

Installation Procedure

This subsection covers the following topics:

- Step 1: Load SAT System File
 - Step 2: Scratch SAT Library
 - Step 3: Create NATPARM Module
 - Step 4: Link Natural Subtask/Batch
 - Step 5: Load the INPL and ERRN Files
 - Step 6: Create NATPARM Module
 - Step 7: Relink all Online Natural Nuclei
-

Step 1: Load SAT System File

System Automation Tools (SAT) Versions 3.1 and above use a SAT system file with LFILE 131. Please use the Adabas load utility (Job I050, Step 3700) to load the SATnnn.SYSF file. The System File is in Version 5 format. For SAT Versions 3.1.2 and above, this step can be omitted if SAT is not being installed for the first time.

For the ADALOD utility use the following parameters:

Parameter	Value
MAXISN	100000
DSSIZE	10
UI SIZE	100B
NISIZE	1000B
ISNREUSE	YES
DSRU	YES

Step 2: Scratch SAT Library

(Job I051, Step 3700)

If the System Automation Tools sub-component has been installed before, scratch the SYSSAT library using the Natural SYSMAN utility and scratch the error messages with the SYSERR utility.

Step 3: Create NATPARM Module

(for Natural Subtask/Batch, for OS/390 and VSE/ESA only)

Modify, assemble and link the parameter module for the Natural subtask.
To do this, adapt **Job I060: Steps 3700-3710** (subtask) / **Steps 0010-0015** (batch).

The module must contain at least the following parameters (entries for other products are possible, but not documented here). Refer to your **Natural Installation and Operations Documentation**.

Note:

To complete these settings additional parameters may be required for other product(s). See product-specific installation procedure.

NTPRM	ESIZE=96 ASIZE=64 DATSIZE=90 CDYNAM=10 MAXCL=0 MADIO=0 PRINTER=(DUMMY, DUMMY) ETEOP=OFF WH=ON IM=D MT=0 LS=132 PS=66	Extended work area size Entire System Server Work area size Choose a value must between 48 and 64 ¹ Local data Number of dynamic loaded modules. Max. program calls (no limit) Maximum DBMS calls (no limit) Printer assignment ² No ET at end of program WAIT on HOLD, NAT314 Set input mode Max. CPU time: no limit Line Size Page Size
NTFILE	ID=204,DBID=satdbid, FNR=satfnr	Locates main member ⁴
NTFILE	ID=131,DBID=db, FNR=nr	SAT System File access, use real database ('db') and file number ('fnr') values
NTDB	PROCESS,148	Entire System Server Views cataloged to this DBID
NTBPI	TYPE=NAT,SEQ=0,NAME=bpname	Global buffer pool - specify SIZE= <i>nnn</i> instead of NAME= to use a local buffer pool (for NOM/ NCL only). Note: If you use a local buffer pool, the parameter SIZE must be 512 or higher.
NETWORK	(1-4),AM=STD	Work file definition (for NOM only)

¹ See the minimum values for Entire System Server.

² If you have other printer assignments, you can substitute DUMMY with your definitions, however, you must assign **at least** 2 printers.

³ See the section **Installation** for the desired product.

⁴ Must point to the FNAT to which SYSSAT was loaded.

Step 4: Link Natural Subtask/Batch

(Job I060: Step 3720 - Subtask / Step 0020 - Batch)

- OS/390
- BS2000/OSD
- VSE/ESA

Note about ESX:

Starting with Natural 2.3.4, the Entire System Server interface (ESX) is no longer a separate product but part of Natural (and included on the Natural installation tape).

The installation is described in **Installing the Entire System Server Interface** in the **Natural Installation Guide for Mainframes**.

OS/390

- For NPR and Natural
- For NOM

Servers for SAT products can be started either as subtasks or as separate batch jobs. Therefore, you need either a subtask Natural or a batch Natural.

The following libraries must be used for the linkage:

Library	Description
//NATLIB DD DISP=SHR,DSN=SAGLIB.NAT nnn .LOAD	Natural Load Library.
//NPRLIB DD DISP=SHR,DSN=SAGLIB.NPR nnn .LOAD	Supplied Entire System Server Load Library.

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

Note:

The result of the subtask linkage must be stored in any STEPLIB of the Entire System Server node used and it must be reentrant. This library, like any STEPLIB of the Entire System Server Started Task, must be APF-authorized.

- Take the link job of an existing batch Natural, link the Entire System Server interface to Natural as described in the **Natural 3.1.4 Release Notes** and include the statements listed below.
- Adjust NATLIB to your Natural load library and NPRLIB and SMALIB to your Entire System Server load library.
- To make Con-nect features available, ensure that the appropriate CNT/TRS modules are included.

For NPR and Natural

The following example applies to NPR 3.1.1 and above together with Natural 3.1.4 and above. It demonstrates how to link the Natural subtask front-end.

INCLUDE ...	
INCLUDE SMALIB(ESYNODTB)	ESY node table
INCLUDE ...	

