

Xerox

WorkCentre™ 5335 Multi-Function Printer

35 ppm Monochrome

Print • Copy • Scan • Fax


EXCEPTIONAL

Key Buyer Benefits

- Fast print and copy productivity up to 35 ppm
- High print resolution up to 1200 x 1200 dpi and Xerox's EA toner with low-melt technology creates professional presentations, graphics and office documents
- Innovative touch screen features bright icons and intuitive navigation including embedded help videos that provide step-by-step directions for quick troubleshooting assistance
- Xerox Mobile Print Solution allows workers to print directly from their mobile devices and retrieve documents at a Xerox-enabled MFP with a secure confirmation code
- Advanced scanning capabilities include Scan to Network, Scan to Email, Scan to Folder, Scan to SMB or FTP, Text searchable PDF, and Scan to USB memory device
- One or three line fax options. Digital Fax options also available with T.38 Fax over IP with MFP configurations
- Standard 160 GB hard drive
- Flexible desktop and network utilities via Xerox's CentreWare® Internet Service deliver exceptionally easy to use device monitoring
- Xerox Extensible Interface Platform™ (EIP) enabled which allows document-related software applications to be accessed on the user interface to improve workflow and minimise time at the device
- Optional finishing options for stapling, hole punching, and booklet making
- Monthly duty cycle of 150,000 pages and maximum paper capacity of 5,090 sheets
- Environmentally-responsible design offers fast warm-up and first copy/print out times, duplex and combine copy modes, low power consumption, low noise levels, minimal ozone emissions and is ENERGY STAR® compliant

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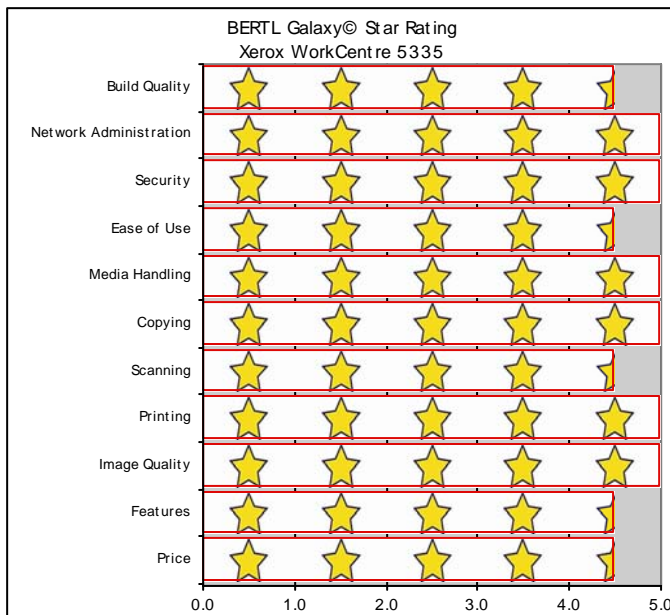
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BERTL'S GALAXY® STAR RATING



OFFICE

EXECUTIVE SUMMARY

The Xerox WorkCentre 5335 offers supreme versatility and innovative security for outstanding productivity and efficiency. It provides copy, print, scan, and fax capabilities in a compact design so users can produce a wide range of jobs with exceptional quality. Plus, it incorporates a host of sustainable, eco-friendly features that can enable busy offices to save money while conserving energy. During BERTL's extensive testing of the Xerox WorkCentre 5335, this black-and-white MFP performed exceptionally well. BERTL observed the following when testing the Xerox WorkCentre 5335:

- Tested simplex network-print speed with the PCL6 driver was as fast as 35.0 ppm and 35.2 ppm with the PostScript driver, matching Xerox's rated print speed of 35 ppm.
- In BERTL's job stream test the PCL6 driver completed the stream job test in 7 minutes and 46 seconds, running at 35 ppm, which translates to an efficiency rate of 100%. Using the PostScript driver the efficiency rate was 96%.
- Tested copy First Page Out Time was 8.37 seconds off the platen glass and 8.55 seconds using the automatic document feeder.
- Tested copier productivity was up to 34.5 cpm in simplex mode, closely matching Xerox's rated copy speed of up to 35 cpm.
- Image quality produced from the WorkCentre 5335 was good, displaying great grayscale shades, high resolutions, and smooth glossy prints.
- The high-resolution 7-inch colour touch screen provides exceptional help guides along with excellent clarity and well organised menus, and users will find it very easy to navigate.
- Fast 667 MHz processor with a 160 GB Hard Drive for faster productivity.
- PCL6 and PostScript drivers feature bi-directional communication so that users can view device status from the print drivers. Both drivers also offer different speed options.
- Powerful scan and fax workflows can automatically convert documents into numerous file formats, including text-searchable PDFs for easy retrieval.
- Xerox's CentreWare Internet Services, which provides detailed device and consumables' status, network configuration, access management and accounting controls for administrators, is easy to use and very capable.
- Xerox Extensible Interface Platform (EIP) enables enterprises and developers to develop custom applications, accessible from the touch screen, that can automate and streamline frequent workflows, such as scan-and-distribute.
- Features state-of-the-art technologies for optimized security at the device and on the network.
- Easy ID card solution with Xerox Secure Access Unified ID System® provides quick access to functions that need to be secured or tracked within your current security infrastructure.
- Featured Access Control allows users to restrict copy, scan, email, and fax access to the WorkCentre 5335 by validating network user names and passwords prior to use.
- Versatile media handling and flexibility, with the ability to print on stock as heavy as 215 gsm and paper sizes up to A3.
- Ability to expand paper capacity to up to 5,090 sheets.
- Duty Cycle up to 150,000 pages per month.
- Advanced finishing options that include stapling, hole-punching, and booklet-making.
- The Xerox WorkCentre 5335 has superior energy and supply-saving features, which include fast warm-up and first copy and print out times, duplex and combine copy modes, low noise levels, minimal ozone emissions, LED scanner lamps and is ENERGY STAR compliant.
- In compliance with Section 508 with features that include a large, easy-to-view touch screen display, and easy-to-access paper drawers, misfeed areas and toner replacement.

Considering the Xerox WorkCentre 5335 MFP's excellent overall performance in testing, ease of use, and high-quality office-black-and-white image quality, BERTL awards the Xerox WorkCentre 5335 its Five Stars *Exceptional* rating and highly recommends the device for mid-size to large offices that require a fully functional black-and-white MFP.

INTRODUCTION

In August 2011, Xerox Corporation introduced the new Xerox WorkCentre 5325/5330/5335 black-and-white multifunction printers. These new MFPs are designed for small to medium-size businesses that are looking to simplify everyday work processes without high budgets.

The Xerox WorkCentre 5335 has a rated print speed of 35 ppm when printing A4 sized documents and has a maximum monthly print volume of 150,000 pages. The WorkCentre 5335 also has flexible media capabilities with a maximum paper capacity of 5,090 pages, the ability to print on stock as heavy as 215 gsm and paper sizes up to A3.

The new Xerox WorkCentre 5335 black-and-white multifunction printer is designed to be easy on the environment and offers the following features:

- ENERGY STAR® compliant
- Standard Duplex ADF with 110 sheets capacity
- Large full-colour LCD touch panel with intuitive graphical display
- High quality output with 1200 x 1200 dpi resolution
- Powerful 667 MHz CPU and 1 GB of memory that is expandable to 2 GB as well as a 160 GB hard disk drive for fast productivity
- Standard 10/100/1000Base-TX Ethernet and High speed USB 2.0 connectivity
- Using the Xerox Standard Accounting software, users can monitor not only the pages their office produces but also who produced them. Users can manage, access and gather data for print, copy, scan and fax output
- View job queues and check supply levels remotely with Xerox's embedded web page CentreWare®
- Compatible with Mac, Windows, Unix, Linux, and Citrix environments
- Advanced scanning features include Scan to USB, Scan to client SMB or FTP, Scan to Folder, Scan to Home, Scan to USB, Scan to PC, Scan to E-mail, and Scan to Application
- Ability to print from or scan to any standard USB memory device instantly allows users a more portable way of accessing their documents
- Users can fax directly from their desktop with the LAN Fax feature which saves time and paper
- Advanced security features include Secure Print, Authentication with LDAP/Kerberos/SMB/CAC, Password Protected PDF, FIPS 140-2 encryption, S/MIME Encrypted Email, IPsec, 802.1X, SNMP v3.0, Email over SSL, LDAP over SSL, Image Overwrite, 256-bit Hard Disk Encryption, and Audit Log

- Superior finishing options add stapling, hole-punching, and booklet-making

This device is available in three configurations and sold exclusively through Xerox authorised providers. Pricing for each model in the series is as follows:

- Xerox WorkCentre 5325 UK £4,440
- Xerox WorkCentre 5330 UK £4,960
- Xerox WorkCentre 5335 UK £5,530

In the following test report, BERTL takes an in-depth look at the Xerox WorkCentre 5335, testing, and evaluating its productivity, image quality and ease-of-use.

Xerox WorkCentre 5335 Features Summary	
Imaging Technology	Black-and-White Multifunction Printer
Standard Functions	Print, Copy, Scan
Optional Functions	Fax
Maximum Monthly Print Volume	150,000
Mono Print Speed	35 ppm
Mono First Page Out Time	11 seconds
Automatic Duplex	Yes
NT Authentication	Yes
LDAP Compatibility	Yes
Hard Disk Overwrite	Yes
Dimensions (WxDxH)	597 x 637.5 x 1,115 mm
Weight	100 kg
Power requirements	220–240 V Nominal, 50/60 Hz

PRINT 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 print 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.

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.

NETWORK PRINTING

+ The Xerox WorkCentre 5335 Rated Output Speed is 35 ppm when printing A4 sized documents.

+ The Xerox WorkCentre 5335's Time to First Page is as fast as 11 seconds.

+ The Xerox WorkCentre 5335 delivers multiple Page Description Languages (PDLs) including the following: PCL® 5e, PCL 6, HP-GL/HP-GL2, TIFF/PDF, XPS®, and optional Adobe® PostScript® 3™.

+ All drivers also offer bi-directional communication with a user-selectable interface for all of the Windows-based operating systems.

+ Drivers support the following OS's: Microsoft® Windows® XP SP3 (32- and 64-bit), Windows Server 2003 (32- and 64-bit), Windows Vista (32- and 64-bit), Windows Server 2008 (32- and 64-bit), Windows 7 (32- and 64-bit), Mac OS® 10.5 and above, Netware: 5.11J / 5.12J, AIX 5 v5.3, HP UX 11.0, 11i v2, Oracle® Solaris 9, 10, Linux® Fedora Core 12-14, and Red Hat Enterprise Linux® 4.

+ The Xerox WorkCentre 5335 device also supports two innovative print drivers that can greatly simplify installing, managing, and supporting printers and multifunction devices on the network, and increase end-user productivity:

- Xerox Mobile Express Driver (X-MED) makes it easy for mobile users to find, use, and manage Xerox and non-Xerox devices in every new location. Connect to a new network and X-MED automatically discovers available printers and provides status and capability information. Users can save a list of "favorite" printers for each location and store application print settings for use on any printer in any network, all which greatly reduces mobile support calls to IT

- Xerox Global Print Driver (X-GPD) is a universal print driver that lets IT administrators install, upgrade and manage Xerox and non-Xerox devices from a single driver. It provides a consistent, easy-to-use interface for end-users, reducing the number of support calls, and simplifying print services management

+ The Xerox WorkCentre 5335 offers high print resolutions of up to 1200 x 1200 dpi.

+ The Xerox WorkCentre 5335 comes equipped with a powerful network controller which has a processing speed of 667 MHz and 1 GB of memory that is expandable to 2 GB with the optional PostScript Kit.

+ The Xerox WorkCentre 5335 comes standard with a 160 GB hard drive.

+ The Xerox WorkCentre 5335 offers many printing features that include the following: Automatic two-sided, Banner Sheets, Bi-directional status, Booklet creation, Cover selection, Delay Print (specific time), Draft Mode, Fit to new paper size, Hole Punch (requires Office Finisher LX and Hole Punch option), Image Quality (High speed, high resolution), Mirror image, N-up, Output tray selection, Paper selection by attribute, Print from USB, Reduce/enlarge, Saddle-stitch booklet making (requires Office Finisher LX and Booklet Maker option), Sample Set, Save to Device Folder, Secure Print, Store and recall driver settings and Transparency separators.

+ Standard 10/100/1000Base-TX Ethernet and High speed USB 2.0 direct print connectivity.

+ The Xerox WorkCentre 5335 supports the following network protocols: TCP/IP: HTTP/HTTPS, Internet Printing Protocol, LPR/LPD, Raw Socket Printing/Port 9100, NetBIOS, IPv6, Netware Bindery and NDS IPX/SPX, NDPS®/NEPS (with Server Gateway), TCP/IP, AppleTalk® EtherTalk®, Microsoft Windows Networking over IP and NetBEUI (All protocols not in use can be disabled), WSD, IPP, and SMB (Windows network).

