

Installing Natural Security under UNIX

This section describes step-by-step how to install Natural Security.

- Prerequisites
- Installation Process
- After the Installation

Before you start the installation process, please perform the steps described in the section [Installing and Setting Up Software AG Products under UNIX](#) and refer to the section [General Information for Natural Security](#).

Prerequisites

To install Natural Security under UNIX, ensure that your computer meets the following prerequisites:

- Natural Version 5.1.1
- Adabas Version 3.1.1
- Entire Net-Work Version 2.1.1 (only required if FSEC is located remotely)

Installation Process

Steps 1 to 6 are the same as during the installation of Natural. If you are installing Natural and Natural Security together, they need not be performed again. You continue the installation with Step 7.

See the following list for an overview of the installation steps:

- Step 1: Mount Your CD-ROM Drive
- Step 2: Choose the Installation Mode
- Step 3: Start the Installation Process
- Step 4: Enter A Valid CD-ROM Directory
- Step 5: Enter \$\$SAG Environment Variable
- Step 6: Select Products to Install
- Step 7: Accept License Agreement
- Step 8: Specify License File Location
- Step 9: Confirm your Installation Settings
- Step 10: Environment Settings
- Step 11: Parameter Module Template
- Step 12: Review Environment Settings for FNAT / FUSER
- Step 13: FSEC System File
- Step 14: Log System File
- Step 15: Relink Natural
- Step 16: INPL Process
- Step 17: Finish Natural Security Installation
- Step 18: Execute the SAG Environment File

Step 1: Mount Your CD-ROM Drive

If your CD-ROM drive has not yet been mounted, mount it now as described in section Installing the Contents of the CD-ROM to Disk of the actions common to all Software AG products.

When the installation is started, the setup procedure will check the hardware platform and operating system version and then start the appropriate installation program INSTALL.

Step 2: Choose Installation Mode

The installation procedure examines the environment variable `DISPLAY` to determine whether to run in graphical or character mode.

To use **graphical mode**, the environment variable `DISPLAY` must be set. If it is not yet set in your environment and you want to use graphical mode, set it using the following command:

```
DISPLAY="<your_machine_name>:0"  
export DISPLAY
```

Character mode will be used automatically if the environment variable `DISPLAY` is not set. If `DISPLAY` has been set in your environment but you want to use character mode, you can disable it using the `-nw` option when you start the installation.

At the end of an installation process, in either mode, a **batch script** is generated and written to the end of the installation log. It lists the parameters specified for that particular installation.

Example:

```
# ----- <Start of generated batch script> -----
# -- <Adapt the following lines until end of generated> --
# ----- < batch script to your needs > -----
#!/bin/sh
# You should replace SECRET by the actual password
# or (even better) call this script with superuser privileges.
#
SAG="/usr/SAG"; export SAG
/bin/sh /cdrom/setup.ux -batch \
  -sagenv /usr/SAG/sagenv.new \
  -installType customized \
  -user sag \
  -password SECRET \
  -authcmd sudo \
  -dbident 022 \
  -packages "
  Nucleus & utilities : off
  AdalnK : on
    Optimized Version of AdalnK : on
    Examples : on
    DBA Workbench : on"
# ----- <End of generated batch script> -----
```

You can use the **-help** option to display a list of all supported parameters.

Step 3: Start the Installation Process

To perform this step, you must either be the user `sag` or a member of the group `sag` to which the administrator and all users of Software AG products are assigned to. Do not perform this step as the user `root`.

Start the installation procedure from a **writable** working directory. We recommend `$SAG/INSTALL`. Enter the command:

```
sh <mount_dir>/setup.ux
```

where `<mount_dir>` is the starting directory on your product CD-ROM. Upper and lower case letters are possible.

The setup program is started and guides you through the installation. During installation you have to provide the license key.

Note:

The following descriptions of installation steps assume that the graphical installation mode is used. The step sequence is the same in character mode.

Step 4: Enter A Valid CD-ROM Directory

In this screen, you have to confirm the path of your CD-ROM drive.

By default, the path of the mounted CD-ROM drive is displayed. You can enter a different path or use the Browse button to change the path.

Click Next to proceed.

