

Installing the Software AG Editor

The Software AG Editor is an optional feature that represents basic functionality within Natural, exclusively used by several Natural subproducts and other Software AG products.



The information contained herein supersedes the instructions given in the **Software AG Editor Installation Manual** which now is obsolete and no longer valid.

These installation instructions cover the following topics:

- Prerequisites
- Support of an OS/390 Sysplex Environment
- Migrating from Previous Versions
- Installation Procedure under OS/390 and VSE/ESA
- Installation Procedure under BS2000/OSD
- Installation Procedure under CMS
- Installation Verification

For details on the following topics, see also the documentation listed below:

- Operating the Software AG Editor in the Natural Operations for Mainframes documentation
- SYSEDT Utility in the section Debugging and Monitoring
- Software AG Editor Functionality and Usage, refer to the Software AG Editor reference 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.

Prerequisites

Installation Modules

As the Software AG Editor is an integrated part of Natural, it can only be installed together with the current Natural version; that is, the version it is supplied with. The installation modules are provided as part of the Natural installation datasets.

Software AG Editor as an Alternative to the Natural Program Editor

If you want to use the Software AG Editor as an alternative to the Natural program editor, you still need to have Natural ISPF installed and to set your editor profile appropriately. For detailed information, see Editor Profile (in the Natural User's Guide for Mainframes).

Using SMA

If you install the Software AG Editor by using SMA, you must set a flag to "Y" (for YES). This flag is called:

Platform:	Requirement:
OS/390 or VSE/ESA	"SAG-EDITOR"
BS2000/OSD	"NAT-OPT-EDITOR"

Support of an OS/390 Sysplex Environment

To support an OS/390 Sysplex environment, that is, to be able to switch the OS/390 host during a Natural session, the Software AG Editor must run without a buffer pool.

For this purpose, the profile parameter EDPSIZE (described in the Natural Reference documentation) is supplied where you can specify the size of an auxiliary editor buffer pool. All editor data are kept in the user storage thread. The total editor work space per user is limited by the EDPSIZE parameter. No editor work file is required. The RECOVER mechanism of the Software AG Editor is not supported.

Migrating from Previous Versions

Since the RECOVER mechanism from Software AG Editor Versions 2.2.6 or above is upward compatible, you can continue using a buffer pool work file from Version 2.2. However, the format of the editor buffer pool is incompatible between Versions 2.2 and 3.1. Therefore, you cannot share buffer pools and their work files between Versions 2.2 and 3.1.

- If you want to use **Version 2.2 and Version 3.1** editor work files concurrently in the same region, you have to use different logical database names.
To define the dataset names, use the parameter DDNAME in the editor buffer pool parameter module (described in the Natural Operations for Mainframes documentation).
- If you want to use **Version 2.3 and Version 3.1** concurrently in the same region, you can either use different buffer pools and work files (see above) or you can share it. In the latter case, you must link the NAT EDT module of Natural 3.1 to your Natural 2.3 nucleus.
It would be also possible to link the NAT EDT module of Natural 2.3 to your Natural 3.1 nucleus. In either case, it must be the same NAT EDT for all Natural nuclei. This also applies if you want to share a global EDITOR buffer pool between Natural 2.3 and 3.1.

Installation Procedure under OS/390 and VSE/ESA

The installation procedure for the integrated Software AG Editor under OS/390 and VSE/ESA consists of the following steps:

Step 1: Adapt the Editor Buffer Pool Parameter Module NATEDPRM

The buffer pool parameters contained in NATEDPRM are stored in the work-file control record during formatting (see Step 3). NATEDTPRM can be linked to the run-time module NATEDT and to the EDITOR work-file batch formatting utility.



Before adapting NATEDPRM, first refer to the Editor Buffer Pool Parameter Macro (in the Natural Operations for Mainframes documentation).

Assemble the buffer pool parameter module and link it together with the Editor Work File Batch Format utility (NATEDFM) contained in the Natural load library.

For first-time installations: You can leave the defaults. In this case, it is not necessary to assemble the buffer pool parameter module.

Step 2: Allocate the Editor Work File

(Job I008, Step 190x)

Skip this step for Com-plete.