+ The Xerox WorkCentre 5335 comes with the following security features: Secure Print, Authentication with LDAP/Kerberos/SMB/CAC, Password Protected PDF, FIPS 140-2 encryption, S/MIME Encrypted Email, IPsec, 802.1X, SNMP v3.0, Email over SSL, LDAP over SSL, Image Overwrite, 256-bit Hard Disk Encryption, and Audit Log.

TEST RESULTS

Print Productivity			
# of Originals	Mode	PCL6	PostScript
50	Simplex	35.0 ppm	35.2 ppm
50	Duplex	34.6 ppm	34.7 ppm

Print productivity is evaluated based on a 50 page text-based Letter sized (215 x 279 mm) PDF file.

Network-Bandwidth/Print File Sizes			
File Name / Native File Size		PCL6	PostScript
1-page Digital Photo PDF	4.48 MB	12.0 MB	5.79 MB
4-page Passport Form PDF	0.08 MB	384 KB	512 KB
16-page Magazine in PDF	1.78 MB	16.7 MB	3.43 MB
22-page Excel Worksheet	0.12 MB	4.94 MB	963 KB
32-page Text-Based PowerPoint	0.23 MB	10.6 MB	6.06 MB
32-page Graphic Intensive PowerPoint	4.20 MB	275 MB	126 MB
32-page Graphic Intensive PowerPoint (duplex)	4.20 MB	275 MB	126 MB
38-page Form Word Document	0.91 MB	26.4 MB	6.96 MB
50-page Text-Based PDF	0.17 MB	2.06 MB	1.75 MB
50-page Text-Based PDF (duplex)	0.17 MB	2.06 MB	1.75 MB

Job List	First Page Out Time (seconds)		Total Job Time (seconds)	
	PCL6	PS	PCL6	PS
1-page Digital Photo Print Original	15.75	15.74	15.75	15.74
4-page Passport Form PDF	11.27	11.58	16.88	17.02
16-page Magazine PDF	11.46	12.59	38.06	38.49
22-page Excel Worksheet	11.77	12.48	48.36	48.39
32-page Text-Based PowerPoint	9.89	10.45	63.49	64.05
32-page Graphic Intensive PowerPoint	17.46	14.61	85.11	71.58
32-page Graphic Intensive PowerPoint (duplex)	23.05	21.36	95.17	80.17
38-page Form Word Document	10.71	10.18	74.68	74.11
50-page Text-Based PDF	11.86	12.90	96.49	96.82
50-page Text-Based PDF (duplex)	17.99	19.08	100.99	101.80

Test files printed on Letter paper size (215 x 279 mm).

Legal Print Performance	PCL6		PostScript	
	Simplex	Duplex	Simplex	Duplex
First Page Time (secs)	10.77	18.08	11.96	20.77
Total Print Time (secs)	128.58	194.55	129.99	197.18
Running PPM	19.9	12.9	19.8	12.2

Test files printed on Legal paper size (216 x 356 mm). Test is based on printing a 100 page document in simplex and duplex modes.

Tabloid Print Performance	PCL6		PostScript	
	Simplex	Duplex	Simplex	Duplex
First Page Time (secs)	11.90	20.11	12.83	19.74
Total Print Time (secs)	150.62	211.58	151.61	210.92
Running PPM	16.9	11.9	16.8	11.9

Test files printed on Tabloid paper size (279 x 432 mm). Test is based on printing a 100 page document in simplex and duplex modes.

WHAT BERTL LIKED

- Tested simplex network-print speed with the PCL6 driver was as fast as 35.0 ppm and 35.2 ppm with the PostScript driver, matching Xerox's rated print speed of 35 ppm.
- Tested duplex network-printer productivity was productive up to 34.6 ppm with the PCL6 driver and 34.7 ppm with the PostScript driver.
- Fast productivity when printing simplex legal-sized documents with speeds up to simplex 19.9 ppm using the PCL6 driver.
- Fast productivity when printing simplex tabloid-sized documents with speeds up to 16.9 ppm using the PCL6 driver.
- In BERTL's job stream test the PCL6 driver completed the stream job test in 7 minutes and 46 seconds, running at 35 ppm, which translates to an efficiency rate of 100%. Using the PostScript driver the efficiency rate was 96%.

WHAT BERTL WOULD LIKE TO SEE

- BERTL was very satisfied with the Xerox WorkCentre 5335's printing capabilities.

COPY PRODUCTIVITY

Advertised speeds are always quoted using the simplest route in-and-out of a device. Of course, users often apply finishing options, incorporate different media sizes and types into the document, print in duplex, and add other elements that can affect speed. In the chart below, BERTL tests how different modes—mixed-size original mode and duplex mode—affect document-feeder productivity. In order to assess copier productivity, BERTL ran a series of copy jobs in order to determine document-feeder scanning speed, the affect of the first set out on overall engine speed, and whether specific job attributes affect engine throughput capability. Each job was set up by feeding media from the shortest media route to the shortest available output destination. A separate test examines how adding finishing/output destinations affects productivity.

COPY FEATURES

+ The Xerox WorkCentre 5335 comes standard with a 110-sheet Duplex Automatic Document Feeder (DADF) that can handle custom paper sizes from A5 to A3.

+ Users can submit jobs that require simplex or duplex copying. The WorkCentre 5335 supports copy jobs that require 1:1, 1:2, 2:2, and 2:1 side printing.

+ Users can make copies that range from 1 to 9,999 in quantity.

+ Xerox WorkCentre 5335's Rated Output Speed is up to 30 cpm when copying A4 sized documents.

+ The Xerox WorkCentre 5335 Rated First Copy Out Time (FCOT) is as fast as 4.0 seconds.

+ Copy Resolution is set at 600 x 600 dpi.

+ The WorkCentre 5335 can simultaneously copy, scan, fax, and print.

+ Users can use the variable zoom to scale from 25% to 400% in 1% increments.

+ Basic Copy Features included with the Xerox WorkCentre 5335 incorporate the following: Automatic two-sided, Electronic pre-collation, Automatic tray selection, Build Job, Negative/Mirror image, Automatic booklet creation, Multi-up, Auto RE, Mixed-size originals, Covers insertion, Sample set, Book copying, Annotation, Delete Outside/Delete Inside, Poster mode, Watermarks, ID Card Copy, Page Layout, Form Overlay, and Background Suppression.

TEST RESULTS

Automatic Document Feeder First Copy Out Time	
Time in Seconds	
Number of Originals	Black-and-White
1 Simplex Original	8.55
1 Duplex Original	16.21

Platen Glass First Copy Out Time	
Time in Seconds	
Number of Originals	Black-and-White
1 Simplex Original	8.37

Copy Job Time			
# of originals	Monochrome	Time In Seconds	CPM
10	1 sided to 1 sided	26.65	22.5
10	1 sided to 2 sided	29.33	20.5
10	2 sided to 1 sided	63.18	9.5
10	2 sided to 2 sided	71.27	8.4

Copy Productivity (seconds)		
# of Originals	Mode	Black-and-White
1	Simplex	34.5 cpm
1	Duplex	33.4 cpm

Copy productivity is evaluated based on a single text-based A4 file copied 50 times.

DOCUMENT FEEDER PRODUCTIVITY

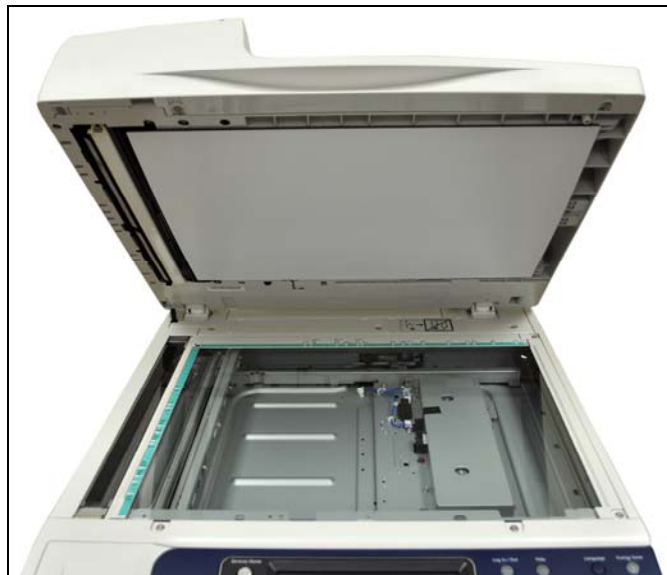
BERTL also takes the user into account and looks at how document-feeder productivity affects the amount of time a user has to wait at the device before they can walk away with their originals.

Document Feed Speed			
# of originals	Black-and-White	Time In Seconds	OPM*
11	Simplex Originals	12.58	52.5
6	Duplex Originals	31.65	11.4
11	Mixed-Size Originals	14.13	46.7

*Originals per minute.



Above and below: The Xerox WorkCentre 5335 Duplex Automatic Document Feeder (DADF) and platen glass.



WHAT BERTL LIKED

- Copy touch screen is clearly labeled and easy to use.
- Tested copy First Page Out Time was 8.37 seconds off the platen glass and 8.55 seconds using the automatic document feeder.
- Tested copier productivity was up to 34.5 cpm in simplex mode, closely matching Xerox's rated copy speed of up to 35 cpm.
- Productive duplex copier productivity up to 33.4 cpm.
- Fast document-feeder speeds of up to 52.5 opm in simplex mode.

WHAT BERTL WOULD LIKE TO SEE

- BERTL was satisfied with the Xerox WorkCentre 5335's copying capabilities.

SCANNING FEATURES

The Xerox WorkCentre 5335 scans documents using LED lamps which consume less power than traditional lamps. The Xerox WorkCentre 5335 also incorporates powerful scanning features that enable users to improve the way they work with a host of scanning features, such as Scan to Folder, Network Scanning, Scan to Text-searchable PDF, and standard colour scanning. Convert hard copies into digital files for automatic routing and archiving. Preview scans and documents stored on the device right on the colour touch screen, and you can access documents faster with advanced file compression that dramatically shrinks the size of a file.

+ The WorkCentre 5335 offers users the option to scan their jobs using the following colour modes: colour, gray scale, and black-and-white.

+ Users can scan while the system is printing or while it is transferring Scan to Network or Fax jobs.

+ The input scanning speeds for the WorkCentre 5335 is 55 ipm in colour and black-and-white when scanning A4 sized documents long edge first.

+ This device offers several resolution options aimed at satisfying the most demanding customers. Options are: 600 x 600 dpi, 400 x 400 dpi, 300 x 300 dpi, 200 x 200 dpi, and the following Bit depths: 1-bit (monochrome), 8-bit (grayscale), 24-bit (colour).

+ Basic scanning features included with the WorkCentre 5335 include the following: Bound originals, Edge erase, Reduction/enlargement, Fit to size, Scan presets, Original type (photo and text, photo, text), and Background Suppression.

+ The Xerox WorkCentre 5335 supports the following compression methods: MH (photo), MMR (text, text/photo), JBIG2 (PDF), and MRC Compression (optional).

+ The maximum scan area for the WorkCentre 5335 is A3/297 x 420 mm.

+ Xerox provides users with a multitude of file format options which include PDF Image Only, PDF (Searchable), PDF (Linearized), PDF (A-1 Level A), TIFF v.6, JFIF, JPEG, and XPS.

+ The WorkCentre 5335 supports multiple scan destinations making it easy for users to route their documents to many destinations. Scan destinations include Scan to USB, Scan to client SMB or FTP, Scan to Folder, Scan to Home, Scan to USB, Scan to PC (network scanning), Scan to remote email destinations via direct

SMTP addresses or via various network scanning software options, Scan to Application (workflow, Electronic Document Management System/Repositories) (optional), Scan to Microsoft® Exchange 2000 Web Folders (optional), and WSD Scan (Microsoft® Client OS).

+ Users have the ability to purchase the optional Scan to PC Desktop SE and Scan to PC Desktop Pro which are desktop and server-based offerings that provide document imaging, archiving, editing and organisation tools.

+ The Xerox WorkCentre 5335 is compatible with LDAP (Lightweight Directory Access Protocol), which allows it to browse address lists stored on a corporate network. When a new name is added to the database, connected devices automatically have access to that name. This eliminates the need to maintain a separate address book for the Xerox WorkCentre 5335.

+ This device supports the most commonly used network protocols which include FTP via TCP/IP, Microsoft® SMB via TCP/IP and HTTP/Web DAV (scan template only).



Above: Users can take files with them instantly by scanning them directly to the USB port located on the left side of the control panel.

WHAT BERTL LIKED

- Versatile features include Scan to Network Server, Scan to USB, Scan to Email, Scan to Client (SMB or FTP), Scan to Network Folder, Scan to Application, and Scan to Home.
- Scanned documents can be saved to PDF and Searchable PDF's, TIFF, JFIF, JPEG, and XPS for optimum compatibility.
- LDAP compatibility enables users to access the network address book, making destination-management chores easier for network administrators.
- Eliminate errors by previewing and approving thumbnails of scanned documents before final output or distribution right on the colour touch screen.
- Promote multitasking and minimise time spent at the system with high-speed scanning up to 55 ipm in colour and in black and white when scanning A4 sheets.

