



# System Maintenance Utility (HP Designjet 30/30n)

Introduction 2

System Maintenance Utility 4

    Main Menu - Printer Front Panel Replication 4

    Color Calibration 5

    Align Printheads 8

    Clean Printheads 9

    Check Image Quality 10

    Calibrate Paper Feed 11

    Get Printer Information 13

    Update Firmware 14

    Reset Jetdirect Network Card 15

## Introduction

The System Maintenance Utility is designed to assist the customer with common maintenance tasks for the printer and also to resolve common problems that they may encounter.

**Print jobs must not be sent to the printer while the system maintenance utility is in use.**

## Launching the System Maintenance Utility

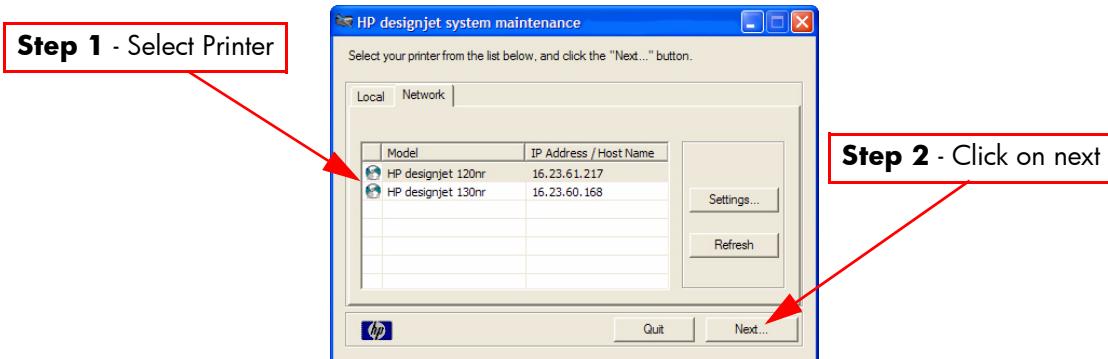
There are two ways of launching the System Maintenance Utility.

### From your computer's desktop (Windows, Mac OS 9 and X)

- 1 Double click the *hp designjet system maintenance* icon on the desktop.



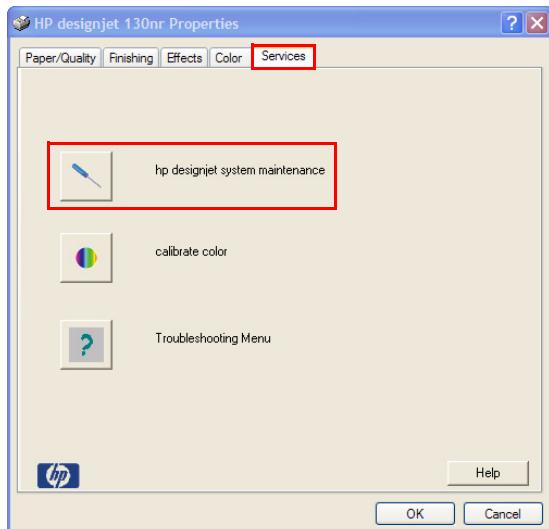
- 2 A printer selector window opens - select your printer from the list.



- 3 Click **Next** (in Windows) or **Configure** (in Mac OS).

### From the Printer Driver (Windows, Mac OS X)

In the Windows driver click the *hp designjet system maintenance* icon in the **Services** tab. In Mac OS X, select the Printer in the *Print Center* or *Print Setup Utility* and click **configure**.



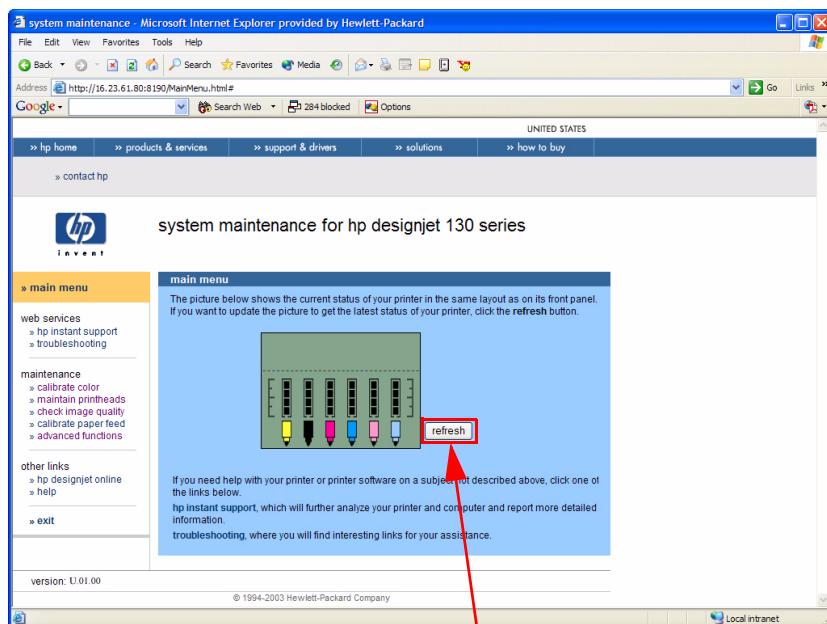
**When you finish using the System Maintenance Utility, you must click on exit on the left hand column before closing the browser.**

