

# Installing Natural Security Version 5.1

This section describes how to install Natural Security under Windows 98/ME/NT/2000. It covers the following topics:

- General Installation Information
  - Installation under Windows 98/ME/NT/2000
  - Natural Security in a Heterogeneous Environment
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## General Installation Information

It is recommended that you install Natural Security *after* having installed all other subproducts of Natural, as this makes defining the subproducts' system libraries to Natural Security easier.

Once Natural Security is installed, Natural on the assigned system file (FNAT) can only be accessed under the control of Natural Security. Natural Security cannot be removed once it has been installed. It is therefore recommended that you make a backup copy of your FNAT system file before you install Natural Security.

## Shared Natural Security System File FSEC

As of Natural Security Version 2.2, it is no longer necessary to create a new Natural Security system file (FSEC) for a new Natural Security version. This means that you do not need separate FSEC files for different Natural Security versions.

Instead you can keep an existing (Version 2.2 or above) FSEC file and share it between different Natural Security versions. This also means that you do not have to transfer or migrate your existing Natural Security data to another FSEC file.

If you use an FSEC file shared by different Natural Security versions, always use the highest of these versions for the maintenance of your Natural Security data in order to ensure the consistency of your data.

## Differences under Windows 98/ME

Under Windows 98 and Windows ME, the Administrator and Maintenance Services of Natural Security are not available. A runtime-only version of Natural Security will be installed. An FSEC Database must be available by remote access via Entire Net-Work. Note that in the installation procedure certain steps are not applicable under Windows 98/ME. These steps are marked accordingly.

## Installation under Windows 98/ME/NT/2000

### The Installation Package

The Natural Security installation package is available on CD-ROM only.

### Prerequisites

Before you begin to install Natural Security under Windows NT, ensure that your computer meets the hardware and software system requirements as indicated in the booklet accompanying the CD-ROM.

Also, ensure that the following software has been installed on your computer:

- Microsoft Windows 98/ME, Windows NT Version 4.0 SP6, or Windows 2000 Professional SP1, Microsoft Windows 2000 Server, Advanced Server
- Natural Version 5.1
- Adabas Version 3.1 (with Windows NT 4.0 SP6 and Windows 2000 Professional SP1, Microsoft Windows 2000 Server, Advanced Server). For Windows 98/ME, ensure that access to a remote FSEC is provided.
- Entire Net-Work Version 2.4.1 or higher must be installed (only required if FSEC is loaded remotely).

Also, make sure that the environment variables for the above products have been set correctly.

## Installation Procedure

### Step 1 - Load the Natural Security System File - FSEC

This step is not applicable under Windows 98/ME.

Under Windows NT/2000, this step must only be performed if you wish to use a new FSEC system file for Natural Security Version 5.1. If you wish to use an existing FSEC system file, omit this step.

This step creates an empty system file for Natural Security, as well as a log file to be used by the Natural Security function "Logging of Maintenance Functions" (see Logging of Maintenance Functions).

- Create a folder for the batch files which will be used to create the FSEC system file.
- Copy the following files from the Natural Security product CD, **WINDOWS\NSC\AdaUtils** to this folder:  
SYSNSC3.BAT  
SYSNSC3.FDT  
SYSNSC3.FDU  
SYSNSCL3.BAT  
SYSNSCL3.FDT  
SYSNSCL3.FDU
- Specify the system file assignments (DBID, FNR) for the system file FSEC in files SYSNSC3.FDU and SYSNSC3.BAT, and adjust the sizes in SYSNSC3.FDU if desired.  
Before executing ".BAT" files, make sure that your Adabas C/vnnn/BIN path is set in your search path.
- Adjust the sizes of your Adabas database according to the sizes in the .FDU file.
- Start Adabas and execute the file SYSNSC3.BAT.
- If you wish to use the function "Logging of Maintenance Functions", specify the file assignments (DBID, FNR) for the log file in files SYSNSCL3.FDU and SYSNSCL3.BAT, and adjust the sizes in SYSNSCL3.FDU if desired. Then execute the file SYSNSCL3.BAT.