WHAT BERTL WOULD LIKE TO SEE

- BERTL was very satisfied with the Xerox WorkCentre 5335's network-scanning capabilities, features, and functions.

FAX FEATURES

Users can add facsimile capability to their Xerox WorkCentre 5335 device with the optional Walkup PSTN fax (one-line and three-line options) with Internet fax, Fax over IP (T.38) Kit, and Network Server Fax Enablement Kit, all which offers advanced features such as LAN Fax via driver, Fax Forward, Two-sided Send and Receive, Print on / Fax up to 11 x 17 in. / A3, and Fax Build Job.

PSTN One-line or Three-line Fax Features	
Resolution	ITY (CCITT) Group 3 quality/resolution: superfine/600x600, super fine/400x400, fine/200x200, and standard/200x100 dpi
Speed	V.34 modem(s): 33,600 bps. Less than four seconds per page transmission time. ISDN via third-party adapter
Compression	G3 Auto, Forced 4800 bps, and G4 Auto
Fax Send Features	Fax from print driver (LAN Fax), Auto fax transmission reduction, Page by page job status at the machine, Fax from glass, Delay start, Automatic memory resend, Automatic cover sheets, Priority send, Broadcast, Booklet Scan, PSTN Fax, Phone number entry via keyboard or address book, Secure Fax via FCODE, Up to 50 group dials with up to 20 recipients per group
Fax Receive Features	<ul style="list-style-type: none"> • One- or two-sided printing • Reduction at reception to fit available paper • FCODE Secure Fax
Fax Forwarding	When enabled with the scan and fax kit, faxes can be received into a folder. Using Job Flow Sheets, images that are in the folder can be routed to an Email, a FTP or SMB location or a Fax
Fax Reports	Activity report, Dial directory, Transmission confirmation, Pending fax, and Folder
Fax Receive Mailboxes	Up to 200 password-protected mailboxes
Auto Dialing	Auto redial, Batch send
Fax Print Features	One- or two-sided printing, Quantity, Staple on/off, Collate on/off, Finisher output tray selection, and Secure print on/off

Internet Fax Features	
Capability	Direct document transmission to remote Internet Fax machines or email clients (SMTP). Reception and automatic printout of documents in black and white sent via email from remote Internet Fax machines or email clients
Maximum Scan Area	A3/297 x 432 mm (11 x 17 in.)
Address Directory Access	Downloaded address list (comma-separated value file format)
File Formats	TIFF-S, TIFF-F, TIFF-J
Resolutions	600 x 600 dpi, 400 x 400 dpi, 200 x 200 dpi, and 200 x 100 dpi. Bit Depth: 1 bit (monochrome)
Network Protocols	SMTP and POP3
Compliance	ITU-T T.37 compliant

Fax over IP Features	
Resolution	T.38 compliant IP fax/resolution superfine/600 x 600, super fine/400 x 400, fine/200 x 200, and standard/200 x 100 dpi
Fax Send Features	LAN Fax - Fax from print driver, Auto fax transmission reduction, Page-by-page job status at the machine, Fax from platen, Delay start, Automatic memory resend, Automatic cover sheets, Priority send, Broadcast, and Booklet Scan
Fax Receive Features	One- or two-sided printing. Reduction at reception to fit available paper, and Junk Fax prevention
Fax Forward	Faxes can be received into a folder on the device hard drive. Images that are in the folder can be routed to a combination of Email addresses, FTP or SMB sites or locations, or Fax destinations
Fax Reports	Activity report, Address Book, Transmission confirmation, Pending fax, and Folder List
Fax Receive Folders	Up to 200 password-protected folders
Auto Dialing	Auto redial, Batch send

FAX over IP

Due to cost savings, many customers are transitioning their telephone networks over to IP environments to utilize IP communication systems for voice, video calls and data transmissions. Conventional fax machines were designed to transmit over analog PSTN telephone lines, and therefore work poorly, if at all, on IP systems, which have been optimized for voice data (as opposed to fax data). SIP (Session Initiation Protocol) and T.38 are two protocols used for communication over IP networks:

- Session Initiation Protocol (SIP) is a signaling protocol used to control communication over IP networks.
- T.38 fax relay standard was devised to permit faxes to be transported across IP systems.

The WorkCentre 5300 series' Fax over IP kit sends and receives faxes using the T.38 and SIP protocols. The Fax over IP kit enables T.38 compliant IP fax to be transmitted over network and VoIP gateways and requires customers to have a SIP server or a T.38 compliant VoIP gateway:

- With customer's SIP server, enables existing phone numbers or user names to be designated for destination
- With VoIP gateway, enables IP fax to be transmitted to G3 fax that doesn't have IP Fax (SIP) feature connected to public line
- Without a VoIP gateway or SIP server, enables IP faxes to be transmitted across intranet to another IP Fax compliant device

WHAT BERTL LIKED

- The Super G3 Fax Module expands the unit into a powerful workgroup fax.
- Internet fax function lets users transmit documents right from their desktop for added ease and productivity.
- Advanced features include: One- or two-sided printing, Staple on/off, and Secure print on/off.

WHAT WE WOULD LIKE TO SEE

- BERTL was very satisfied with the Xerox WorkCentre 5335's optional fax capabilities, features, and functions.

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 Black-and-White 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 Black-and-White Image Quality

5. **Flesh tones** - Better production of portraits
6. **Banding** - Better solid and dithered fill
7. **Low Contrast** - Better production of dark images
8. **Saturation** - Better production of grayscale shades
9. **Caste** – Better grayscale fidelity
10. **Fine Detail** – Better reproduction of fine details

Density of Solid Areas*		
	Copy Density	Print Density
Black	1.22	1.15

*Density is on a scale of 0 to 2.5, with 2.5 being the best possible.

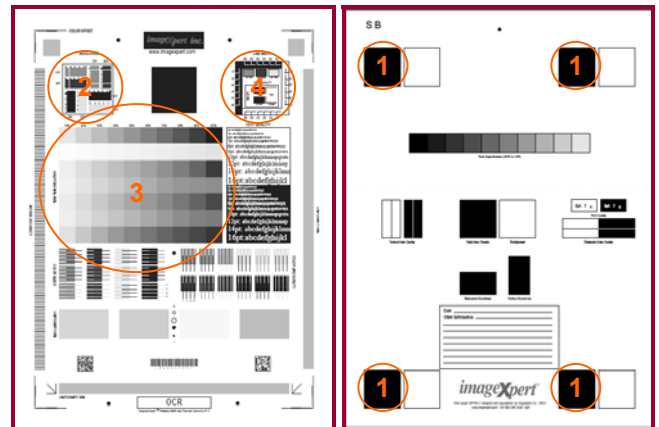
Copy & Print Resolution*				
	Copy Resolution		Print Resolution	
	Vertical	Horizontal	Vertical	Horizontal
Black	2.0	2.0	2.0	2.0

*Line Pairs per Millimeter. For copy and print resolution, lower is better (range, 1.0-5.0).

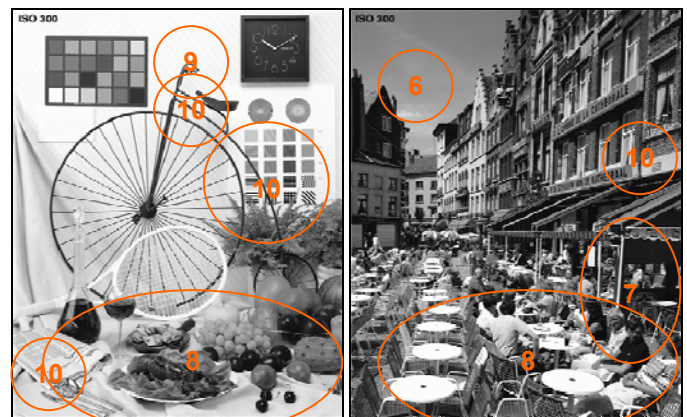
Copy Halftones		
	Min. Gradation*	Max. Gradation**
Black	10	100
Print Halftones		
	Min. Gradation*	Max. Gradation**
Black	10	100

*Minimum gradation is on a scale of 10 – 100 percent in 10 percent increments. The best possible minimum gradation is 10 percent.

**Maximum gradation is on a scale of 10 – 100 percent in 10 percent increments. The best possible maximum gradation is 100 percent.



BERTL uses ImageXpert 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 grayscale shade.



BERTL uses synthetic (photographic) test images obtained from **ISO International Standard 12640--Graphic Technology** in order to evaluate the ability to print photographic images.

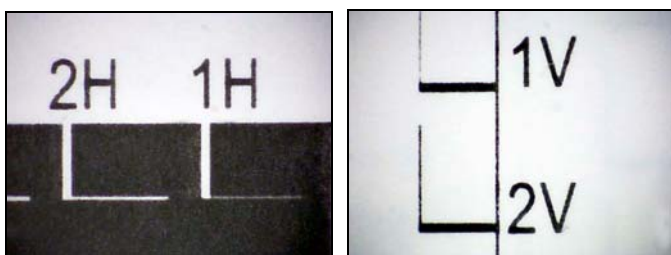
IMAGE QUALITY

Negative/Positive Lines*				
Line Width (points)	Negative		Positive	
	Vertical	Horizontal	Vertical	Horizontal
1	√	√	√	√
2	√	√	√	√
3	√	√	√	√
4	√	√	√	√
5	√	√	√	√
6	√	√	√	√

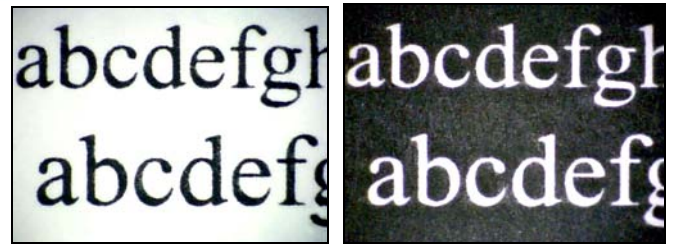
A "√" mark indicates the device was able to print the line width correctly. *Chart cells containing an "x" indicate that the printer was not able to print the line width correctly. Overall, the fewer "x's," the better the image quality. If no cells are marked with an "x," then the device was able to print all line widths correctly.

Negative/Positive Dots*	
Line Width (points)	% of Dots Printed
1 pixel Black	100
1 pixel Black Neg	100
2x2 pixel Black	100
2x2 pixel Black Neg	100
Checkerboard apparent?	No

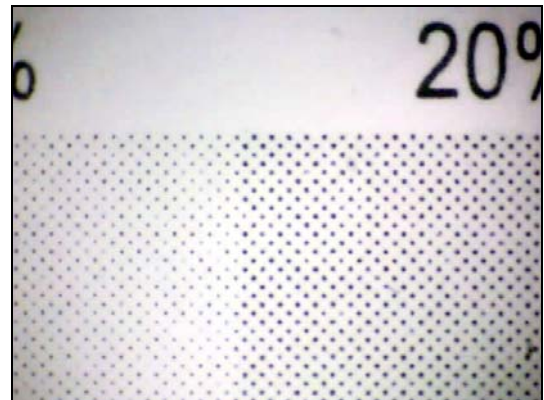
*On a scale of 0 – 100%. The higher the percentage, the better.



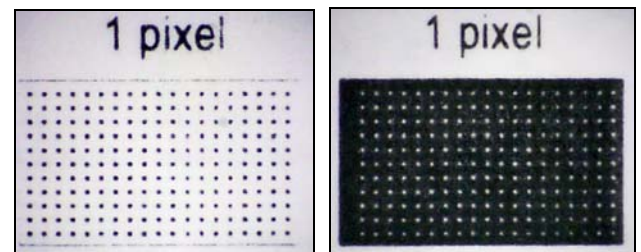
Above: The BERTL test pattern was magnified 40x to test for the quality of line resolution. The lines were crisp and well defined.



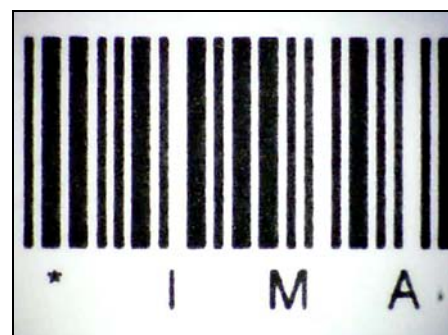
Above: Text printed clearly with minimal breakup in both positive and negative print.



Above: Clear steps were noticed between gradation percentages even with the lightest shades.



Above: The positive and negative pixel dot pattern printed clearly without oversaturation.



Above: Bar codes printed with strait lines and solid fill.