## System Maintenance Utility

### Main Menu - Printer Front Panel Replication

The main page of the System Maintenance Utility includes a replica of the Printer's Front Panel showing the status of the Printer.

**The replica Front Panel does not show the real-time status. It is a snapshot which can be refreshed by pressing the refresh button either on the web browser toolbar or in the actual replica window.**



## Color Calibration

**The Color Calibration should ONLY be performed by the user when required.**

### Why calibrate color?

**Calibrate color** performs a maintenance function to ensure color consistency. If you calibrate correctly, the colors printed on printers with different printheads will look very similar.



This picture shows an exaggerated example of how a printout could look like before and after color calibration.

### When do I calibrate color?

It is recommended that you **calibrate color** every time you replace a printhead or when you perceive color degradation on the printouts. There is no need to perform this operation each time you print. The results of the color calibration will be applied to all print jobs that follow, even if you power off the printer.

Perform color calibration if you print with the regular hp designjet 120 printer driver, which was included with the printer or which you downloaded from the Web. If you use a PostScript driver such as Adobe PS or LaserWriter to print through a PostScript RIP provided by HP or another third-party company, the results of **calibrate color** will not be applied to your print jobs. In this case, refer to your PostScript RIP documentation for information on how to perform color calibration.

### How do I calibrate color?

You have to **calibrate color** for every Paper Type that requires color consistency. For example, if you require consistent colors on glossy paper and on heavy weight coated paper, you must perform one color calibration for the former and another for the latter Paper Type.

When you want to calibrate color, remember to select the Print Quality option that you are going to use to print. For example, if you want to print with the High Resolution option, select High Resolution before performing the color calibration.

**If the Color calibration fails, print the information page and check the list of warnings under the printer status section.**

Calibrate Color as shown below:

**Step 1 - Select "calibrate color"**

- maintenance**
- » **calibrate color**
  - » maintain printheads
  - » check image quality
  - » calibrate paper feed
  - » advanced functions

**OR**

Double click on the "calibrate color" icon on the computer desktop



system maintenance for hp designjet 130 series

**calibrate color**

**calibrate color** only if you are using the regular HP printer driver to print. If you are using a PostScript driver and a PostScript RIP instead, refer to your RIP documentation. For more information about color calibration, click here.

The table below tells you the color calibration status for every possible combination of Color Calibration Paper Type and Print Quality. Please check this table to decide which combination you want to calibrate for.

For deleting a Color Calibration Profile for a combination of Color Calibration Paper Type and Print Quality, select it from the following table and click on delete calibration profile button.

Color Calibration Paper Type	Print Quality	Delete	Maximum DPI	Delete
Coated Paper	OK	<input checked="" type="checkbox"/>	Not calibrated	<input type="checkbox"/>
Heavyweight Coated Paper	Not calibrated	<input type="checkbox"/>	Not calibrated	<input type="checkbox"/>
Photo Matte	Not calibrated	<input type="checkbox"/>	Not calibrated	<input type="checkbox"/>
Photo Paper	Not calibrated	<input type="checkbox"/>	Not calibrated	<input type="checkbox"/>
Photo Satin	Not calibrated	<input type="checkbox"/>	Not calibrated	<input type="checkbox"/>
Proofing Semi-Gloss	Not calibrated	<input type="checkbox"/>	Not calibrated	<input type="checkbox"/>

**select all** **clear all** **delete calibration profile**

Select the Color Calibration Paper Type and the Print Quality you want to calibrate for consistent color. The calibration will be applied only for the combination you selected. For example, if a calibration is done for Photo Paper and Best Print Quality, color calibration will be applied only for print jobs with Photo Paper and Best Print Quality. For other combinations, you must perform separate color calibrations.

If you need more information about color calibration, including when and how to do it, click here.

To find out which paper belongs to which Color Calibration Paper Type, click here.

Make sure a sheet of the selected Color Calibration Paper Type is loaded into the paper source you choose.

