

BERTL

HIGHLY RECOMMENDED



XEROX PHASER 8560



30 PPM Monochrome ▪ 30 PPM Color

Print



100% INDEPENDENT ANALYSIS

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The Xerox Phaser 8560 series is Xerox's latest-generation solid ink color printer. The Phaser 8560 prints at up to 30 ppm in both color and black-and-white, and is geared toward small- to mid-size offices in need of excellent print quality, a device with a small footprint, and an affordable price.

Some challenges end users face when trying to select the right printer for their business include how many users will utilize the printer on a daily basis, and the type of documents most often printed—such as high intensive graphical publications, sales presentation, marketing proposals, or less bandwidth-hungry documents such as day-to-day correspondence, reports, text reports, etc.

With a multitude of competitively priced printers available in the market, the Xerox Phaser 8560 is a very good choice for executive offices where there is a high demand for good quality color prints, reports, and documentation. The "N" base model is equipped with PostScript 3 and PCL 5c print drivers, up to 2,400 FinePoint resolution, fast 600 MHz processor, standard 256 MB memory (upgradeable to 1 GB), network connectivity, and a 625-sheet paper capacity. The Xerox Phaser 8560 series supports Microsoft Windows, Apple Mac, and Linux operating systems.

The Phaser 8560 "DN" model includes duplexing capability. The upgraded Phaser 8560 "DT" model BERTL tested adds more memory (512 MB) and an extra paper drawer, bringing total paper capacity to 1,150 sheets.

The top-of-the-line Phaser 8560 "DX" model is equipped with with an extra paper tray—bringing the total paper capacity to 1,675 sheets, and adds a standard 40 GB hard drive. The hard drive provides a suite of options, including storing files in the hard-drive memory. Stored files may be password-protected and a harddrive overwrite is available.

In testing, BERTL extensively evaluated the Phaser 8560. In the pages that follow, we will assess the printer's ease of use, productivity and image quality.

Device Features Summary	
Suggested List Price)	\$799-\$2,099 depending on the configuration (Xerox estimated retail pricing)
Monochrome Print Speed	30 ppm
Mono First Page Out Time	5 seconds
Color Print Speed	30 ppm
First Copy Out Color	5 seconds
Warm Up Time	Approx. 3 minutes
Maximum Monthly Print Volume	85,000 pages
Internet/Network Fax	No
Network Scan	No
Output Options	No
Input Options	525-sheet paper drawer
Other Options	Wireless IEEE 802.11a/b/g (\$219) 256 MB memory (\$599) 525-sheet paper drawer (\$399) 40-GB hard drive (\$499)



The Xerox Phaser model 8560DT tested by BERTL was equipped with an additional 525-sheet paper drawer, two-sided output capability, 512 MB of memory, and a 40-GB hard drive.

BACKGROUND

Printing passed copying as the primary method of reproducing documents years ago. Today, printing is just as important—if not more important—than copying.

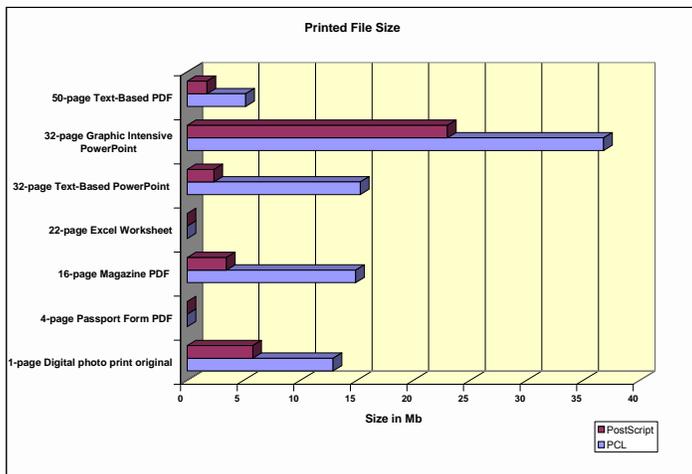
Connectivity

Most devices include Ethernet and USB connectivity out-of-the-box. Some devices include parallel connections. In addition, many devices provide a selection of optional connectivity choices such as Wireless 802.11b or g (g is the faster, preferred standard), Bluetooth for cell phone or PDA connectivity, PictBridge photo printing for printing directly from a digital camera, and FireWire for high-speed local connectivity.

Page Description Languages (PDLs)

PCL is the page description language (PDL) provided by most printer and MFP suppliers. Some manufacturers charge for a PostScript upgrade or provide a PostScript Level 3 emulation (clone). Still other manufacturers provide genuine Adobe PostScript Level 3 and bundle in PCL. A few manufacturers also include their own PDL, which are typically based loosely on the Microsoft Windows/GDI printing technology of old. These Windows or GDI drivers often offer significant productivity advantages over traditional PCL and PostScript print drivers, since the bulk of the processing is handled by the more powerful desktop PC, rather than by the less well-equipped printer processor itself.

NETWORK-BANDWIDTH/PRINT FILE SIZE



Print-Features Summary

CPU	600 MHz processor
RAM and Hard Drive	512 MB / 40 GB
Operating Platforms Supported	Win 2000, XP, 2003 Server, Vista; Mac OS 9.x/X version 10.2 and higher; Novell NetWare 5.x/6.5 (NDPS only), UNIX Linux
Standard Print Drivers	PostScript 3 emulation, PCL 5c
Optional Print Drivers	None
Standard Interfaces	10/100 BaseTX Ethernet, USB 2.0
Optional Interfaces	Wireless IEEE 802.11a/b/g (\$219)

Network-Bandwidth/Print File Size

	Original file size	PCL	PS
1- page digital photo PDF	4,483 KB	12.9 MB	5.80 MB
4 page Passport Form PDF	79 KB	521 KB	516 KB
16-page Magazine in PDF	1,780 KB	14.9 MB	3.48 MB
22-page Excel Worksheet	122 KB	862.3 KB	804.4 KB
32-page Text-Based PowerPoint	234 KB	15.3 MB	2.37 MB
32-page Graphic Intensive PowerPoint	4,202 KB	36.8 MB	23.0 MB
50-page Text-Based PDF	170 KB	5.17 MB	1.75 MB

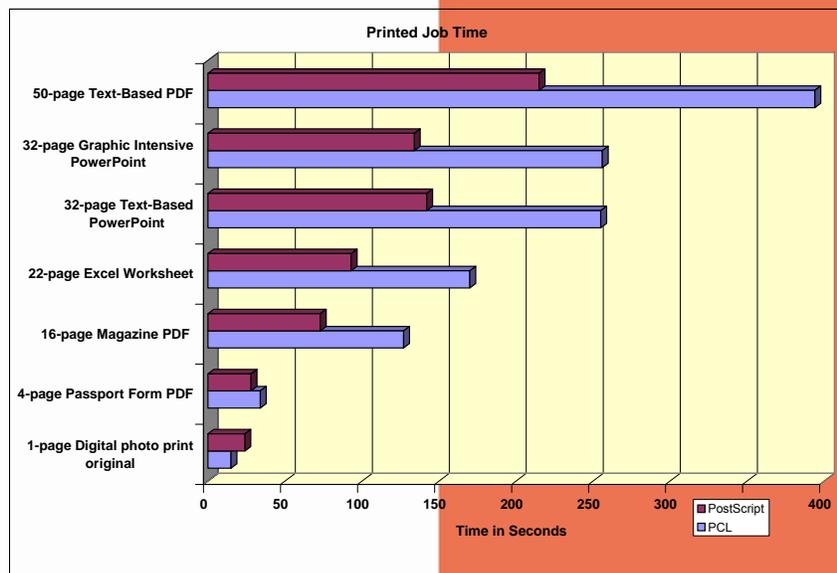
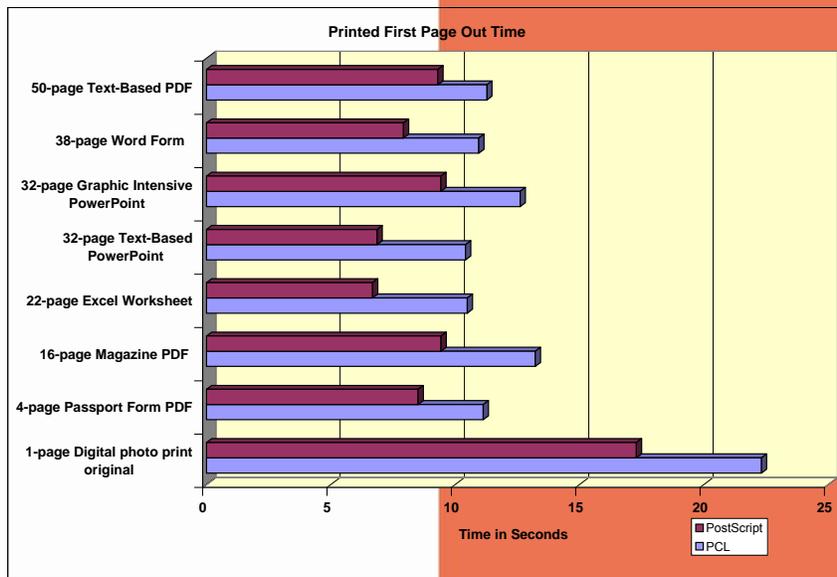
PRODUCTIVITY

Evaluating print productivity is not as simple as timing copy jobs. The printing process involves several steps and can be affected by a variety of factors along the way.