A VSAM RRDS is used as the editor work file. To best exploit the VSAM dataset space, the record length should be defined 8 bytes less than the control interval length; see also Editor Work File (in the Natural Operations for Mainframes documentation).

Depending on your TP-monitor environment, run Step 190x of Job *nnn*I008 to allocate the dataset

where *nnn* represents the product code of the corresponding Natural interface (for example, NCI or NII).

Step 3: Format the Editor Work File

(Job I081, Step 190x)

Skip this step for Com-plete.

Use the Editor Work File Batch Format program (NATEDFM) to format and load the control record in the editor work file.

Depending on your TP-monitor environment, run Step 190x of Job *nnn*I081 to format the dataset where *nnn* represents the product code of the corresponding Natural interface (for example, NCI or NII).

Platform:	Requirement:
VSE/ESA	To be able to use the batch format utility, the phase NATEDFMV must be created by linking the following modules: NATEDFMV NATEDPRM Link the modules (job I060, step 1900).

Step 4: Modify the Start-Up JCL and Subsystem Definitions

You can change the DD name in the editor buffer pool's parameter module NATEDPRM. If you use another DD name than CMEDIT, you must specify it in your JCL.

Platform:	Requirement:
OS/390 and TSO	<p>Add a DD card for the editor work file:</p> <pre>//CMEDIT DD DSN=<i>dataset-name</i>,DISP=SHR</pre> <p>If you have specified the correct dataset name in the editor buffer pool's parameter module, this step can be omitted, as Natural will allocate the file dynamically.</p>
VSE/ESA	<p>Add a DLBL card for the editor work file:</p> <pre>// DLBL CMEDIT,'<i>dataset-name</i>',,VSAM,CAT=<i>catalog-name</i></pre> <p>Since an editor work file cannot be shared by several VSE/ESA partitions, each partition requires its own editor work file.</p> <p>In VSE/ESA batch mode, however, instead of using an actual VSAM file, a dummy editor work file can be defined by using JCL or standard labels, see example for VSE/ESA Batch Mode below. Such a label definition enables you to use the editor and the editor buffer pool, but any write access to the editor work file will lead to an error, and recovering will not be possible.</p>

Example for VSE/ESA Batch Mode:

```
// DLBL CMEDIT,'SAG.EDITOR.WORK.FILE',,VSAM,CAT=catalog-name
// EXTENT SYSnnn */ nnn being any valid SYS number
// ASSGN SYSnnn,IGN
```

Platform:	Requirement:
Com-plete	<p>The Software AG Editor uses an SD file as its work file under Com-plete, therefore no separate VSAM file is required. Therefore, a global buffer pool cannot be shared between Com-plete and other environments.</p> <p>The name of the SD file is indicated in the DDNAME parameter of the NATEDPRM macro. The DSNNAME subparameter of the NATEDPRM parameter has therefore no significance.</p> <p>The SD file is allocated automatically at initialization of the editor buffer pool. By default, an SD file with 1000 records and a length of 4048 bytes is allocated. These default values may be overwritten by the EDITWRK parameter in the NCMCFPRM module (see Customizing a Natural/Com-plete Environment).</p> <p>If you want to use a local editor buffer pool, add the definitions of the editor buffer pool to the SERVER parameter of your startup parameters as indicated in the section Using a Natural Local Buffer Pool under Com-plete.</p>
CICS	<p>Add an entry in the CICS File Control Table as follows:</p> <pre> CMEDIT DFHFCT TYPE=DATASET , ACCMETH=VSAM , DATASET=CMEDIT , FILSTAT= (ENABLED , OPENED) , SERVREQ= (ADD , UPDATE , DELETE) , RECFORM= (FIXED , UNBLOCKED) , STRNO=4 , RSL=PUBLIC , LOG=NO </pre> <p>Local shared resources (LSR) can be used if possible.</p> <p>If you use the DSNNAME parameter, the JCL definition for the editor work file is obsolete.</p>

Step 5: Adapt all Natural Parameter Modules

(Job I080)

Add the following parameter to your parameter module to specify the size of the editor area:

```
SSIZE=nn
```

where "*nn*" must be set to at least 54.

