

# Installing Natural for MBCS under VM/CMS

This section describes step by step how to install Natural for MBCS (product code NKA) under the operating system VM/CMS using Adabas system files.

This section covers the following topics:

- Prerequisites
- Installation Tape for Natural under CMS
- Copying the Tape Contents to Disk
- Step 1 - Customize NAT\$LOAD EXEC to Link Natural
- Step 2 - Load the Natural for MBCS Objects
- Step 3 - Make Natural Modules Available to the Users

See also *VM/CMS Environment* in the *Operations* documentation.

For installation-related information on Unicode and code page support, refer to *Configuration and Administration of the Unicode/Code Page Environment* in the *Unicode and Code Page Support* documentation.

## Notation *vrs* or *vr*:

If used in the following section, the notation *vrs* or *vr* stands for the relevant version, release, system maintenance level numbers. For further information on product versions, see *Version* in the *Glossary*.

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## Prerequisites

- Base Natural must be installed.

For further information, refer to the products and versions specified under *Natural and Other Software AG Products* and *Operating and Teleprocessing Systems Required* in the current *Natural Release Notes for Mainframes*.

## Installation Tape for Natural under CMS

The installation tape was created under z/OS; it has standard z/OS labels and headers. It contains the datasets listed in the table below. The sequence of the datasets is shown in the *Report of Tape Creation* which accompanies the installation tape.

Dataset Name	Contents
NKAvrs.TAPE	CMS installation material. This dataset is in TAPE DUMP format and must be loaded onto the installation mini disk.
NKAvrs.INPL	Natural system objects.

## Copying the Tape Contents to Disk

Create the `.NKAvr.NKAvrs` directory and copy the file `NKAvrs.TAPE` from the tape into this directory. As an alternative, define a minidisk for NKA and load `NKAvrs.TAPE` onto the disk by using the following command:

```
TAPE LOAD * * fm
```

If the sequence number of `NKAvrs.EXEC`, as shown by the *Report of Tape Creation*, is  $n$ , you must position over  $3n - 2$  tape marks (that is, FSF 1 for the first dataset, FSF 4 for the second, etc.). *fm* is the filemode used for the directory or minidisk.

```
CREATE DIRECTORY .NKAvr.NKAvrs
ACCESS .NKAvr.NKAvrs B
TAPE REW
TAPE FSF n
TAPE LOAD * * fm
```

## Step 1 - Customize NAT\$LOAD EXEC to Link Natural

Modify `NAT$LOAD EXEC`: delete the comment for NKA to include `NKANUC TEXT`. Example:

```
LOADLIST = LOADLIST 'NKANUC'
```

Build a new Natural module or a Discontiguous Shared Segment (DCSS) by executing `NATBLDM` or `NATBLDS` respectively.

## Step 2 - Load the Natural for MBCS Objects

If the tape drive used when copying the contents of the installation tape to disk was detached from your virtual machine, ask the system operator to attach a tape drive to your virtual machine at address `X'181'` and mount the Natural installation tape.

Before you can start the Natural `INPL`, the Adabas environment for your CMS machine must have been set up (as described in the Adabas documentation).

Issue the following CMS command:

```
NKAINPL
```

You are prompted for the name of the command to invoke Natural. Enter one of the following:

- the name of the Natural module built in the corresponding step, or
- the name of the Natural DCSS (Discontiguous Shared Segment) bootstrap created in the corresponding step.

NKAINPL then positions the tape and loads the Natural for MBCS system objects.

The Natural system file definitions as coded in the Natural parameter module apply.

Three reports are produced on your virtual printer. Check these reports to ensure that no errors have occurred.

## **Step 3 - Make Natural Modules Available to the Users**

Copy the Natural module and the DCSS bootstrap to a public disk or have your system programmer copy them to the CMS Y-disk.