

## **Data Archiving for Adabas**

### **Data Archiving for Adabas Installation**

Version 1.1.0

March 2012

This document applies to Data Archiving for Adabas Version 1.1.0.

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

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# 1 Data Archiving for Adabas Installation

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Data Archiving for Adabas is a fully portable technology. It runs in all primary Unix systems, Windows and also in 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 very carefully. Also, there are often things that are mentioned in the Readme of the product that have come to light after this documentation is frozen so please also be sure to read that before proceeding with the installation actions.

-  [Software AG Installer](#)
-  [Installation Prerequisites](#)
-  [Installation Planning and Preparation](#)
-  [Installation Procedure Overview](#)
-  [Installation Procedure for Solaris](#)
-  [Installation Procedure for Windows](#)
-  [Installation Procedure for z/OS](#)

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## 2 Software AG Installer

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Data Archiving for Adabas is installed using the Software AG Installer from the Software AG download center. The Software AG Installer center is sensitive to the products for which you are licensed. When you enter it you see all the products that you are able to install. Depending upon the platform you wish to install, you can install both the Runtime or the User Interface or both.

z/OS can only install the Runtime, for these systems you must install the User Interface in another platform type.

For Windows and Solaris you can choose to install Runtime only, User Interface only or both depending upon what you wish to do.

Adabas System Coordinator is prerequisite sibling product with the same choices of Runtime only, User Interface only or both. These choices must match those you make regarding Data Archiving for Adabas.

When the User Interface is to be installed the System Management Hub will also be automatically selected because it is prerequisite.

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.



**Note:** In Windows there will be a Start menu option created for this function.

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# 3 Installation Prerequisites

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## Operating Systems

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The installation for Data Archiving for Adabas is for:

- Windows
- Solaris
- z/OS

## Adabas

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

## Adabas System Coordinator Version

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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 install Adabas System Coordinator 8.2 too.

## System Management Hub

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System Management Hub Version 8.1 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.

# 4 Installation Planning and Preparation

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## Planning Information

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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 a mental picture of all the computers involved you now must decide where the (Adabas) configuration file is to be loaded and run. Software AG strongly recommends a single configuration file is shared by all computers. To accommodate configuration file sharing we have provided an in-built mechanism - so you do not need to acquire our 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 configuration file usually runs on one of the primary computers out of all involved, but the choice is clearly yours. One apparent concern is that a single configuration 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 changes locally too.

In summary, implementation planning necessarily 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 computers where accumulators will run.
- Decide which computer is to house the configuration file. The specific installation sections for each platform cover the choices between sharing or establishing the configuration file.
- Install on the computer that houses the configuration file first. Instruct the installer to establish the file for first use.

- Find out the hostname of the computer housing the configuration file. You need this as a reference point when doing subsequent installs. See below for information on finding hostname in various systems.
  - for z/OS (USS), use the *nslookup* directive to show the “name” (hostname) of the computer
  - for Solaris, use the *nslookup* directive 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 configuration 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 need to adjust firewall settings. The User Interface doesn't usually need any adjustments because communications by the User Interface are out-bound. 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:

```
adrdrv
```

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

```
corlc  
cord
```



# 5 Installation Procedure Overview

---

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

## Overview

Data Archiving for Adabas requires both Adabas System Coordinator and System Management Hub in order to function. There are three basic areas of the archiving installation:

- The runtime logic.
- The browser UI (user interface).
- The configuration file.

In a production environment it is quite normal for the runtime to be installed on many computers without the UI. The UI is usually installed on a workstation; one session with the UI can manage, monitor and operate all the runtimes on all the computers in your network, providing your firewall allows of course!

## The Runtime Logic

The whole aim of the runtime logic is that it runs unattended. The runtime is made up of the following components:

- Launch controller.

The launch controller is a very small part of the logic that is recommended to start up when the operating system starts up. The launch controller does what its name suggests, it launches the other components automatically according to the rules you define in the configuration file.

- The Archive management service.

This is the “control center” for all archive operations. The archive service makes sure all the archive operations that you define (in the configuration file) are carried out. In doing so it will

itself launch extractors, accumulators, recalls, etc as appropriate. No need for submitting jobs or typing command-line inputs; everything happens automatically.

- Extractors, accumulators, recalls, etc.

As stated above, these are launched by the archive service. As they run they will confide status information back to the archive service.

Where you only install the runtime without the UI (this is normal for most servers where Adabas runs) then the embedded System Management Hub install is also skipped.

### **The Browser UI**

The UI is a plug-in to the System Management Hub. All archiving administration, configuration, operation and monitoring is performed through the UI. No need to get into every computer where the runtime is installed, you can manage everything from the outside in the UI. So where the runtime is installed on the many differing types of operating system that you have you only need get into the UI in one place in order to manage archiving across your whole network.

### **The Configuration File**

The configuration file has already been discussed in the planning section above. The planning section describes how to use the recommended in-built mechanism for sharing the configuration file. However, depending upon the products installed and the platform being installed upon it is possible for other sharing mechanisms to be used, in whole or in part:

- Use Adabas Cluster Services as the home of the file. This is appropriate for all instances of the runtime that are to run in connected z/OS computer running as a SYSPLEX.
- Use Net-Work.



# 6 Solaris Installation

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## License Keys

---

License keys for the runtime component only are supplied separately from the software installation mechanism. You should make sure your license file is placed in:

```
$SAG/common/LKey
```

## Installation Steps

---

During the install you must identify the configuration file. Please refer to the section [Installation Planning and Preparation](#) for information on how to manage that part of the installation. The installation comprises the following steps;

- Log into the Software AG Installer.
- Select the installation directory location.
- Select the product component(s) to be installed.
- Confirm the Installer should proceed.
- Execute the product activation step.

## Step by Step Installation of all Components

---

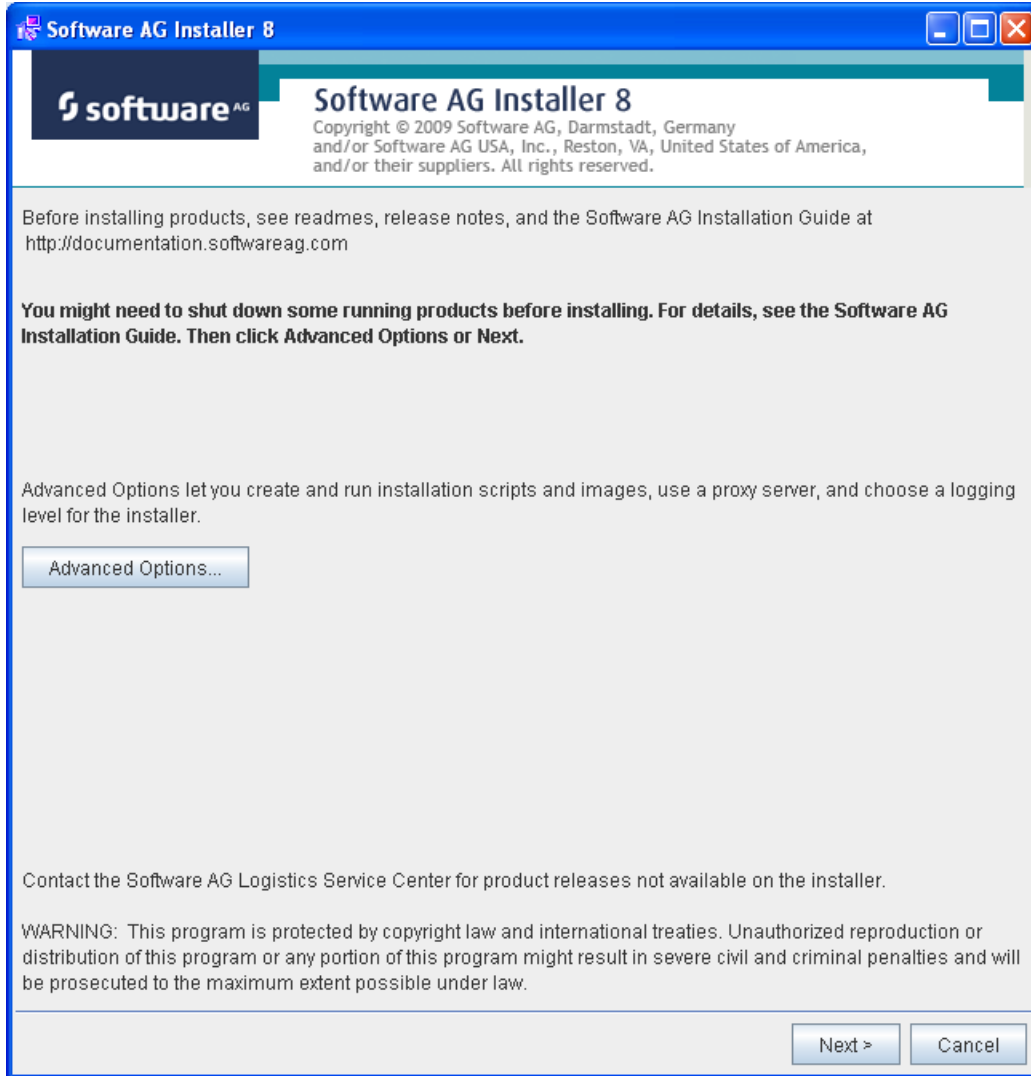
On the Software AG Installer Welcome Screen, click *Next* to start the installation.



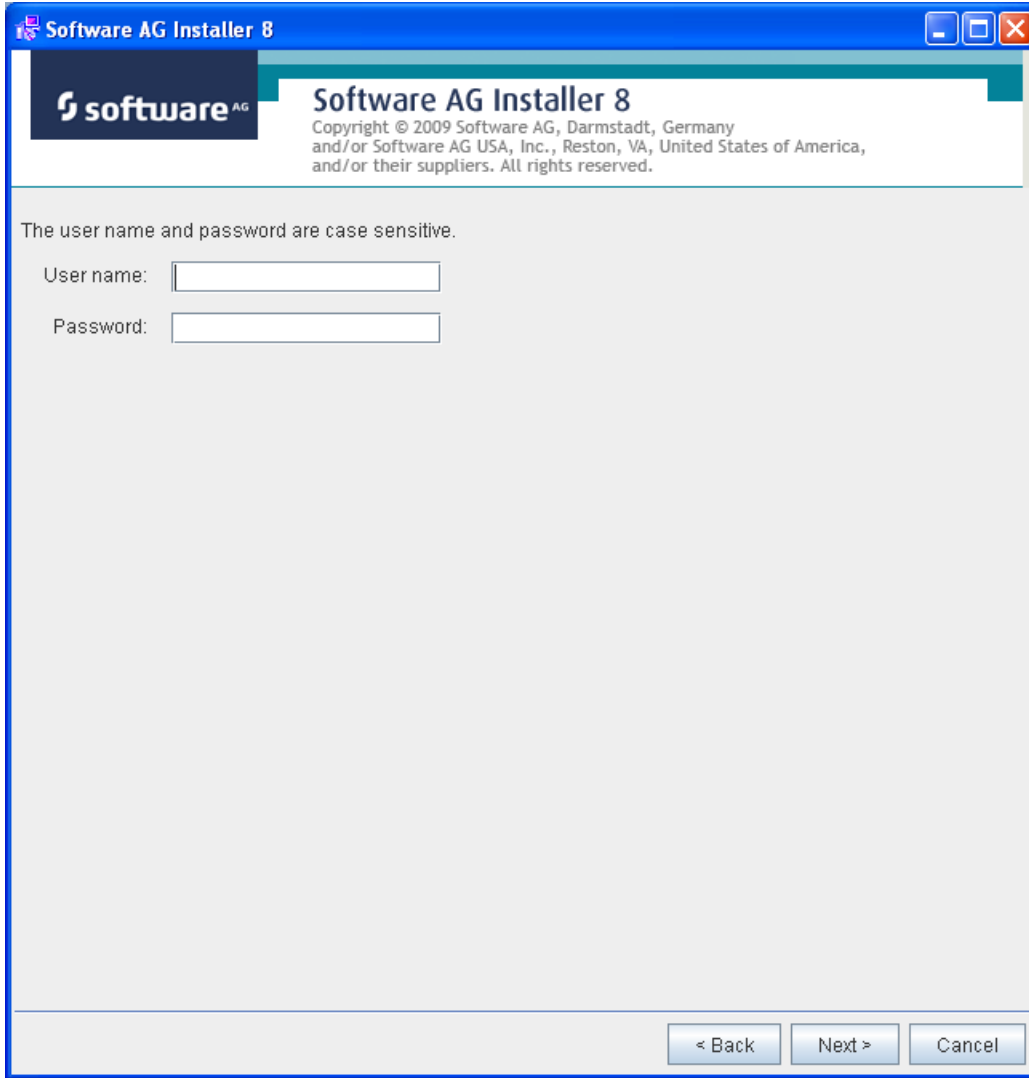
**Note:** The location of the SAG environment file will be *sagenv.new*. It resides in the directory where the Software AG products are installed (\$SAG).



**Note:** Screenshots provided in this section are taken from an X Client running on a Windows machine.



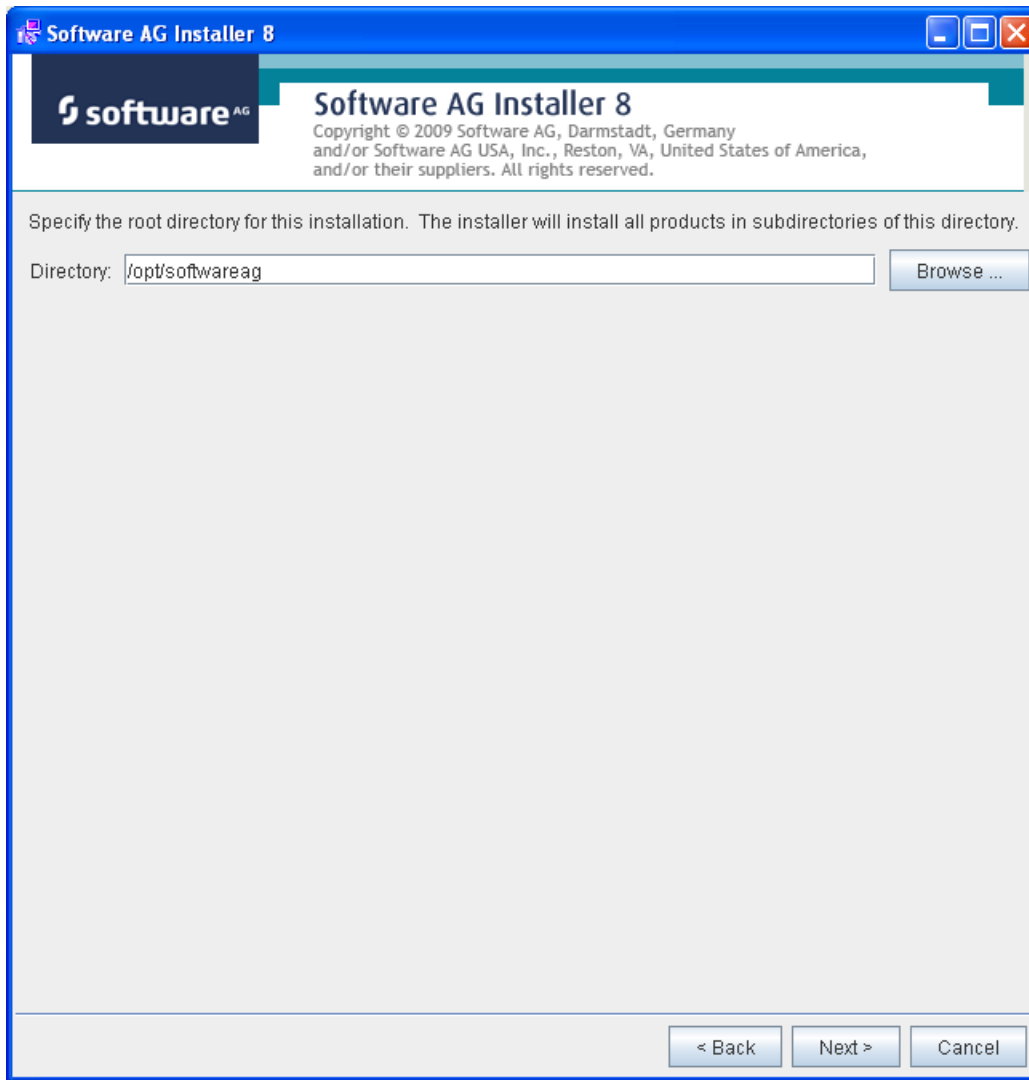
Identify yourself to the Installer by logging in with your credentials as shown below. Click **Next** to proceed to the next step:



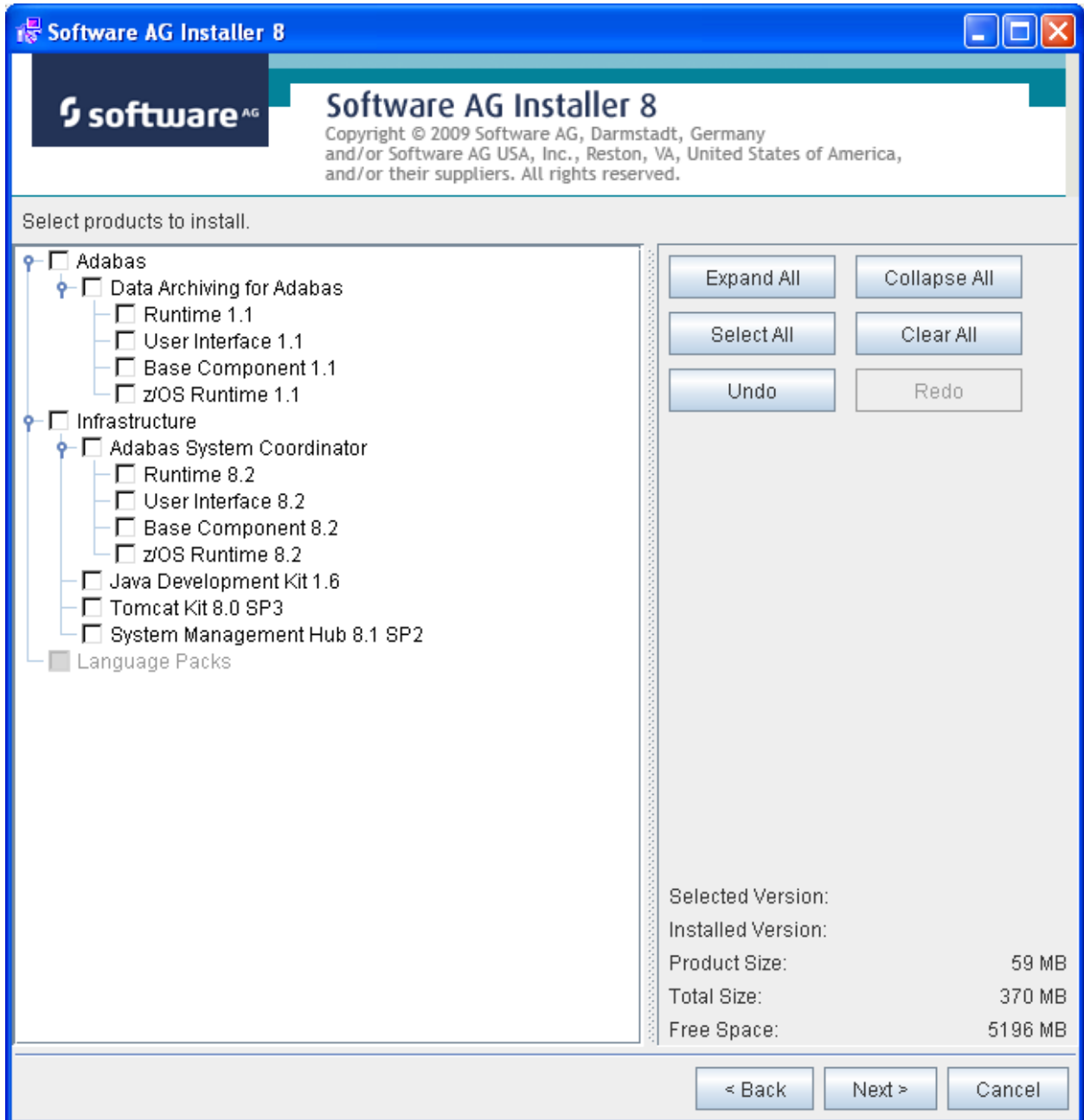
The Installer acquires information about a) all the products for which you are licensed and b) are able to be installed using the Installer. You can see this happening (below). It may take a few minutes:



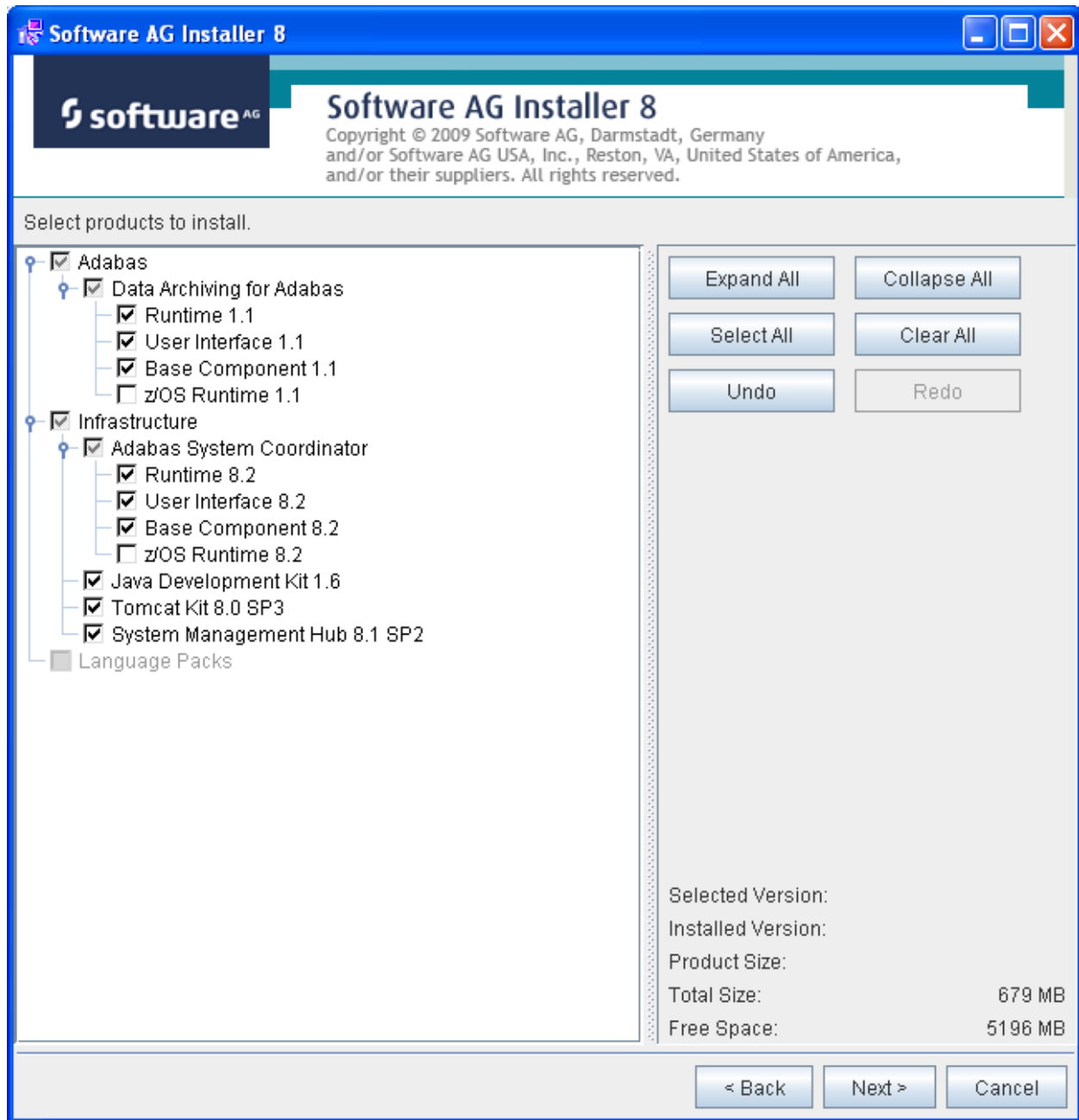
Once the Installer has acquired all licensing information for your site, it will show the default install location. You can alter this if you wish but make sure you understand the implications of changing it for all the products being installed. Click **Next** to proceed:



You can now choose the products that you wish to install:

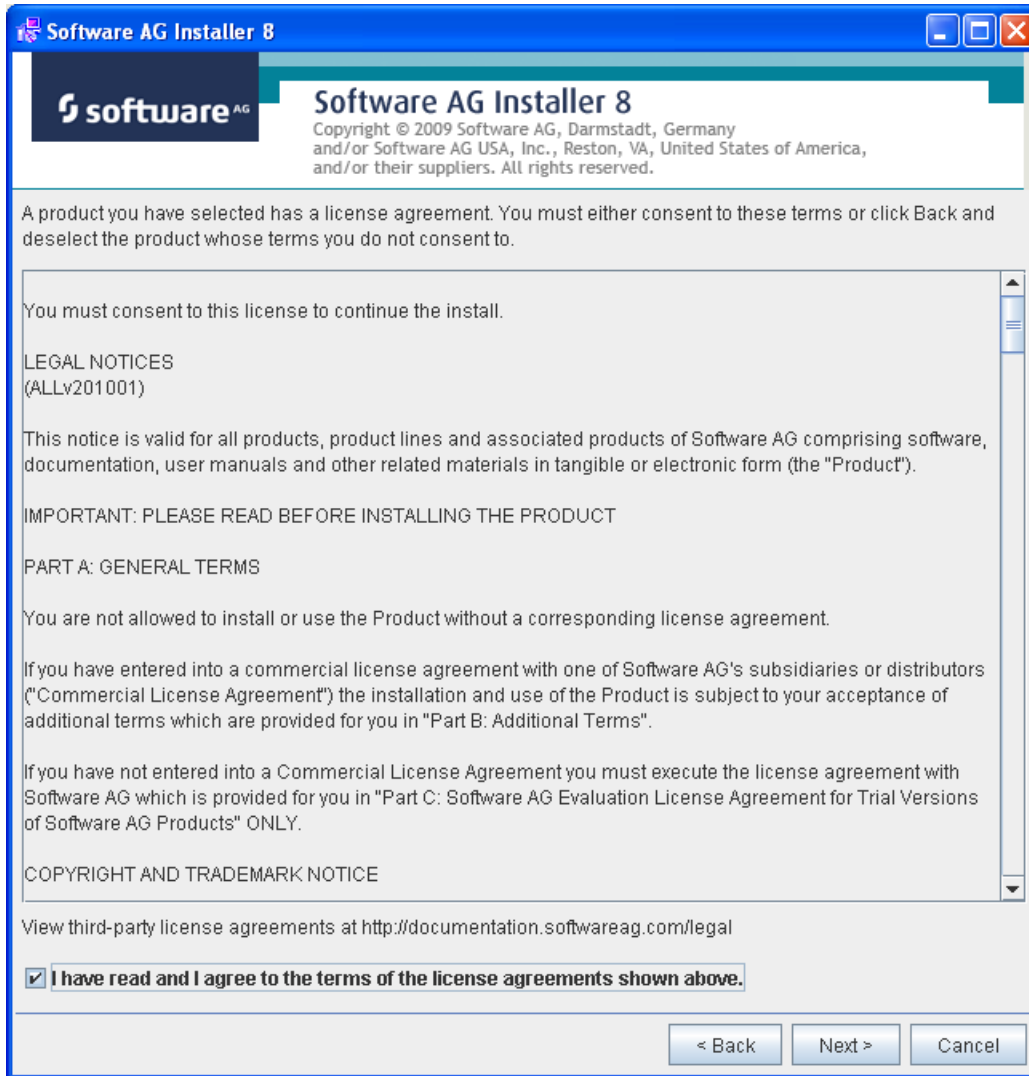


You can see below the products which have been selected. In making these choices, other implied choices of sibling and prerequisite products are also made automatically. Once your selections are made click **Next** to proceed:

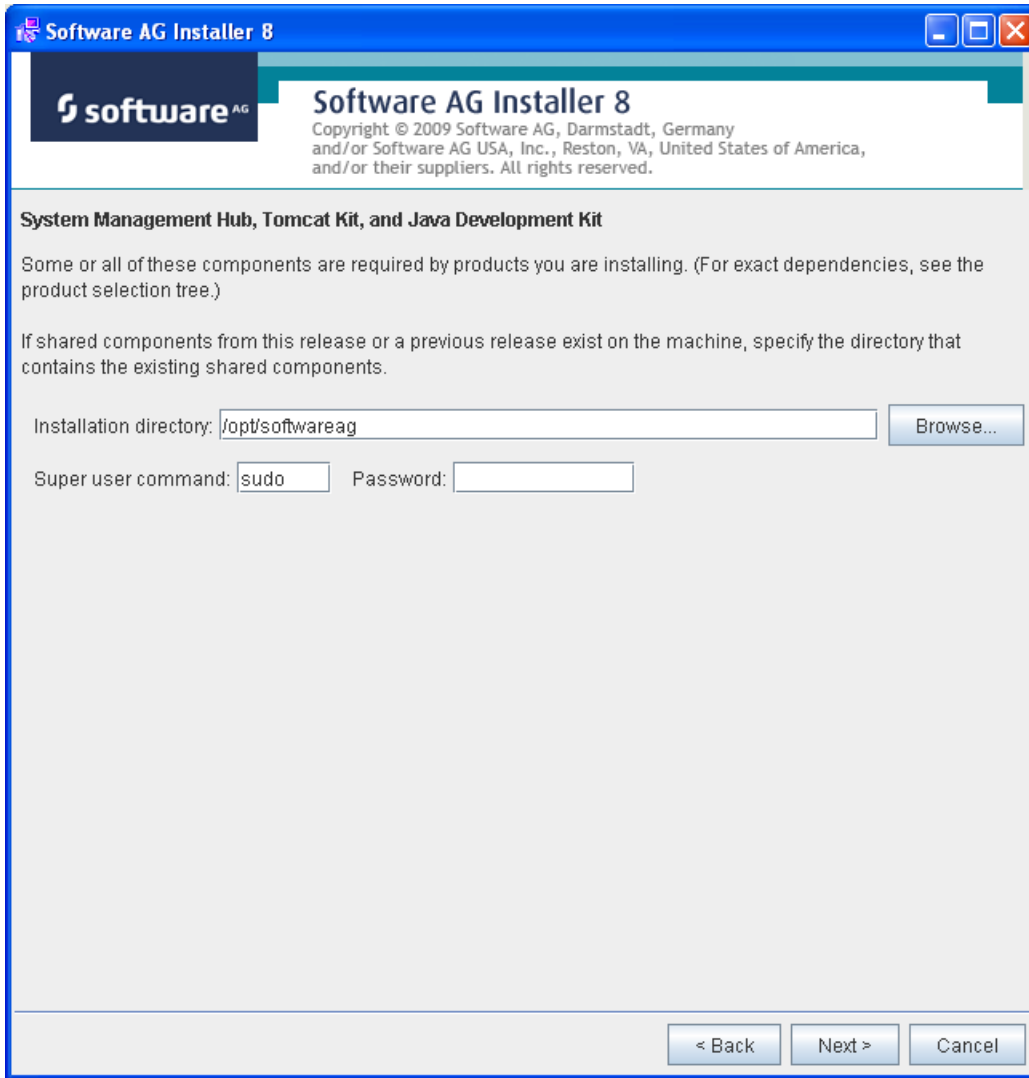


Read the terms and conditions and when you have finished, confirm you have done so by checking the box. Click Next to continue:

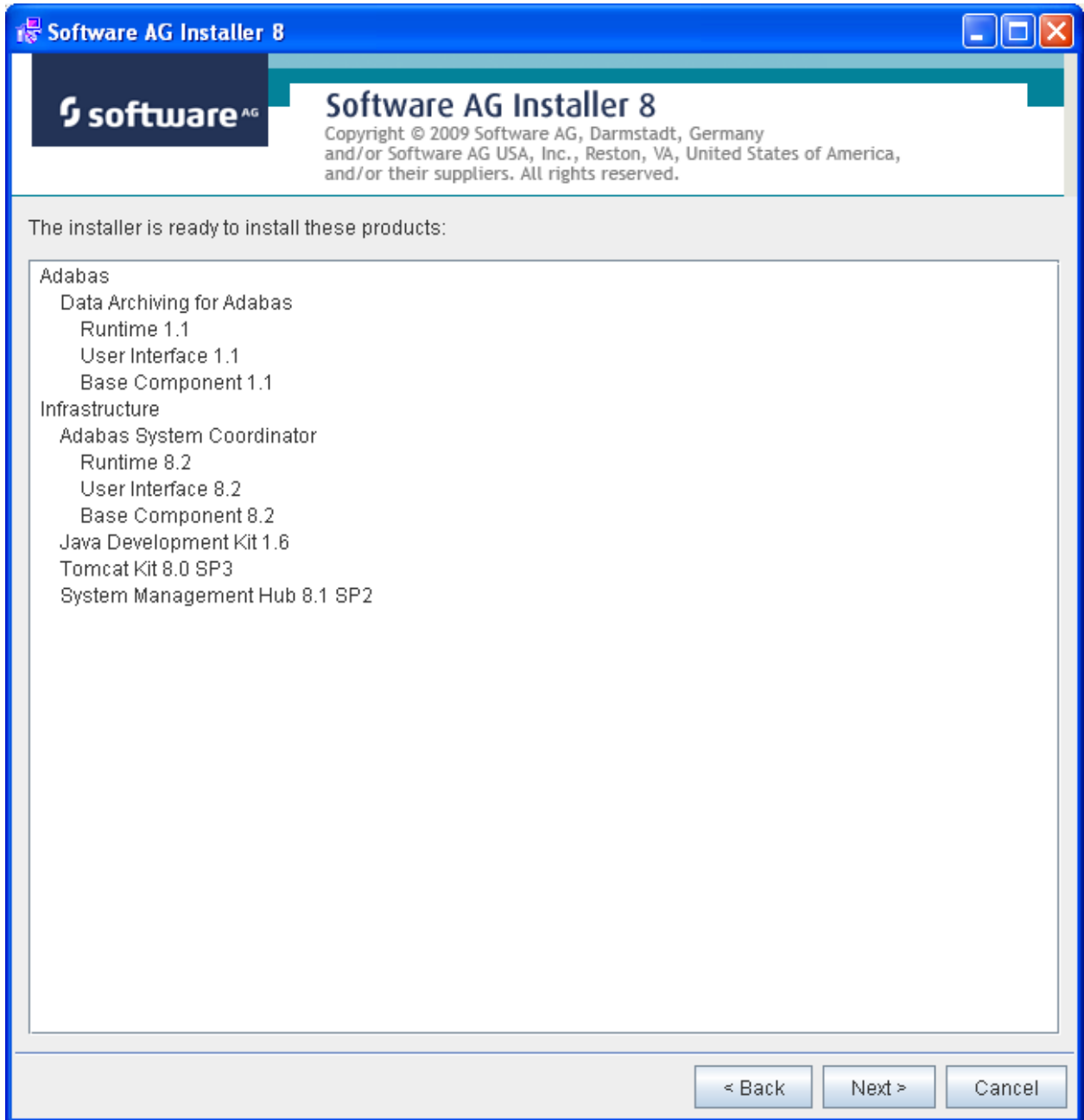




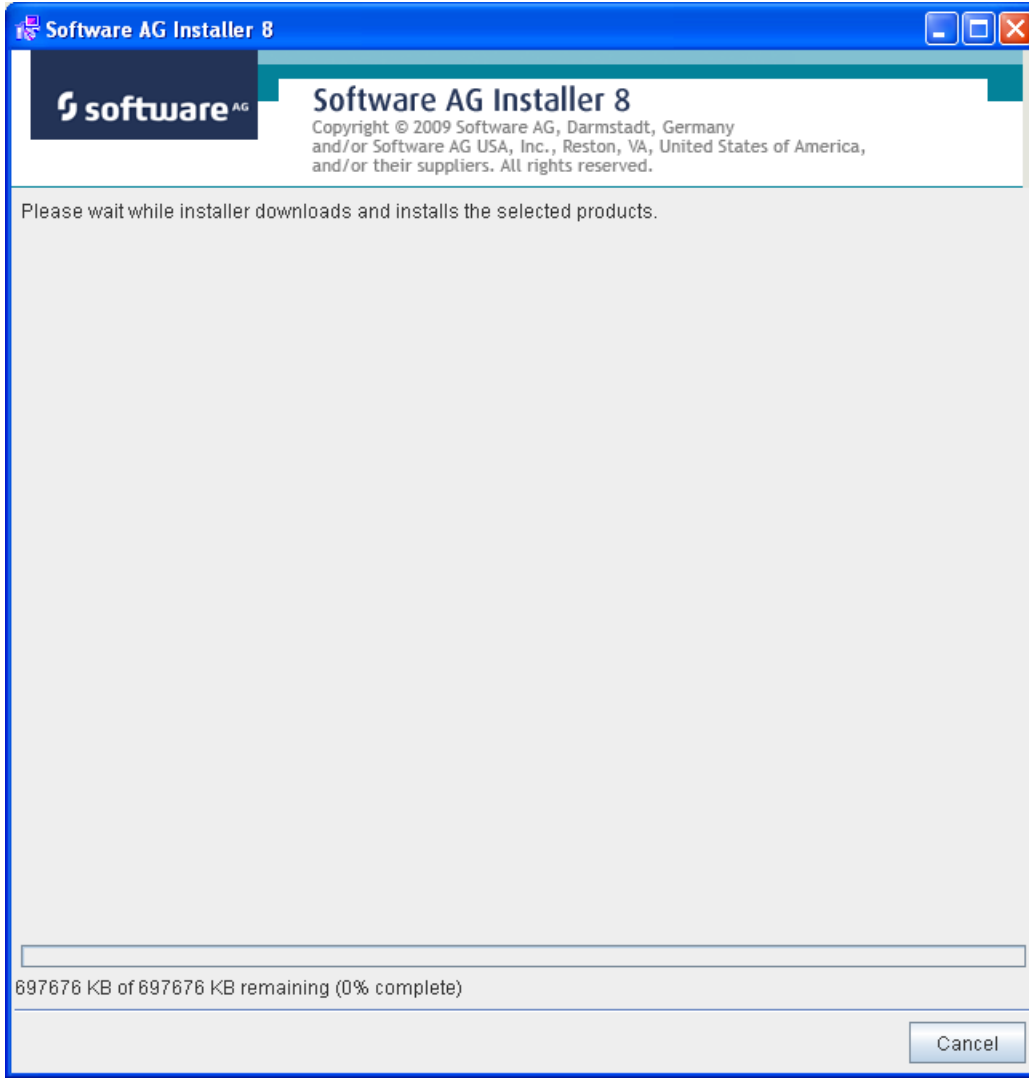
The following display is shown if the user interface is to be installed. This allows you to determine the install location for the prerequisite System Management Hub, which you normally allow to default. Click **Next** to proceed to the next step:



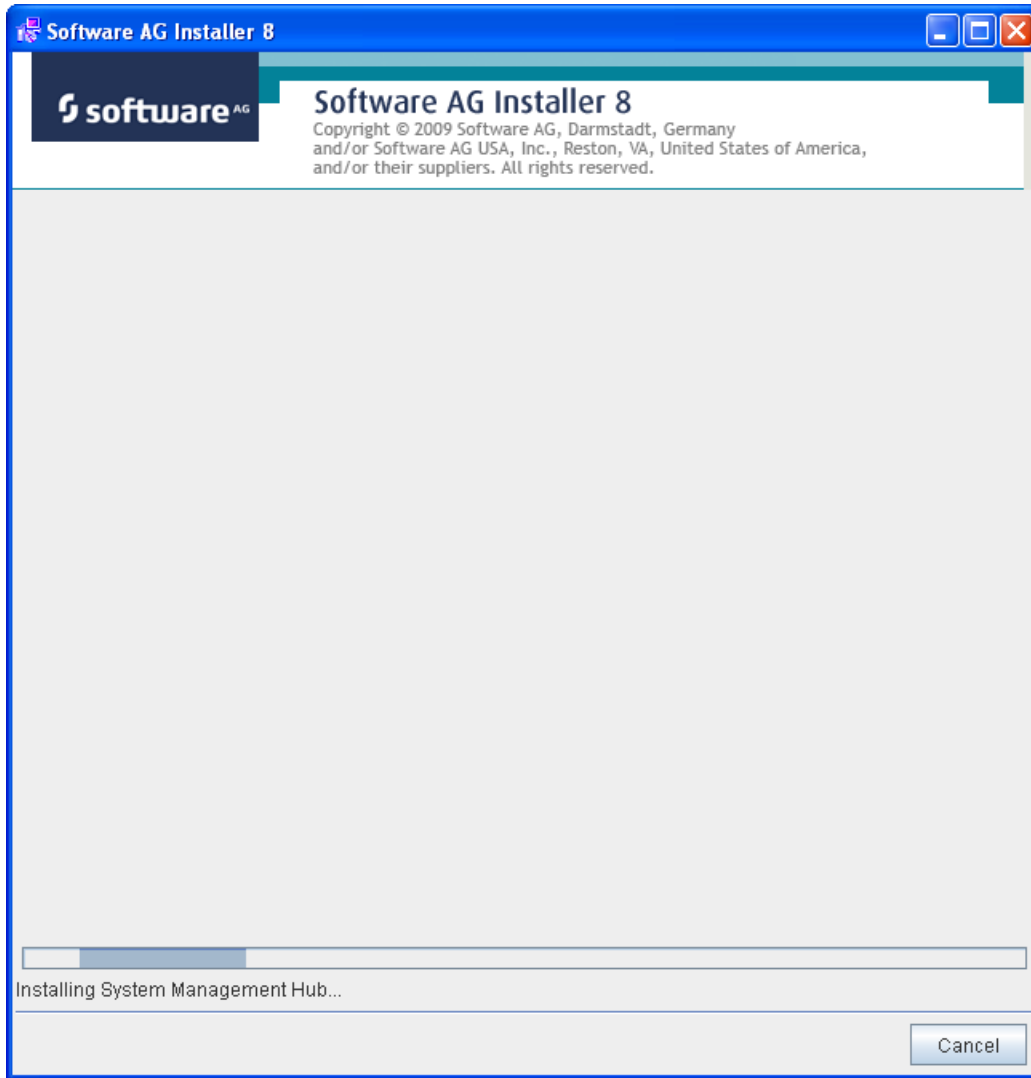
A list of the products selected for install is provided. Click **Next** to perform the installation:



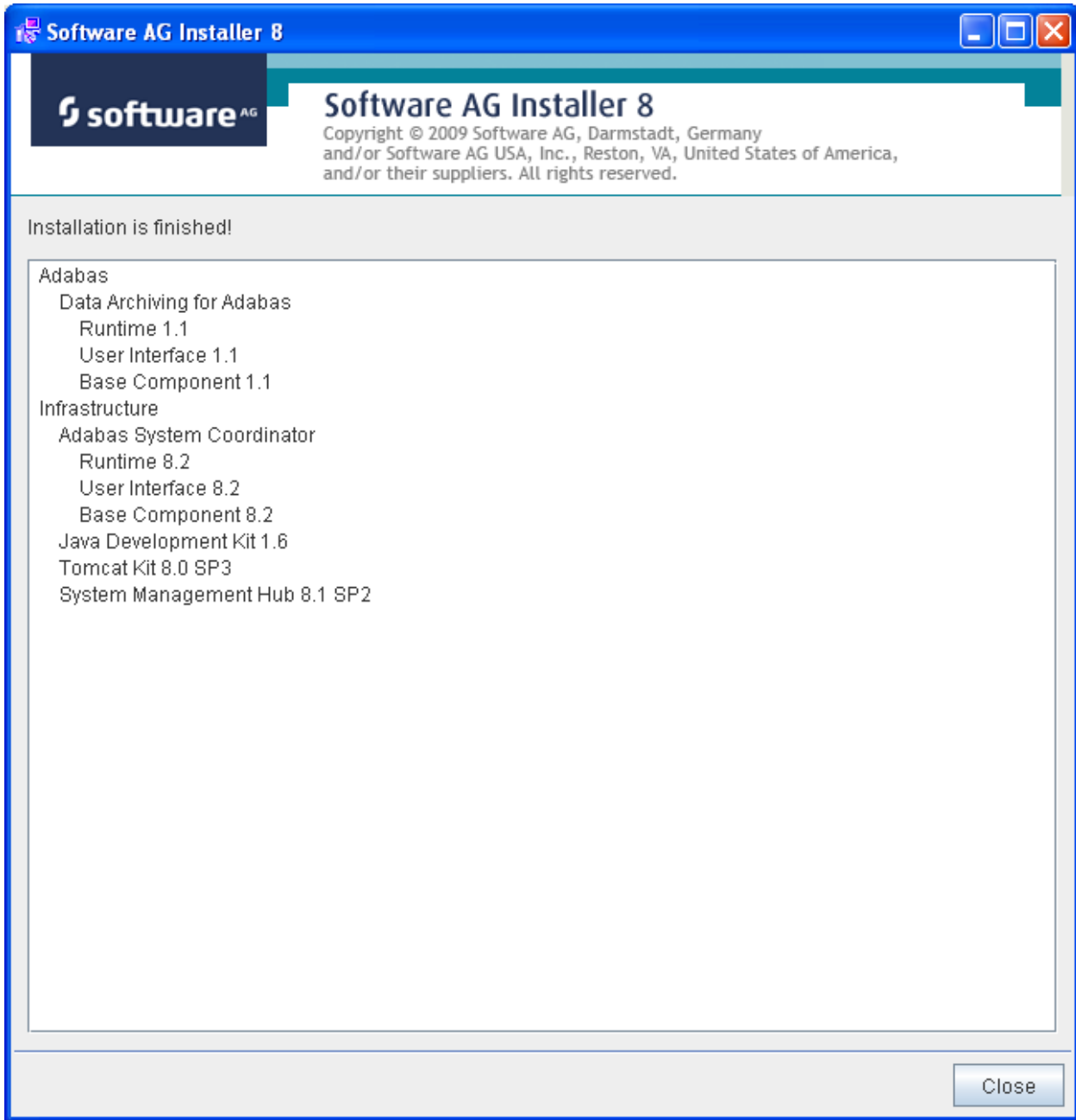
The installation may take some time. In the case of Data Archiving for Adabas the installation is usually quite quick whereas the install of the prerequisite System Management Hub (for installing the User Interface) takes longer.



The section for installing the System Management Hub has several interaction screens where the defaults can be taken. If you wish to alter the defaults please consult the documentation for the System Management Hub to understand their meanings and implications. The screen below shows one of the many you will see for the System Management Hub installation:



Once the installation of all the products is completed you will see the following confirmation screen:



At this point the primary install steps have been completed but you must now Activate the installation. Click Close (above).

Navigate to the install location that was chosen previously to install to (the default is `/opt/softwareag`). Then source `sagenv.new`.



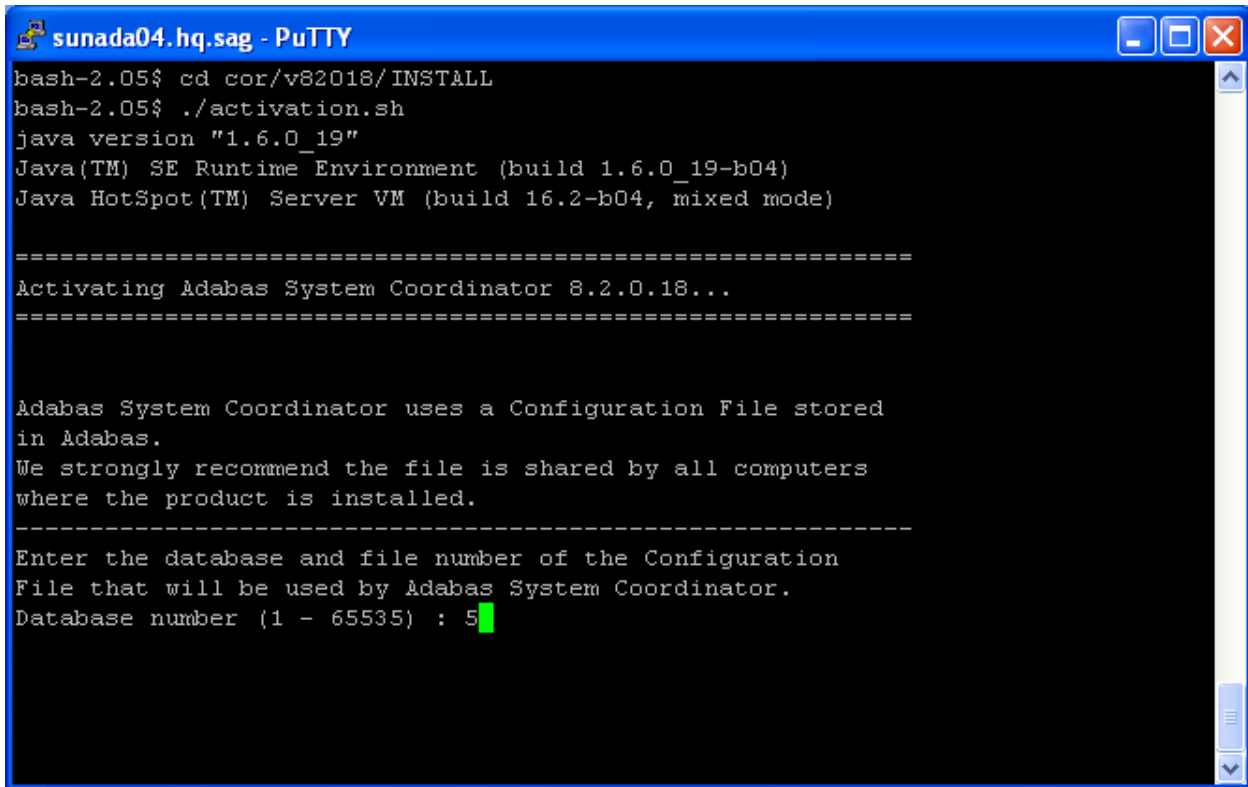
```
sunada04.hq.sag - PuTTY
bash-2.05$ . ./sagenv.new
```

Next navigate to the subdirectory *cor/v82018/INSTALL* and run the command *./activation.sh*.



```
sunada04.hq.sag - PuTTY
bash-2.05$ cd cor/v82018/INSTALL
bash-2.05$ ./activation.sh
```

Identify the database where the configuration file is already installed (during an installation on another computer) or where you wish to establish the file. In the example (below) we choose database number 5:



```
sunada04.hq.sag - PuTTY
bash-2.05$ cd cor/v82018/INSTALL
bash-2.05$ ./activation.sh
java version "1.6.0_19"
Java(TM) SE Runtime Environment (build 1.6.0_19-b04)
Java HotSpot(TM) Server VM (build 16.2-b04, mixed mode)

=====
Activating Adabas System Coordinator 8.2.0.18...
=====

Adabas System Coordinator uses a Configuration File stored
in Adabas.
We strongly recommend the file is shared by all computers
where the product is installed.

-----
Enter the database and file number of the Configuration
File that will be used by Adabas System Coordinator.
Database number (1 - 65535) : 5
```

Identify the configuration file number. In the example (below) we choose file 501:



```

sunada04.hq.sag - PuTTY
bash-2.05$ cd cor/v82018/INSTALL
bash-2.05$ ./activation.sh
java version "1.6.0_19"
Java(TM) SE Runtime Environment (build 1.6.0_19-b04)
Java HotSpot(TM) Server VM (build 16.2-b04, mixed mode)

=====
Activating Adabas System Coordinator 8.2.0.18...
=====

Adabas System Coordinator uses a Configuration File stored
in Adabas.
We strongly recommend the file is shared by all computers
where the product is installed.

-----
Enter the database and file number of the Configuration
File that will be used by Adabas System Coordinator.
Database number (1 - 65535) : 5
File number (1 - 65535) : 501

```

Having identified the configuration file the activation needs to understand whether the file is to be:

- Shared

Software AG strongly recommends one configuration file is shared by all computers where the software is to be installed. By doing this the vast majority of complex network configuration is automated. By identifying the file is to be shared you are indicating it has already been created from a previous installation of this software on another computer.

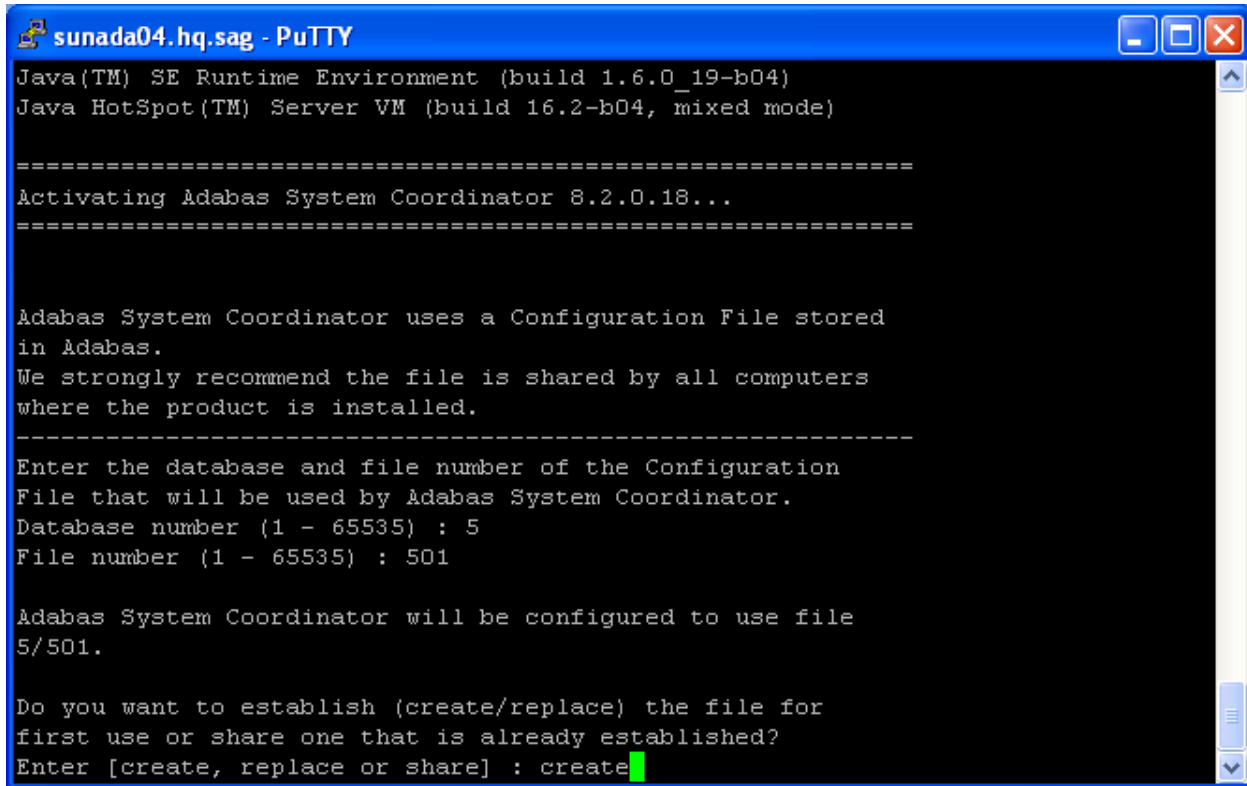
- Created

If this is the first (or only) computer where the software is to be installed then you must establish the file as new. This file may then be shared by installations on other computers (as recommended by Software AG), or similarly...