The document must first be spooled by the printer driver into a PCL or PostScript file. The PCL or PostScript file is then sent to the printer where it is raster image processed (RIPped) into image data by the device processor. The image data is then sent to the marking engine and output as printed pages.

There are three obvious factors highlighted above (spool time, RIP time, and print engine speed), which can all make or break a device's overall productivity. Add into the equation other factors, such as concurrency and contention, and one would have a real world situation.

However, it is possible to time and compare these factors through the use of careful preparation, conditioning and testing. Following are charts that show printing performance when tested under controlled conditions:



WORKFLOW

Concurrency or Contention?

MFPs, by their very nature, are designed to handle multiple tasks, acting as the printer, copier, scanner, and even fax machine. BERTL looks at how these tasks affect each other.

In BERTL's concurrency test, a large print file is submitted for printing. When spooling has completed, the rate at which pages are output is measured. The BERTL analyst then carries out various tasks such as scanning in a copy job, to see if the print output rate is affected.

Batch Printing

Batch Printing: In many situations, people are often faced with multiple files that need to be treated as a single print job. There are two main reasons for this:

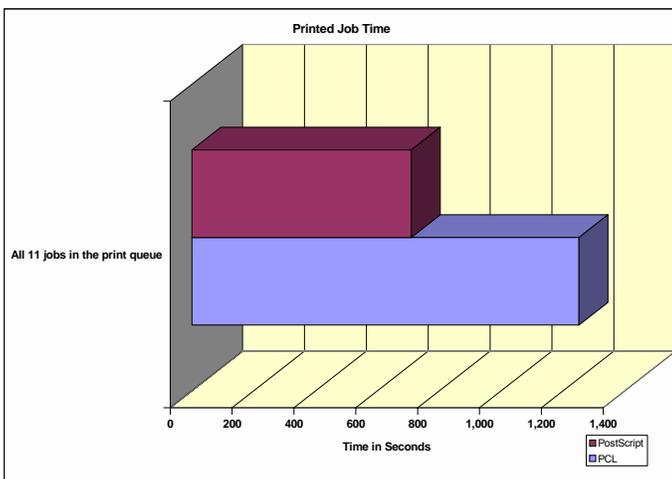
- 1) Multiple authors contributing to a single document
- 2) Collated sets comprised of multiple individual documents.

These two workflow scenarios put MFPs and printers to task, as they demand more than just the ability to spool, RIP, and print a file as fast as possible.

Network Workload

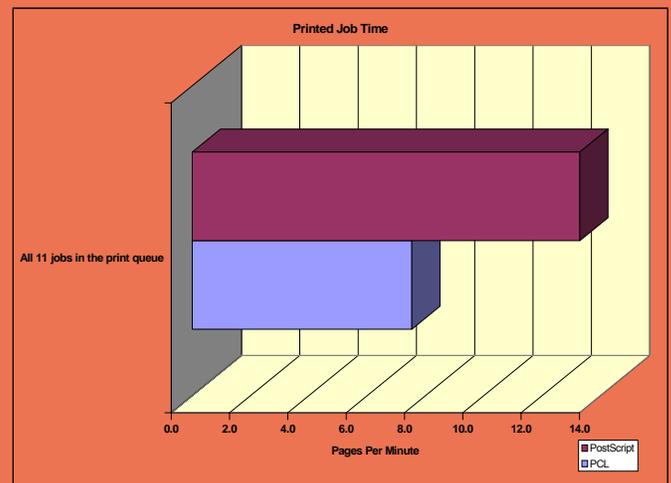
Network-printing devices may often face a queue of jobs stacked up for processing during busy periods of the day.

During BERTL's network workload tests, analysts queue a series of jobs at a paused print driver. The purpose of the test is to illustrate how well a device handles a stream of jobs and how the queue's make-up can have a major impact on a device's performance. BERTL is not trying to suggest that a series of jobs is an example of a typical office application, as this would be misleading.



Concurrency Test Results	
Print slowdown when scanning in copy job	Not applicable
Print slowdown when scanning originals	Not applicable
Print slowdown when scan-data transfer underway	Not applicable

Batch-Printing Capabilities	
Multiple jobs all combined into a single finished document	No
Multiple jobs all combined into a single finished document with page numbering/watermarking added	No
Multiple jobs sent in collated sets	No
Multiple jobs sent in collated sets with finishing/job attribute changes on a job-by-job basis	No



PRINT-ON-DEMAND

Ever since manufacturers began including hard drives with their MFPs and printers, they have looked for ways to offer print-on-demand capabilities. With print-on-demand, users can quickly print a document whenever needed, instead of having to store hardcopy,

The most basic is the ability to store a document in device memory for instant reprinting from the walk-up control panel. A growing number of printers and MFPs provide this.

The other major benefit of print-on-demand is the removal of the RIPping process when printing large documents repeatedly. With print-on-demand, the file is stored on the device in a post-RIPed format, eliminating the spooling and RIPping process that usually precedes printing. This saves users time, and reduces the network workload.

With a growing number of devices now supporting direct Adobe PDF printing, many printers and MFPs now also support USB direct interface printing. With this feature, users can simply insert a USB flash memory device containing a PDF (or other supported file format) into the device's USB direct interface (usually located on or near the printer's control panel). The files contained on the USB flash memory device are then displayed on the printer's touch or LCD screen. The user simply scrolls down to the file they would like to print.

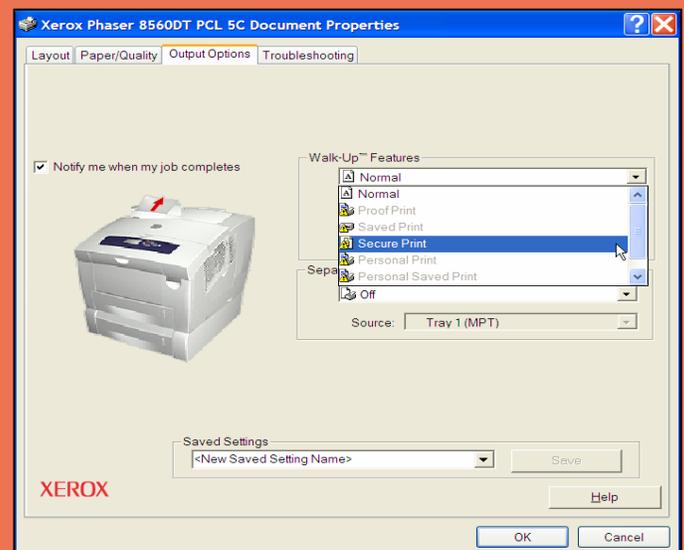
Do All Devices Offer the Same Capabilities?

There is a large degree of differentiation between products and manufacturers in this area. Those interested in print-on-demand should look carefully at the functionality offered by each manufacturer.

Areas of differentiation include issues such as the ability to manage stored files, as well as the ability of users to make job settings (such as simplex/duplex, paper size, stapling, etc.). Other systems enable users to combine single files into one job, while still others enable users to view and manage stored jobs from a desktop computer utility.

Print-on-Demand Features Summary

Job Storage From the Device?	No
Job Storage From the Desktop?	Optional
Finishing Options Included at Time of Storage?	Not applicable
Document Images (incl. thumbnails) Provided on the Device Touch Screen?	No
Document Images (incl. thumbnails) Provided on the Desktop?	No
Multiple Jobs Can Be Combined and Printed as One Finished Job?	No
Multiple Jobs Can Be Selected and Printed as Separate Jobs?	No
Stored Jobs Can Be Edited After Storage?	No
Stored Jobs Can Be Combined With Send Feature	No



Secure (Private) Print allows users to safeguard highly sensitive and confidential documents from being viewed by unauthorized persons. Documents are deleted after printing.

