



Job Logging

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1: Basic overview

Job logging offers organisations another effective way to monitor and control their printing costs. It works by recording information about what each user has printed and copied, including their identity, the name of their document and its total number of pages.

Individual user printing patterns can then be easily identified and recommendations made to promote more cost effective and responsible printing.

Also, if users are made aware that every print job they make is recorded, job logging can work as an effective deterrent against inappropriate or irresponsible printing.

2: Benefits

Brother's job logging feature has four major benefits:

1. It offers another excellent way to monitor and control printing costs
2. It can be used to evaluate printing habits at the individual level so that recommendations can be made to anyone found to be printing inappropriately or irresponsibly
3. It can act as a potential deterrent against inappropriate or irresponsible printing
4. Responsible printing can also be better for the environment

3: Customer scenario

After a recent internal audit the IT administrator at Jevans Telecoms realised that printing costs were higher than expected. To understand why these costs were so high he wanted to know what everyone was printing and why.

Brother was at his side all the way during this challenge thanks to their job logging feature. Over the period of one month all printing activities were recorded and evaluated. The results showed that many staff members were printing unnecessary items, like long e-mails and large reports, only to throw them away after being read.

Based on his new understanding of what everyone was printing, the IT administrator was able to develop guidelines to encourage more responsible printing. This helped Jevans Telecoms to cut their printing costs by a third.



4: Viewing job log information

By default job logging is not enabled. To check or learn how to enable it go to chapter 5, which starts on page 9.

Once enabled, these steps will show you where to find the information that has been logged. Note that the location of this information will be different depending on whether you are using a Brother printer or multifunction device.

A simple way of telling which one you have is by looking at the model name. If it begins with 'HL' as in 'HL-5350DN then it is printer. If it starts with either 'DCP' or 'MFC' then it is a multifunction device.

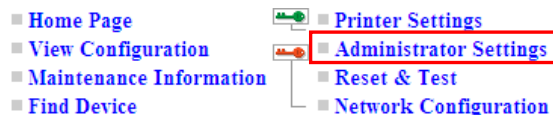
4.1: Viewing job log information on Brother printers

The location of the job logging file for printers is inside its internal memory. To find it you must connect to its internal website (Embedded Web Server). The following instructions show you how to do this:

Step 1: Open a web browser and type in the 'IP Address' or 'Node Name' of the Brother printer you want to retrieve its log information from. Its internal website (Embedded Web Server) should load.



Step 2: Click 'Administrator Settings' from the list of options at the top (menu items will differ slightly depending on model used).



Step 3: Enter the devices username and password if prompted to do so.

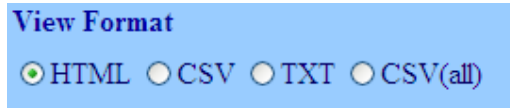
Step 4: From the list of yellow coloured options at the top, click 'View Print Log'.

Step 5: The job logging page will open:

Step 6: Select which parts of the logged data you wish to look at.

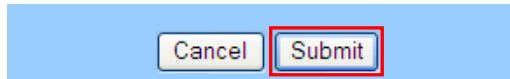
- **Username:** The users network logon name
- **Date:** The date and time the print job was sent
- **Toner Save Mode On/Off:** Did the user enable toner save mode or not?
- **Input Interface:** This could either be though a network or USB
- **Print Pages:** Total number of pages printed
- **Paper Type:** Paper type select in the printer driver (plain, thick, transparencies, other)

Step 7: Select which file format you want the log to be presented in.

