

Re: Shell Script to Remove Old Files

Source: <http://unix.derkeiler.com/Newsgroups/comp.unix.admin/2007-03/msg00012.html>

- *From:* "Miles" <my_spam_account@xxxxxxx>
 - *Date:* 8 Mar 2007 10:01:31 -0800
-

On Mar 7, 11:39 pm, "KAKA" <kaka....@xxxxxxxxxx> wrote:

How do I write a shell script to remove files (recursively under a directory) which is older than 6 months old? Thank you!

Here's the long answer. Note it needs a TSM server:

```
#!/usr/bin/ksh93
#
# Name: rm_old_files
#
# Purpose: To remove files from a directory that are more than x days
old
#
# Type: Permenant
#
# Date: Dec 1998
#
# Required Parameters:
#
-----
# Directory: the directory to search, and its sub-directories
# Days: files older than the number of days to be deleted
#
# Optional Parameters:
#
-----
# None.
#
# Change History:
#
# Date Name Comments
#
-----
# Apr 1999 purdym added backup to ADSM
# 14 jul 2003 purdym added quotes at begining and end of
file name
# 2 Sep 2003 purdym changed find command from:
```

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```
# find $STARTDIR -fstype jfs -type f -
xdev -mtime +${DAYSOLD} -exec ls -l {} \;
# to:
# find $STARTDIR \( -fstype jfs -o -
fstype jfs2 \) -type f -xdev -mtime +${DAYSOLD} -exec ls -l {} \;
# 21 jun 2004 purdym started to standardize the script
#
# 27 may 2005 purdym added check for free space
#
#
```

```
#####
# print_instructions
#####
print_instructions () {
cat <<EOF
```

Syntax: \$0 directory days

This script will remove files from 'directory' that are more than 'days' days old.

This script does the following:

1. Backups the files up to TSM
2. Deletes them

```
EOF
}
```

```
#####
# Verify command line arguments
#####
if [[ $# -ne 2 ]]
then
print_instructions
exit -1
fi
```

```
#####
# command line args
#####
STARTDIR=$1
DAYSOLD=$2
```

```
#####
# Variables
#####
DEBUG=0 # 0=false; 1=true
PROGRAM_NAME=$0
```

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set_variables

```
#####
# Check for system type
#####
SYS_NAME=$(uname -s);
(( $DEBUG == $TRUE )) && print "System type is: $SYS_NAME";

if [[ $SYS_NAME == "AIX" ]]
then
SYS_TYPE=1

elif [[ $SYS_NAME == "HP-UX" ]]
then
SYS_TYPE=2

elif [[ $SYS_NAME == "Linux" ]]
then
SYS_TYPE=3

else
print "Unknown system: $SYS_NAME.";
error_exit
fi

#####
# Variables
#####
RETCODE1=$?; if (( $RETCODE == 0 )); then RETCODE=$RETCODE1; fi
(( $DEBUG == $TRUE )) && print "DEBUG: "

LOG_FILE1=$WORK_DIR/${0##*/}.1.$$tmp
LOG_FILE2=$WORK_DIR/${0##*/}.2.$$tmp

FILELIST=$WORK_DIR/${0##*/}.filelist.$$tmp
COMMAND_FILE=$WORK_DIR/${0##*/}.command_file.$$

#####
#
#####
echo "\n\n$0 started at $(date).\"
echo $SEP1 | cut -c -${COLUMNS}

#####
# Checks
#####
if [[ ! -d $STARTDIR ]]
then
echo "\nError: $STARTDIR does not exist.\n\"
echo "The 1st parameter must specify the starting directory.\n\"
RETCODE=-3
```

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```
error_exit
exit -3
fi

if [[ $STARTDIR = '/' || $STARTDIR = '/usr' || $STARTDIR = '/etc' ||
$STARTDIR = '/var' || $STARTDIR = '/home' || $STARTDIR = '/spdata' ||
$STARTDIR = '/proc' ]]
then
echo "\nERROR: Can't use $STARTDIR.\n"
RETCODE=-4
error_exit
exit -4
fi

if [[ $DAYSOLD != [0-9]* ]]
then
echo "\nERROR: The 2nd parameter must be the minimum age in days,
in the form: [0-9]*.\n"
RETCODE=-5
error_exit
exit -5
fi

#####
# check for free working space
#####
$UNIX_SYSTEM_DIRECTORY/bin2/check_fs_for_free_megabytes $WORK_DIR 5

#####
# list the files first
#####
echo "\n$SEP" | cut -c -$COLUMNS
print "STEP: Files selected for removal:"
find $STARTDIR \( -fstype jfs -o -fstype jfs2 \) -type f -xdev -mtime +
${DAYSOLD} | sed 's/^\(.*\)$/"\1"/' | tee $FILELIST
RETCODE1=$?; if (( $RETCODE == 0 )); then RETCODE=$RETCODE1; fi
print "Return code before backing up of files using dsmd: $RETCODE"

#####
# backup the files
#####
echo "\n$SEP" | cut -c -$COLUMNS
print "STEP: Backing up the files (if they need to be)..."
dsmd inc -filelist=$FILELIST | egrep -vi "Tivoli Storage Manager|
Command Line|Copyright IBM|Copyright by IBM|Session established|Client
Version|Client date|Server Version|Server date|ANS1891W"
DSM_RETURN_CODE=$? # save
this value for further processing
print "\nDone.\nReturn code of the dsmd command was: $DSM_RETURN_CODE"

if (( $DSM_RETURN_CODE == 8 ))
```

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```
then
print "\nINFORMATION: No files met the specifications to be backed
up. No files needed to be backed up. Delete will still proceed."

elif (( $DSM_RETURN_CODE != 0 ))
then
print "\n$SEP\nWARNING: BACKUP FAILED: Error $DSM_RETURN_CODE
\nRetrying...\n$SEP\n"
dsmc inc -filelist=$FILELIST | egrep -vi "Tivoli Storage Manager|
Command Line|Copyright IBM|Copyright by IBM|Session established|Client
Version|Client date|Server Version|Server date|ANS1891W"
DSM_RETURN_CODE=$? # save
this value for further processing
fi

#####
# remove the files?
#####
if (( $DSM_RETURN_CODE == 0 || $DSM_RETURN_CODE == 8 ))
then
# Actually remove the files
echo "\n$SEP" | cut -c -$COLUMNS
print "STEP: Removing the files now...\c"
xargs rm < $FILELIST
RETCODE1=$?; if (( $RETCODE == 0 )); then RETCODE=$RETCODE1; fi
echo "Done.\nReturn code of rm command was: $RETCODE"

else
print "\nWARNING: It doesn't look like the backup worked. No files
will be deleted."
RETCODE=-5
error_exit
fi

#####
# clean up
#####
remove_file $FILELIST
remove_file $COMMAND_FILE

#####
# exit
#####
echo "\n$SEP1" | cut -c -${COLUMNS}
print "$0 Ended at $(date)"
echo $SEP1 | cut -c -${COLUMNS}

exit $RETCODE

.
```