**Step 2 - Select Paper Type and Print Quality**

Color Calibration Paper Type	HeavyWeight Coated Paper
Print Quality	Best
Paper Source	Automatic

**Step 3 - Press "Calibrate Color"**

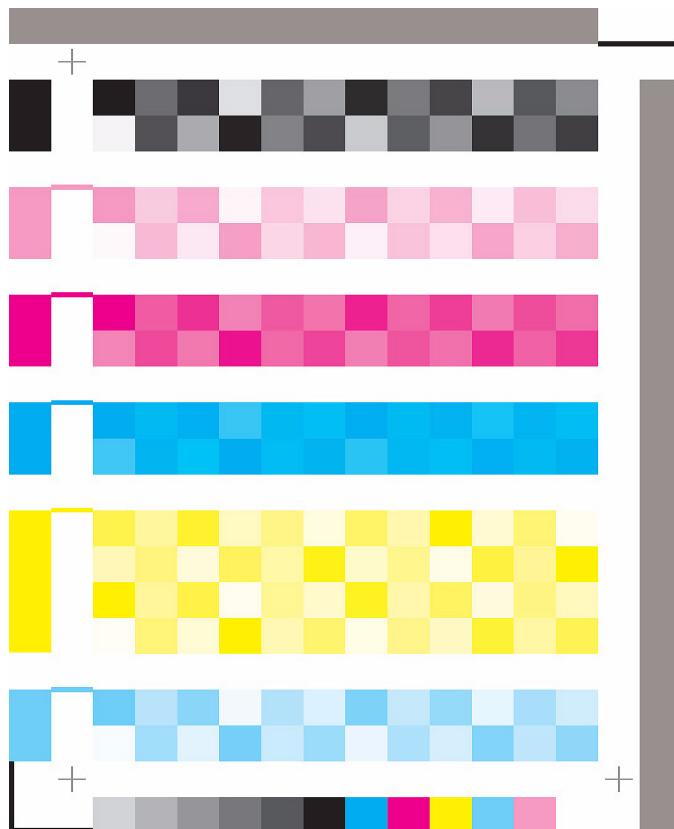
This table gives you the color calibration status for each type of paper and print quality. You can also use this table to delete color calibration profiles that you don't need.

Color Calibration Paper Type	Print Quality	Delete		Maximum DPI	Delete
		Best	<input checked="" type="checkbox"/>		
Coated Paper	OK	<input checked="" type="checkbox"/>	Not calibrated	<input type="checkbox"/>	<input type="checkbox"/>
Heavyweight Coated Paper	Not calibrated	<input type="checkbox"/>	Not calibrated	<input type="checkbox"/>	<input type="checkbox"/>
Photo Matte	Not calibrated	<input type="checkbox"/>	Not calibrated	<input type="checkbox"/>	<input type="checkbox"/>
Photo Paper	Not calibrated	<input type="checkbox"/>	Not calibrated	<input type="checkbox"/>	<input type="checkbox"/>
Photo Satin	Not calibrated	<input type="checkbox"/>	Not calibrated	<input type="checkbox"/>	<input type="checkbox"/>
Proofing Semi-Gloss	Not calibrated	<input type="checkbox"/>	Not calibrated	<input type="checkbox"/>	<input type="checkbox"/>

