

DC Tips

... for the user

DC00CC64
February 22, 2000

DCPR Advanced Administration

Purpose

This document describes a method of providing remote and local access to the Document Centre Print submission tool (DCPR) through command line scripting or NFS mounted volumes. This document shows you how to create an interface script or user defined back end program or access DCPR through NFS mounts.

Assumptions

The procedures in this document should be done by the Unix System Administrator. It is assumed that DCPR is installed, configured, and printing correctly on the host intended to be the LPD print server.

Create an Interface or User Defined Back End Program

The following test is an interface or user defined back end program depending on your operating system.

1. Install and configure DCPR. Use the instructions listed in the "Sample NFS Installation" section.
2. After the tool is operating from the command line, create and install the script using the operating system printing administration interface. (SMIT, SAM, printcap or lpadm, or admintool).

Several UNIX variants will accept:

```
lpadmin -p printerQ -s hostname!lp
```

Several UNIX variants require an entry in the /etc/printcap file with modification to the "if" option.

**This Document
pertains to these
Xerox products:**

X	DC 332/340 ST
X	DC 240/255/265 ST/LP
X	DC 220/230 ST/LP
	DC ColorSeries 50

Interface or User Defined Back End Script Example

An interface script modifies the text heading for the remote Document Centre. The application requires all of the environment variables and installation options as the tool run from the command line. To ensure that these options are set at run time, the example script explicitly defines each of the variables required. It is also assumed that the system is using the application from an NFS mounted directory, even though running it as such requires no run time differences to a script.

```
#!/bin/sh
DCPR_HOME=/mnt/CentreWare/dcpr
A2PS_CONFIG=/mnt/CentreWare/contrib/etc/a2ps.cfg
CONTRIB_HOME=/mnt/CentreWare/contrib
DCPR_OPTIONS="-dprinterQ -Collate False -OutputBin Finisher -nogui -o -"
JOBID=$1
HOST_USER=$2
HOST=`echo "$HOST_USER" | cut -d"|" -f1`
USER=`echo "$HOST_USER" | cut -d"|" -f2`
TITLE=$3
COPIES=$4
#options after copies, then print files
shift 4
FILES=$*
FLIST=`echo "$FILES" | grep "flist"`
if [ ! -z "$FLIST" ]
then
    TITLE=$1
    shift
    FILES=$*
    exec $DCPR_HOME/bin/dc230 $DCPR_OPTIONS $FILES | /usr/ucb/lpr -P/
    apache:lp -# $COPIES -T "$USER $TITLE" -J "$USER $TITLE"
else
    exec $DCPR_HOME/bin/dc230 $DCPR_OPTIONS $FILES | /usr/ucb/lpr -P
    apache:lp -# $COPIES -T "$TITLE" -J "$TITLE"
fi
```

Alternate Interface Scripts

Any script that takes input from the command line or acts as an interface script can be modified to work with the DCPR program. Any script that filters input and produces ASCII or PS output can be modified to include a call to DCPR to include the extended functionality as found in the Document Centre products.

Accessing DCPR through NFS Mounts

Since DCPR can be mounted remotely via an NFS mounted directory as read-only, consideration should be made for the printer option configuration prior to executing the program from a remote host. Printer configuration is based on the `$DCPR_HOME/etc/queue.map` file. This file contains a list of print queues accessed by the application and is owned by root with read and write permissions for root and root's group, and read-only permissions for other users. For each print queue, this file tracks Document Centre installed features.

Effective File Permissions

The administrator can change the default permissions for the queue.map file to allow non-root users rights to change printer configurations, but these permissions will be meaningless if the directory is NFS mounted read-only.

Since the volume is mounted as read-only, even world write-able local permissions are effectively read-only. To test this observation, do the following steps:

1. Launch the DCPR GUI on the NFS server.
2. Access the [**System Configuration**] tab.
3. Select the Document Centre model and [**Installable Options**].
4. Change the printer's options according to your Document Centre's characteristics.
5. Press [**Save Configuration**] and [**Print**].
6. To verify that the configuration has been changed, do one of the following:
 - View the date and time on the queue.map file

OR

- Print again through the DCPR GUI. Check the System Configuration tab for the installed options.

Notes:

If you follow the above steps using an NFS file system mounted read-only, this demonstrates that the Save Configuration button is active, even though the user's rights do not allow you to alter the queue.map file.

In the case above, you may change configurations per program execution, and the options are not saved. The administrator sets the default options from the local mount point or a read-write mount point.

The alternative to read-only mounting configuration is to export the directories with read write permissions or simply be aware of the limitations of the protocol and expect these configuration requirements.

