

```
198097@client17:~/Lab21$ cat head.txt
```

```
*****
```

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*
*      Лабораторная работа №21      *
* Программирование на интерпретируемых *
*      командных языках      *
*      Выполнил студент группы 104      *
*      Черница Артём Александрович      *
*      *      *
```

```
*****
```

```
198097@client17:~/Lab21$ cat script.sh
```

```
#!/bin/bash
```

```
for param in $@
```

```
do
```

```
case $param in
```

```
--debug) echo "Debug mode is on..."; set -x; shift; break;; # debug on
```

```
-h) echo "./script.sh [--debug] <path to directory> <file size>"; exit;break;;
```

```
*) ;;
```

```
esac
```

```
done
```

```
if [ -n "$1" ]
```

```
then
```

```
path=$1
```

```
else
```

```
echo "Введите путь каталога, где надо заменить суффиксы файлов:"
```

```
read path
```

```
fi
```

```
while [ ! -d $path ]
```

```
do
```

```
echo "Директории $path не существует, попробуйте снова:"
```

```
read path
```

```
done
```

```
if [ -n "$2" ]
```

```
then
```

```
size=$2
```

```
else
```

```
echo "Введите размер, файлы с размером меньше которого будут переименованы:"
```

```
echo "(например: 1000с или 100k или 10M или 1G, по умолчанию поиск в байтах)"
```

```
read size
```

```
fi
```

```
while [[ ! "$size" =~ ^[1-9]{1}[0-9]*[ckMG]?$ ]]; do
```

```
    echo "Вы ввели не число, попробуйте снова:"
```

```
    read size
```

```
done
```

```
size_in="${size: -1}"
```

```
case $size_in in
```

```
cklMIG) size=$((size//[a-zA-Z]/));;
```

```
*) size_in=c;;
```

```
esac
```

```
files=$(find $path -maxdepth 1 -size "-${size}${size_in}" -name "[^.]*" -type f)
for i in $files
do
    if [ ! -d $i ]
    then
        fl=$(basename $i); fl=${fl:0:1};
        name="${i%.*}.${fl}"
        echo "$(du -sh $i) -> $name"
        mv -f $i $name
    fi
done
```

```
set +x # debug off
198097@client17:~/Lab21$ cd kek
198097@client17:~/Lab21/kek$ ls -lah
total 140M
drwxr-xr-x 2 parallels parallels 4.0K Mar 29 21:27 .
drwxr-xr-x 3 parallels parallels 4.0K Mar 29 21:19 ..
-rw-r--r-- 1 parallels parallels 12M Mar 25 00:00 cdZe.mkv
-rw-r--r-- 1 parallels parallels 11M Mar 25 00:00 DyTy.mp4
-rwxr-xr-x 1 parallels parallels 3.2K Mar 29 21:04 generate.sh
-rw-r--r-- 1 parallels parallels 0 Mar 29 21:27 .hidden
-rw-r--r-- 1 parallels parallels 4.8M Mar 25 00:00 Lynt.wmv
-rw-r--r-- 1 parallels parallels 31M Mar 25 00:00 NKfp.avi
-rw-r--r-- 1 parallels parallels 7.5M Mar 25 00:00 OGVs.flv
-rw-r--r-- 1 parallels parallels 23M Mar 25 00:00 tzMi.3gp
-rw-r--r-- 1 parallels parallels 11M Mar 25 00:00 uhPy.mov
-rw-r--r-- 1 parallels parallels 17M Mar 25 00:00 UXkA.vob
-rw-r--r-- 1 parallels parallels 26M Mar 25 00:00 yPDm.swf
198097@client17:~/Lab21/kek$ cd ..
198097@client17:~/Lab21$ ./script.sh -h
./script.sh [--debug] <path to directory> <file size>
198097@client17:~/Lab21$ ./script.sh kek 10M
7.5Mkek/OGVs.flv -> kek/OGVs.O
4.0K kek/generate.sh -> kek/generate.g
4.8Mkek/Lynt.wmv -> kek/Lynt.L
198097@client17:~/Lab21/kek$ cd ..
198097@client17:~/Lab21$ rm -rf kek
198097@client17:~/Lab21$ mkdir kek
198097@client17:~/Lab21$ cat generate.sh
#!/bin/bash
```

