

# Print File and Work File Support

This document describes special considerations on how to use print files and work files in Natural for VM/CMS.

The following topics are covered:

- Defining Print Files and Work Files
- Access Method STD
- Access Method CMS

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**VM/CMS Environment** - Other Topics:  
Natural under VM/CMS

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## Defining Print Files and Work Files

Print files and work files are defined in the Natural parameter module with the macros NTPRINT and NETWORK. The corresponding dynamic parameters are PRINT and WORK. These macros offer much greater flexibility in defining print files and work files than was the case with Natural Version 2.2.

For a detailed description of the subparameters of these macros, see NETWORK Macro and NTPRINT Macro.

In the following, the AM (access method) and DEST (destination) subparameters are described: They are common to both NTPRINT and NETWORK.

For compatibility with Natural/CMS Version 2.2, code the subparameter:

```
CLOSE=CMD
```

For both print and work files, Natural/CMS version 2.3 provides two access methods: STD and CMS.

## Access Method STD

(AM=STD)

This access method uses the CMS simulation of the OS/390 QSAM access method. Specify AM=STD if you want to read or write TAPE or spool (RDR, PRT, PUN) files, or if you want to read work files from OS/390-formatted disks.

A FILEDEF command must be issued before the corresponding print or work file is opened. The DD name to be used in the FILEDEF command is the name specified in the DEST subparameter.

## Access Method CMS

(AM=CMS)

This access method uses the standard CMS file system to read and write CMS files on accessed mini disks and SFS directories.

The file names of the resulting CMS files are:

- CMPRT $nn$  for print files,
- CMWKF $nn$  for work files

where *nm* denotes the number of the file.

Their file type is the same as the name specified in the DEST subparameter. The filemode is always A1.

### Special Destination Names for AM=CMS

DEST=FD	Destination FD allows greater flexibility in assigning a CMS file to a Natural print or work file. When Natural opens a print or work file with destination FD, it searches for a FILEDEF for the DD name CMPRT <i>nm</i> or CMWKF <i>nm</i> , respectively (where <i>nm</i> denotes the print or work file number). It then uses the CMS file ID given in the FILEDEF command.
DEST=LISTING	This DEST setting applies to print files only. When specifying this destination, the print file is written to the CMS disk that has the most free space available. The CMS file ID is CMPRT <i>nn</i> LISTING <i>m</i> where " <i>m</i> " denotes the filemode of the mini disk that had the most free space. When the printer is closed, the print file is printed on the virtual printer and subsequently deleted.
DEST=UEXxxxx	This DEST setting applies to print files only. If you specify a destination that starts with "UEX", the print file is treated as if LISTING had been specified. In addition, a CMS command of this name is issued by Natural when the printer is closed. The CMS command (for example, a REXX procedure) receives the CMS file ID of the print file as parameter.

### Examples:

Assuming that the FILEDEFs are in effect:

```
FILEDEF CMWKF05 CLEAR
FILEDEF CMPRT01 DISK MY REPORT D
FILEDEF CMPRT04 DISK MY REPORT A
```

If the NATPARAM settings are as follows:

```
NETWORK ( 1 , 5 , 6 ) , AM=CMS , CLOSE=CMD
NETWORK ( 1 ) , DEST=FRED
NETWORK ( 5 ) , DEST=FD
NETWORK ( 6 ) , DEST=PAUL
```

the following CMS files are produced:

```
CMWKF01 FRED A1
FILE CMWKF05 A1
CMWKF06 PAUL A1
```

If the NATPARAM settings are as follows:

```
NTPRINT ( 1 , 2 , 4 , 5 ) , AM=CMS , CLOSE=CMD
NTPRINT ( 1 , 4 ) , DEST=FD
NTPRINT ( 2 ) , DEST=LISTING
NTPRINT ( 5 ) , DEST=PAUL
```

```
MY REPORT D1
MY REPORT A1
CMWKF05 PAUL A1
```

The temporary file CMPRT02 LISTING *m* is printed and subsequently deleted ("*m*" denotes the filemode of the minidisk that had the most free space).

```
NTPRINT ( 1 ) , AM=CMS , CLOSE=CMD , DEST=UEXLOCAL
```

produces the CMS file:

```
CMPRT01 UEXLOCAL m
```

and the CMS command UEXLOCAL is issued with the file ID as parameter. If, for example, a REXX procedure of this name exists, it can determine for which printer it was invoked by using "arg fn ft fm".