WHAT WE LIKED

- The optional hard drive enables users to store frequently printed documents on the device's hard-drive, which includes public folders. This saves users time and eliminates re-processing (RIPping) files.
- The private-printing feature enables users to keep confidential documents secure by requiring them to enter their PIN at the control panel before the job is actually printed.
- The ability to create public and private storage for documents with or without a PIN, and to edit and organize stored documents at any time.
- Users can configure the printer settings to automatically send job completion alerts on their desktop.
- Direct PDF printing of PDF and PostScript files from Xerox's InternetServices Printer Web page.

WHAT WE WOULD LIKE TO SEE

- BERTL analysts would like to see a more convenient way to enter passwords on the number keypad instead of having users scroll through the menu using up and down arrow keys. This would save time and improve access to stored documents.
- BERTL analysts would prefer that the print productivity kit (hard drive and a suite of additional print options) was standard instead of an option.
- Better performance from the PCL print driver when printing PDF files.

IMAGE QUALITY

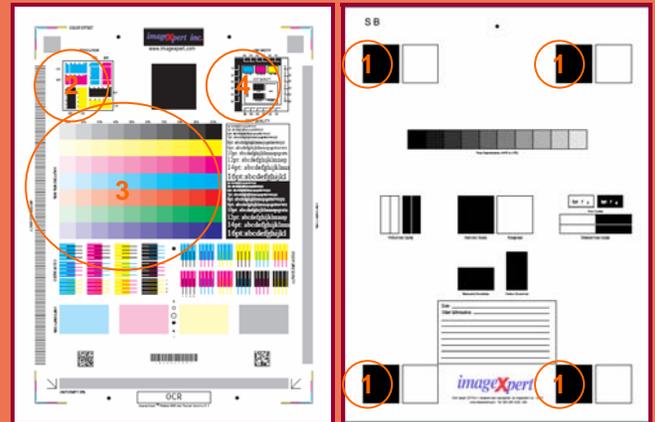
BERTL evaluates the output of several “test targets” in order to determine image quality. Following are descriptions of key elements of image quality. Note the numbered examples on each of the test targets shown in the right column.

Office Color Image Quality

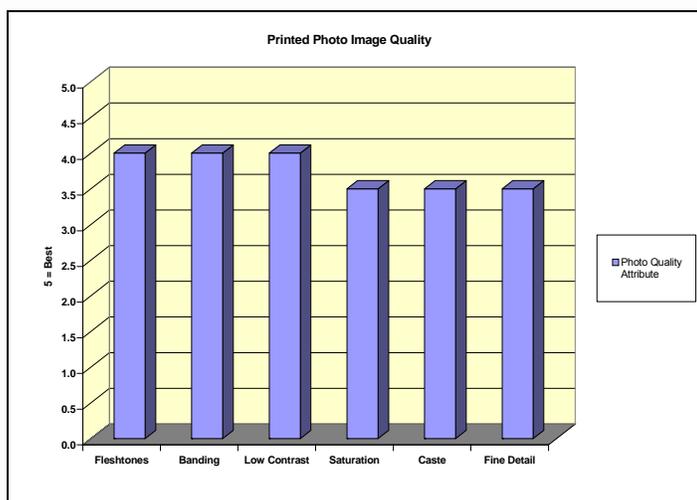
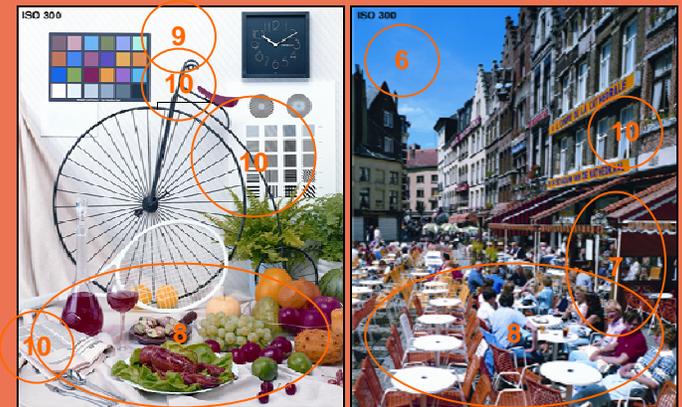
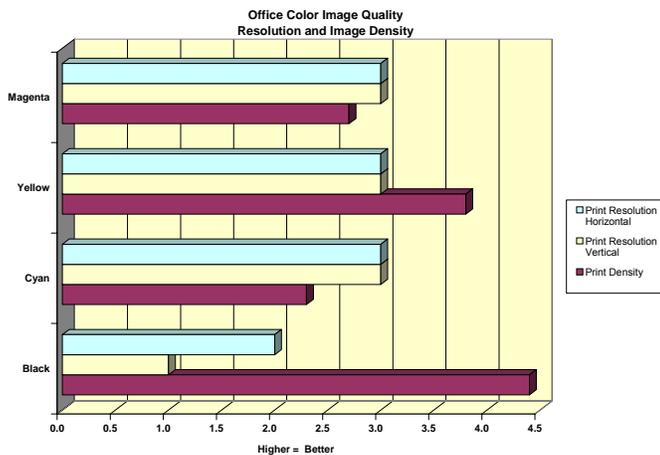
1. **Density of Solid Areas** - Better contrast; more vivid overall images
2. **Line Work** - Better production of lines and text
3. **Halftones** - Better production of photographic and screened images
4. **Negative/Positive** - Better production of fine detail

Photographic Color Image Quality

5. **Fleshtones** - Better production of portraits
6. **Banding** - Better solid and dithered fill
7. **Low Contrast** - Better production of dark images
8. **Saturation** - Better production of bright colors
9. **Caste** - Better color fidelity
10. **Fine Detail** - Better reproduction of fine details



BERTL uses ImageExpert printer test targets for the evaluation of printed image quality. BERTL technicians measure image density and evaluate the device’s ability to produce a full range of halftones and various sizes of negative/positive text, dots and lines in each primary printing color (CMYK).



BERTL uses synthetic (photographic) test images obtained from ISO International Standard 12640--Graphic Technology--Prepress digital data exchange--CYMK standard color image data (CYMK/SCID) in order to evaluate the ability to print photographic images.

ACCESSIBILITY

In the United States, Section 508 legislation prohibits government agencies from purchasing devices that are not accessible to those with physical impairments. For this reason—and the corporate world’s increased focus on delivering a better work environment for all—many MFP manufacturers are increasingly providing more user-friendly features for physically-impaired users.

Common design features include tilting control panels, which give wheelchair-bound users a better view of the screen, and larger display options for those with impaired vision. Voice navigation and Braille also are becoming increasingly popular. Easy access to the paper path for misfeed removal and front access to toner supplies also make a device more user-friendly.

WHAT WE LIKED

- Disabled users should be able clear most paper misfeeds, as they can be removed without having to move cumbersome device components, which is a problem with some competitive units.
- The input and output trays are easily accessible near or at the front of the device. Changing paper sizes and reloading media is easily performed with just one hand.
- The front panel is tilted making it easier for wheelchair users to view.
- Consumables are located near the top or side of the device, so that they are accessible to wheelchair users.

WHAT WE WOULD LIKE TO SEE

- Paper drawer handles that can be grasped from the top and bottom would provide easier access for disabled users, as currently the paper drawers are only accessible from the bottom.

Accessibility Features Summary

Routine maintenance tasks performed at front of device	Yes
Remote control-panel software	No
Audible “beeps” indicating error conditions	No
Control panel optimized for visually impaired	No
Voice-recognition software	No
Additional accessibility features	No



Removing paper misfeeds from the top exit cover is straight forward and easy to do. The control panel displays helpful animated graphics, and help information is readily available by pressing the “?” help key on the control panel.

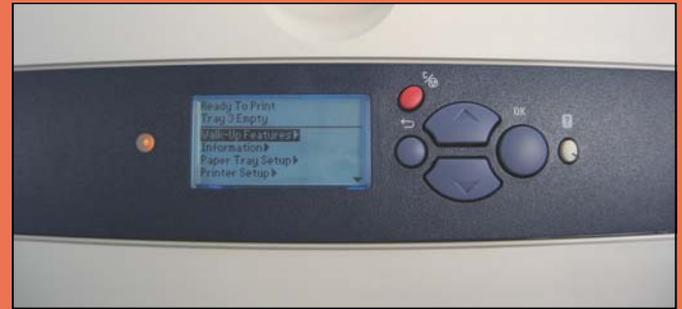
PROGRAMMING THE CONTROL PANEL

Visit a few MFP manufacturers' showrooms, and you will see a wide range of control panels and touch screens. The most rudimentary consist of a selection of hard keys and an LCD screen that can often be challenging to navigate. On the other hand, some control panels that utilize hard keys and LCD screens can actually be easier to use than touch screens. However, hard-key/LCD panel systems that require users to scroll through various settings and make a selection can also often be challenging to use.

