

# Customer Tips

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*... for the user*

## *IRIX/SGI Print Queue Filtering to Fix Stairstep Text*

Some Xerox multifunction devices require additional UNIX instructions (script) to properly print any standard ASCII files. Without the script, the printer "stairs" the printed text (it does not return to the left margin of the paper for each new line of text). This occurs only with standard ASCII text files. PCL and PostScript files are not affected in any way.

```
Type su
to become
super
user. Press
<Enter>
```

**Example of  
staircased text**

```
Type su
to become
super
user. Press
<Enter>
```

**Same text using CR/LF  
Filter Script**

This document presents several methods to correct staircased text.

- A Xerox multifunction device must read a line feed (LF) character as a carriage return (CR/LF). You can create a script to use with any multifunction device to correct the staircased text problem. The carriage return/line feed (CR/LF) script uses a PCL escape sequence to insert a carriage return whenever it encounters a LF character. All ASCII text files should filter through this script. Printed text then appears on the page with each new line returning to the left (or formatted) margin. The process to create this script is described in "Creating the Filter Script," later in this document.
- A Xerox multifunction device with an ESS/NC 3.x/19.2x or higher, can also use the method described in "Using the Web UI" later in this document, instead of creating a script.
- You can also use a text-to-PostScript filter to correct the staircased text problem. Some versions of UNIX include text-to-PostScript filters. Some IRIX/SGI clients automatically convert ASCII text to PostScript when printing to a PostScript queue. If your client makes the automatic conversion, configure the print queue as a PostScript queue to avoid the staircased text.

### This document applies to these **Xerox** products:

x	WC Pro 32/40 Color
x	WC Pro 65/75/90
x	WC Pro 35/45/55
x	WC M35/M45/M55
x	DC 555/545/535
x	DC 490/480/470/460
x	DC 440/432/425/420
x	DC 340/332
x	DC 265/255/240
x	DC 230/220
	DCCS 50

# Correcting the Staircased Text Problem

## Creating the Filter Script

The script that corrects the staircase problem can use both `lpr` and `lp` command line syntax. If a printer is not specified on the print command line, the `$PRINTER` environment variable is used as the default. If neither a printer or `$PRINTER` variable is defined, `lp` becomes the output default.

This method requires two print queues. The "dc230" queue spools all PS and PCL formatted files to the printer. All ASCII jobs must pass through the "ascii" queue which appends the escape sequence to the beginning of the ASCII text file and respools it in the "dc230" queue.

**NOTE:** The print queues "dc230" and "ascii" are examples. Choose any name for the queues you create.

1. Test your network connection to the Xerox multifunction device by typing:

```
ping [hostname]
```

2. Type `su` to act as a system super user and enter the password.

3. Use a text editor (such as `vi`) to edit the `/etc/printcap` file. Add the following lines:

```
dc230:\
lp=/dev/null:\
rm= hostname:\
rp=lp:\
sd=/var/spool/lpd/dc230:\
lf=/var/spool/lpd/dc230/log:\
mx=#0:
```

```
ascii:\
lp=/dev/null:\
if=/var/spool/lpd/ascii/filter:\
sd=/var/spool/lpd/ascii/log:\
mx=#0:
```

4. Create the printer spool directories and modify the directory rights, by typing:

```
cd /var/spool/lpd
mkdir dc230
chown root dc230
chgrp lp dc230
chmod 770 dc230
mkdir ascii
chown root ascii
chgrp lp ascii
chmod 770 ascii
```

**NOTE:** Unix commands are case sensitive. Use the correct case when you enter commands.

5. Access the `/var/spool/lpd/ascii` directory and create a file with the name "filter." Then type:

```
#!/bin/sh
```

```
/bin/cat /var/spool/lpd/ascii/pcl_code - |/usr/bcd/lpr -Pdc230
```

6. Create a file named "pcl\_code" in the `/var/spool/lpd/ascii` directory. Then type:

```
<ESC>&k3G
```

To insert the `<ESC>` character using the `vi` editor, press `[Ctrl+V]`. Then press the `ESC` key in the insert mode. The characters appear as `^[` on your screen, however the system understands them as the escape sequence.

**NOTE:** If you transfer this filter to other clients, use FTP in binary mode.

### NOTE:

PS and PCL jobs use the "dc230" queue.

### NOTE:

Ascii jobs use the "ascii" queue.

7. Change the execution properties of the "filter" file by typing the following:  

```
chmod 755 filter
```
8. Submit an ASCII text file to the ascii queue to confirm that it prints correctly. Type:  

```
lpr -Pascii etc/hosts
```

## Using the Web UI

### ESS 3.x

1. Open a Web browser and enter the Document Centre's IP address.
2. Select the **Properties** link and then **Printer Languages**.
3. Select **PCL Setup**.
4. Select the box **Treat "LF" as "CR" + "LF"** so that a check mark appears.
5. Click **Apply New Settings**.

### NC 19.2x

1. Open a Web browser and enter the Document Centre's IP address.
2. Select the **Properties** link then **Services** and **Printer Languages**.
3. Select **PCL**.
4. Select the box **Treat "LF" as "CR" + "LF"** so that a check mark appears.
5. Click **Apply New Settings**.

### All WorkCentres/WorkCentre Pros

1. Open a Web browser and enter the WorkCentre's IP address.
2. Select the **Properties** tab then **Services**, **Printing**, and **Language Emulations**.
3. Select **PCL**.
4. Select the box **Treat "LF" as "CR" + "LF"** so that a check mark appears.
5. Click **Apply New Settings**.

## Trouble-Shooting

### I am not receiving any print output. Why?

Check permissions on directories ("ascii" and "dc230") and files ("filter" and "pcl\_code").  
Look for error messages at the console.

### I am still getting staircased print from my text files. Why?

Ensure the file "pcl\_code" includes the correct escape sequence.

## Additional Information

Xerox Customer Service welcomes feedback on all documentation - send feedback via e-mail to: [USA.DSSC.Doc.Feedback@mc.usa.xerox.com](mailto:USA.DSSC.Doc.Feedback@mc.usa.xerox.com).

You can reach Xerox Customer Support at 1-800-821-2797 (USA), TTY 1-800-855-2880 or at <http://www.xerox.com>.

Other Tips about Xerox multifunction devices are available at the following URL: <http://www.office.xerox.com/support/dctips/dctips.html>.

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