```
SUFFIXES="3gp avi flv mkv mov mp4 swf vob wmv";
```

```
##
```

```
## Количество дней.
```

```
##
```

```
N="4";
```

```
NUMBER_REGEX='^[0-9]+$';
```

```

DAYS_AGO=$(date "+%Y-%m-%d" -d "${N} day ago");

for SUFFIX in $SUFFIXES ; do
    ##
    ## Генерируем один случайный мегабайт
    ##
    RANDOM_BYTES=$( cat /dev/urandom | dd bs=256kB count=17 2> /dev/null);
    ##
    ## На основании этого же мегабайта, мы соорудим случайное имя файла.
    ##
    RANDOM_NAME=$(echo ${RANDOM_BYTES} | tr -dc 'A-Za-z' | fold -w 4 | head -n 1 )

    if [ -z "${RANDOM_NAME}" ]; then
        ##
        ## Если выделить случайную строку нам не удалось,
        ## то давайте подставлять наносекунды.
        ## `date +%N` как раз их и вернет.
        ##
        RANDOM_NAME=$(date +%N);
    fi;
    FILENAME="${RANDOM_NAME}.${SUFFIX}"

    ##
    ## Записываем случайные байты в файл со случайным именем.
    ##
    dd if=/dev/urandom of="${FILENAME}" bs=1024 count=$(( RANDOM + 1024 ))

    ##
    ## Выставляем файлу дату в прошлом.
    ##
    touch -d "${DAYS_AGO}" "${FILENAME}"
done;
198097@client17:~/Lab21$ cp generate.sh kek/
198097@client17:~/Lab21$ cd kek
198097@client17:~/Lab21/kek$ ls
generate.sh
198097@client17:~/Lab21/kek$ ./generate.sh
./generate.sh: line 57: warning: command substitution: ignored null byte in input
4062+0 records in
4062+0 records out
4159488 bytes (4.2 MB, 4.0 MiB) copied, 0.0509849 s, 81.6 MB/s
./generate.sh: line 57: warning: command substitution: ignored null byte in input
17789+0 records in
17789+0 records out
18215936 bytes (18 MB, 17 MiB) copied, 0.242057 s, 75.3 MB/s
./generate.sh: line 57: warning: command substitution: ignored null byte in input
2123+0 records in
2123+0 records out
2173952 bytes (2.2 MB, 2.1 MiB) copied, 0.0310913 s, 69.9 MB/s
./generate.sh: line 57: warning: command substitution: ignored null byte in input
26336+0 records in

```

