

Installing and Setting Up Natural on UNIX

This section tells you how to install Natural on your UNIX platform. To install Natural, you must have access to the "sag" account.

The installation procedure is a mixture of manual and automated functions which are executed via shell scripts. You can choose

- whether you want an update installation only (for example, install a new system maintenance or patch level) or
- whether you want a new Natural installation (for example, a first-time installation).

For the latest installation information, please refer to the provided README file.

This section covers the following topics:

- Installation Prerequisites
 - Memory
 - Disk Space
 - Installation Procedure
 - Installation Verification
 - Verification of Access from Natural to Adabas
 - Using Different Adabas Versions
 - Using External Sort Programs
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Installation Prerequisites

Memory

The memory space required by Natural largely depends on the number of users.

The memory space per user is determined by the settings in the NATPARM parameter module, especially by the values of profile parameters such as USIZE and SSIZE.

In addition to the user-specific memory, you require memory for the buffer pool, which is shared among all users.

Disk Space

Approximately 150 MB of hard-disk space is required for Natural.

Installation Procedure

The installation procedure for Natural consists of the following steps:

Step 1 Establish Your Natural Environment

Ensure that you are in the directory \$SAG and that you have established your environment as described in Step 7: Create the Environment File sagenv.new.

The resulting environment file contains all selected product definitions, a part of which are the Natural environment settings as shown below:

Layout of "natenv" File:

```
#       Settings for Natural user
echo "Reading Natural environment"

#-----
# Set Natural specific Path and Version
#-----
NATDIR=$SAG/nat
NATVERS=vnnn           # nnn = your current Natural version number
export NATDIR NATVERS
#
PATH="$PATH":"$NATDIR/$NATVERS/bin"
export PATH
```

Step 2 Execute the Natural Installation Script

Enter the following commands to execute the Natural installation script and follow the provided instructions:

```
cd $NATDIR/$NATVERS/INSTALL
./natinstall.bsh
```

The installation script checks for an already existing Natural Version 2.2, Version 3.1 or Version 4.1 installation. If a Natural Version 2.2, Version 3.1 or Version 4.1 installation already exists, you are asked

- whether you want a new Natural installation or
- whether you want to update the existing Natural installation.

New Installation

In the case of a new installation, the configuration files and the FNAT and FUSER system files are newly created. You can either leave the default settings as provided or change them to suit your requirements.

For example, you can enter your own system file assignments in the global configuration file or change the UDB parameter setting to match the DBID of your Adabas demo database (see also Verification of Access from Natural to Adabas).

Note:

You can restart the installation script at any time without losing any settings specified in a previous run.

Update Installation from Version 2.2

In the case of an update installation from Version 2.2, your original configuration files are modified to match the new version. Most site-specific settings in these files are preserved and can be used with the new version.

However, you must use a new buffer pool in Natural Version 3.1 and you may not share the buffer pool between versions 2.2 and 3.1. You are also recommended not to share the FNAT system file between versions 2.2 and 3.1.

Since the FNAT system file is updated by Natural INPL processing, you are asked whether you want your original FNAT file to be temporarily saved, so that it can be used again in the case of an abnormally terminating INPL.

Update Installation from Version 3.1

In the case of an update installation from Version 3.1, your original configuration files are modified to match the new version. All site-specific settings in these files are preserved and can be used with the new version.

Since the FNAT system file is updated by Natural INPL processing, you are asked whether you want your original FNAT file to be temporarily saved, so that it can be used again in the case of an abnormally terminating INPL.

The INPL processing loads the Natural objects and DDMs into the FNAT system libraries and initializes your Natural environment. Natural is now installed and can be executed; the user ID of the default administrator is "sag".

However, before you start Natural, you may want to modify the standard parameter module "NATPARM.SAG" by using the NATPARM Utility utility as described in the **Natural Operations for OpenVMS and UNIX documentation**; you should also consider preparing a startup procedure for the Natural buffer pool as described in the section Activating the Natural Buffer Pool on UNIX.

Installation Verification

To verify if Natural was installed successfully, proceed as follows:

1. Invoke Natural by entering the following command at the UNIX system prompt:

```
natural
```

2. The Natural Main Menu is displayed.

Note:

When starting Natural, the directory specified as NATOSDEP in the global configuration file (default is "/tmp") is checked for version-independent Natural files. If such version-independent files do not exist, they are created automatically. Therefore, ensure that write permission for the specified directory (for example, "/tmp") has been given to all users; see also the section Operations Environment.