Among touch screens, some utilize a menu-driven system, while others utilize an icon-based system. Some menu-driven touch screens can involve many complicated sub-menus that can be difficult to navigate.

Most manufacturers try to keep their control panels and touch screens consistent across their MFPs and printers, so that users do not have to spend time learning how to use a new control panel when moving from device to device.

A control panel's ease of use—or lack of—can often have a significant affect on user productivity. The harder it is to select frequently used options such as duplexing, document finishing, etc., the more time the user has to spend programming the device and the less productive they are. In the chart to the right, BERTL assesses how many steps are required to make these frequently-used settings.



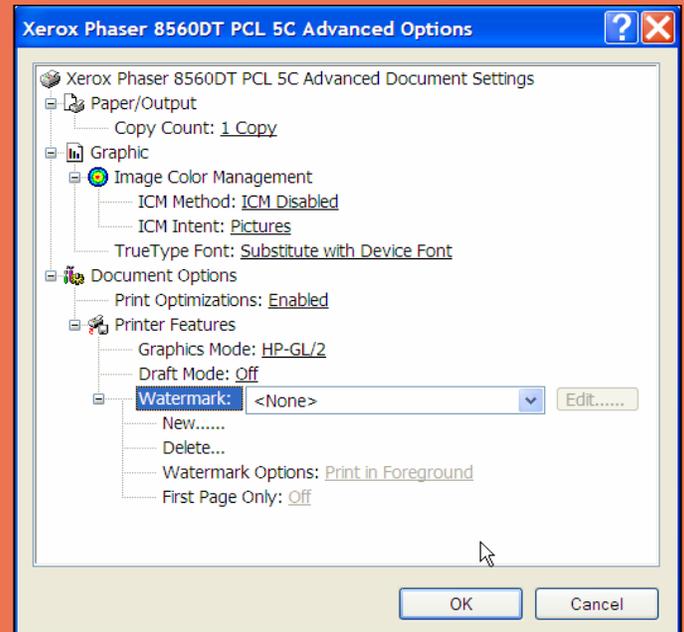
The Phaser 8560's control panel provides an intuitive, walk-through menu system that is relatively easy to use. Navigating through the screens is simple: users press the up and down arrows to move between menus, select the OK button to accept the choice, and then press the return button to exit the specific screen. To cancel a print job currently printing, users can press the red "C" button.



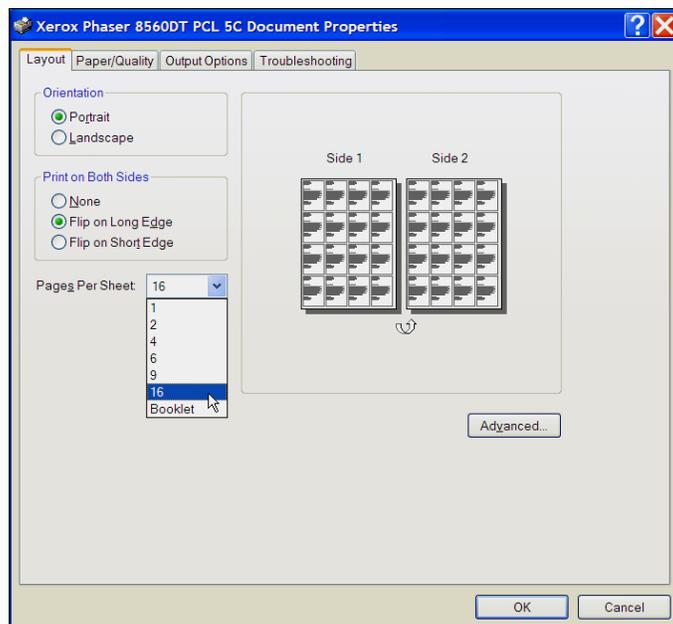
PCL PRINT-DRIVER

As with control panels and touch screens, print-driver design can vary enormously from manufacturer-to-manufacturer. And, as with control panels and touch screens, how easy it is—or isn't—to make selections in the print driver and navigate through it can significantly affect user productivity.

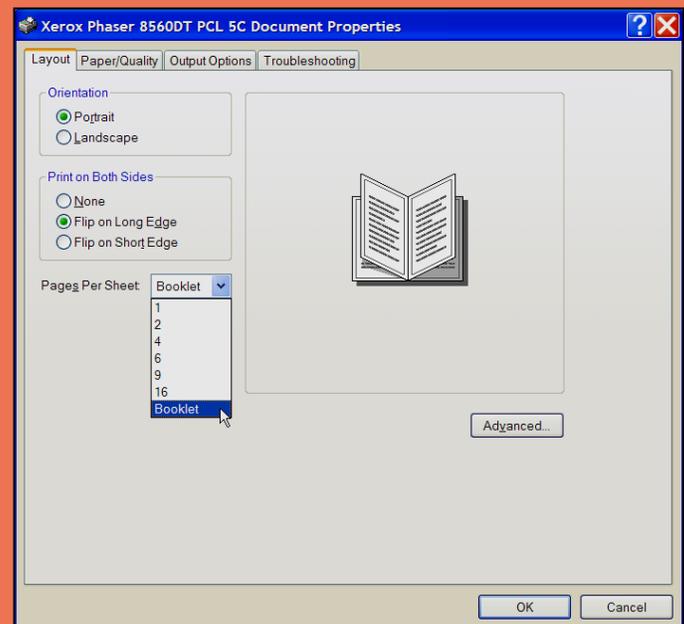
Most vendors provide an emulation of PCL (printer control language) developed by the Hewlett-Packard Company. Some may also provide an emulation of PostScript, which was developed by Adobe Systems Incorporated, or they may license PostScript directly from Adobe. While the Adobe PostScript driver is not the most user-friendly of print drivers, the advantage is that many users are already familiar with it. Alternately, some manufacturers may use an emulation of PostScript and design their own print-driver user interface, or may license PostScript from Adobe and also design their own print-driver interface.



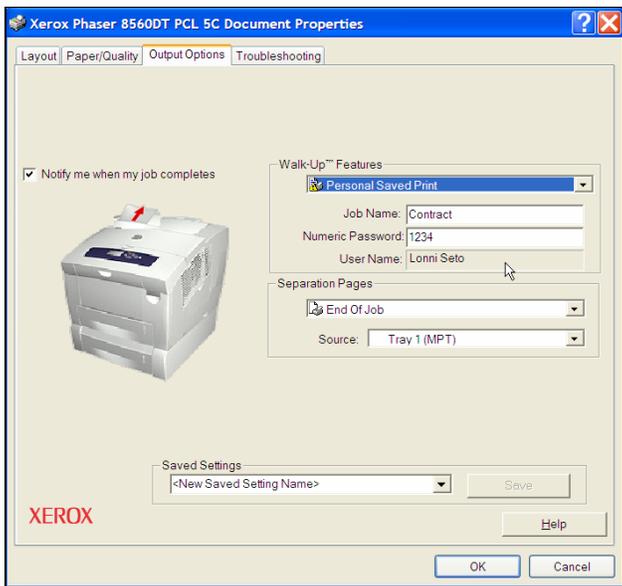
When users select the Advanced option, this window appears. It provides for special handling of color images, fonts, print optimization, watermarks, mirror images and book layout.



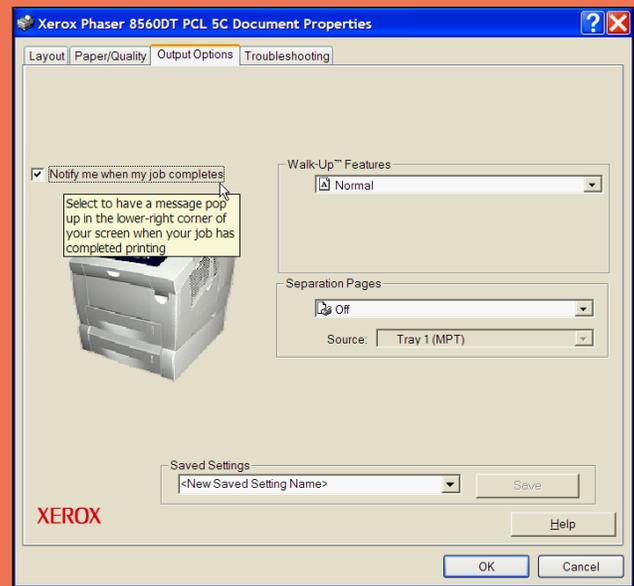
The Layout menu provides users with the ability to print up to 16 pages on one page. Paper orientation and simplex/duplex printing also be select from this menu.