```

26336+0 records out
26968064 bytes (27 MB, 26 MiB) copied, 0.357582 s, 75.4 MB/s
./generate.sh: line 57: warning: command substitution: ignored null byte in input
30882+0 records in
30882+0 records out
31623168 bytes (32 MB, 30 MiB) copied, 0.511574 s, 61.8 MB/s
./generate.sh: line 57: warning: command substitution: ignored null byte in input
20891+0 records in
20891+0 records out
21392384 bytes (21 MB, 20 MiB) copied, 0.249695 s, 85.7 MB/s
./generate.sh: line 57: warning: command substitution: ignored null byte in input
16036+0 records in
16036+0 records out
16420864 bytes (16 MB, 16 MiB) copied, 0.184753 s, 88.9 MB/s
./generate.sh: line 57: warning: command substitution: ignored null byte in input
16732+0 records in
16732+0 records out
17133568 bytes (17 MB, 16 MiB) copied, 0.33572 s, 51.0 MB/s
./generate.sh: line 57: warning: command substitution: ignored null byte in input
12708+0 records in
12708+0 records out
13012992 bytes (13 MB, 12 MiB) copied, 0.159913 s, 81.4 MB/s
198097@client17:~/Lab21/kek$ ls -lh
total 145M
-rw-r--r-- 1 parallels parallels 2.1M Mar 25 00:00 BVUt.flv
-rwxr-xr-x 1 parallels parallels 3.2K Mar 29 21:31 generate.sh
-rw-r--r-- 1 parallels parallels 17M Mar 25 00:00 QBgg.vob
-rw-r--r-- 1 parallels parallels 21M Mar 25 00:00 sBKk.mp4
-rw-r--r-- 1 parallels parallels 4.0M Mar 25 00:00 slvX.3gp
-rw-r--r-- 1 parallels parallels 26M Mar 25 00:00 tstV.mkv
-rw-r--r-- 1 parallels parallels 18M Mar 25 00:00 UsQi.avi
-rw-r--r-- 1 parallels parallels 16M Mar 25 00:00 UXRA.swf
-rw-r--r-- 1 parallels parallels 13M Mar 25 00:00 vGoO.wmv
-rw-r--r-- 1 parallels parallels 31M Mar 25 00:00 Yemc.mov
198097@client17:~/Lab21/kek$ cd ..
198097@client17:~/Lab21$ ./script.sh --debug kek 5M
Debug mode is on...
+ shift
+ break
+ '[' -n kek ']'
+ path=kek
+ '[' '!' -d kek ']'
+ '[' -n 5M ']'
+ size=5M
+ [[ ! 5M =~ ^[1-9]{1}[0-9]*[ckMG]?$ ]]
+ size_in=M
+ case $size_in in
+ size=5
++ find kek -maxdepth 1 -size -5M -name '[^.]*' -type f
+ files='kek/slvX.3gp
kek/BVUt.flv
kek/generate.sh'

```

```

+ for i in $files
+ '[' '!' -d kek/slvX.3gp ']'
++ basename kek/slvX.3gp
+ fl=slvX.3gp
+ fl=s
+ name=kek/slvX.s
++ du -sh kek/slvX.3gp
+ echo '4.0M    kek/slvX.3gp -> kek/slvX.s'
4.0Mkek/slvX.3gp -> kek/slvX.s
+ mv -f kek/slvX.3gp kek/slvX.s
+ for i in $files
+ '[' '!' -d kek/BVUt.flv ']'
++ basename kek/BVUt.flv
+ fl=BVUt.flv
+ fl=B
+ name=kek/BVUt.B
++ du -sh kek/BVUt.flv
+ echo '2.1M    kek/BVUt.flv -> kek/BVUt.B'
2.1Mkek/BVUt.flv -> kek/BVUt.B
+ mv -f kek/BVUt.flv kek/BVUt.B
+ for i in $files
+ '[' '!' -d kek/generate.sh ']'
++ basename kek/generate.sh
+ fl=generate.sh
+ fl=g
+ name=kek/generate.g
++ du -sh kek/generate.sh
+ echo '4.0K    kek/generate.sh -> kek/generate.g'
4.0K kek/generate.sh -> kek/generate.g
+ mv -f kek/generate.sh kek/generate.g
+ set +x
198097@client17:~/Lab21$ ls -lh kek
total 145M
-rw-r--r-- 1 parallels parallels 2.1M Mar 25 00:00 BVUt.B
-rwxr-xr-x 1 parallels parallels 3.2K Mar 29 21:31 generate.g
-rw-r--r-- 1 parallels parallels 17M Mar 25 00:00 QBgg.vob
-rw-r--r-- 1 parallels parallels 21M Mar 25 00:00 sBKk.mp4
-rw-r--r-- 1 parallels parallels 4.0M Mar 25 00:00 slvX.s
-rw-r--r-- 1 parallels parallels 26M Mar 25 00:00 tstV.mkv
-rw-r--r-- 1 parallels parallels 18M Mar 25 00:00 UsQi.avi
-rw-r--r-- 1 parallels parallels 16M Mar 25 00:00 UXRA.swf
-rw-r--r-- 1 parallels parallels 13M Mar 25 00:00 vGoO.wmv
-rw-r--r-- 1 parallels parallels 31M Mar 25 00:00 Yemc.mov
198097@client17:~/Lab21$

```