**select all** **clear all** **delete calibration profile**

**Step 1 - Select color calibration profile****Step 2 - Press "delete calibration profile"**

## Sample of the Color Calibration Print:



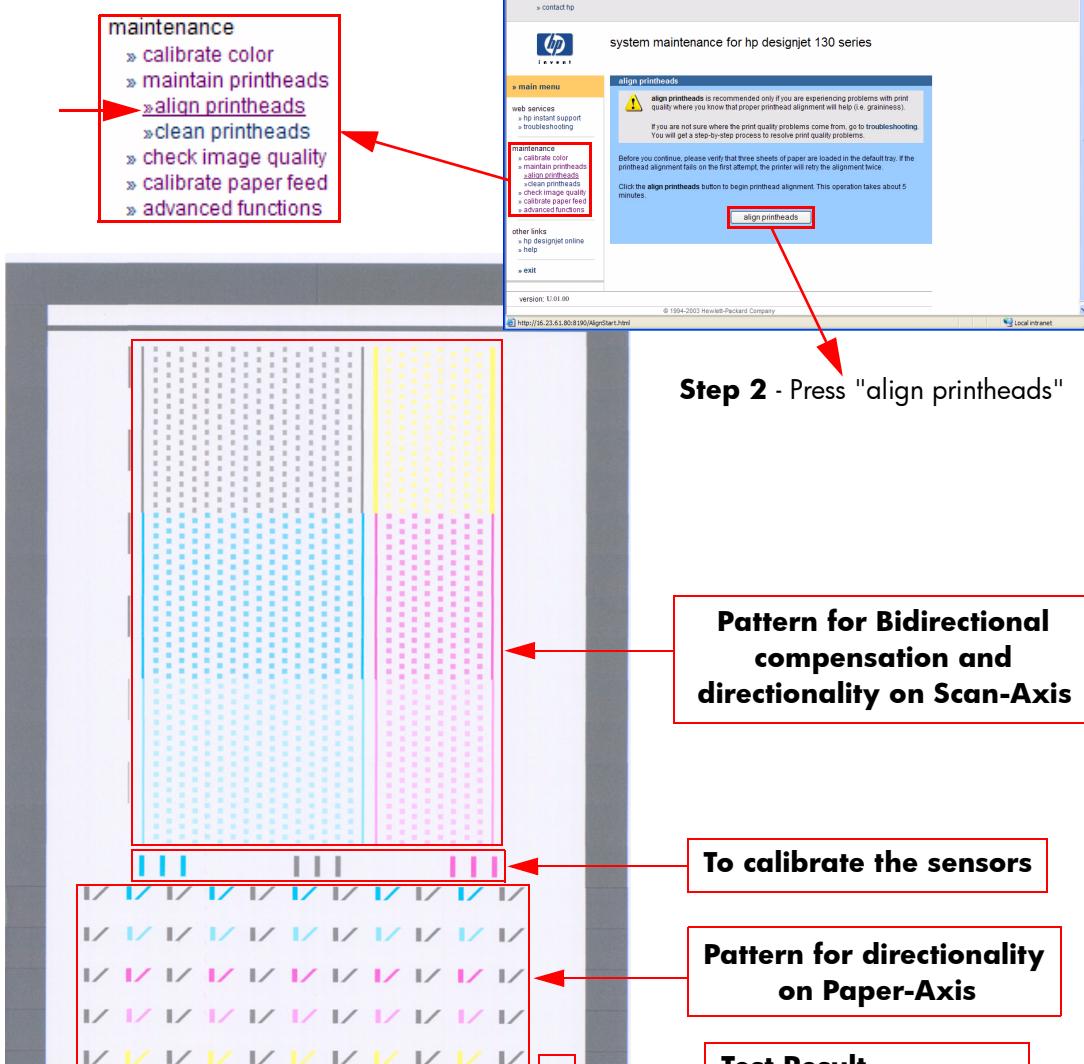
## Align Printheads

**Align printheads** performs a maintenance function with the printheads. Proper alignment insures correct registration between ink colors while printing. This is only recommended if you are experiencing problems with print quality.

Before you continue, please verify that three sheets of paper are loaded in the default tray. If the printhead alignment fails on the first attempt, the printer will retry the alignment twice.

**Do not power off the printer during this operation. The printer display will indicate busy until the operation is finished.**

**Step 1** - Select "maintain printheads" and then "align printheads"



**Sample of the Printhead Alignment Page**

## Clean Printheads

**Clean printheads** helps maintain proper operation of all nozzles in the printheads. This is only recommended if you are experiencing problems with print quality such as banding.

Three levels of cleaning are available: soft, medium and hard. As a first step, the soft cleaning should be used. If you still experience the same image problems, then select medium. Hard cleaning should only be used as a last resort.

**Do not power off the printer during this operation. The printer display will indicate busy until the operation is finished.**

Before cleaning the printheads, first check the maximum recovery level already performed on the printheads. If hard level (Recovery Level 3) has already been performed, then do not try performing hard level again. The Maximum Recovery Level can be seen on the Printer Information page in the "Printhead History" section.

**Ink Consumable Usage Section**

Ink Consumed Printhead:	K= 0 cc ( 0 %)	C= 0 cc ( 0 %)	M= 0 cc ( 0 %)	Y= 0 cc ( 0 %)	LC= 1 cc ( 0 %)	LM= 1 cc ( 0 %)
Usage Time Printhead:	K= 6 days	C= 6 days	M= 6 days	Y= 6 days	LC= 6 days	LM= 6 days
Ink Consumed Cartridge:	K= 2 cc ( 2 %)	C= 1 cc ( 3 %)	M= 1 cc ( 3 %)	Y= 1 cc ( 1 %)	LC= 1 cc ( 1 %)	LM= 1 cc ( 1 %)

Printhead history:

K:	#1 - Inserted - 0 cc ( 0% ) - 6 days - Max. Recovery Level 1
C:	#1 - Inserted - 0 cc ( 0% ) - 6 days - Max. Recovery Level 1
M:	#1 - Inserted - 0 cc ( 0% ) - 6 days - Max. Recovery Level 1
Y:	#1 - Inserted - 0 cc ( 0% ) - 6 days - Max. Recovery Level 1
LC:	#1 - Inserted - 1 cc ( 0% ) - 6 days - Max. Recovery Level 1
LM:	#1 - Inserted - 1 cc ( 0% ) - 6 days - Max. Recovery Level 1