Step 5: Enter \$\$SAG Environment Variable

In this screen, you can change the value of the \$\$SAG environment variable, which is the path name of the directory tree where all Software AG products are installed.

By default, the current \$\$SAG variable is displayed. You can enter a different path or use the Browse button to change the path.

Click Next to proceed.

Step 6: Select Products to Install

In this screen, you specify Natural Security. Please note that Natural must have been installed before you can install Natural Security.

If you chose to install both products at a time, the installation process leads you first through the installation of Natural and, after Natural has been installed successfully, through the installation of Natural Security.

Click Next to proceed.

Step 7: Accept License Agreement

In this screen, the license agreement is displayed. You must accept it to proceed with the installation.

Note:

If you run the installation procedure in character mode, at each command prompt, you must type in the exact wording (for example: "accept" for "accept", not just "y" or the ENTER key).

Step 8: Specify License File Location

In this screen, you specify the directory of your license file.

In this screen, you specify the directory and name of your license file. Enter the path where your license file is located or use the Browse button to change the path, and select the `<product_code>.xml` file. If no common Software AG environment exists yet, `<your current directory>/<product_code>.xml` is displayed.

If you click on the View button, the content of your license file will be displayed in a separate screen. Click OK or Quit to go back to the license file screen.

Click Next to proceed.

Step 9: Confirm Your Installation Settings

In this screen, the paths of your source directory and the \$\$SAG variable are displayed.

To review or change your settings, click on the Back button.

Click Next to begin copying files. A screen will be displayed informing you about the extracted files. Click Next to continue.

Step 10: Environment Settings

In this screen, the paths where Natural (\$NATDIR / \$NATVERS) and Adabas (\$ADADIR / \$ADAVERS) are installed are displayed. Confirm these settings or modify them using the Browse buttons.

To use a remote FSEC, select "Use remote database".

Click Next to proceed.

Step 11: Parameter Module Template

Select the Natural parameter module you want to use as a template. The settings in this Natural parameter module will be used to create a new parameter module for Natural Security called NSCPARM.

Note:

If NSCPARM already exists, a copy of it will be saved.

Click Next to proceed.

Step 12: Review the Environment Settings for FNAT / FUSER

Adapt the values displayed in this screen to your Natural environment.

Step 13: FSEC System File

In the following screens, select the database ID and file number for the FSEC system file.

If no local FSEC exists yet, the system file will be created and initialized. If you choose an existing FSEC, its contents will not be modified.

If you are using a local FSEC system file, all available databases are displayed. If you specified "Use remote database" in Step 9: Environment Settings, enter the DBID and FNR of an *existing* FSEC on your remote database you want to use.

Step 14: Natural Security Log File - optional

If you want to use the Natural Security feature "Logging of Maintenance Functions" described in the section Processing of Maintenance Log Records, enter or select the database ID and file number for the Natural Security log file in the following screens. If you do not want to use this feature, enter "0" as DBID.

If you are using a local database, all available database IDs and file numbers are displayed. If you want to use an existing log file, select the DBID and FNR. If no log file exists yet, the Natural Security installation creates a new log file. Enter a DBID and FNR.

If you specified "Use remote database" in Step 9: Environment Settings, enter the DBID and FNR of an *existing* log file on the remote database you want to use.

Note:

Please note that the option Logging of Maintenance Functions must additionally be enabled in Natural Security after the installation.

Step 15: Relink Natural

In this screen, the parameters for relinking are displayed where you can specify the relevant parameters.

- For Adabas, choose between dynamic and static binding.
- For SQL enter the SQL database you want to use.
- Select the check boxes if you want to use SYNC SORT.

Click Next to display the output of this relinking process. Please review the results and click Next.

Step 16: INPL Process

The libraries are loaded. In this screen, the progress of this INPL process is shown with a progress bar. Wait for the process to finish, then click Next to proceed.

Step 17: Finish Natural Security Installation

This screen informs you that the installation has finished successfully. It is recommended to view the README file for further information. If you do not want to display the file, remove the selection.

Click Finish.

If you installed both Natural and Natural Security one after the other, you will now be asked to select the products and paths which will be written to the **sagenv.new** file and click Next.

