

Data Archiving for Adabas

Data Archiving for Adabas Installation

Version 1.7.1

November 2016

This document applies to Data Archiving for Adabas Version 1.7.1.

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

Copyright © 2008-2016 Software AG, Darmstadt, Germany and/or Software AG USA, Inc., Reston, VA, USA, and/or its subsidiaries and/or its affiliates and/or their licensors.

The name Software AG and all Software AG product names are either trademarks or registered trademarks of Software AG and/or Software AG USA, Inc. and/or its subsidiaries and/or its affiliates and/or their licensors. Other company and product names mentioned herein may be trademarks of their respective owners.

Detailed information on trademarks and patents owned by Software AG and/or its subsidiaries is located at <http://softwareag.com/licenses>.

Use of this software is subject to adherence to Software AG's licensing conditions and terms. These terms are part of the product documentation, located at <http://softwareag.com/licenses/> and/or in the root installation directory of the licensed product(s).

This software may include portions of third-party products. For third-party copyright notices, license terms, additional rights or restrictions, please refer to "License Texts, Copyright Notices and Disclaimers of Third-Party Products". For certain specific third-party license restrictions, please refer to section E of the Legal Notices available under "License Terms and Conditions for Use of Software AG Products / Copyright and Trademark Notices of Software AG Products". These documents are part of the product documentation, located at <http://softwareag.com/licenses> and/or in the root installation directory of the licensed product(s).

Use, reproduction, transfer, publication or disclosure is prohibited except as specifically provided for in your License Agreement with Software AG.

Document ID: ADR-INSTALL-171-20161124

Table of Contents

1 Data Archiving for Adabas Installation	1
2 Software AG Installer	3
Overview	4
Component Installation	4
3 Installation Prerequisites	9
Operating Systems	10
Adabas	10
Adabas System Coordinator Version	10
System Management Hub	10
Natural	11
Predict	11
Check Empower for Latest Maintenance	11
4 Installation Planning and Preparation	13
Planning and Preparation	14
5 Installation Procedure Overview	17
6 Installation Procedure for Windows and UNIX	19
Installation	20
License Key Requirements	20
Activation	20
Activation in UNIX from the Console	28
Starting to Use the Software	30
7 Installation Procedure for z/OS	35
Important Information	36
Overview	36
Actions Required Before Starting the Install	36
Installation Preparation Checklist	42
Installation	44
Activation	45
Workload Management	53
Administration	55
8 Verifying the Installation	57
9 Applying the Latest Maintenance	59
10 Deactivating and Uninstalling	61
Shutdown	62
Uninstall	64
Deactivating and Uninstalling from the Console in UNIX	66
11 Upgrading from Earlier Versions	69
General Upgrade Information	70
Upgrade Procedure for Windows and UNIX	70
Upgrade Procedure for z/OS	72
Reverting to the Previous Version	75
Migration Utility	76

1 Data Archiving for Adabas Installation

Data Archiving for Adabas is a fully portable technology. It runs on all primary UNIX systems, Windows and on z/OS. There is only one code base, rather than one code base for open systems and another for mainframe.



Important: Software AG strongly recommends that you read the installation instructions carefully before performing the installation. Also, there are often things mentioned in the readme file of the product that have come to light after this documentation is frozen, so please also be sure to read that before starting the installation.

[Software AG Installer](#)

[Installation Prerequisites](#)

[Installation Planning and Preparation](#)

[Installation Procedure Overview](#)

[Installation Procedure for Windows and UNIX](#)

[Installation Procedure for z/OS](#)

[Verifying the Installation](#)

[Applying the Latest Maintenance](#)

[Deactivating and Uninstalling](#)

[Upgrading from Earlier Versions](#)

2 Software AG Installer

■ Overview	4
■ Component Installation	4



Note: For more information on using the Software AG Installer refer to the chapter *Using the Software AG Installer* in the Software AG documentation, found on Software AG's [Empower](#) web site.

Overview

Data Archiving for Adabas is installed using the Software AG Installer from the Software AG download center. The Software AG Installer is sensitive to the products for which you are licensed. When you log on to it, you see all the products that you are able to install.

You select the appropriate Data Archiving for Adabas components for your current installation requirements and the Software AG Installer will automatically select all other Product and Infrastructure component dependencies.

The installer will do the following under your direction:

- Download the install files to the computer location you request (or will arrange to ship a CD, DVD, etc.).
- Copy the files to the install location that you choose.
- Define the required local service (Windows only).
- Launch (or make available to launch) the product-specific activation component to finish off the installation.

Component Installation

The component installation for Data Archiving for Adabas consists of the following steps:

- [Log onto the Software AG Installer](#)
- [Select the Installation Directory Location](#)
- [Select Product Component\(s\) to be Installed](#)


- Confirm the Installer Should Proceed

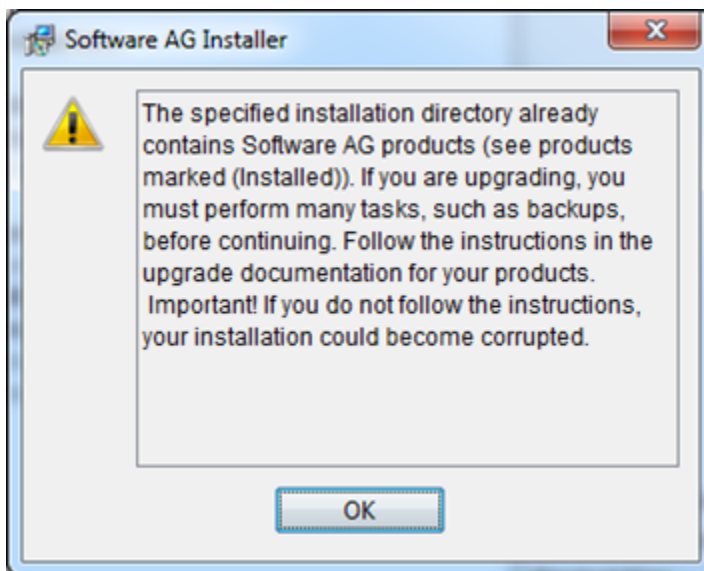
Log onto the Software AG Installer

On the Software AG welcome screen identify yourself to the Installer by logging in with your credentials (user name and password). The Installer will then acquire information about a) all the products for which you are licensed, and b) those products which are able to be installed using the Installer.

Select the Installation Directory Location

Next, once the Installer has acquired all licensing information for your site, it shows the default installation directory. You can alter this if you wish.

 **Note:** Depending on your choice of installation directory, you may subsequently see the following warning dialog from the Software AG Installer. This can arise if you already have Data Archiving for Adabas or its related components (e.g. System Management Hub) installed in the selected directory. Please ensure you have selected the correct directory before continuing.



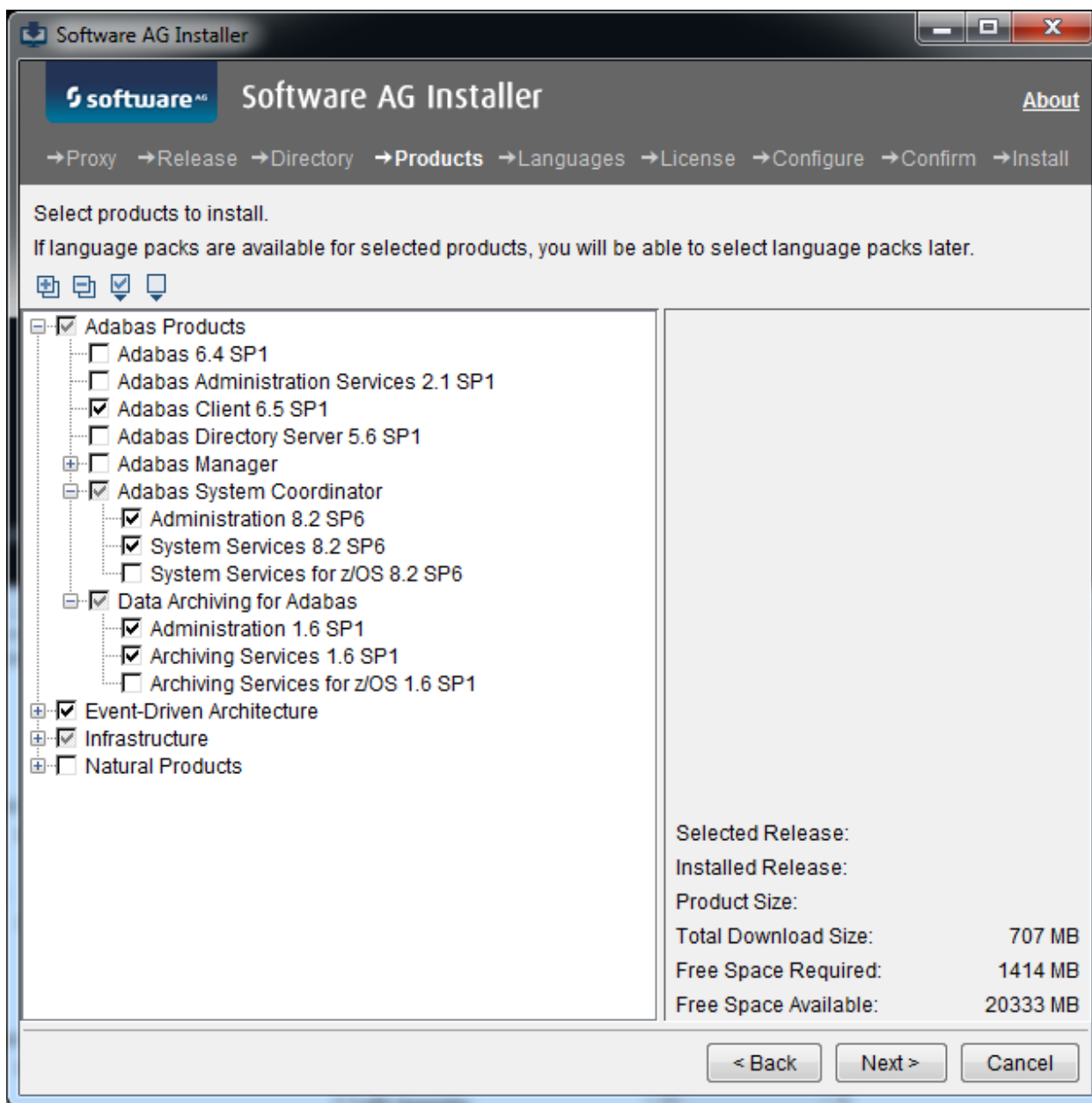
Select Product Component(s) to be Installed

Next, once the installation directory has been identified, you can now choose the Data Archiving for Adabas components that you wish to install. Selecting the Data Archiving for Adabas node will automatically select the default installation components or, alternatively, you can select the individual components manually.

The following screenshot shows the component selection for the default installation. These are the required components for a typical installation on a Windows, Linux, or UNIX platform in order to (a) perform Administration, and (b) implement Archiving Services.



Note: Adabas System Coordinator dependent components will automatically be selected based on your chosen Data Archiving for Adabas components.



For other types of installation, the individual Data Archiving for Adabas components must be selected manually.

Component	Description
<i>Data Archiving for Adabas</i>	
Administration	Select this if you wish to administer Data Archiving for Adabas from this installation platform.
Archiving Services	Select this if you wish to implement Archiving Services on this installation platform.

Component	Description
Archiving Services for z/OS	Select this if you wish to implement Archiving Services on z/OS from this installation platform.
Adabas System Coordinator	<i>The following components will be selected automatically based on the above Data Archiving for Adabas component selection.</i>
Administration	Selected only if the Data Archiving for Adabas Administration component is selected.
Archiving Services	Selected only if the Data Archiving for Adabas Archiving Services component is selected.
Archiving Services for z/OS	Selected only if the Data Archiving for Adabas Archiving Services for z/OS component is selected.

For example, the following screenshot shows the required components for an installation on z/OS in order to (a) perform Administration on the installation platform, and (b) implement Archiving Services on a z/OS platform:



Confirm the Installer Should Proceed

Finally, a list of the selected products and their components are shown for confirmation before installation begins into the specified installation directory.



Note: If the Administration component was selected then installation will also include the following:

■ Platform Manager

Platform Manager is an agent that allows remote administration of one or more selected products from Command Central. This is not a prerequisite for Data Archiving for Adabas therefore choose Install as Application in order to conserve system resources. However, if you do plan to use this capability for a different product in this installation then choose Install as Service.

■ System Management Hub

System Management Hub is a prerequisite for administering Data Archiving for Adabas. During installation of the System Management Hub several interactive screens will be presented to you where the defaults can be taken. If you wish to alter these defaults, please refer to the System Management Hub documentation available from the Software AG Documentation Web site.

3

Installation Prerequisites

■ Operating Systems	10
■ Adabas	10
■ Adabas System Coordinator Version	10
■ System Management Hub	10
■ Natural	11
■ Predict	11
■ Check Empower for Latest Maintenance	11

Operating Systems

Data Archiving for Adabas is compatible with the following platforms:

- Windows
- Linux
- Solaris
- HP-UX
- AIX
- z/OS

Adabas

Data Archiving for Adabas can be used with any supported level of Adabas Version 6.1.9 or above in open systems and Adabas Version 8.1 or above in mainframe z/OS. Adabas must be UES enabled.

Adabas Client Library (OS)

For sites using Adabas 6.2, the client library ACL 6.2.1.61 (or above) is required.

Adabas System Coordinator Version

Adabas System Coordinator Version 8.2 or above is required when using Data Archiving for Adabas.

The installation kit for Data Archiving for Adabas includes and will also install Adabas System Coordinator 8.2.

System Management Hub

System Management Hub Version 9.0 or above is required and is used as the user interface for all interaction with Data Archiving for Adabas.

A web browser supported by SMH must be available.

Natural

To use the supplied Natural API, Natural Version 6.3 or above in open systems and Natural version 4.2 or above in mainframe z/OS is required.

Predict

To use file mappings from Predict files then Predict must be installed.

Check Empower for Latest Maintenance

Check Software AG's [Empower](#) web site for the latest available maintenance for this version of Data Archiving for Adabas. If maintenance is available plan to apply it after successfully verifying the installation.

4

Installation Planning and Preparation

■ Planning and Preparation	14
----------------------------------	----

Planning and Preparation

It is very important to plan the overall implementation of your archiving infrastructure from the beginning. If you intend to limit the whole implementation to be completely within a single computer, then the planning is straightforward since there is a network of one computer, which is clearly the simplest model. Other enterprises have many computers, so must consider:

- The databases you intend to extract data from and the computers where these databases run. Data Archiving for Adabas must be installed on all these computers in order to run extractors.
- The computers you intend to run accumulators on, to write archive data. Accumulators can be run on different computers to extractors, so Data Archiving for Adabas must be installed on all the accumulator computers to:
 - spread processing load and
 - run accumulators on cheaper hardware.