Maximum Recovery Level already performed

**Step 1** - Select "maintain printheads" and then "clean printheads"

The screenshot shows the 'clean printheads' selection process:

- Step 1:** The 'clean printheads' option is highlighted in the main menu under the 'maintenance' section.
- Step 2:** The 'Soft' radio button is selected in the recovery level selection dialog.
- Step 3:** The 'clean printheads' button is highlighted in the 'clean printheads' dialog.

**Step 2** - Select the recovery level to be performed

**Step 3** - Press "clean printheads"

## Check Image Quality

**Check image quality** provides two diagnostic pages for printing. The following test pages are available:

- Image Quality Diagnostic page.
- Skew Diagnostic page.

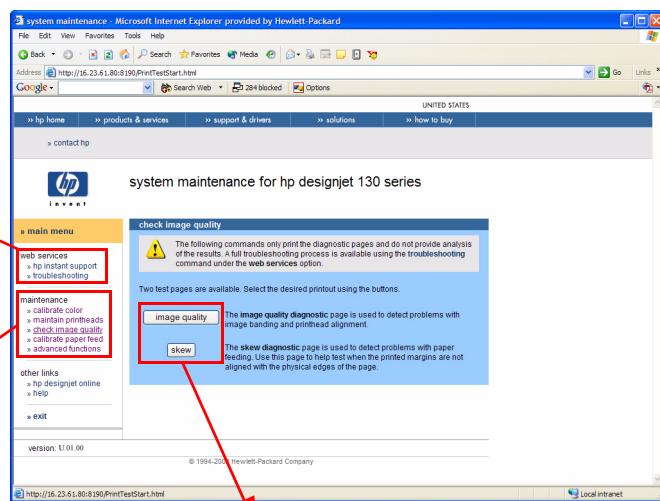
These commands only print the diagnostic pages and do not provide analysis of the results. A full troubleshooting process is available using the **troubleshooting** command under the **Web Services** option.

Select "troubleshooting" for the analysis of the test pages

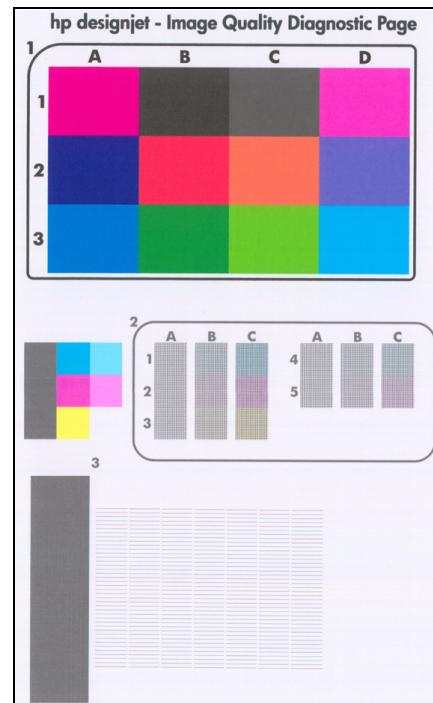
- web services
  - » hp instant support
  - » troubleshooting

**Step 1 - Select "check image quality"**

- maintenance
  - » calibrate color
  - » maintain printheads
  - » **check image quality**
  - » calibrate paper feed
  - » advanced functions



**Step 2 - Click on "Image Quality" or "Skew"**

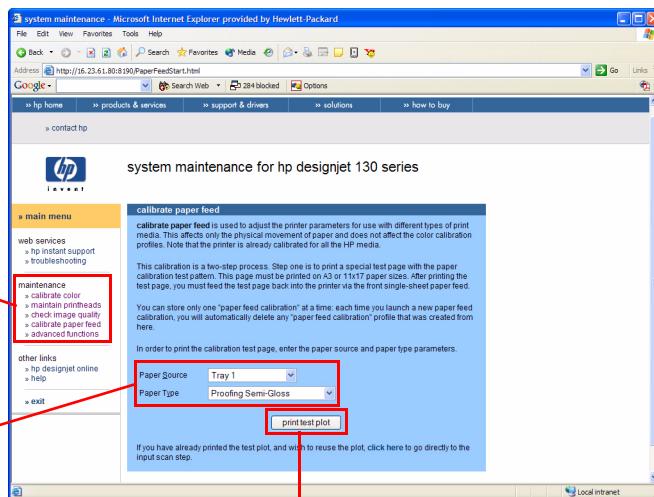
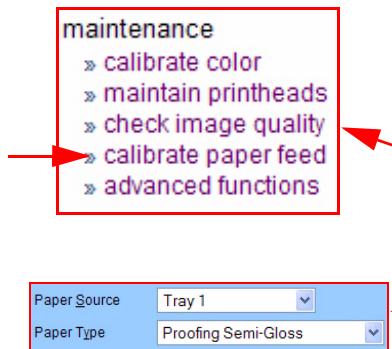


