

SUMMARY: Script help with read

Source: <http://unix.derkeiler.com/Mailing-Lists/SunManagers/2005-02/0379.html>

From: Karyn Williams (*karyn_at_calarts.edu*)

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To: sunmanagers@sunmanagers.org

Thanks to:

Chris Schroen
Christ Clark
Michael DeSimone
Matthew Stier
David DEAVES
SteinAxt
Rob McMahon
John F Wall
Alex Stade
John Julian
Stephen Barnett
John Leadeham
Damir Delija
Mats Oberg
Jonathan Birchall
Alan Crosby
Hutin Bertrand
Doc G (Tim)
Luc Suryo
Thad MacMillan
Reggie Beavers

The problem with the original script was that read was running in a subshell and the variables do not survive when it closes. ksh handles this differently than sh and bash which are the shells I tested before posting. David Deaves and Christ Clark said it well "In bourne shell (/bin/sh) the head of the pipeline is the current shell, and the tail is a sub shell. So in this case, the sub shell happily evaluates the input and allocates it to it's environment variables, then exits." and "Being part of a pipe, the 'read' is executed in a subshell. The variables it sets are lost when the subshell terminates and not propagated back to the parent shell."

The solution for sh I chose to use is from Chris Schroen and it is to use set and then the positional parameters (\$1 \$2 ..\$9) to pull the data that I wanted.

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```
#!/bin/sh
while read i
do
    set `quota -v $i | tail -1`
    mailx -s "subject line" -r address $i <<EOT
```

You have \$5 \$6 left until your mail will stop being delivered to your mailbox. Your quota is \$3 Kb and your current usage is \$2 Kb.
EOT
done </usr/local/tools/gtest.users

A variation on this is:

```
line="`quota -v $i | tail -1`"
set - $line
fs=$1; usage=$2; etc...
```

Another solution add a while/do:

```
#!/bin/sh
for i in `cat /usr/local/tools/gtest.users` ; do

    quota -v $i | tail -1 | while read fs usage qta limit time left files
    quota limit1
    do
        mailx -s "subject line" -r address $i <<EOT
```

You have \$time \$left left until your mail will stop being delivered to your mailbox. Your quota is \$qta Kb and your current usage is \$usage Kb.
EOT
done
done

Another workaround is to run everything in a subshell,

```
for ...; do
    quota -v $i | tail -1 | ( read fs usage qta limit time left files
        mailx -s "subject line" -r address $i <<EOT
    You have $time $left left until your mail will stop being delivered to your
    mailbox. Your quota is $qta Kb and your
    current usage is $usage Kb.
    EOT
    )
done
```

A couple of web sites recommended with good info on scripting:

<http://www.unixguide.net/>
<http://laku19.adsl.netsonic.fi/era/unix/award.html>

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Mats Oberg and Alex Stade sent versions in Perl. I have not tested them.

```
#!/path/to/perl
```

```
$name=$ARGV[0];
```

```
if ( $name eq "" ) {die "Usage: $0 <filesystem>\n";}
```

```
open(QUOTA,"/usr/sbin/repquota $name |") or die "Unable to execute the  
repquota command...\n";
```

```
$i=0;
```

```
print "$name \n";
```

```
while(<QUOTA>)
```

```
{
```

```
  @A=split;
```

```
  if( $A[1]=~/^+\/- ) {
```

```
    if ( $A[5]=~/EXPIRED/ ) {
```

```
      open(MAIL,"|mailx -s \"\$A[0], Your quota gracetime  
has expired\" \$A[0]");
```

```
      print MAIL "You have exceeded the quota limit for  
your unix home-directory. \nThe limit of your home-directory is: $A[3] kb,  
you currently occupy: $A[2] kb\n\n";
```

```
      print MAIL "The gracetime has expired, until you  
have decreased the data to less than $A[3] kilobytes, you can no longer  
write anything to your home-directory.\n(If you can't remove enough data on  
your own, please contact the helpdesk)\n\n";
```