Once you have an overview of all the computers involved, you now must decide where the Adabas file used for storing the configuration data is to be loaded and run. Software AG strongly recommends a single file is shared by all computers. To accommodate file sharing, we have provided an in-built mechanism - so you do not need to acquire our Entire Net-Work product simply for configuration. By sharing the file, all connectivity configuration is automatic, which completely frees you from the chores of reciprocally matching up numerous settings across all computers. This automated configuration is a major feature.

The file usually runs on one of the primary computers out of all involved, but the choice is yours. One apparent concern is that a single file introduces a single point of failure. However, we take measures in the software to make sure outages of the file do not interrupt 24*7 operations. Put simply, the archive management service in each computer acquires a copy of its configuration on first use, and keeps a copy of it locally thereafter. Consequently, outages of the shared file are tolerated. In addition, each service periodically checks for changes to the configuration and automatically reflects these changes locally

In summary, implementation planning involves:

- Try to use all installation defaults; it is always simpler. Especially where port numbers are concerned.
- Decide all the computers where extractors will run.
- Decide all the computers where accumulators will run.
- Decide which computer is to host the file for the configuration data. The specific installation sections for each platform cover the choice between sharing or establishing the file.
- Install on the computer that hosts this file first. Instruct the installer to establish the file for first use.

- Determine the hostname of the computer hosting the file. You need this as a reference point when doing subsequent installs. See below for information on determining hostname in various systems.
 - for z/OS (USS), use the *nslookup* command to show the “name” (hostname) of the computer
 - for UNIX, use the *nslookup* command to show the “name” (hostname) of the computer
 - for Windows, go to the Control panel, select System and then select the Computer name tab. This will show the full computer name (hostname).
- In all subsequent installs on other computers, make sure you use the shared file option, do not establish additional files.
- Make sure ports are enabled where firewalls are used. Where Data Archiving for Adabas is used across multiple computers, there may be the need to adjust firewall settings. The User Interface doesn’t usually need any adjustments because communications by the User Interface are outbound. However, the runtime receives communications so it must be enabled as follows:
 - The following program in the Data Archiving for Adabas directory structure must be added as an exception:

```
adrdrv2
```

- The following programs in the Adabas System Coordinator directory structure must be added as exceptions:

```
corlc  
cord
```


5

Installation Procedure Overview

This section provides an overview of the procedure for installing Data Archiving for Adabas:

Overview

There are three components to a Data Archiving for Adabas installation:

- Archiving Services
- Administration
- The Repository

The Archiving Services component requires the System Services component of Adabas System Coordinator and the Adabas Client Libraries to be installed. The Administration component requires the Administration component of Adabas System Coordinator and the System Management Hub to be installed.

The Software AG Installer will automatically select the Adabas System Coordinator components and the System Management Hub as required, depending on which Data Archiving for Adabas components are being installed.

The computer that will host the Repository must have the System Services components of Adabas System Coordinator installed and access to an Adabas database. The database may be local or accessible via Entire Net-Work.

Archiving Services

The Archiving Services component is comprised of two parts, the Archive Service and the Extractor/Accumulator.

The Archive Service is a plug-in to Adabas System Coordinator and runs as a task within the Adabas System Coordinator Daemon. The Extractor/Accumulator is a separate process, instances of which are launched by the Archive Service to carry out each archive, transfer or recall operation.

Administration

The Administration component is a plug-in to System Management Hub. All configuration, operation and monitoring is performed through the System Management Hub. There is no need to install the Administration component on every computer running Archiving Services, one computer running the Administration component can be used to remotely manage any instance of Archiving Services.

The Repository

The Repository is an Adabas file used for storing configuration data. It will normally be shared by every computer running Archiving Services. It is not necessary to have Entire Net-Work installed in order to share the same Repository; the Adabas System Coordinator infrastructure enables remote access to a Repository hosted by another computer.

6

Installation Procedure for Windows and UNIX

■ Installation	20
■ License Key Requirements	20
■ Activation	20
■ Activation in UNIX from the Console	28
■ Starting to Use the Software	30



Important: Before beginning to install the ADR package, you must ensure that all the latest operating system updates have been applied.

Installation

The components of Data Archiving for Adabas are installed using the Software AG Installer from the Software AG download center. Please refer to the Data Archiving for Adabas Software AG Installer section **Component Installation** for information on how to perform this part of the installation.

License Key Requirements

During the **Activation** process you will be prompted for the location of a license key file.

For UNIX the availability of a license key is mandatory.

For Windows it is not mandatory and the installation can be performed without a license key. Refer to *Using Data Archiving for Adabas without a License Key* for more information.

Activation

Once the Software AG Installer has prepared the install download image or you have copied the downloaded install image to the computer where the installation is required you must finally activate the software before it can be used.

Once you start the activation process, you will be required to provide configuration information within a number of activation tabs but before you start make sure:

1. Your license key is in a file that is available to the installation activation unless you are going to use the software without a license (see **License Key Requirements**).
2. You can identify the location of the Repository. Please refer to the section **Installation Planning and Preparation** for information on how to manage that part of the installation.

Starting the Activation

For UNIX

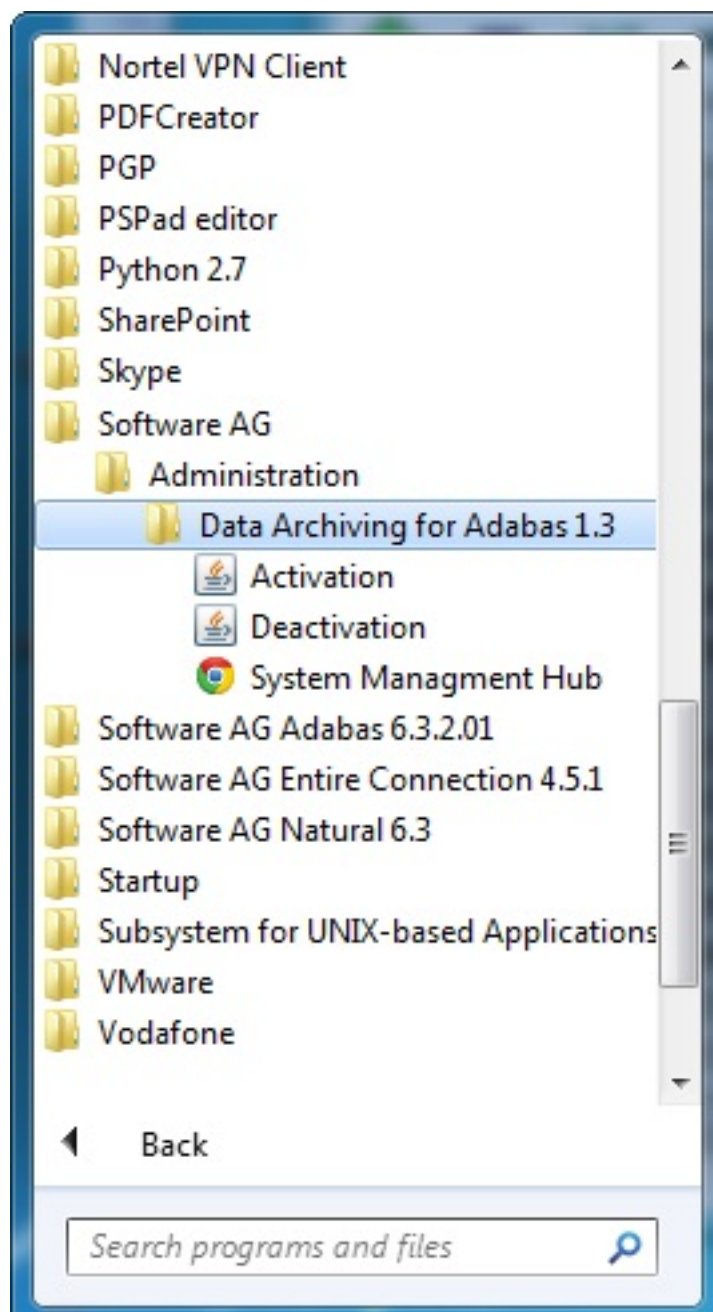
Run the activation script `./activation.sh` from the installation library `$SAG/cor/v \textit{vrs} /INSTALL` where *vrs* is the product version.




Note: In UNIX, if the activation detects that a User Interface is not available then it will automatically use the console mode. Refer to [Activation in UNIX from the Console](#).

For Windows

The Installer creates a Start Menu entry for activation (and deactivation); an example screen shot follows:



 **Note:** Windows Vista, 7, 8 and Server 2008, 2012 requires that you start the activation using *right-click and run as administrator*.

Once you start the activation process, you are required to progress through a number of activation tabs:

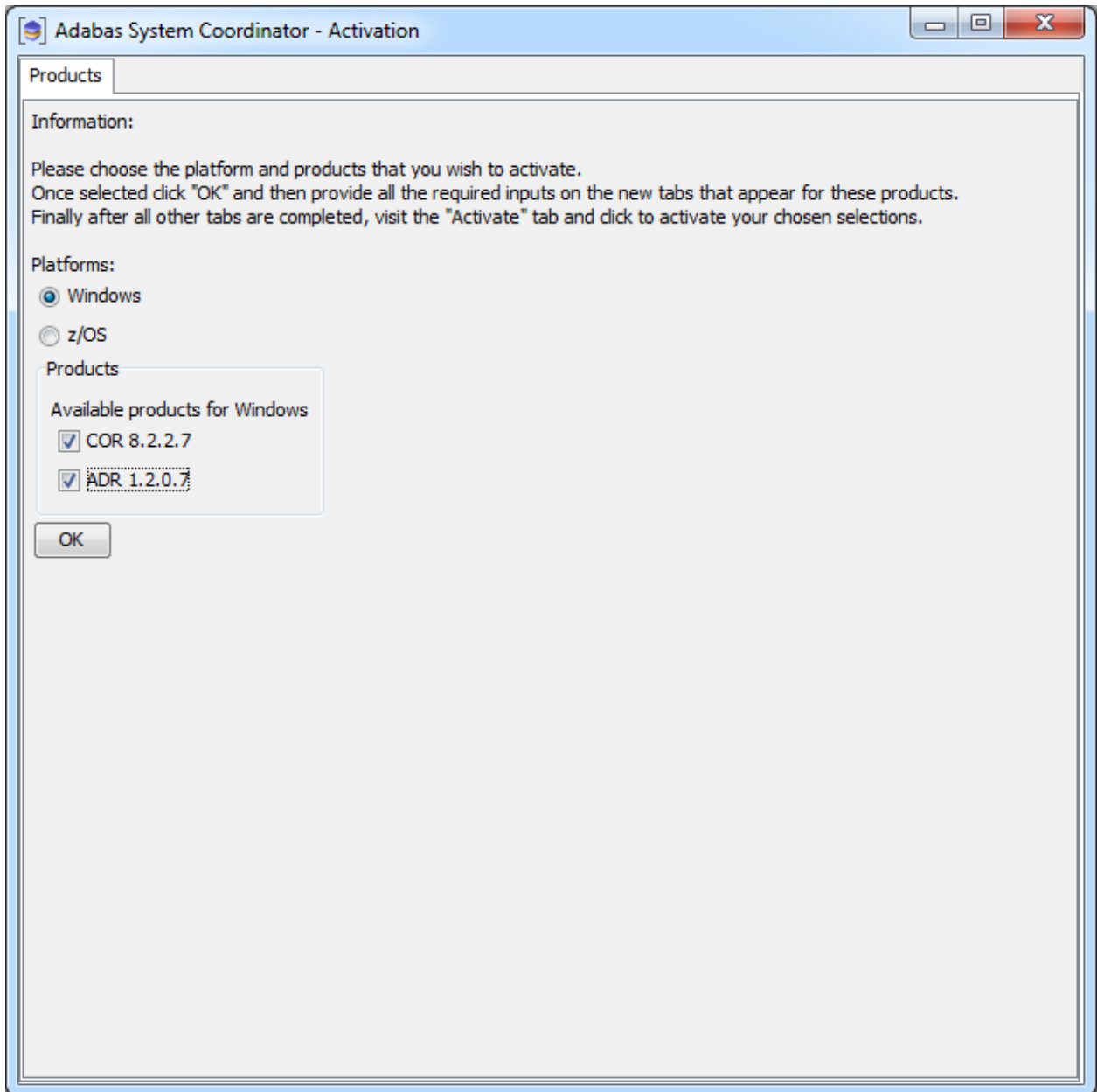
- Products
- COR (Adabas System Coordinator)
- ADR (Data Archiving for Adabas)

- Activate

Products

The first tab in the activation requires that you select the platform that you are activating and the products too.

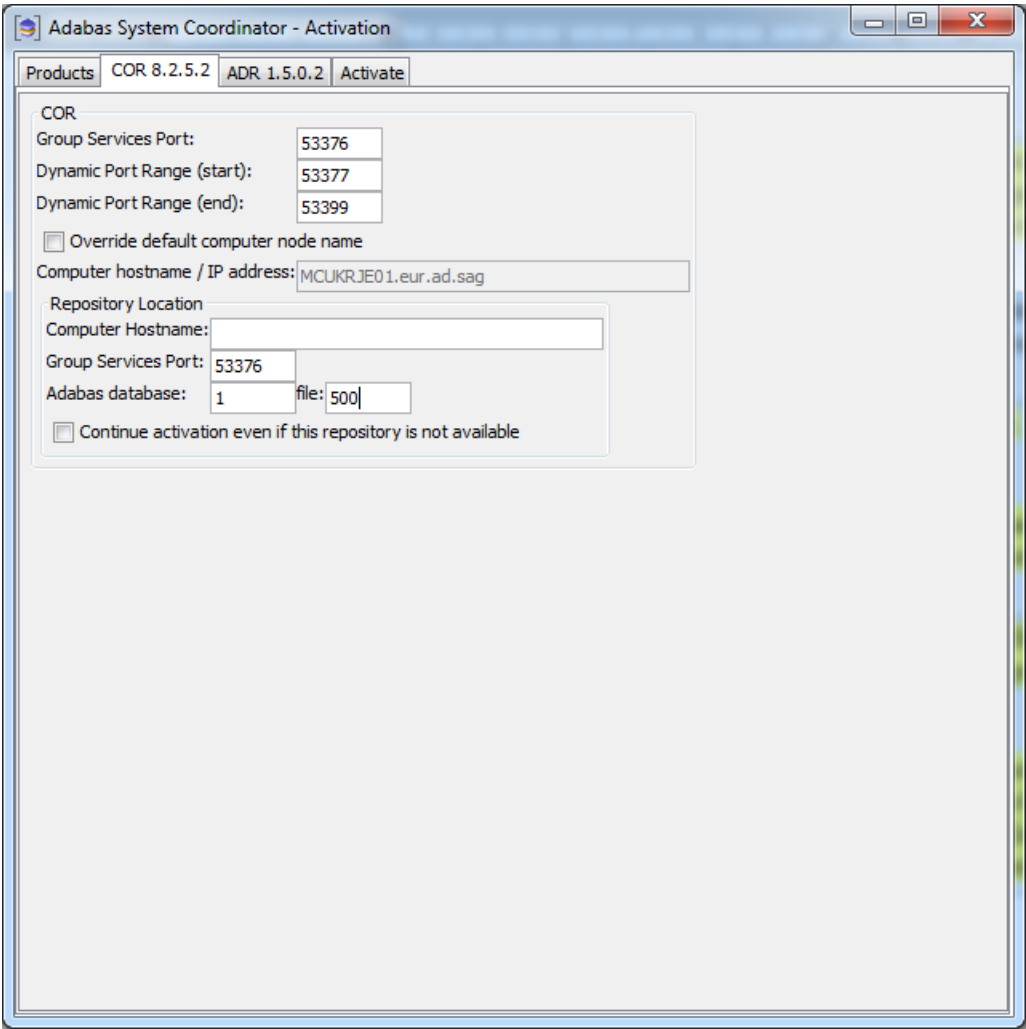
The following screenshot shows the tab for the Windows platform (UNIX is similar):



COR (Adabas System Coordinator)

The COR tab requires you to provide information about port numbers, computer names and Repository location.

