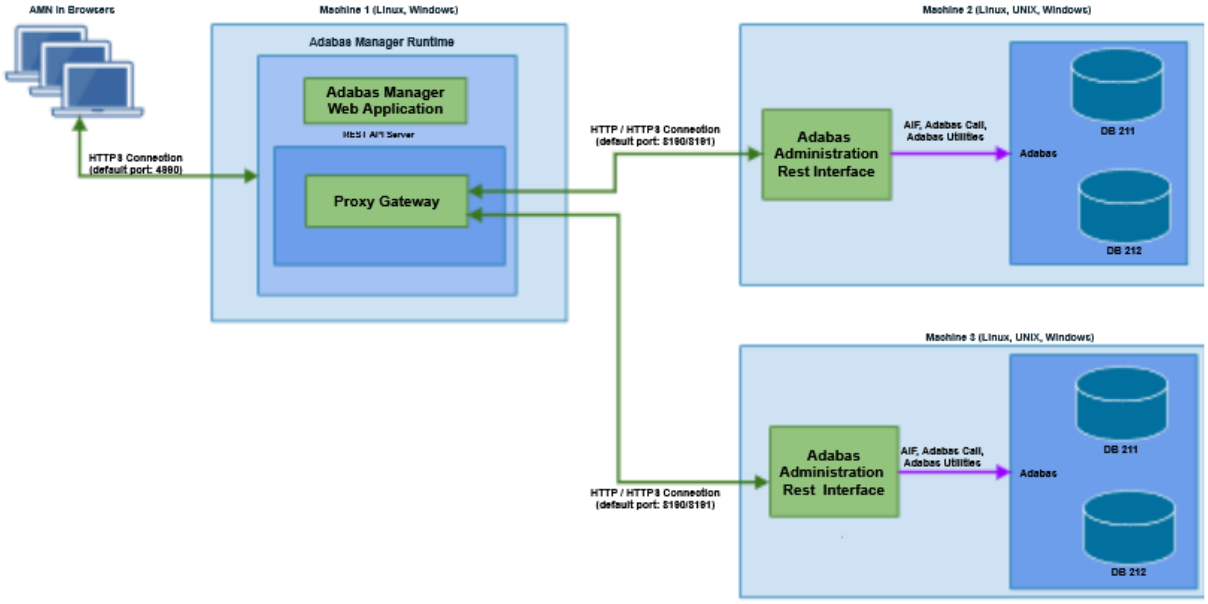

- Administering Adabas on Linux
- Administering Entire Net-Work on Linux and z/OS
- Administering Adabas on z/OS
- Administering Adabas Logging and Auditing


## Administering Adabas on Linux

In order to administer Adabas databases on Open Systems, the Adabas Manager needs to be connected to the Adabas RESTful Administration Server of the latest version of Adabas installations. The respective licenses for Adabas and/or Adabas Encryption should be installed on the Adabas installation.

The following architecture shows the possible setup on administering Adabas on Open Systems.