### Step 2 - Adjust Natural Parameter Modules

Use the Natural Configuration Utility to adjust all Natural parameter modules.

- In **System Files**, select **NSC System File** and enter the DBID (database ID) and FNR (file number) of the FSEC loaded in Step 1, or the remote FSEC you wish to access.
- The Natural Security system file FSEC must reside on an Adabas database. In **Global Configuration File, DBMS Assignments**, enter the DBID of the FSEC, and select TYPE=ADA.

#### Note:

The Natural Security setup program will modify the NATPARM module you select for the necessary security entries (only that one module will be modified). If you omit this step, you may enter the FSEC specifications during the installation.

### Step 3 - Set up Natural Security

**Note:**

Before you perform this step, make sure that the database containing the FSEC file is active.

For Windows 98/ME, no entries to the FSEC will be made. It is not necessary to have access to the remote FSEC during the installation.

To run the setup program

1. Close all active Windows applications, except Adabas or Entire Net-work.
2. From the Start menu, choose Run.
3. In the command line, enter:

**x:\Setup.exe**

where "x" is the letter of the disk drive containing the Natural CD-ROM.

**Note:**

If the operating system AUTOSTART feature is enabled, the Setup program will automatically be started at the time the Natural CD-ROM is loaded.

The setup program will then be started. Follow the instructions displayed on screen.

You are recommended to install Natural Security in the same folder where Natural has been installed, as Natural Security is an add-on product and does not exist on its own. Please, note that the icon to start Natural will be replaced by the icon for Natural Security.

When the Setup program has verified that all components necessary for the installation are available, it will load the Natural Security modules. This process may take some time. Setup will display the status of the installation once complete.

The initial installation of Natural Security results in the creation of the following security profiles and relationships:

- A library security profile with library ID "**SYSSEC**". The library is people-protected ("People-protected" set to "Y" and "Terminal-protected" set to "N").
- A user security profile with user ID "**DBA**", user type "ADMINISTRATOR", and password set to "DBA".
- User "DBA" is linked to library "SYSSEC" (ordinary link, no special link).

If there is a previously installed version of Natural Security, these two profiles will not be modified by a subsequent installation nor will any objects or relationships already defined be affected.

### Step 4 - Change the Password of User "DBA"

This step is not applicable under Windows 98/ME.

Under Windows NT/2000, this step must only be performed if Version 5.1 is your first version of Natural Security; that is, if you have not used any previous version of Natural Security. Otherwise, omit this step.

Under Windows NT/2000, invoke Natural.

In the Natural Security logon dialog box, type in library ID "SYSSEC", user ID "DBA", password "DBA", and a new password, and press ENTER.

Type in the new password again and press ENTER to confirm the password change.

## Step 5 - Define Administrators

This step is not applicable under Windows 98/ME.

Under Windows NT/2000, this step must only be performed if Version 5.1 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 a user security profile for each person who is to be a Natural Security administrator; then link each Natural Security administrator to the library SYSSEC. The following is an *example* of how to do this.

- In the logon dialog box, type in library ID "SYSSEC", user ID "DBA" and the password as established in Step 4.
- The Natural Security Main Menu will be displayed. On this, enter code "M".
- A window will be displayed. In this window, mark object type "User" with a character or with the cursor.
- The User Maintenance selection list will be displayed. In the command line of the User Maintenance selection list, enter the command "ADD".
- A window will be displayed. Choose a user ID for your Natural Security administrator (for example, if the administrator's name were Arthur Dent, you may choose "AD" as his user ID; the following steps will take this as an example). In the window, enter user ID "AD" and user type "A".
- The Add User dialog box will be displayed. Enter the user name "Arthur Dent" and set Private Library to "N" (and press ENTER).
- Press PF3. User Arthur Dent is now defined to Natural Security under the user ID "AD".
- The User Maintenance selection list will be displayed again. In the "Co" column of the selection list, mark user "AD" with function code "LL".
- A window will be displayed. In the window, enter library ID "SYSSEC".
- The Link User To Libraries selection list will be displayed. In the "Co" column of the selection list, mark library SYSSEC with function code "LK". User Arthur Dent is now linked to library SYSSEC.
- In the command line, enter the direct command "LOGOFF". The Natural Security logon dialog box will be displayed.