- Replaced

You may be re-establishing the software and the configuration file on this computer in which case you wish to replace a configuration file that previously existed.

In the example (below) we choose to create the file for the first time (choosing replace would do the same thing):



```
sunada04.hq.sag - PuTTY
Java(TM) SE Runtime Environment (build 1.6.0_19-b04)
Java HotSpot(TM) Server VM (build 16.2-b04, mixed mode)

=====
Activating Adabas System Coordinator 8.2.0.18...
=====

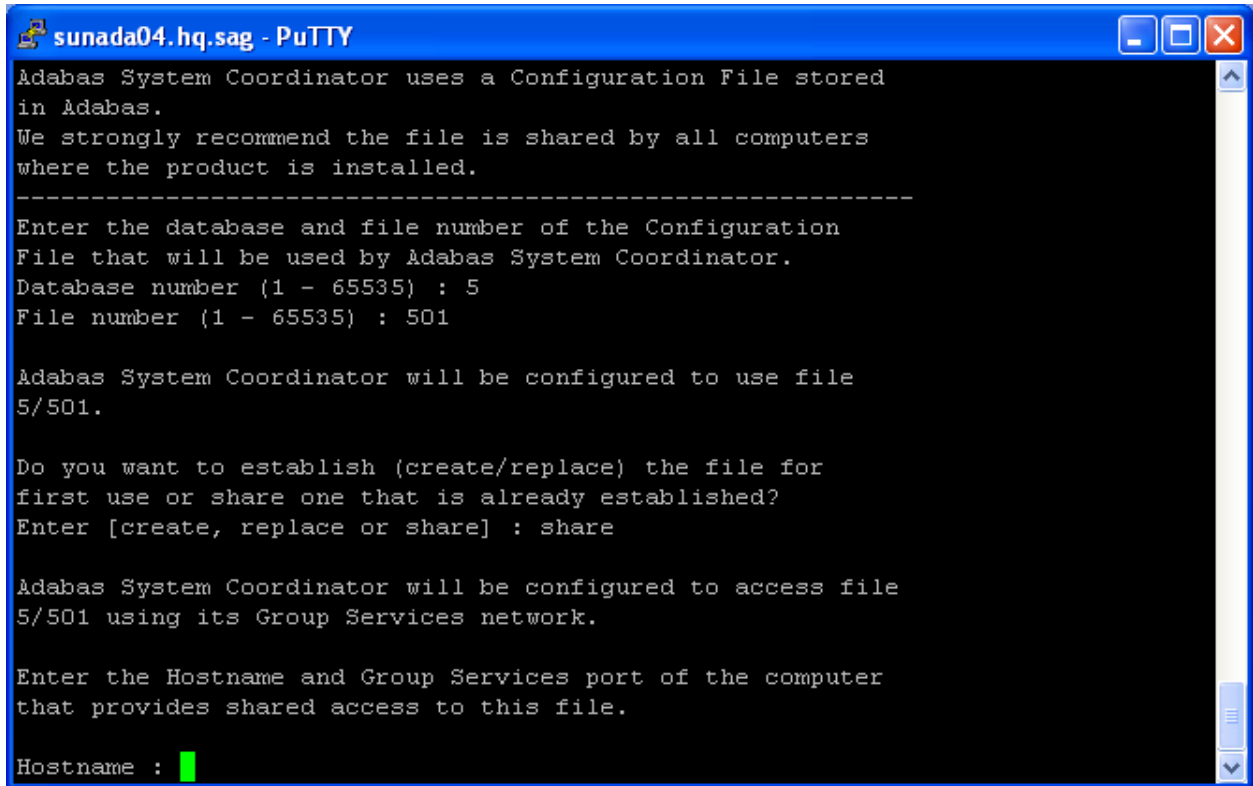
Adabas System Coordinator uses a Configuration File stored
in Adabas.
We strongly recommend the file is shared by all computers
where the product is installed.
-----
Enter the database and file number of the Configuration
File that will be used by Adabas System Coordinator.
Database number (1 - 65535) : 5
File number (1 - 65535) : 501

Adabas System Coordinator will be configured to use file
5/501.

Do you want to establish (create/replace) the file for
first use or share one that is already established?
Enter [create, replace or share] : create
```

At this point the activation will complete.

When the activation is completed you can go to start using the software as below. But if you chose to share a configuration file that already exists (above) then you will be further prompted to identify the home of the configuration file as follows:



```
sunada04.hq.sag - PuTTY
Adabas System Coordinator uses a Configuration File stored
in Adabas.
We strongly recommend the file is shared by all computers
where the product is installed.
-----
Enter the database and file number of the Configuration
File that will be used by Adabas System Coordinator.
Database number (1 - 65535) : 5
File number (1 - 65535) : 501

Adabas System Coordinator will be configured to use file
5/501.

Do you want to establish (create/replace) the file for
first use or share one that is already established?
Enter [create, replace or share] : share

Adabas System Coordinator will be configured to access file
5/501 using its Group Services network.

Enter the Hostname and Group Services port of the computer
that provides shared access to this file.

Hostname : █
```

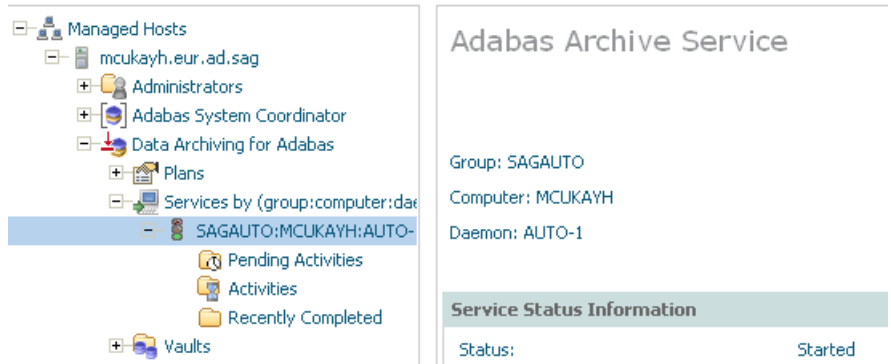
## Starting to Use the Software

### ▶ to use the software

- 1  **Note:** SMH must be restarted immediately after the install in order to function correctly for Archiving purposes.

Go to your browser and use <http://localhost:49981/smh> (assuming defaults have been used for SMH) or use your normal entry to SMH.

- 2 Select the main **Data Archiving for Adabas** node.
- 3 Within the tree you should select the **Services by ...** node. You should see the archive service for the runtime in the computer you have just installed. This should show a green traffic light which indicates that the service is active.



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

# 7 Windows Installation

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

## License Keys

---

License keys for the runtime component only are supplied separately from the software installation mechanism. You should make sure your license file is placed in:

```
C:\Program Files\Common Files\Software AG\LKey ↵
```

## Installation Steps

---

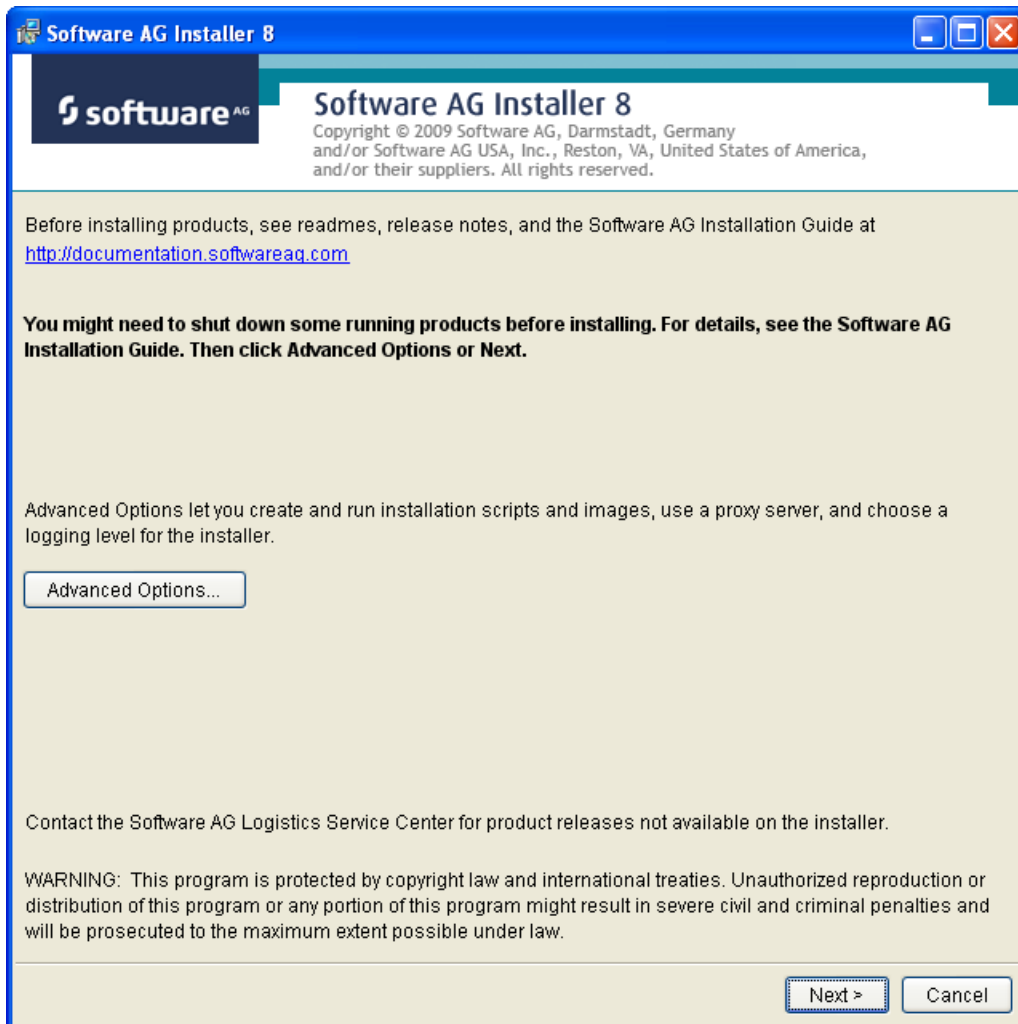
During the install you must identify the configuration file. Please refer to the section [Installation Planning and Preparation](#) for information on how to manage that part of the installation. The installation comprises the following steps;

- Log into the Software AG Installer.
- Select the installation directory location.
- Select the product component(s) to be installed.
- Confirm the Installer should proceed.
- Execute the product activation step.

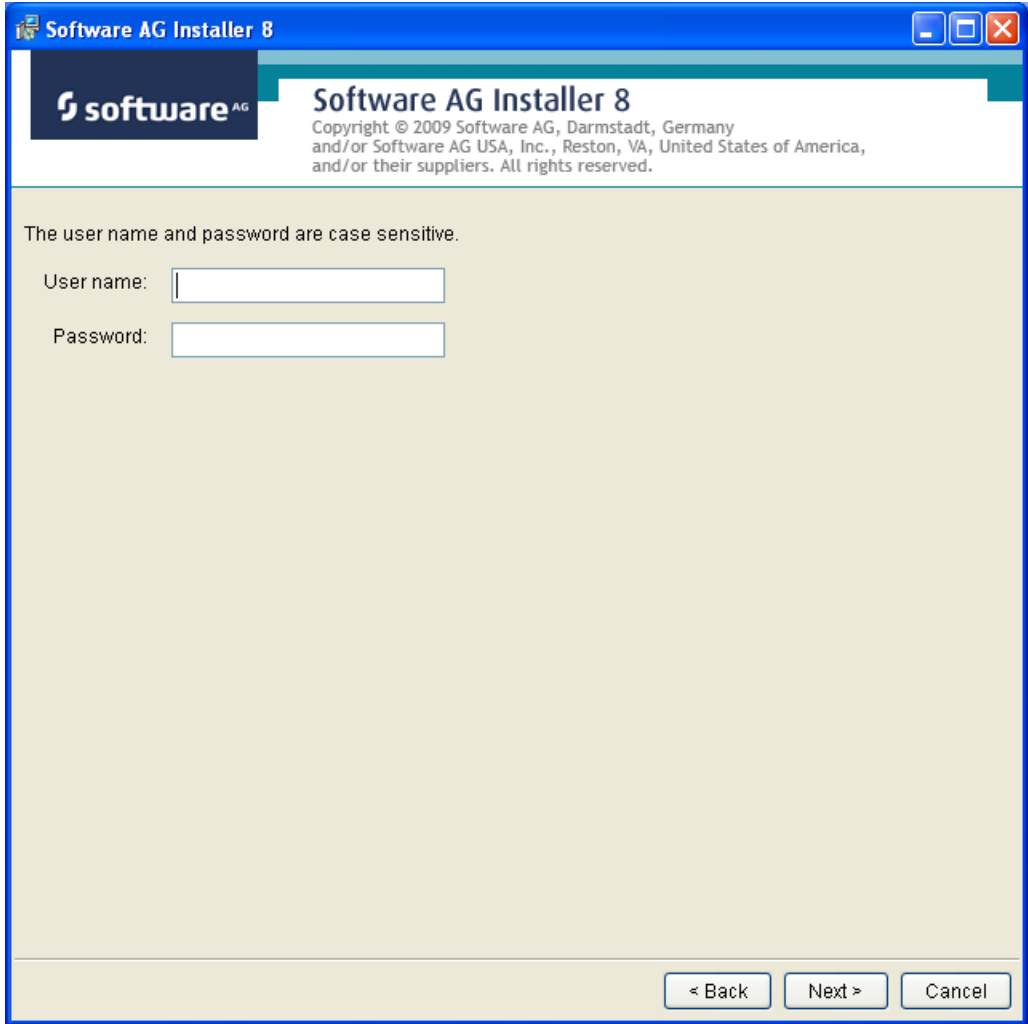
## Step by Step Installation of all Components

---

On the Software AG Installer Welcome Screen, click **Next** to start the installation.

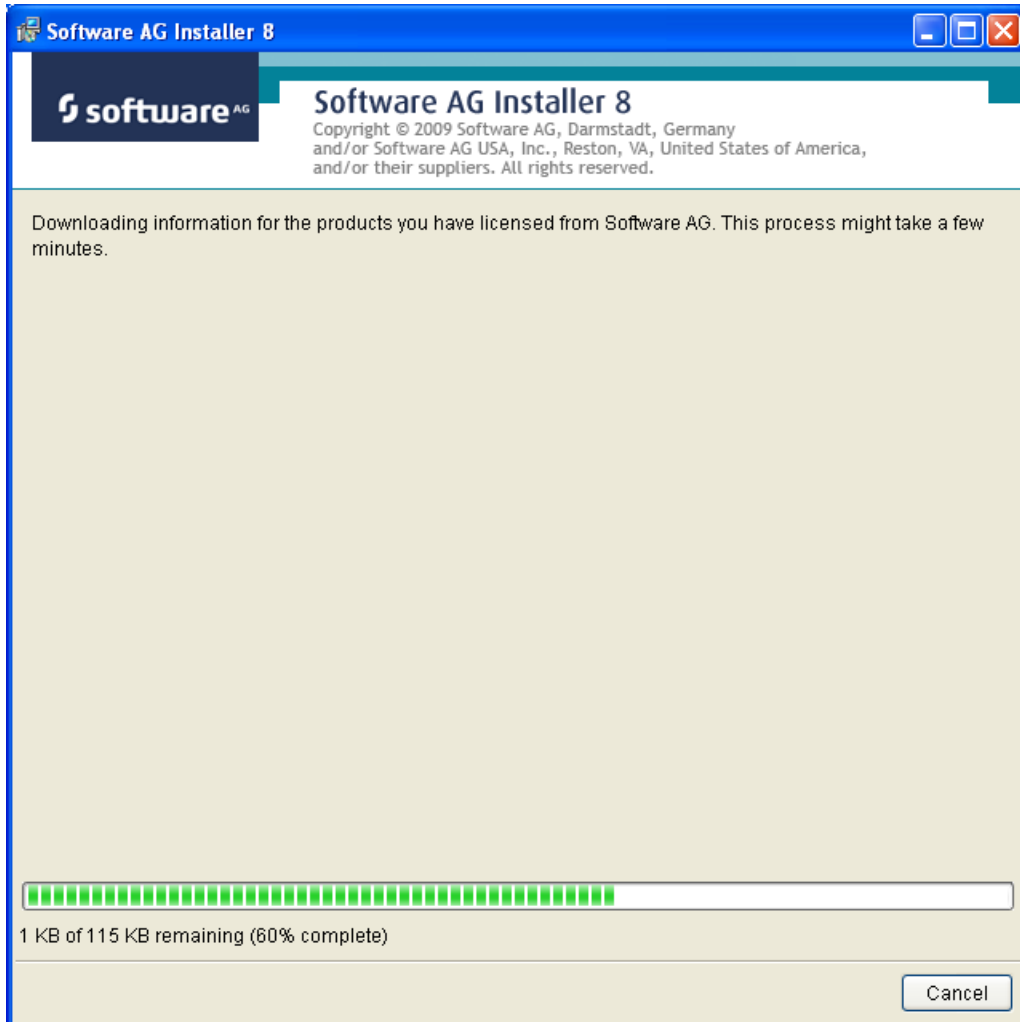


Identify yourself to the Installer by logging in with your credentials as shown below. Then click Next to proceed to the next step:

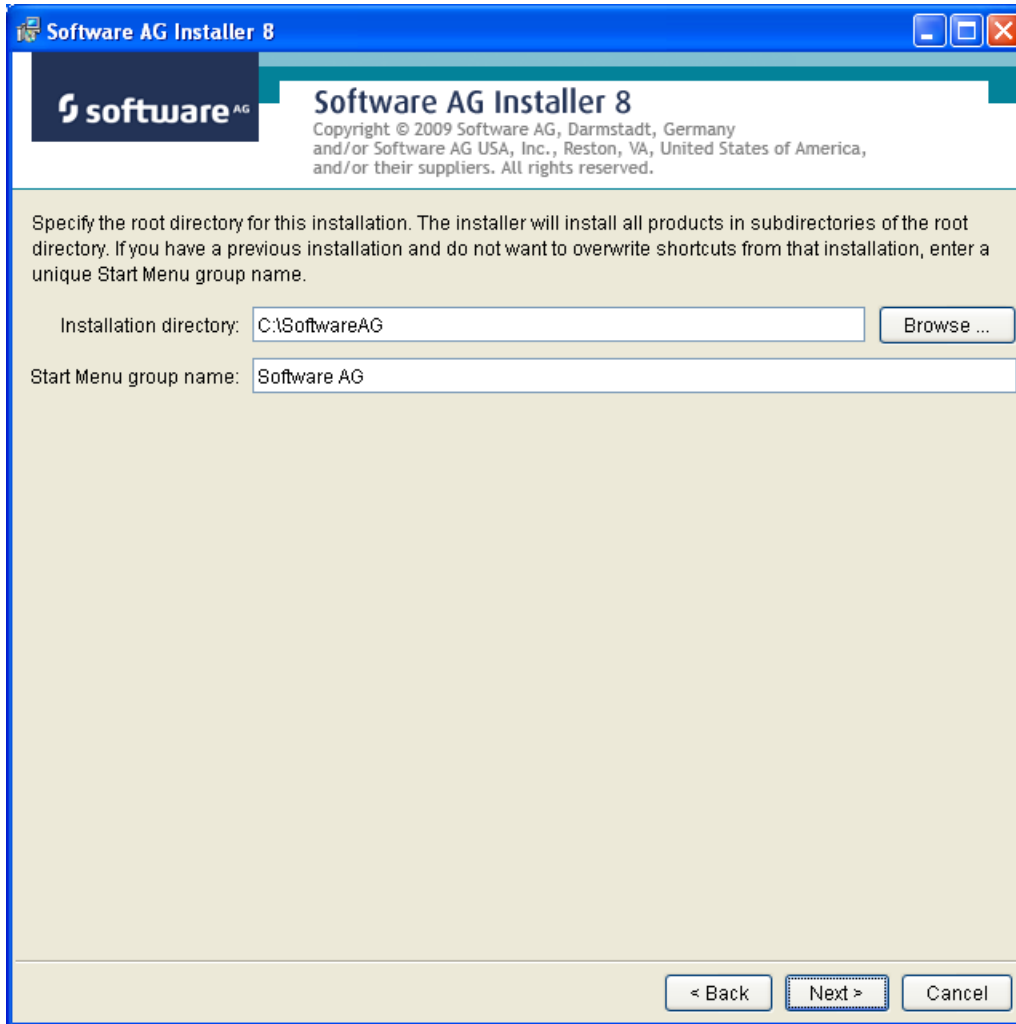


The Installer acquires information about a) all the products for which you are licensed and b) are able to be installed using the Installer. You can see this happening (below). It may take a few minutes:

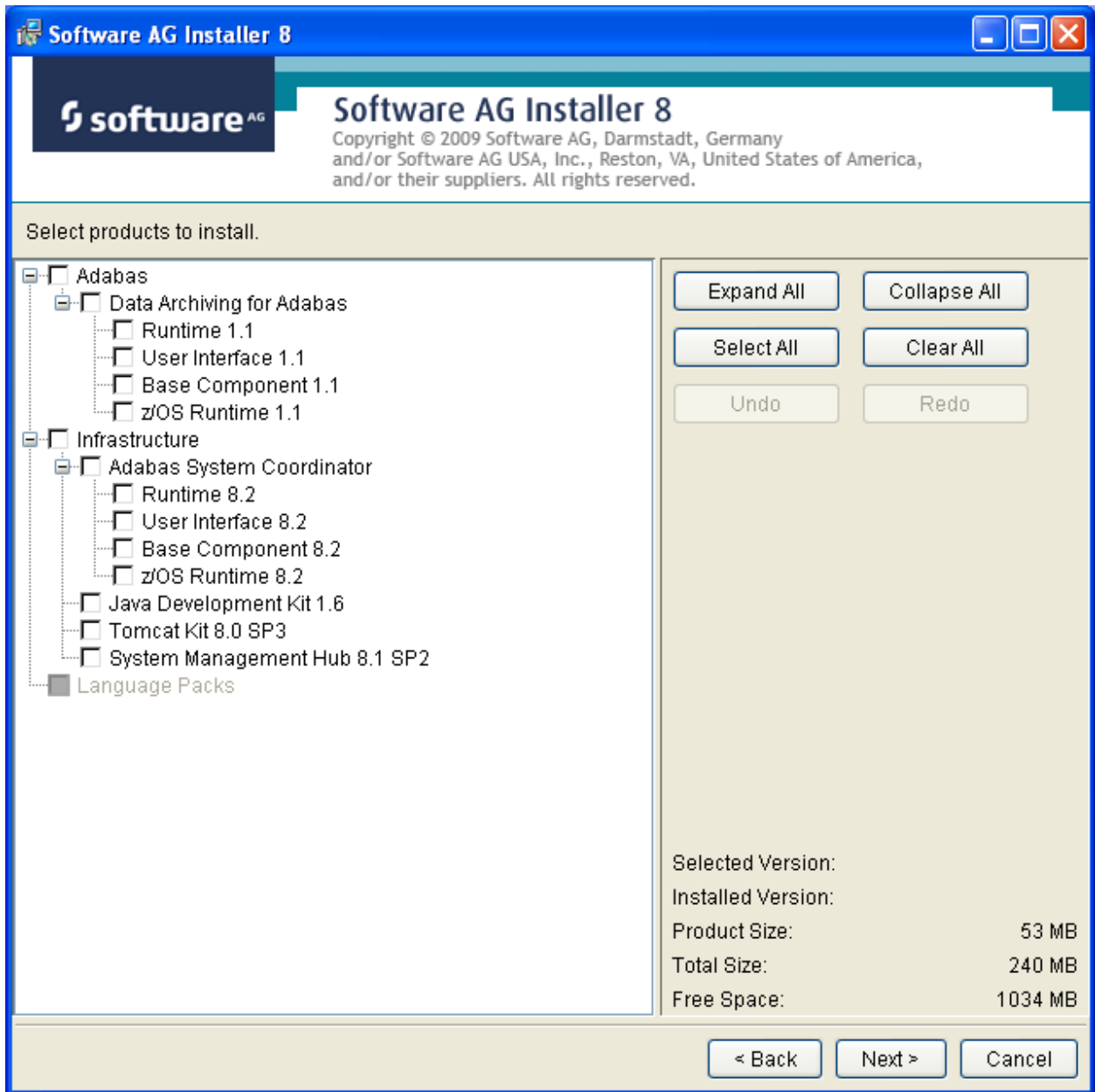




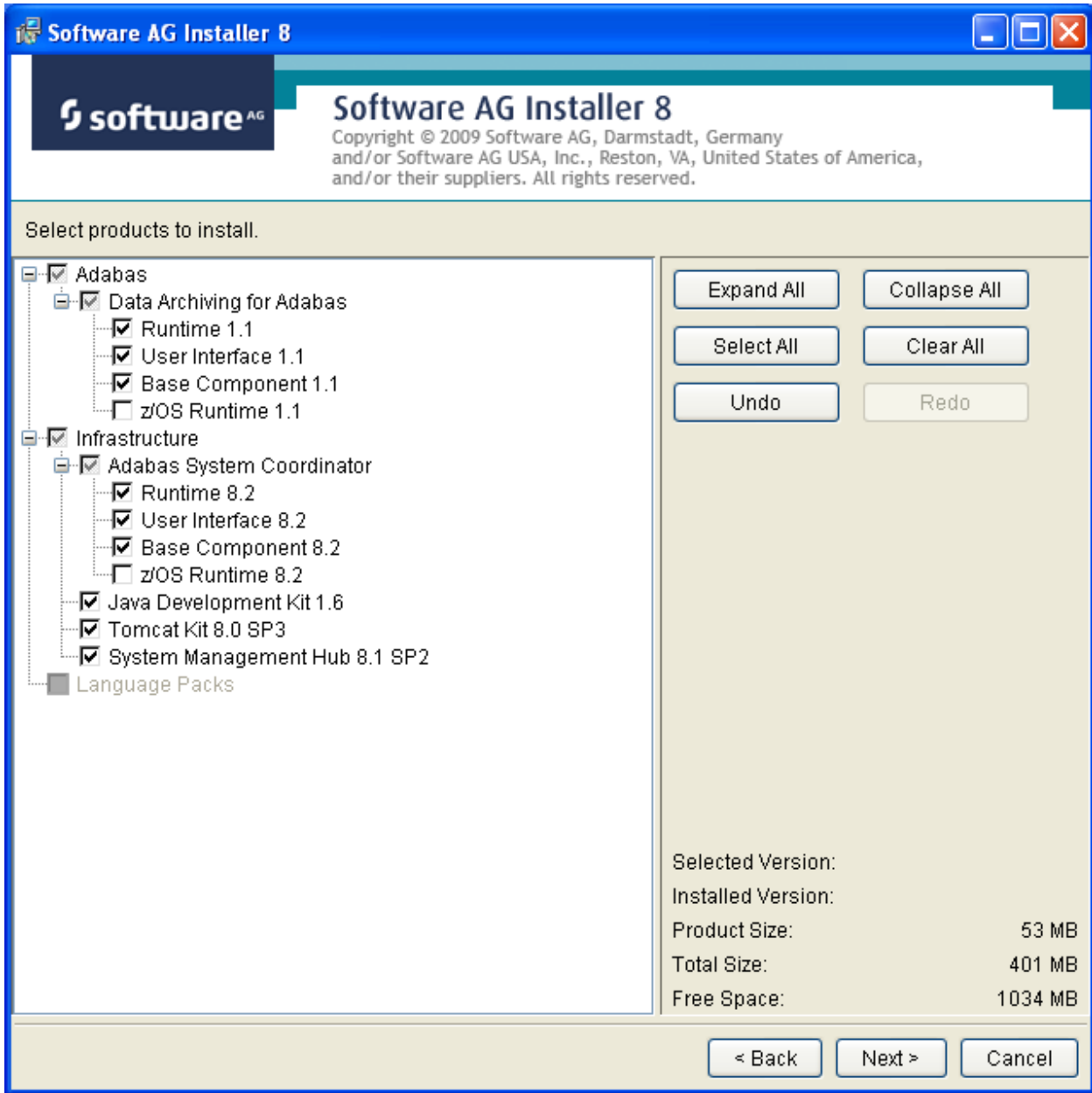
Once the Installer has acquired all licensing information for your site it shows the default install location. You can alter this if you wish but make sure you understand the implications of changing it for all the products being installed. Click *Next* to proceed:



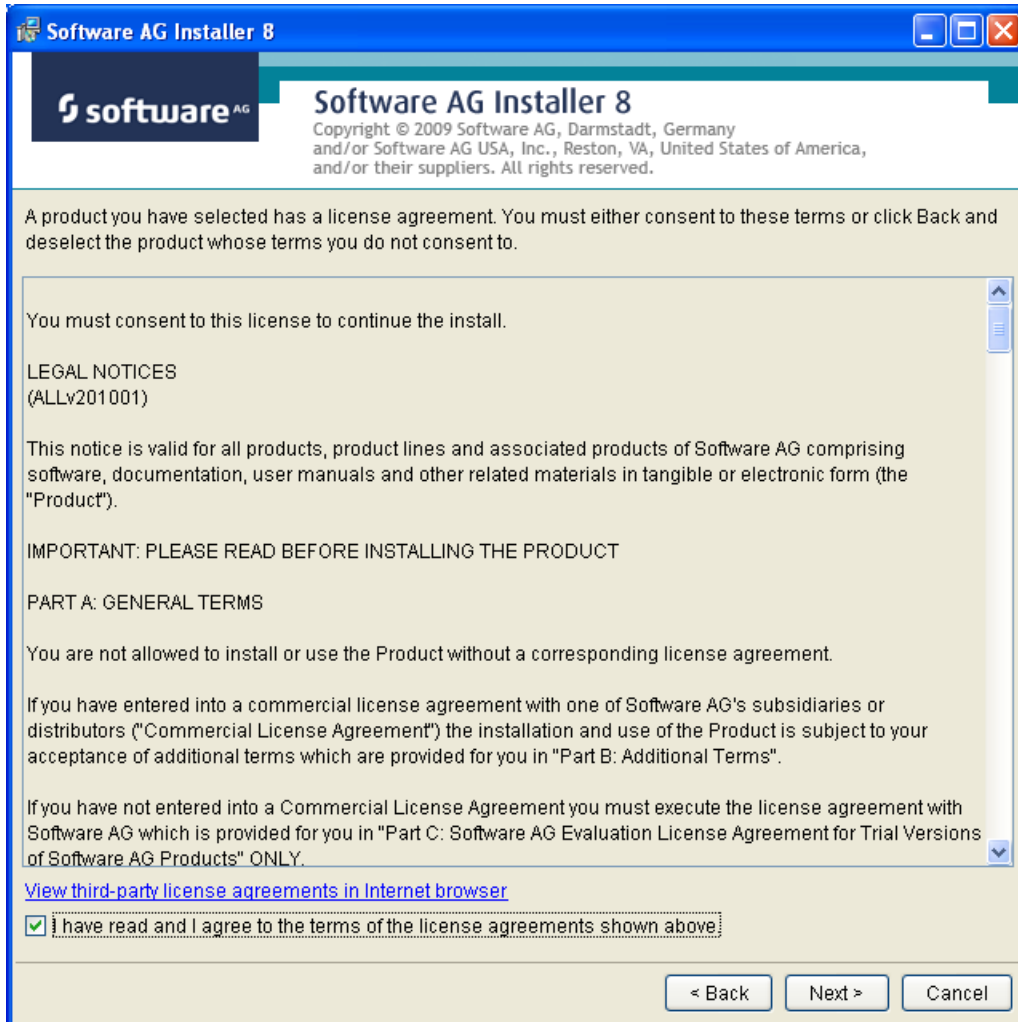
You can now choose the products that you wish to install:



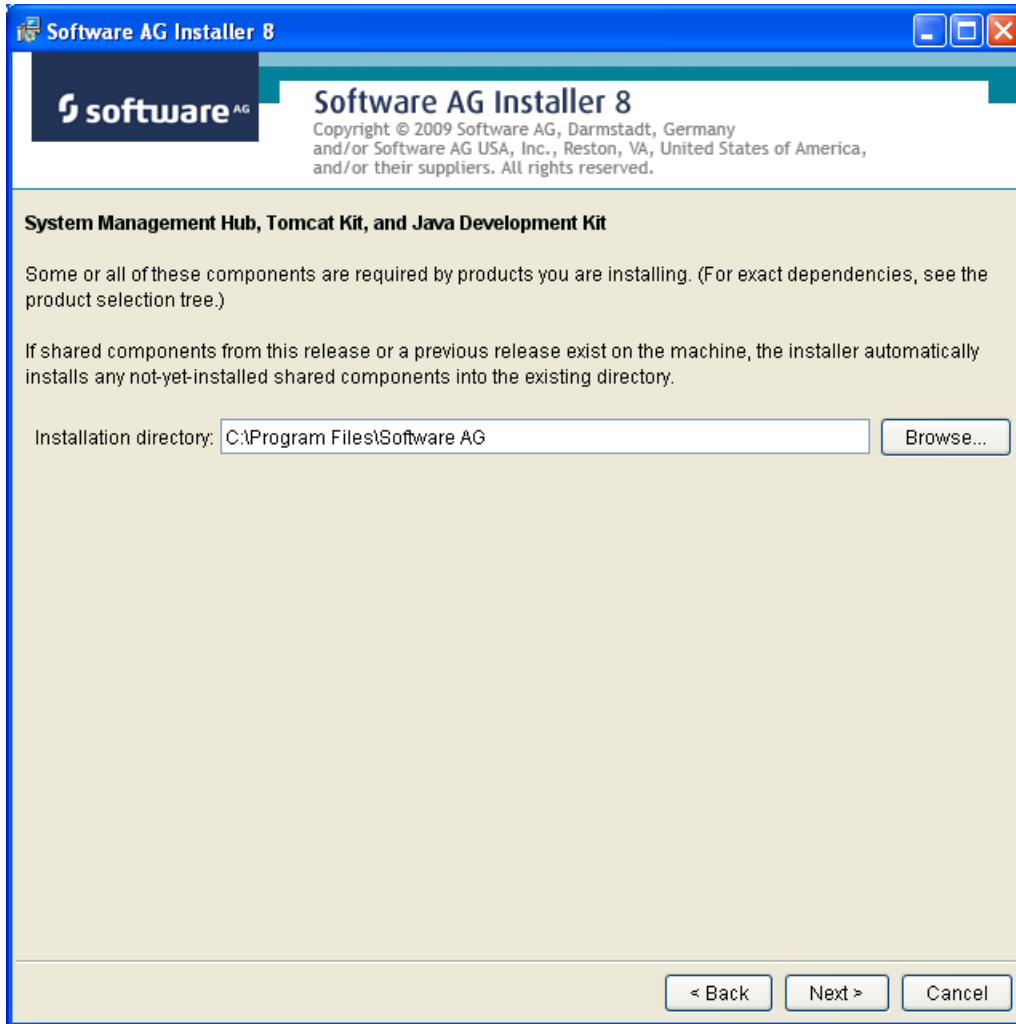
You can see below which products have been selected for install. In making these choices, other implied choices of sibling and prerequisite products are also made automatically. Once your selections are made, click **Next** to proceed:



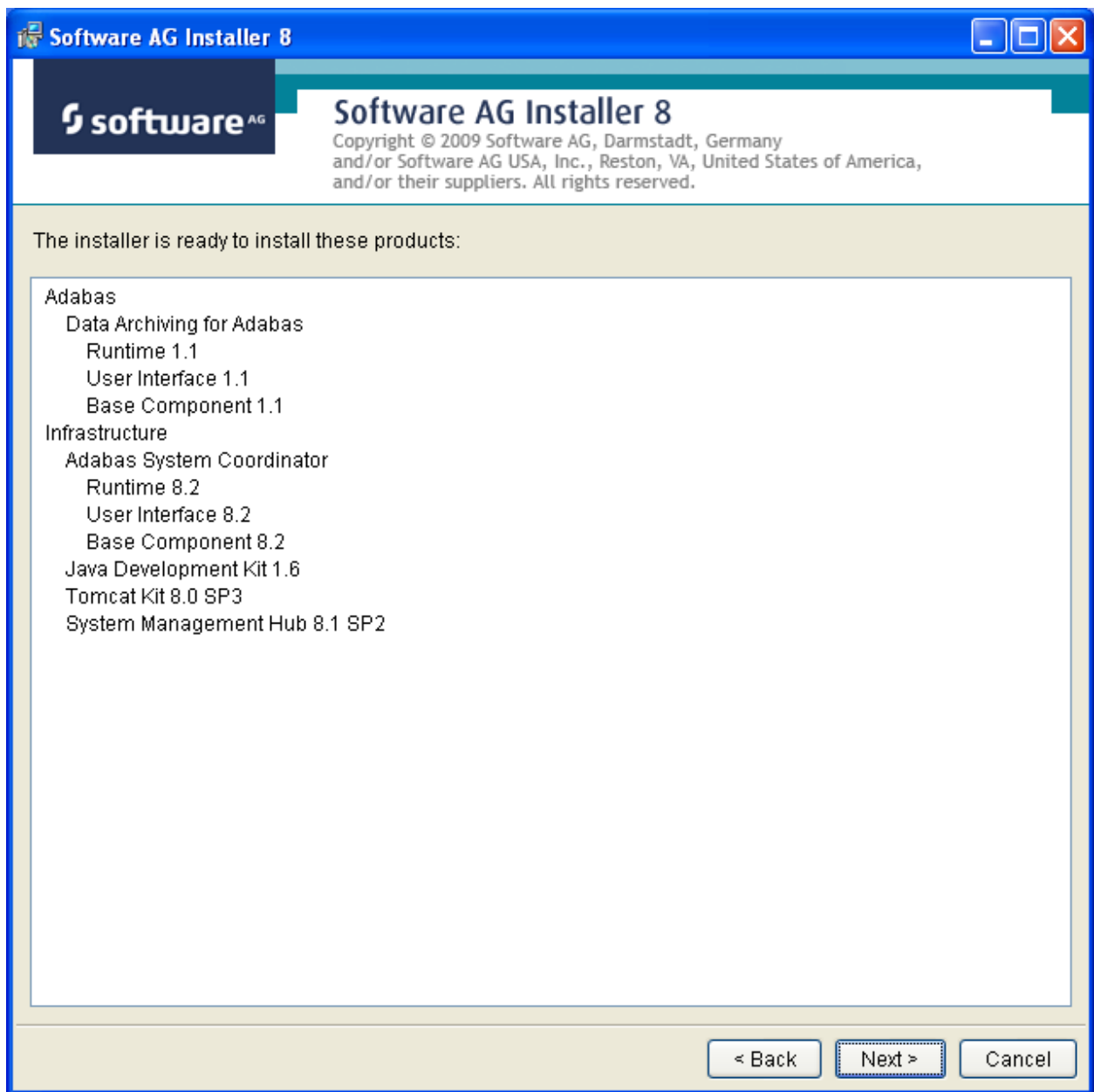
Read the terms and conditions. When you have finished confirm you have done so by checking the box. Then click Next to continue:



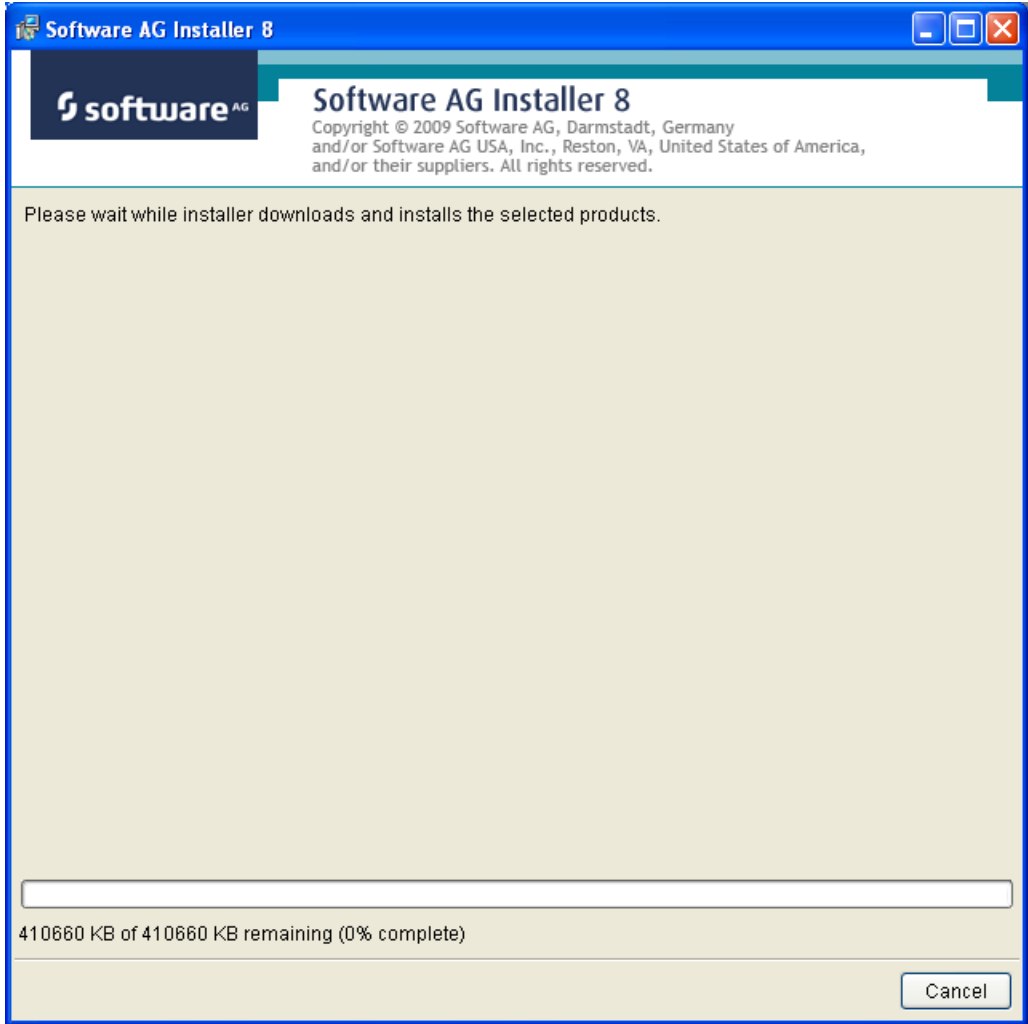
The following display is shown if the user interface is to be installed. This allows you to determine the install location for the prerequisite System Management Hub which you normally allow to default. Click **Next** to proceed to the next step:



A list of the products selected for install is provided. Click **Next** to perform the installation:

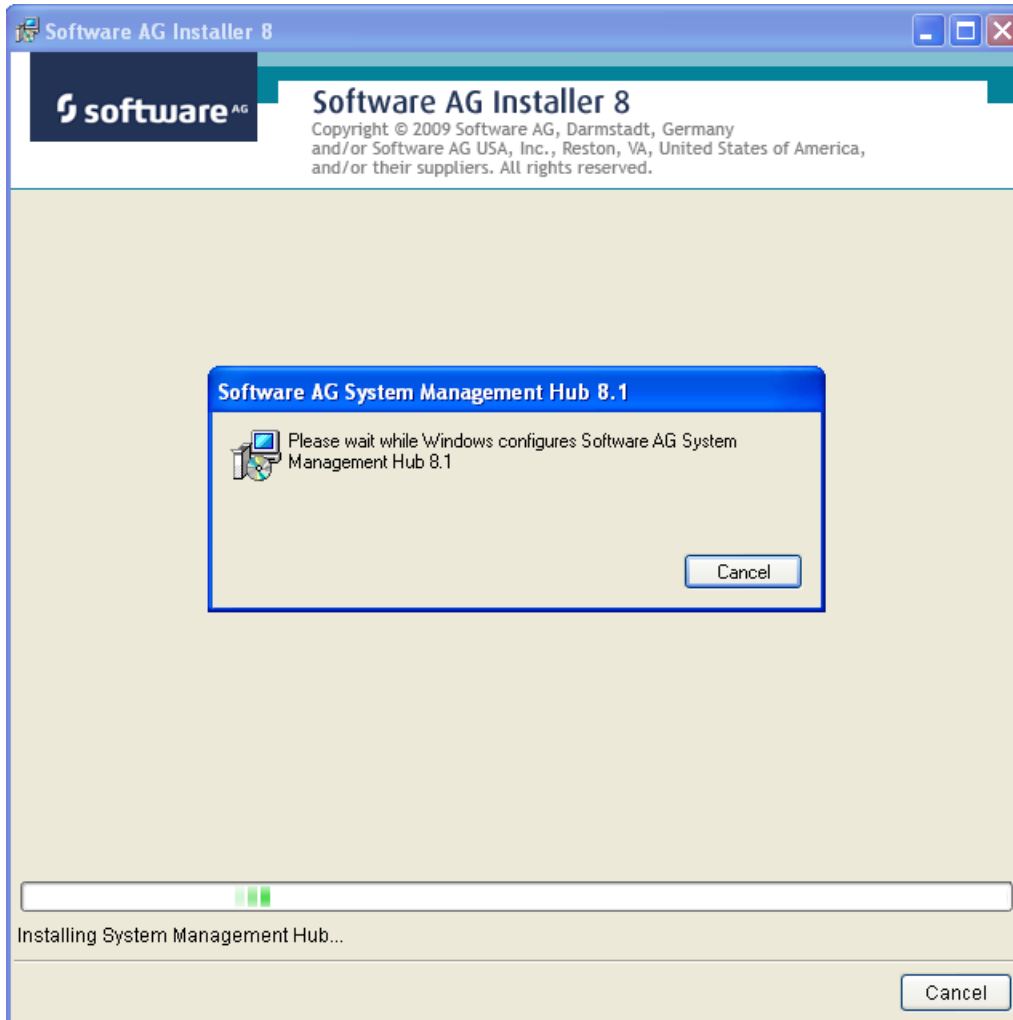


The installation may take some time. In the case of Data Archiving for Adabas the installation is usually quite quick whereas the install of the prerequisite System Management Hub (for installing the User Interface) takes longer.

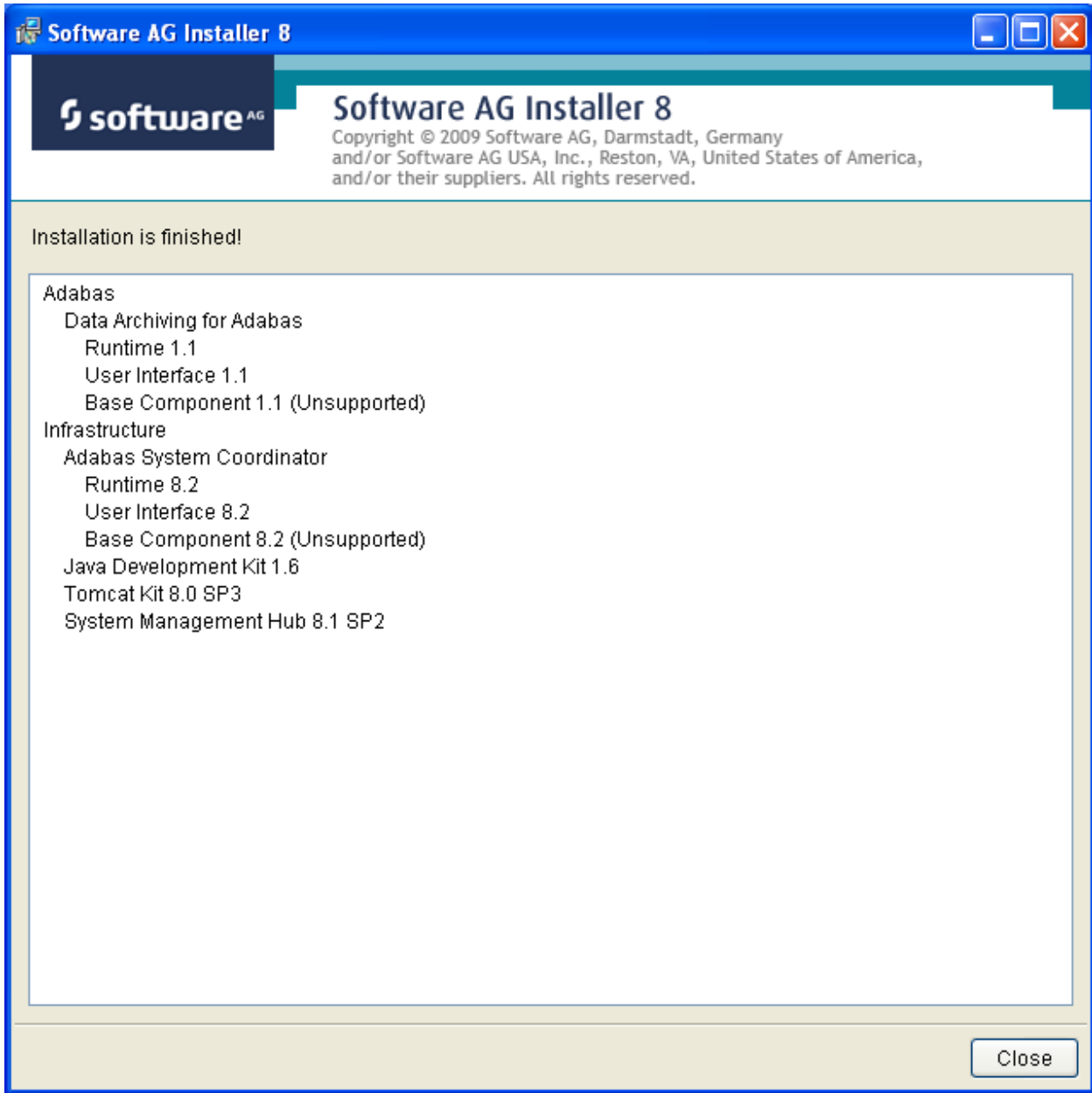


The section for installing the System Management Hub has several interaction screens where the defaults can be taken. If you wish to alter the defaults please consult the documentation for the System Management Hub to understand their meanings and implications. The screen below shows one of the many you will see for the System Management Hub installation:



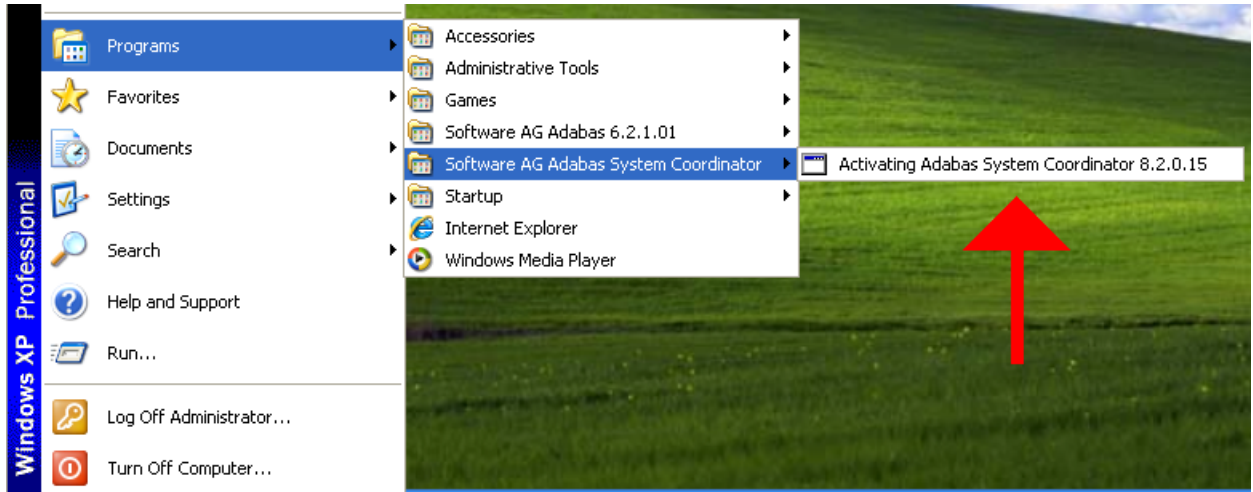


Once the installation of all the products is completed you will see the following confirmation screen:



At this point the primary install steps have been completed. You must now Activate the installation. Click Close (above). Then go to the Windows Start menus. You will see the Installer has created a start menu item called Software AG Adabas System Coordinator and in it you will see Activating Adabas System Coordinator as shown with the red arrow (below).

 **Note:** Windows 7, Server 2008 and Vista users must right click on the start menu item and choose "Run as Administrator":

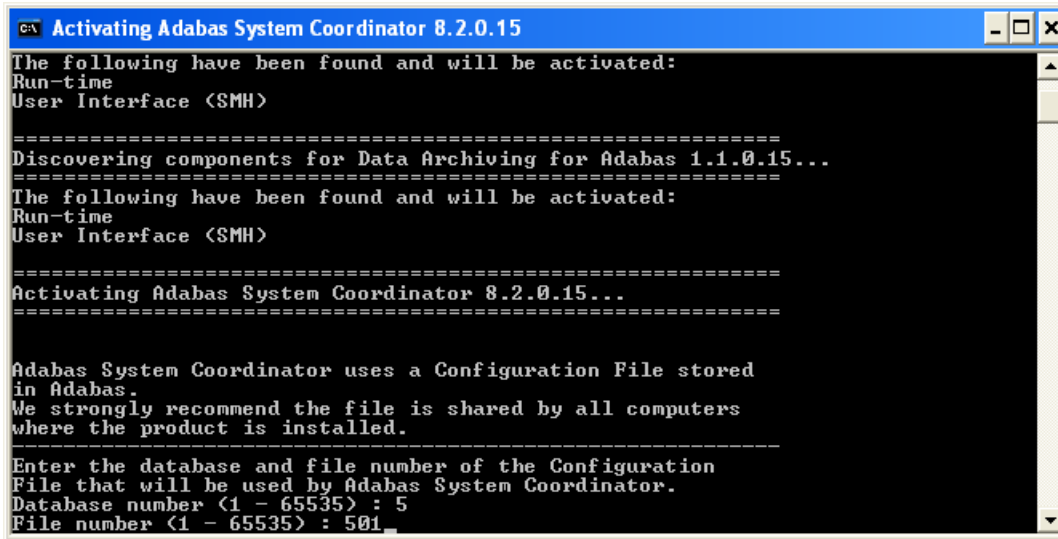


The activation step results in a Windows command screen. You must identify the database where the configuration file is already installed (during an installation on another computer) or where you wish to establish the file. In the example (below) we choose database number 5:

```

C:\> Activating Adabas System Coordinator 8.2.0.15
=====
The following have been found and will be activated:
Run-time
User Interface <SMH>
=====
Discovering components for Data Archiving for Adabas 1.1.0.15...
The following have been found and will be activated:
Run-time
User Interface <SMH>
=====
Activating Adabas System Coordinator 8.2.0.15...
=====
Adabas System Coordinator uses a Configuration File stored
in Adabas.
We strongly recommend the file is shared by all computers
where the product is installed.
=====
Enter the database and file number of the Configuration
File that will be used by Adabas System Coordinator.
Database number (1 - 65535) : 5_
  
```

Identify the configuration file number. In the example (below) we choose file 501:



```

C:\> Activating Adabas System Coordinator 8.2.0.15
The following have been found and will be activated:
Run-time
User Interface <SMH>

=====
Discovering components for Data Archiving for Adabas 1.1.0.15...
=====
The following have been found and will be activated:
Run-time
User Interface <SMH>

=====
Activating Adabas System Coordinator 8.2.0.15...
=====

Adabas System Coordinator uses a Configuration File stored
in Adabas.
We strongly recommend the file is shared by all computers
where the product is installed.

-----
Enter the database and file number of the Configuration
File that will be used by Adabas System Coordinator.
Database number <1 - 65535> : 5
File number <1 - 65535> : 501

```

Having identified the configuration file the activation needs to understand whether the file is to be:

- Shared

Software AG strongly recommends one configuration file is shared by all computers where the software is to be installed. By doing this the vast majority of complex network configuration is automated. By identifying the file is to be shared you are indicating it has already been created from a previous installation of this software on another computer.