The following screenshot shows the COR tab:



Enter the following information (or accept the defaults):

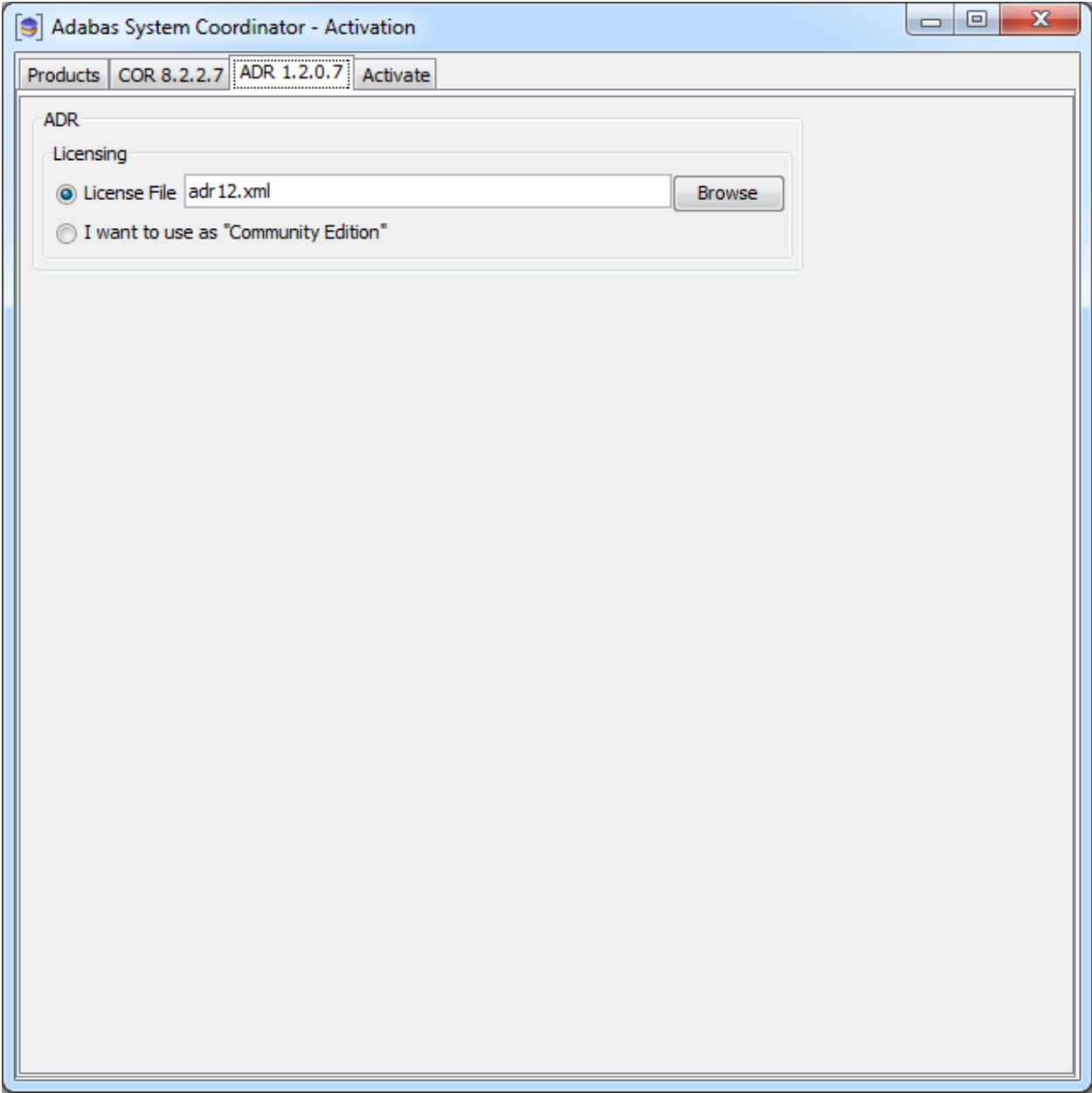
Field	Description
Group Services Port	System Coordinator uses ports for communication between components. This setting defines the port number to be used for communicating with the System Coordinator daemon residing on the computer defined in the "Computer hostname / IP address" field below. Normally the default setting is used.

Field	Description
Dynamic Port Range start/end	System Coordinator also uses dynamic ports for communication between components. Normally the default settings are used.
Override default computer name	Sometimes a machine is configured in such a way that the automatically detected computer hostname does not match the one that needs to be used (e.g. multiple network interfaces or multiple IP stacks). In this case you can override the detected computer hostname with a user defined hostname or IP address to be used at runtime. To do this, select the checkbox and enter the value to be used in the (now enabled) "Computer hostname / IP address" field.
Computer hostname / IP address	This is the automatically detected hostname. This is display only unless the "Override default computer node name" checkbox has been selected in which case it can be overridden. The "Group Services Port" number defined above is used to communicate to the System Coordinator daemon residing on the computer name shown here.
<i>Repository Location</i>	
Computer hostname	This is the computer hostname where the Repository is already located or, if this is the first installation, where the Repository is to be located (in which case it should be defined to be the local computer hostname).
Group Services Port	This setting defines the port number to be used for communicating with the System Coordinator daemon residing on the computer defined in the "Computer hostname" field above.
Adabas database / file	This is the database and file number of the Repository. Note: The database must exist and be active in order for the activation to be successful. If the file already exists it will be used, if not, it will be automatically created.
Continue activation even if this daemon is not active	By default, when leaving this COR tab, a connection check will be performed using the above Repository location "Computer hostname" and "Group Services Port". When this option is selected, the connection check is not done, enabling the activation to continue without the System Coordinator daemon (residing on the "Computer hostname" and "Group Services Port" defined above), used to access the Repository, being active.

ADR (Data Archiving for Adabas)

Licensing has to be identified in the ADR tab.

The following screenshot shows the ADR tab for the Windows platform:

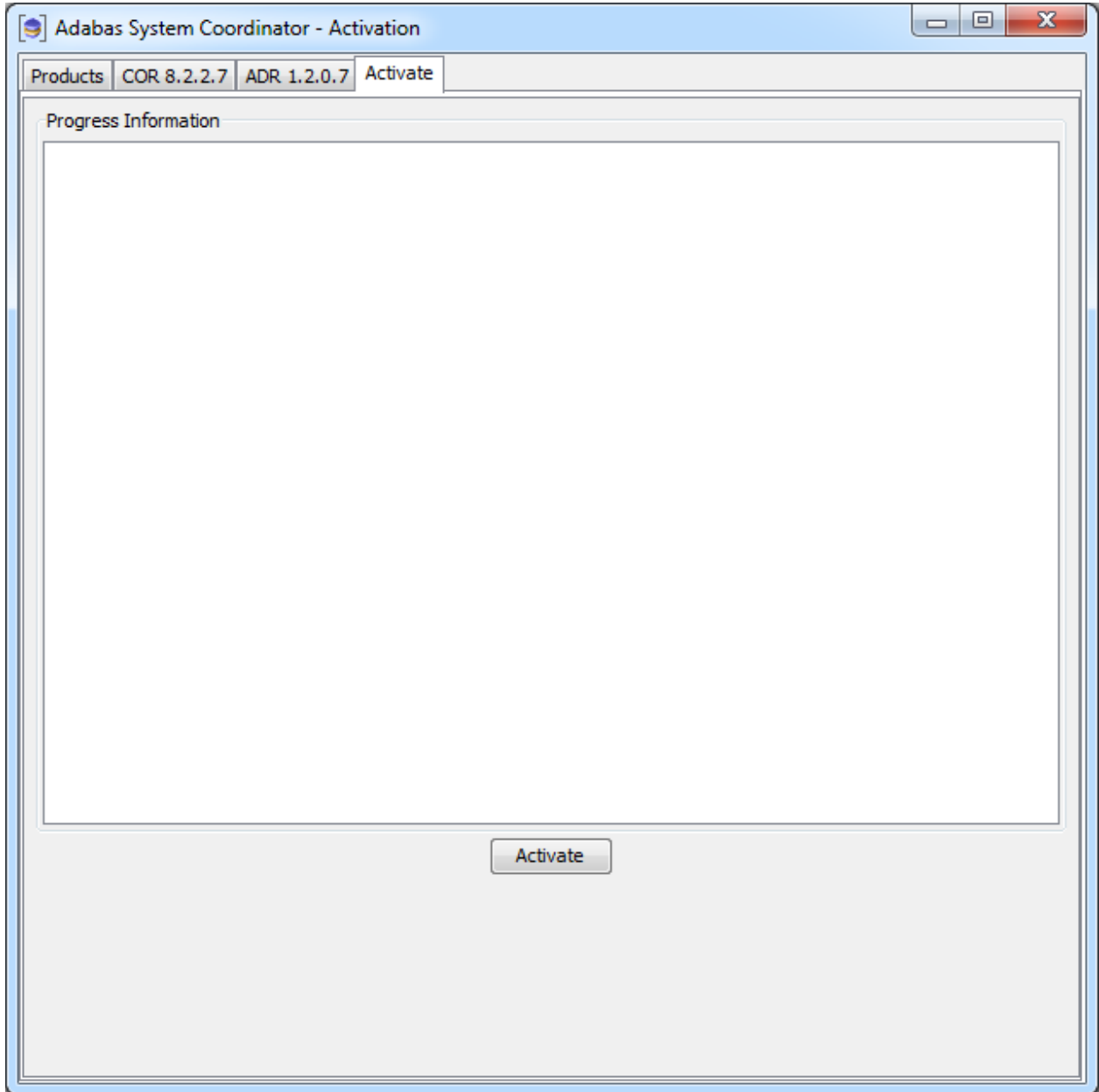


Enter the following information:

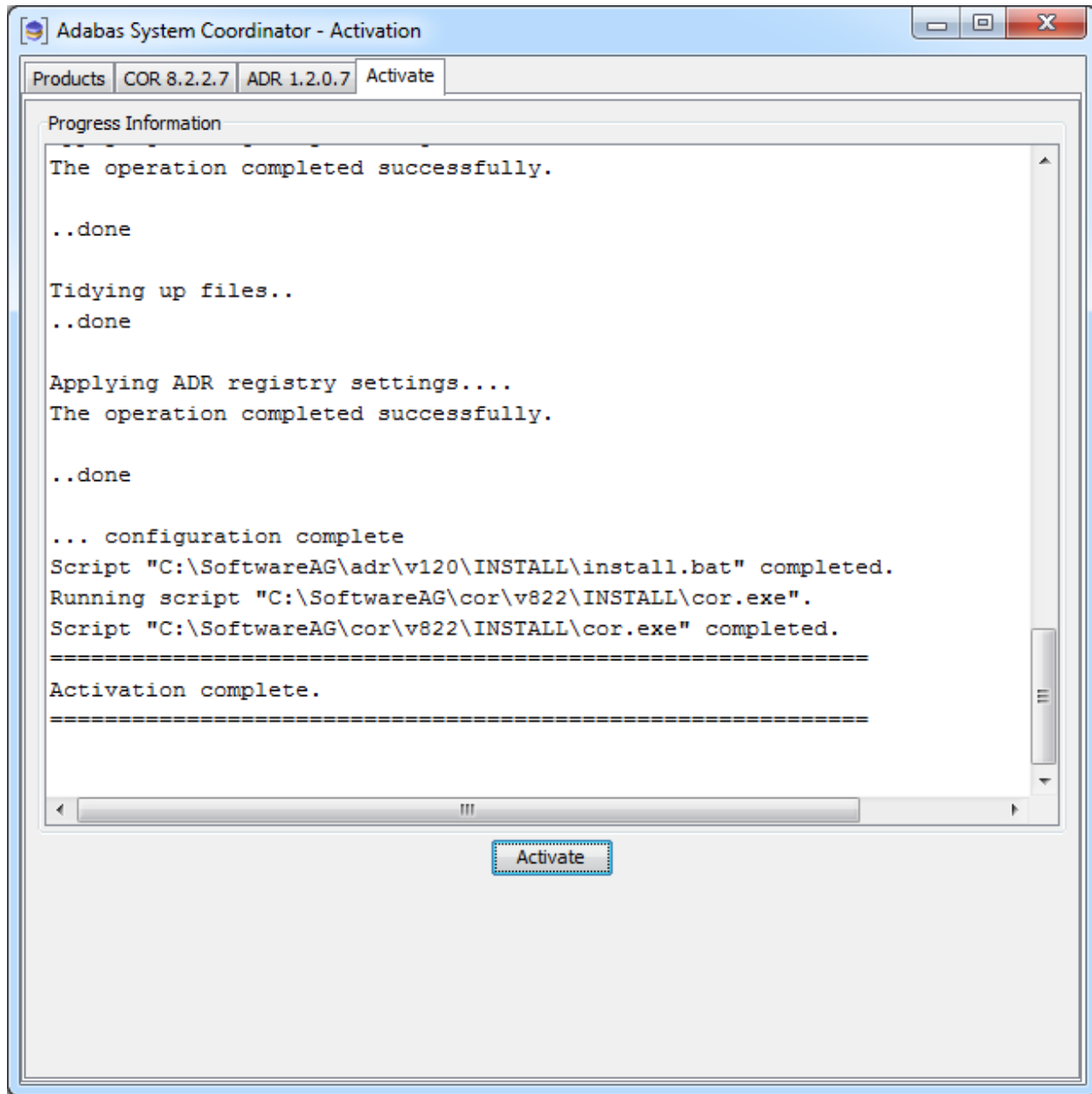
Field	Description
License File	Specify the location of the license key file.
I want to use as "Community Edition"	For Windows only, you can use the software without a license by selecting this option (see <i>Using Data Archiving for Adabas without a License Key</i>).

