

Setup and Installation of Natural under UNIX

hier Sammlung, was Anja und ich zusammengestellt haben.

This section contains general information which applies when installing and setting up Natural under UNIX platforms. The following topics are covered:

- Before You Start
- The Natural Distribution Kit
- Installing Natural under UNIX
- Product Directory Structure
- Shell Environment Settings
- Additional Information on Installing the Individual UNIX Components

See also:

Installing and Setting Up Software AG Products for UNIX | Installation Verification

Installation Prerequisites

hier nur, falls das andere Dokument in diese einfließen würde, sodass wir nur eins hätten. Wäre meines Erachtens okay, bisher ist es dort.

Before You Start

Please note the following before you start the Natural installation:

- You need root access rights (**su** or **sudo**) during installation.
- Before you start the installation, backup your current product version.
- The directory on the disk into which the Natural distribution files are installed is identified by the environment variable **SAG** (which can be set to an appropriate value in advance).
- If a previous version of Natural is already installed, that version will not be upgraded. The new version of Natural is installed under a version-specific directory name. Note that the Software AG cross-product component **btj** required by Natural is installed under **\$\$SAG/common** and may upgrade previous versions of this component.
- During the installation you need a valid Natural license file.

The Natural Distribution Kit

The EntireX distribution kit on CD-ROM contains the installation files for various UNIX platforms as well as for Windows and other platforms. The directory hierarchy on the CD-ROM is shown below. Note: Directory level A32B/A64B applies only to AIX, HP-UX and Solaris.

Hier kommt bei Entire X jetzt die Abbildung, die bei uns im ersten Dokument steht, nach Installation Method.>entscheiden, wohin.

Kathrin Wolf fragen!

----- ab hier das Original von Predict:-----

This section describes step-by-step how to setup and install Natural under the UNIX operating system. This section covers the following major topics:

- Adding User Account for Administration of Software AG Products
- Installation Overview
- Steps for Both Installation Methods
- First-Time Installation
- Upgrade Installation

Adding User Account for Administration of Software AG Products

In this section the following is assumed:

- The user account for the administrator of Software AG products is called `sag`.
- The group to which the administrator and all users of Software AG products are assigned is called `sag`.
- The home directory for the user `sag` is `/usr/SAG`.
- The root directory for Software AG products is `/usr/SAG`.

To perform these steps, use an appropriate system administration tool.

1. Create the administrator's account and group

1. Create one administrator's account and one group for all Software AG products when you install your first Software AG product.
2. Define an administrator account to which all of the Software AG products installed at your site belong. Since all environment definition files for the products are written for the Bourne shell, this shell is required as the login shell for the administrator account.
3. Define a group to which the administrator and all users of Software AG products belong.
4. Create a login directory for the user `sag`.

Example:

It is assumed that user and group accounts are defined in the respective files in `/etc`. Depending on the settings of `/etc/nsswitch.conf` you might have to enter account information elsewhere.

The following is a possible entry in the system file `/etc/group`:

```
sag:*:21:sag
```

The following is a possible entry in the system file `/etc/passwd`:

```
sag:x:100:21:SAG - Product Administrator:/usr/SAG:/bin/sh
```

2. Define the SAG environment variable

The environment variable `SAG` defines the root directory for all Software AG products (which is also the home directory of the user `sag`) and is usually the home directory of the administrator account. In the Bourne shell you can define it like this:

```
SAG=/usr/SAG ; export SAG
```

3. Ensure that prerequisite software is installed

For a list of the prerequisite software see Required Products.

Installation Overview

The steps to be taken depend on which installation method you choose.

- **Steps for Both Installation Methods**
The steps described in this subsection are required for both methods of installing Natural. Perform these steps then continue with first-time installation or upgrade installation (inplace conversion) method.
- **First-Time Installation**
Use this method if you are installing Natural for the first time or in an environment where Natural is not yet installed.
- **Upgrade Installation (Inplace Conversion from a Previous Version)**
If you have already used Natural version 4.1 and a Natural system file (FDIC) containing data in the format of that version exists, the data must be converted to Natural 4.2 format. The Natural data is converted directly on that file to Natural 4.2 format.