Via Admin Server

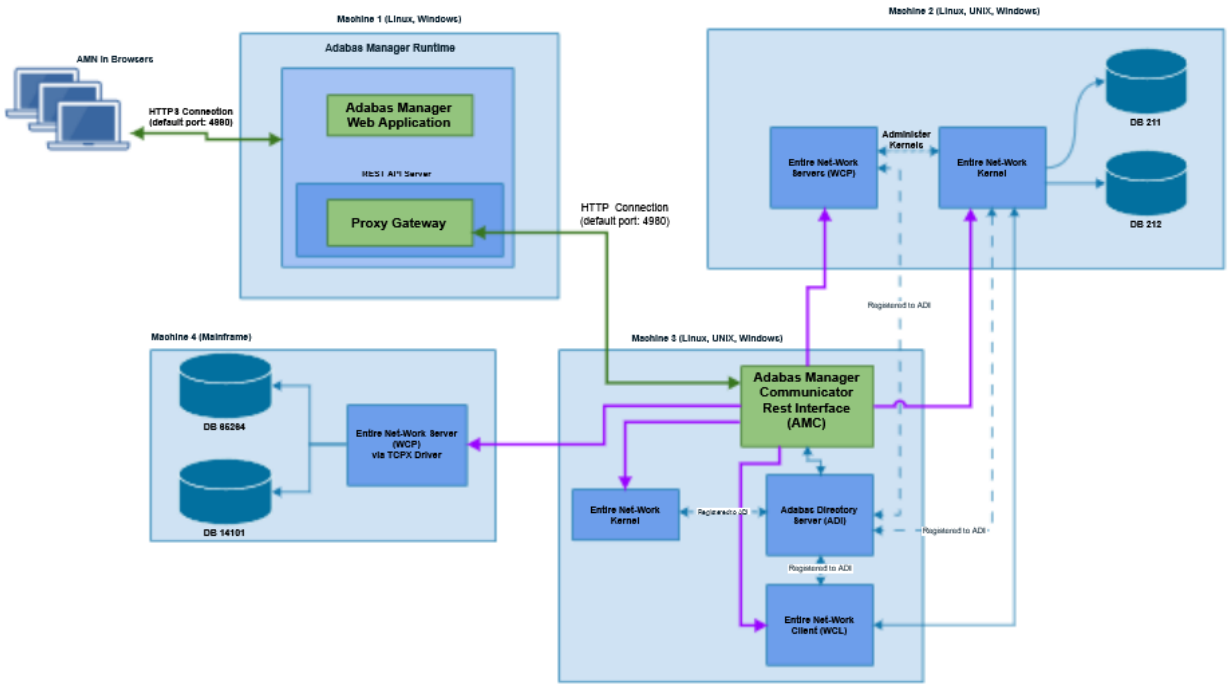


### Administering Entire Net-Work on Linux and z/OS

In order to administer Entire Net-Work and Adabas on mainframe, the Adabas Manager needs to be connected to the latest version of Adabas Manager Communicator, which in turn is connected to the latest version of SoftwareAG Directory Server. A license for Entire Net-Work server should be installed.

The following architecture shows the possible setup on administering Entire Net-Work on Linux and z/OS.