Activate

Once all options have been selected the activate tab shows the empty activation log screen. Start the activation by clicking the Activate button below.



The activation log screen shows progress during execution which may contain important information if a problem occurs (such as permissions failure). Here is a successful activation execution completion:



Activation in UNIX from the Console

The activation detects when a GUI is unavailable and will use the console mode automatically.

The full activation process is shown in this screenshot:


```

*****
Configuring Data Archiving for Adabas ...
Using configuration parameters:
#SUNSOL8_64.CONFIGURATION
SUNSOL8_64.ActivateUI=YES
SUNSOL8_64.UpdateSAGENV=YES
SUNSOL8_64.CORVersion=v822
..done
Script
"/FS/fs3042/ukayh/SAG/sunada04/adr/v120/INSTALL/install.sh"
completed.
Running script
"/FS/fs3042/ukayh/SAG/sunada04/cor/v822/INSTALL/cor.sh".
Starting Adabas System Coordinator Launch Control ...
PID 542
Done.
Script
"/FS/fs3042/ukayh/SAG/sunada04/cor/v822/INSTALL/cor.sh"
completed.
=====
Activation complete.
=====
bash-2.05$

```

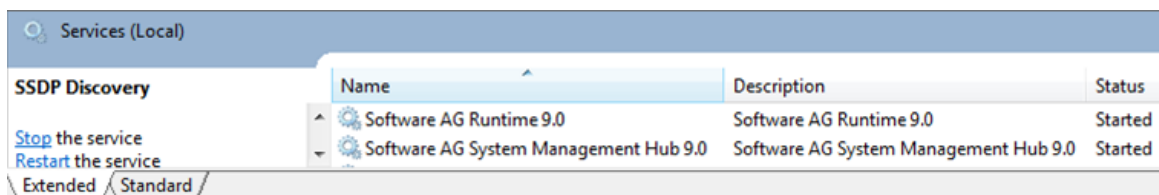
Starting to Use the Software

➤ To use the software

- 1 Restart the System Management Hub services (for Windows) or daemons (for UNIX) in order to detect the newly activated products.

For Windows

- Restart the “Software AG System Management Hub” and “Software AG Runtime” services:

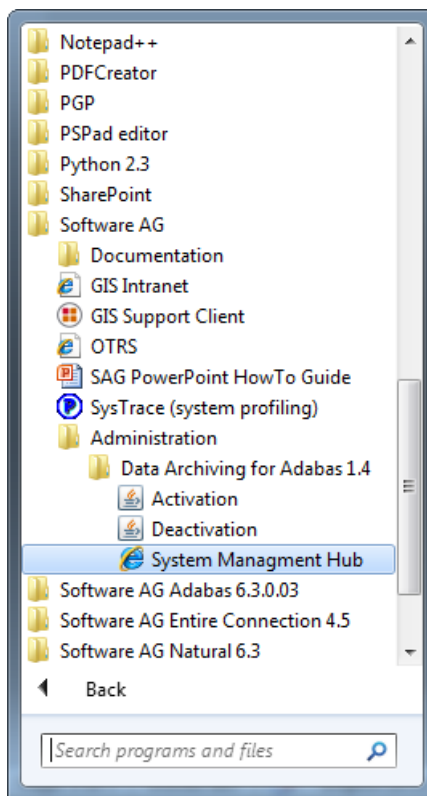


For UNIX

- Restart the CTP and InstanceManager daemons by running the following scripts:
 - \$SAG/InstanceManager/bin/shutdown.sh
 - \$SAG/profiles/CTP/bin/restart.sh
 - \$SAG/InstanceManager/bin/startup.sh

For more information on how to do this, refer to the System Management Hub documentation available from the Software AG Documentation Web site.

- 2 If System Management Hub is available on your local machine, the install process creates a Start Menu entry; an example screen shot follows:

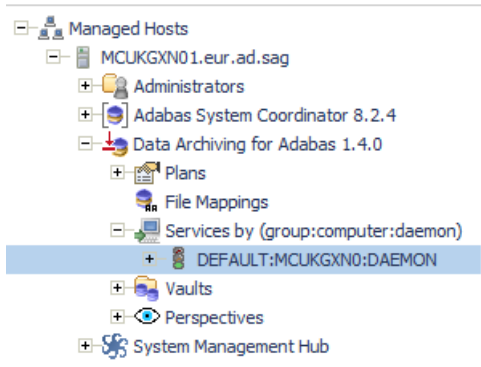


If no Start Menu entry is available, go to your browser and use <http://localhost:10010/smh> (assuming defaults have been used for the System Management Hub install) or use your normal entry to the System Management Hub.

- 3 Within System Management Hub, expand the tree and select the *Data Archiving for Adabas* node.
- 4 If only the Administration component was installed, you will be directed immediately to the Add Perspectives window where you will need to define the access path to an appropriate Repository (refer to *Perspectives* for more information).

- 5 Select the *Services by (group:computer:daemon)* node within the Data Archiving for Adabas navigation tree.
- 6 You should see an Archiving Service designated by group:computer:daemon where computer is the name of the computer where Data Archiving for Adabas has just been installed. This Archiving Service should show a green traffic light which indicates that the service is active.

This is a screenshot of an example tree structure:



- 7 Select an Archiving Service and the Archiving Service window will appear. In the example screenshot above there is only a single Archiving Service designated by `DEFAULT:MCUKGXN0:DAEMON`

The Archiving Service window displays the following information:

Field	Description
Group Computer Daemon	The name of the Group, Computer and Daemon corresponding to the selected Archiving Service.
<i>Service Status Information</i>	
Status	The run status of the selected Archiving Service.
Install Path	The installed location of the selected Archiving Service.
Version	The version of the selected Archiving Service.
Repository	The location information for the Repository used by the selected Archiving Service.
<i>License Information</i>	
File	The location of the selected Archiving Service's license file.
Status	The status of the selected Archiving Service's license.
Expires	The expiry date of the selected Archiving Service's license.

Verify:

- The green traffic light described earlier should correspond to an Archiving Service status of “Started”.
- The License Information status should be “Valid”, or, if you are using Data Archiving for Adabas without a license key, “Community Edition”.

The installation is now complete. You can begin using Data Archiving for Adabas. See the section Getting Started for further information.

7

Installation Procedure for z/OS

■ Important Information	36
■ Overview	36
■ Actions Required Before Starting the Install	36
■ Installation Preparation Checklist	42
■ Installation	44
■ Activation	45
■ Workload Management	53
■ Administration	55

Important Information

The Software AG Installer (download center) has limited support for z/OS at present. However, the installation (and activation) of the z/OS software is downloaded along with all other platforms. Here are some useful points to help you understand the process overall:

- The install image must be downloaded to one of the other supported platforms (Windows or UNIX for example).
- There is a special z/OS activation step that has to run in this download platform. This activation step FTPs the z/OS software from the download platform into the z/OS system.

Overview

Data Archiving for Adabas is a fully portable technology. It runs in all primary UNIX systems, Windows and z/OS and has only one code-base.

IBM's z/OS has embedded UNIX System Services (USS) within it. This is part of the ongoing modernization that has been happening to the operating system in recent years. This means z/OS is able to embrace modern technologies that in the past were considered only for off-host (outside the mainframe).

Data Archiving for Adabas runs within a USS process within z/OS accessing normal z/OS Adabas databases.

Actions Required Before Starting the Install

During the install you must identify the database and file number for the Repository. Please refer to the section [Installation Planning and Preparation](#) for information on how to manage that part of the installation.

Before the installation you must:

- [Create Data Set for ADR Load Library](#)
- [Create Site-Based Adabas Link Routine \(ADALNKR\)](#)

■ Some Useful Information about USS (OMVS)

Create Data Set for ADR Load Library

The ADR install requires that you construct a load library with the following specific attributes:

```
DCB=(BLKSIZE=23200,RECFM=U)
```

Example dataset name: *SAG.ADRvrs.LOAD*, where *vrs* is the product version.

Create Site-Based Adabas Link Routine (ADALNKR)

Make a site-based ADALNKR with the appropriate SVC number for your site. Make it available in the z/OS dataset mentioned above. LNKGBLS must be linked in with your ADALNKR in this library.

Make sure ADALNKR is fully maintained.

Here is some example JCL...

```
//LNKRGBLS JOB CLASS=G,MSGCLASS=X
//* ----- *
//* Assemble LNKGBLS - reentrant - *
//* ----- *
//GBLSWLS EXEC ASMACL,
//      PARM.C='ASA,NODECK,OBJECT,XREF(SHORT),TERM',
//      PARM.L='XREF,LIST(ALL),LET,MAP,NCAL'
//C.SYSLIB      DD DISP=SHR,DSN=SAG.ADAvrs.SRCE
//              DD DSN=SYS1.MACLIB,DISP=SHR
//              DD DSN=SYS1.MODGEN,DISP=SHR
//C.SYSPRINT    DD SYSOUT=*
//C.SYSTERM     DD SYSOUT=*
//C.SYSIN       DD *
*
*      Global definitions for the Adabas link routine
*      for Batch/TSO.
*      Modify this sample for your site.
*      Then assemble and link it and include the
*      resulting module with ADALNK8 to create the ADALNKR
*      for use with ADR in z/OS.
*
*      LGBLSET LOGID=1,          DEFAULT ADABAS DBID          X
*              SVCNO=252,       DEFAULT ADABAS SVC NUMBER    X
*              OPSYS=ZOS,       Operating system             X
*              COR=NO,          Activate System Coordinator   X
*              TPMON=BAT,       Batch/TSO                     X
*              RENT=YES,        Non-reentrant for Batch/TSO   X
*              GEN=CSECT,       Generate CSECT for load module X
*              GBLNAME=LNKGBLS, DEFAULT GLOBALS MODULE NAME   X
```

```

        USERX1=NO,      Link user exit 1 YES/NO      X
        LX1NAME=UEXITB,  User exit 1 module name      X
        USERX2=NO,      Link user exit 2 YES/NO      X
        LX2NAME=UEXITA,  User exit 2 module name      X
        UES=YES          Enable UES
*
        END
//L.SYSPRINT DD SYSOUT=*
//L.SYSLMOD DD DISP=SHR,DSN=SAG.ADR111.LOAD
//L.SYSIN DD *
MODE AMODE(31),RMODE(ANY)
ENTRY LNKGBLS          Default entry name
NAME LNKGBLS(R)        DEFAULT TABLE NAME
/*
/* ----- *
/* LINK ADALNKR with LNKGBLS - *
/* ----- *
//LINKABY EXEC PGM=IEWL,
//      PARM='LET,LIST(ALL),MAP,XREF,REUS=RENT',REGION=4M
//SYSPRINT DD SYSOUT=*
//SYSUT1 DD DSN=&&SYSUT1,SPACE=(1024,(120,120),,ROUND),UNIT=VIO
//ADALIB DD DISP=SHR,DSN=SAG.ADAvrs.LOAD
//SYSLMOD DD DISP=SHR,DSN=SAG.ADRvrs.LOAD
//SYSLIN DD *
MODE AMODE(31),RMODE(ANY)
INCLUDE ADALIB(ADALNKR8)          /* V8 LINK ROUTINE */
INCLUDE SYSLMOD(LNKGBLS)
INCLUDE ADALIB(LNKUES)
INCLUDE ADALIB(ASC2EBC)
INCLUDE ADALIB(EBC2ASC)
ENTRY ADABAS
NAME ADALNKR(R)
/*
//

```

Some Useful Information about USS (OMVS)

- [Activating OMVS \(USS: UNIX System Services\) in z/OS](#)
- [Getting into OMVS via TSO](#)
- [Getting into OMVS via Telnet](#)

■ Entering UNIX Commands

Activating OMVS (USS: UNIX System Services) in z/OS

OMVS is usually available within z/OS by default because many other software components from other vendors (including IBM) use it. If it is not available, you can use the following information to make it available:

- When z/OS is first installed and configured a RACF (or equivalent) basic user called IBMUSER is defined. The IBMUSER is automatically defined with an OMVS segment. It is an OMVS segment that enables a user to use OMVS (USS).
- Therefore, your RACF or equivalent systems such as ACF2, TOP SECRET etc. (please consult the appropriate documentation of these other systems for similar information) administrator needs to add an OMVS segment to all users who are to use OMVS, including the person who will be doing the ADR install.
- An OMVS segment contains the following:

- **UID.**

A numeric UID like in any other UNIX system. This UID represents one sharable UNIX that one or more userids may be able to use. There may be many more OMVS systems (UID) defined for your system.

- **Home directory.**

Something like /u/nat/xyz

- **A shell program.**

This is essentially UNIX (the korn shell), often called “ksh” in the UNIX community. An example of this may be: /bin/sh

- **Maximum size.**

This is akin to address-space size. It may be allowed to default. It is not unusual for a UNIX OMVS to be 128-512 meg.

- In RACF the command to add such a segment would be...

```
ALU <userid> OMVS (UID(1234) HOME ('/u/nat/xyz') PROGRAM ('/bin/sh')) ↵
```

This command needs to be entered using a tool that supports mixed case (such as TSO ISPF/PDF/Option 6).

- Next, a UNIX group should be assigned to the <userid>. Again, this is a numeric and is referred to as “GID”. A normal RACF “connect” command can be used to do this.

