

# Editor Work File

This document describes structure, use and maintenance of the editor work file under the various operating systems. The following topics are covered:

- Editor Work File Structure
- Editor Work File under OS/390, VSE/ESA and BS2000/OSD
- Using the Batch Format Utility
- Formatting during Initialization
- Maintaining the Editor Work File under OS/390 and VSE/ESA
- Maintaining the Editor Work File under BS2000/OSD
- Editor Work File under CMS

See also:

- SYSEDT Utility (described in the section Debugging and Monitoring).
  - Installing the Software AG Editor (described in the Natural Installation Guide for Mainframes documentation).
  - Software AG Editor reference documentation (describes the functionality and the usage of the Software AG Editor).
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## Editor Work File Structure

The editor work file is a relative record dataset with fixed length records. It is divided into three parts:

- Control Record
- Work Record
- Recovery Records

### Control Record

The control record contains buffer pool control information including the buffer pool parameters.

During the first initialization of the work file, the values from the buffer pool parameter macro are saved in the work file control record.

You can modify the control record by using the Generation Parameters function of the SYSEDT Utility (described in the section Debugging and Monitoring).

For buffer pool restarts, the parameters are read from the control record.

### Work Record

The work record contains a logical file record which has been moved out of the buffer pool due to a lack of buffer pool blocks.

Logical work file records are lost during a restart of the buffer pool or if a timeout occurs for the logical file.

### Recovery Records

The recovery records hold checkpoint information of editor sessions. If the system terminates abnormally, this information can be used by the editor recovery facility to recover logical files. Recovery records are lost during a cold restart of the buffer pool.

The recovery facility is used by Natural ISPF only. If you do not intend to use this product, you can run without the recovery part by defining PWORK=100 in the editor buffer pool parameter module NATEDPRM.

## **Editor Work File under OS/390, VSE/ESA and BS2000/OSD**

One editor work file corresponds to one Editor Buffer Pool. If you intend to use a global editor buffer pool (OS/390 and BS2000/OSD only), the editor work file must be shared by all users using the same global editor buffer pool.

The editor work file must be large enough to contain the editor sessions of all users. A minimum number of 100 records per editor user is recommended. The record length of the work file must be fixed, can be defined from 504 to 16384 bytes, and must be a multiple of 8.

The size of a work file record is specified either when allocating the editor work file (under OS/390 and VSE/ESA; default size is 4088) or by definition in the buffer pool parameter macro (under BS2000/OSD; default size is 4096).

The total number of editor work file records depends on the allocated dataset space for the editor work file.

There are two alternative ways of formatting the editor work file:

- offline by using the batch format utility,
- online during buffer pool initialization.

With both methods, the default parameters are used if no buffer pool parameter macro is linked.

## **Using the Batch Format Utility**

This method is to be preferred, because no online user has to wait until formatting is finished. The buffer pool parameter macro is assembled and linked to the batch format utility.

During reformatting, however, the work file must not be in use, which means that the system(s) using the corresponding buffer pool have to be terminated before reformatting.

## **Formatting during Initialization**

With this method of formatting, the parameter macro can be linked to the editor module NATEDT.

The method is also called "Buffer Pool Cold Start" and is performed only if the work file has not been formatted yet or if the control record indicates "cold start" (which can also be specified by using the Editor Buffer Pool Services utility SYSEDT).

In contrast, a "warm start" is performed if a valid control record is found during buffer pool initialization. In this case, all buffer pool parameters are taken from the work file control record and no records are formatted.

## **Maintaining the Editor Work File under OS/390 and VSE/ESA**

If you want to change the size of the editor work file (for example, because it is too small), the COPY function of the Editor Work File Batch Utility can be used to avoid a buffer pool cold start; that is, the loss of the recovery records.

To copy an existing editor work file, perform the following steps:

1. Modify any buffer pool parameters by using the SYSEDT Utility (see the section Debugging and Monitoring): for example, PWORK if you want to change the percentage of work records in the file.
2. Terminate the editor buffer pool by using the System Administration Facilities of the SYSEDT Utility (see the section Debugging and Monitoring) and ensure that no Natural session is using the editor after the buffer pool termination.
3. Close (if necessary) and deallocate the editor work file.
4. Rename the editor work file by using the VSAM utility IDCAMS (ALTER command).
5. Define a new editor work file with the original name and possibly a different size, but with the same record length.
6. Run the Editor Work File Batch Utility with the new file after having added:

```
PARM=COPY
```

in the EXEC JCL card and a

```
//CMCOPY DD...    under OS/390 or
//DLBL CMCOPY...  under VSE/ESA
```

card for the renamed editor work file "CMCOPY" to be copied into the new work file "CMEDIT".

7. Check the job log for potential errors.
8. Reallocate and (if necessary) reopen the editor work file.
9. Use the SYSEDT Utility (see the section Debugging and Monitoring) to check if the buffer pool and the work file have been restarted successfully.

**Important:** All Natural sessions must be restarted if you want them to use the editor after the buffer pool restart.

## Maintaining the Editor Work File under BS2000/OSD

If you want to change the size of the editor work file, format a new editor work file and copy the recovery records from the old work file into the new one as follows:

1. Shutdown all systems that use the editor.
2. Terminate the editor buffer pool.
3. Rename the current editor work file.
4. Create a new editor work file with the original name.
5. Execute the editor work file formatting program (see also Installing the Software AG Editor in the Natural Installation Guide for Mainframes documentation) with the COPY instead of the FORMAT function after having added:

### Example:

```
/CAT NATEDT.WORKFILE,NATEDT.COPYFILE
/FILE NATEDT.WORKFILE,LINK=CMEDIT,SPACE=nnn
/LOGON
/FILE NATEDT.COPYFILE,LINK=CMCOPY
/FILE NATEDT.WORKFILE,LINK=CMEDIT
/SYSFILE SYSLST=LST.NATEDFM2
/SYSFILE SYSDTA=(SYSCMD)
/EXEC (NATEDFM2,NAT230.MOD)
COPY
/LOGOFF N
```

## **Editor Work File under CMS**

One editor work file corresponds to one CMS user. A work file is created during the first editor initialization and has the default name CMEDIT DATA A1.

It must be large enough to contain the editor sessions of the CMS user. Name, size and number of work file records are specified in the Editor Buffer Pool Parameter Macro. For optimum performance, a multiple of 800 is recommended.