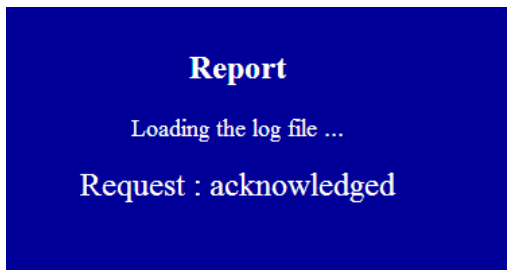


- **HTML:** Displays the log in a web browser as a web page
- **CSV:** Saves the log file as a Comma Separated Variable (CSV) file (if you have Microsoft® Excel, by default CSV files will open in this)
- **TXT:** Saves the log file as a text file (by default txt files will open in Notepad)
- **CSV(all):** Saves the log file as a CSV file. This option ignores the log settings you applied in the previous step and displays everything (username, date, toner save, input device, printer pages and paper type).

Step 8: Once you are happy with the information requested, click the **'Submit'** button.



Step 9: The webpage will change letting you know that your request for the log file is being processed.



Step 10: If you selected 'HTML' from step 7 shortly afterwards the webpage will change again showing you the log data (as shown below).

Administrator Settings
View Job Print Log

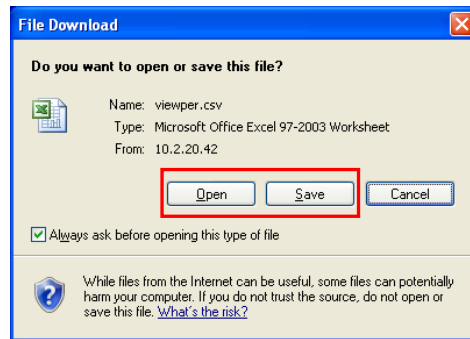
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Id	Job Name	User Name	Date	Toner Save	Input	Print Pages	Paper(Plain)	Paper(Thick)	Paper(Transparencies)	Paper(Others)
1	Job Logging _White Paper_	Evans/Jan	Tue,08 Sep 2009 16:56:53	Off	Extend I/O	13	13	0	0	0
2	P9100057.pdf	Evans/Jan	Tue,08 Sep 2009 16:57:14	Off	Extend I/O	1	1	0	0	0
3	http:10.2.20.42:admin:perfect.html	Evans/Jan	Tue,08 Sep 2009 16:57:28	Off	Extend I/O	1	1	0	0	0
4	http:ojp.nationalrail.co.uk:en:pj:ptr	Evans/Jan	Wed,09 Sep 2009 08:45:10	Off	Extend I/O	3	3	0	0	0
5	Test Page	Evans/Jan	Wed,09 Sep 2009 09:23:22	Off	USB	1	1	0	0	0
6	Memo Style	Evans/Jan	Wed,09 Sep 2009 10:13:54	Off	Extend I/O	4	4	0	0	0
7	Test Page	reynolde	Wed,9 Sep 2009 16:18:24	Off	Extend I/O	1	1	0	0	0
8	line_cord_cost.xls	reynolde	Wed,9 Sep 2009 16:19:13	Off	Extend I/O	2	2	0	0	0

View from No:

If you selected either 'txt' or 'csv' then the Brother printer will present the information into your requested file type.

Depending on your web browser and its settings this log file may automatically open, be saved to your computer or ask what you want to do. By default if you are using Microsoft® Internet Explorer a dialogue box will pop up asking you what you want to do.



Step 11: When opened the log file will look like this:

Id	Job Name	User Name	Date	Toner Save	Input	Print Pages	Paper(Plain)	Paper(Thick)	Paper(Transparencies)	Paper(Others)
1	Job Logging_White Paper_	James	Tue,08 Sep 2009 16:56:53	Off	Extend I/O	13	13	0	0	0
2	P9100057.pdf	Diagmar	Tue,08 Sep 2009 16:57:14	Off	Extend I/O	1	1	0	0	0
3	http://10.2.20.42/admin/periset.html	Peter	Tue,08 Sep 2009 16:57:28	On	Extend I/O	1	1	0	0	0
4	http://ojp.nationalrail.co.uk/en/pj/ptr	Judith	Wed,09 Sep 2009 08:45:10	Off	Extend I/O	3	3	0	0	0
5	Test Page	Peter	Wed,09 Sep 2009 09:23:22	Off	USB	1	1	0	0	0