- Created

If this is the first (or only) computer where the software is to be installed then you must establish the file as new. This file may then be shared by installations on other computers (as recommended by Software AG), or similarly...

- Replaced

You may be re-establishing the software and the configuration file on this computer in which case you wish to replace a configuration file that previously existed.

In the example (below) we choose to create the file for the first time (choosing replace would do the same thing):

```

Activating Adabas System Coordinator 8.2.0.15
The following have been found and will be activated:
Run-time
User Interface <SMH>

=====
Activating Adabas System Coordinator 8.2.0.15...
=====

Adabas System Coordinator uses a Configuration File stored
in Adabas.
We strongly recommend the file is shared by all computers
where the product is installed.

-----
Enter the database and file number of the Configuration
File that will be used by Adabas System Coordinator.
Database number (1 - 65535) : 5
File number (1 - 65535) : 501

Adabas System Coordinator will be configured to use file
5/501.

Do you want to establish <create/replace> the file for
first use or share one that is already established?
Enter [create, replace or share] : create_

```

At this point the activation will continue and the command window will disappear. When the activation is completed you can go to start using the software below. But if you chose to share a configuration file that already exists (above) then you will be further prompted to identify the home of the configuration file as follows:

```

Activating Adabas System Coordinator 8.2.0.15
Adabas System Coordinator uses a Configuration File stored
in Adabas.
We strongly recommend the file is shared by all computers
where the product is installed.

-----
Enter the database and file number of the Configuration
File that will be used by Adabas System Coordinator.
Database number (1 - 65535) : 5
File number (1 - 65535) : 501

Adabas System Coordinator will be configured to use file
5/501.

Do you want to establish <create/replace> the file for
first use or share one that is already established?
Enter [create, replace or share] : share

Adabas System Coordinator will be configured to access file
5/501 using its Group Services network.

Enter the Hostname and Group Services port of the computer
that provides shared access to this file.
Hostname :

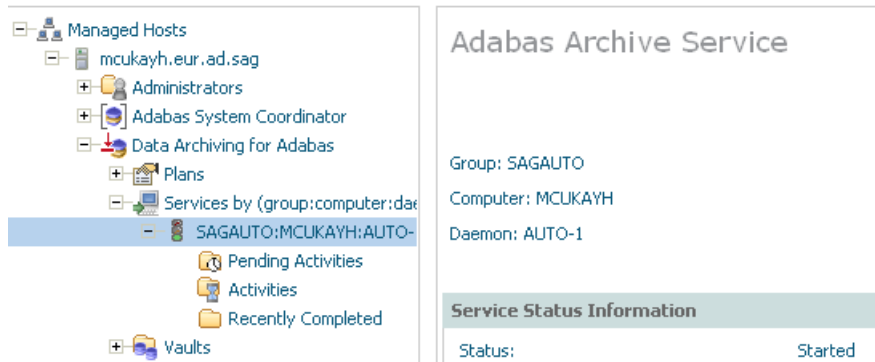
```

## Starting to Use the Software

---

▶ to use the software

- 1 Go to your browser and use `http://localhost:49981/smh` (assuming defaults have been used for SMH) or use you normal entry to SMH.
- 2 Select the main **Data Archiving for Adabas** node.
- 3 Within the tree you should select the **Services by ...** node. You should see the archive service for the runtime in the computer you have just installed. This should show a green traffic light which indicates that the service is active.



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

# 8 z/OS Installation

---

- Important Information ..... 52
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- Actions Required Before Starting the Install ..... 53
- Installation Steps ..... 58
- Use the Runtime from the Browser UI ..... 85

## 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 Solaris for example).
- There is a special z/OS activation step that has to run in the download platform (off-host).
  - This step guides you through the FTP process to load the z/OS software into the z/OS system.
- Once the off-host FTP activation is completed then you must perform the full z/OS activation from within z/OS (USS).

## Overview

---

Data Archiving for Adabas is a fully portable technology. It runs in all primary Unix systems, Windows and also in z/OS. There is only one code-base rather than one code-base for open systems and another for mainframe. Data Archiving for Adabas uses the openness of z/OS by running within a USS process within z/OS.



**Note:** This is not the same as running in a z/Linux partition.

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).

When running in z/OS, Data Archiving for Adabas uses normal z/OS Adabas databases, not a special "Unix like" Adabas. This is because systems running with USS can also interact with normal z/OS resources at the same time.



## Actions Required Before Starting the Install

During the install you must identify the configuration file. 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 \(ADALNKR\)](#)
- [Establish Access to the Browser User Interface](#)
- [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)
```

The default name for the dataset is *prefix.SAG.ADR110.LOAD* where *prefix* is the RACF (or equivalent) userid of the person doing the installation. The prefix must remain as part of the dataset name (this will be reviewed later), the rest can be changed if you wish.

### 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. LNKG BLS 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 LNKG BLS - 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.ADA814.SRCE
//              DD DSN=SYS1.MACLIB,DISP=SHR
//              DD DSN=SYS1.MODGEN,DISP=SHR
//C.SYSPRINT    DD SYSOUT=*
//C.SYSTEM     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                         X
*
      END
//L.SYSPRINT DD SYSOUT=*
//L.SYSLMOD DD DISP=SHR,DSN=SAG.ADR110.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.ADA814.LOAD
//SYSLMOD DD DISP=SHR,DSN=SAG.ADR110.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)
/*
//

```

## Establish Access to the Browser User Interface

Data Archiving for Adabas uses the UI provided by System Management Hub. The UI *cannot* be installed in z/OS. It must therefore be installed in another platform and be available for use before the ADR runtime installation can be started.

The user interface to Data Archiving for Adabas is the same for all operating systems. You use the UI to operate, configure and monitor your archiving environment throughout your network. The most common approach is to install and use the UI on a Windows platform.