WHAT BERTL LIKED

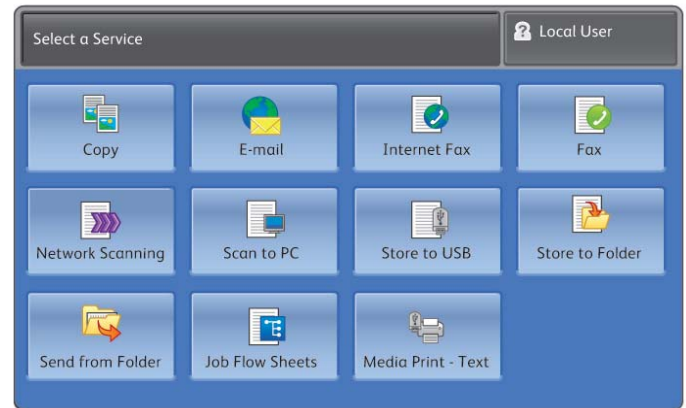
- Output produced by the Xerox WorkCentre 5335 was good. Text was bold, crisp, and cleanly formed and business graphic files displayed a nice finish.
- Very good print and copy density.
- Excellent resolution in both copy and printer modes.
- Great halftone reproduction in printer and copier mode as the device was able to correctly produce virtually all halftone shades in BERTL's halftone-evaluation chart.
- The device displayed good line control and excellent dot control.
- Excellent production of business charts, photos, and graphs.
- High-Quality 1200 x 1200 dpi printing provides clear, crisp images, even on jobs with fine details.
- BERTL test files containing full bleed solid blacks printed evenly and consistently with no visible banding across the page.
- Xerox's EA Toner with low-melt technology achieves minimum fusing temperature at 20 degrees C (68 degrees F), which is less than conventional toner, and produces smooth glossy prints.

WHAT BERTL WOULD LIKE TO SEE

- BERTL was satisfied with the Xerox WorkCentre 5335's image quality.

PROGRAMMING THE CONTROL PANEL

A control panel's ease of use—or lack thereof—can often have a significant effect 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. Xerox's WorkCentre 5335's control panel has a large colour touch screen and hard keys. BERTL was extremely impressed with the on-screen help videos that displayed step-by-step instructions for device management and error recovery. Also contributing to the productivity of the WorkCentre 5335 is the ability to Scan to and Print from a standard USB memory device instantly allowing a more portable way to access files.

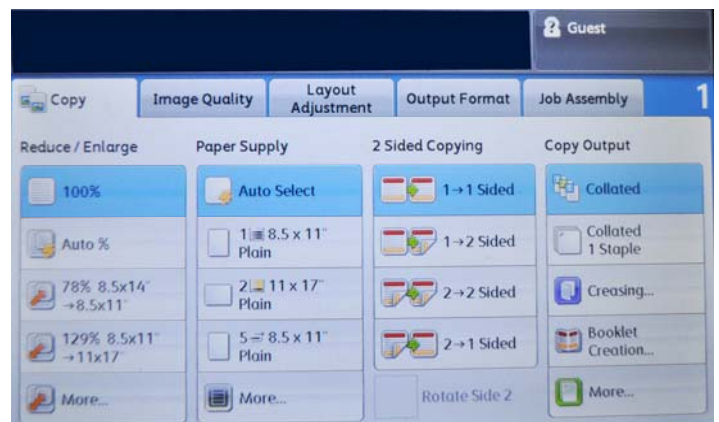


Above: The touch screen's main menu provides users with the following functions: Copy, E-mail, Internet Fax, Fax, Network Scanning, Scan to PC, Store to USB, Store to Folder, Send from Folder, Job Flow Sheets and Media Print-Text.

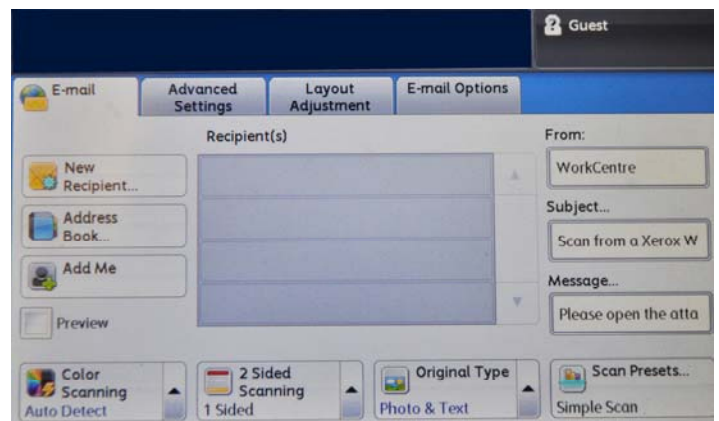


In the chart below, BERTL assesses how many steps are required to make these commonplace settings.

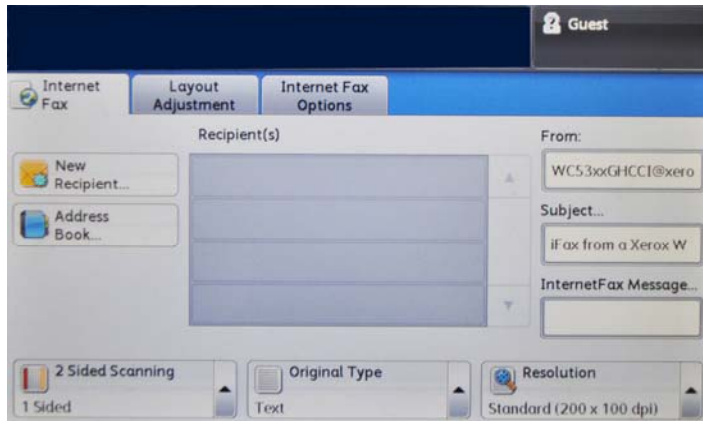
Selections Required for Frequently Used Copy Functions	
Photo Mode	3
Corner Staple	1
Reduce to 64%/78%	1
1:2	1
2:2	1
Copied Front and Rear Covers	3
Scan to USB	2
Print from USB	2



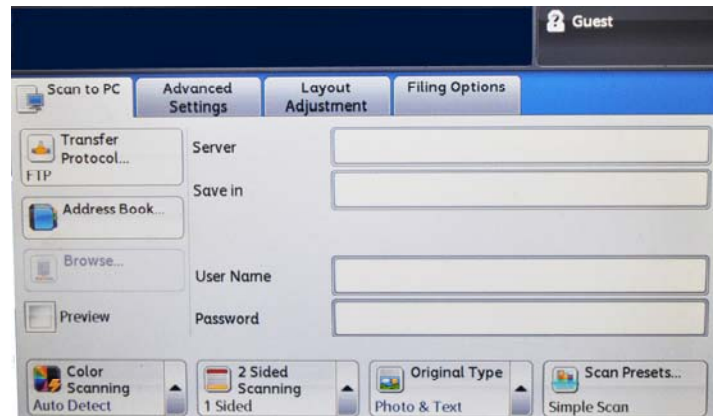
Above: The Copy touch screen's main menu displays the most common copying choices. The blue highlighted buttons on the touch screen display currently selected settings.



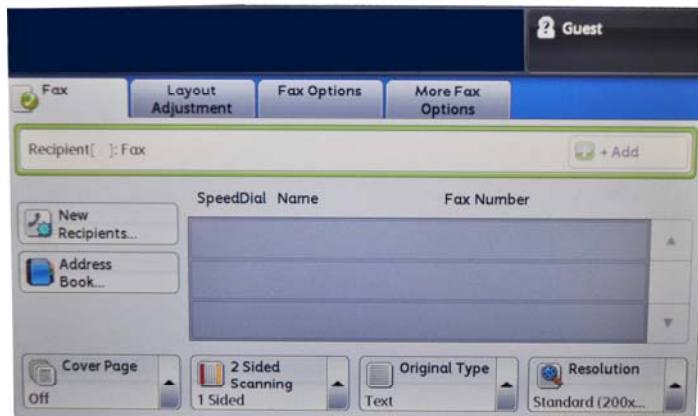
Above: The E-mail screen allows users to route files to email recipients directly from the control panel.



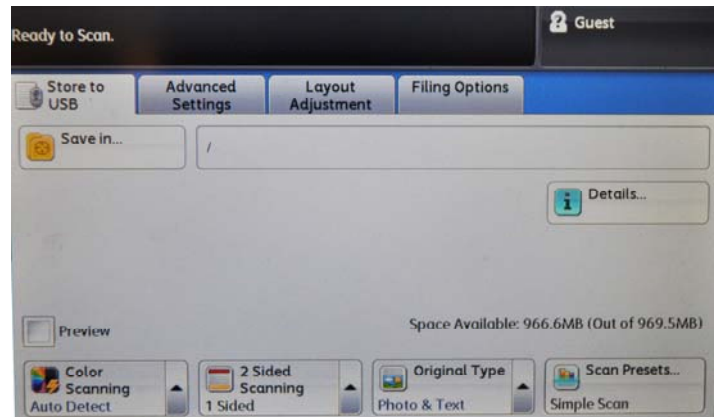
Above: Internet Fax allows users to send out faxes via a network connection rather than using a telephone line.



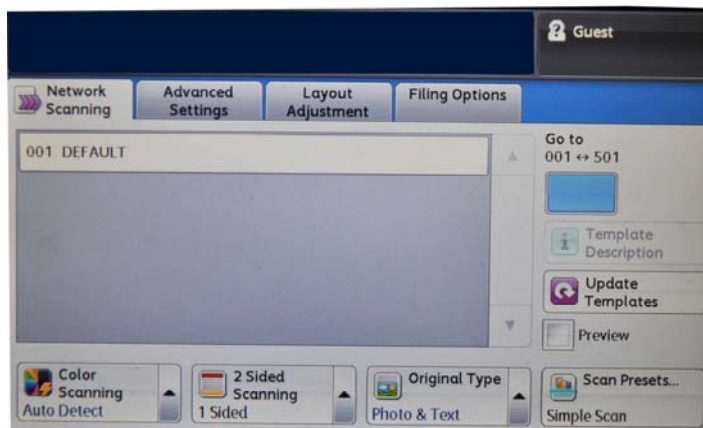
Above: The Scan to PC feature allows users to scan a document to their computer.



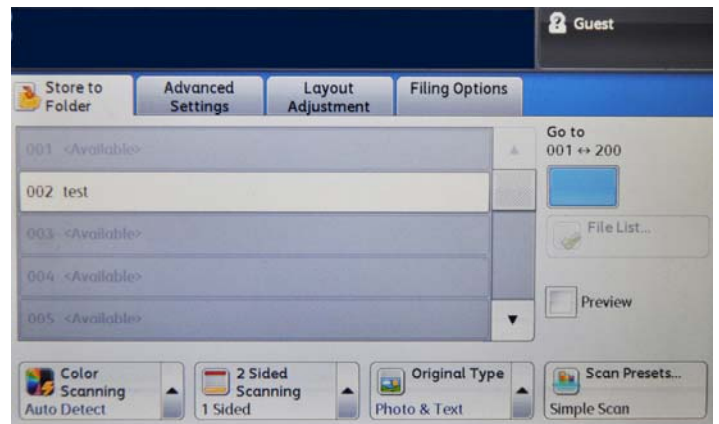
Above: Users can send faxes straight from the device and utilise fax features that include one- or two-sided printing, as well as stapled or unstapled.



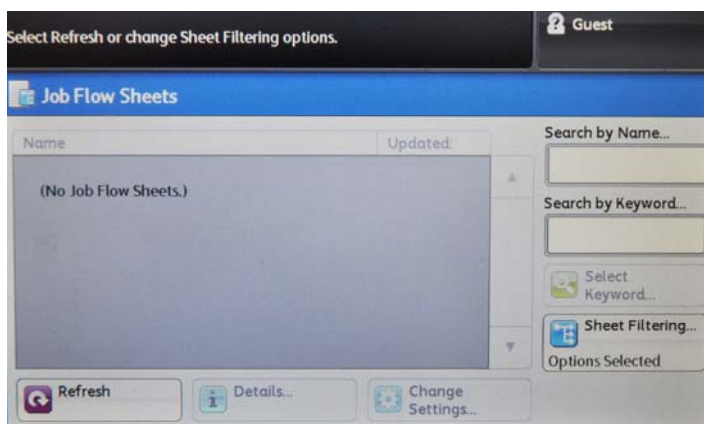
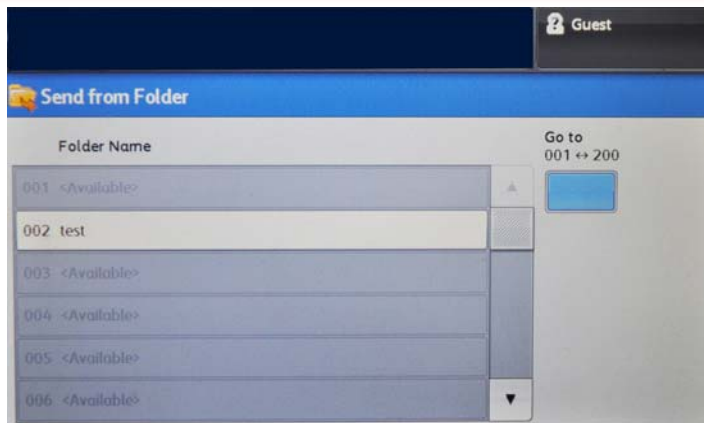
Above: The Store to USB feature allows you to scan a document to a USB Flash drive using the USB port on the printer's control panel.