Now you can log on to SYSSEC with user ID "AD" and 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 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 user ID "AD". Invoke the User Maintenance selection list as described above; on the list, mark user "DBA" with function code "DE". A window will be displayed, in which you enter the user ID "DBA". The user DBA is now deleted.

## Step 6 - Define System Libraries

This step is not applicable under Windows 98/ME.

Under Windows NT/2000, this step must only be performed if Version 5.1 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 (as described in section Library Maintenance under Adding a new Library). Refer to the installation instructions for other Software AG products for the corresponding security definitions to be performed.

To automatically create security profiles for system libraries (that is, all libraries whose IDs begin with "SYS"), you may use the function "Definition of System Libraries". Log on to library "SYSSEC"; on the Natural Security Main Menu, select "Administrator Services"; on the Administrator Services Menu, select the function "Definition of System Libraries"; when you invoke the function, a list of the system libraries of Natural and all Natural subproducts installed at your site will be displayed. For each system library, a library-specific security profile is provided in which all the necessary components are already defined appropriately. On the list, you can either mark with "AD" individual libraries to which you wish their pre-defined profiles to be applied one by one, or you can choose to have the pre-defined profiles applied to all product system libraries simultaneously by marking the corresponding product with "AD".

### Note:

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".

## Installation Verification

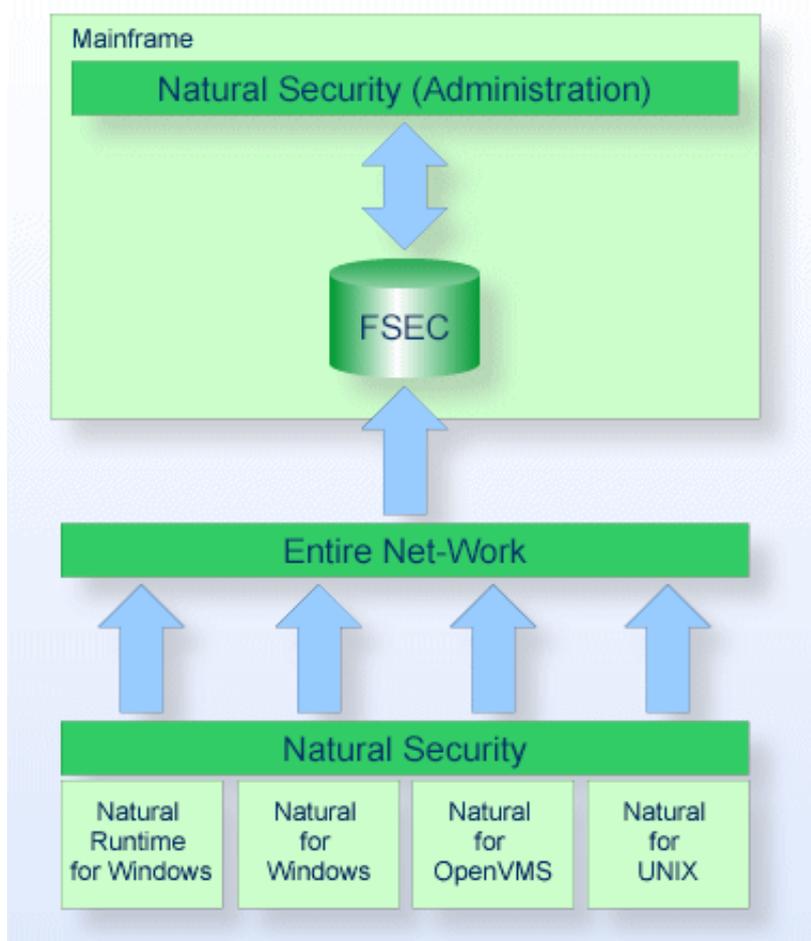
After Step 4 of the installation procedure has been completed successfully, Natural Security is operational. No further verification of its successful installation is required.

