



Tech Info Library

Unix Shell Scripts for Remote Printing (9/94)

Revised: 9/8/94
Security: Everyone

Unix Shell Scripts for Remote Printing (9/94)

=====

Article Created: 13 May 1991
Article Reviewed/Updated: 7 September 1994

TOPIC -----

Do you have any information regarding Unix shell scripts for printing from SystemV to SystemV or from SystemV to BSD and vice versa?

DISCUSSION -----

Thank's to Gilles Allain for sending us UNIX scripts that print from SystemV to SystemV or from SystemV to BSD and vice versa. These scripts have been written by Alsys (ADA from A/UX) which is allowing us to freely distribute them.

```
#!/bin/sh
#####
#           /usr/spool/lp/model/remote4BSD           #
#           #                                       #
#   Alsys lp interface for remote printer on 4.xBSD host   #
#   Copyright (C) Alsys, 1987. All rights reserved.       #
#           #                                       #
# Options recognized:                                     #
#   nb | -nb           do not output banner page (to save paper) #
# Other options are passed to remote 4.xBSD lp           #
#####

#####
# Installation instructions for printing on remote 4.xBSD host "Xyz": #
# - make sure Xyz is correctly reachable by local system's lp:       #
#   - Xyz's /etc/hosts.equiv file must have an entry for local system #
#   - A user named lp must exist on Xyz                             #
#   - Xyz's lpr command must recognize the "-h" option             #
# - create a dummy device file remotelp (needed for scheduler's sake): #
#   ln /dev/null /dev/remotelp                                     #
```

..TIL08306-Unix_Shell_Scripts_for_Remote_Printing_9-94_(TA46759).pdf

```
# - install this model for "printer" Xyz: #
# /usr/lib/lpadmin -v/dev/remotelp -pXyz -mremote4BSD #
#####

# Save the arguments to the model

# Define remote system from "printer" name
remote=`basename $0`
reqid=$1
user=$2
title=$3
copies=$4
tempfile=./request/$remote/$reqid

# Handle disable and cancel traps.

trap "echo '\nCANCELLED!!!';rm -f $tempfile;exit 1" 15

# Determine which options have been invoked

banner="yes"
remotopts=""

for i in $5
do
    case "$i" in
        -nb | nb) # Do not print banner page
            banner="";;
        *) # other options passed to remote 4.xBSD lpr
            remotopts=$remotopts" "$i;;
    esac
done

# Assume that the rest of the arguments are files

shift; shift; shift; shift; shift
files="$*"

# Redirect output to temporary file

exec > $tempfile

if [ -n "$banner" ]
then
    # Print the header

    x1=" A/UX A/UX A/UX A/UX A/UX A/UX A/UX A/UX A/UX
A/UX A/UX A/UX A/UX"
    x2="A/UX A/UX A/UX A/UX A/UX A/UX A/UX A/UX A/UX A/UX
A/UX A/UX A/UX"
    echo "$x1\n$x2\n$x1\n$x2\n"
    echo "\t\t" `uname -a` "\n\n"
    banner "$user"
```

```
    echo "\n"
    banner @"hostname`
    echo '\n'
    user=`grep "^$user:" /etc/passwd | line | cut -d: -f5`
    if [ -n "$user" ]
    then
        echo "User: $user\n"
    else
        echo "\n"
    fi
    echo "Request id: $reqid      Remote printer: $remote\n"
    date
    echo "\n"
    if [ -n "$title" ]
    then
        banner "$title"
    fi
    echo "\014\r\c"
fi

# Print the spooled files

i=1
while [ $i -le $copies ]
do
    for file in $files
    do
        cat "$file" 2>&1
        echo "\014\r\c"
    done
    i=`expr $i + 1`
done

# Stop redirection

exec > /dev/null

# Send to remote 4.xBSD system print spooler (without remote banner)

if cat $tempfile | /usr/bin/remsh $remote lpr -h $remotopts
then
    status=0
else
    status=$?
    disable -r"can't access $remote host" $remote
fi

# Remove temporary file
rm $tempfile

exit $status

-----
```

```
#!/bin/sh
#####
#           /usr/spool/lp/model/remotSysV           #
#           #                                       #
#   Alsys lp interface for remote printer on System V host   #
#   Copyright (C) Alsys, 1987. All rights reserved.         #
#           #                                       #
# Options recognized:                                       #
#   nb | -nb           do not output banner page (to save paper) #
# Other options are passed to remote System V lp           #
#####

#####
# Installation instructions for printing on remote System V host "Xyz": #
# - make sure Xyz is correctly reachable by local system's lp:         #
#   - Xyz's /etc/hosts.equiv file must have an entry for local system   #
#   - A user named lp must exist on Xyz                                 #
#   - Xyz's default lp interface model must recognize the "-nb" option  #
# - create a dummy device file remotelp (needed for scheduler's sake): #
#   ln /dev/null /dev/remotelp                                         #
# - install this model for "printer" Xyz:                             #
#   /usr/lib/lpadmin -v/dev/remotelp -pXyz -mremoteSysV             #
#####

# Save the arguments to the model

# Define remote system from "printer" name
remote=`basename $0`
reqid=$1
user=$2
title=$3
copies=$4
tempfile=./request/$remote/$reqid

# Handle disable and cancel traps.

trap "echo '\nCANCELLED!!!';rm -f $tempfile;exit 1" 15

# Determine which options have been invoked

banner="yes"
remoteopts=""

for i in $5
do
    case "$i" in
        -nb | nb) # Do not print banner page
            banner="";;
        *) # other options passed to remote SysV lp
            remoteopts=$remoteopts" -o"$i;;
    esac
done
```

done

Assume that the rest of the arguments are files

shift; shift; shift; shift; shift

files="\$*"