***Did you know?**

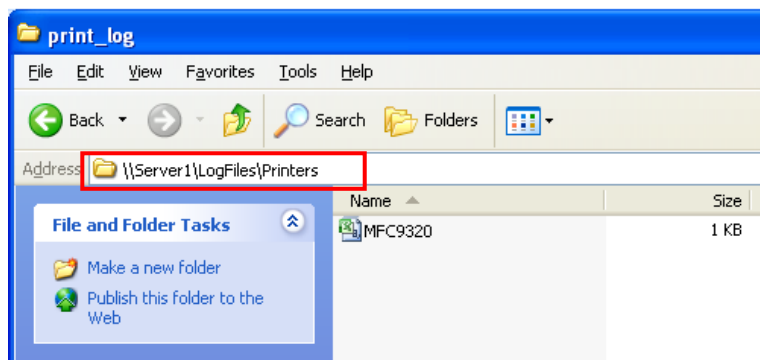
The maximum number of jobs that can be logged is 1,000. When this 1,000 is reached the device will still keep logging users print jobs. All that will happen is that the first ever job log to be recorded will be deleted so that the new job can be added to the bottom. This process will keep going until the log file is deleted. See chapter 5.2, starting on page 9 for information on how to delete the log file.

4.2: Viewing job log information on Brother multifunction devices

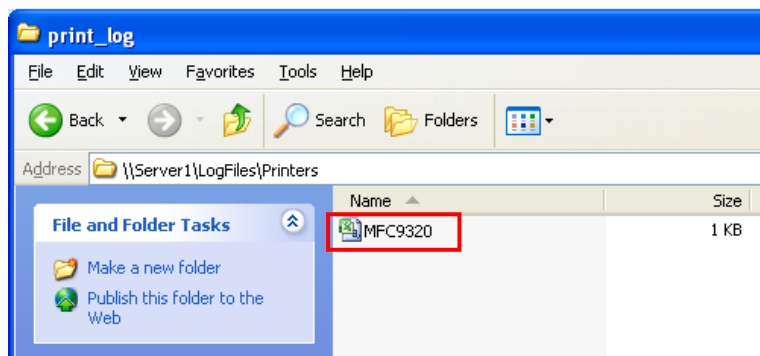
Unlike printers, where the log file is stored in the device's internal memory, multifunction devices create and write to a file that is stored externally. This external location could be a file server on your company's network or on a computer that is always switched on.

The following instructions show you how to view a job logging file which is stored in a typical file server. Its location is '\\Server1\LogFiles\Printers'.

Step 1: Navigate to the appropriate network location. In the example below it is within the location of '\\Server1\LogFiles\Printers'. If you do not know this location on your network, ask your IT administrator or the person who manages your company's network.



Step 2: Double-click the appropriate log file name. Again, if there are multiple files and you do not know which one to open, ask your IT administrator or the person who manages your company's network. The file will either be a text 'txt' or comma separated variable 'csv' file.



Step 3: The log data will be presented like this (if the selected file format is csv):

	A	B	C	D	E	F	G	H
	Id	Type	Job Name	User Name	Date	Time	Print Pages	Color Pages
1	1	Print(Network)	Procedures	James	07/09/2009	11:47:38	1	1
2	2	Print(Network)	http: 10.2.22.135 admin	Kacey	07/09/2009	11:48:41	4	4
3	3	Print(Network)	May_Sales	Kacey	07/09/2009	11:49:04	2	1
4	4	Print(USB)	Test Page	Louise	07/09/2009	12:32:52	1	1
5	5	Print(Network)	Test Page	Henning	07/09/2009	12:39:35 ?	?	?
6	6	Print(Network)	CustomerA	Kacey	07/09/2009	12:40:20	4	4
7	7	Print(Network)	Test Page	Henning	07/09/2009	12:39:35 ?	?	?
8	8	Print(Network)	CustomerA	James	07/09/2009		2	2
9	8	Print(Network)	CustomerA	James	07/09/2009		2	2
10	8	Copy	-	Henning	07/09/2009		?	?
11	9	Copy	-	James	07/09/2009		1	1

