

# Installing the Natural UTM Interface

This document describes how to install the Natural UTM Interface (product code NUT).

The following topics are covered:

- Prerequisites
- Installation Tape for the Natural UTM Interface
- Installation Procedure for the Natural UTM Interface
- Installation Verification

For information on how to operate the Natural UTM Interface, refer to *Natural under UTM* in the *Natural TP Monitor Interfaces* documentation.

**Notation vrs or vr:** If used in the following document, 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

The following software must be installed and running before you install the Natural UTM Interface:

- Base Natural under BS2000/OSD. See *Installing Natural Under BS2000/OSD*.
- Adabas UTM Interface (product code AUT), version as specified under *Natural and Other Software AG Products* in the current *Natural Release Notes* for Mainframes.

## Installation Tape for the Natural UTM Interface

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
NUTvrs.MAC	Macros necessary for Natural/UTM
NUTvrs.SRC	Sources necessary for Natural/UTM
NUTvrs.JOBS	Example job library for Natural/UTM

## Copying the Tape Contents to a BS2000/OSD Disk

If you are not using System Maintenance Aid (SMA), use the procedure described below. In this procedure, the values specified below must be supplied.

To copy the datasets from tape to disk, perform the following steps:

- 1. Copy the Library SRVvrs.LIB from Tape to Disk
- 2. Copy the Procedure COPY.PROC from Tape to Disk
- 3. Copy all Product Files from Tape to Disk

### 1. Copy the Library SRVvrs.LIB from Tape to Disk

This step is not necessary if you have already copied the library SRVvrs.LIB from another Software AG installation tape. For further information, refer to the element #READ-ME in this library. The library SRVvrs.LIB is stored on the tape as a sequential file named SRVvrs.LIBS containing LMS commands. The current version vrs can be obtained from the *Report of Tape Creation*. To convert this sequential file into an LMS-library, execute the following commands:

```
/IMPORT-FILE  SUPPORT=*TAPE(FILE-NAME=SRVvrs.LIBS,      -
/  VOLUME=volser, DEV-TYPE=tape-device)
/ADD-FILE-LINK LINK-NAME=EDTSAM, FILE-NAME=SRVvrs.LIBS, -
/  SUPPORT=*TAPE(FILE-SEQ=3), ACC-METH=*BY-CAT,        -
/  BUF-LEN=*BY-CAT, REC-FORM=*BY-CAT, REC-SIZE=*BY-CAT
/START-EDT
@READ  ''
@SYSTEM 'REMOVE-FILE-LINK  EDTSAM'
@SYSTEM 'EXPORT-FILE  FILE-NAME=SRVvrs.LIBS'
@WRITE  'SRVvrs.LIBS'
@HALT
/ASS-SYSDTA  SRVvrs.LIBS
/MOD-JOB-SW  ON=1
/START-PROG  $LMS
/MOD-JOB-SW  OFF=1
/ASS-SYSDTA  *PRIMARY
```

where:

*tape-device* is the device-type of the tape, for example: TAPE-C4  
*volser* is the VOLSER of the tape (see *Report of Tape Creation*)

### 2. Copy the Procedure COPY.PROC from Tape to Disk

To copy the procedure COPY.PROC to disk, call the procedure P.COPYTAPE in the library SRVvrs.LIB:

```
/CALL-PROCEDURE  (SRVvrs.LIB,P.COPYTAPE), -
/  (VSNT=volser, DEVT=tape-device)
```

If you use a TAPE-C4 device, you may omit the parameter DEVT.

### 3. Copy all Product Files from Tape to Disk

To copy all Software AG product files from tape to disk, enter the procedure COPY.PROC:

```
/ENTER-PROCEDURE  COPY.PROC, DEVT=tape-device
```

If you use a TAPE-C4 device, you may omit the parameter DEVT. The result of this procedure is written to the file L.REPORT.SRV.

# Installation Procedure for the Natural UTM Interface

## Naming Conventions

In the following text, the library name *JOBLIB* stands for

- the example job library (*NUTvrs.JOBS*) if you are *not* using SMA or
- the SMA job library (see SMA parameter *JOBLIB* in SMA Parameter Group *BASIC*) if you are using SMA.

### Note:

Software AG uses the following naming conventions for source elements in the library *JOBLIB*:

**A**<*product-code*><*function*> = Assembler sources

**L**<*product-code*><*function*> = Instruction for TSOSLNK/BINDER

**Example:** ANATFRNT, ANATRENT, ANATSTUB or LNATFRNT

## Step 1: Generate KDCROOT Source

- (Job I070, Step 0110)

Prepare the sample KDCDEF instruction source *NUT.KDCDEF* (LMS element type = D) in the library *JOBLIB* so that it suits your environment.

Therefore, refer to *Defining the UTM Resources (KDCDEF)* in the *Natural TP Monitor Interfaces* documentation.

## Step 2: Assemble the Natural UTM BS2STUB Module

- (Job I070, Step 0111)

Assemble source module *ANUTSTUB* in the library *JOBLIB*.

See also *Local Common Memory Pools* in the *Natural Operations* documentation.

## Step 3: Assemble the Natural UTM Front-End Part

- (Job I070, Step 0112)

Assemble source module *ANUTFRNT* in the library *JOBLIB*.

See also *Keyword Parameters of Macro NATUTM* in the *Natural TP Monitor Interfaces* documentation.

## Step 4: Assemble the Natural UTM Reentrant Part

- (Job I070, Step 0113)

Assemble source module *ANUTRENT* in the library *JOBLIB*.

See also *Keyword Parameters of Macro NURENT* in the *Natural TP Monitor Interfaces* documentation).

### Step 5: Generate the Swap Pool Parameter Module NTSWPRM

- (Job I070, Step 0114)

Assemble and link module ANUTSWP in the library *JOBLIB*.

See also *Keyword Parameters of Macro NTSWPRM* in the section *Defining the Swap Pool* in the *Natural Operations* documentation.

### Step 6: Assemble KDCROOT

- (Job I070, Step 0120)

Assemble the sample source ANUTKDCR (generated under Step 1) in the library *JOBLIB* for the KDCROOT module.

See also *Generating KDCROOT* in the *Natural TP Monitor Interfaces* documentation.

### Step 7: Generate KDCFILE

- (Job I075, Step 0100)

Prepare the sample KDCDEF instruction source NUT.KDCDEF (LMS element type = D) in the library *JOBLIB* so that it suits your environment.

Therefore, refer to *Defining the UTM Resources (KDCDEF)* in the *Natural TP Monitor Interfaces* documentation.

### Step 8: Assemble the Natural UTM Parameter Module

- (Job I080, Step 0200)

1. In source module ANUTPARM, modify the Natural profile parameters so that they suit your environment, but at least have a look at the following parameters:

```
FNAT=(dbid,fnat)
FUSER=(dbid,fuser)
```

2. Assemble source module ANUTPARM in the library *JOBLIB*.

### Step 9: Link the Natural UTM Front-End Part

- (Job I080, Step 0210)

Use the `INCLUDE` statements for `TSOSLNK` contained in `LNUTFRNT` in the library *JOBLIB*.

## Installation Verification

1. Submit job `E . START . SWP` in the library `JOBLIB` to start the Natural Swap Pool.
2. Submit job `E . START . NUT` in the library `JOBLIB`, which is a sample job for starting Natural under UTM.
3. Proceed with the steps described in the section *Installation Verification for the TP Monitor Interface*.