Via Adabas Manager Communicator



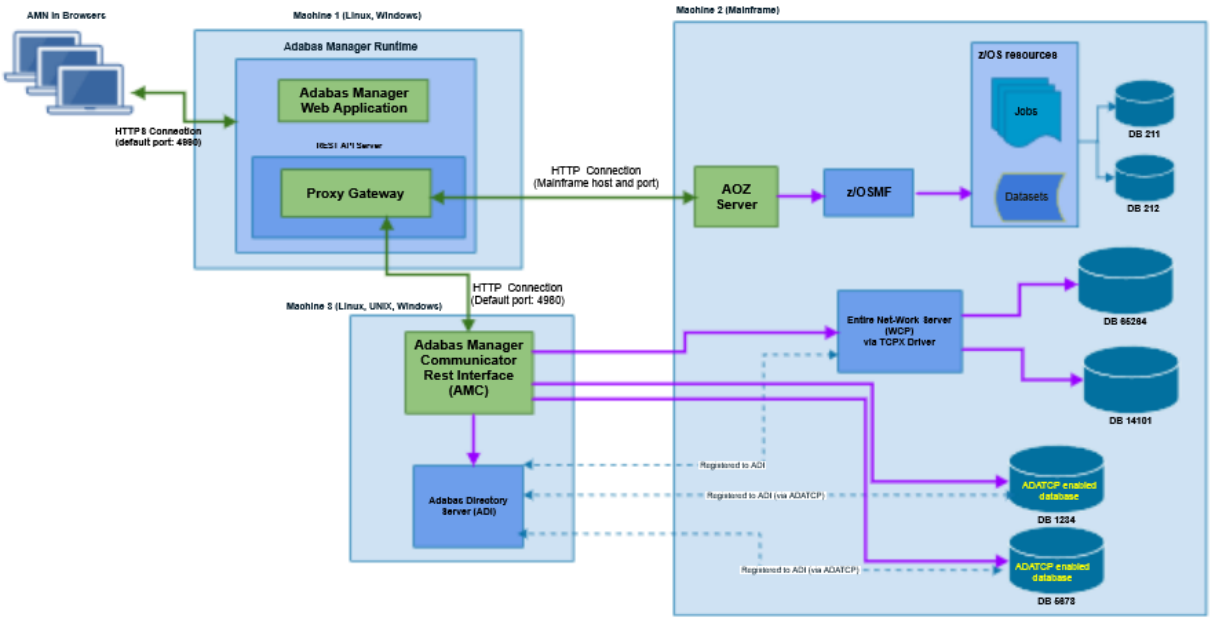

### Administering Adabas on z/OS

In order to administer Adabas on z/OS, the Adabas Manager needs to be connected to the latest version of Adabas Manager Communicator, which in turn is connected to the latest version of SoftwareAG Directory Server. An Adabas Online System (AOS) license should be installed on the Mainframe. In addition, with a licensed z/OSMF Utility server (AOZ) running, Adabas Manager can perform Adabas utilities (e.g. ADAREP, ADADBS, ADALOD, and etc) on z/OS.

The following architecture shows the possible setup of administering Adabas on z/OS.

Via Adabas Manager Communicator

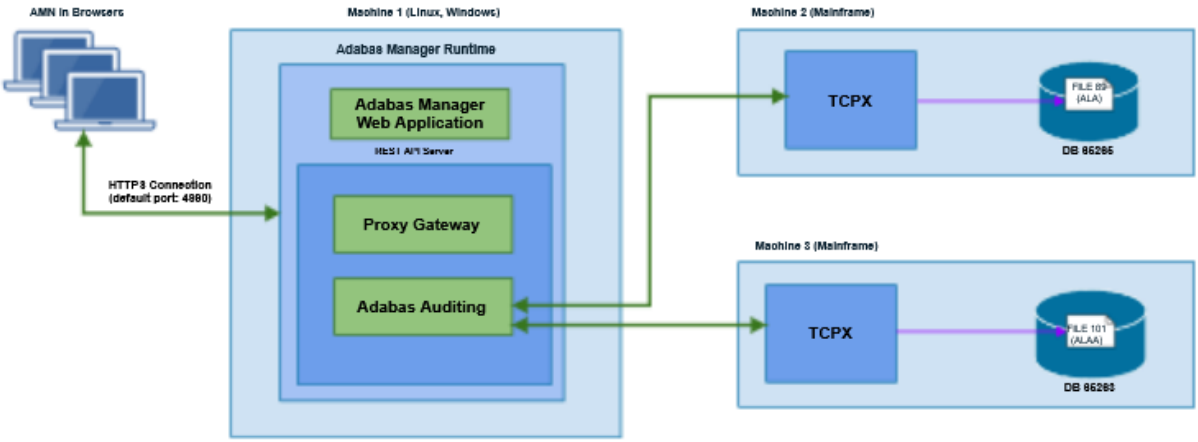
Via z/OSMF




## Administering Adabas Logging and Auditing

In order to administer Adabas Logging and Auditing, Adabas Manager only needs to know the z/OS Host and port, as well as the DBID and File-Number of the Auditing System File. It is assumed that Adabas Auditing for z/OS has been installed with a license following the steps available at **https://documentation.softwareag.com/**, look for title: Adabas Auditing for z/OS.

The following architecture shows the possible setup of administering Adabas Logging and Auditing.