## Calibrate Paper Feed

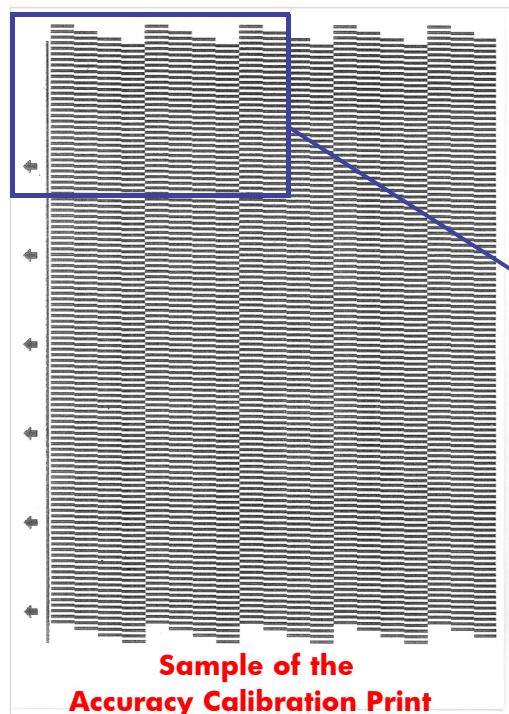
Calibrate paper feed is used to adjust the printer parameters for use with different types of print media. This only affects the physical movement of paper and does not affect the color calibration profiles.

This calibration is a two-step process. Step one is to print a special test page with the paper calibration test pattern. This page must be printed on A3 or 11x17 paper sizes. After printing the test page, you must feed the test page back into the printer via the front single-sheet paper feed.

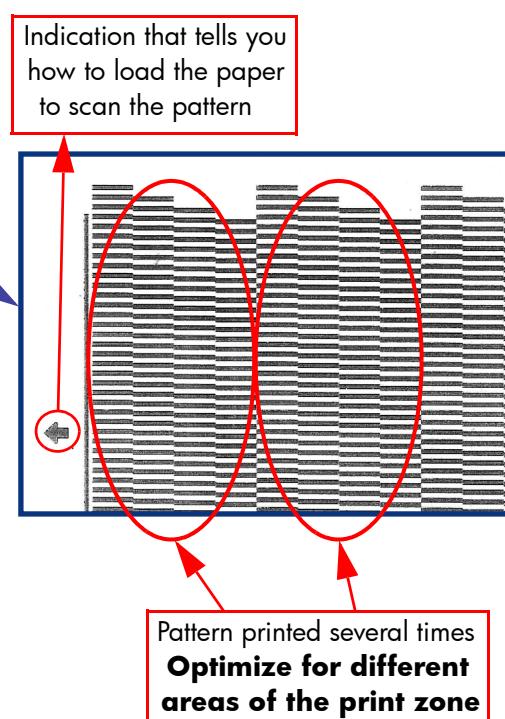
### Step 1 - Select "calibrate paper feed"



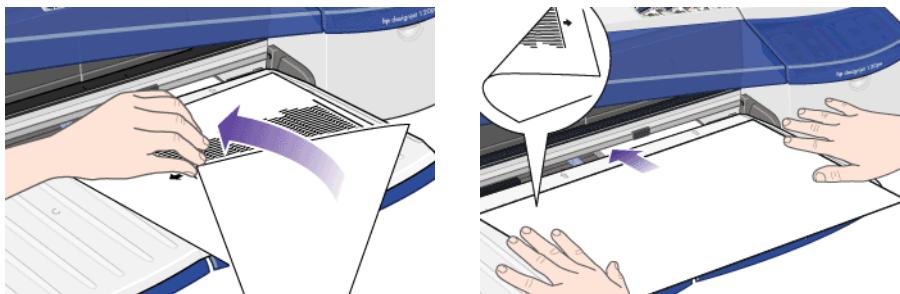
### Step 2 - Select Media Source and Media Type