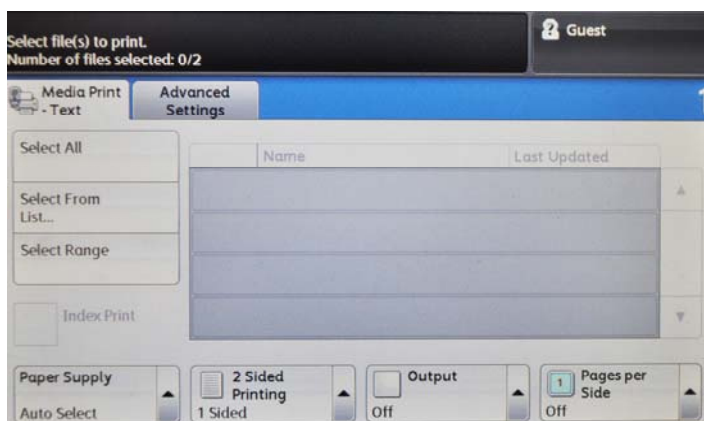
Above: Users have many scanning options and features which include scan to applications, web folders, URLs, PCs and mailboxes.



Above and next page: Users can scan documents and store them in a folder on the printer as well as retrieve them to send at a later time.



Above: Job Flow Sheets allow users to execute a series of registered actions, such as Send as Fax or Print, for a file stored in a folder. Job Flow Sheets are created by the system administrator and are stored in the printer where they can be linked by the user to a stored file.



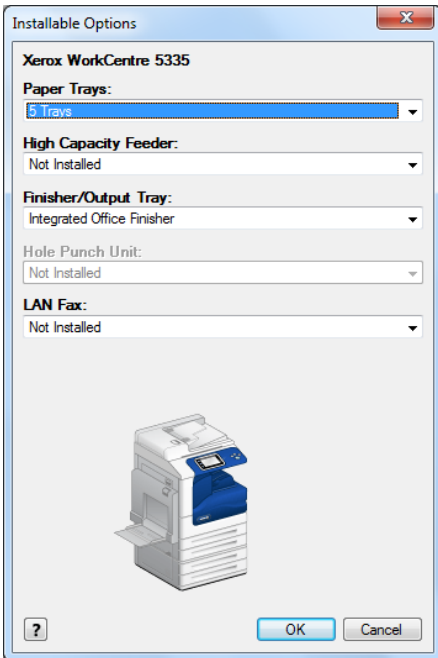
Above: Media Print-Text allows users to print files from a USB flash drive.

PCL6 AND POSTSCRIPT DRIVERS

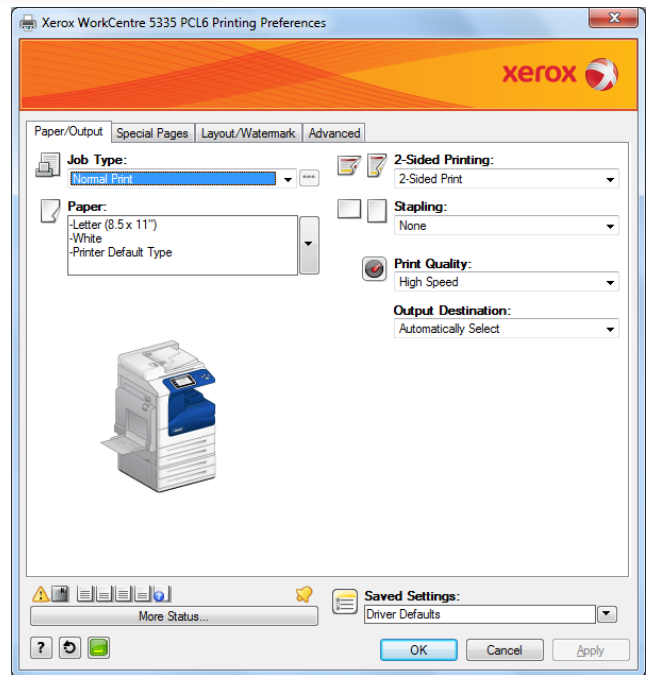
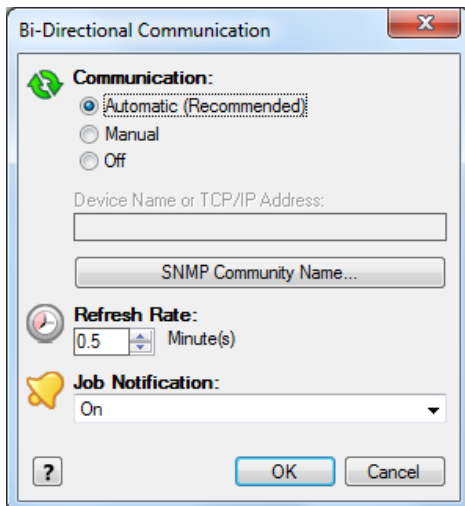
As with control panels and touch screens, print driver design can vary enormously from manufacturer-to-manufacturer. Xerox has made a simple process with their design of the PostScript and PCL drivers. The drivers are the same as those found on other Xerox devices, making it especially easy for Xerox users to quickly acclimate to them. The WorkCentre 5335 also supports the Xerox Global Print Driver and Xerox Mobile Express Driver which can simplify installing, managing and supporting printers and MFPs on the network and increasing end-user productivity.

Print Driver Checklist	
Do print drivers have identical user interfaces?	Yes
Are print drivers interfaces identical to other vendor models?	Yes
Bi-directional communication within print drivers?	Yes
Auto device configuration from within print driver?	Yes
Does print driver installation require rebooting of the workstation?	No
Are print driver deployment processes included?	Yes
Are print driver deployment guidelines and procedures included?	Yes

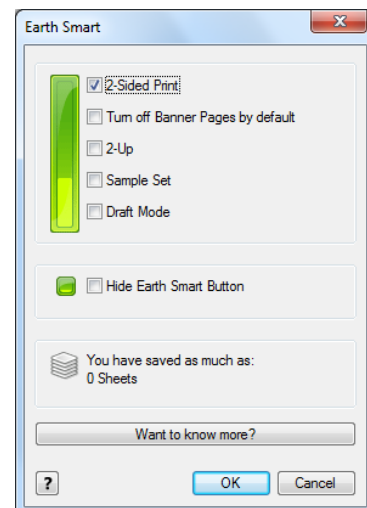
PRINT DRIVER DIALOGUE SCREENS



Above and below: In order to specify which options have been installed, as well as specify system defaults, administrators first access the “Devices and Printers” folder via the Microsoft Windows’ Start menu, and then select either the WorkCentre 5335’s PCL6 or PostScript driver. Administrators can “manually” specify which options are installed, or they may simply enable “Bi-Directional Communication” for the device, and the driver automatically indicates that the options shown above are available for use.



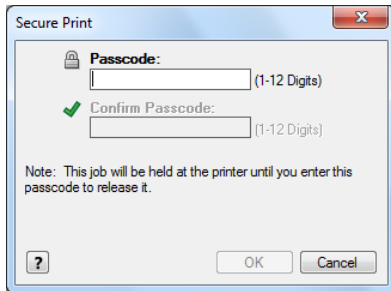
Above: The print driver dialogue screen for both the PCL6 and PostScript drivers are virtually the same with some minor differences. The first tab on both the PCL6 and PostScript driver is the Page/Output. This tab provides basic options such as job type, paper options, 2-sided printing, finishing, print quality, and output destination. Users can always view the device’s consumable levels and check the status of the device by selecting the “More Status” bottom located on the lower left side.



Above: The Earth Smart Settings button located on the bottom left corner enables users to select Earth Smart features such as Set 2-Sided Print as default, Turn off Banner Pages, 2-Up, Sample Set, and Draft Mode.

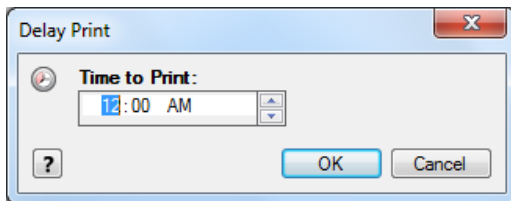
In the “Job Type” drop-down menu to the left are options for Normal Print, Secure Print, Sample Set, Delay Print, Store File in Folder, and Fax.

Normal Print: Prints the job immediately without requiring a pass code.

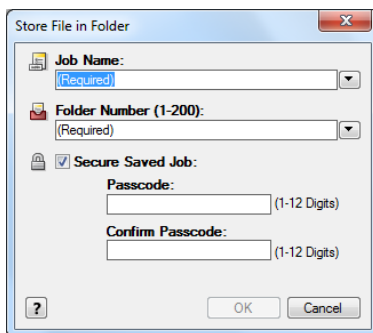


Above: Secure Print prints the job only after the user enters their passcode at the printer's control panel.

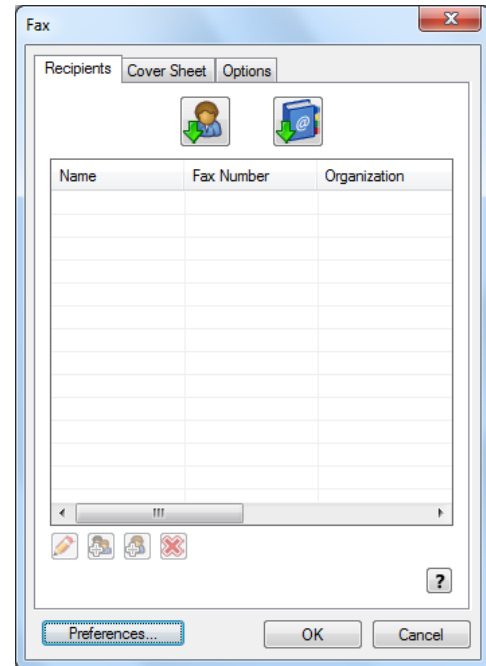
Sample Set: Prints one copy of the job as a sample and holds the remaining copies of the job at the printer until you release them from the printer's control panel.



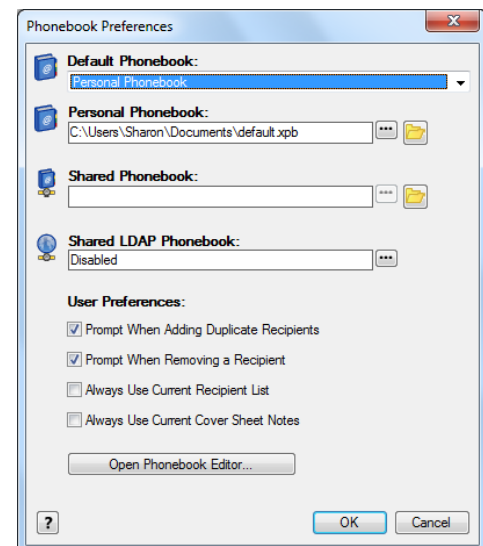
Above: Delay Print prints the job at the time specified by the user. When this job type is selected, the Delay Print dialog box appears so users can specify a time to print.

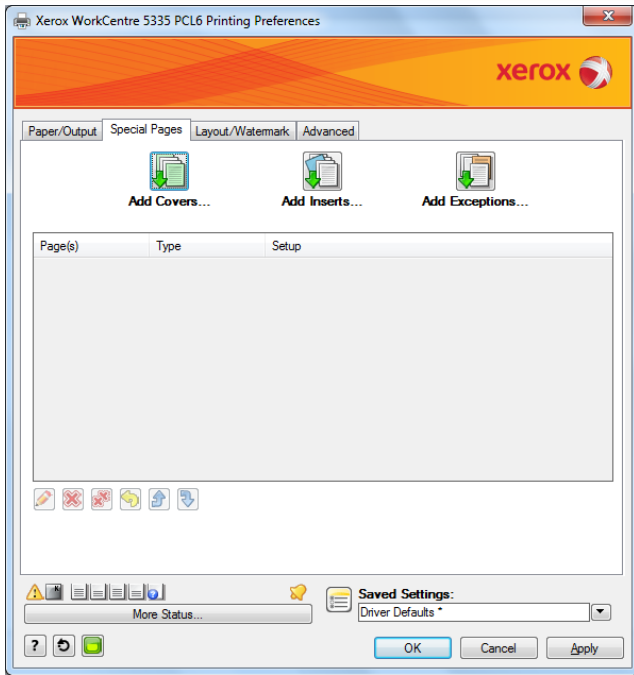


Above: The Store File in Folder feature stores the job on the printer's hard drive. Users can then print the job on demand from the printer's control panel or from CentreWare Internet Services. When this job type is selected, the Store File in Folder dialog box appears so users can assign a job name, folder name and, if desired, enable secure saved job by providing a passcode with up to 20 characters.