Steps for Both Installation Methods

The following steps are required for both methods of installing Natural. Perform these steps then continue with first-time installation or inplace conversion method. See the following list for an overview of the necessary steps:

- Step 1: Mount Your CD-ROM Drive
- Step 2: Start the Installation Process
- Step 3: Enter A Valid CD-ROM Directory
- Step 4: Accept License Agreement
- Step 5: Enter \$\$SAG Environment Variable
- Step 6: Specify License File Location
- Step 7: Confirm Your Installation Settings
- Step 8: Copy Files
- Step 9: Specify Your Natural and/or Adabas Environment
- Step 10: Select a Natural Parameter Module
- Step 11: Select an Installation Type

Step 1: Mount Your CD-ROM Drive

Step 2: Start the Installation Process

The installation procedure examines the environment variable `DISPLAY` to determine whether to run in graphical or character mode. If the environment variable `DISPLAY` is set to an active X-Server the graphical installation mode starts, otherwise the character installation mode starts.

To set the `DISPLAY` environment variable, enter the following shell commands (this example is for Bourne shell):

- ```
DISPLAY=" <machine_name>:0 "
export DISPLAY
```

replacing `<machine_name>` by the name of your machine.

Note that the graphical mode can only start if there is an X-Server currently active.

### To install Natural

1. 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 <NaturalRoot>/SETUP.UX
```

where `<NaturalRoot>` is the starting directory on your product CD-ROM.

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

#### Note:

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

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

2. The installation procedure creates the file `sagenv.new`. This file contains the settings for all required environment variables. Insert these settings into your profile (for example, `.profile`).

#### Note:

The following descriptions of installation steps assume that the graphical installation mode is used.

## Step 3: 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 4: Accept License Agreement

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

## 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, `$SAGPROD/prd` is displayed. You can enter a different path or use the Browse button to change the path.

## Step 6: Specify License File Location

In this screen you can specify the directory of the license file.

By default, `<Your Path>/prd42.xml` is displayed, where `<Your Path>` stands for the path name where your license file is located. You can enter a different path or use the Browse button to change the path.

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

Click Next to proceed.

## Step 7: Confirm Your Installation Settings

In this screen your installation settings are displayed. Click on the Back button to review or change your settings.

Click Next to begin copying files.

## Step 8: Copy Files

In this screen the copy process is shown. The progress of the copy process is indicated by a bar with a percentage scale.

Wait for the process to finish, then click Next to proceed.

## Step 9: Specify Your Natural and/or Adabas Environment

In this screen you can specify the paths of either your Natural or Adabas environment or specify both paths.

You can enter different paths or use the Browse button to change the paths.

Click Next to proceed.

### Note:

Natural requires either a Natural or an Adabas environment (or both) present before the installation.

If only a Natural environment is present, only Natural programs are available. The Installation then assumes that the Natural system file is available in a remote environment.

If only an Adabas environment is present, only the Natural system file can be installed.

## Step 10: Select a Natural Parameter Module

In this screen you can specify an existing Natural parameter module, which will be used as template for a new Natural parameter module.

Select `<default>` from the selection box if you want to use the NATPARM module without changing FNAT/FUSER settings.

Click Next to proceed.

In the following screen confirm your FNAT/FUSER settings.

Click Next to proceed.

## Step 11: Select an Installation Type

In this screen you can select the installation method.

Choose New for a first-time installation.

Choose Update if you want to upgrade from an existing Natural 4.x.

Click Next to proceed.

## First-Time Installation

Use this method if you are installing Natural for the first time or in an environment where Natural is not yet installed. See the following list for an overview of the necessary steps:

- Step 12: Select Postinstallation Steps
- Step 13: Specify Main FDIC File DBID
- Step 14: Specify Main FDIC File FNR
- Step 15: Specify Coordinator FDIC File DBID
- Step 16: Specify Coordinator FDIC File FNR
- Step 17: Load Natural Modules into Natural
- Step 18: Define the Natural Libraries to Natural Security Manually
- Step 19: Define Coordinator FDIC in New SYSDIC Manually
- Step 20: Load the Natural Description of the Natural System File
- Step 21: Load the Natural Example Data

### Step 12: Select Postinstallation Steps

In this screen you can specify, which steps are performed during postinstallation.

**Note:**

It is recommended to leave all items checked.

Click Next to proceed.

### Step 13: Specify Main FDIC File DBID

In this screen, you can select the database ID (DBID) for your Main FDIC system file.

Click Next to proceed.

### Step 14: Specify Main FDIC File FNR

In this screen, you can enter the file number (FNR) for your Main FDIC system file.

You can either choose an existing FNR from the selection box or enter an unused file number, if you want to create a new Main FDIC file.

Click Next to proceed.

Confirm the settings made in Steps 13 and 14 by choosing Yes or decline by choosing No.

### Step 15: Specify Coordinator FDIC File DBID

In this screen, you can select the database ID (DBID) for your Coordinator FDIC system file.

Click Next to proceed.

## Step 16: Specify Coordinator FDIC File FNR

In this screen, you can enter the file number (FNR) for your Coordinator FDIC system file.

You can either choose an existing FNR from the selection box or enter an unused file number, if you want to create a new Coordinator FDIC file.

Click Next to proceed.

## Step 17: Load Natural Modules into Natural

In this screen, the Natural modules are loaded into Natural. The progress of the load process is indicated by a bar with a percentage scale.

Wait for the process to finish, then click Next to proceed.

## Step 18: Define the Natural Libraries to Natural Security Manually

This step must be performed manually by starting Natural with PARM=PRDPARM.

If Natural Security is installed, define the following libraries to Natural Security:

SYSDIC, SYSDICBE, SYSDICCO, SYSDICH and SYSDICMA.

## Step 19: Define Coordinator FDIC in New SYSDIC Manually

This step must be performed manually by starting Natural with PARM=PRDPARM.

To set up your environment so you can use the Coordinator, start a Natural 4.2 online session (using the newly installed FDIC file) and perform the following:

- Logon to the library SYSDIC
- Call the Function Main Menu by entering MENU at the NEXT prompt
- Call up function Defaults > Coordinator Defaults
- Specify parameters Coordinator FDIC DBID/FNR with the file number and database ID of the Coordinator FDIC added in Steps 15 and 16.

## Step 20: Load the Natural Description of the Natural System File

This step is optional.

To load the Natural description of the Natural system file enter:

```
setenv WRK1=$SAGPROD/prd/v421/INSTALL/PRD421.DAT
```

Start Natural with PARM=PRDPARM.

When executing this step in batch mode the CMSYNIN file should contain the following:

```
LOGON SYSDICBE
MENU
LOAD OBJECTTYPE ALL,REPLACE=Y,ADA=N
FIN
```

If a previous import operation with the Coordinator terminated abnormally for any reason, the Coordinator FDIC is locked and a corresponding message is given. Enter the following command to clear the Coordinator FDIC in batch mode:

```
LOGON SYSDIC
MENU
SPECIAL REFRESH
FIN
```

## Step 21: Load the Natural Example Data

This step is optional.

To load the Natural example data enter:

```
setenv WRK1=$SAGPROD/prd/v421/INSTALL/PRD421.DEM
```

Start Natural with PARM=PRDPARM.

When executing this step in batch mode the CMSYNIN file should contain the following:

```
LOGON SYSDICBE
MENU
LOAD OBJECTTYPE ALL,REPLACE=Y,ADA=N
FIN
```

If a previous import operation with the Coordinator terminated abnormally for any reason, the Coordinator FDIC is locked and a corresponding message is given. Enter the following command to clear the Coordinator FDIC in batch mode:

```
LOGON SYSDIC
MENU
SPECIAL REFRESH
FIN
```

## Upgrade Installation

Use this method if you want to upgrade from an existing Natural 4.x. See the following list for an overview of the necessary steps:

- Step 12: Select Postinstallation Steps
- Step 13: Specify Main FDIC File DBID
- Step 14: Specify Main FDIC File FNR
- Step 15: Load Natural Modules into Natural
- Step 16: Specify the Conversion Defaults Manually
- Step 17: Convert the Data on the Natural System File to 4.2 Format
- Step 18: Load the Natural Description of the Natural System File
- Step 19: Load the Natural Example Data

## Step 12: Select Postinstallation Steps

In this screen you can specify, which steps are performed during postinstallation.

### Note:

It is recommended to leave all items checked.

Click Next to proceed.

## Step 13: Specify Main FDIC File DBID

In this screen, you can select the database ID (DBID) for your Main FDIC system file.

Click Next to proceed.

## Step 14: Specify Main FDIC File FNR

In this screen, you can enter the file number (FNR) for your Main FDIC system file.

You can either choose an existing FNR from the selection box or enter an unused file number, if you want to create a new Main FDIC file.

Click Next to proceed.

## Step 15: Load Natural Modules into Natural

In this screen, the Natural modules are loaded into Natural. The progress of the load process is indicated by a bar with a percentage scale.

Wait for the process to finish, then click Next to proceed.

## Step 16: Specify the Conversion Defaults Manually

This step must be performed manually by starting Natural with PARM=PRDPARM.

Before performing the data conversion, logon to the library SYSDICCO, call the Conversion Utility Menu by entering MENU at the NEXT prompt and select the function "Conversion defaults".

Conversion defaults are used to specify new object type, association or retrieval model names/codes for user-defined object types, associations or retrieval models defined in earlier versions of Natural if the old names and codes are now reserved.

The following object type, association and retrieval model names/codes are reserved in Natural version 4.2:

| Reserved Object Type |       |
|----------------------|-------|
| Names                | Codes |
| TRIGGER              | TR    |
| VISTA-DA             |       |
| VISTA-FI             |       |

| Reserved Retrieval Model |             |
|--------------------------|-------------|
| Model Name               | Object Type |
| AP                       | SY          |