...and this is how the information would look if it were presented as a .txt file and opened in Notepad.

```

MFC9320 - Notepad
File Edit Format View Help
Id      Type      Job Name      User Name      Date      Time      Print Pages      Color Pages
1      Print(Network)  Procedures      James      07/09/2009      11:47:38      1      1
2      Print(Network)  http: 10.2.22.135 admin log_to_net.html id scantolog      Kacey      07/09/2009      11:48:41      4      4
3      Print(Network)  May_Sales      Kacey      07/09/2009      11:49:04      2      1
4      Print(USB)      Test Page      Louise      07/09/2009      12:32:52      1      1
5      Print(Network)  Test Page      Henning      07/09/2009      12:39:35      ?      ?
6      Print(Network)  customerA      Kacey      07/09/2009      12:40:20      4      4
  
```

It will capture and record:

- **Type of print:** Network print, USB print, USB direct host print, copy or incoming fax
- **Job name:** In some cases this will also record the file extension as well so that you can identify the application it was printed from.
- **Username:** The users network logon name
- **Date & time**
- **Total pages printed:** For colour devices this will both colour and mono pages
- **Colour pages:** For colour devices this will tell you how many of the total pages printed were colour

Note that if the file is open, or opened during the time that information is being written to it, some information may be missing and replaced with question marks. To ensure that this does not happen, do not open the file for about ten seconds after the last page is printed (this time may vary depending on the speed of your network).

5: Configuring job logging

Since the job log file is stored in a different location (depending on whether you are using a printer or multifunction device), the way you configure them is different too.

This white paper explains how to do both, starting with printers.

5.1: Configuring job logging on Brother printers

Although the screenshots used in this white paper are from a HL-5350DN it can still be used as a guide to configuring job logging on other supporting Brother devices. The instructions will not change despite some menu items being slightly different.

Step 1: Job logging is configurable through the devices internal website (Embedded Web Server). To launch this site open a web browser and type in the **'IP Address'** or **'Node Name'** of the Brother machine you want to apply job logging to. The machines internal website (embedded web server) should load.



Step 2: Click **'Administrator Settings'** from the list of options at the top (menu items will differ slightly depending on model used).



Step 3: Enter the devices username and password if prompted to do so.

Step 4: Click 'Log configuration'.

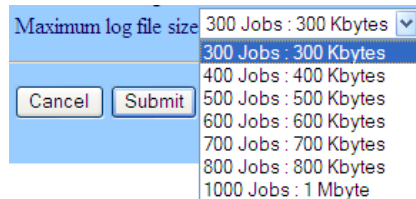
Step 5: The job logging configuration page will open:

Step 6: Select 'On' to enable your Brother printer to start collecting usage information.

Step 7: Since the log file it saved to the devices memory it cannot go over a specific size (which you can select in the next step). Once it gets too its maximum it will start to write over any old data.

You can continue letting it does this or choose to delete the log file and start again. To start again, place a tick in the 'Delete the log file' checkbox.

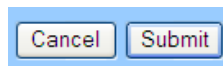
Step 8: Since the internal memory of the Brother device is limited, the log file cannot go over a specific size. You can choose, up to a maximum of 1,000 individual logged print jobs, how large you want this file to be. Note that when this maximum has been reached the device will still keep logging users print jobs. All that will happen is that the first ever job log to be recorded will be deleted so that the new job can be added to the bottom. This process will keep going until the log file is deleted.