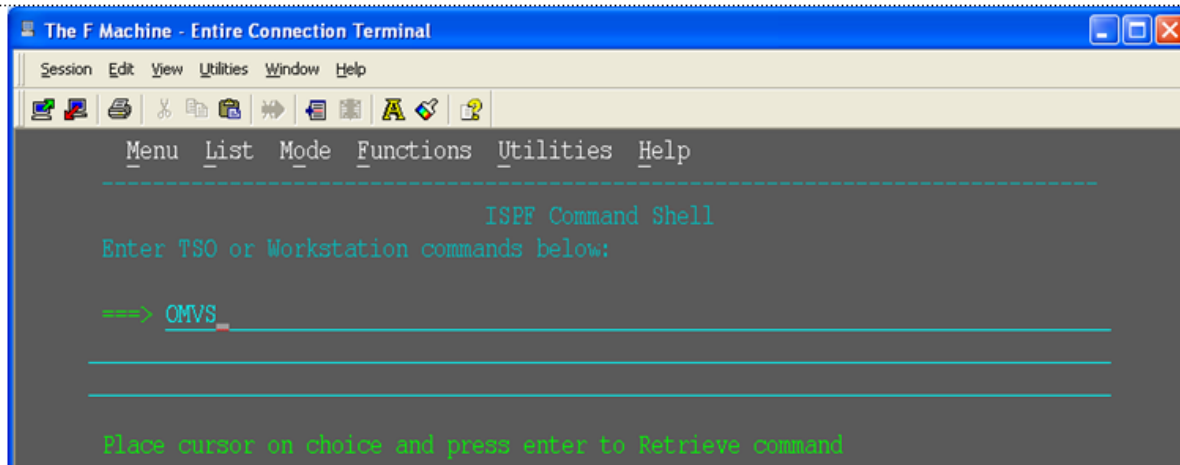
A GID can be assigned to a RACF group with...

```
ALG <group> OMVS(GID(nn))
```

- The home directory needs to be created in the filesystem (HFS, ZFS etc).

Getting into OMVS via TSO

Once the permissions, home directory etc. are acquired, there are two typical ways to get into OMVS. One is through TSO. Get into TSO and issue the OMVS command and press Enter.



```

The F Machine - Entire Connection Terminal

Session Edit View Utilities Window Help

All Rights Reserved.

U.S. Government users - RESTRICTED RIGHTS - Use, Duplication, or
Disclosure restricted by GSA-ADP schedule contract with IBM Corp.

IBM is a registered trademark of the IBM Corp.

-----
- Welcome to Software AG's Unix System Services Shell -
----- OS/390 DA3F 19.00 03 2098 -----

The system DA3F was upgraded to z/OS 1.9. Java 2 SDK 5 is available
in /usr/lpp/java (31 & 64 Bit), Java 1.3 in /usr/lpp/java/IBM.

Bernhard Dolderer 15-December-2008

Executing SAG.login
Executing /u/saguk/ukrje/.profile
$
==>

RUNNING

ESC=Ä 1=Help 2=SubCmd 3=HlpRetrn 4=Top 5=Bottom 6=TSO
7=BackScr 8=Scroll 9=NextSess 10=Refresh 11=FwdRetr 12=Retrieve

```

Getting into OMVS via Telnet

You can get to OMVS like any other UNIX system from outside z/OS using telnet. Enter the following at your workstation:

```
telnet <computer> <port>
```

This will enable access into the OMVS UNIX at the same point as entering “OMVS” in TSO.

Entering UNIX Commands

Once in OMVS, you will be able to use all the usual UNIX directives:

Directive	Description
cd	Change directory
mkdir	Make directory
chmod	Set protection
chown	Set owner
chgrp	Change group
ls -la	Display directory contents

Installation Preparation Checklist

There are a number of things that need to be done prior to installing. These have been covered in the preceding sections and are summarized here as a checklist to help you ensure the installation is successful:

Step	Description	Notes
1	<p>Check the system name and hostname of the z/OS machine where the software is being installed:</p> <ul style="list-style-type: none"> ■ the system name and hostname must be the same ■ the hostname must resolve to the correct IP address 	<p>Use the <code>uname</code> command to acquire the system name:</p> <pre>da3f:saguser> uname -a OS/390 DA3F 20.00 03 2098</pre> <p>Use the <code>onslookup</code> command with the system name to acquire the hostname and IP address:</p> <pre>da3f:saguser> onslookup DA3F Defaulting to nslookup version 4 Starting nslookup version 4 Server: daedns.ad.sag Address: 10.20.xxx.xxx Name: DA3F.hq.sag Address: 10.20.xxx.xxx</pre>
2	Check the amount of free disk space available in the directory in the USS filesystem where the software is being installed.	Use the <code>df</code> command to see the amount of free space available:

Step	Description	Notes
	Minimum disk space: 300 MB	<pre>da3f:saguser> df -k ↵ /opt/softwareag</pre>
3	<p>Check the amount of memory (region size) available to a process running in the USS environment.</p> <p>Note: If you use OMVS from TSO, the amount of memory available in USS is governed by region size of the TSO session. The region size of the TSO session is configured via the SIZE attribute in the TSO segment of the user's RACF profile.</p> <p>Minimum memory: 64 MB</p>	Minimum memory: 64 MB
4	<p>User ID and password for the USS account that will be used to install and run the software.</p> <p>Make sure that the account has read/write and execute permissions to the installation directory in the USS filesystem (from Step 2 above).</p>	<pre>User ID: saguser Password: ***** Permissions:</pre>
5	<p>Check that the USS account (from Step 4 above) has the correct z/OS security permissions for the dataset where the ADALNKR/LNKGBLS were prepared earlier.</p> <p>Note: The load library dataset must not be in use by any other process.</p>	<pre>Dataset: SAG.ADRvr1.LOAD Permissions:</pre>
6	<p>Adabas database and file number for the Repository.</p> <p>This can be a file that will be created or replaced as part of the installation, or it can be an existing file shared by another computer already running Data Archiving for Adabas.</p> <p>If the file is being shared by another computer, the hostname of the computer and its Group Services port number will be required (default 53376).</p>	<pre>Database: 10 File number: 120</pre> <p>Choose one of:</p> <ul style="list-style-type: none"> <input type="checkbox"/> create <input type="checkbox"/> replace <input type="checkbox"/> share <p>When choosing share you will be prompted for:</p>

Step	Description	Notes
		Hostname: <i>sunpcc10.hq.sag</i> Portnumber: 53376
7	Download location. This is the non-z/OS computer where you either download directly or placed the software distribution image. Note: Installations are much faster if you use a local disk on the download computer.	Example: <i>C:\SoftwareAG\Temp</i>
8	Details for the FTP upload of the z/OS software because the software must be uploaded to z/OS. The following information is needed: <ul style="list-style-type: none"> ■ Hostname of z/OS (from 1 above) ■ User ID (from 4 above) ■ Password (from 4 above) ■ Temporary target upload directory Software AG recommends the target directory for the upload is different to the location where the software will finally be installed, since the FTP is only a temporary step. Typically, this is a temporary directory in the user's home directory. Check the amount of free disk space available in the target directory. Minimum upload disk space: 30MB	Hostname: <i>da3f.hq.sag</i> User ID: <i>saguser</i> Password: <i>*****</i> Directory: <i>/u/saguser/tmp</i> The df command shows the amount of free space available: <i>da3f:saguser> df -k ↵</i> <i>/u/saguser/tmp</i>

Installation

The components of Data Archiving for Adabas are installed using the Software AG Installer from the Software AG download center. Please refer to the Data Archiving for Adabas Software AG Installer section **Component Installation** for information on how to perform this part of the installation.

Activation

Once the Software AG Installer has prepared the install download image, or you have copied the download install image to the computer where the activation will be performed, you must now perform the z/OS activation. For information on how to start the activation on your chosen off-host platform (Windows or UNIX), refer to [Starting the Activation](#) in the *Activation* section of the *Installation Procedure for Windows and UNIX*.



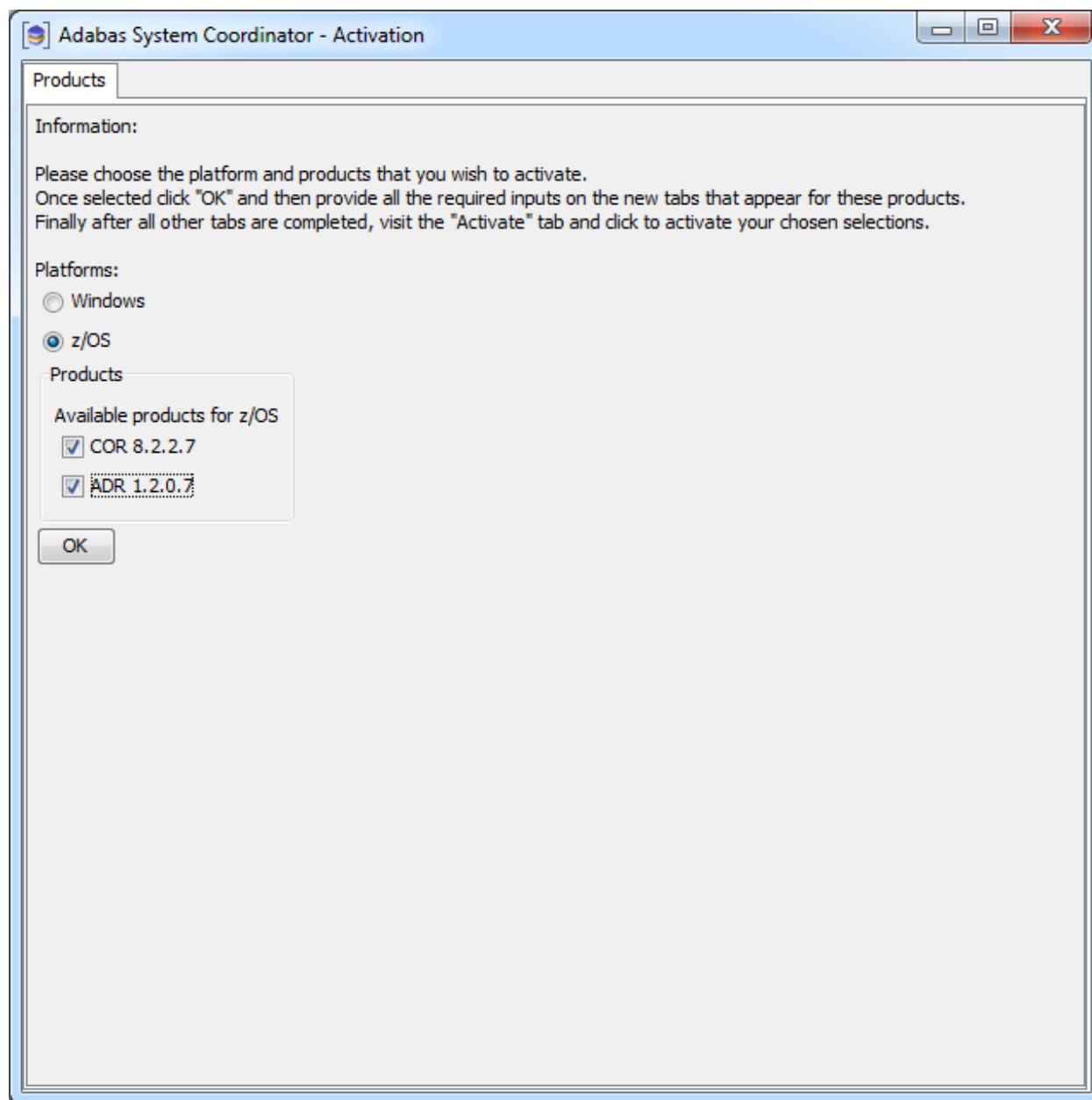
Note: Windows Server editions may require that you disable the windows firewall to perform the z/OS FTP install. This is because popup notifications are disabled by default so you do not get the dialog asking if you want to allow activation network access that you would see on other Windows platforms.

Once you start the activation process, you are required to progress through a number of activation tabs:

- [Products](#)
- [COR \(Adabas System Coordinator\)](#)
- [ADR \(Data Archiving for Adabas\)](#)
- [FTP Parameters](#)
- [Activate](#)

Products

The first tab in the activation requires that you select the platform that you are activating and the products too. Select z/OS as the platform and COR and ADR as the products:



COR (Adabas System Coordinator)

The COR tab requires you to provide information about port numbers, computer names and Repository location.

The following screenshot shows an example of the COR tab:

Adabas System Coordinator - Activation

Products COR 8.2.2.7 ADR 1.2.0.7 FTP Parameters Activate

COR

Group Services Port: 53376

Dynamic Port Range (start): 53377

Dynamic Port Range (end): 53399

☐ Override default computer node name

Computer hostname / IP address:

Configuration File Location

Computer Hostname: mcukayh01.eur.ad.sag

Group Services Port: 53376

Adabas database: 1 file: 500

☐ Continue activation even if this daemon is not active

Dataset where prepared ADALNKR (etc) resides:
RDU.AYH.ADR

JCL

Review/adjust the JCL template used to automatically submit the activation:
NOTE: Do not edit the <USER_PLACEHOLDER> or <COMMAND_PLACEHOLDER> as these are used to run the installation scripts.

```
//<USER_PLACEHOLDER>1 JOB CLASS=K,MSGCLASS=X
//COR EXEC PGM=BPXBATCH,REGION=0M,
// PARM='pgm <COMMAND_PLACEHOLDER>'
//STDOUT DD PATH='/tmp/cor.output',
// PATHOPTS=(OCREAT,OTRUNC,OWRONLY),
// PATHMODE=(SIRWXU,SIRWXG,SIRWXO)
//STDERR DD PATH='/tmp/cor.output',
// PATHOPTS=(OCREAT,OTRUNC,OWRONLY)
```