Your Natural subfolder now contains an icon for Natural Security in place of the Natural icon, and additional Readme files for Natural Security. You must start Natural Security in the same way you start Natural. Please ensure that you are using a parameter module which contains the entries for your FSEC to start Natural Security.

## Natural Security in a Heterogeneous Environment

With Natural Security Version 3.1 and above for mainframes, all enterprise security profile data can be stored and administrated centrally in a mainframe system file, which is accessible to a heterogeneous environment, thus simplifying and standardizing security maintenance on a company-wide basis. The security data in the mainframe Natural Security system file (FSEC) can be retrieved via remote database calls, managed by Entire Net-Work, from the following Natural Security installations:

- Natural Runtime for Windows
- Natural for OpenVMS
- Natural for UNIX
- Natural for Windows



From the non-mainframe Natural Security installations, you can log on to the Natural Security mainframe environment and retrieve security data.

However, in the non-mainframe Natural Security installations, the security data maintenance application SYSSEC is disabled, as are the following Natural Security interface subprograms for modifying security profiles:

- NSCLI
- NSCOB
- NSCMA
- NSCUS

If these interface subprograms are invoked, error NAT0828 is returned.

For further information on setting up Natural Security in a heterogeneous environment, see below.

## Setting Up Natural Security in a Heterogeneous Environment

### Configuring Entire Net-Work

Entire Net-Work's translation process is based on the format and length of each field specified in the search and format buffers that are passed with each Adabas call, along with special translation definition parameters. When a request goes through the network conversion routines, each individual field is translated according to the format and length defined for it in the associated search or format buffer.

To avoid the errors NAT0824 and NAT0825, add translation definitions for the following fields for the DBID and FNR of the mainframe system file FSEC with format "X":

- LW
- LC
- LQ
- LV
- LS

This prevents values being either translated or swapped.

For further information, see the section **Special Handling of Field Format "X"** in the section **Heterogeneous Platform Considerations** in the Entire Net-Work Installation and Operations for Mainframes documentation.

### Customizing the Natural I/O Conversion Table on Non-Mainframe Platforms

If you want to use special characters not contained in the default Natural character set (ISO08859), for example in passwords, you have to customize the Natural I/O conversion table in the following sections of the file NATCONV.INI:

```
ISO8859_1->EBCDIC  
EBCDIC->ISO8859_1
```

You can use the call CMCNV provided in the module SULCONV in the library SYSTRANS to check the settings.

For further information on the file NATCONV.INI, see the section Support of Language-Specific Characters in the **Natural Operations** documentation.

## Setting Up Module Access

When you are using Natural Security across platforms, security profiles held in the mainframe FSEC system file will usually apply to data held in libraries on another platform.

If you use the Allow/Disallow Modules definition, it is recommended that you use the "Module names held in the user buffer" fields of the library maintenance function Disallow/Allow Modules screen. For modules which are not on the mainframe FUSER, use the Free List.

For further information, see the section on disallowing/allowing modules in the Natural Security for Mainframes documentation.

## Setting Up Natural DDM Security

If you want to use a non-mainframe platform as your Natural development environment, you have to move any DDMs required by Natural modules to the library SYSTEM (FUSER). This is necessary because Natural Security runtime only checks DDMs located in the library SYSTEM.