You can select from:

- 300 jobs: 300 Kilobytes
- 400 jobs: 400 Kilobytes
- 500 jobs: 500 Kilobytes
- 600 jobs: 600 Kilobytes
- 700 jobs: 700 Kilobytes
- 800 jobs: 800 Kilobytes
- 900 jobs: 900 Kilobytes
- 1,000 jobs: 1,000 Kilobytes

Step 9: Once you are happy with your configurations; click the **'Submit'** button to save them.



***Did you know?**

If you turn the printer off and then back on again the data within the log file is still retained.



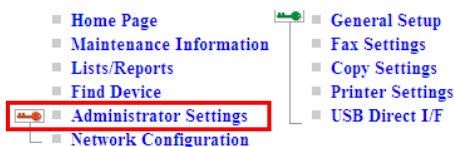
5.2: Configuring job logging on Brother multifunction devices

Although the screenshots used in this white paper are from an MFC-9320CW it can still be used as a guide to configuring job logging on other supporting Brother multifunction devices. The instructions will not change despite some other menu items being slightly different.

Step 1: Job logging is configurable through the devices internal website (Embedded Web Server). To launch this site open a web browser and type in the 'IP Address' or 'Node Name' of the Brother machine you want to apply job logging to. The machines internal website (embedded web server) should load.

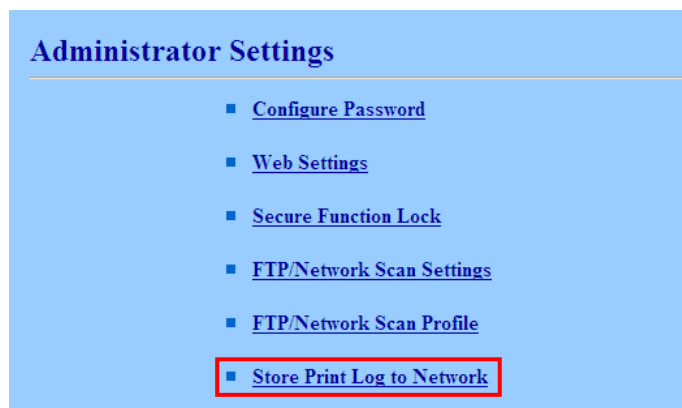


Step 2: Click 'Administrator Settings' from the menu items at the top.



Step 3: Enter the devices username and password if prompted to do so.

Step 4: Click 'Store Print Log to Network'.



Step 5: The following webpage will load (full instructions for how to configure this will follow):

Store Print Log to Network

Print Log Off On

Host Address

Store Directory

File Name

File Type TXT CSV

Authentication Setting

Auth. Method Auto Kerberos NTLMv2

Username

If the user name is part of domain, please input the username in one of the following styles.
user@domain
domain\user

Password

Retype Password

Kerberos Server Address

Error Detection Setting

Action Ignore Log & Print Cancel Print

Connection Status

Last Log Status -

Step 6: Select 'On'. This will enable your Brother multifunction device to start saving information about what it has printed.

Store Print Log to Network

Print Log Off On

Step 7: Job logging information will be saved directly to a file on your companies' network. This could be a file server or a computer that is always switched on.

In the example below the job logging file will be created then continually written to the following file server: '\\Server1\LogFiles\Printers*'. From this you need to pick out the 'Host Address' and 'Store Directory'.

In this example the host address would be 'Server1' and the store directory would be 'LogFiles\Printers'. As you can see the backslashes used at the front and end of both locations have been removed. This is simply because the Brother multifunction device does not understand them.

The host address could be the FDQN name, which is used below, or the IP address.

Host Address	Server1
Store Directory	LogFiles\Printers

Step 8: Decide upon a filename to give your new log file then enter it here.

File Name	MFC9320
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Step 9: Choose how you want your new log file to be presented. You can select from either a text 'txt' file or comma separated variable 'csv' file.