## Supported Browsers

Supported browsers in this version are:

Microsoft Edge
Mozilla Firefox Extended Support Release 68 [(1)]
Google Chrome [(2)]

**Notes:**

[(1)] Only the Extended Support Releases of Mozilla Firefox are explicitly supported. Due to frequent upgrades of the Mozilla Firefox consumer release, the compatibility of Adabas Manager with future versions of Mozilla Firefox cannot be fully guaranteed. Possible incompatibilities will be removed during the regular maintenance process of Adabas Manager.

[(2)] The Google Chrome support is based on Google Chrome Version 74. Due to frequent version upgrades of Google Chrome, compatibility of Adabas Manager with future versions of Google Chrome cannot be fully guaranteed. Possible incompatibilities will be removed during the regular maintenance process of Adabas Manager.

**Important:** Cookies and JavaScript must be enabled in the browser.

## License File

The installation and usage of Adabas Manager does not require a license file.

# 3 Important Information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## Administrator Status

The person performing the installation must have Windows system administrator privileges (Windows platforms).

During the installation, the **Sudo** panel may appear. When you enter the sudo password in this panel, the installer will execute the scripts which require sudoers privileges. For you to use sudo in the installer, the user that you are using to install must be in the sudoers configuration. (Linux).

## Installation Directory

During the installation, you are asked to specify an installation directory. Specify the installation directory in which to install your Software AG products. The user that you are using to install must have full read and write permissions to this directory.

The default installation directory under Windows is *SoftwareAG* and under Linux is */opt/softwareag*, but any other directory is also possible. In the following description the placeholder `<install-dir>` is used to represent the installation directory.

You can only install Adabas Manager on a local hard drive on a Windows/Linux system. You cannot install Adabas Manager on a network-mounted drive or a SUBST drive (Windows only).

## Side-by-Side Installations

You can install the same Adabas Manager version more than once on the same machine. And you can also install several different versions of Adabas Manager on the same machine. This may be necessary to test a new Adabas Manager version before it is taken over into a production environment. Each version, however, must be installed in a separate directory and on Windows you must specify a separate Start menu group name. That is, when Adabas Manager is already installed, for example, in the directory *SoftwareAG* or */opt/softwareag*, you can install a second instance of Adabas Manager, for example, in a directory named *SoftwareAG2* or */opt/softwareag2*.

Since Software AG Empower only offers the latest version of Adabas Manager and other products, it is recommended that you create and keep an image of installed Adabas Manager versions for possible later use. Installing from an image rather than downloading it from Empower will usually be faster, too. For further information, see *Using the Software AG Installer*.

While Adabas Manager is being installed, it is not possible for another user to install Adabas Manager on the same machine. A message with the following information will then be shown:

the name of the user who is currently installing Adabas Manager, when this installation has been started, and into which directory Adabas Manager is currently being installed.

## Data Protection

Before you start Adabas Manager for the first time, you should be aware that Adabas Manager stores user-related data, such as user IDs, in configuration files and log files.

**Configuration File**

| | |
|---|---|
| File Path | Windows:<br><br>`<install-dir>\AdabasManager\config\host_<uid>.config`<br><br>Unix/Linux:<br><br>`<install-dir>/AdabasManager/config/host_<uid>.config` |
| Content | ■ The file name contains the user ID<br>■ The file content may contain user IDs |
| Administration | User IDs in the entries can be managed (created, modified, deleted) by the owner of the configuration file from within the Adabas Manager.<br><br>If a user ID is deleted, there is no longer access to the respective Adabas REST administration server with this user ID. |
| Access | Access to the configuration file and its directory can be secured, based on operating system file permissions. |
| Deletion | Single entries in the file: see Administration above.<br><br>File: manually or automatically by operating system means or scripts. |

