

Installing NAF under IMS TM

This chapter describes how to install Natural Advanced Facilities (NAF) under IMS TM.

- Prerequisites
 - Installation Tape
 - Installation Procedure
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Prerequisites

- Base Natural must be installed.
- The Natural IMS TM interface 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*.

Installation Tape

The installation tape 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
NAF nnn .LOAD	Natural Advanced Facilities executable load phases and modules which are necessary for the linkage editor
NAF nnn SRCE	Natural Advanced Facilities source modules which include macros for specific TP monitors.
NAF nnn .INPL	Natural programs including sample source programs and system load modules which are necessary for Natural Advanced Facilities.
NAF nnn .SYSF	Empty sample spool file; input to Adabas load utility.
NAF nnn .ERRN	Natural Advanced Facilities error messages.

The notation nnn in dataset names represents the version number of the product.

Copying the Tape Contents to Disk

If you are not using System Maintenance Aid, adapt and run job NAFTAPE to copy the datasets from tape to disk. NAFTAPE is contained in job dataset NAT nnn .JOBS on the Natural installation tape.

The space each dataset requires on disk is shown in the *Report of Tape Creation*.

Installation Procedure

For installation, use the jobs provided on your Natural tape (names begin with NAF).

- Step 1: Load the Spool File - Job I050, Step 0300
- Step 2: Modify NAFPARMI - Job I055, Step 0305
- Step 3: Modify NATPARM for the BMP Nucleus - Job I060
- Step 4: Link the BMP Natural Nucleus - Job I060
- Step 5: Modify NATPARM for the MPP Nucleus - Job I060
- Step 6: Link the MPP Natural Nucleus - Job I080
- Step 7: Load the System Programs - Job I061, Step 0300
- Step 8: Load the Error Messages - Job I061, Step 0304
- Step 9: Natural Advanced Facilities and Natural Security
- Step 10: Start Natural
- Step 11: Create NATSPOOL Environment
- Step 12: Adapt the IMS TM Environment

Step 1: Load the Spool File - Job I050, Step 0300

When you upgrade from the previous release of Natural Advanced Facilities, skip this step.

When you upgrade from an older release, see the section relating to Natural Advanced Facilities migration in the Natural *Release Notes*.

Load the Natural Advanced Facilities spool file contained in `NAFnnn.SYSF` by using the ADALOD utility. An initial size of one cylinder for this file will be sufficient. The following parameters are mandatory:

```
ISNREUSE=YES
```

to cause Adabas to reuse the ISN of a deleted record. For the file number `<fspool>`, you may choose any value.

Step 2: Modify NAFPARMI - Job I055, Step 0305

The use of the NAFPARMI parameter module is optional. Alternatively, to set the server options, you can use Function 30 of the SYSPPOOL Application: see Step 11.

If using the NAFPARMI module, modify, assemble and link NARPARMI.

Step 3: Modify NATPARM for the BMP Nucleus - Job I060

Modify the parameters FSPOOL, NTPRINT, NAFUPF and NAFSIZE in NATPARM according to your site requirements. For more information on these parameters, see *Natural Profile Parameters for NATSPOOL*.

The Natural parameter module for the BMP Natural must contain a valid FSPOOL=(*dbid*, *fnr*) entry, and the values specified must be identical to those of the MPP Natural (Step 5).

Assemble and link the Natural parameter module NATPARM.

Step 4: Link the BMP Natural Nucleus - Job I060

Link your BMP frontend with the parameter module created in the previous step.

Step 5: Modify NATPARM for the MPP Nucleus - Job I060

Modify the parameters FSPOOL, NTPRINT, NAFUPF and NAFSIZE in NATPARM according to your site requirements. For more information on these parameters, see *Natural Profile Parameters for NATSPOOL*.

The Natural parameter module for the MPP Natural must contain a valid FSPOOL=(*dbid*, *fnr*) entry and the values specified must be identical to those of the BMP Natural (Step 3).

Assemble and link the Natural parameter module NATPARM.

Step 6: Link the MPP Natural Nucleus - Job I080

Add the following INCLUDE statements in the link steps for Natural and link-edit the executable module:

```
INCLUDE NAFLIB(NAFAF)
INCLUDE NAFLIB(NAFNUC)
INCLUDE SMALIB(NAFPARMI) (optional)
```

Include all modules of Natural Advanced Facilities, that is, NAFNUC, NAFAF and, optionally, NAFPARMI, in the link-edit of Natural.

Note:

If a shared nucleus is created, the modules can be included in the shared nucleus.

Step 7: Load the System Programs - Job I061, Step 0300

Load the Natural Advanced Facilities system programs into the Natural system file by using the Natural INPL utility. INPL loads the maintenance programs under the application IDs SYSPPOOL and SYSPRINT.

Ensure that INPL finishes with the message:

```
Natural Advanced Facilities initialized by INPL
```

If this initialization fails, various problems will be encountered at execution time.

This INPL file contains the source for all maps used in the Natural Advanced Facilities system.

These maps are provided in source form to enable users to customize the system (for example, to translate the maps from English to another language).

If these maps are modified, ensure that all fields have the same format/length/relative position in the map. Failure to abide by this restriction will result in an invalid system.

Step 8: Load the Error Messages - Job I061, Step 0304

Load the Natural Advanced Facilities error messages file (dataset `NAFnnn.ERRN`) by using the `ERRLODUS` program as described in the Natural `SYSERR` Utility documentation.

Step 9: Natural Advanced Facilities and Natural Security

This step must only be performed, if Natural Advanced Facilities is being installed in a Natural Security environment.

Define `SYSPOOL` to Natural Security with startup program `MENU`.

Step 10: Start Natural

Start Natural and add the user profile, as defined in the `NAFUPF` parameter of `NATPARM`, to the `SYSPOOL` file by using Function 31.1.

Note:

A `NAT7201` message is issued at the start of the session indicating that the profile has not yet been added to the `SYSPOOL` file.

Step 11: Create NATSPOOL Environment

Job I200, Step 0300

When upgrading from Natural Advanced Facilities Version 4.1, skip this step. See *Migrating to Natural Advanced Facilities Version 4.2, Case 1*, in the *Natural Release Notes*.

When upgrading from a Natural Advanced Facilities version prior to Version 4.1, you must proceed as described in the section *Migrating to Natural Advanced Facilities Version 4.2, Case 2*, in the *Natural Release Notes*.

Step 12: Adapt the IMS TM Environment

Adapting the IMS TM environment, be sure that the following applies:

- The JCL for the BMP printer job must be stored in the appropriate IMS library with the member name specified in the IMS TM options of Function 30.5.
- The BMP must have a PSB with at least two modifiable TP PCBs.
- The first control card for the BMP driver must specify at least one TP PCB by using the statement `WRKPCBS=001`.

- If the input transaction code for the BMP is *not* generated as WFI (see "Wait for input" in the IMS TM options of Function 30.5 or NAFPARMI), the MPP transaction code must be authorized to issue the /STA REG command. Otherwise, IMS will issue status code CD when trying to start the BMP.