```
    }
```

```
    elsif ( $A[5]=~/NOT/ ) {
```

```
      open(MAIL,"|mailx -s \"\$A[0], is over the quota  
limit\" obergmat");
```

```
      print MAIL "You still have time to decrease the  
amount of data.\nWhen the gracetime expires you will not be able to write  
anything to your home-directory.\n(You could possibly be thrown out and be  
unable to log in.)\n\n";
```

```
    }
```

```
    else {
```

```
      open(MAIL,"|mailx -s \"\$A[0], You are over the  
quota limit\" \$A[0]");
```

```
      print MAIL "You have exceeded the quota limit for  
your unix home-directory. \nThe limit of your home-directory is: $A[3] kb,  
you currently occupy: $A[2] kb\n\n";
```

```
      print MAIL "You still have $A[5] $A[6] to decrease  
the amount of data.\nWhen the gracetime expires you will not be able to  
write anything to your home-directory.\n(You could possibly be thrown out  
and be unable to log in.)\n\n";
```

```
    }
```

```
    print MAIL "\n\nFor more info about quotas see
```

```
http://some.adress.com ----- Servicedesk tel: our phonenr...\n\n";
```

```
    close(MAIL);
```

```
  }
```

```
}
```

```
close(QUOTA);
```

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```
#!/usr/bin/perl -w

$file = "/usr/local/tools/gtest.users";

die "Can't open $file: $!\n"
    unless open (FILE, "$file");

while ($line = <FILE>)
{
    chomp $line;
    my @junk = `quota -v $line`;
    @quota = split (/s+/, $junk[2]);
    if ($quota[1] >= $quota[2])
    {
        open (MAIL, "| Mail \"Your account on Muse is
over-quota\" $line");
        print MAIL "You are over your quota on Muse. You are
currently in the grace period which still allows for delivery of your
e-mail. Please remove files or delete old mail. Lack of action will
result in lost e-mail and the inability to upload files to your account.
You have $quota[5] day(s) left until your e-mail will stop being
delivered to your mailbox.\nThe Helpdesk can be reached at (661)
253-7887 or at helpdesk\@calarts.edu.\nThank you.";
    }
}
}
```

A few others gave general tips for scripting which I will keep for future reference. Thanks again to all who replied.

Original message:

```
>Below is a script I am trying to make work but I just can't seem to make it
>right. The purpose is to send an e-mail to a user who is over their quota
>and still in the grace period to alert them. I want to include some user
>specific details like timeleft usage and quota. The catted file is just
>some test names I set up.
>
>I do not seem to get any values using read. Everything seems to be null.
>This user is over-quota (I made it so). Below is the output to quota -v
>user. The echos were just to test the vars. Solaris 8. Any help would be
>appreciated.
>
>#!/bin/sh
>
>for i in `cat /usr/local/tools/gtest.users`; do
>
> quota -v $i | tail -1 | read fs usage qta limit timeleft files
>quota limitl
>
> echo "$REPLY"
> echo "$fs"
```

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```
> echo `$usage`
> echo '$qta'
> echo ${limit}
> echo $timeleft
> echo $files
>
> mailx -s "Your account on Muse is over-quota" -r
>helpdesk@calarts.edu $i <<EOT
>
>You are over your quota on Muse. You are currently in the grace period
>which still allows delivery of your e-mail. Please remove files or delete
>old mail. Lack of action will result in lost e-mail and the inability to
>upload files to your account. You have $timeleft left until your mail will
>stop being delivered to your mailbox.
>
>The Helpdesk can be reached at 661 253 7887 or at helpdesk@calarts.edu.
>Thank you.
>
>EOT
>
>done
>
>
>
># quota -v jcraford
>Disk quotas for jcraford (uid 2709):
>Filesystem usage quota limit timeleft files quota limit
>timeleft
>/export 25734 20000 55000 6.9 days 73 0 0
```

```
--
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```

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```