Simple
Expired-File Cleanup

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The Need…

◆ MCP systems tend to accumulate files

- System log files (`SUMLOG`, `SECURITYLOG`)
- Printer-backup (`BD`) files
- DMSII audit trails
- Temporary work files, trace files, etc.

◆ Wastes disk space

◆ Increases backup time

◆ Tedious and error-prone to clean up manually

◆ Often gets neglected until there's a crisis

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Finding Files to Remove

◆ Candidate files for cleanup usually

- Reside in a specific set of directories
- Have not been accessed for some time

◆ Many ways to find files based on last-use

- `SYSTEM/PDIR` (can output to WFL file)
- `SYSTEM/FILECOPY` (can generate a complete job)
- `SYSTEM/FILEDATA` (can output to a WFL file)
- `GETSTATUS` directory search API
- `ASERIES-INFO` file information API

◆ Most require some programming or manual manipulation of the output

My Simple File Cleanup Utility

◆ Has two parts:
- COBOL-74/85 driver program
- DCALGOL/DMALGOL library
  - Retrieves file metadata using `GETSTATUS`
  - Removes files using `REMOVELFILE` intrinsic

◆ Removes "expired" files in specified directories
- Selects `LASTACCESSDATE` older than specified # days
- File is also *not* a directory (a `REMOVELFILE` problem)
- Recurses into sub-directories

◆ Optionally retains up to the 9 *newest* expired files
- Prevents completely emptying out a directory
- Particularly useful for DMSII `DESCRIPTION` files

Typical Run Deck

```
BEGIN JOB PURGE/FILES;
QUEUE = 0;
JOBSUMMARY = UNCONDITIONAL;


RUN *OBJECT/UTIL/PURGE/FILES ON DISK; SW1=TRUE;
    FILE SF-SCRIPT (READER, DEPENDENTSPECS);
    EBCDIC
015 3 *SUMLOG ON LOGPACK
015 3 *SECURITYLOG ON LOGPACK
015 2 *TRACE
031   *BD ON SPOOL
015 3 *ATLAS/ADMIN/ATLASADMIN/TRANSLOG
015 3 *ATLAS/ADMIN/ATLASADMIN/ERRORLOG
015 3 *ATLAS/ADMIN/ATLASSUPPORT/TRANSLOG
015 3 *ATLAS/ADMIN/ATLASSUPPORT/ERRORLOG
015 2 *OLEDB/LOG
015   *OLEDB/TRACE
015   *PDUMP
120 3 *COMS/TTRAIL
015 3 *MCPSQL/LOG
015   (PROD)PDUMP ON PACK
030   (PROD)PCTEXT ON PACK
? END JOB
```

TRUE = Do the removes
FALSE = Report only

Directory to search (col 7-72)

Age in days (col 1-3)

Minimum number of expired files to retain (col 5, blank=0)

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Notes

◆ COBOL program

- Should be run under a privileged usercode
- Displays each directory name and threshold date for file selection

◆ All file selection within a directory is done by the COBOL program

- Gets to examine every file
- Easily customized

◆ Library returns file data in a fixed-length array

- General purpose – designed for easy COBOL use
- Supports "continuation" requests for more files
- Allows searching arbitrarily large directories

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File Metadata Returned by Library

```
01   WFL-FILE-LIST.
     05 WFL-MAX-ENTRIES          PIC 9(6)    VALUE 100.
     05 WFL-ENTRIES              PIC 9(6).   *> number of files returned
     05 WFL-TITLE-PREFIX         PIC X(60).  *> directory name without family
     05 WFL-FAMILYNAME           PIC X(18).  *> directory family name
     05 WFL-FILE-ENTRY           OCCURS 100  INDEXED WFL-EX.
        10 WFL-CREATIONDATE       PIC 9(8).   *> all dates are YYYYMMDD
        10 WFL-CREATIONTIME       PIC 9(6).   *> all times are HHMMSS
        10 WFL-ALTERDATE          PIC 9(8).
        10 WFL-ALTERTIME          PIC 9(6).
        10 WFL-USEDATE            PIC 9(8).   *> LASTACCESSDATE
        10 WFL-USETIME            PIC 9(6).
        10 WFL-TIMESTAMPDATE      PIC 9(8).
        10 WFL-TIMESTAMPTIME      PIC 9(6).
        10 WFL-ROWSIZE            PIC 9(8).
        10 WFL-ROWS               PIC 9(4).
        10 WFL-SECTORS            PIC 9(11).  *> Total file sectors
        10 WFL-FILEKIND           PIC 9(3).
        10 WFL-INUSE              PIC 9(1).   *> 1 => file is currently in use
        10 WFL-CRUNCHED           PIC 9(1).   *> 1 => crunched
        10 WFL-SYSTEMFILE         PIC 9(1).   *> 1 => system file
        10 WFL-TEMPORARYFILE      PIC 9(1).   *> 1 => temporary file
        10 WFL-SECURITYTYPE       PIC 9(1).
        10 WFL-SECURITYUSE        PIC 9(1).
        10 WFL-NODETYPE           PIC 9(1).   *> 1=File, 2=Directory, 3=Both
        10 FILLER                 PIC X(28).
        10 WFL-FILENAME-SIZE      PIC 9(3).
        10 WFL-FILENAME           PIC X(270). *> Display form, no on-part
```

How to Get the Code

◆ http://www.digm.com/UNITE/2020/#MCP_4024

◆ https://sf.net/projects/paradigmfutil/

◆ Will also be included in the UNITE 2020 Conference presentation archive

End

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