| Reserved Association |             |              |
|----------------------|-------------|--------------|
| Object Type          | Active Code | Passive Code |
| (FI->TR)             | TR          | FI           |
| (PR->FI)             | IN          | IP           |
| (PR->FI)             | RE          | RS           |
| (SY->SY)             | CS          | CS           |
| (SY->PR)             | CP          | CP           |
| (SY->VE)             | CV          | CV           |
| (SY->FI)             | CF          | CF           |
| (SY->SY)             | LI          | LI           |
| (PR->PR)             | MS          | MS           |

### Example

In version 4.1 you defined a user-defined object type with object type name Trigger and Code TI. In version 4.2, Trigger is the name of a predefined object type and is not permitted as an user-defined object type.

If you call the function Conversion defaults, the following screen appears:

```

13:41:46 ***** P R E D I C T 4.2.1 ***** 2001-07-29
 - Conversion Defaults -
 Added 2001-07-28 at 16:03
 by GER
Object type code Object type name Retrieval model
 TRIGGER

```

The function lists all user-defined object types which are in conflict with the new version. Because code TI is not reserved, this does not appear in the list and does not need to be changed. You do, however, have to change the object type name Trigger before you can convert your data from version 4.1. Enter under Object type name a new name (which is not reserved) for your user-defined object type and press ENTER.

## Step 17: Convert the Data on the Natural System File to 4.2 Format

This step must be performed manually by starting Natural with PARM=PRDPARM.

This step converts Natural 4.1 data to version 4.2 format. If the data on your Natural system file is already in version 4.2 format, a corresponding message is given.

To set up your environment so you can use the Coordinator, start a Natural 4.2 online session (using the newly installed FDIC file) and perform the following:

- Logon to the library SYSDICCO
- Call the Function Main Menu by entering MENU at the NEXT prompt
- Call up function C > Version 4.1 data

When executing this step in batch mode the CMSYNIN file should contain the following

```
LOGON SYSDICCO
MENU
CONVERT VERSION42
FIN
```

Now the data is in version 4.2 format. We recommend you save your Natural system file in 4.2 format before proceeding with the steps below.

## Step 18: Load the Natural Description of the Natural System File

This step is optional.

To load the Natural description of the Natural system file enter:

```
setenv WRK1=$SAGPROD/prd/v421/INSTALL/PRD421.DAT
```

Start Natural with PARM=PRDPARM.

When executing this step in batch mode the CMSYNIN file should contain the following:

```
LOGON SYSDICBE
MENU
LOAD OBJECTTYPE ALL,REPLACE=Y,ADA=N
FIN
```

If a previous import operation with the Coordinator terminated abnormally for any reason, the Coordinator FDIC is locked and a corresponding message is given. Enter the following command to clear the Coordinator FDIC in batch mode:

```
LOGON SYSDIC
MENU
SPECIAL REFRESH
FIN
```

## Step 19: Load the Natural Example Data

This step is optional.

To load the Natural example data enter:

```
setenv WRK1=$SAGPROD/prd/v421/INSTALL/PRD421.DEM
```

Start Natural with PARM=PRDPARM.

The following syntax is used:

```
LOGON SYSDICBE
MENU
LOAD OBJECTTYPE ALL,REPLACE=Y,ADA=N
FIN
```

If a previous import operation with the Coordinator terminated abnormally for any reason, the Coordinator FDIC is locked and a corresponding message is given. Enter the following command to clear the Coordinator FDIC in batch mode:

```
LOGON SYSDIC
MENU
SPECIAL REFRESH
FIN
```