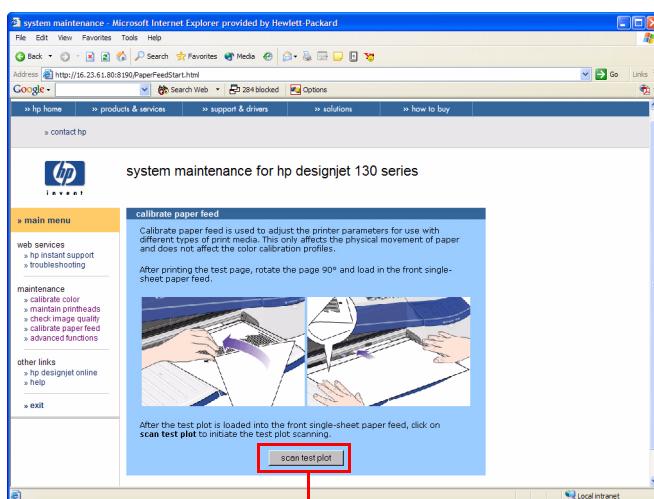
### Step 3 - Press "print test plot"



Once the Accuracy Calibration has been printed, rotate the page and reload it upside down (image facing down).



**Step 1** - Rotate the page and reload it upside down (image facing down)



**Step 2** - Press "scan test plot"

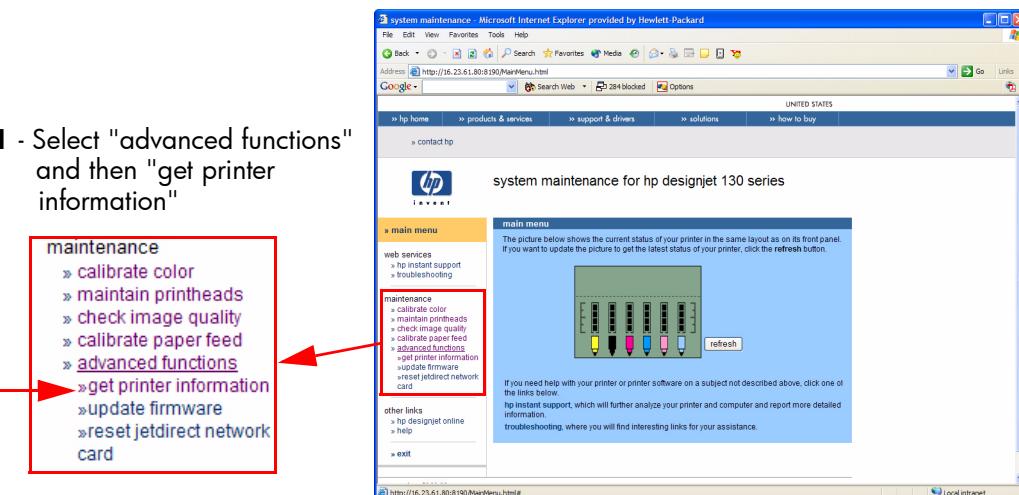
## Get Printer Information

This option allows you to view all the information available on the Printer:

- Printer Identification.
- Printer Status.
- Printer Job Queue.
- Printer Errors and Warnings.
- Printer Usage.
- Ink Consumable Identification.
- Ink Consumable Status.
- Ink Consumable Usage.
- Network Card Information.

Refer to the **Test Prints** chapter for explanations on each section.

**Step 1** - Select "advanced functions" and then "get printer information"



The screenshot displays the 'get printer information' page. It includes two main sections: 'Printer Identification Section' and 'Printer Status Section'.  
**Printer Identification Section:**  
Printer model name: hp designjet 130nr  
Printer model number: C7791D  
Printer serial number: SG36K1800C  
Firmware release: alfa  
Service Id: 13279  
Type ROM: Flash  
ARSS present: Yes SN: 030630 Revision: 101  
Num I/O cards present: 1  
**Printer Status Section:**  
Date: 04-10-2001  
Printer Status: OK  
Printbed Alignment: Yes Page# 204  
Factory Paper Advance Calibration: Yes  
Custom Paper Advance Calibration: None  
**Printer Latest Errors:**  
# 0 81.01.1 alfa SM: 05 [Error] Date unknown Page# 196  
# 1  
# 2  
# 3  
# 4  
# 5  
# 6  
# 7