Redirect output to temporary file

exec > \$tempfile

if [-n "\$banner"]

then

 # Print the header

 x1=" A/UX A/UX A/UX A/UX A/UX A/UX A/UX A/UX A/UX
A/UX A/UX A/UX A/UX"

 x2="A/UX A/UX A/UX A/UX A/UX A/UX A/UX A/UX A/UX A/UX
A/UX A/UX A/UX"

 echo "\$x1\n\$x2\n\$x1\n\$x2\n"

 echo "\t\t" `uname -a` "\n\n"

 banner "\$user"

 echo "\n"

 banner @`hostname`

 echo '\n'

 user=`grep "^\$user:" /etc/passwd | line | cut -d: -f5`

 if [-n "\$user"]

 then

 echo "User: \$user\n"

 else

 echo "\n"

 fi

 echo "Request id: \$reqid Remote printer: \$remote\n"

 date

 echo "\n"

 if [-n "\$title"]

 then

 banner "\$title"

 fi

 echo "\014\r\c"

fi

Print the spooled files

i=1

while [\$i -le \$copies]

do

 for file in \$files

 do

 cat "\$file" 2>&1

 echo "\014\r\c"

 done

 i=`expr \$i + 1`

done

Stop redirection

exec > /dev/null

Send to remote SysV system print spooler (without remote banner)

if cat \$tempfile | /usr/bin/remsh \$remote lp -onb \$remoteopts

then

status=0

else

status=\$?

disable -r"can't access \$remote host" \$remote

fi

Remove temporary file

rm \$tempfile

exit \$status

#!/bin/sh

#####

/usr/local/lib/rsys5lpf

#

Alsys "if" lpr input filter for remote printer on SystemV host

Copyright (C) Alsys, 1988. All rights reserved.

#####

#####

- to be used with a printcap entry of the type:

Remote printer on SystemV host Xyz.

Xyz|Xyz|remote printer on Xyz:\

:lp=/dev/null:if=/usr/local/lib/rsys5lpf:\

:af=Xyz:sd=/usr/spool/lpd/Xyz:tr=:

- kludge needed for this to work: "af" file name must be same as

remote system hostname (Xyz). Printer name may be different.

#####

A lpr if filter is invoked with the following arguments:

filter [-c] -wWIDTH -lLENGTH -iINDENT -n LOGIN -h HOST ACCOUNTING_FILE

%%% WARNING: this may vary slightly from one version of lpr to the other;

%%%

%%% check for your system and modify parameter setup below as appropriate

%%%

Kludge optional -c argument (-l lpr option)

into sort of -h option (suppress banner page)

if ["\$1" = "-c"]

then

```
        banner=""
        shift
else
        banner="yes"
fi

# Setup print job parameters from appropriate filter arguments
remote=$8      # kludge: define remote host name from "accounting file" name!
local=$7       # local host name
user=$5        # job owner's login name
usertty=`who | awk '/^'$user'/' {ORS=" ";print $2}` ` # job owner's tty(s)

printfile=/usr/spool/lpd/$remote/pf${}$remote
messfile=/usr/spool/lpd/$remote/mf${}$remote

# Handle interrupt traps
trap "echo '\nCANCELLED!!!';rm -f $printfile $messfile;exit 1" 2 15

# Redirect errors to temporary file
exec 2> $messfile

# Redirect output to temporary file
exec > $printfile

if [ -n "$banner" ]
then
        # Print the header
        x1="  A/UX  A/UX  A/UX  A/UX  A/UX  A/UX  A/UX  A/UX  A/UX  A/UX"
A/UX  A/UX  A/UX  A/UX"
        x2="A/UX  A/UX  A/UX  A/UX  A/UX  A/UX  A/UX  A/UX  A/UX  A/UX  A/UX"
A/UX  A/UX  A/UX"
        echo "$x1\n$x2\n$x1\n$x2\n"
        echo "\t\t\t" `uname -nrvm` "\n\n"
        banner "$user"
        echo "\n"
        banner @$local
        echo '\n'
        name=`grep "^$user:" /etc/passwd | line | cut -d: -f5`
        if [ -n "$name" ]
        then
                echo "User: $name\n"
        else
                echo "\n"
        fi
        echo "Remote printer: $remote\n"
        date
        echo "\n"
        echo "\f\r\c"
fi

# "Print" the spooled file to temporary file
cat 2>&l
```

```
# Stop output redirection
exec >&2
echo "\007\nlpr: $remote: \c"

# Send to remote SysV system print spooler (without remote banner)
# %%% this supposes that remote spooler's default lp interface model %%%
# %%% recognizes "-nb" option for banner suppression (modify if needed) %%%
if cat $printfile | /usr/bin/remsh $remote lp -onb
then
    status=0
else
    status=2
    echo "lpr: can't access $remote host"
fi

# Send message to job owner's tty(s)
for usertty in $userttys
do
    cat $messfile > /dev/$usertty
done

# Remove temporary files
rm -f $printfile $messfile

exit $status
```

Article Change History:

07 Sep 1994 - Reviewed.

31 Aug 1992 - REVIEWED for technical accuracy.

Support Information Services

Copyright 1991-94 Apple Computer, Inc.

Tech Info Library Article Number:8306