3. Select "Library" on the Main Menu. A list of all libraries is displayed.
4. Select the library "SYSEXRM" from the list. The contents of this library are displayed.
5. Select the program "DATIVAR" with the cursor (to scroll down a page press CTRL+D), and enter an "R" to run (that is, compile and execute) it. The executed program displays a screen showing the current date and time in various formats.
6. Press ESC until you are returned to the Main Menu.
7. Select "Fin" on the Main Menu to end the Natural session.

Verification of Access from Natural to Adabas

If you use Natural with Adabas, set the Natural profile parameters OPRB and UDB for the database to be used by using the NATPARM Utility as described in the **Natural Operations for OpenVMS and UNIX documentation**.

1. Now start Natural with the modified parameter file by entering the following command at the system prompt:

```
natural parm=name
```

where *name* is the name of the modified parameter file.

The Natural Main Menu is displayed.

2. Select "Library" on the Main Menu.
A list of all libraries is displayed.
3. Select the library "SYSEXRM" from the list.
The contents of this library are displayed.
4. Select the program "REAEX1R" with the cursor (to scroll down a page press CTRL+D), and enter an "R" to run (that is, compile and execute) it.
The executed program displays an output screen with personnel data (name, personnel number, position) read from the Adabas database using different READ statement specifications.
5. Press ESC until you are returned to the Main Menu.
6. Select "Fin" on the Main Menu to end the Natural session.

Using Different Adabas Versions

Natural is automatically linked to the current version of Adabas. Please check the file "\$NATDIR/\$NATVERS/README.1ST" to determine the relevant version.

If you need to link Natural to a different Adabas version (for example, if you have installed a new Adabas version), perform the following:

1. Backup the file "natural" in "\$NATDIR/\$NATVERS/bin" (optional).
2. Ensure that the values \$NATDIR, \$NATVERS, \$ADADIR and \$ADAVERS are all set to the required values.
3. Issue the following command:

```
cd $NATDIR/$NATVERS/bin/build
```

4. Refer to your corresponding Adabas installation manual to ascertain whether your new Adabas version is to be linked dynamically or statically.

- If Adabas is to be linked dynamically, issue the following command:

```
make ada=dyn natural
```

- If Adabas is to be linked statically, issue the following command:

```
make ada=stat natural
```

The "make" command generates a new "natural" which is linked to the version of Adabas determined by \$ADAVERS.

5. If you want this new "natural" to be your default Natural, issue the following command:

```
make install
```

The "make" command renames you old "natural" to "natural.old" and moves your new "natural" into the directory "\$NATDIR/\$NATVERS/bin"

Note:

If you enter "make" only, a screen with more detailed link information is displayed.

6. Check whether this Adabas version can be accessed from Natural by performing the steps described in the section Verification of Access from Natural to Adabas.

Using External Sort Programs

For execution of the Natural SORT statement, the third-party sort facility SyncSort - which is distributed and maintained by Syncsort - can be used.

If you wish to use this external sort facility instead of Natural's internal sort, you must regenerate your Natural nucleus as follows:

1. Change to the Natural "build" directory by entering the following command:

```
cd $NATDIR/$NATVERS/bin/build
```

2. To build a new Natural nucleus that includes support for the external sort facility, enter the following command:

```
make natural sync=yes
```

Notes for Natural Security for UNIX and other users who require Adabas:

- By default, Adabas is **not** included when Natural is relinked. Therefore, you must specify the "ada=" parameter when you issue the "make natural sync=yes" command.
- If you fail to specify a value for "ada=", Adabas will not be linked into Natural and Natural Security will not function. Specify the "ada=" parameter as follows:

```
make natural sync=yes ada=[adabas-library]
```

where *adabas-library* has one of the following values:

dyn	link in Adabas shared libraries
stat	link in Adabas static libraries
cscidyn	link in Adabas and CSCI shared libraries
cscistat	link in Adabas and CSCI static libraries

Whether you should link Adabas as static or dynamic depends on the version of Adabas you are using; refer to your **Adabas installation instructions** for more information.

3. To copy this new Natural file into the "bin" directory, enter the following command:

```
make install
```