## 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.

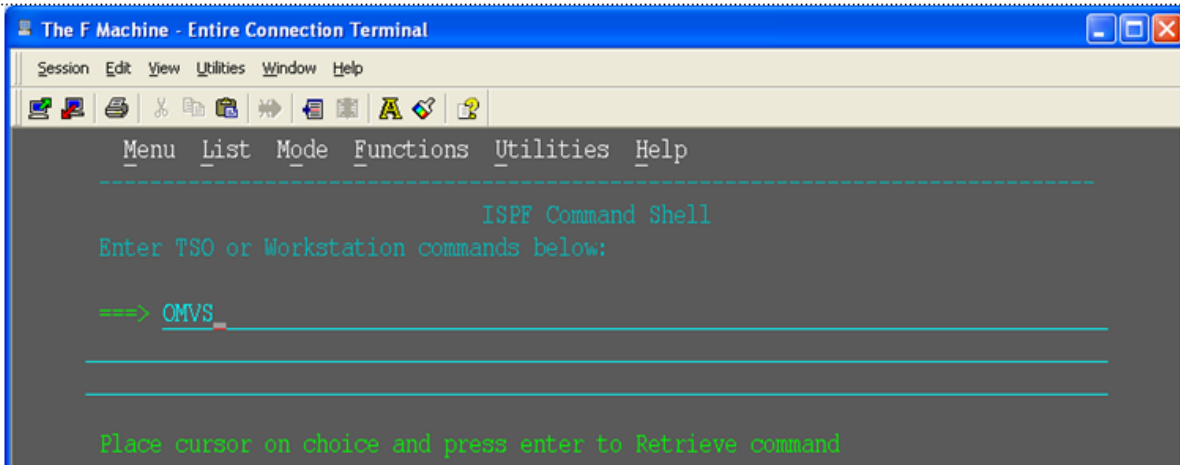
A GID can be assigned to a RACF group with...

```
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
[Icons]

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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 -
-----

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 Steps

This section describes the steps required to install Data Archiving for Adabas for z/OS.



**Important:** Please read the Installation Preparation Checklist (below) before starting with the installation.

- [Installation Preparation Checklist](#)
- [Step 1: Use Software AG Installer to Acquire the Software](#)
- [Step 2a: Perform the Off-host Activation \(FTP\) in Windows](#)
- [Step 2b: Perform the Off-Host Activation \(FTP\) in Solaris](#)
- [Step 3: Login to USS in z/OS](#)
- [Step 4: Finish Activation in z/OS](#)

### 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:

#### Installation Preparation Checklist

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"> <li>■ the system name and hostname must be the same</li> <li>■ the hostname must resolve to the correct IP address</li> </ul>	<p>Use the <code>uname</code> command to acquire the system name:</p> <pre>da3f:saguser&gt; uname -a OS/390 DA3F 20.00 03 2098</pre> <p>Use the <code>nslookup</code> command with the system name to acquire the hostname and IP address:</p>

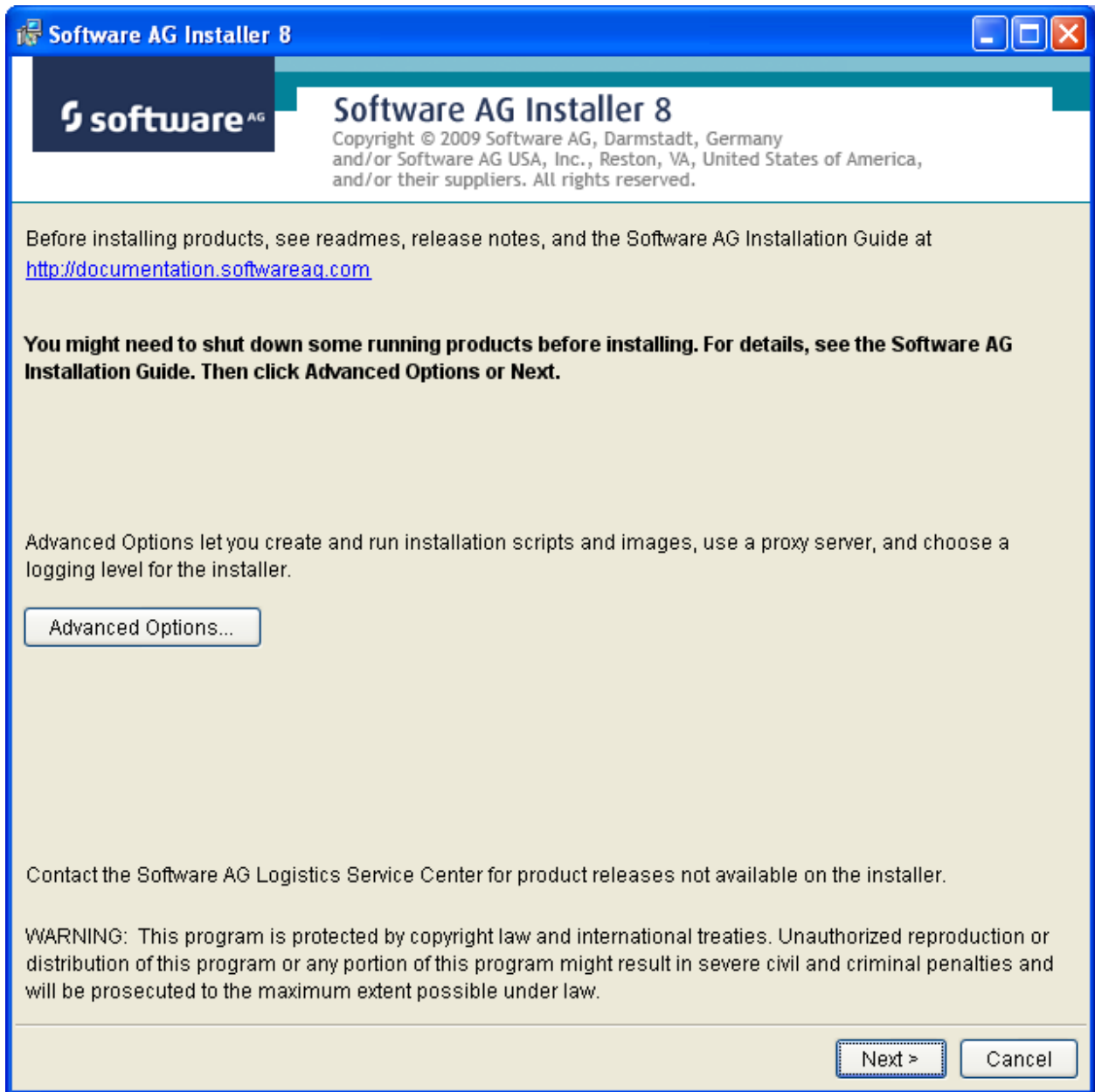
Step	Description	Notes
		<pre>da3f:saguser&gt; nslookup DA3F Defaulting to nslookup version 4 Starting nslookup version 4 Server: daedns.ad.sag Address: 10.20.xxx.xxx  Name:    DA3F.hq.sag Address: 10.20.xxx.xxx</pre>
2	<p>Check the amount of free disk space available in the directory in the USS filesystem where the software is being installed.</p> <p>Minimum disk space: 300 MB</p>	<p>Use the <code>df</code> command to see the amount of free space available:</p> <pre>da3f:saguser&gt; 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><b>Note:</b> If you use USS via TSO (OMVS) then the size of your TSO session governs the size of the USS session.</p> <p>Minimum memory: 64 MB</p>	<p>Minimum memory: 64 MB</p>
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>	<pre>Dataset: SAG.ADR110.LOAD Permissions:</pre>
6	<p>Adabas database and file number for the Configuration File.</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"> <li><input type="checkbox"/> create</li> <li><input type="checkbox"/> replace</li> <li><input type="checkbox"/> share</li> </ul> <p>When choosing share you will be prompted for:</p>

Step	Description	Notes
		Hostname: <i>sunpcc10.hq.sag</i> Portnumber: <i>53376</i>
7	Download location. This is the non-z/OS computer where you either download directly or placed the software distribution image.  <b>Note:</b> 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"> <li>■ Hostname of z/OS (from 1 above)</li> <li>■ User ID (from 4 above)</li> <li>■ Password (from 4 above)</li> <li>■ Temporary target upload directory</li> </ul> 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 <i>df</i> command shows the amount of free space available:  <i>da3f:saguser&gt; df -k /u/saguser/tmp</i>

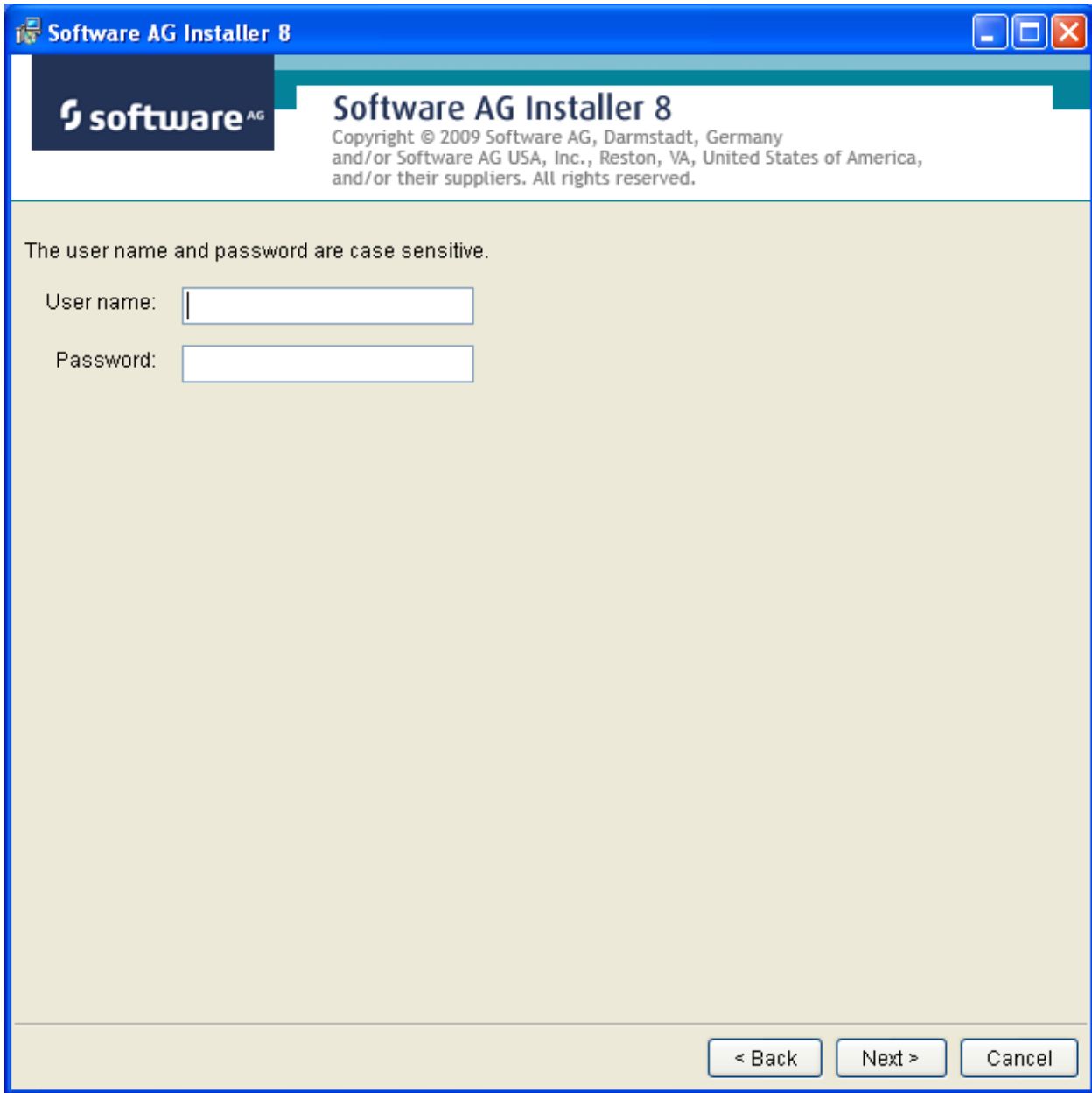
### Step 1: Use Software AG Installer to Acquire the Software

On the Software AG Installer Welcome Screen, click *Next* to start the installation.

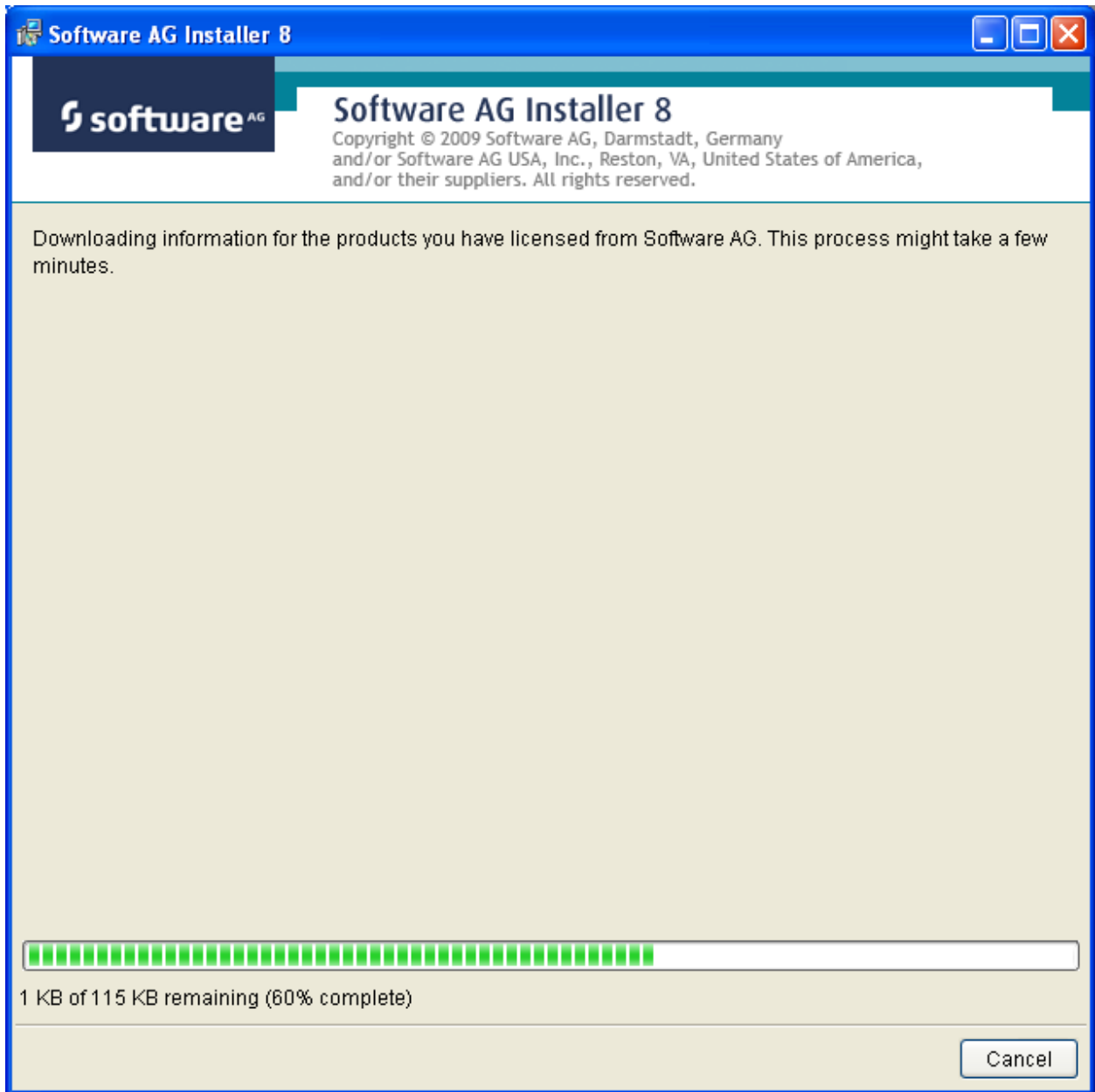




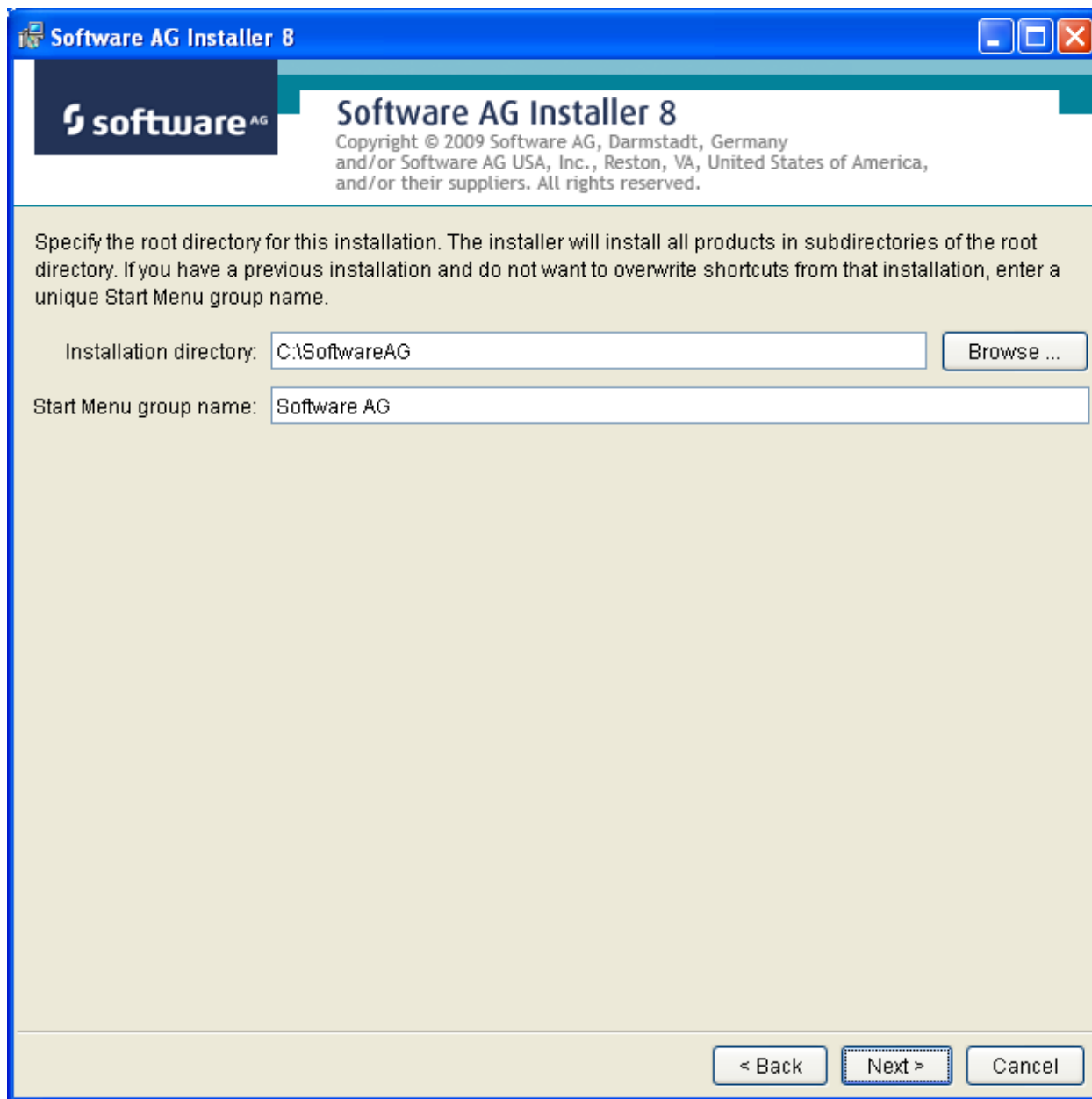
Identify yourself to the Installer by logging in with your credentials as shown below. Click Next to proceed to the next step:



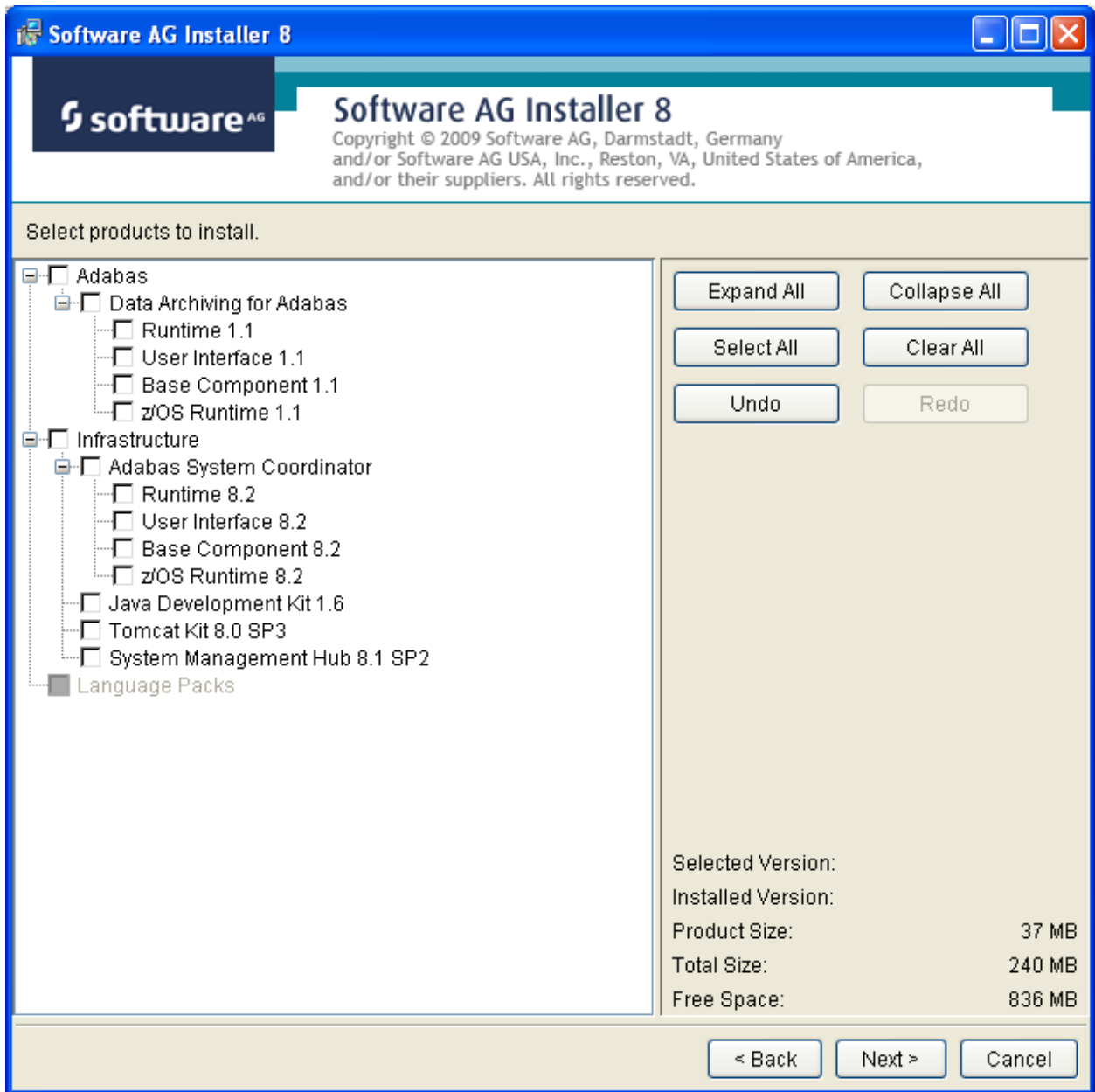
The Installer acquires information about a) all the products for which you are licensed and b) are able to be installed using the Installer. You can see this happening (below). It may take a few minutes:



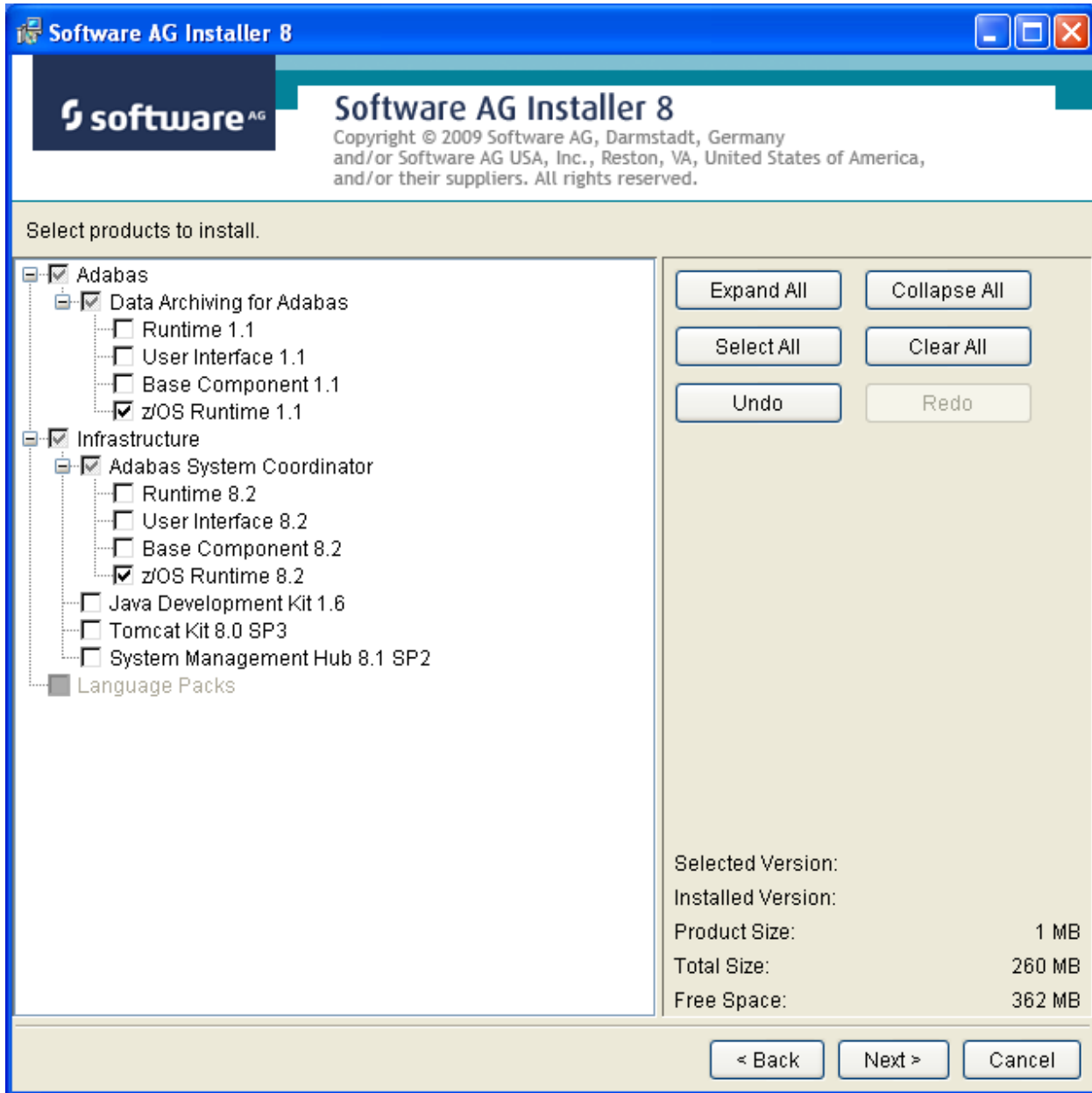
Once the Installer has acquired all licensing information for your site, it shows the default install location. You can alter this if you wish but make sure you understand the implications of changing it for all the products being installed. Click **Next** to proceed further:



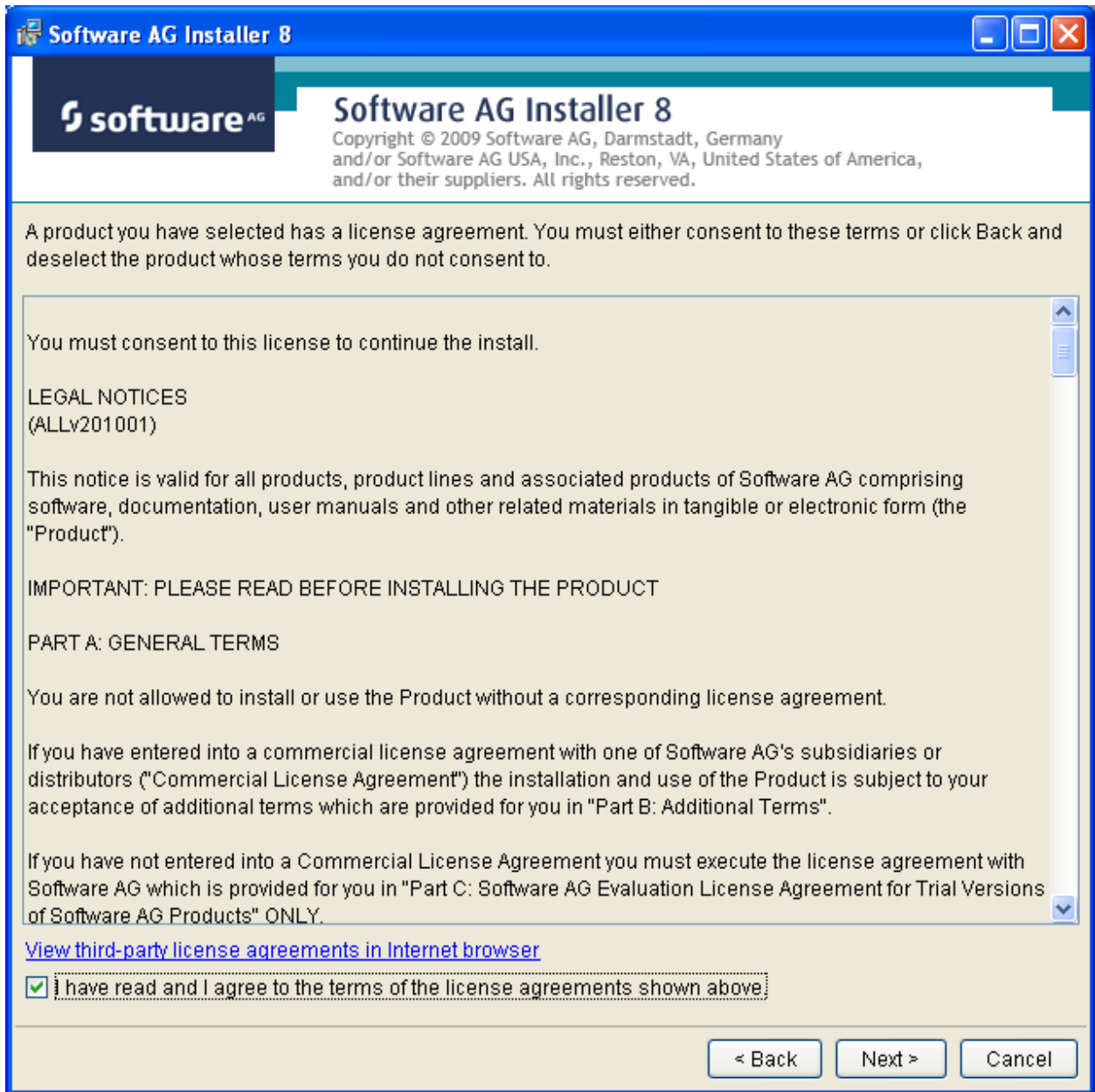
You can now choose the products that you wish to install:



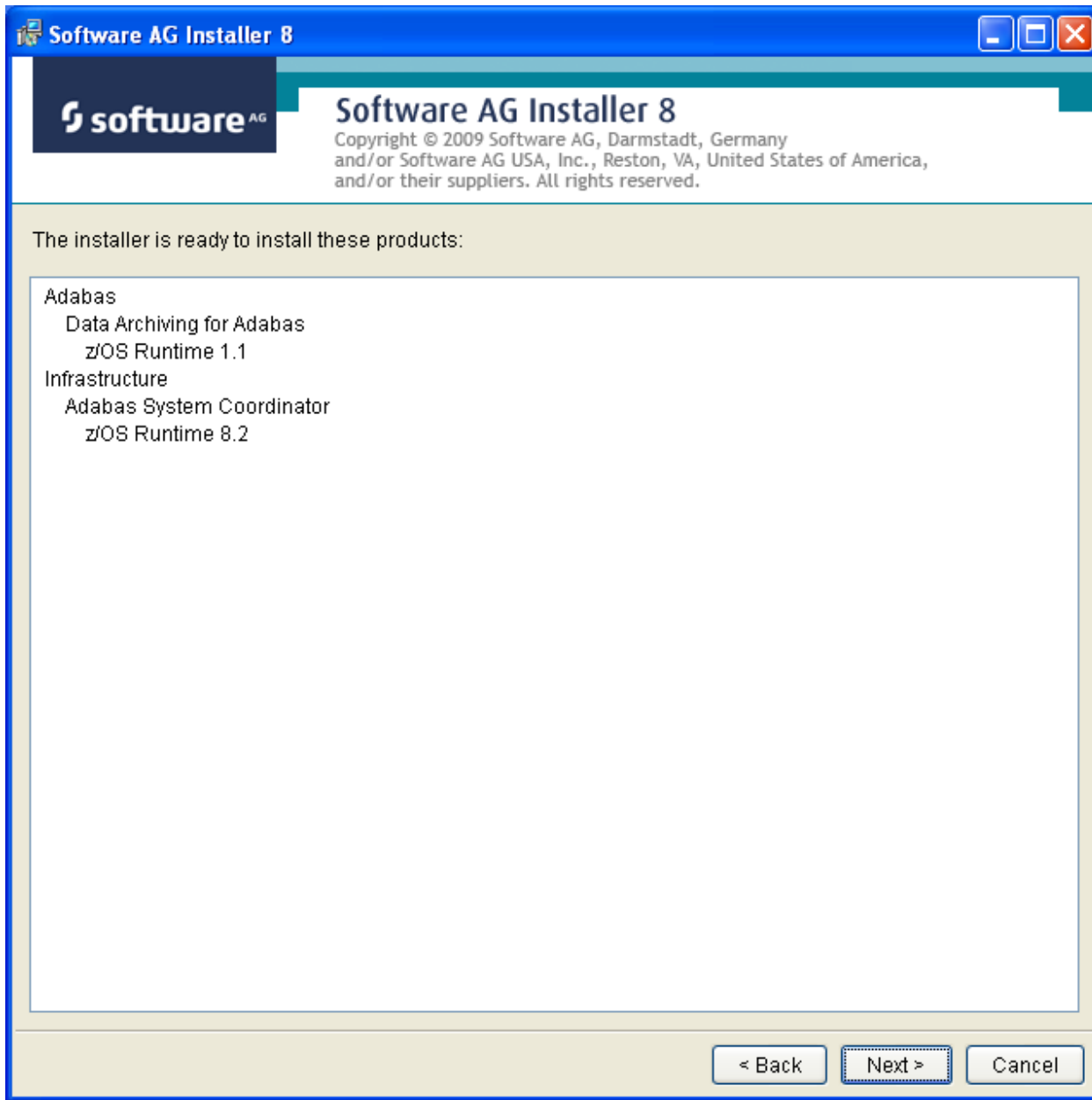
You can see below which products have been selected. In making these choices, other implied choices of sibling and prerequisite products are also made automatically. Once your selections are made, click **Next** to proceed:



Read the terms and conditions. When you have finished confirm you have done so by checking the box. Click **Next** to continue:

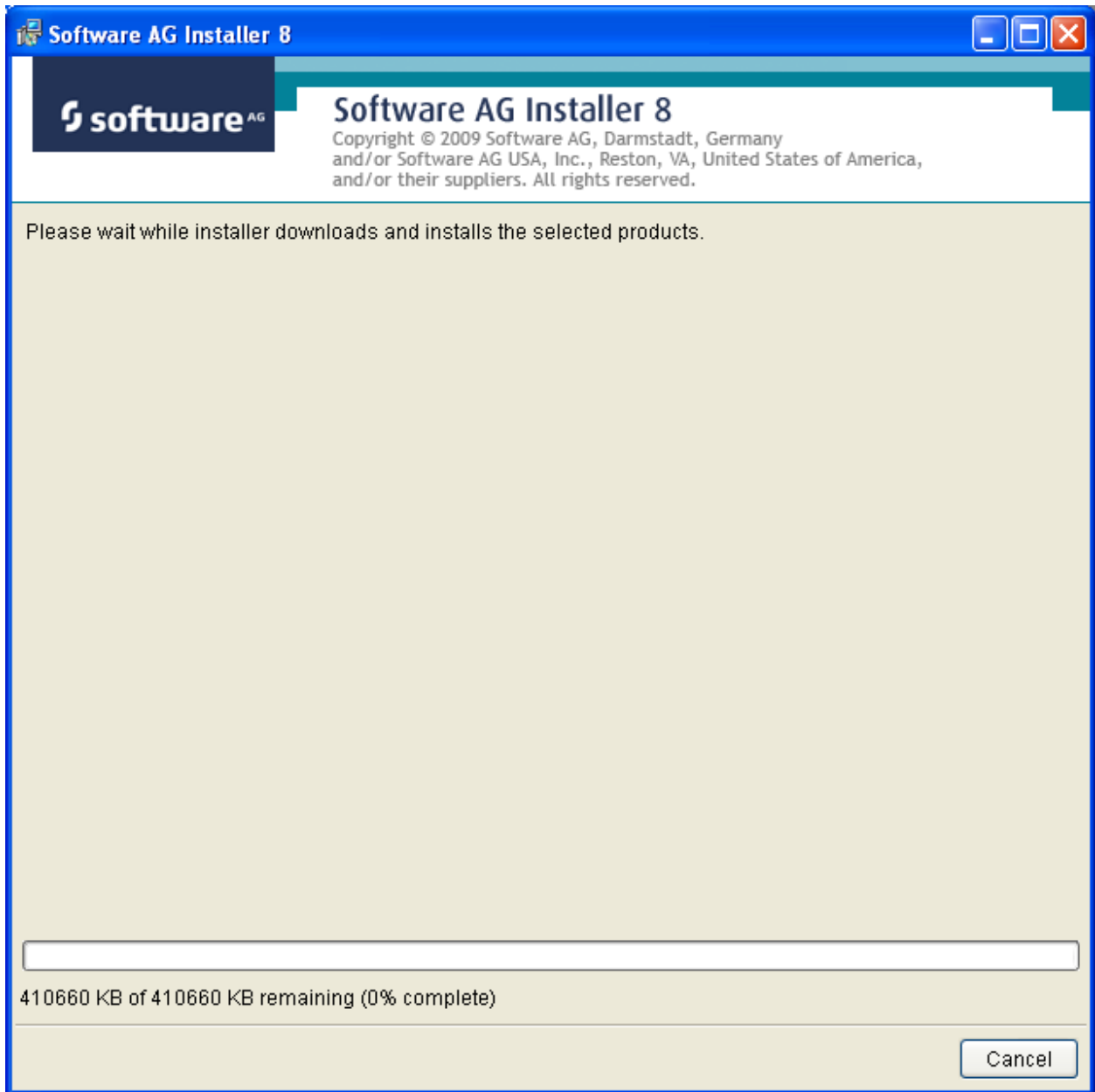


A list of the products selected for install is provided. Click **Next** to perform the installation:

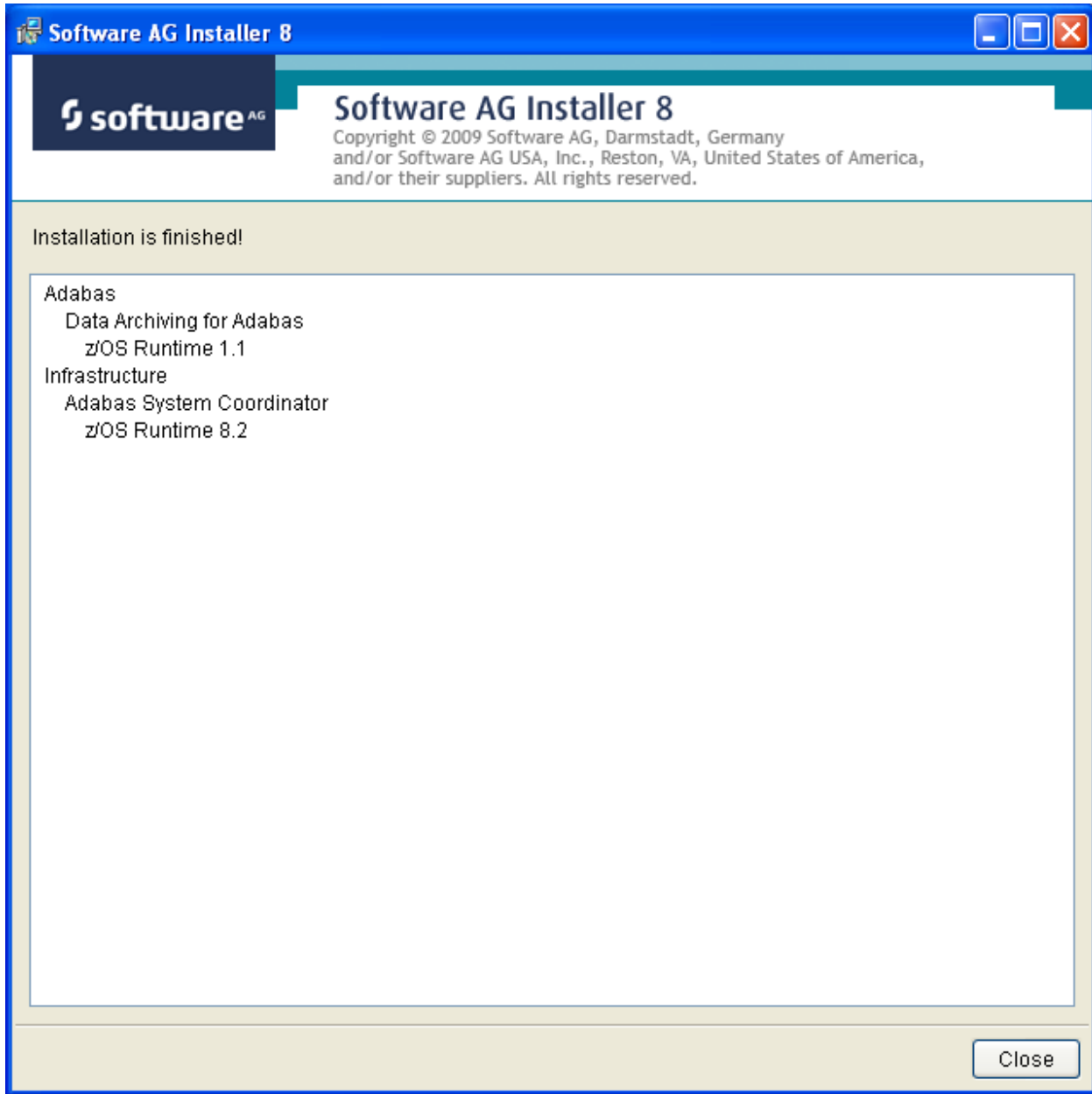


The installation may take some time.





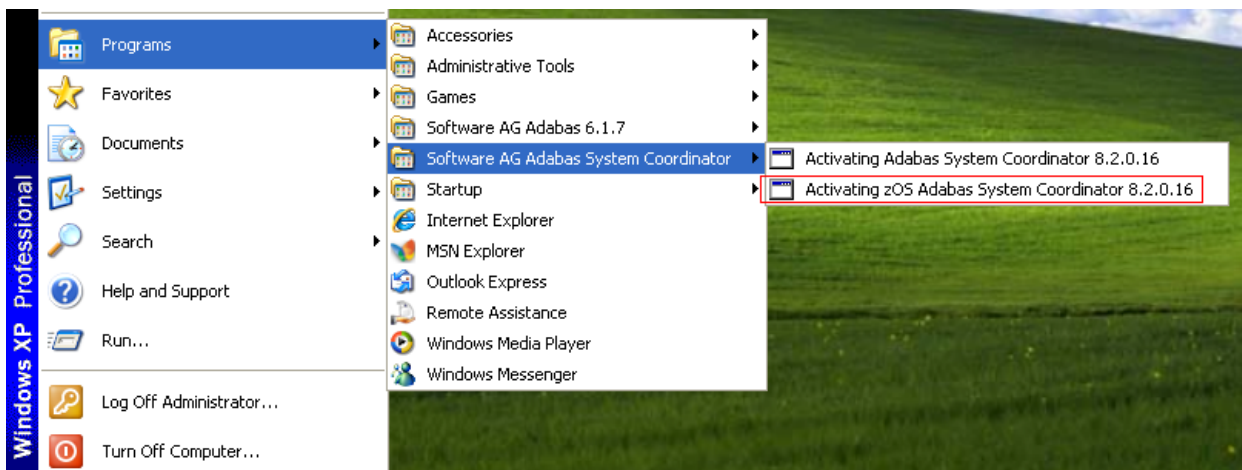
Once the installation of all the products is completed you will see the following confirmation screen:



### Step 2a: Perform the Off-host Activation (FTP) in Windows

Once the installation of the off-host UI portion is completed you can then start the (off-host) z/OS specific activation in that platform too. In Windows it is another start menu option (with z/OS in the name).

The following screen shows the start menu option for the z/OS part (marked in red) accompanied by Windows part too. Select z/OS as shown below:



Now you see the opening screen explaining that (z/OS) FTP information is needed. The first thing you must supply is the fully qualified hostname for z/OS FTP for your site. In the screen (below) you see a hostname has been supplied. Press **Enter** to continue once the hostname is correctly entered:

```

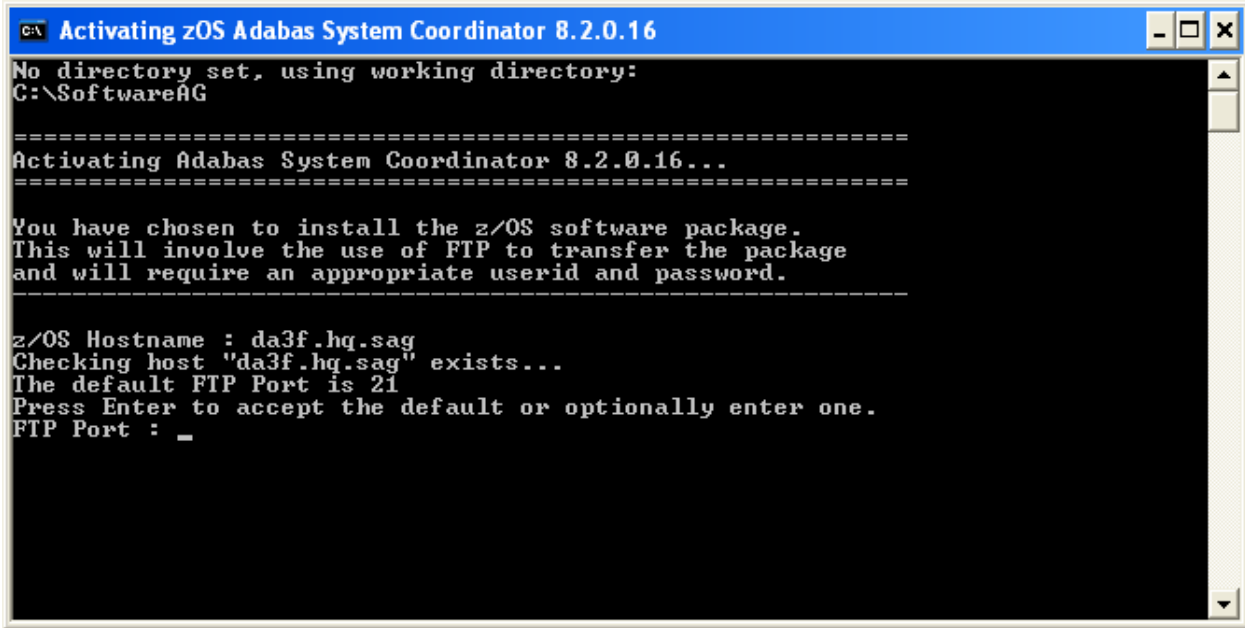
C:\ Activating z/OS Adabas System Coordinator 8.2.0.16
No directory set, using working directory:
C:\SoftwareAG