**Important:** for existing users of Adabas Manager 8.5, who are upgrading to Adabas Manager 8.6, Adabas Manager will automatically combine the 2 old files *adaHost_<uid>.config* and *netHost_<uid>.config* into the new file *host_<uid>.config*. The user can then manually remove the files *adaHost_<uid>.config* and *netHost_<uid>.config* after *host_<uid>.config* has been created. Users who only install Adabas Manager 8.6 (without having previously installed Adabas Manager 8.5), only have 1 file (*host_<uid>.config*) for each login UserID. (where <uid> stands for <User-ID>)

**Log File**

| | |
|---|---|
| File Path | Windows:<br><br>`<install-dir>\AdabasManager\log\amn_yyyymmdd.log`<br>`<install-dir>\AdabasManager\log\amnserver_yyyymmdd.log`<br><br>Unix/Linux:<br><br>`<install-dir>/AdabasManager/log/amn_yyyymmdd.log`<br>`<install-dir>/AdabasManager/log/amnserver_yyyymmdd.log` |
| Content | Contains user IDs. |
| Administration | Not possible via Adabas Manager. |
| Access | Access to the configuration file and its directory can be secured, based on operating system file permissions. |
| Deletion | Single entries in the file: manually or automatically by operating system means or scripts.<br><br>File: manually or automatically by operating system means or scripts. |

## Opening Ports for Remote Connections

From Adabas Manager version 900 onwards, the software is using Adabas Manager Runtime service as a proxy server to send to and to receive data from Adabas REST administration server, Adabas Manager Communicator (AMC) and Adabas Auditing on z/OS (ALA). For Adabas Manager to communicate remotely with Adabas REST administration server, AMC and ALA using either HTTP or HTTPS, it is required to open the Adabas Manager runtime port (default: 4990) of the firewall.

## To set the SSL Certificate for Adabas Manager version 9.0.0 and above

The following applies to systems running in production:

- Generate Own Self Signed SSL Key and Cert
- Use Existing CA Certified SSL Key and Certificate

- New settings for SSL certificate


### Generate Own Self Signed SSL Key and Cert

1. Stop the Adabas Manager runtime service/deamon

   **On Windows:** Go to **Windows Services**, locate "*Software AG Adabas Manager Runtime*", and **Stop** the service.
   **On Linux:** Execute "`service.sh stop`" from *<Adabas Manager installation directory>/AdabasManager/bin*

2. **On Windows:** execute `<Install Path>\AdabasManager\bin\ssl.bat generate`
   **On Linux:** execute `<Install Path>/AdabasManager/bin/ssl.sh generate`

   **Note:** Ensure that the user executing this command has the rights to overwrite the files *sslcert.pem* and *sslkey.pem*, located in *<Install Path>/AdabasManager/config*.

3. Start the Adabas Manager runtime service/daemon

   **On Windows:** Go to Windows Services, locate "Software AG Adabas Manager Runtime", and start the service.
   **On Linux:** Execute "`service.sh start`" from *<Adabas Manager installed directory>/AdabasManager/bin*

### Use Existing CA Certified SSL Key and Certificate

For users who prefer to use their own CA certified SSL Key and Cert, follow the steps below:

1. Stop the Adabas Manager runtime service/deamon
2. Place the CA certified SSL Key and Cert at the following location:

   **SSL Cert:** *<Install Path>/AdabasManager/config/sslcert.pem*
   **SSL Key:** *<Install Path>/AdabasManager/config/sslkey.pem*

3. Start the Adabas Manager runtime service/daemon

### New settings for SSL certificate

There are 3 new settings to customize the usage of SSL certificates. These settings can be specified in the file *config.env* in the folder *…\AdabasManager\config*.

- APP_SSL_CERT_PATH is the path of the SSL Certification file of the user's choice
- APP_SSL_CERT_PRIVATE_KEY_PATH is the path of the SSL Certification private key of the user's choice
- APP_SSL_CERT_PWD_PATH is the path of the file which contains the password that protects the SSL certificate (by default, the SSL certificate generated is not protected by a password).