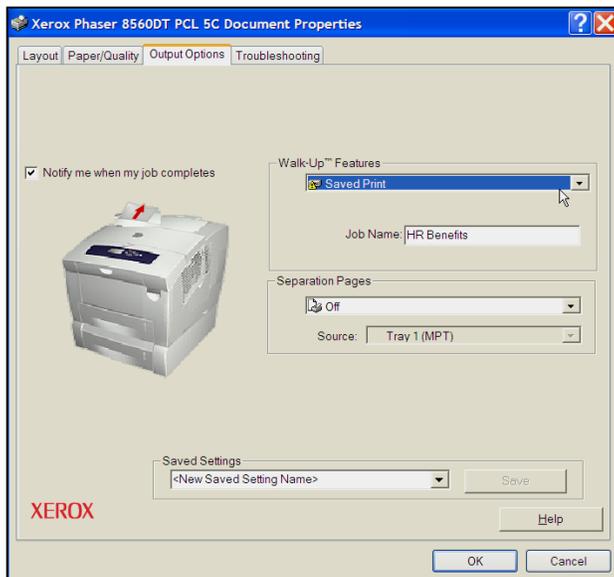
The Phaser 8560's booklet feature allows users to produce documents in a booklet layout, which can be folded and stapled manually or placed in a PPI unit at a later time.



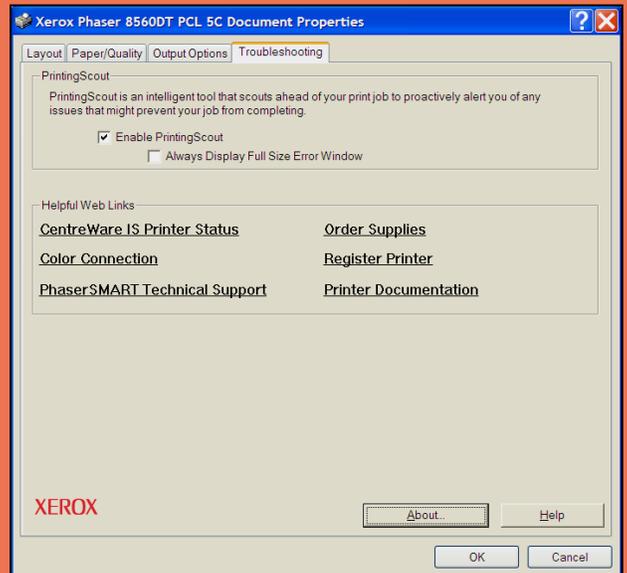
The Private Print feature enables users to save sensitive and confidential documents on the device's hard drive to be printed at a later time. The initial set up involves selecting a unique job name that the user will recognize and a four digit PIN entry. Documents will be saved on the hard drive until the user deletes it from the hard drive.



Users can enable pop-up messages, on the Output Options tab, that appears on their computer monitor informing them that their print job has completed printing.



Users can save frequently used documents on the hard drive, where anyone can access and print them. Separation pages can be turned "On" from the Output Options tabs so that blank pages are inserted between pages, at the end of a set or between jobs. A different paper source can be designated at this time.



The Troubleshooting tab is provided with the PrintingScout tool, and alerts users of any potential print problems with job alerts and warnings. Other helpful hyperlinks are provided for device status, color adjustment, ordering consumables, user manuals and technical support.

CLIENT UTILITIES

In order to take best advantage of a device's features and capabilities, clients need an efficient way to access and monitor the device. Indeed, an efficient device-management software system is critical in order for a client to take maximum advantage of a device's feature set, be it a printer, fax, scanner or MFP.

Most general users want to know first if a device is capable of handling a particular job—for instance, if it has duplexing, color capability, supports specific paper sizes, or provides certain document finishing, such as stapling or saddle-stitch booklet making.

Second, users want to know a device's current status—if it is ready to print or is offline, for instance. Third, they may also wish to know whether it is equipped with sufficient supplies, such as toner, paper and staples, to be able to produce their job.

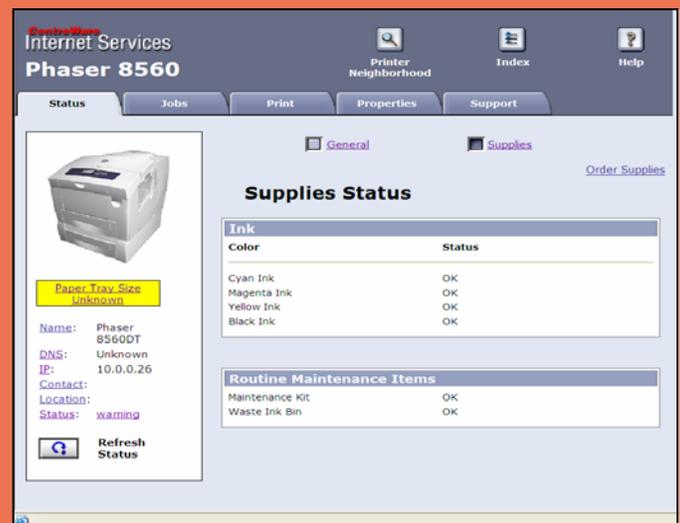
Manufacturers typically provide the user with this information either via a client software utility that is installed on the client's workstation or via a printer Web page that is accessed via the Web and a Web browser. Some manufacturers may also provide software that automatically indicates (via a pop-up window) when the user's job is completed or if there is a printer problem.



With Internet Services, users can download PostScript, PCL, PDF, or *.txt files and print them without having to use the print driver.



On the CentreWare Internet Services web browser, the General Status and Supplies Status pages supplies a quick reference of the paper trays and solid-ink supplies.



ROUTINE MAINTENANCE

Workgroup devices sold through retail and traditional IT distribution outlets usually are maintained by office workers who change the all-in-one cartridge units that encase the entire imaging system, including the toner cartridge. Units sold through resellers and dealers are usually maintained by office workers and/or trained service engineers. While separate long-life parts are more complex to install (i.e., separate toner cartridges, imaging drums, transfer belts), they tend to cost less than low-yield, all-in-one alternatives.

Toner Replacement

Changing the toner or imaging cartridge is a necessary task that traditionally is avoided by some for fear of toner dust leaking on clothing or hands. However, most units today offer clean replacement of toner supplies, and there is very little risk of toner leakage.

Clearing Paper Misfeeds

The main issue that office users attempt to avoid is the removal of an occasional paper misfeed. As a general rule, the faster a device engine, and the more paper handling and finishing options it has, the more complex is the process of removing paper misfeeds.

Common paper-misfeed sources involve the duplex unit and poor loading of paper supplies. The position of the duplex unit may be a major factor in the removal of many paper misfeeds. How easy or difficult it is to load paper supplies can also be a factor in the overall number of misfeeds that may occur.

Loading Paper

It goes without saying that loading paper should be as easy as possible, but sometimes this not the case. Among the factors that affect ease-of-use are:

- The user should be able to load an entire ream (500 sheets) in a single step.
- Mechanisms such as corner separators and ramps in the paper drawer can impede loading paper.
- The most critical factor involved in ease-of-loading paper is automatic paper-size detection. Ultimately, the device should be able to recognize the new paper size and reflect it on its control panel/touch screen and across the network in print drivers, printer-management software. Without automatic paper-size detection, users must remember to program-in the new paper size—something they often neglect to do or do incorrectly. This can result in jobs printed on the wrong paper size, backed-up job logs, etc.

Maintenance-Features Summary

*Black Ink-Stick Yield	3,400 pages; high-yield black stick rated to yield 6,800 pages
*Color Ink-Stick Yield	3,400 pages
Imaging Unit Life	Not applicable
Fuser Life	Not applicable
Developer Life	Not applicable
Ink Refill During Printing?	Yes
User Replaceable Imaging Unit?	Not applicable
User Replaceable Fuser Unit?	Not applicable
User Replaceable Waste Container?	Yes
User Replaceable Original/Paper Feed Rollers?	No

*Manufacturer's stated toner yield using originals with 5% area coverage per color



A flashing red LED on the control panel alerts users that the printer is in need of attention.



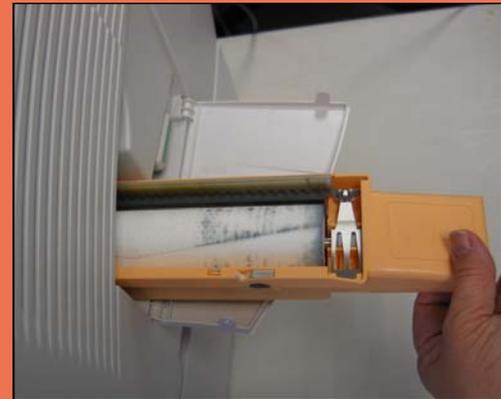
Most paper misfeeds can be easily removed from the front or near the top of the device. BERTL analysts did not encounter any problems or any hidden misfeed points.