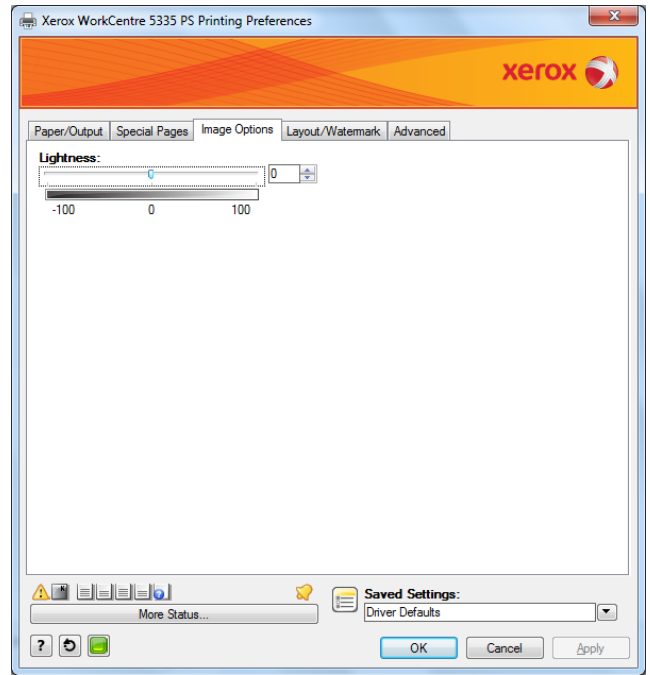
Above and below: Fax enables users to send faxes from their PC's. Using this feature, a user can add cover sheets, as well as organise their phone numbers and email addresses.



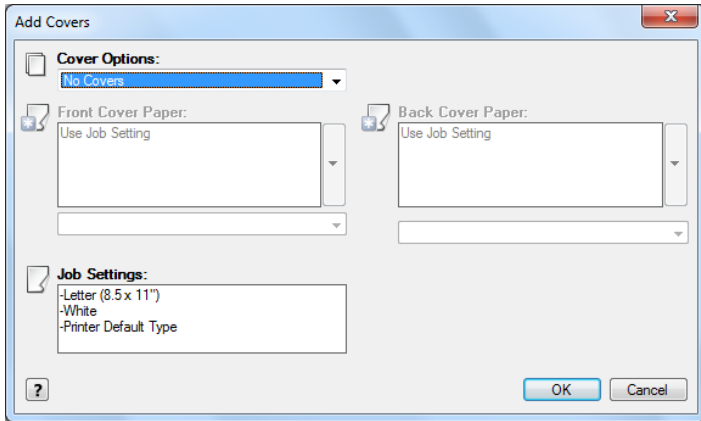


Above: The Special Pages tab enables users to add, modify, or delete cover pages, inserts, or add exception pages.

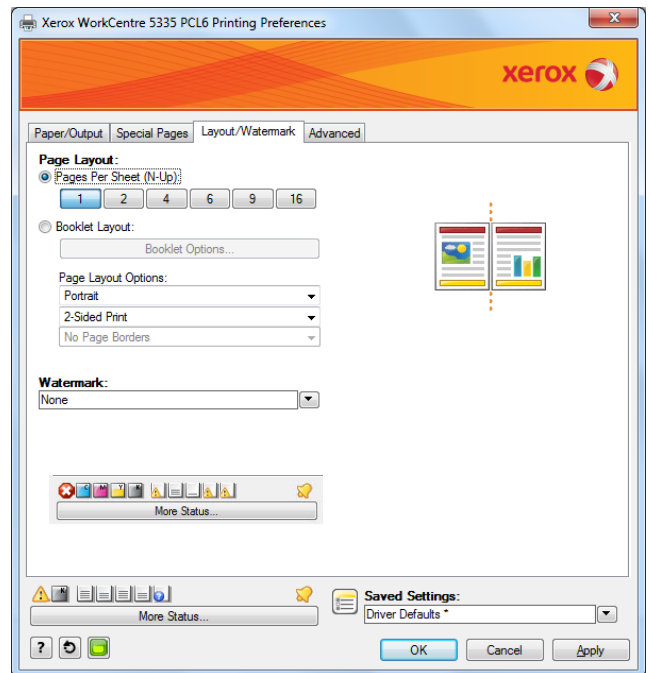
The centre table in the dialogue screen provides a summary of the special pages set for the print job. Up to 250 inserts and up to 250 exception pages can be included in the table.



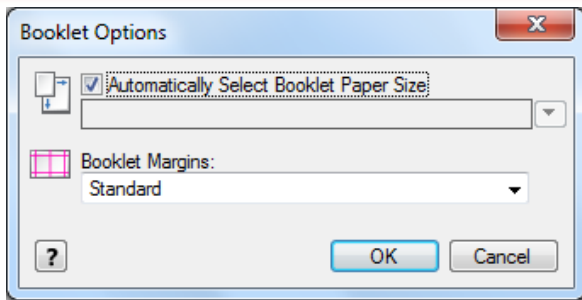
Above: The Image Options tab, which is only available on the PostScript driver, allows users to adjust the lightness in their print job.



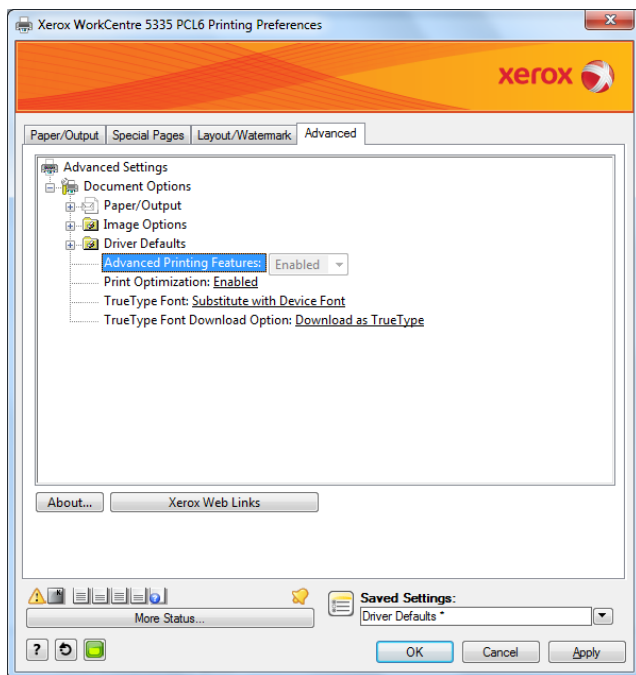
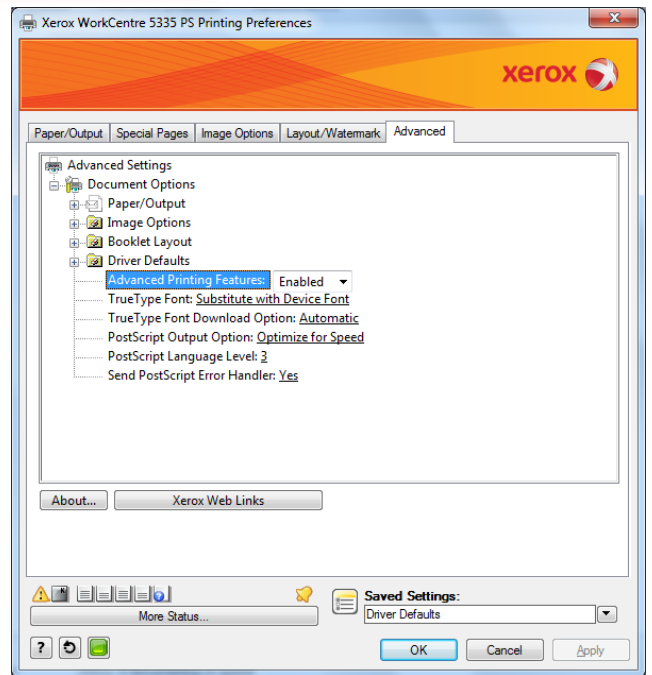
Above: Users can create their own front and back cover sheets and select the type of paper they are printed on.



Above: The Layout/Watermark tab contains some added options that apply effects, such as Page Layout (N-up), Booklet Layout, and Watermarks, to the print jobs.



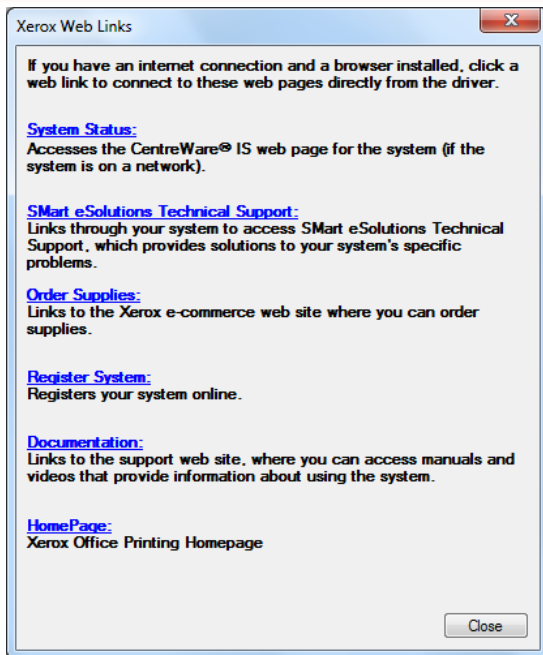
Above: Within Booklet Options, users can automatically select Booklet Paper Sizes and select Booklet Margins.



Above and next column: The Advanced options tab provides users with the ability to select advanced printing options. The PostScript driver has additional PostScript Output and Language features.



Above: The About button provides the print driver version information.



Above: The Xerox Web Links button connects users to links on the web for troubleshooting, ordering supplies, accessing manuals, as well as connecting to Xerox's Home Page.

ROUTINE MAINTENANCE

The Xerox WorkCentre 5335 multifunction printer is equipped with high yield supplies to ensure maximum performance and uptime including a maximum monthly print volume of 150,000 pages and a high toner yield of 30,000 pages per black cartridge. The Xerox WorkCentre 5335 also displays animated, step-by-step instructions for routine tasks such as clearing paper misfeeds or replacing toner. BERTL found these animated screens very helpful when performing these routine maintenance tasks.

Maintenance Checklist	
Load toner while running?	No
Requires rear access for maintenance items?	No
Requires side access for access to maintenance items?	No
All-in-one imaging units?	N/A
User-disposable waste item(s)?	Yes

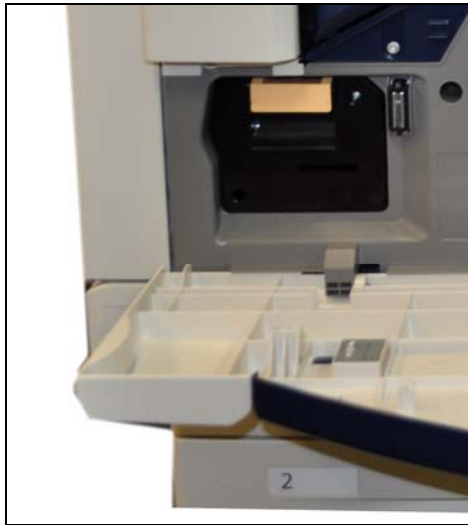
REPLACING TONER



Above and below: In order to replace the Xerox WorkCentre 5335's toner cartridge the user must first open the device's front cover by pulling this panel door down. Once the door is open the user then simply slides the toner cartridge out for replacement.



REPLACING THE DRUM CARTRIDGE



Above: Users can also replace the device's drum cartridge by opening the front panel door and sliding the unit out by pulling the orange handle.

MISFEED ACCESS



Above: In order to access any misfeeds that may occur in the Duplex Automatic Document Feeder, the user lifts up this cover.



Above: To access the left side misfeed areas, the user first opens the side door. Once open, the user can use the orange levers to open areas to clear any misfeeds.

CLIENT UTILITIES AND DEVICE MANAGEMENT

In order to take the best and most efficient advantage of a device and its capabilities, as well as ensure maximum uptime, clients need an efficient way to access and monitor the device. Xerox offers many features and options to help productivity for all users.

CentreWare® Internet Services – Integrated Device Web Page

Device Status	Web server embedded on device controller <ul style="list-style-type: none"> • Tray status/contents • Consumables status
Print Queue Viewing	Complete job print queue management – promote and delete
Job Submission	<ul style="list-style-type: none"> • Print-ready files (PS, PCL, TIFF, PDF, XPS) • Output feature selection
Device Administration	Allows simple, remote installation setting of configuration options and management of the device
Browsers	Netscape Navigator®, Mozilla Firefox®, Microsoft® Internet Explorer, Apple® Safari™



Above: Xerox provides several solutions for monitoring the device and jobs. Among them is CentreWare Internet Services, a web-based solution that enables clients to view device status and configuration, and enables administrators to manage and configure system and network settings.



Above: Users have the ability to log on to the CentreWare Internet Services and submit a print job directly from the web interface.