=====
Activating Adabas System Coordinator 8.2.0.16...
=====

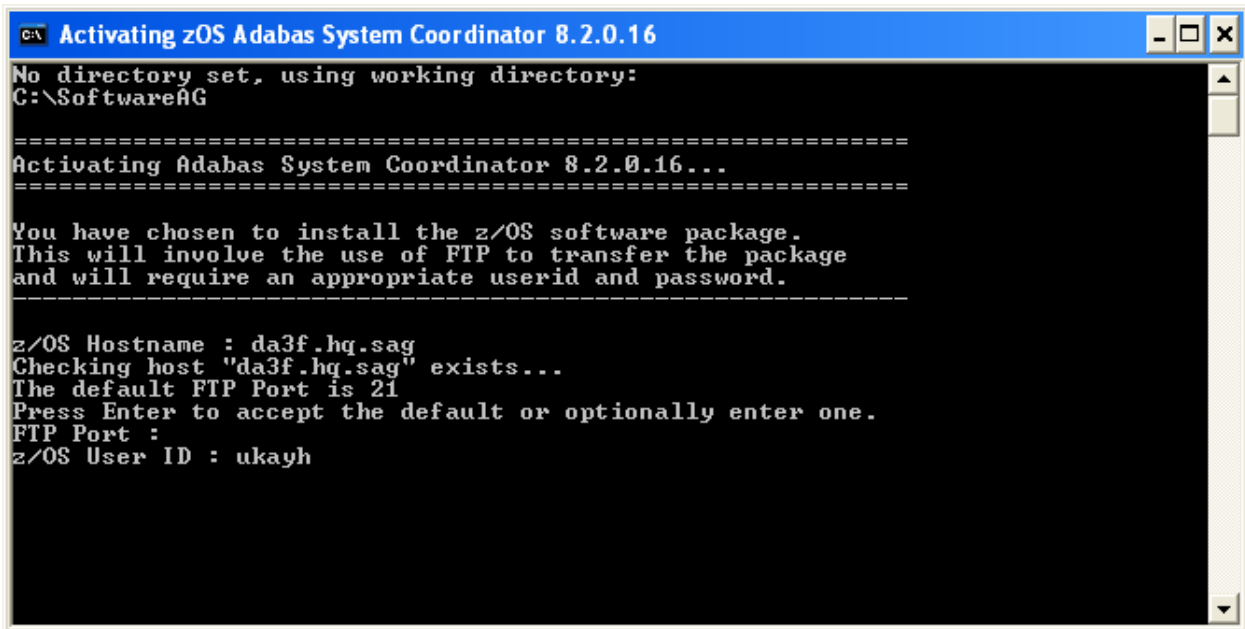
You have chosen to install the z/OS software package.
This will involve the use of FTP to transfer the package
and will require an appropriate userid and password.
-----

z/OS Hostname : da3f.hq.sag
  
```

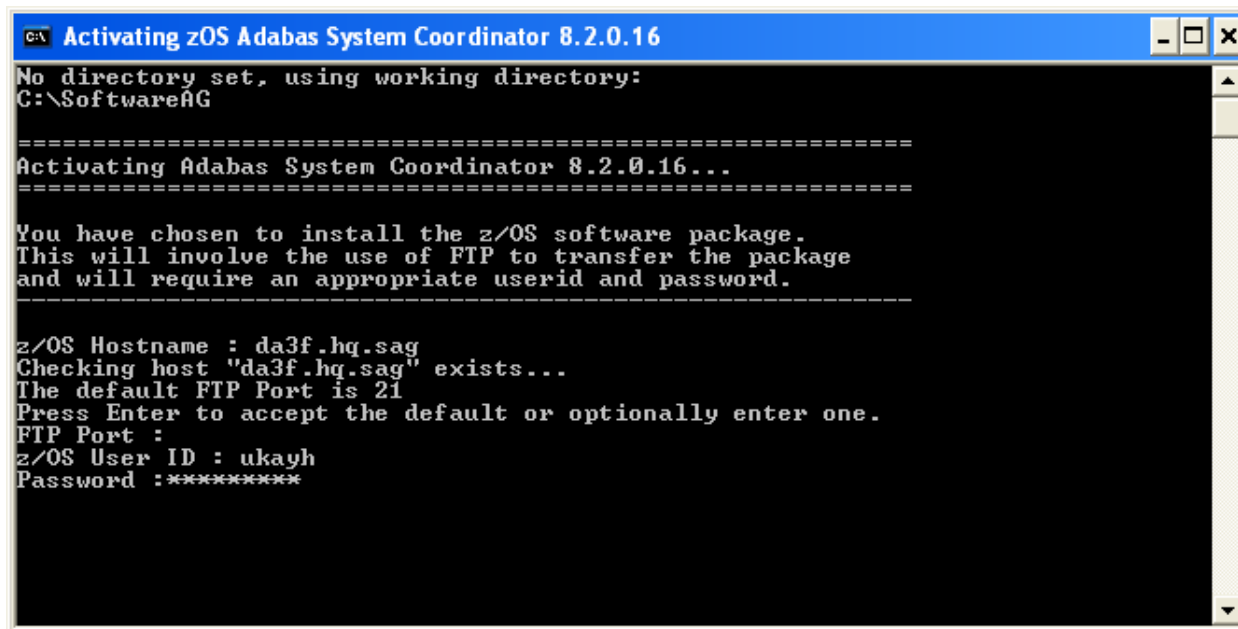
In the screen (below) you see the supplied hostname is checked to see if it can be reached. If it cannot be reached the hostname may be wrong, or perhaps firewall issues are preventing it being found. Once the hostname is validated you must identify the FTP port for your z/OS system. This is usually port 21, in which case you can just press **Enter** to use 21 as the default. If your FTP port is different then provide the port number here (see below):



A valid z/OS userid is needed to carry out an FTP operation too. Below you see one supplied:



And (below) a valid z/OS password is needed too:



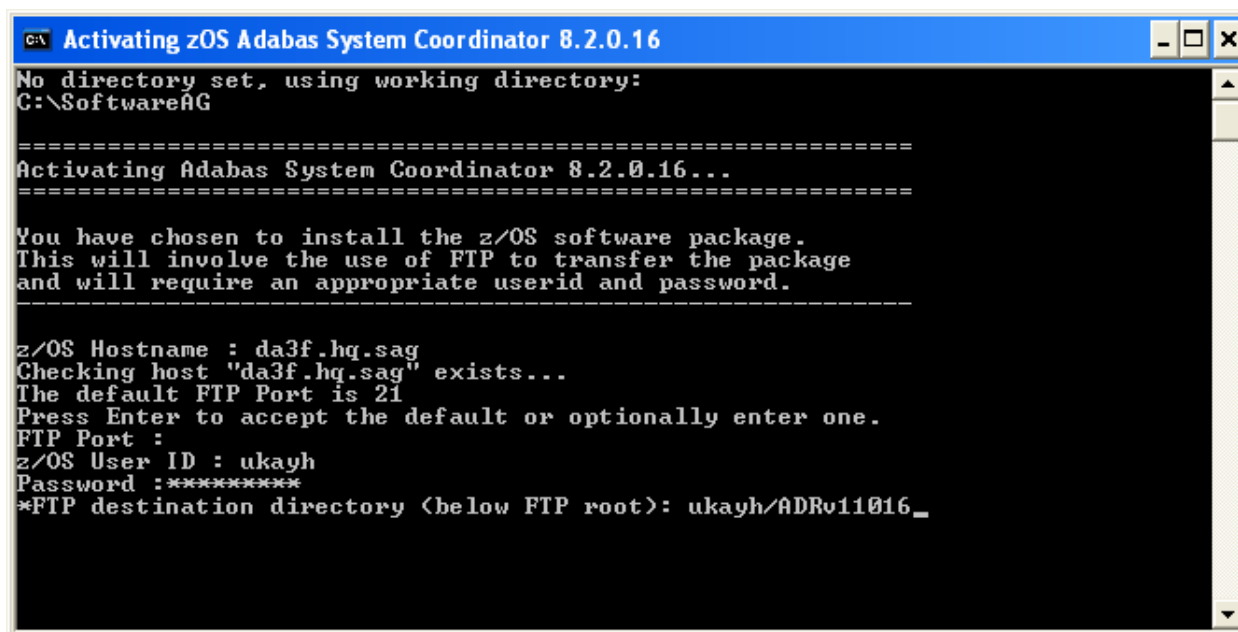
```
C:\ Activating z/OS Adabas System Coordinator 8.2.0.16
No directory set, using working directory:
C:\SoftwareAG

=====
Activating Adabas System Coordinator 8.2.0.16...
=====

You have chosen to install the z/OS software package.
This will involve the use of FTP to transfer the package
and will require an appropriate userid and password.
-----

z/OS Hostname : da3f.hq.sag
Checking host "da3f.hq.sag" exists...
The default FTP Port is 21
Press Enter to accept the default or optionally enter one.
FTP Port :
z/OS User ID : ukayh
Password :*****
```

You also need to identify a new directory (to be automatically created within the FTP root directory in z/OS) to where the software will be copied, as you see below:



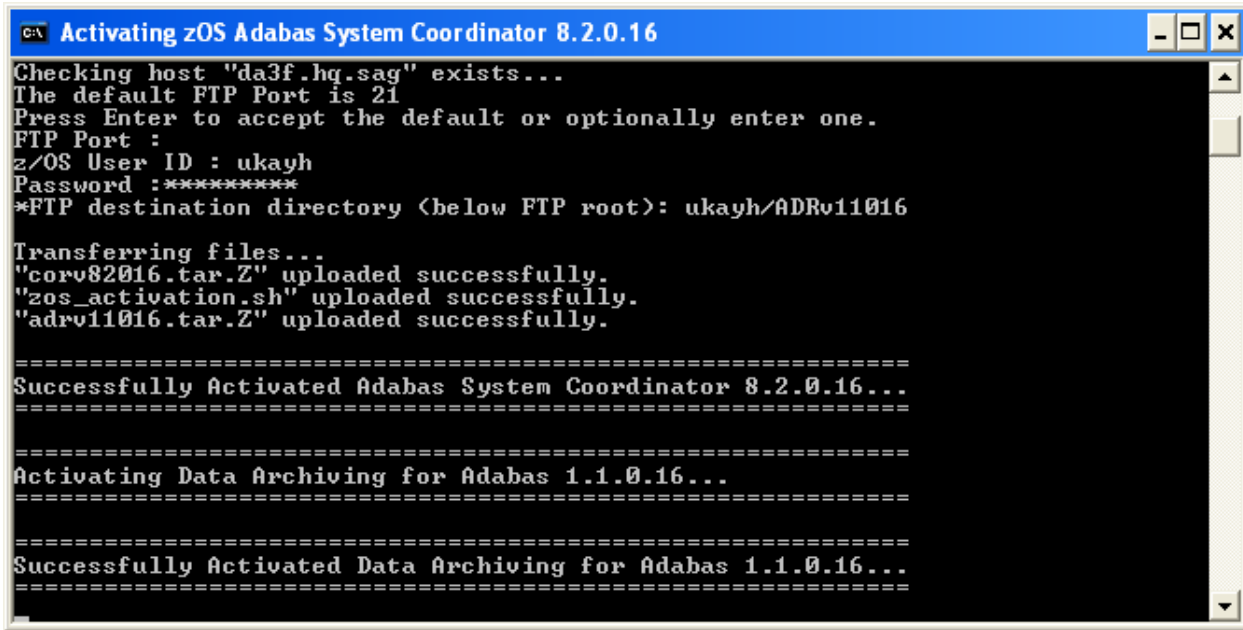
```
C:\ Activating z/OS Adabas System Coordinator 8.2.0.16
No directory set, using working directory:
C:\SoftwareAG

=====
Activating Adabas System Coordinator 8.2.0.16...
=====

You have chosen to install the z/OS software package.
This will involve the use of FTP to transfer the package
and will require an appropriate userid and password.
-----

z/OS Hostname : da3f.hq.sag
Checking host "da3f.hq.sag" exists...
The default FTP Port is 21
Press Enter to accept the default or optionally enter one.
FTP Port :
z/OS User ID : ukayh
Password :*****
*FTP destination directory (below FTP root): ukayh/ADRV11016_
```

Finally, when all the information is gathered, the FTP executes, and you get final confirmation messages as you see below:



```
C:\ Activating z/OS Adabas System Coordinator 8.2.0.16
Checking host "da3f.hq.sag" exists...
The default FTP Port is 21
Press Enter to accept the default or optionally enter one.
FTP Port :
z/OS User ID : ukayh
Password :*****
*FTP destination directory (below FTP root): ukayh/ADRv11016

Transferring files...
"corv82016.tar.Z" uploaded successfully.
"zos_activation.sh" uploaded successfully.
"adrv11016.tar.Z" uploaded successfully.

=====
Successfully Activated Adabas System Coordinator 8.2.0.16...
=====

=====
Activating Data Archiving for Adabas 1.1.0.16...
=====

=====
Successfully Activated Data Archiving for Adabas 1.1.0.16...
=====
```

You are now ready to go into z/OS to take the final step to activate the software. Go to step 3.

### Step 2b: Perform the Off-Host Activation (FTP) in Solaris

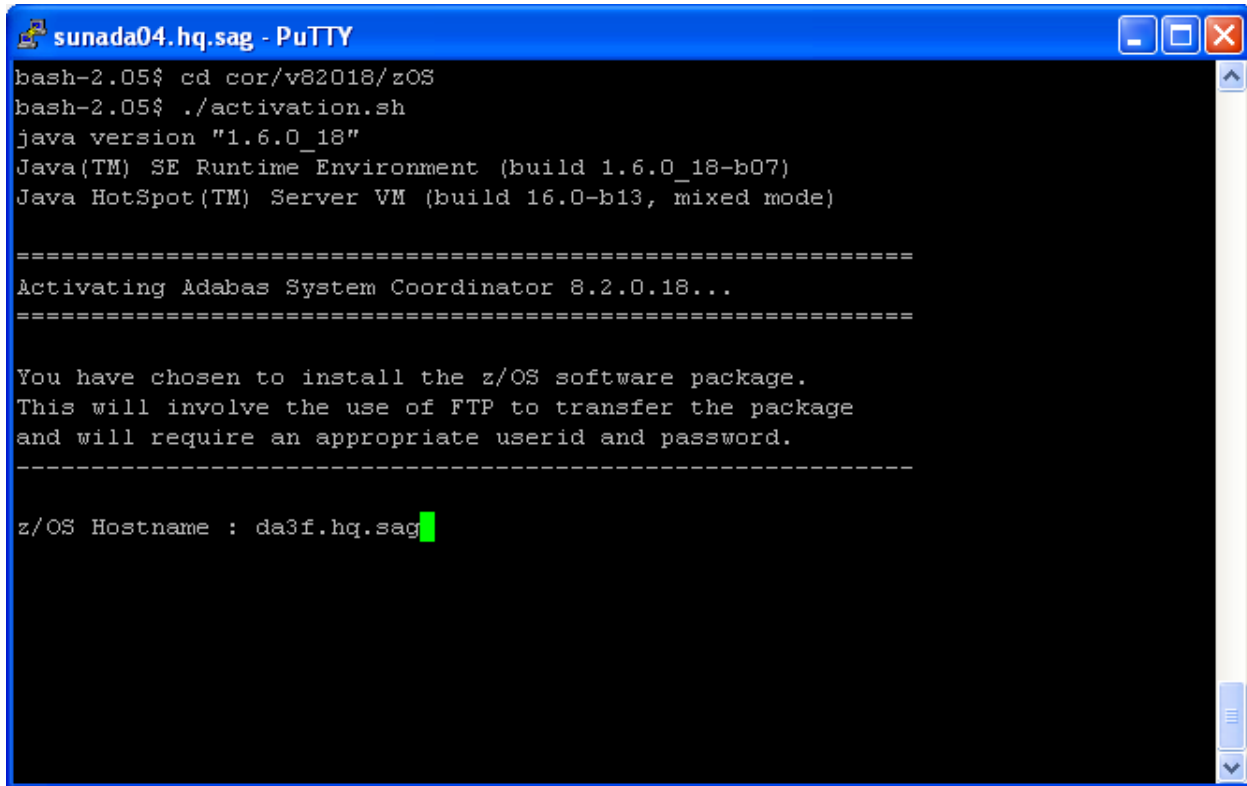
Once the installation of the off-host UI portion is completed you can then start the (off-host) z/OS specific activation in that platform too.

In Solaris navigate to the subdirectory *cor/v82018/zOS* and run the command *.activation.sh*.

A screenshot of a PuTTY terminal window titled "sunada04.hq.sag - PuTTY". The terminal shows a shell prompt "bash-2.05\$" followed by the command "cd cor/v82018/zOS" and another prompt "bash-2.05\$" followed by the command "./activation.sh". A green cursor is visible at the end of the second command. The terminal background is black, and the window has a blue border with standard window controls (minimize, maximize, close) in the top right corner.

```
sunada04.hq.sag - PuTTY
bash-2.05$ cd cor/v82018/zOS
bash-2.05$ ./activation.sh
```

Now you see the opening screen explaining that (z/OS) FTP information is needed. The first thing you must supply is the fully qualified hostname for z/OS FTP for your site. In the screen (below) you see a hostname has been supplied. Press `Enter` to continue once the hostname is correctly entered:



```
sunada04.hq.sag - PuTTY
bash-2.05$ cd cor/v82018/zOS
bash-2.05$ ./activation.sh
java version "1.6.0_18"
Java(TM) SE Runtime Environment (build 1.6.0_18-b07)
Java HotSpot(TM) Server VM (build 16.0-b13, mixed mode)

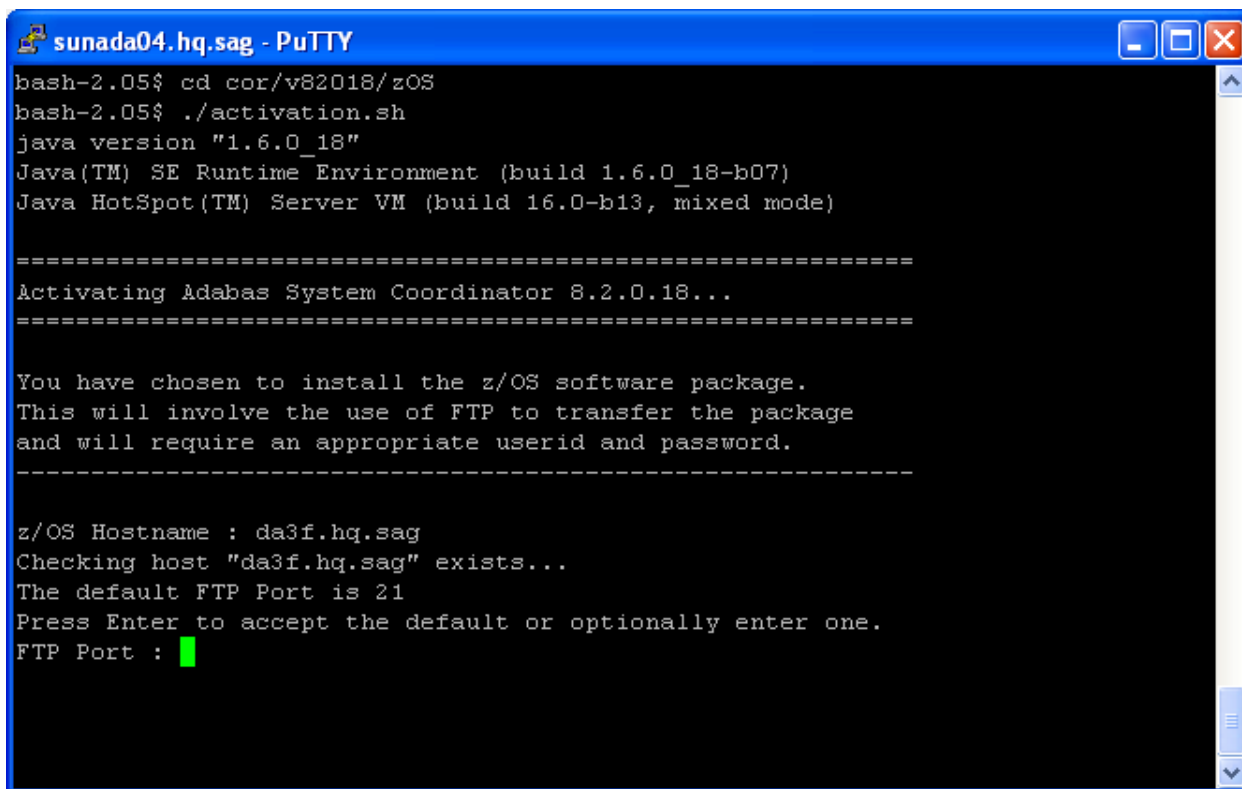
=====
Activating Adabas System Coordinator 8.2.0.18...
=====

You have chosen to install the z/OS software package.
This will involve the use of FTP to transfer the package
and will require an appropriate userid and password.
-----

z/OS Hostname : da3f.hq.sag
```

In the screen (below) you see the supplied hostname is checked to see if it can be reached. If it cannot be reached the hostname may be wrong, or perhaps firewall issues are preventing it being found. Once the hostname is validated you must identify the FTP port for your z/OS system. This is usually port 21, in which case you can just press Enter to use 21 as the default. If your FTP port is different then provide the port number here (see below):





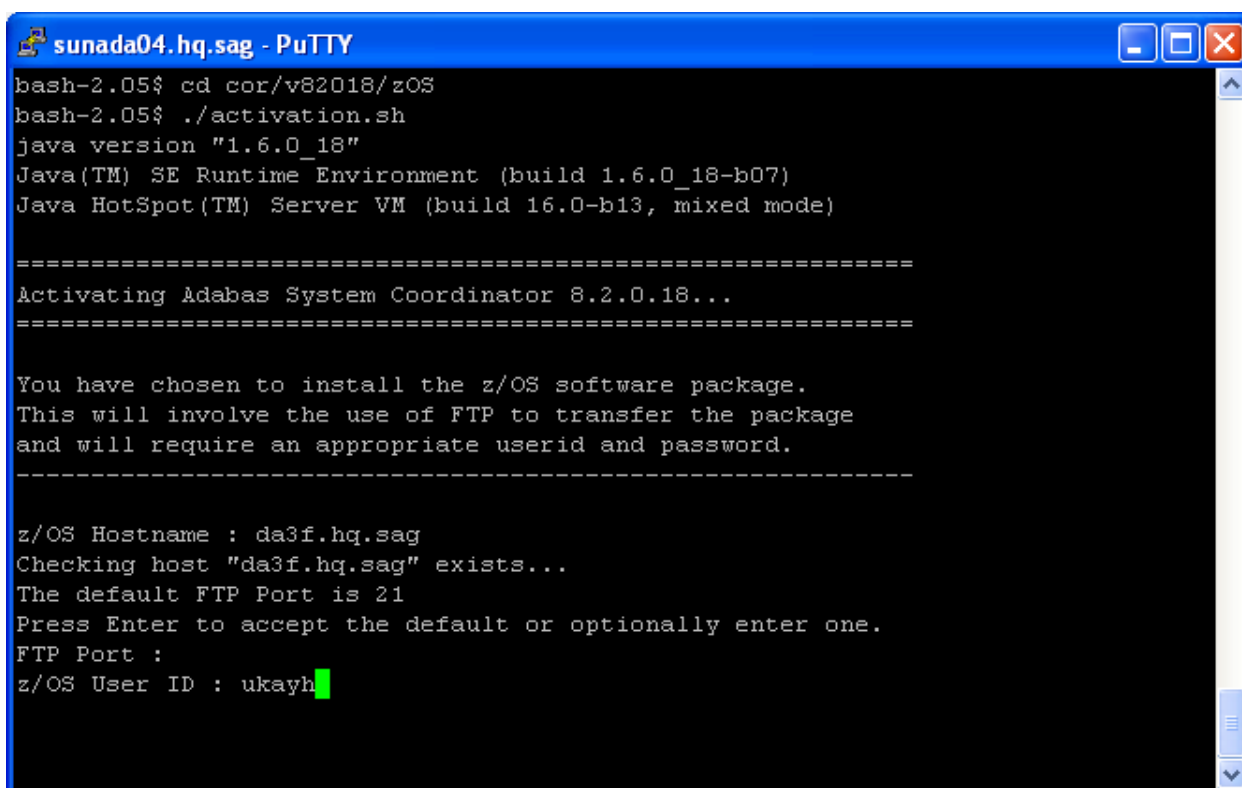
```
sunada04.hq.sag - PuTTY
bash-2.05$ cd cor/v82018/zOS
bash-2.05$ ./activation.sh
java version "1.6.0_18"
Java(TM) SE Runtime Environment (build 1.6.0_18-b07)
Java HotSpot(TM) Server VM (build 16.0-b13, mixed mode)

=====
Activating Adabas System Coordinator 8.2.0.18...
=====

You have chosen to install the z/OS software package.
This will involve the use of FTP to transfer the package
and will require an appropriate userid and password.
-----

z/OS Hostname : da3f.hq.sag
Checking host "da3f.hq.sag" exists...
The default FTP Port is 21
Press Enter to accept the default or optionally enter one.
FTP Port : █
```

A valid z/OS userid is needed to carry out an FTP operation too. Below you see one supplied:



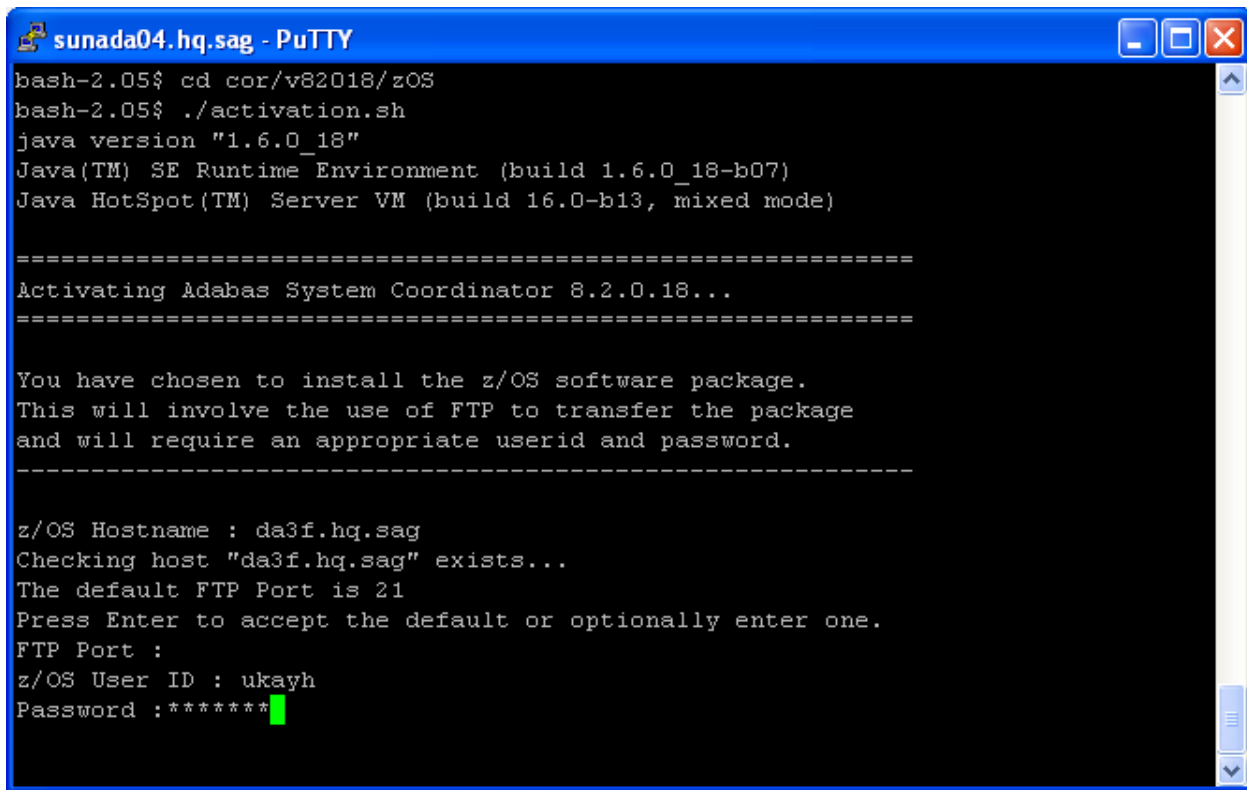
```
sunada04.hq.sag - PuTTY
bash-2.05$ cd cor/v82018/zOS
bash-2.05$ ./activation.sh
java version "1.6.0_18"
Java(TM) SE Runtime Environment (build 1.6.0_18-b07)
Java HotSpot(TM) Server VM (build 16.0-b13, mixed mode)