Users can easily replace the printer's solid-ink "sticks." To replace a stick, the user raises the top cover and drops the bullet in at the top of its channel. Up to three ink sticks can be placed in the channel at one time.

WHAT WE LIKED

- Refilling of the solid-ink sticks is easy and clean can be performed in a matter of seconds.
- The only replaceable consumables are the solid-ink sticks and maintenance kit. The waste tray can be emptied when full by the user.
- It is quick and easy for users to clean the reusable paper release blade and the maintenance kit wiper blade.
- Most maintenance tasks are located near the front, top or side of the device, which is accessible to most users.
- The ability to set up e-mail alerts notifying key personnel when consumables need to be ordered or when a service call or maintenance is needed.
- The control panel displays helpful and informative graphics that direct the user to misfeed-access areas.



The Maintenance Kit located on the right side of the device can easily be replaced, and the wiper blade on the roller wiped clean with every roller change as needed.



Most minor maintenance requirements for the Xerox Phaser 8560 can be performed in a matter of minutes including emptying the solid-ink waste tray, which is performed when a message appears on the control panel informing users that the waste tray is full.

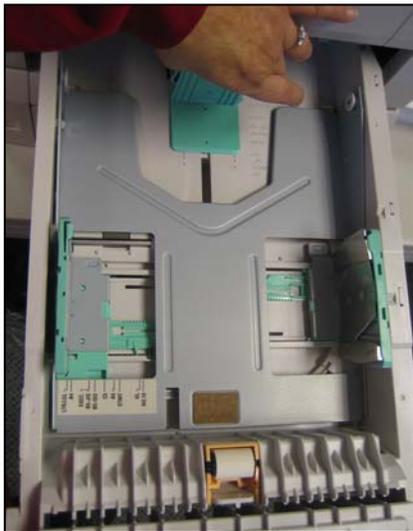
WHAT WE WOULD LIKE TO SEE

- Overall, the Phaser 8560 proved easy to use and maintain in testing.

PAPER INPUT

Substrate (paper) handling is a core requirement of every device. If a device cannot print a file on specific paper desired by the user, it hardly matters how fast the print engine is, or how many pages it can produce.

A device's paper-handling capability basically concerns how it can handle two key criteria: the paper size and paper weight it can feed, as well as the maximum number of pages that can be loaded in the device's drawers, trays, etc. The greater the paper capacity, the less time users will spend reloading paper.



The printer's paper-adjustment guides can be easily adjusted by squeezing them, so that loading paper and changing paper size is easy. All sources can accommodate up to 8.5" x 14" sheets and up to 45 lb. cover stock. The bypass tray can accept to 80 lb. cover stock.



Paper Handling: Input-Features Summary

Standard Paper Capacity	625 sheets (525-sheet drawer and 100-sheet bypass tray)
Optional Paper Supplies	2 x 500-sheet paper drawers
Maximum Paper Capacity	1,675 sheets
Maximum Paper Size	8.5 " x 14" (legal)
Minimum Paper Size	3.5 x 5" to 8.5" x 14" (89 x 127 mm to 216 x 356 mm)
Maximum/Minimum Paper Weight (bypass)	80 lb. Cover/220 gsm
Maximum/Minimum Paper Weight (main trays)	45 lb. Cover/120 gsm
Maximum/Minimum Paper Weight (duplex)	Info not available
Automatically Senses Paper-Size Changes?	Yes
Drop-In Loading of Entire Ream of Paper?	Yes

PAPER OUTPUT AND FINISHING

Office workgroup devices' paper-output handling options range from duplex printing to saddle-stitch booklet making. Many devices offer a choice of finisher/staplers, which provide a low-cost, minimum footprint solution, or a high-capacity, fully featured solution such as multi-position stapling, saddle-stitch booklet maker and/or document hole puncher.

BERTL evaluates these functions looking at how the same job outputs at different speeds when different finishing options are specified. The impact of the finishing selection is determined by timing jobs that are sent to a device with various finishing settings.

Stapling

Lower-cost finisher/stapler units often have a 15- to 30-sheet maximum stapling capability and are often limited to corner stapling. Floor-standing, higher-cost finishers typically provide 50-sheet capability and provide both corner and double stapling.

Saddle-stitch booklet making allows users to create folded, center-stapled booklets. Some saddle-stitch finishers only handle 10 sheets (for producing 40-page booklets), with others handling up to 15 sheets (for producing 60-page booklets).

Mail Bin Units and Offset Output

Many workgroup devices provide offset stacking (each set is offset from the next) to make it easier to separate jobs. Some also provide physical mail bin units that allow each user to send jobs to their own tray. However, most mail-bin units do not accept finished (such as stapled) jobs. A multi-tray finisher can also offer some form of job separation typically used to separate different types of jobs (fax, print, copy) for easier identification.

Post-Process Insertion (PPI)

A post-process insertion unit can be used to automatically insert pages into completed print or copy jobs. These inserts can include chapter covers, color pages and specialty material, such as heat-sensitive materials that may be damaged if run through the device. The advantage of course is that no human intervention is required to manually insert pages into completed jobs.

Output/Finishing Features Summary

Standard Output Tray Capacity	300 sheets
Optional Output Option(s)	No
Optional Output Tray Capacity	Not applicable
Maximum Stapling Capacity	Not applicable
Maximum Stacking Capacity	Not applicable
Maximum Saddle-Stitch Capacity	Not applicable
Hole-Punch Option(s)	No
Physical Mail Bin Option(s)	No
Folding Option(s)	No
Post Process Inserter Option(s)	No
PPI Capacity	No



Print jobs are neatly output to the center default tray, providing a base for users to set up collated sets for post-process imposition such as saddle-stitch booklets or perfect binding.

WHAT WE LIKED

- The Xerox Phaser 8560 supports printing on a wide variety of special media such as envelopes, labels, transparencies, and index cards.
- The Phaser 8560 can print two-sided booklets that can be used to create a finished saddle-stitched product. It can also print multiple pages (up to 16) onto a single sheet for economical, advertising or promotional purposes.
- Tight stacking of collated sets makes offline finishing options such as perfect binding or professional punch less time-consuming.
- The output tray can hold up to 300 sheets, which can reduce trips to the device to take printouts off the output tray.
- Duplexing capability is included as standard on the Phaser 8560 series except the "N" model, for which it is optional.
- The ability to print front and back covers, and insert page separators for the creation of professional looking presentation materials. Cover stock and page separators can be of a different media type and weight, which can be pulled from different paper trays.

WHAT WE WOULD LIKE TO SEE

- The ability to support heavier media in the main paper drawers would enable users to produce various professional brochures and other marketing materials.
- While printer's solid ink output is of good image quality but the waxy surface makes it difficult to write on the image.

BACKGROUND

An efficient device-management software system is critical in order to take maximum advantage of a device's feature set, be it a printer, fax, scanner or multifunctional peripheral (MFP).

Device management is typically provided via a Web server on the device controller. This Web server is accessed using any desktop Web browser. The user simply enters the device's IP address into the address line of their Web browser.

Note that administrators and office users have different management and monitoring needs.

General Office Users

As noted previously, end users want to know if a device is capable of handling a job, current status (such as "Ready"), and supply levels (paper, toner), as well as if there are any other jobs waiting to be printed.

Administrators

The aim of most network administrators is to obtain greater control over networked devices without having to leave their own desk. From their computer desktop, they would like to be able to set up the device on the network, establish security for IP filter ranges, apply cost-control measures, check supply levels, and set up automated e-mail alerts for different staff members when problems occur.

Due to the nature of a device's Web server, this capability is usually limited to an individual device. However, many manufacturers also include a network device-management fleet tool, which allows for the concurrent monitoring and management of multiple devices connected to the network. Many also provide plug-ins for the most popular IT device-management utilities in order to ensure that the maximum amount of information can be relayed from their device to the third-party application.

