



Tech Info Library

Unix Shell Scripts for Remote Printing (9/94)

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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                                          #
# - 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"
remoteopts=""

for i in $5
do
    case "$i" in
        -nb | nb) # Do not print banner page
            banner="";;
        *)        # other options passed to remote 4.xBSD lpr
            remoteopts=$remoteopts" "$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 $remteopts
then
    status=0
else
    status=$?
    disable -r"can't access $remote host" $remote
fi

# Remove temporary file
rm $tempfile

exit $status

-----

#!/bin/sh
#####
#          /usr/spool/lp/model/remoteSysV          #
#          #
```

```

#      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

# 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=$5        # job owner's login name
userttys='who | awk '/^'$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>&1

# 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
```

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