File Type	<input type="radio"/> TXT	<input checked="" type="radio"/> CSV
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Step 10: Because your Brother multifunction device will be accessing your network it needs to be authorised. This is done by entering a username and password, similar if not the same to those used to logon to Windows®

Select from either Kerberos or NTLMv2, depending on which authentication method your network supports. If you do not know which authentication method is being used you can select 'Auto'. Auto will try and detect which authentication method is the most suitable (note that it may take a little longer to authenticate with this selected).

Authentication Setting	
Auth. Method	<input checked="" type="radio"/> Auto <input type="radio"/> Kerberos <input type="radio"/> NTLMv2



***Did you know?**

In many cases, the 'Server1' part of '\\Server1\LogFiles\Printers' is just the node name of the computer, or server, where the log file will be created and stored. Alternative names can be used by either giving the computer another node name or creating a DNS lookup.

Did you also know that the '\\ part of '\\Server1\LogFiles\Printers' is a way of telling Windows® that you want to access a file directory, or folder, on a computer. It is similar to using 'http' for general web traffic or 'ftp' for FTP traffic.

Step 11: Enter your username. If it is part of a domain you will need to express it in one of two ways:

- user@domain
- domain\user

How does this work? Take the username 'kacey' and the domain which it belongs to 'brother.europe.net'.

- Using the format 'user@domain' it would be expressed as 'kacey@brother.europe.net'.
- Using the format 'user\domain' it would be expressed as 'brother\kacey'.

These expressions will depend on both the authentication type (Kerberos or NTLMv2) and the settings on your server. In most cases, both will be acceptable. However, if you experience any authentication errors it may be worth changing this as part of your fault finding process.

Username

Step 12: Enter the password which is associated with the previously entered username.

Password

Retype Password

Step 13: If your network uses a Kerberos server and you selected it in step 10, page 12 you can either choose to specify its location in here or leave it blank. If you leave it blank the Brother multifunction device will automatically try and search for it (note that this could result in a short delay during the authentication process).

Kerberos Server Address

Step 14: Once configured and enabled every time a user prints, copies or when there is an incoming fax the Brother multifunction device will try and connect with the log file first.

If it cannot connect you can decide here how you want the device to proceed. You can either let it ignore the log file and just print anyway or cancel the print job. If you decide that you want it to cancel the users print job, the print job will automatically be deleted from any print queues. Any additional printing will be ignored until the Brother multifunction device can successfully re-establish the connection again. Incoming faxes will be stored in the devices internal memory until the connection is re-established.

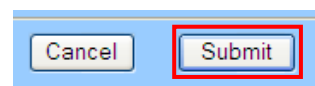
Error Detection Setting

Action Ignore Log & Print Cancel Print

Step 15: If during the last time a user tried print the connection to the log file could not be established you will be notified here. Likewise, if the connection was OK you will receive a 'successful' message.



Step 16: Open you are happy with your configurations; click the 'Submit' button to save them.



Step 17: The network settings should be saved. If you entered any wrong syntax, such as an extra backslash on the host address or store directory, your settings may not be saved and you may have to re-enter.

Store Print Log to Network

Print Log Off On

Host Address

Store Directory

File Name

File Type TXT CSV

Authentication Setting

Auth. Method Auto Kerberos NTLMv2

Username

If the user name is part of domain, please input the username in one of the following styles.
user@domain
domain\user

Password

Retype Password

Kerberos Server Address

Error Detection Setting

Action Ignore Log & Print Cancel Print

Connection Status

Last Log Status -

6: Supporting Brother devices

6.1: Mono laser printers

- HL5350DN
- HL-5370DW
- HL-5380DN
- HL-5350DNLT

6.2: Mono multifunction devices

- MFC-8370DN
- MFC-8380DN
- DCP-8085DN
- MFC-8880DN
- MFC-8890DW

6.3: Colour LED multifunction devices

- MFC-9120CN
- MFC-9320CW

brother®
at your side