Restore Default JCL

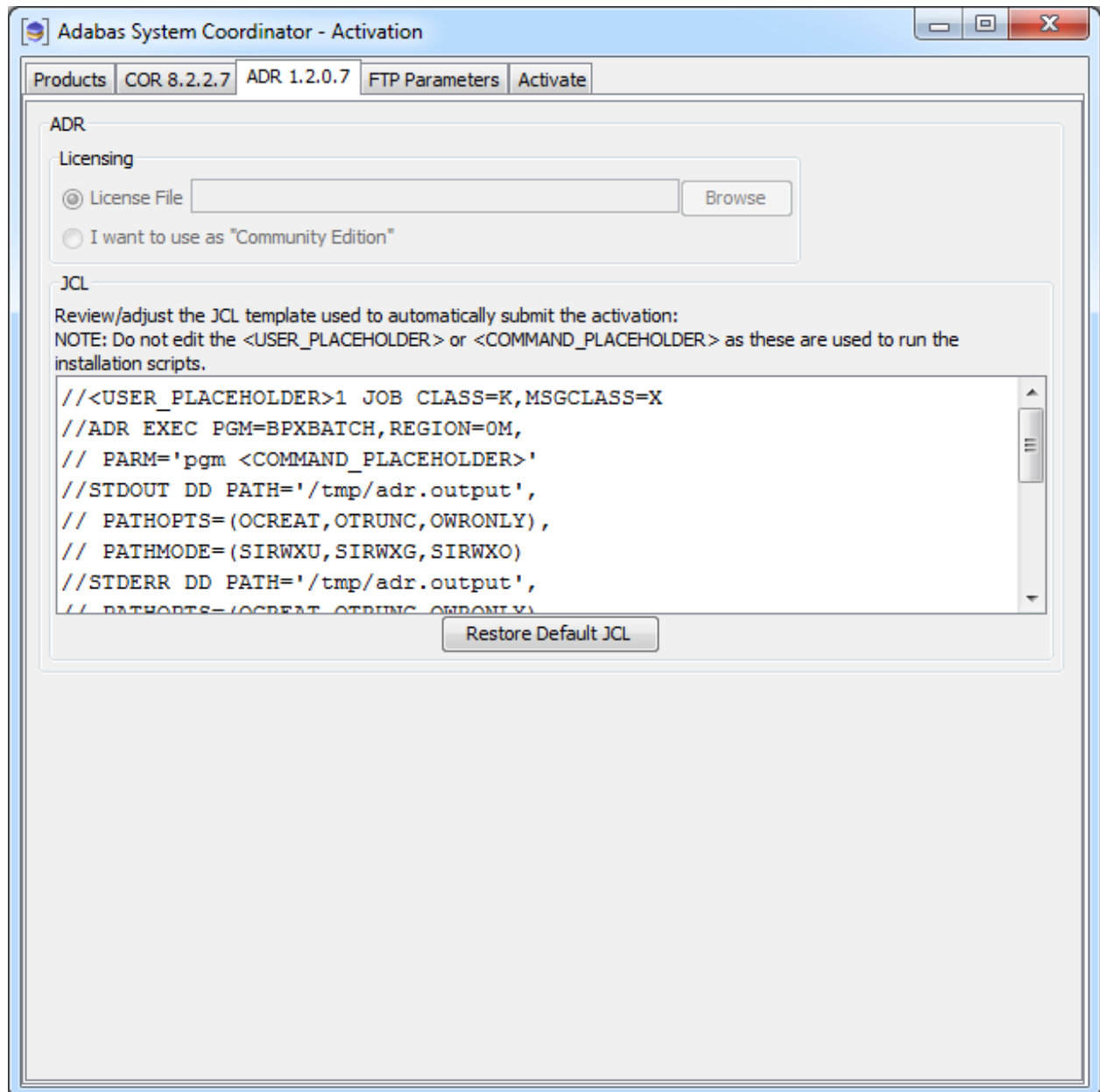
Field	Description
Group Services Port	System Coordinator uses ports for communication between components. This setting defines the port number to be used for communicating with the System Coordinator daemon residing on the computer defined in the "Computer hostname / IP address" field below. Normally the default setting is used.
Dynamic Port Range start/end	System Coordinator also uses dynamic ports for communication between components. Normally the default settings are used.

Field	Description
Override default computer node name	Sometimes a machine is configured in such a way that the automatically detected computer hostname does not match the one that needs to be used (e.g. multiple network interfaces or multiple IP stacks). In this case you can override the detected computer hostname with a user defined hostname or IP address to be used at runtime. To do this, select the checkbox and enter the value to be used in the (now enabled) “Computer hostname / IP address” field.
Computer hostname / IP address	This is the automatically detected hostname. This is display only unless the “Override default computer node name” checkbox has been selected in which case it can be overridden. The “Group Services Port” number defined above is used to communicate to the System Coordinator daemon residing on the computer name shown here.
<i>Repository Location</i>	
Computer Hostname	This is the computer hostname where the Repository is already located or, if this is the first installation, where the Repository is to be located (in which case it should be defined to be the local computer hostname).
Group Services Port	This setting defines the port number to be used for communicating with the System Coordinator daemon residing on the computer defined in the “Computer hostname” field above.
Adabas database / file	This is the database and file number of the Repository. Note: The database must exist and be active in order for the activation to be successful. If the file already exists it will be used, if not, it will be automatically created.
Continue activation even if this daemon is not active	By default, when leaving this COR tab, a connection check will be performed using the above Repository location “Computer hostname” and “Group Services Port”. When this option is selected, the connection check is not done, enabling the activation to continue without the System Coordinator daemon (residing on the “Computer hostname” and “Group Services Port” defined above), used to access the Repository, being active.
Dataset where prepared ADALNKR (etc) resides	You must identify the z/OS dataset where you previously created your site-based Adabas link routine ADALNKR earlier. Refer to Create Data Set for ADR Load Library .
JCL (for dynamic activation submission)	You must edit the model JCL so that it is valid for your site, but do not modify the <USER_PLACEHOLDER> or <COMMAND_PLACEHOLDER> because this is dynamically replaced at runtime.

ADR (Data Archiving for Adabas)

The ADR tab requires you to adjust the dynamic submission JCL to run correctly at your site, but do not modify the <USER_PLACEHOLDER> or <COMMAND_PLACEHOLDER> because this is dynamically replaced at runtime.

The following screenshot shows an example of the ADR tab:



FTP Parameters

The FTP Parameters tab requires you to define your FTP information:

The following screenshot shows an example of the FTP Parameters tab:

The screenshot shows a window titled "Adabas System Coordinator - Activation". It has a tabbed interface with the following tabs: "Products", "COR 8.2.2.7", "ADR 1.2.0.7", "FTP Parameters" (which is the active tab), and "Activate".

Under the "FTP Parameters" tab, there is a section titled "FTP Settings" containing the following fields:

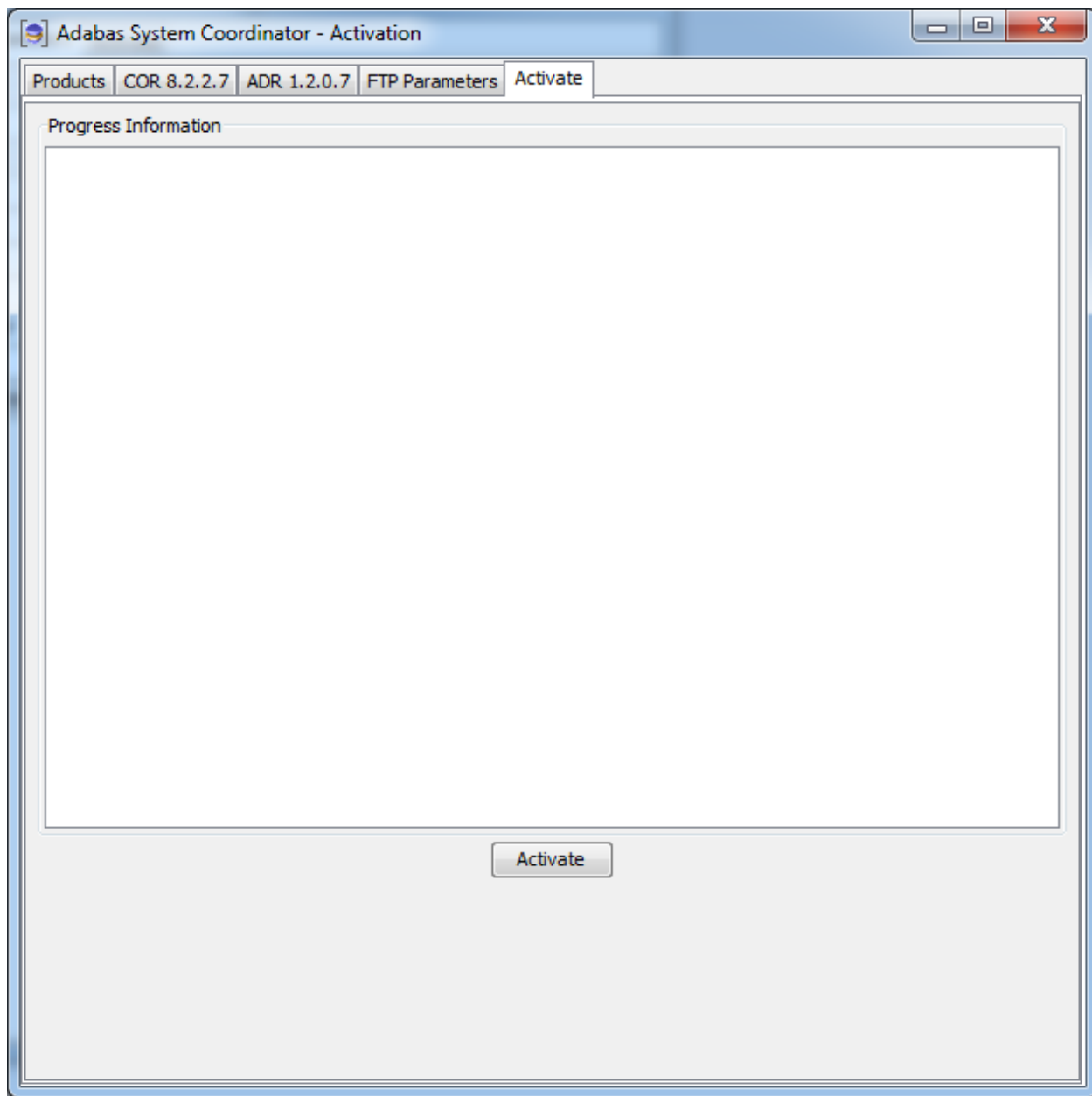
- Hostname:
- Port:
- User:
- Password:
- Optional - FTP QUOTE SITE:
- FTP Target Directory:
- JCL Temporary Dataset:
- Installation Directory:

Below these fields is a button labeled "Test FTP Settings".

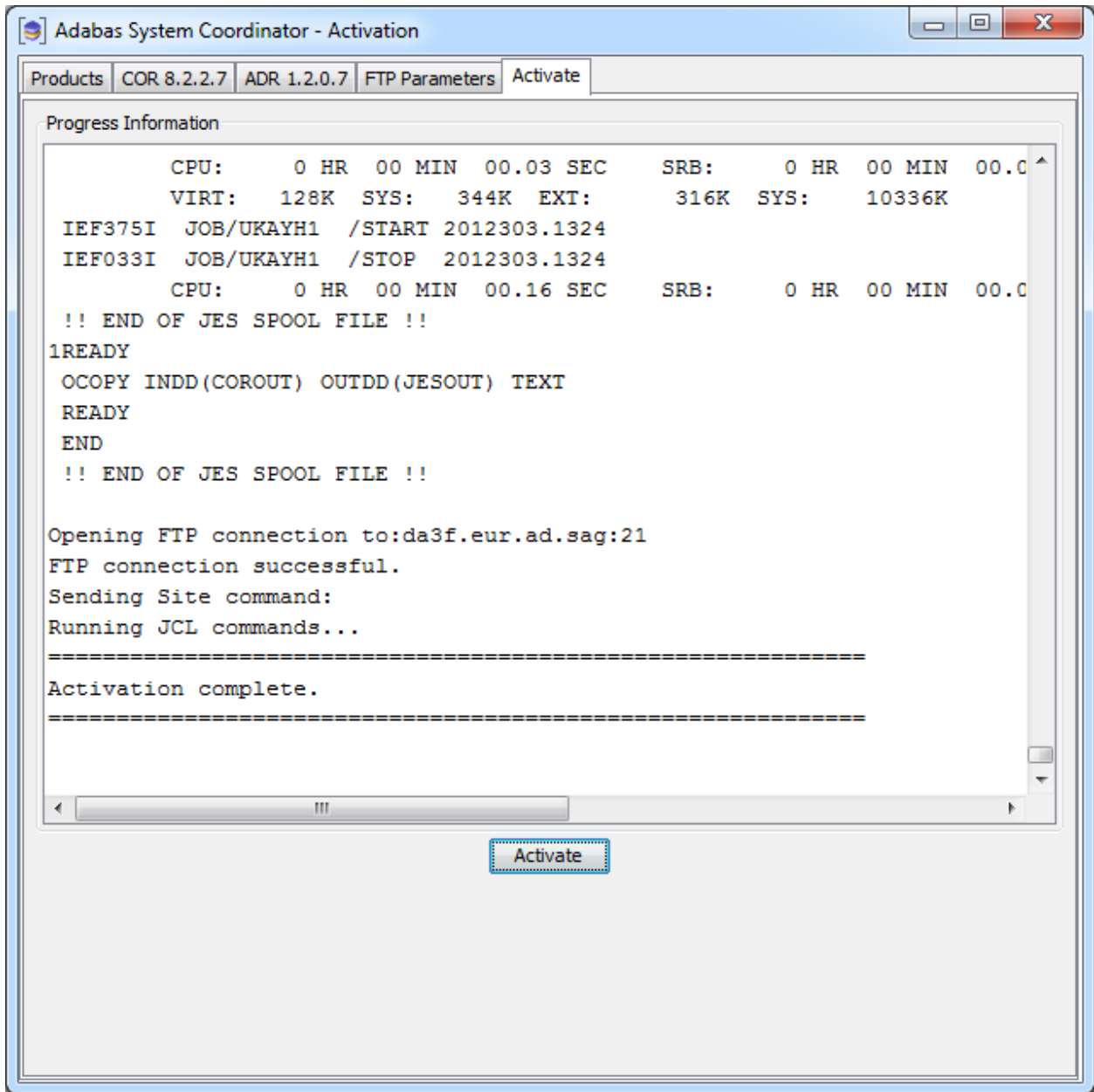
Field	Description
Hostname	This is the name of the z/OS system where the activation is to take place.
Port	This is the z/OS FTP port number, usually 21.
User	This is the z/OS logon id for RACF, ACF2, or TOP Secret (as appropriate) to be used.
Password	This is the password corresponding to the logon id specified for 'User' above.
Optional - FTP QUOTE SITE	Here you can (optionally) specify any extra commands that your FTP server configuration may require. For example, you may need to stop automatic translation by specifying your systems encodings e.g. "ENCODING=SBCS SBDATACONN (IBM-1047, IBM-1252)". In most cases this is not required.
FTP Target Directory	The directory location where you wish to initially load the install files. Note: This is an intermediate destination. The final installation location is determined by the Installation Directory below.
JCL Temporary dataset	A temporary z/OS dataset is required to dynamically construct the activation JCL. This must be a file that the logon id specified for 'User' above has modify permissions.
Installation Directory	The final location where the software will reside and run from.
Test FTP Settings	This button will perform only basic checking of the information supplied.

Activate

Once all options have been selected the next thing to do is to select the activate tab so the activation log screen appears. Start the activation by clicking the Activate button below.



The activation log screen shows progress during execution which may contain important information if a problem occurs (such as permissions failure). Here is a successful activation execution completion:



Workload Management

This section describes the default job name prefixes used for the various components of Data Archiving for Adabas and Adabas System Coordinator. This information may be useful for controlling the processing resources of these jobs.

The `_BPX_JOBNAME` environment variable is used to control the job name prefix used for the Data Archiving for Adabas and Adabas System Coordinator tasks. By default, the job name prefix will be set to match the program name.