Sample DCPR over NFS Installation

1. Unpack the archive files and install the product in a directory that you can export. To determine export status, examine the export list as found in the export file. Alternatively, you can consult your system administration tool and add the install directory to the list of available exports. In the example below, DCPR is installed and configured for a SPARC workstation, running Solaris:

```
root@host# cat /etc/exports
```

```
/ mars
```

```
/export/dcpr public
```

In the case above, the /export directory contains a dcpr subdirectory in which we intend to install the product.

```
root@host# cd /export/dcpr
```

```
root@host# tar xf dcpr.solaris.tar ; rm dcpr.solaris.tar
```

```
root@host# cd CentreWare
```

```
root@host# tar xf dcpr.tar ; rm dcpr.tar ; tar xf contrib.tar ; rm contrib.tar
```

```
root@host# cd contrib/etc
```

```
root@host# sed -e "s~_INSTALL_DIR_~/export/dcpr/CentreWare~g" <  
a2ps.cfg > a2ps.tmp
```

```
root@host# mv a2ps.tmp a2ps.cfg
```

```
root@host# cat ../dcpr/etc/a2ps.cfg >> a2ps.cfg
```

```
root@host# export DCPR_HOME=/export/dcpr/CentreWare/dcpr
```

```
root@host# export CONTRIB_HOME=/export/dcpr/CentreWare/contrib
```

```
root@host# export PATH=$PATH:/export/dcpr/CentreWare/contrib/bin
```

```
root@host# which dc230
```

```
/export/dcpr/CentreWare/dcpr/bin/dc230
```

2. To verify the installation worked correctly, run DCPR and set the print queue characteristics.

```
root@host# dc230 -ddc230q /etc/hosts
```

The DCPR GUI appears, and you can alter the configuration.

3. To change the A2PS configuration file to reflect a mount point-based installation, make a copy of the file and use the copy as an NFS accessed configuration file.

```
root@host# cd /export/dcpr/CentreWare/contrib/etc
```

```
root@host# sed -e "s~/export/dcpr/CentreWare~/mnt/CentreWare~g" <  
a2ps.cfg > a2ps.mount
```

4. At the remote client, mount the NFS share.

```
root@host# mount -F nfs -o ro host:/export/dcpr /mnt
```

5. Set the environment. As before, the variables must reflect the mounted installation for the tool.

```
user1@host1# export A2PS_CONFIG=/mnt/CentreWare/contrib/etc/a2ps.mount
```

```
user1@host1# export DCPR_HOME=/mnt/CentreWare/dcpr
```

```
user1@host1# export CONTRIB_HOME=/mnt/CentreWare/contrib
```

6. Alter the path variable.

```
user1@host1# echo $PATH
```

```
/usr/sbin: /usr/bin: /bin:/sbin: /usr/ucb
```

```
user1@host1# export PATH="/usr/sbin:/usr/bin:/bin:/sbin:/usr/ucb:
```

```
/mnt/CentreWare/dcpr/bin: /mnt/CentreWare/contrib/bin"
```

Subsequent calls to the DCPR program results in execution of the program from the NFS mounted file system.

DCPR Advanced Administration Hints and Tips

The list below provides a list of hints and tips regarding DCPR advanced administration:

- Be sure the LANG environment variable is set for the system print user. In some cases, the username is lp, bin, or lpr. Several environment variables are not set during normal operation of the printing subsystem which must be set for operation of the DCPR tool.
- The install directory for NFS mounted DCPR is a required entry in the A2PS configuration file. An alternate a2ps.cfg file can be used by changing the A2PS_CONFIG environment variable.
- NFS shares that are mounted as read-only prohibit permanent configuration changes.
- The printer queues should be configured using the DCPR Graphical User Interface (GUI) prior to mounting from NFS or accessing the program through scripting. See the queue.map file statement below for more information.
- Some operating systems only allow local print queues to have interface scripts; others allow filter scripts for remote queues.
- A local queue with an interface script can send jobs to remote printers and queues. To accomplish this, point the local queue device to /dev/null and then use the interface script to send to a remote queue (as in the example script below) using the system default print command.
- Accounting data must be setup with the DCPR GUI before you can use the accounting from the command line.

Additional Information

The Xerox Digital Solutions & Support Centre welcomes feedback on all DC Tips documentation - send feedback via e-mail to: USA.DSSC.Doc.Feedback@mc.usa.xerox.com.

Other DC Tips are available at the following URL:

http://www.xerox.com/go/xrx/products/PT_4.jsp?family=Document+Centre+Family&view=tips.

XEROX®, The Document Company®, the digital X®, and all Xerox product names are trademarks of XEROX CORPORATION. Other trademarks belong to their respective owners.

Copyright © XEROX CORPORATION 2000. All Rights Reserved.

THE DOCUMENT COMPANY

XEROX