## AMNPAM Service for Linux Operating System User ID Login

After installation, a `sag<n>amnpam` service (where `<n>` is the number of the installed instance) and various shell scripts for use with the `amnpam` service are available in the *$SAG/AdabasManager/bin/* directory.

The purpose of the Adabas Manager PAM server is to communicate with the Pluggable Authentication Module (PAM) in Unix, which in turn allows users to login to Adabas Manager using the Linux Operating System ID (i.e. those IDs created into the *\etc\passwd* file).

The Adabas Manager PAM server will be started after the user has executed the *AfterInstallAsRoot.sh* script.

In the event that the `sag<n>amnpam` service is not running properly, please execute the script *amnpam_rc.sh stop*, followed by an execution of the script *amnpam_rc.sh start* with sudo, to restart the `amnpam` service.

# 4 Installing Adabas Manager

This installation documentation provides just a brief description on how to install Adabas Manager directly on the target machine using the Software AG Installer GUI. For detailed information on the Software AG Installer, see *Using the Software AG Installer*.

**Important:** Make sure all ports you specify on panels or in response to prompts are not already being used by other products on your machine. For a list of default ports used by Software AG products, see "List of Used TCP/IP Ports" in **Empower** (go to **Products & Documentation > Download Components > TCP/IP Ports**).

### To install Adabas Manager

1 Start the Software AG Installer GUI as described in *Using the Software AG Installer*.

2 When the first page of the Software AG Installer GUI (the so-called Welcome panel) is shown, choose the **Next** button repeatedly (and specify all required information on the shown panels as described in *Using the Software AG Installer*) until the panel containing the product selection tree appears. This tree lists the products you have licensed and which can be installed on the operating system of the machine on which you are installing.

3 To install Adabas Manager, expand the **Adabas Products** node and select **Adabas Manager**.

**Note:** Products or product versions which are already installed in the selected installation directory are shown as disabled.

4 Choose the **Next** button.

5 Read the license agreement, select the check box to agree to the terms of the license agreement, and choose the **Next** button.

**Note:** If you are installing other products together with Adabas Manager, several panels may appear that are not explained in this documentation. See the documentation for these products for more information.

6 A panel to enter a sudo password appears (Unix/Linux). If you do not provide a sudo password, you must manually run the script *afterInstallAsRoot.sh* with sudo rights once the installation is complete.

7 A panel for the Platform Manager appears.

The Platform Manager is an agent that allows remote administration of one or more selected products in this installation from Command Central. The Platform Manager is not supported by Adabas Manager; if you do not want to use it, deselect **Plan to use Command Central**.

Choose the **Next** button to proceed to the next panel.

8 On the last panel, review the list of products you have selected for installation. If the list is correct, choose the **Next** button to complete the installation process.

### To invoke Adabas Manager after installation (Windows platforms)

- Start Adabas Manager from the Windows **Start** menu:

  **All Programs > <start menu group> > Administration > Adabas Manager** *n.n*, where *n.n* is the version number.

### To invoke Adabas Manager after installation (Linux platforms)

- Start Adabas Manager with the script *amn.sh* in <*install-dir*>/*AdabasManager/bin*.

# 5 Upgrading Adabas Manager

There is no automatic upgrade path for Adabas Manager.

However, this can be achieved by the following, alternative procedures:

- To use a newer version of Adabas Manager, you can backup the existing host config files for each user in the directory *<SoftwareAG_installation_directory>/AdabasManager/config*, and then uninstall the existing Adabas Manager. Install the newer version into the same directory.
- Alternatively, you can install the newer version of Adabas Manager side-by-side to the existing version, and copy the host config files from *<older_SoftwareAG_installation_directory>/AdabasManager/config* to *<newer_SoftwareAG_installation_directory>/AdabasManager/config*. The originally created host connections will be appear in the newer version.