For NOM

The following is an example of how to link the Natural subtask front-end:

INCLUDE SMALIB (NATOS)	Natural subtask / batch interface
INCLUDE <natparm>	NATPARM
INCLUDE NPRLIB (ADANPR)	Adabas / Entire System Server interface
INCLUDE NATLIB(SATDTA)	SAT Calendar (required for NOP, NOM, NCL), if Natural Version 3.1.4 and above are used.
ENTRY NATMVS	
NAME NATSAT31 (R)	

BS2000/OSD

For NPR and Natural

- Take the link job of an existing batch Natural, link the Entire System Server interface to Natural as described in the **Natural 3.1.4 Installation Documentation** and include the statements listed below.
- To make Con-nect features available, ensure that the appropriate CNT/TRS modules are included.

The following libraries must be used for the linkage:

Library	Description
<NATLIB> = NAT nnn .MOD	Supplied Natural Load Library.

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

For NPR and Natural

The following example applies to NPR 3.1.1 and above together with Natural 3.1.4 and above. It demonstrates how to relink Natural, including the following modules:

INCLUDE SATDTA,<NATLIB>	SAT Calendar (required for NOP, NOM, NCL).
INCLUDE xxxxxxxx,<pppLIB>	Product-specific modules (<pppLIB> refers to the product's load library)

VSE/ESA

For NPR and Natural

- Take the link job of an existing batch Natural, link the Entire System Server interface to Natural as described in the **Natural 3.1.4 Installation Documentation** and include the statements listed below.
- To make Con-nect features available, ensure that the appropriate CNT/TRS modules are included.

Include the library definitions for USRLIB, NATLIB, and NPRLIB in your LNKEDT procedure: (LIBDEF chain).

For NPR and Natural

The following example applies to NPR 3.1.1 and above together with Natural 3.1.4 and above.

PHASE SATNT nnn	Change as required.
INCLUDE NATVSE	Natural Batch Driver
INCLUDE SATDTA	SAT Calendar (required for NOP, NOM, NCL), you will find SATDTA in the Natural library.
INCLUDE LNKVSR	Adabas interface
INCLUDE ...	Product-specific INCLUDEs

Step 5: Load the INPL and ERRN Files

(Job I061, Steps 3700 and 3702)

- Natural Security Environment
- Non-Natural Security Environment

Load the programs and error messages for System Automation Tools.

Library	File	Contents
SYSSAT	FNAT	System Automation Tools programs and error messages.

Note:

If there are any data sets for the solution of certain SAGSIS problems on the installation tape, refer to the problem descriptions before loading them, now.

Natural Security Environment

Define SYSSAT as STEPLIB for all products of the SAT product family.

Non-Natural Security Environment

The SYSSAT library is automatically defined as STEPLIB for all products of the SAT product family.

Step 6: Create NATPARM Module

(for Online Natural)

Modify, assemble and link the parameter module for the online Natural. To do this, adapt **Job I080** (see NAT314.JOBS). The module must contain at least the following parameters (entries for other products are possible, but not documented here):

NTPRM	ESIZE=96 SSIZE=60 ASIZE=64 DATSIZE=90 CDYNAM=10 MAXCL=0 MADIO=0 ETEOP=OFF WH=ON IM=D MT=0 LS=132 PS=66	Extended work area size Software AG Editor work area size Entire System Server work area size Choose a value must between 48 and 64 Local data ¹ Number of dynamic loaded modules. Entries for SAT products ² Max. program calls (no limit) Maximum DBMS calls (no limit) No explicit Open WAIT on HOLD, NAT314 Set input mode Max. CPU time: no limit Line Size Page Size
NTFILE	ID=204,DBID=satdbid, FNR=satfnr	Locates main member ³
NTFILE	ID=131,DBID=db, FNR=fnr	SAT System File access, use real database ('db') and file number ('fnr') values.
NTDB	PROCESS,148	Entire System Server Views cataloged to this DBID.
NTBPI	TYPE=NAT,SEQ=0,NAME=bpname	Global buffer pool. Note: If you use a local buffer pool, the parameter SIZE must be 512 or higher.

¹ See the minimum values for Entire System Server.

² See installation section in documentation for desired product.

³ Must point to the FNAT to which SYSSAT was loaded.

Step 7: Relink all Online Natural Nuclei

All Natural modules, online and batch, which will be used to execute ESM functionality (for example online usage of SYSEOR, SYSNOM, SYSNCL and batch jobs used for NOM printing, archiving, etc.) must be relinked:

- Link the Entire System Server interface to Natural as described in the **Natural 3.1.4 Installation Documentation** or above.
- Include SATDTA (SAT Calendar function) from the SAT library with Natural 3.1.4 and above: from the Natural library) and product-specific load modules as described in the documentation of the relevant products.
- To make Con-nect features available, ensure that the appropriate CNT/TRS modules are included.