The following buffer-pool type-dependent steps must be made:

```
NTBPI TYPE=EDIT,SIZE=size
```

The region size must be defined large enough to be able to allocate the buffer pool.

Using a Global Buffer Pool - OS/390 only

If you want to use a global buffer pool, you must specify the NTBPI macro (see Assembling a Natural Parameter Module in the Natural Operations for Mainframes documentation) in a different way so that you are able to specify the global editor buffer pool ID.

Specify the NTBPI macro as follows:

```
NTBPI TYPE=EDIT,NAME=name
```

Reassemble and link the parameter module.

If you want to use a global buffer pool, the Natural subsystem interface must be installed. For more information, see Natural Global Buffer Pool (in the Natural Operations for Mainframes documentation).

Step 6: Define a Global Editor Buffer Pool - OS/390 only

Optionally, the editor buffer pool can be defined as a global buffer pool.

Similarly to the global Natural buffer pool, the global editor buffer pool can be shared by several regions. It is defined and started with the same procedure as a global Natural buffer pool; see Natural Global Buffer Pool (in the Natural Operations for Mainframes documentation), only that parameter TYPE=EDIT has to be added. However, it must be kept separate from the global Natural buffer pool.

Make sure that all users of a global editor buffer pool have access to the same shared editor work file.

This will be checked by the editor buffer pool manager and can lead to abends if the current work file is different from the work file used during initialization.



Under IMS/TM, the use of a global buffer pool is mandatory.

Step 7: Relink Natural with the Software AG Editor

(Job I080)

Natural must be relinked with the editor module NATEDT.

Assuming your Natural load library is referenced by NATLIB, add the following line to your linkage-editor input:

```
INCLUDE NATLIB(NATEDT)
```

The editor module can be linked to a shared nucleus or to an environment-dependent nucleus. You can link it to an alternate parameter module, or as a separate module named editor if you are running with profile parameter RCA (in the Natural Reference documentation).

In this case, the editor module NATEDT must be linked as load module EDITOR and RCA=EDITOR.

If you have specified the parameters DDNAME or DSNAMES in the module NATEDPRM, it must be linked together with NATEDT. Then add the following line to your linkage-editor input:

```
INCLUDE NATLIB(NATEDPRM)
```

Installation Procedure under BS2000/OSD

The installation procedure for the integrated Software AG Editor under BS2000/OSD consists of the following steps:

Step 1: Adapt the Editor Buffer Pool Parameter Module NATEDPRM

The buffer pool parameters contained in NATEDPRM are stored in the work-file control record during formatting (see Step 3). NATEDTPRM can be linked to the run-time module NATEDT and to the EDITOR work-file batch formatting utility.



Before adapting NATEDPRM, first read the section Editor Buffer Pool Parameter Macro (in the Natural Operations for Mainframes documentation).

Assemble and link the buffer pool parameter module (see the source member NATEDPRM in your source library).

For first-time installations: You can leave the defaults. In this case, it is not necessary to assemble the buffer pool parameter module.

Step 2: Adapt all Natural Parameter Modules

(Jobs I080 and I060)

Add the following parameter to your parameter module to specify the size of the editor area:

```
SSIZE=nn
```

where "*nn*" must be set to at least 54.

Add the following macro to your parameter module to specify the size of the editor buffer pool:

```
NTBPI TYPE=EDIT
```

The region size must be defined large enough to be able to allocate the buffer pool. For a detailed description of the NTBPI macro, refer to Assembling a Natural Parameter Module (in the Natural Operations for Mainframes documentation).

Reassemble and link the parameter module.

Step 3: Allocate and Format the Editor Work File E.FRM.EDITWORK

(Job I081, Step 1900)

Allocate the editor work file (see also Editor Work File in the Natural Operations for Mainframes documentation) by issuing the command:

```
/FILE dataset-name,LINK=CMEDIT,SPACE=...
```

Then execute the formatting program (NATEDFM2, NATvrs.MOD) by entering FORMAT to format and load the control record in the editor work file.