=====
Activating Adabas System Coordinator 8.2.0.18...
=====

You have chosen to install the z/OS software package.
This will involve the use of FTP to transfer the package
and will require an appropriate userid and password.
-----

z/OS Hostname : da3f.hq.sag
Checking host "da3f.hq.sag" exists...
The default FTP Port is 21
Press Enter to accept the default or optionally enter one.
FTP Port :
z/OS User ID : ukayh █
```

And (below) a valid z/OS password is needed too:



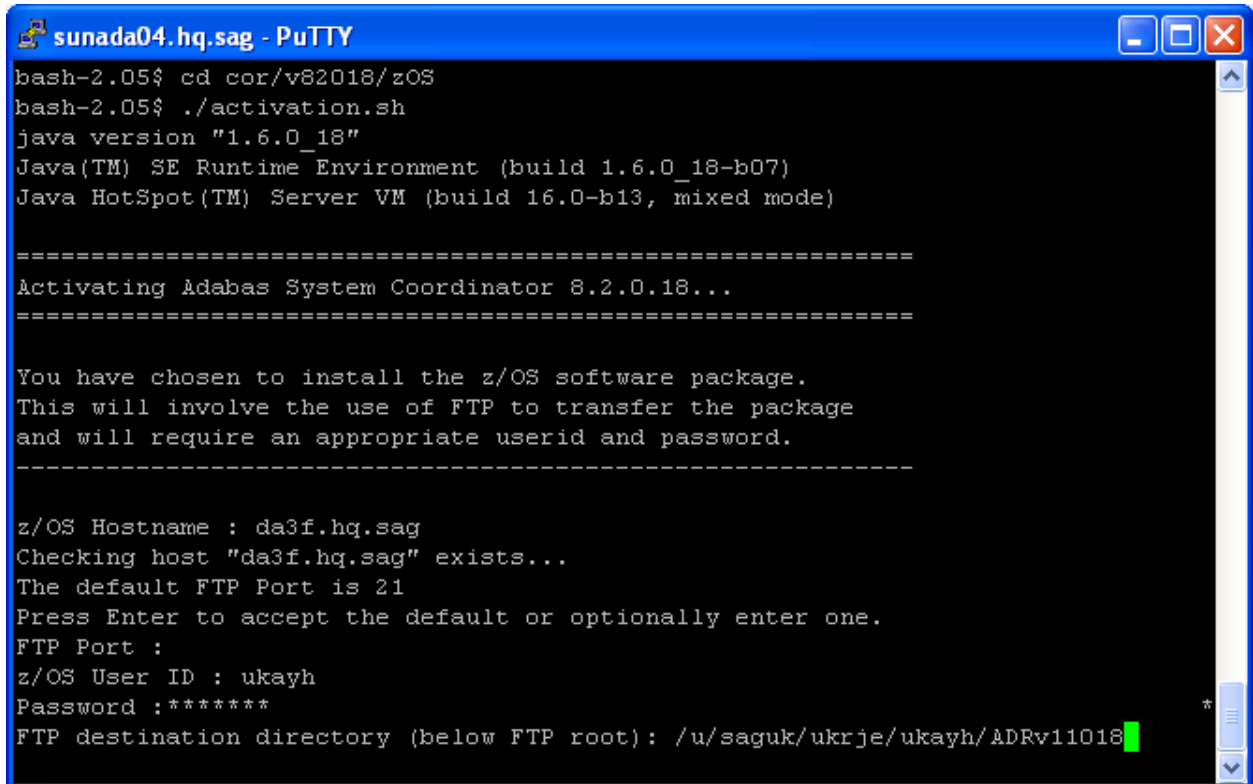
```
sunada04.hq.sag - PuTTY
bash-2.05$ cd cor/v82018/zOS
bash-2.05$ ./activation.sh
java version "1.6.0_18"
Java(TM) SE Runtime Environment (build 1.6.0_18-b07)
Java HotSpot(TM) Server VM (build 16.0-b13, mixed mode)

=====
Activating Adabas System Coordinator 8.2.0.18...
=====

You have chosen to install the z/OS software package.
This will involve the use of FTP to transfer the package
and will require an appropriate userid and password.
-----

z/OS Hostname : da3f.hq.sag
Checking host "da3f.hq.sag" exists...
The default FTP Port is 21
Press Enter to accept the default or optionally enter one.
FTP Port :
z/OS User ID : ukayh
Password :*****
```

You also need to identify a new directory (to be automatically created within the FTP root directory in z/OS) to where the software will be copied, as you see below:



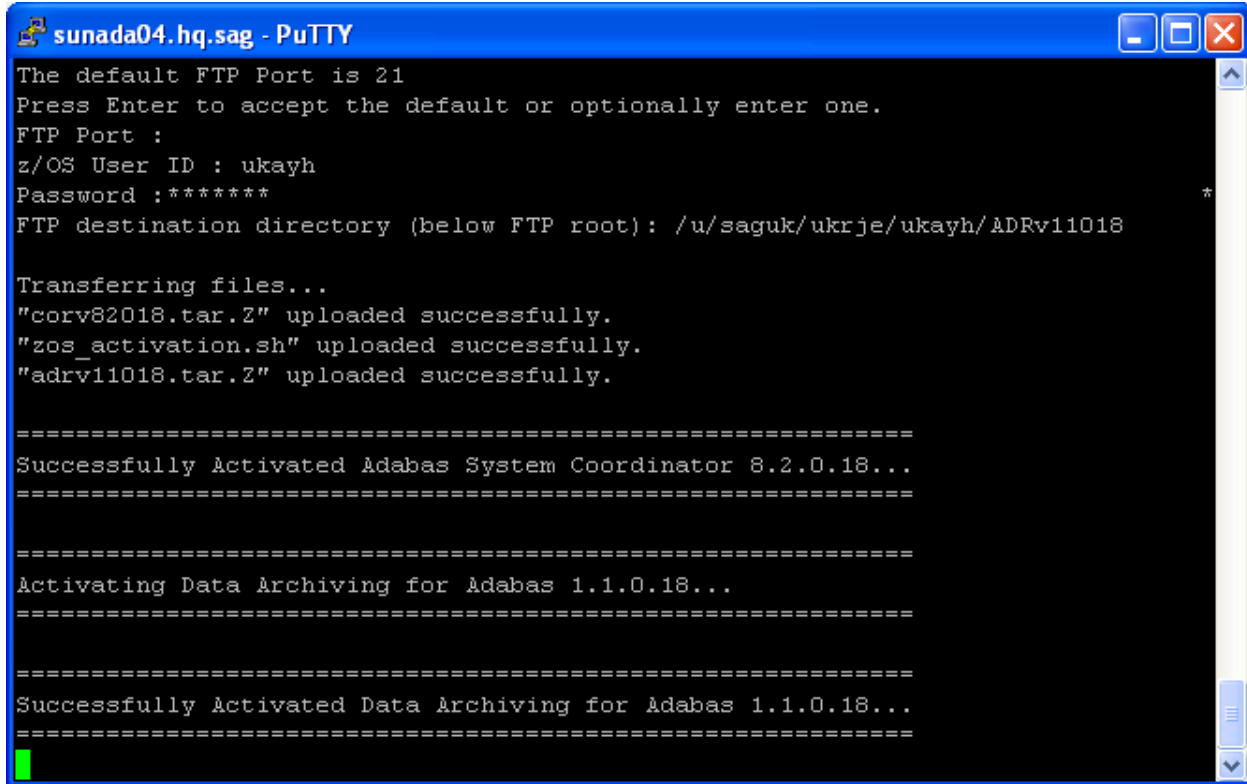
```
sunada04.hq.sag - PuTTY
bash-2.05$ cd cor/v82018/zOS
bash-2.05$ ./activation.sh
java version "1.6.0_18"
Java(TM) SE Runtime Environment (build 1.6.0_18-b07)
Java HotSpot(TM) Server VM (build 16.0-b13, mixed mode)

=====
Activating Adabas System Coordinator 8.2.0.18...
=====

You have chosen to install the z/OS software package.
This will involve the use of FTP to transfer the package
and will require an appropriate userid and password.
-----

z/OS Hostname : da3f.hq.sag
Checking host "da3f.hq.sag" exists...
The default FTP Port is 21
Press Enter to accept the default or optionally enter one.
FTP Port :
z/OS User ID : ukayh
Password :*****
FTP destination directory (below FTP root): /u/saguk/ukrje/ukayh/ADRv11018
```

Finally, when all the information is gathered, the FTP executes, and you get final confirmation messages as you see below:



```
sunada04.hq.sag - PuTTY
The default FTP Port is 21
Press Enter to accept the default or optionally enter one.
FTP Port :
z/OS User ID : ukayh
Password :*****
FTP destination directory (below FTP root): /u/saguk/ukrje/ukayh/ADRv11018

Transferring files...
"corv82018.tar.Z" uploaded successfully.
"zos_activation.sh" uploaded successfully.
"adrv11018.tar.Z" uploaded successfully.

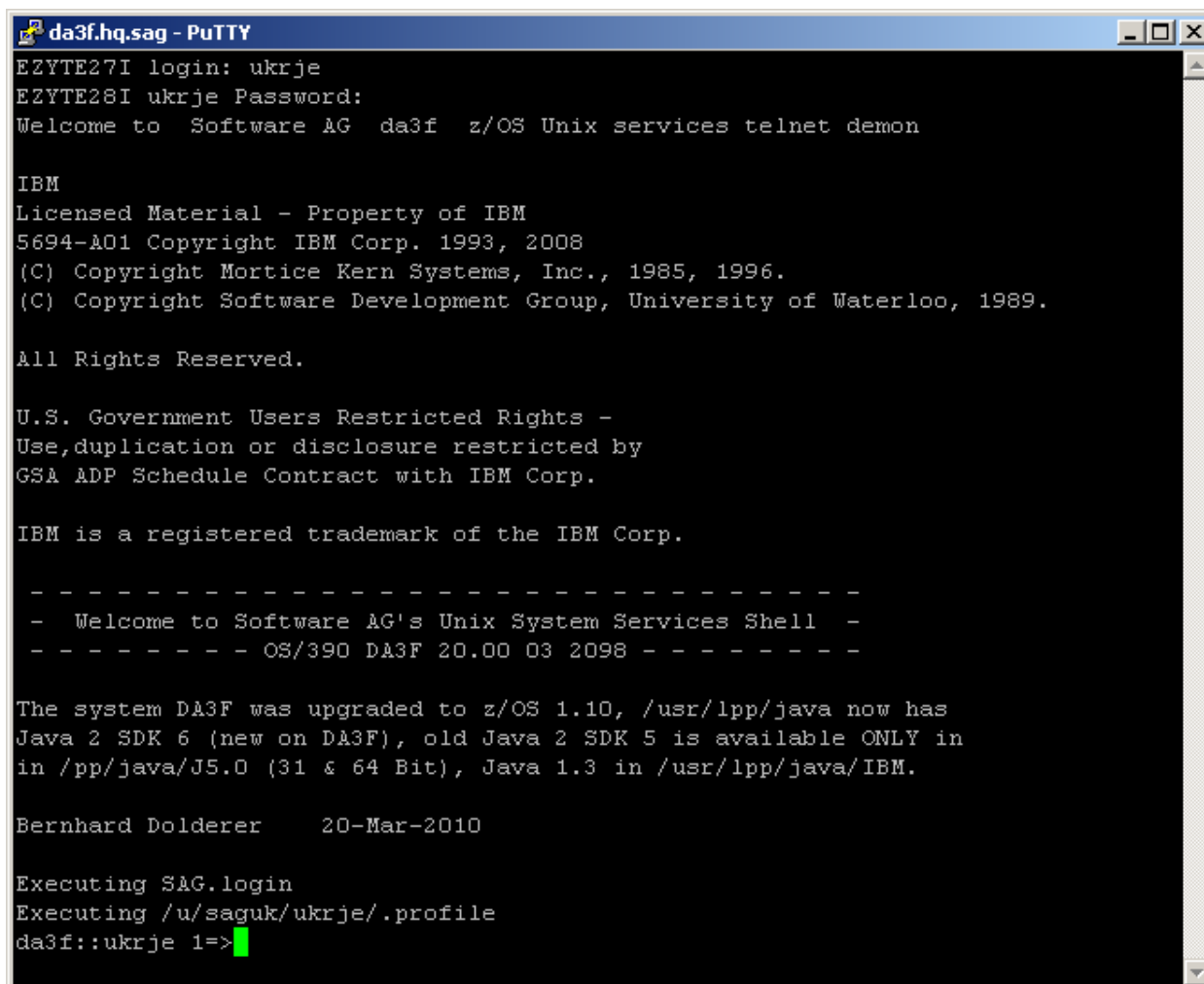
=====
Successfully Activated Adabas System Coordinator 8.2.0.18...
=====

=====
Activating Data Archiving for Adabas 1.1.0.18...
=====

=====
Successfully Activated Data Archiving for Adabas 1.1.0.18...
=====
```

### Step 3: Login to USS in z/OS

Get into your USS (OMVS) system by TSO OMVS command or telnet <computer> <port> .



```
da3f.hq.sag - PuTTY
EZYTE27I login: ukrje
EZYTE28I ukrje Password:
Welcome to Software AG da3f z/OS Unix services telnet demon

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5694-A01 Copyright IBM Corp. 1993, 2008
(C) Copyright Mortice Kern Systems, Inc., 1985, 1996.
(C) Copyright Software Development Group, University of Waterloo, 1989.

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U.S. Government Users Restricted Rights -
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- - - - -
- Welcome to Software AG's Unix System Services Shell -
- - - - - OS/390 DA3F 20.00 03 2098 - - - - -

The system DA3F was upgraded to z/OS 1.10, /usr/lpp/java now has
Java 2 SDK 6 (new on DA3F), old Java 2 SDK 5 is available ONLY in
in /pp/java/J5.0 (31 & 64 Bit), Java 1.3 in /usr/lpp/java/IBM.

Bernhard Dolderer      20-Mar-2010

Executing SAG.login
Executing /u/saguk/ukrje/.profile
da3f::ukrje 1=>
```

#### Step 4: Finish Activation in z/OS

Change directory to the new one created by the FTP step above. Once you are in that directory enter `./zos_activation.sh` at the command prompt to execute the final z/OS runtime activation. The first display lists all the information that you will need to supply in order to complete the activation, as seen below:

```

da3f.hq.sag - PuTTY
da3f:~ukrje 4=>./zos_activation.sh
*****
# # #           Adabas Add-On Products           # # #
# # #           z/OS COR and ADR activation       # # #
*****
Before you start have the following information at hand:
 1. Path to the Software AG product directory e.g. /opt/softwareag
 2. The dataset name where AD&LNKR & LNKGBLS reside
 3. Database number of the configuration file
 4. File number of the configuration file
 5. If you are to use a shared configuration file on another computer:
 5.1 The host name of the computer where the file resides
 5.2 The group services port number on that other computer
     The default is 53376

Any key to continue or q|Q to quit:-

```

Having pressed *Enter* (or any key) to continue at the preceding screen you now need to identify the path to the general Software AG software directory (it usually ends in */opt/softwareag* or similar), as below:

```

5.2 The group services port number on that other computer
     The default is 53376

Any key to continue or q|Q to quit:-

Enter a valid path to the Software AG product directory:
/u/saguk/ukrje/opt/softwareag

```

Now identify the normal z/OS dataset where AD&LNKR and LNKGBLS have been prepared (as in the preparation steps above), as below:

```

Any key to continue or q|Q to quit:-

Enter a valid path to the Software AG product directory:
/u/saguk/ukrje/opt/softwareag

Enter AD&LNKR & LNKGBLS dataset name:
RDU.RJE.OBJ

```

Now identify the database number where the configuration file is to reside (or perhaps already resides). Then provide the file number for the configuration file too. Both prompts can be seen filled in below:

```
/u/saguk/uklje/opt/softwareag  
  
Enter ADALNKR & LNKGBLS dataset name:  
RDU.RJE.OBJ  
  
Configuration database number:- 1  
  
Configuration database file number:- 501
```

Having identified the database and file number of the configuration file, you now need to indicate if the file was previously installed in another computer or if it is to be created new or if an existing one is to be overlaid. This time we choose to share a file that already exists by choosing option 3 below (we do this because this involves more steps to show you here as a useful example):

```
Configuration database file number:- 501  
  
How do you want to access the configuration file?  
  1. Create (create a new file locally)  
  2. Replace (overwrite existing local file)  
  3. Share (use a shared file in another COR/ADR computer)  
Enter option:- 3
```

To use a file from a previous install in another computer you must first identify the fully qualified hostname, as you can see below:

```
Configuration database file number:- 501  
  
How do you want to access the configuration file?  
  1. Create (create a new file locally)  
  2. Replace (overwrite existing local file)  
  3. Share (use a shared file in another COR/ADR computer)  
Enter option:- 3  
  
Enter the host name of the computer where the shared config resides:  
rjelinux.eur.ad.sag
```

And you also need to identify the group services port used in that other computer by the previous install. The default is 53376 which is used below:

```
Configuration database file number:- 501

How do you want to access the configuration file?
  1. Create (create a new file locally)
  2. Replace (overwrite existing local file)
  3. Share (use a shared file in another COR/ADR computer)
Enter option:- 3

Enter the host name of the computer where the shared config resides:
rjlinux.eur.ad.sag

Enter the group services port number on rjlinux.eur.ad.sag
(default 53376):- 53376
```

Once all the settings are known they are displayed back to you for confirmation. If you see any that are incorrect then enter the number for any option in order to re-enter it. Once you are happy all is well then press C to continue or <Ctrl C> (you can re-run the activation) to quit, any other key will be ignored...

Now the main part of the activation executes. Below you see the install files copied, uncompressed, etc. and finally you are asked if you want the software to be started up...

```
7. Port number on rjlinux.eur.ad.sag: 53376
Enter number to modify a parameter or (c|C) to continue:- c

Copying files.....done
Uncompressing files.....done
Tidying up files...done

Running COR install..
Configuring Adabas System Coordinator ...
done

Running ADR install..
Configuring Data Archiving for Adabas ...
done

Do you wish to start the corlc service? (y|n):- y
Starting corlc...
Starting Adabas System Coordinator Launch Control ...
PID 16975719
Done.
..done

To manually start, stop or restart the corlc service issue the
following command:
  /DA3F/u/saguk/ukrje/opt/softwareag/cor/v82018/INSTALL/cor.sh start|stop
|restart
Setup complete
da3f::ukrje 5=>
da3f::ukrje 5=
```



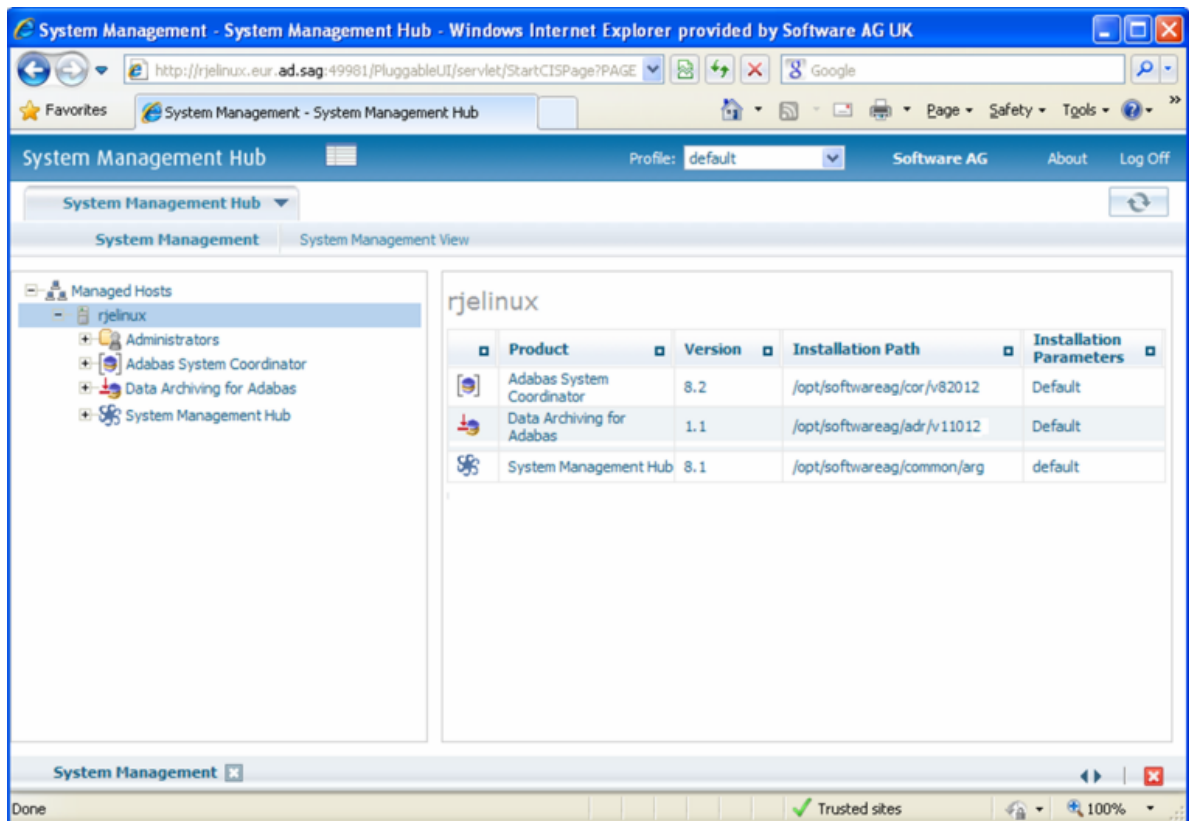
Now that the software (runtime) is started you are ready to use it through the browser from a non-z/OS platform that will reach out to the runtime in z/OS.

## Use the Runtime from the Browser UI

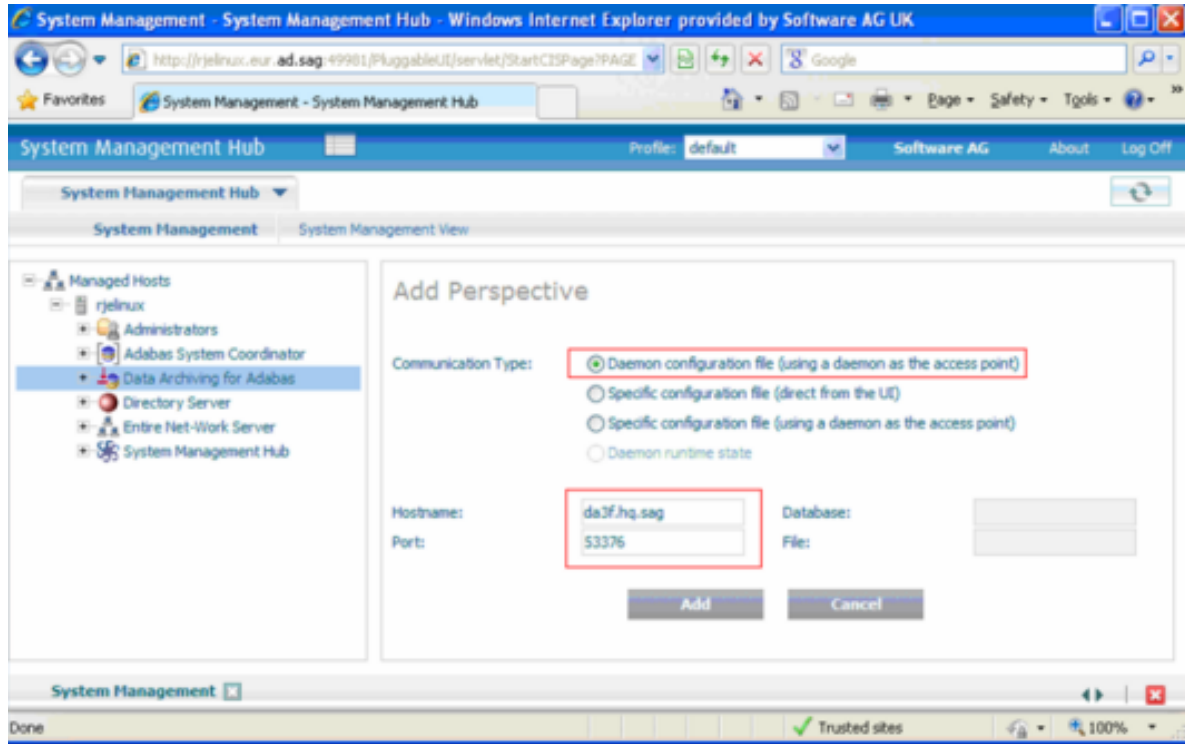
After installing the ADR runtime for the first time you must activate the ADR runtime within the UI browser. The browser (and prerequisite System Management Hub) must have been previously installed.

### ► to use the Runtime from the Browser UI:

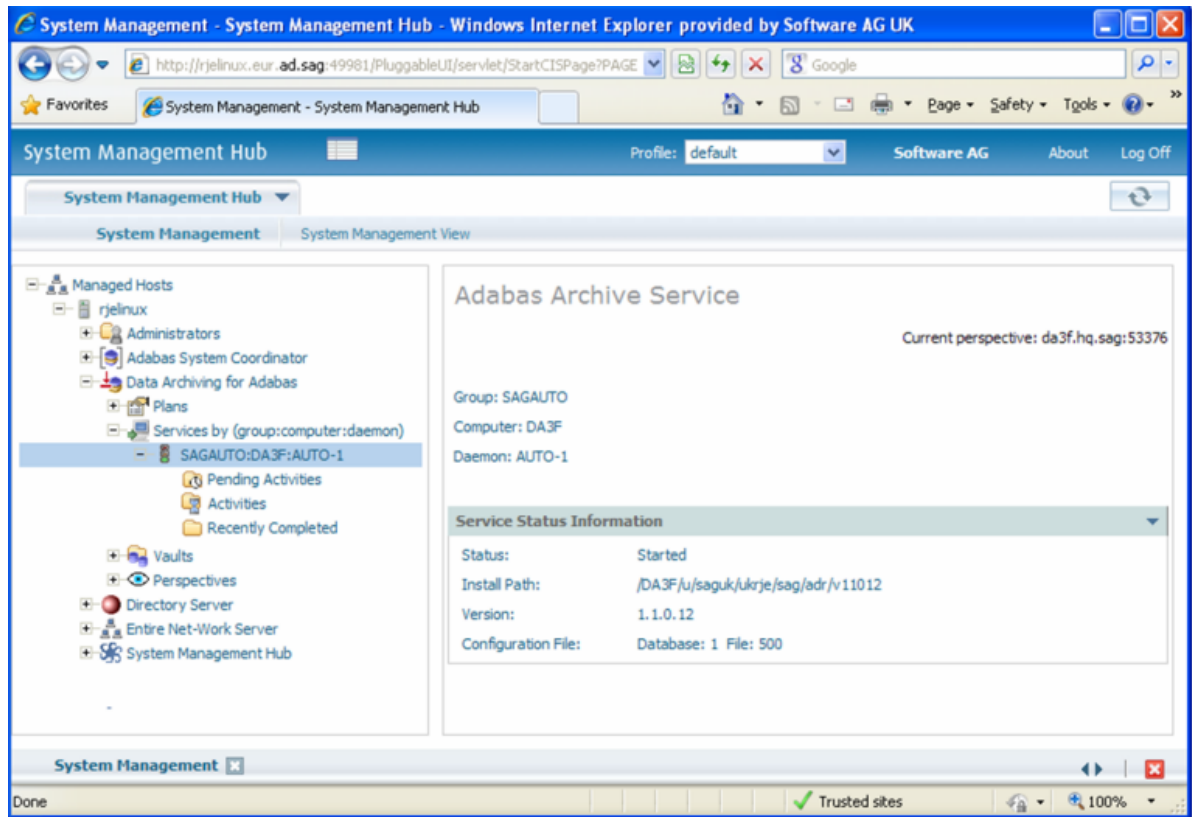
- 1 Log on to SMH on a computer where the UI has been installed and expand the tree node for the UI computer.



- 2 Select the main **Data Archiving for Adabas** node. If the UI computer does not also have the runtime installed there, the first time you enter it you will be asked to identify the location of the configuration file that has just been created in z/OS (or elsewhere if it was created during the install of the runtime in a different computer altogether)...then click Add.



- 3 Right-click on the main **Data Archiving for Adabas** node in the tree and select Refresh so that the selected perspective comes into force.
- 4 Within the tree select the **Services by ...** node. You should see the archive service for the runtime in the computer you have just installed. This should show a green traffic light which indicates that the service is active.



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