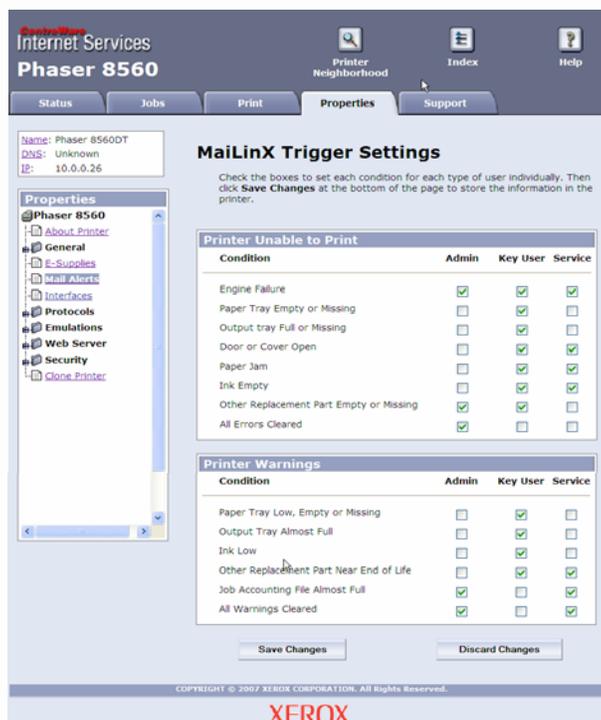
Device-Management Features Summary

Web-based device monitoring	Yes
Executable-based device monitoring	No
Group management of network devices	No
Monitor 3rd-party MIB-compliant network devices	Yes
HP Web JetAdmin compatible	No

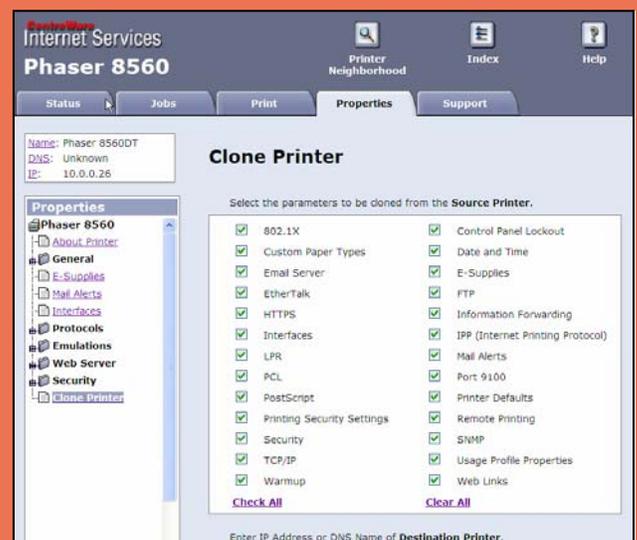
The General Status and Supplies Status pages indicate the status of the printer, paper drawers and toner.



With MailInX, up to three key personnel can be notified via e-mail if the printer requires attention. The various printer conditions below can be selected for automatic e-mail notification.



Setting up security settings protects the device from being configured or changed without authorization.



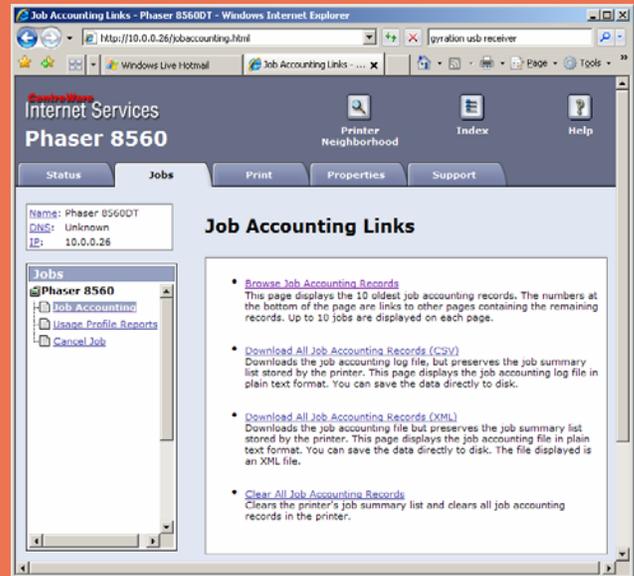
The ability to clone printer settings to be used to configure other printers within the office space will provide a common set of printer settings, which will be a time and resource saver.

WHAT WE LIKE

- Automatic e-mail notification can be setup by the administrator to alert up to three key personnel to respond to service calls, paper-misfeed removal, ordering consumables and other maintenance requirements. The e-mail alerts can be set up to be sent on a pre-defined schedule or when an event is triggered.
- Printer Neighborhood allows administrators to view, monitor and perform managerial tasks on other printers on the network.
- Management tools such as Usage Profile Reports, MailLinx Alerts and the Usage Analysis Tool all provide job-accounting records and tacking of consumables.
- The ability to access online help via the printer Web page, as well as online manuals and technical support information located on the Xerox Web site.
- The Xerox Phaser 8560 provides the most powerful and versatile job tracking system found on any office imaging device as standard equipment.

WHAT WE WOULD LIKE TO SEE

- The ability to take the device offline on the Web page, as this task can only be performed physically at the device. This would be useful for canceling print jobs that may have been mistakenly sent to the device.
- The ability to promote, cancel or pause print jobs from the desktop and/or at the walk-up interface.



Job accounting records. Use the [links](#) at the bottom of the page to view other records. Use the [small-type version](#) for easier printing.

File Name	Job Name	Pages (Sheets) Printed	Pages (Sides) Printed	Start Time	End Time	Interpreter Duration	Paper Type	Custom Name	Paper Size	Standard Capacity Cyan Used	Standard Capacity Magenta Used	Standard Capacity Yellow Used	Standard Capacity Black Used	Standard Maintenance Kit Used	Extended Maintenance Kit Used	P	M	Nu
1. Sarbanes Oxley Act 2002 first 50 pages (V).pdf	1. Sarbanes Oxley Act 2002 first 50 pages (V).pdf	1	1	5/14/2007 09:14:41	5/14/2007 09:14:42	00:00:01	Plain Paper	-	Letter	0.000000%	0.000000%	0.000000%	0.073837%	0.009490%	0.000000%	P	8:	
1. Sarbanes Oxley Act 2002 first 50 pages (V).pdf	1. Sarbanes Oxley Act 2002 first 50 pages (V).pdf	1	1	5/14/2007 09:37:23	5/14/2007 09:37:24	00:00:01	Plain Paper	-	Letter	0.000000%	0.000000%	0.000000%	0.073837%	0.009490%	0.000000%	P	8:	
1. Sarbanes Oxley Act 2002 first 50 pages (V).pdf	1. Sarbanes Oxley Act 2002 first 50 pages (V).pdf	1	1	5/14/2007 09:38:52	5/14/2007 09:38:53	00:00:01	Plain Paper	-	Letter	0.000000%	0.000000%	0.000000%	0.073837%	0.009490%	0.000000%	P	8:	
1. Sarbanes Oxley Act 2002 first 50 pages (V).pdf	1. Sarbanes Oxley Act 2002 first 50 pages (V).pdf	50	50	5/14/2007 09:39:53	5/14/2007 09:41:46	00:01:53	Plain Paper	-	Letter	0.000000%	0.000000%	0.000000%	6.263461%	0.474501%	0.000000%	P	8:	
1. Sarbanes Oxley Act 2002 first 50 pages (V).pdf	1. Sarbanes Oxley Act 2002 first 50 pages (V).pdf	1	1	5/14/2007 09:49:04	5/14/2007 09:49:07	00:00:03	Plain Paper	-	Letter	0.000000%	0.000000%	0.000000%	0.049816%	0.009490%	0.000000%	P	8:	

BACKGROUND

It seems high-tech security is never out of the news, with reports of information theft and hacking making headlines almost every day. And, unfortunately, by their very nature, network printers and MFPs are security risks if not managed correctly.

For instance, advanced network connectivity options open ports to hackers. Industry-standard Java and Web browser design elements are vulnerable to virus attack. Large hard drives store a latent copy of every document flowing through the device data for years. Devices link directly to core network components such as the LDAP address list or the central file server. Plus, fast communication options let insiders send information to the outside with no method of being traced.

Security and data-compliance regulations such as Common Criteria (CC) certification, HIPAA, Gramm Leach Bliley, FERPA, SEC, FSMA, and the Patriot Act are aimed at safeguarding information, and force companies to conform to best practices in document and data-security management.



With the Phaser 8560, the administrator can enable control-panel lockout using Internet Services, so that unauthorized users can not change control-panel settings.

Security-Features Summary

Hard-Drive Overwrite	Standard w/hard drive
Removable Hard Drive	Yes
Private Print	Yes
Encrypted Printing	No
Secure Fax	Not applicable
Encrypted PDF Send	Not applicable
Network Authentication	Not applicable
LDAP Authentication	Not applicable
Kerberos Authentication	Info not available
SNMP v3.0	Yes
IPv6	No
SSL	Yes
IP Filtering	Yes
MAC Filtering	No

PRIVATE/SECURE PRINTING

The purpose of private/secure printing is to keep printed documents secure. It is an important feature when devices are shared and/or out of sight of the user.