Step 4: Modify the Start-Up Procedures for your Natural Nuclei

For TIAM and/or UTM:

Add a FILE command for the editor work file:

```
/FILE D.EDITWORK.dbid, LINK=CMEDIT
```

Step 5: Define a Local Editor Buffer Pool

(Job I070, Step 1900)

To define a local editor buffer pool, proceed as follows:

Assemble the source member containing the ADDON macro definition for the common memory pool of the Software AG Editor (ABS2STUU for UTM and ABS2STUB for TIAM and batch) in your job library.

Include the resulting module (BS2STUB) in the linkage-editor input for your UTM, TIAM or batch front-end part.

For the macros and parameters contained in macros BS2STUB and ADDON, see Local Common Memory Pools (in the Natural Operations for Mainframes documentation).

Step 6: Define a Global Editor Buffer Pool

(Job I070, Step 1900)

Optionally, the editor buffer pool can be defined as a global buffer pool.

Similar to the global Natural buffer pool, the global editor buffer pool can be shared by several regions. However, it must be kept separate from the global Natural buffer pool.

To define a global editor buffer pool, proceed as follows:

Assemble the source member containing the ADDON macro definition for the common memory pool of the Software AG Editor (ABS2STUU for UTM and ABS2STUB for TIAM and batch) in your job library.

Include the resulting module (BS2STUB) in the linkage-editor input for your UTM, TIAM or batch front-end part.

Ensure that all users of a global editor buffer pool have access to the same shared editor work file.

This will be checked by the editor buffer pool manager and can lead to abends if the current work file is different from the work file used during initialization.

For the macros and parameters contained in macros BS2STUB and ADDON, see Local Common Memory Pools (in the Natural Operations for Mainframes documentation).

Step 7: Start the Global Editor Buffer Pool

(Job I106, Step 0100)

Once defined, a global editor buffer pool must be started.

To start the global editor buffer pool, execute the module CMPSTART.

Step 8: Relink Natural with the Software AG Editor

(Job I080)

Natural must be relinked with the editor module NATEDT and the work file access module NATEDWA2 (see the source member LNATSHAR in your job library).

Assuming your Natural load library is referenced by NATLIB, add the following lines to the linkage-editor input:

```
INCLUDE NATLIB(NATEDT)  
INCLUDE NATLIB(NATEDWA2)
```

Installation Procedure under CMS

The installation procedure for the integrated Software AG Editor under CMS consists of the following steps:

Step 1: Adapt the Editor Buffer Pool Parameter Module NATEDPRM

The buffer pool parameters contained in NATEDPRM are stored in the work file control record during the first initialization. Before adapting NATEDPRM, first read Editor Buffer Pool Parameter Macro (in the Natural Operations for Mainframes documentation).

Assemble the buffer pool parameter module.

For first-time installations: You can leave the defaults. In this case, it is not necessary to assemble the buffer pool parameter module.

Step 2: Adapt all Natural Parameter Modules

Add the following parameter to your NATPARM module to specify the size of the editor area:

```
SSIZE=nn
```

where "*nn*" must be set to at least 54.

Add the following macro to your NATPARM module to specify the size of the local editor buffer pool:

```
NTBPI TYPE=EDIT,SIZE=size
```

For a detailed description of the NTBPI macro, refer to Assembling a Natural Parameter Module (in the Natural Operations for Mainframes documentation).

Reassemble and link the NATPARM module.



The CMS machine must be defined large enough to allocate the editor buffer pool.

Step 3: Relink Natural with the Software AG Editor

Natural must be relinked with the editor modules NATEDT and NATEDPRM.

Modify LOADLIST in NAT\$LOAD EXEC to include:

```
NATEDT NATEDPRM
```

Run NATBLDM EXEC to rebuild Natural for CMS.

Check for the following line in NAT\$LOAD EXEC and make sure that the value 50 is set:

```
SET LDRTBLS 50
```

Installation Verification for the Software AG Editor

Once you have installed the editor, you can verify the installation.

Invoke Natural and enter SYSEDT on the command line.

The Editor Buffer Pool Services utility SYSEDT displays all buffer pool parameters and usage statistics (see the section Debugging and Monitoring).

To be able to test the full operation of the Software AG Editor, a subproduct (for example, Natural ISPF) must be installed which uses its functionality.