For Adabas System Coordinator:

Launch Control:	CORLC*
Daemon:	CORD*

For Data Archiving for Adabas:

Extractor/Accumulator:	ADRDRV*
------------------------	---------

The job name prefix can be changed by setting the `_BPX_JOBNAME` environment variable in the UNIX System Services environment before starting Adabas System Coordinator, for example by modifying the `$SAG/cor/v826/INSTALL/corenv` script to include the following lines:

```
_BPX_JOBNAME=ABC
export _BPX_JOBNAME
```

This will set the job name prefix for all the above tasks (Launch Control, Daemon and Extractor/Accumulator) to ABC*.

When starting Adabas System Coordinator in batch, the JCL can set the `_BPX_JOBNAME` environment variable in the `PARM=` parameter or `STDENV DD` card statement:

PARM= example:

```
//COR826 JOB CLASS=K,MSGCLASS=X
//RUNCOR EXEC PGM=BPXBATCH,REGION=0M,
//          PARM=('pgm /opt/softwareag/sag/cor/v826/INSTALL/cor.sh start' &
'ENVAR("_BPX_JOBNAME=ABC"'))
//STDOUT DD PATH='/opt/softwareag/sag/cor/v826/bin/stdout',
// PATHOPTS=(OCREAT,OAPPEND,OWRONLY),
// PATHMODE=(SIRUSR,SIWUSR,SIRGRP,SIROTH)
//STDERR DD PATH='/opt/softwareag/sag/cor/v826/bin/stderr',
// PATHOPTS=(OCREAT,OAPPEND,OWRONLY),
// PATHMODE=(SIRUSR,SIWUSR,SIRGRP,SIROTH)
//STDIN DD PATH='/dev/null',
// PATHOPTS=(ORDONLY)
//STDENV DD *
//
```

STDENV example:

```
//COR826 JOB CLASS=K,MSGCLASS=X
//RUNCOR EXEC PGM=BPXBATCH,REGION=0M,
//      PARM=('pgm /opt/softwareag/sag/cor/v826/INSTALL/cor.sh start')
//STDOUT DD PATH='/opt/softwareag/sag/cor/v826/bin/stdout',
// PATHOPTS=(OCREAT,OAPPEND,OWRONLY),
// PATHMODE=(SIRUSR,SIWUSR,SIRGRP,SIROTH)
//STDERR DD PATH='/opt/softwareag/sag/cor/v826/bin/stderr',
// PATHOPTS=(OCREAT,OAPPEND,OWRONLY),
// PATHMODE=(SIRUSR,SIWUSR,SIRGRP,SIROTH)
//STDIN DD PATH='/dev/null',
// PATHOPTS=(ORDONLY)
//STDENV DD *
_BPX_JOBNAME=ABC
/*
//
```

Administration

Data Archiving for Adabas is administered using Software AG's cross-product and cross-platform product management framework System Management Hub (SMH).

In order to do this, the Administration component of Data Archiving for Adabas must be installed on a Windows or UNIX machine (this does not have to be the same machine which performed the z/OS activation).

Refer to [Installation Procedure for Windows and UNIX](#) for instructions on how to perform the Administration component installation. At the end of this installation process, the section [Starting to Use the Software](#) describes how to sign on to the System Management Hub and check that the installation is complete.

You can now begin using Data Archiving for Adabas. See the section *Getting Started* for further information.

8 Verifying the Installation

At the end of the installation process, you should verify that the installation has been successful.

Refer to [Starting to Use the Software](#) which describes this process of verification.

9 Applying the Latest Maintenance

After successfully verifying the installation, refer to Software AG's [Empower](#) web site and apply any available maintenance for this installed version of Data Archiving for Adabas.

10

Deactivating and Uninstalling

■ Shutdown	62
■ Uninstall	64
■ Deactivating and Uninstalling from the Console in UNIX	66

This chapter explains the deactivation process for shutting down or uninstalling the Data Archiving for Adabas components.

Shutdown

» To shut down Data Archiving for Adabas

- 1 Start the shutdown deactivation process as follows:

For UNIX

Run the deactivation script `./deactivation.sh` from the installation library `$SAG/cor/vvrs/INSTALL` where *vvrs* is the product version.



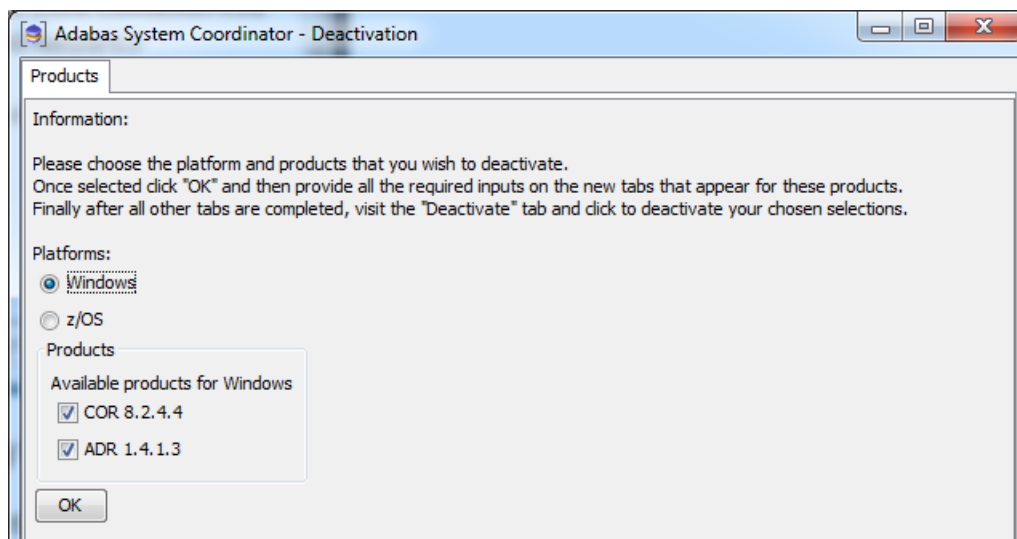
Note: In UNIX, if the deactivation detects that a User Interface is not available, then it will automatically use the console mode. Refer to [Deactivating and Uninstalling from the Console in UNIX](#).

For Windows

The Installer creates a Start Menu entry for deactivation (as it does for activation). Refer to the *Activation* section of the *Installation Procedure for Windows and UNIX* for an example screenshot.

- 2 Select the Platform and Products.

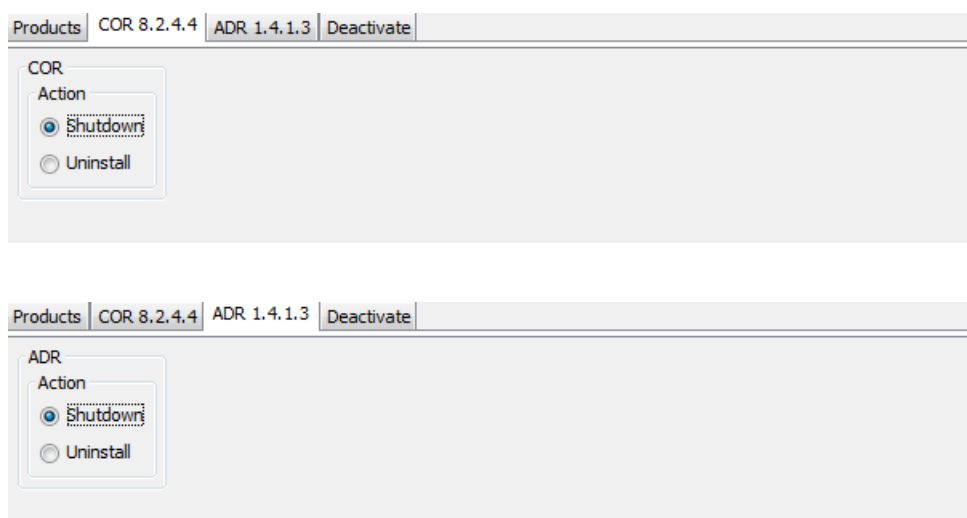
Once started, the shutdown deactivation process will present a panel screen prompting you to select the platform and products; an example of the panel follows:



The above example indicates you wish to perform a deactivation process on your Windows platform for the Adabas System Coordinator (COR) and Data Archiving for Adabas (ADR) products (under normal situations both these products should be selected). Click OK to continue.

- 3 Progress through the shutdown deactivation panels.

Using the tabs at the top of each panel, you can progress through each panel. The following screens show the panel sequence for a shutdown deactivation process on a Windows platform for the Adabas System Coordinator (COR) and Data Archiving for Adabas (ADR) products.



Note: When progressing through the panels for a shutdown deactivation process on a z/OS platform, additional panels (and corresponding tabs) may be presented requesting additional information (for example, JCL and FTP parameters). This same information would have been requested at product Activation time, refer to the *Activation* section of the *Installation Procedure for z/OS* for an explanation regarding such information.

- 4 Confirm shutdown deactivation.

The final 'Deactivate' panel (not shown) allows you to confirm your deactivation request (by clicking on the Deactivation button) and then follow its progress in the panel window.

Uninstall



Note: Any archived data written to Vault(s) within your installation directory will not be deleted during this uninstall process and will be preserved even if you subsequently reinstall into the same directory. However, we do recommend that your archived data should be maintained in Vaults outside of the installation directory.

➤ To uninstall Data Archiving for Adabas

- 1 Start the uninstall deactivation process as follows:

For UNIX

Run the deactivation script `./deactivation.sh` from the installation library `$SAG/cor/vvrs/INSTALL` where *vvrs* is the product version.



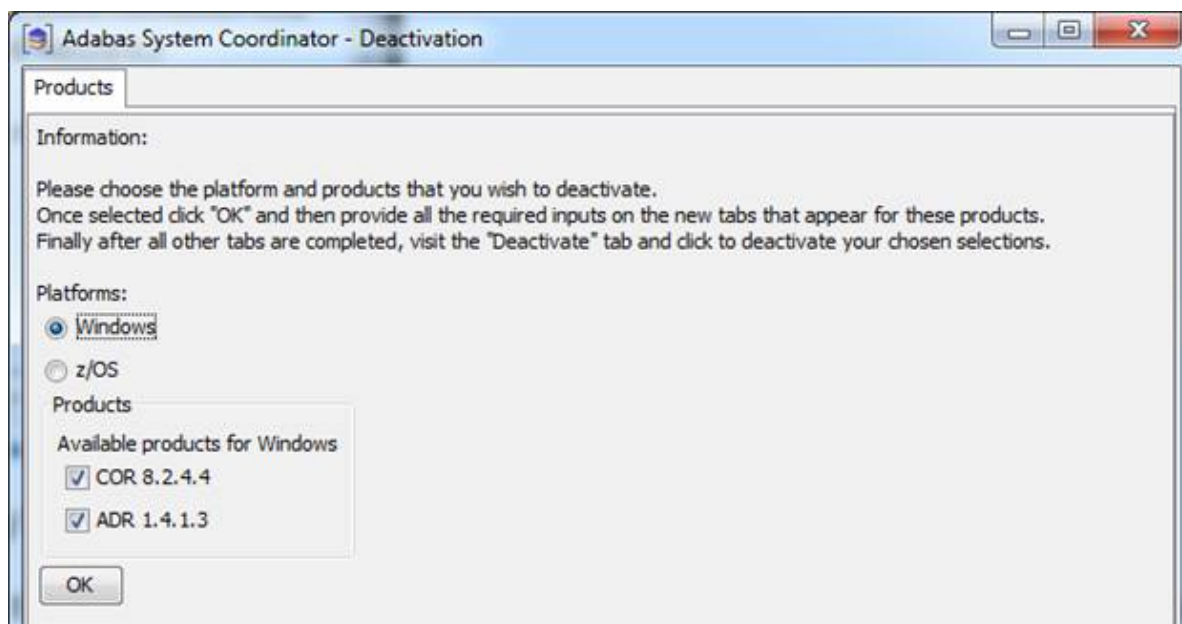
Note: In UNIX, if the deactivation detects that a User Interface is not available then it will automatically use the console mode. Refer to [Deactivating and Uninstalling from the Console in UNIX](#) and then continue to complete the uninstall using the Software AG Uninstaller (see below).

For Windows

The Installer creates a Start Menu entry for deactivation (as it does for activation). Refer to the *Activation* section of the *Installation Procedure for Windows and UNIX* for an example screenshot.

- 2 Select the Platform and Products.

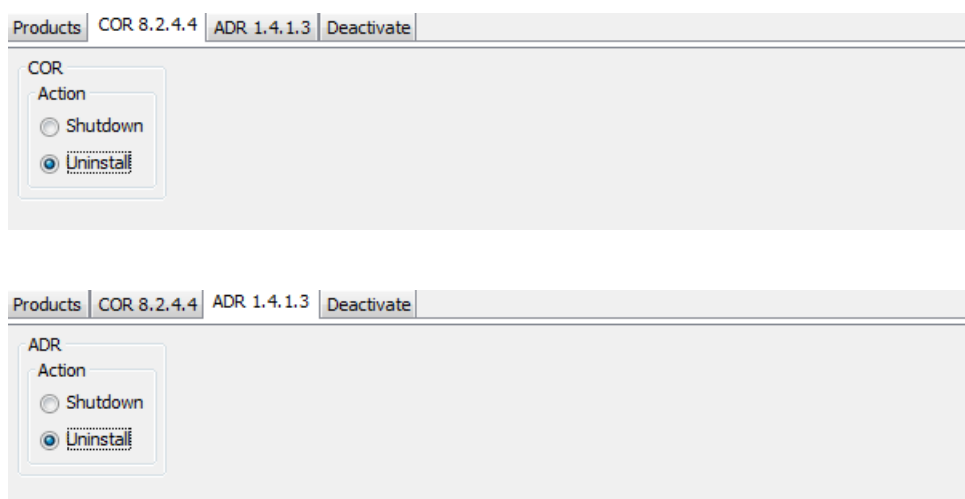
Once started, the uninstall deactivation process will present a panel screen prompting you to select the platform and products; an example of the panel follows:



The above example indicates you wish to perform a deactivation process on your Windows platform for the Adabas System Coordinator (COR) and Data Archiving for Adabas (ADR) products (under normal situations both these products should be selected). Click OK to continue.

3 Progress through the uninstall deactivation panels.

Using the tabs at the top of each panel, you can progress through each panel. The following screens show the panel sequence for an uninstall deactivation process on a Windows platform for the Adabas System Coordinator (COR) and Data Archiving for Adabas (ADR) products.



Note: When progressing through the panels for an uninstall deactivation process on a z/OS platform, additional panels (and corresponding tabs) may be presented requesting additional information (for example, JCL and FTP parameters). This same information

would have been requested at product Activation time, refer to the *Activation* section of the *Installation Procedure for z/OS* for an explanation regarding such information.