# 6 Uninstalling Adabas Manager

You uninstall Adabas Manager using the Software AG Uninstaller. For detailed information on how to use the uninstaller, see the *Using the Software AG Installer* guide.

Under Windows, you uninstall Adabas Manager using the standard uninstall functionality of Windows. The Control Panel offers the following entry: **Software AG Products:** <*installation-directory*>. When you choose to uninstall this entry, the Software AG Uninstaller is invoked.

Under Linux, you uninstall Adabas Manager as follows:

1. Open a command window and go to the *bin* directory of your main installation directory.
2. Execute the script *beforeUninstallAsRoot.sh* with root privileges.
3. Run the command `uninstall`. This starts the Software AG Uninstaller.

The following files are not removed:

- All files created by the user.
- All configuration files that have been created during the installation.
- Scripts in the *Adabas/INSTALL* directory which may be needed to stop services or daemons (Linux)

# 7 Migrating from System Management Hub (SMH) to Adabas Manager (AMN)


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Adabas Manager Version 8.5 and above can be used to administer the Entire Net-Work suite of products (Entire Net-work Server, Entire Net-work Client and Directory Server). As there will be no further development or fixes for System Management Hub, it is highly recommended to upgrade to Adabas Manager as a replacement.

The following chapter will provide you with the information that you need in order to migrate the administration of the Entire Net-Work suite of products from System Management Hub to Adabas Manager.

## Preparing for Migration

Adabas Manager is the user interface component that connects to the Adabas Management Communicator (AMC) Server, which in turn connects to the Software AG Directory Server (ADI). From ADI, you can administer components registered to the ADI that you connect to.

You will need two pieces of information before you can start the migration:

- The host name/IP address and port number of the AMC;
- The host name/IP address and port number of the ADI.

The details for AMC are available during the installation. The default port number is 4980, but this can be changed during the installation.

The details for ADI are also available during its installation. The default port number is 4952, but this can be changed during the installation. However, if you are migrating from SMH, you will probably already have an ADI installed, the following steps explain how you can obtain the required information.

### To obtain the host name/IP address and port number of the Adabas Directory Server

1. Login to your SMH. Expand the Directory Server menu until you see the list of available Directory Servers.
2. Right click on the Directory Server that you want to check, and select **Modify Directory Server Settings**. Take note of the contents of the fields **Directory Server Host Name** and **Port** - you will need this information when you set up your AMC server in Adabas Manager. If the value in the field **Directory Server Host Name** is a valid host name or IP address, you can use it as it is. Otherwise procede to the next step.
3. If the field **Directory Server Host Name** contains the value `localhost`, it means that ADI is installed on the same machine as SMH. You can find the name of the localhost by entering the command `hostname` at the command prompt. Alternatively, you can find the IP address by entering the command `ipconfig` at the command prompt.

## Performing the Migration

### To migrate the administration of Entire Net-Work products to Adabas Manager

1 Enter your login information (local or domain user ID and password) on the Adabas Manager login page and click the **Log In** button. The Adabas Manager home page is displayed.

2 Click on the icon **Administer Entire Net-Work** on the Adabas Manager home page.

The Entire Net-Work Administration start page is displayed.

3 Click on the configuration icon on the top right of the page. The Add AMC Host page is displayed.

4 Specify the details of the AMC server that you want to use, then click on the button **Add AMC Host**. Either the host name or the IP address of the AMC server can be entered in the field **Hostname/IP**.

5 Click on the arrow button next to the name of the AMC server that you have just added. Now specify the details of the Directory Server that you want to use (see the section *Preparing for Migration* for information about how to obtain these details).

6 Click on the link Net-Work Connection in the header of the page to expand the list of available AMC servers, then click on the name of the AMC server that you have just added. The tree view network is displayed; you can now start with the administration of your Entire Net-Work product suite.

**Note:** By default, Adabas Manager uses the tree view to display the components in the form of a network tree. If preferred, you can switch to the list view, which resembles SMH.