In the past, when a user printed a document containing sensitive or confidential information, unless the user "stood guard" at the printer, the printed document would simply be output to a tray or bin. Other users, including those searching for *their own* print jobs, could then easily view and read any other jobs lying in the tray.

With printers that provide private printing, however, the user typically enters a code of their choosing in the print driver before printing. Even after the user executes the print command, the device will not actually print the job until the user enters their code at the device's control panel.

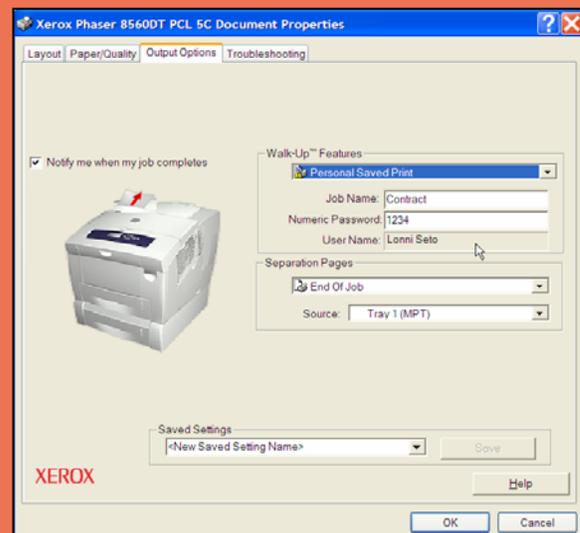
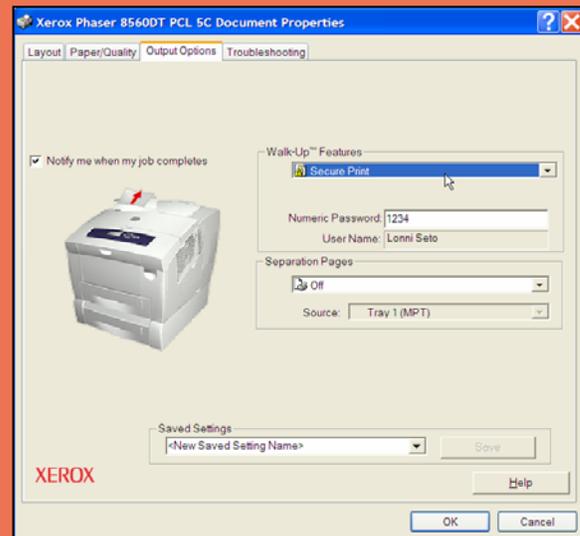
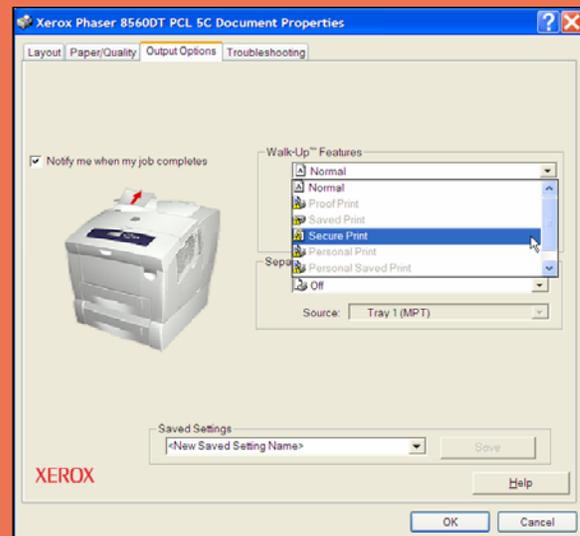
Some printers' control panels display the file names of all held private jobs. This can be a problem if even a file name (such as one detailing a merger or litigation) must be kept confidential. Other control panels only display the file name when the user actually enters their code, providing more security.

WHAT WE LIKED

- The list of secure/private print documents stored within user folders can not be viewed by the users at the control panel without entering a PIN. This provides additional security and reduces the need for users to change their native filenames.
- Control panel menus can be locked to prevent unauthorized users from changing settings in the system menu.
- The Hard Drive Overwrite kit provides additional security.

WHAT WE WOULD LIKE TO SEE

- MAC filtering, which is a more secure method of limiting user access due to its non-editable nature compared to TCP/IP, would provide an added secure network communication.
- An easier method of entering a PIN at the control panel to retrieve documents to print, would facilitate use.
- An optional PDF encryption utility would allow users to send confidential information over the Internet without the need for anything other than an Acrobat viewer and the correct PIN at the recipient's end.
- The addition of IPv6 would enhance security.



In testing, BERTL found the Phaser 8560DT simple and intuitive to use and maintain. The printer produced image quality that is suitable for most business applications, as it produced text, photos and graphics well. Xerox's solid ink technology results in high-quality color printing, with smooth color blends and gradients, without the need to print documents on good quality paper. The Phaser 8560 produced excellent presentations, reports, and documents in-house using the 2400 FinePoint print resolution. BERTL analysts used the default print quality mode for testing, which resulted in professional-looking documents as well as high quality results when printing photos and high-resolution graphics.

The Phaser 8560DT's sturdy paper trays are well equipped to handle the rigors of a hectic office. BERTL analysts did not encounter any paper misfeeds during the course of vigorous testing; as a result BERTL analysts simulated a few paper misfeeds in order to analyze the device's reaction. Paper-misfeed removal was a simple process, as animated graphics directed users to the source of misfeeds and was helpful in guiding even novice users. Together, the bypass tray and main paper drawer provides up to a 675-sheet input capacity, reducing the need to constantly replenish paper supplies.

The Phaser 8560 series is affordable, with pricing starting at \$799, and is an excellent choice for an executive's office, eliminating the need to print to a centrally located MFP down the hall.

At the high end of the Phaser 8560 series is the armed "DX" model with a standard 40-GB hard drive. The hard drive provides a host of stored print options, such as the ability to store documents in public and private folders, private printing, and the ability to release documents for printing with or without a PIN. For customers who require the extra security measure, BERTL recommends adding the optional hard drive.

Managing the device through the control panel and printer Web browser was adequate; printing documents using the PCL and PostScript driver was efficient and effective as expected.

Overall, BERTL found the Xerox Phaser 8560DT printer to be a good performer, as well as very easy to use, support, deploy, manage and maintain. Consequently, the Phaser 8560 will be more than adequate for the general office environment with relatively fast black-and-white as well as color print speed requirements and professionally produced image quality.



The Xerox Phaser 8560DT model provides duplexing, 512 MB of memory, and an additional 525-sheet paper drawer.



The BERTL analyst performs routine management on the Xerox Phaser 8560. Solid ink sticks can be easily inserted into their proper color slot, which accommodates up to three sticks in each channel.

WHAT WE LIKED

- Easy and clean maintenance
- Easy to use, deploy and support
- Extensive management capabilities
- Extensive feature set
- Above average overall image quality for business-color applications
- Superior build quality
- The most powerful and versatile standard job tracking system found on any office imaging device

WHAT WE WOULD LIKE TO SEE

- Direct PDF printing would save time and RIPping of files.
- The ability to promote, cancel or pause print jobs from the desktop and/or at the walk-up interface.
- Better performance from the PCL print driver when printing PDF files.

About BERTL

The success of an organization depends on its ability to manage its information and assets. An effective workflow process requires the complex integration of information, devices, software, and people.

IT managers, office managers, and other knowledge management professionals need to know what digital imaging devices would best serve their specialized workflow processes.

BERTL's services are designed around this real-world framework, delivering business consumers the independent analysis and insight needed to make critical decisions about digital imaging's role in their organization.

Independent Analysis and Insight

BERTL's reports, comparative data, and strategic guides look at digital imaging through the eyes of the business user. The research examines not only the technical features, but also vertical market applications, and business benefits. The impact on worker productivity is a primary concern.

BERTL is 100 percent independent. It receives no funding from manufacturers and all product evaluations and reports are published at BERTL's own expense for its subscribers. Business users worldwide trust BERTL for objective, unbiased analysis of digital imaging systems.

BERTL Services

Reports and Star Ratings

BERTL analysts provide detailed reports on the technical and practical benefits of thousands of color and monochrome workgroup, office, graphic arts, and production devices.

Product Specifications

DataCheck Gen II provides the most current competitive data on printers, copiers, MFPs, fax devices, wide format printers, scanners, and more.

News, Interviews, and Analysis

The ITchat online magazine provides insight into the dynamics and trends of the digital imaging marketplace through interviews, feature articles, and software reviews.

BERTL Awards

BERTL analysts recognize the leading devices and software solutions in the annual BERTL's Best awards. BERTL also honors the performance of manufacturers in the annual Readers' Choice selections.

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