4 Confirm uninstall deactivation.

The final 'Deactivate' panel (not shown) allows you to confirm your deactivation request (by clicking on the Deactivation button) and then follow its progress in the panel window.

5 Complete the uninstall using the Software AG Uninstaller.

For information on how to complete the uninstall of Data Archiving for Adabas (and its components) using the Software AG Uninstaller refer to the Uninstalling chapter of the document Using the Software AG Installer on the Software AG documentation web site.



Caution: The Software AG Uninstaller does not delete files that were created after the installation (for example, archived data), nor does it delete the directory structure that contains the files. However, it does suggest that if you are going to reinstall into the same directory, the product directories should be manually deleted or such files moved. *Do not delete the product directories if you wish any archived data maintained in Vaults within the installation directories to be preserved.*

Deactivating and Uninstalling from the Console in UNIX

In UNIX, if the deactivation detects that a User Interface is not available then it will automatically use the console mode.

Extracts of the console output for an example uninstall deactivation process are shown below.

```
COR Settings
-----
Default values are shown in square brackets [ ] - press
Return to accept the default if one is shown.

Deactivate action (enter "S" for shutdown or "U" for
uninstall):u
```

```
ADR Settings
-----
Default values are shown in square brackets [ ] - press
Return to accept the default if one is shown.

Deactivate action (enter "S" for shutdown or "U" for
uninstall):u
```

```
=====
Deactivation complete.
=====
```


11

Upgrading from Earlier Versions

■ General Upgrade Information	70
■ Upgrade Procedure for Windows and UNIX	70
■ Upgrade Procedure for z/OS	72
■ Reverting to the Previous Version	75
■ Migration Utility	76

This section provides an overview of upgrading Data Archiving for Adabas.

General Upgrade Information

- [Installation Directory](#)
- [Port Numbers](#)
- [Repository](#)

Installation Directory

The Software AG Installer does not support multiple product versions in the same installation directory. If a newer version of Data Archiving for Adabas is to be installed on the same machine as a previous version, a separate installation directory must be used.

Port Numbers

As part of the activation process for Data Archiving for Adabas, Adabas System Coordinator (COR) must be configured with a *Group Services* port number and a Port Range (a range of port numbers from which ports for services such as Data Archiving are allocated). Similarly, the System Management Hub and related components also require port numbers to be assigned during installation.

In order for different versions of Data Archiving for Adabas to co-exist on the same machine, different port numbers must be allocated to the products in each installation directory.

Repository

Each new version of Data Archiving for Adabas should be initially installed with a new Repository. The final part of the upgrade process migrates the current Repository content into the new Repository.

Upgrade Procedure for Windows and UNIX

The recommended upgrade procedure for Windows and UNIX is in two parts:

- [Installing the new version on the target machine](#)
- [Migrating the current Repository content](#)

In the unlikely event that you need to revert to the previous version, refer to [Reverting to the Previous Version](#).

Installing the new version on the target machine

This section highlights the general installation steps for installing the new version on the target machine and, where applicable, describes upgrade-related tasks to be performed during the installation process.

It refers to sections in, and should be read in conjunction with, the [Installation Procedure for Windows and UNIX](#).

Step	Description	References
1	Using the Software AG Installer, download the latest version of Data Archiving for Adabas and prepare it for installation...	Software AG Installer
1a	Download the Software AG Installer from the SDC on Empower.	
1b	Run the Installer on your chosen installation machine.	
1c	When prompted for the installation location, choose a new or empty directory.	Installation Directory
1d	On the product selection screen, under the Data Archiving for Adabas node, select the <i>Administration</i> and <i>Archiving Services</i> components.	
1e	Complete the download process. You will be prompted for the port numbers to use for the System Management Hub and other related components, ensure only dedicated version-specific port numbers are used.	Port Numbers
2	Perform the activation...	Activation
2a	Start the Activation tool in the manner according to your chosen installation machine.	Starting the Activation
2b	In the COR tab ensure only dedicated version-specific port numbers are used.	Port Numbers
2c	In the COR tab specify a new Adabas database and file number to be used for the Repository.	Repository
2d	Complete the activation.	
3	Verify the new version installation.	Verifying the Installation
4	Check Empower and apply any maintenance to the new version installation.	Applying the Latest Maintenance



Note: After successfully installing the new version on the target machine, the new version and the current version can run concurrently on the same machine because they are configured to use different Repositories and port numbers. However, this will not be possible once the final part of the upgrade [Migrating the current Repository content](#) has been completed.

Migrating the current Repository content

When you are ready to complete the upgrade, the final stage of the upgrade process is to migrate the content of the current version's Repository to the new version's Repository.

Step	Description	References
1	Ensure there are no pending TO-DO lists in the current version's Repository or alternate Adabas file (if used).	
2	Ensure there are no active Actions.	
3	Shutdown the current version of Data Archiving for Adabas.	Shutting down the Launch Controller
4	Shutdown the new version of Data Archiving for Adabas.	Shutting down the Launch Controller
5	Run the Migration Utility to migrate the content from the current version's Repository to the new version's Repository. Note: The use of the /o option of the Migration Utility may be necessary to ensure the new version's Repository is empty before the migration begins.	Migration Utility
6	Restart the new version of Data Archiving for Adabas.	Starting the Launch Controller
7	Verify that the Repository content has been migrated by using the new version's browser administration tool.	Web Interface
8	The upgrade is now complete.	



Note: After successfully migrating the current version's Repository content, it will no longer be possible to run the new version and the old version concurrently on the same machine because the new version inherits the port numbers used by the old version as part of the migration process.

Upgrade Procedure for z/OS

The recommended upgrade procedure for z/OS is in two parts:

- [Installing the new version on the target machine](#)
- [Migrating the current Repository content](#)

In the unlikely event that you need to revert to the previous version, refer to [Reverting to the Previous Version](#).

Installing the new version on the target machine

This section highlights the general installation steps for installing the new version on the target machine and, where applicable, describes upgrade-related tasks to be performed during the installation process.

It refers to sections in, and should be read in conjunction with, the [Installation Procedure for z/OS](#).

Step	Description	References
1	Using the Software AG Installer, download the latest version of Data Archiving for Adabas and prepare it for installation...	Software AG Installer
1a	Download the Software AG Installer from the SDC on Empower.	
1b	Run the Installer on your chosen off-host machine which will be used to administer Data Archiving for Adabas.	
1c	When prompted for the installation location, choose a new or empty directory.	Installation Directory
1d	On the product selection screen, under the Data Archiving for Adabas node, select the <i>Administration</i> and <i>Archiving Services for z/OS</i> components.	
1e	Complete the download process. You will be prompted for the port numbers to use for the System Management Hub and other related components, ensure only dedicated version-specific port numbers are used.	Port Numbers
2	Each installation of Data Archiving for Adabas must have its own version specific load library. Create the dataset for the new load library and a site-based ADALNKR routine to reside in it.	Actions Required Before Starting the Install
3	Perform the Archiving Services for z/OS activation...	Activation
3a	Start the Activation tool in the manner according to your chosen off-host machine.	Starting the Activation
3b	In the COR tab ensure only dedicated version-specific port numbers are used.	COR tab Port Numbers
3c	In the COR tab specify a new Adabas database and file number to be used for the Repository.	COR tab Repository
3d	In the COR tab specify the newly created load library dataset.	COR tab
3e	In the FTP Parameters tab specify a new or empty installation directory.	FTP Parameters tab Installation Directory
3f	Complete the Archiving Services for z/OS activation.	Activate

Step	Description	References
4	Perform the Administration activation on your chosen off-host machine.	Administration
5	Verify the new version installation.	Verifying the Installation
6	Check Empower and apply any maintenance to the new version installation.	Applying the Latest Maintenance



Note: After successfully installing the new version on the target machine, the new version and the current version can run concurrently on the same machine because they are configured to use different Repositories and port numbers. However, this will not be possible once the final part of the upgrade [Migrating the current Repository content](#) has been completed.

Migrating the current Repository content

When you are ready to complete the upgrade, the final stage of the upgrade process is to migrate the content of the current version's Repository to the new version's Repository.

Step	Description	References
1	Ensure there are no pending TO-DO lists in the current version's Repository or alternate Adabas file (if used).	
2	Ensure there are no active Actions.	
3	Shutdown the current version of Data Archiving for Adabas.	Shutting down the Launch Controller
4	Shutdown the new version of Data Archiving for Adabas.	Shutting down the Launch Controller
5	Run the Migration Utility to migrate the content from the current version's Repository to the new version's Repository. Note: The use of the /o option of the Migration Utility may be necessary to ensure the new version's Repository is empty before the migration begins.	Migration Utility
6	Restart the new version of Data Archiving for Adabas.	Starting the Launch Controller
7	Verify that the Repository content has been migrated by using the new version's browser administration tool.	Web Interface
8	The upgrade is now complete.	



Note: After successfully migrating the current version's Repository content, it will no longer be possible to run the new version and the old version concurrently on the same machine because the new version inherits the port numbers used by the old version as part of the migration process.

Reverting to the Previous Version

In the unlikely event that you need to revert to the previous version, the following table lists the necessary steps:

Step	Description	References
1	Ensure there are no pending TO-DO lists in the new version's Repository.	
2	Ensure there are no active Actions.	
3	Shutdown the new version of Data Archiving for Adabas.	Shutting down the Launch Controller
4	Restart the previous version of Data Archiving for Adabas.	Starting the Launch Controller

After successfully reverting to the previous version, any changes that have occurred in the new version's Repository since migration took place will not be visible in the reverted version's Repository.

Viewing configuration changes or activity reports in the new version's Repository will depend on the availability of the new version of the *Administration* component on a machine which has access to the database containing the new Repository.

- New version of Administration component is available on a machine which has access to the Repository
- New version of Administration component is not available on a machine which has access to the Repository

New version of Administration component is available on a machine which has access to the Repository

This method is appropriate for Windows or UNIX, where the new version of the *Administration* component is typically installed on the same machine as the database containing the Repository.

It can also be used for Windows, UNIX or z/OS installations, where the new version of the *Administration* component is installed on a machine that can access the database containing the Repository via Entire Net-Work.

View the Repository content by performing the following steps in the new version's Administration component.

Step	Description
1	Right-click on the <i>Perspectives</i> node within the Data Archiving for Adabas navigation tree, select <i>Add Perspective</i> and then choose the <i>Specific Repository (direct from the UI)</i> .
2	In the <i>database</i> and <i>file</i> fields, specify the database and file number of the Repository to be viewed.
3	After clicking <i>Add</i> and refreshing the tree, the content of the Repository will be displayed.

Refer to the Adding a Perspective section in the *Web Interface* documentation for further details.

New version of Administration component is not available on a machine which has access to the Repository

This method is appropriate for Windows, UNIX and z/OS installations, where the new version of the *Administration* component is installed on a machine that does **not** have local or Entire Net-Work access to the database containing the Repository.

It uses an instance of the new version's *Archiving Services* components running on a secondary installation (for example a test machine) which does have local or Entire Net-Work access to the database containing the Repository.

View the Repository content by performing the following steps in the new version's *Administration* component:

Step	Description
1	Right-click on the <i>Perspectives</i> node within the Data Archiving for Adabas navigation tree, select <i>Add Perspective</i> and then choose the <i>Specific Repository (using a Daemon as the access point)</i> option.
2	In the <i>Hostname</i> and <i>Port</i> fields, specify the hostname of the machine which has an instance of the new version's <i>Archiving Services</i> components running and enter the port number of its Adabas System Coordinator Daemon.
3	In the <i>database</i> and <i>file</i> fields, specify the database and file number of the Repository to be viewed.
4	After clicking <i>Add</i> and refreshing the tree, the content of the Repository will be displayed.

Refer to the Adding a Perspective section in the *Web Interface* documentation for further details.

Migration Utility

The Migration Utility enables the migration of configuration data from a previous version of Data Archiving for Adabas to a newly installed version.



Note: Refer to [Upgrading from Earlier Versions](#) for a full description regarding the steps necessary to upgrade Data Archiving for Adabas.

The installation kit for Data Archiving for Adabas includes and installs Adabas System Coordinator. The Migration Utility is part of Adabas System Coordinator and it is run using the `corlfile` executable located in the `bin` subdirectory underneath the Adabas System Coordinator installation directory.

For migration, the `corlfile` executable is run with the following parameters:

Parameters	Description
<code>/m</code>	The <code>/m</code> parameter causes <code>corlfile</code> to run in migration mode.
<code>from-file=<db>,<fnr></code>	The <code>from-file</code> parameter specifies the database and file number of the Repository whose content is to be read and migrated.
<code>to-file=<db>,<fnr></code>	The <code>to-file</code> parameter specifies the database and file number of the Repository into which the migrated content is to be written
<code>/o</code>	By default the migration process will not write to an existing file unless the file is empty. The optional <code>/o</code> parameter changes this behaviour and allows existing content to be overwritten by refreshing the file. Caution: Use of this parameter may cause data loss.

Windows

To use the utility on Windows, start a Command Prompt and change to the `bin` directory underneath the new Adabas System Coordinator installation directory:

```
C:\>cd \SoftwareAG\cor\vvr<vrs>\bin
C:\SoftwareAG\cor\vvr<vrs>\bin>
```

where *vrs* is the newly installed Adabas System Coordinator version.

Then run the `corlfile` executable with the appropriate parameters:

```
C:\SoftwareAG\cor\vvr<vrs>\bin>corlfile /m from-file=1,500 to-file=1,501
```

Linux, UNIX and z/OS (USS)

To use the utility on Linux, UNIX and z/OS (USS), source the Adabas System Coordinator environment script and then change to the `bin` directory underneath the new Adabas System Coordinator installation directory:

```
ukrdu@dali166 => cd /opt/softwareag
ukrdu@dali166 => export ADABAS_ADDONS=yes
ukrdu@dali166 => . bin/sagenv.new
[Setting environment for Adabas System Coordinator]
[Enabling Adabas Add-On products]
[done]
[Setting environment for Adabas Data Archiving]
[done]
ukrdu@dali166 => cd $CORDIR/$CORVERS/bin
ukrdu@dali166 =>
```

Then run the `corlfile` executable with the appropriate parameters:

```
ukrdu@dali166 => corlfile /m from-file=1,500 to-file=1,501
```

Reactivation

After the utility has successfully completed the migration, Data Archiving for Adabas needs to be reactivated in order to use the new Repository:

1. Stop all Archiving Services. For more information refer to *Shutting down the Launch Controller*.
2. Re-run the Activation process specifying the newly migrated Repository in the COR tab. For more information refer to the Activation section in the *Installation* procedures for the relevant installation platform.