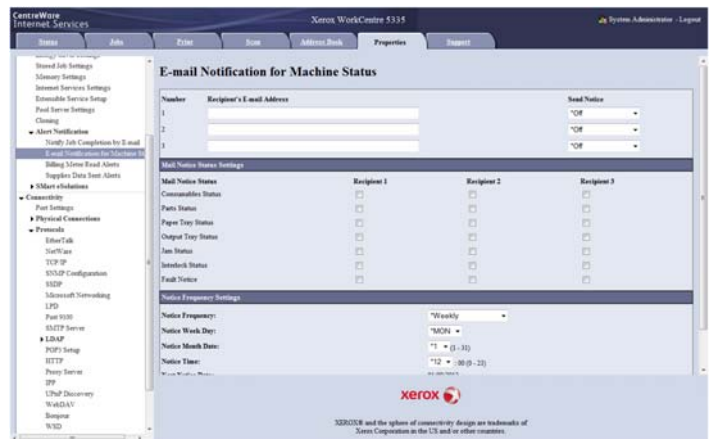
Above: With CentreWare Internet Services, clients can view current device status such as paper and toner levels.



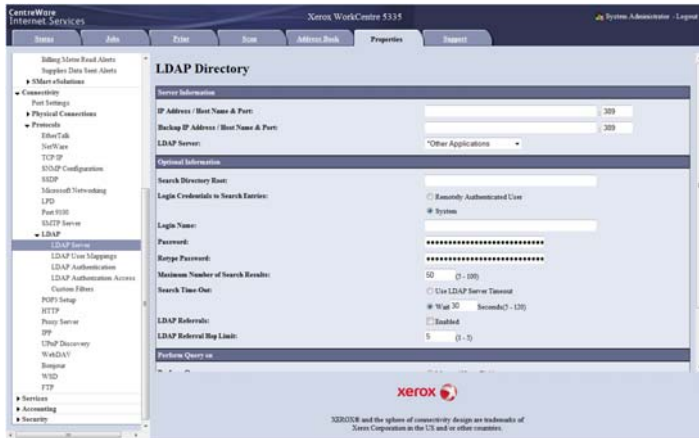
Above: Administrators can modify network protocols including TCP/IP, EtherTalk, NetWare, and SNMP Configurations, amongst others.



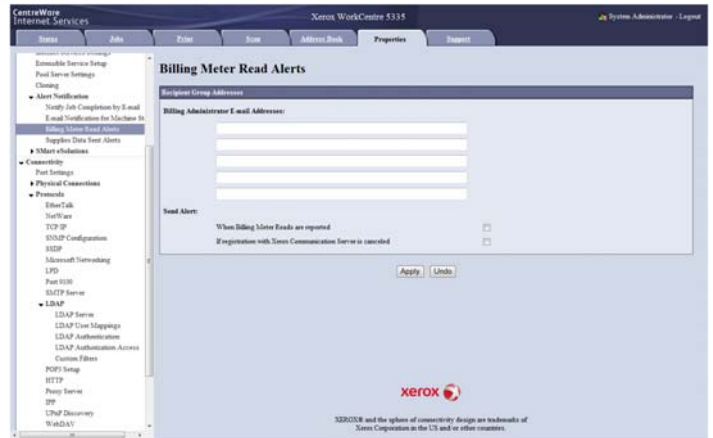
Above: The Usage Counters page provides users and administrators with an accounting of how the device is being used. Administrators can easily view the total number of pages printed, scanned, copied, and faxed.



Above: Administrators can configure the system so that specified users are automatically sent an e-mail message indicating that a specified status condition has occurred, such as when the toner is low.



Above: Administrators can configure LDAP settings so that the WorkCentre 5335 is conveniently linked to the network's address book.



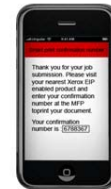
Above: Smart eSolutions provide administrators with secure automatic meter reads and supply replenishment information. Administrators have the option of accessing this information directly from the device or via the web client interface.



Above: Administrators can conveniently clone device settings among similar Xerox devices. This can save administrators a considerable amount of time and eliminate mistakes when initialising settings. This function is a valuable time saving utility when administrators must configure a fleet of Xerox devices.



Send



Confirm



Print

Above: Xerox Mobile Print Solution enables users to send print jobs from any email-enabled device (i.e. smartphones or tablets). Users simply email a document, then confirm and print at the device by entering a confirmation number. Users can print many file types including MS Office documents and PDFs.

DEVICE MANAGEMENT OPTIONS

+ Management Support:

- SNMP Version 1, SNMP Version 2c and Version 3 trap over TCP/IP and IP
- MIB access (IETF-MIB II RFC 1213), Host Resources
- MIB RFC 2790, Printer MIB RFC 1759 v. 2

+ IP Filter allows administrators to control print access to the device via the IP address, thereby restricting access to the device to/from the network.

+ Xerox CentreWare® Web is an innovative office software package that installs, configures, manages, monitors, and reports on SNMP compliant networked printers and multifunction devices in the enterprise – regardless of manufacturer. Robust and easy to use, CentreWare Web allows System Administrators to manage diverse environments from a single location. Using their Web browsers, System Administrators perform multiple administrative functions including installing, configuring, and monitoring networked devices. Customers track usage within the account via the report features of CentreWare Web.

+ Xerox CentreWare® for HP® OpenView® will be extended to provide for the identification of this device in the general discovery performed by HP OpenView Network Node Manager. It provides the ability to see the current status of discovered Xerox printers/devices under a Xerox Printer Map and IP Map via colour-coded icons. In addition, CentreWare for HP OpenView provides traps and message updates to the OpenView alarm browser and provides the ability to launch CentreWare Internet Services for device management directly from HP OpenView.

+ CentreWare for IBM Tivoli NetCool/OMNIbus is device management software that provides simple administration of Xerox products within the IBM Tivoli OMNIbus and Tivoli Network Manger network management toolsets.

+ CentreWare for Unicenter provides simple administration of Xerox products within the Unicenter network management tool. It is an easy to install enhancement that expands Unicenter management capability to Xerox networked products. Once successfully installed, you will be able to see all the discovered Xerox printers under one Unicenter Business Process View screen. In addition, CentreWare for Unicenter provides full integration with Event Management, and the choice to integrate with Problem Management and Advanced Help Desk.

+ CentreWare Management Pack for Microsoft System Center Operations Manager (SCOM) provides the added identification of Xerox devices to the SCOM database. In addition, the Management Pack provides Xerox device management within the SCOM user interface. Once successfully installed, you will be able to see all the discovered Xerox printers under one Xerox device folder. Using the management pack, Alerts, Events, State, Tasks, and Diagram views will be available for Operators and Administrators to manage Xerox devices. Alerts and events will be created for conditions that are relevant to the device's ability to print.

+ Xerox CentreWare® for Microsoft Management Console (MMC) supports printer discovery and management via a Microsoft Management Console (MMC) link to an embedded Web server. It is a general-purpose management display framework for hosting administrative tools.

+ Novell OES 2.0/1.0 includes a snap-in for iManager, a tool for driver installation, and facilities for installation across one or more OES Servers.

+ Novell NetWare (NetWare 6.5, 6.0, 5.x) includes a snap-in for iManager (NetWare 6.5 SP3 and newer), a printer control snap-in for NWAdmin, a print agent creation utility that allows for discovery of Xerox devices, a tool for driver installation, facilities for installation across one or more NetWare Servers, and integration of the Xerox NDPS Gateway.

+ Xerox Device Manager collects and manages the data that drives fact-based decisions for your enterprise device management environment. It is a single tool to install print queues and configure, manage, monitor and report on both networked and locally connected devices – regardless of vendor – across your enterprise. Xerox Device Manager provides:

- Device monitoring and troubleshooting
- Extensive reporting and discovery of new devices
- Usage collection, chargeback, and billing capabilities

+ Xerox Device Types for SAP R/3 Environment simplifies printing in SAP R/3 environments by providing users of SAP R/3 v4.6C, 4.x and 3.x ERP applications with enhanced WorkCentre printing functionality (PostScript and PCL):

- Simplex or duplex printing
- Finishing – single or dual stapling
- Tray pull location from any tray
- Print security via PIN ID capability at the WorkCentre

+ The optional Xerox SAP R/3 Intelligent Barcode Utility provides built-in process intelligence that allows the printing of barcodes on any appropriately configured PostScript printer on the SAP R/3 4.x (or higher) network. Used in conjunction with Xerox Device Types for SAP R/3 Environment and Xerox Font Center Barcode Fonts. Utility automatically calculates checksum, placement of start/stop characters, and encoding of data string Web server embedded the network controller.

+ Xerox Barcode Pro PS enables intelligent PostScript printing on Xerox multifunction printers by storing Xerox software as well as the barcode fonts on the printer hard disk. Barcode Pro PS also enables the printing of barcodes from any application (client or mainframe) that supports PostScript printing. Automatically calculates the check digit, places start/stop and middle bar characters in the data string, compresses and encodes the data string, and rotates the barcode through 90 or 270 degrees.

- The PCL6 and PostScript drivers feature bi-directional communication so that users can view device status directly within the print drivers.
- Xerox Global / Mobile Express Print Drivers™ let IT administrators install, upgrade and manage Xerox and non-Xerox devices from a single driver.
- For network and device management, Xerox provides users with the CentreWare Web Software Suite. CentreWare Internet Services provides an easy-to-use Web-based interface, and can be used to view detailed system and consumables' status. It also enables administrators to manage and configure device and network settings. This web-based solution enables administrators to monitor and manage a fleet of devices from any workstation on the network.
- Network-management and configuration of the Xerox WorkCentre 5335 can easily be handled via CentreWare Internet Services. Administrators can clone multiple devices with settings obtained from one device.
- CentreWare Internet Services provides automatic e-mail alerts when the system requires attention.
- Xerox Mobile Print Solution allows mobile workers to print directly from their mobile devices and retrieve documents at a Xerox-enabled MFP with a secure confirmation code
- Xerox Extensible Interface Platform® (EIP) allows document-related software applications to be accessed on the user interface to improve workflow and minimise time at the device.
- Automatic meter reads are secure and hassle-free with Smart eSolutions.
- Standard security features include Secure Print, Authentication with LDAP/Kerberos/SMB/CAC, Password Protected PDF, FIPS 140-2 encryption, S/MIME Encrypted Email, IPsec, 802.1X, SNMP v3.0, Email over SSL, LDAP over SSL, Image Overwrite, 256-bit Hard Disk Encryption, and Audit Log.

Smart eSolutions	
Meter Assistant	<ul style="list-style-type: none"> • Automates the process of collecting and submitting meter reads for tracking and billing of Xerox device usage. Eliminates the need for time-consuming end-user involvement and ensures that meter reads are submitted to Xerox on time. • Device Direct or via Smart eSolutions Client for Windows or via CentreWare Web.
Supplies Assistant	<ul style="list-style-type: none"> • Automatically orders supplies for Xerox output devices based on actual usage, eliminating the need to manually manage supplies inventory. • Device Direct or via Smart eSolutions Client for Windows or via CentreWare Web.

WHAT BERTL LIKED

- Large customizable colour touch screen interface that provides easy access to all major functions and has the ability to hide features from users who shouldn't have access to them.
- Animated videos on the control panel for step-by-step instructions to replace toner and clearing misfeeds.
- The PCL6 and PostScript drivers are relatively easy to use and logically organized. Both drivers have nearly the same exact user interface. This will enable users to quickly and easily switch between drivers and allow them to find the settings they need from one driver to another with ease.

WHAT BERTL WOULD LIKE TO SEE

- BERTL found that the Xerox WorkCentre 5335 was extremely easy to use and maintain on a daily basis.

USER ACCESSIBILITY

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

Common design features include tilting control panels, giving wheelchair-bound users a better view of the screen, and larger display options for those with impaired vision. Voice navigation and tactile buttons 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.

The Xerox WorkCentre 5335 has outstanding accessibility features that are designed for convenient accessibility for everyone in the workplace. These systems incorporate user-friendly features, such as simple control panel with hard keys and an easy-pull paper drawer, all which are in compliance with Section 508 requirements.

USER ACCESSIBILITY PAPER JAM REMOVAL

Removing paper jams in the Xerox WorkCentre 5335 is a simple process for those in a wheelchair. There are no hidden jam points and all access areas are at a comfortable height and angle for access from the front and side of the device. Adding paper and replacing toner is also a simple process from a seated position as well. Toner doors open easily during the toner replacement process and the toner cartridge is designed to be lighter and easy to replace.

WHAT BERTL LIKED

- The Xerox WorkCentre 5335 has exceptional accessibility features that are designed for convenient use for everyone in the workplace. These systems incorporate user friendly features that make them easier to operate and align with Section 508 requirements.
- BERTL liked that users can easily replace the Xerox WorkCentre 5335's consumables and easily adjust and fill the paper tray.

WHAT BERTL WOULD LIKE TO SEE

- BERTL was satisfied with the Xerox WorkCentre 5335 accessibility features.

MEDIA INPUT

The Xerox WorkCentre 5335 comes standard with the ability to choose from two 520-sheet paper trays with a stand or a 2,000-sheet High Capacity Tandem Tray and a 50-sheet bypass tray. For high-volume printing, a 2,000-sheet High Capacity Feeder option increases the total capacity to 5,090 sheets. A wide range of paper sizes and weights are supported with the ability to print on stock as heavy as 215 gsm and paper sizes up to A3.