**Sample of the information page**

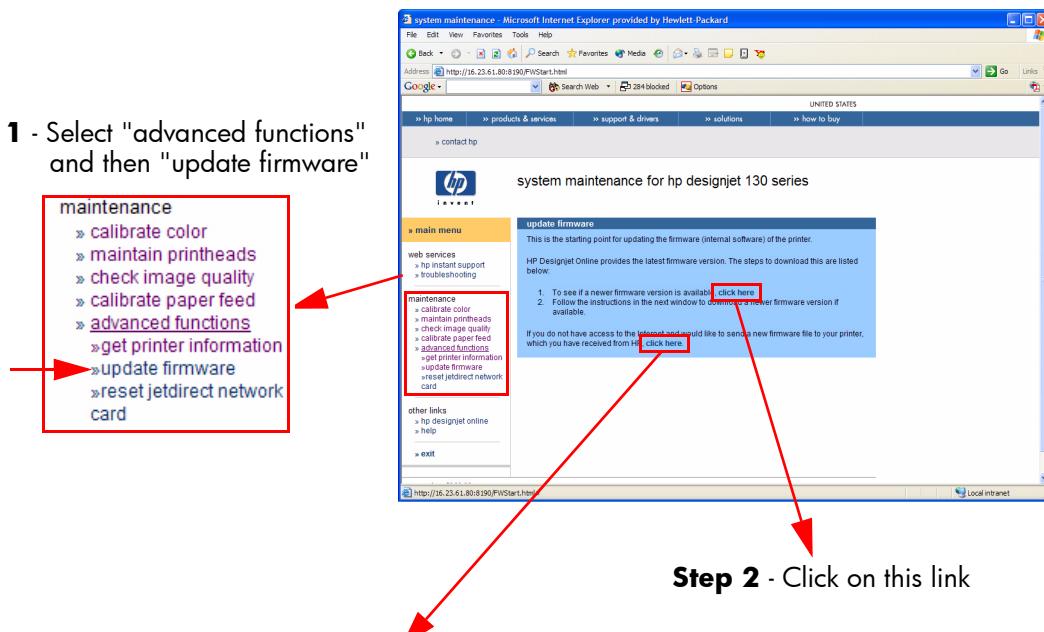
## Update Firmware

**Update firmware** updates the built-in software of the printer. The update process will check the printer's version with the latest version available from HP. Before trying this utility, first make sure that you have an internet connection.

**Do not power off the printer during this operation. The printer display will indicate busy until the operation is finished.**

The first step will be to check if newer printer software is available. If newer software is available, then follow the instructions in the window in order to upgrade the printer software.

**Step 1** - Select "advanced functions" and then "update firmware"



If you do not have Internet access, you can still send a new firmware file (which you have received on CD from HP) from your computer to the Printer.

### System Software (firmware)

**System Software (firmware)**  
Your printer already has the latest firmware. No need to download.  
Click [here](#) to return to the System Maintenance main menu.

If newer printer software is not available, then this message will be displayed

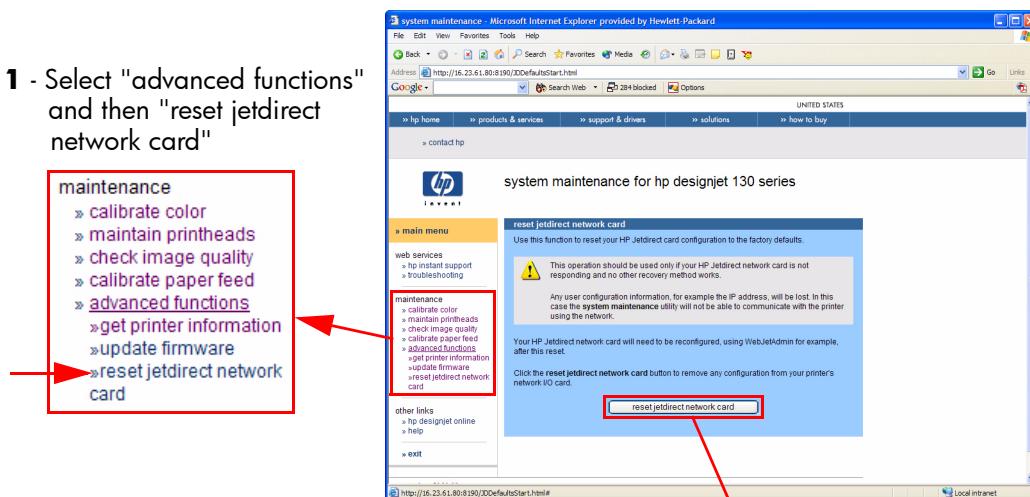
## Reset Jetdirect Network Card

Use this function to reset the HP Jetdirect Network card configuration to the factory defaults. This should only be used if the HP Jetdirect Network card is not responding and no other recovery method works.

Any user configuration information, for example the IP address, will be lost. In this case the *system maintenance* utility will not be able to communicate with the printer using the network.

The HP Jetdirect Network card will need to be reconfigured, using WebJetAdmin for example, after this reset.

**Step 1** - Select "advanced functions" and then "reset jetdirect network card"



**Step 2** - Press "reset jetdirect network card"