Step 18: Execute the SAG Environment File

It is necessary to execute the **sagenv.new** file after exiting this installation program to set the environment variables NATDIR, NATVERS and PATH. Check these settings and insert them into your profile (for example, `.profile`).

Once the installation has been successfully completed, you can remove the working directory and all of its contents.

After the Installation

The following steps are only relevant if your FSEC system file was initialized for the first time. Perform these steps immediately after a successful installation of Natural Security.

Step 1: Change the Password of the User DBA

1. Invoke Natural.
2. On the Natural Security logon screen, type the library ID "SYSSEC", the user ID "DBA", the password "DBA", and a new password, and press ENTER.
3. Type the new password again and press ENTER to confirm the password change.

Step 2: Define Administrators

1. Create a user security profile for each person who is to be a Natural Security administrator.
2. Link each Natural Security administrator to the library SYSSEC.

The following is an *example* of how to do this.

- On the logon screen, type the library ID "SYSSEC", the user ID "DBA" and the password as established in Step 1.
The Natural Security Main Menu is displayed.
- Enter the code "M".
A window is displayed.
- Mark the object type "User" with a character or with the cursor.
The User Maintenance selection list is displayed.
- In the command line of the User Maintenance selection list, enter the command "ADD".
A window is displayed.
- Choose a user ID for your Natural Security administrator.
For example, if the administrator's name were Arthur Dent, you could choose "AD" as his user ID; the following steps will take this as an example.
- Enter the user ID "AD" and the user type "A".
The Add User screen is displayed.
- Enter the user name "Arthur Dent" and set Private Library to "N".
- Press PF3.
The user Arthur Dent is now defined to Natural Security under the user ID "AD".
The User Maintenance selection list is displayed again.
- In the "Co" column of the selection list, mark the user "AD" with the function code "LL".
A window is displayed.
- Enter the library ID "SYSSEC".
The Link User To Libraries selection list is displayed
- In the "Co" column of the selection list, mark the library SYSSEC with the function code "LK".
The user Arthur Dent is now linked to the library SYSSEC.
- In the command line, enter the direct command "LOGOFF".
The Natural Security logon screen is displayed.

Now you can log on to SYSSEC with the user ID "AD" and the password "AD". When you log on with the new user ID for the first time, you must change the password by typing in a new password in addition to the user ID and password.

Note:

Once you have successfully defined administrators, it may be advisable to delete the user DBA to make sure that the user ID "DBA" cannot be used by unauthorized users to gain access to SYSSEC. To delete the user DBA, log on to SYSSEC with the user ID "AD". Go to the User Maintenance selection list as described above; on the list, mark the user "DBA" with the function code "DE". A window is displayed, in which you enter the user ID "DBA". The user

DBA is now deleted.

Step 3: Define System Libraries

This step must only be performed if Version 5.1.1 is your first version of Natural Security; that is, if you have not used any previous version of Natural Security. Otherwise, omit this step.

Create security profiles for all system libraries of Natural and Natural subproducts installed at your site. It is recommended that you create the security profiles automatically using the function "Definition of System Libraries" as described below.

System library IDs begin with "SYS".

Note:

You can also create security profiles individually using the "Add a New Library" function.

1. Log on to the library "SYSSEC".
2. On the Natural Security Main Menu, select "Administrator Services".
3. On the Administrator Services Menu, select the function "Definition of System Libraries".
A list of the system libraries of Natural and all Natural subproducts installed at your site is displayed. For each system library, a library-specific security profile is provided in which all the necessary components are already defined appropriately.
4. Either mark on the list individual libraries to which their predefined profiles should be applied or choose to have the predefined profiles applied to all system libraries simultaneously.

Notes:

This step should **not** be performed for SYS libraries containing Natural utilities, as it is recommended that these utilities be protected as described in the section "Protecting Natural Utilities".

If you use the function "Definition of System Libraries" in an initial installation, you have to set the Natural profile parameter MADIO to a value of at least "2000".

Other Software AG products such as Predict and Connect have their own security functions in addition to Natural Security.

Installation Verification

After you have performed Step 1: Change the Password of the User DBA, Natural Security becomes operational. No further verification is required.