Media Handling Checklist	
Minimum/Maximum Media Weight	
Duplex Automatic Document Handler	38 to 128 gsm (simplex); 50 to 128 gsm (duplex)
520-sheet Paper Trays	Tray 1: 60 to 105 gsm Tray 2: 60 to 215 gsm
Bypass Tray	60 to 215 gsm
High Capacity Tandem Tray	60 to 215 gsm
High Capacity Feeder	60 to 215 gsm
Envelope Tray	75 to 90 gsm
Feeds maximum media weight from all sources?	No
Finisher	Optional
Hole Punch	Optional



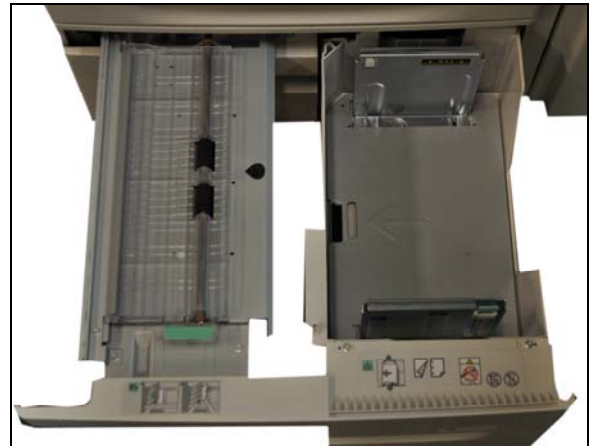
Above: The Xerox WorkCentre 5335 shown here comes standard with two 520-sheet paper trays, a 2,000-sheet High Capacity Tandem Tray, and a 50-sheet bypass tray.

LOADING MEDIA

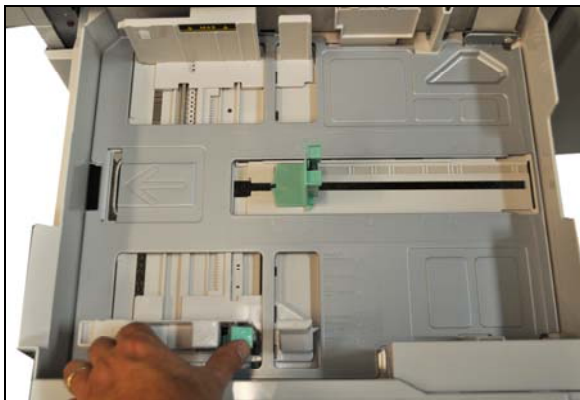
Paper Loading Checklist	
Maximum media weight from all media sources?	No
Drop-in loading of a full ream of paper?	Yes
Corner separators in paper trays?	Yes
Spring-loaded ramps in paper trays?	Yes
Geared media size side guides?	No
Captured rear media guide?	No
Automatic paper size detection?	Yes



Above: The 50-sheet bypass tray can be adjusted by sliding the gray levers into place. The feeder can be adjusted for envelope printing.



Above: The 2,000-sheet High Capacity Tandem Tray can hold A4 size paper and can be loaded while in operation, decreasing downtime.





Above and below: In order to adjust the 520-sheet paper drawers to accommodate different paper sizes, the user squeezes and slides these green guides into place. BERTL found it easy to adjust all the paper drawers.



MEDIA OUTPUT AND FINISHING

The Xerox WorkCentre 5335 offers two optional finishers that allow users to choose between basic features such as stapling and hole punching, and advanced capabilities including booklet making, all in which give documents a professional look and feel. Users can choose from the Integrated Office Finisher or the Office Finisher LX with optional Booklet Making.

 INTERGRATED OFFICE FINISHER	
Stacking Tray	500 sheets of A4 250 sheets of A3
Sizes	89 x 98 mm to 297 x 432 mm
Weights	60 to 215 gsm
Stapling	Single Auto stapling: <ul style="list-style-type: none"> • Up to 50 sheets: A4/B5-size sheets (less than 90 gsm) • Up to 30 sheets: A3/B4-size sheets (less than 90 gsm)

 OFFICE FINISHER LX	
Stacking Tray	2,000 sheets unstapled or 1,000 sheets single staple or 750 sheets dual staple (90 gsm/A4)
Sizes	89 x 98 mm to 297 x 432 mm
Weights	60 to 215 gsm
Stapling	<ul style="list-style-type: none"> • Single and dual • Auto stapling (up to 50 sheets; weights less than 90 gsm) • A3, A4, B4 and B5 sizes supported
Hole Punch	Optional 2/3 hole punch
BOOKLET MAKER (optional)	
Capacity	40 booklets (1-15 sheets per booklet – 80 gsm or less; 2-10 sheets per booklet – over 80 gsm)
Sizes	A4/210 x 297 mm A3/297 x 420 mm
Saddle-stitch Stapling	2-15 sheets / 8 – 60 page booklet 55 to 90 gsm
Convenience Stapler Capacity (optional)	<ul style="list-style-type: none"> • 50-sheet stapling • 5,000 staples • Requires separate power outlet

WHAT BERTL LIKED

- 50-sheet bypass tray is easily adjusted to accommodate different paper sizes including envelopes.
- Easy to adjust and fill paper drawers.
- Paper capacity can be expanded to a substantial 5,090 sheets with the High Capacity Feeder.
- Versatile media handling and flexibility, with the ability to print on stock as heavy as 215 gsm and paper sizes up to A3.
- Advanced finishing options that include booklet-making, stapling, and hole-punching.

WHAT BERTL WOULD LIKE TO SEE

BERTL was very satisfied with the WorkCentre 5335 paper-handling and finishing capabilities.

OVERVIEW

Purchasing a multifunction printer is often a difficult decision for users to make when they have a limited capital expenditure budget. Many users often fail to look beyond the initial purchase price. A typical approach most users take is to focus on the list price of the equipment without considering the total cost of ownership, which include costs such as consumables and energy usage.

COST OF OWNERSHIP

The cost of owning a multifunction printer goes beyond the purchase price of the equipment. Users need to take into consideration the cost of toner and other consumables associated with owning the device. Additional costs to consider include energy usage, financing costs and service calls outside of the contract. The total cost of ownership (TCO) of a multifunction printer is comprised of a calculation of the device's purchase price, device specific consumables, paper, maintenance costs, financing costs, and human factors such as training time and device management.

CONSUMABLES

The number of components that require periodic replacement can vary considerably depending on the type of product, model, style, manufacturer, and feature set. The toner cartridges are typical components that require periodic replacement. When making a purchasing decision, users should consider the life expectancy of the components along with the toner yield of the cartridges. Users should also consider adopting and enforcing mandatory print driver settings such as duplex printing, 2-up printing and printing in monochrome as these have the potential to realize large cost savings. By implementing these policies, users can reduce their electrical usage costs as well as conserve on paper and inks costs. All multifunction printers will require toner replacement, and the life of components as well as the ink yield varies by model and manufacturer.

COST OF USAGE BASED ON CONSUMABLES

The tables that follow provide a cost per page breakdown based on the street price of the device and manufacturer rated toner yields.

Cost Per Page for Monochrome Device

This table demonstrates the cost per page based on the claimed page yields and street price provided by the manufacturer. Toner yields are based on published figures by the manufacturer. Page yield estimates were determined by the manufacturer using the ISO/IEC 19798 standard. The actually page yields may vary based on image, area coverage and print mode.

STANDARD PRINTER COST PER PAGE / CONSUMABLES			CLAIMED PAGE YIELDS ¹	CONSUMABLES COST		TOTAL COST PER PAGE
TYPE	PART NUMBER	NAME/ID		TOTAL	COST PER PAGE	MONO (K)
Black Toner	#006R01159	Xerox WorkCentre 5335 Black Toner Cartridge	30,000	\$184.00	\$0.006	\$0.006
Drum ²	#013R00591	Xerox WorkCentre 5335 Drum Cartridge	96,000	\$325.00	\$0.003	

¹ Toner yields are based on published figures by the manufacturer. Page yield estimates were determined by the manufacturer using the ISO/IEC 19798 standard.

² The Drum costs are not used in the cost per page calculation as these parts are included in the purchase price of the device. These components are considered full-life consumables which are expected to last for the life of the device. As a result these components are already a component of the TCO of the device.

Cost of Ownership Over A 5-Year Period

The table below shows what the running costs over a 5-year period would be for this device based on the usage estimates shown in the table below. Figures are based on the cost of the device, estimated monthly usage, and an estimated cost per page. Costs do not include financing charges, service agreements or the cost of paper. Prices are based on manufacturer published figures as of March 2012, and are subject to change based on market conditions.

TOTAL COST OF OWNERSHIP BASED ON USAGE LEVELS						
DEVICE PRICE	USAGE ESTIMATES	PAGES PRINTED PER MONTH	COST PER PAGE	RUNNING COSTS PER MONTH	5-YEAR RUNNING COSTS	TOTAL 5-YEAR COSTS
			MONO (K)	MONO (K)		
\$8,100.00	Light Usage	500	\$0.006	\$3.00	\$180.00	\$8,280.00
	Normal Usage	1000	\$0.006	\$6.00	\$360.00	\$8,460.00
	Heavy Usage	2500	\$0.006	\$15.00	\$900.00	\$9,000.00

ELECTRICAL USAGE AND COST

Power usage is another hidden cost associated with owning and running a printer. Once plugged into an outlet and the power is turned on, these printers can sit drawing electricity whether the device is in use or sitting idle waiting for the next job. Most inkjet printers today are ENERGY STAR® certified. ENERGY STAR® is a U.S. standard applied to office equipment for the purpose of rating the energy efficiency of the equipment. ENERGY STAR® certified inkjet printers save energy by powering down and going to "sleep" when not in use, resulting in a reduction of energy use and in electric bills. Similar programs have been adopted around the globe by other countries. The Xerox WorkCentre 5335 has been ENERGY STAR® certified. Certified ENERGY STAR® printers must be in compliance with U.S ENERGY STAR® Program mandates which dictate the maximum sleep mode power usage based on the type of device, and a minimum time to sleep mode. Electrical costs are based on the cost per Kilowatt hour (kWh) of US \$0.0988. The Kilowatt usage for each mode is based on the manufacturer rated electrical usage for this device. Calculations were made using the default power settings and available power modes and assume that the device is left plugged in and not turned off over the weekend. The calculations in the below chart are based on printing 12 jobs over the course of a 10 hour business day, each job consisting of 12 pages. The daily number of jobs printed is based on the ENERGY STAR® Imaging Equipment Operational Mode Test Procedure. Figures provided and show the cost of using the device on a daily, weekly, monthly, and yearly basis. User's actual energy usage will vary depending on changes made to the timeout settings and the number of jobs and pages printed on a daily basis.

TOTAL COST OF ENERGY BASED ON POWER CONSUMPTION LEVELS					
USAGE ¹	POWER USAGE (kwh/wk) ^{4,5,6}	ELECTRICITY COSTS			
		KILOWATT PER HOUR (kWh) ^{2,3}	WEEKLY	MONTHLY (Based on 4.348 Weeks)	YEARLY
Running Mode	730	\$0.0988	\$72.12	\$313.60	\$3,763.25
Standby Mode	111	\$0.0988	\$10.97	\$47.68	\$572.22
Low Power Mode	89	\$0.0988	\$8.79	\$38.23	\$458.81
Sleep Mode	1.3	\$0.0988	\$0.13	\$0.56	\$6.70

¹ Power Usage is based on the manufacturer rated electrical usage. See Manufacturer Rated Usage table for specifics.

² Source: U.S. Energy Information Administration, "Form EIA-826 Database Monthly Electric Sales and Revenue Data," ed. Charlene Harris-Russell, Release Date April 15, 2011 <<http://www.eia.doe.gov/cneaf/electricity/page/eia826.html>>.

³ Electricity costs are based on the 12 month average retail price in the U.S across all sectors through December 2010.

⁴ Daily Energy usage is based on ENERGY STAR Imaging Equipment Operational Mode Test Procedure, April 21, 2006

⁵ Weekly power usage independently determined by Energy Star, http://www.energystar.gov/ia/products/prod_lists/image equip_prod_list.xls

⁶ Based on ENERGY STAR Imaging Equipment Specifications for Typical Electricity Consumption (TEC) Standard.

WHAT BERTL LIKED

- Based on ISO/IEC 19798 standards total cost per page is \$0.006.
- Low monthly consumable costs are as low as \$3.00 with light use printing, \$6.00 with normal usage and \$15.00 with heavy usage.
- The Xerox WorkCentre 5335 is ENERGY STAR® certified.
- Based on the rated energy consumption in Sleep Mode, the electrical costs for this device is as low as \$6.70 a year.

WHAT BERTL WOULD LIKE TO SEE

- BERTL was very satisfied with the Xerox WorkCentre 5335's toner and electrical usage costs.

About BERTL

The success of an organisation 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 specialised 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 organisation.

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% independent. 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 colour 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 recognise the leading devices and software solutions in the annual BERTL's Best awards. BERTL also honours the performance of manufacturers in the annual Readers' Choice selections.

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