



Test Report

MULTIFUNCTIONAL PRODUCTS
Xerox CopyCentre/WorkCentre Pro 90
90 PPM / SEGMENT 5
Copier/Printer/Scanner

GENERAL APPRAISAL

RECOMMENDED AS PER GENERAL APPRAISAL NOTATIONS*

A satisfactory overall performer in BLI's tests, the Xerox WorkCentre Pro 90, a 90-ppm Segment 5 multifunctional unit offering standard copy and network print functions and optional scan capabilities, offers reliability, good output quality and excellent ease of use and multitasking for a competitive price.

A reliable unit, the WorkCentre Pro 90 completed its three-month evaluation, which included a 525,000-impression durability test, with no service required and with 20 misfeeds, for a misfeed rate of one per 26,250 impressions. Contributing to good uptime for this unit are its user-replaceable components (including the xerographic module, fuser module, document feed roller assembly and waste toner container)—a design that, while it requires more user intervention than with most competitive products, eliminates the downtime associated with the service calls that would be required to replace these parts on other systems. Moreover, replacement of all the components is simple. The cost of the user-replaceable

consumables is bundled into the cost of service contracts, which will likely still be desired by most buyers.

Employing a print controller driven by a 433-MHz processor, the Xerox WorkCentre Pro 90 provides first-print-out times that are faster than average for the Word file used in the tests and competitive for the JPG and PDF files used in the raster tests, when compared with other Segment 5 models tested to date. The Xerox WorkCentre Pro 90 also offers excellent multitasking capabilities. Testing revealed that multiple copy jobs, limited only by memory capacity (which was not reached in testing), can be programmed while a copy or print job is in progress. Also noteworthy is that another job can be programmed as soon as the programming of the previous job is complete, while originals are still being scanned. Output quality of the Xerox WorkCentre Pro 90 was also good, earning BLI's highest image quality rating for all types of output (text, line art, halftones and solids) evaluated in both print and copy modes.

Another key strength of the Xerox WorkCentre Pro 90 is its excellent ease of use. An attractively designed unit that is very compact for its speed range, it features a distinctive dark blue panel in the back that indicates the functions of the unit. The uncluttered control panel fea-

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tures an easy-to-read LCD touch screen with an intuitive menu system and a “help” function. Users can choose the default screen for the control panel. For example, in environments where users will frequently switch among a range of different functions, the “All Services” screen, which presents the user with all the different functions available, would be a good choice. The copier screen offers a good layout that presents users with all the features required for most typical copy jobs from the main screen, without requiring them to access additional menus. The control panel also offers extensive status information on all jobs in queue (including the number of sets programmed and completed), as well as completed jobs, and enables walk-up users to move their job to the head of the queue. In addition, a machine status key provides access to a wide range of device information, including the life of consumables and meter counts for each function, including meter counts by user.

In addition to the extensive information provided at the control panel, the Xerox WorkCentre Pro 90 offers excellent feedback to PC workstations via very well designed bidirectional print drivers that inform users at the point of need—right before they send their job—of such factors as the approximate amount of available paper or if a problem exists that would interfere with the production of a job. Whether or not an error condition exists, the user can click on the “Status” button on the driver screen to obtain additional information on device status. And although users don’t receive pop-up print job completion notification, they can view lists of active jobs (to see where their jobs are in the queue) and completed jobs, along with status information, from the status screen within the driver. In addition, a

good range of device and print job status information is available from the Web utility (CentreWare Internet Services).

Connectivity

BLI test technicians also praised the Xerox WorkCentre Pro 90 for its highly automated procedures for setup on the network and installing the drivers on users’ PCs. Indeed, BLI test technicians found the installation procedures and drivers to be among the best, if not the best, seen to date in testing of multifunctional products. Configured standard with the network print controller, the Xerox WorkCentre Pro 90 includes Microsoft-certified PCL 5e, 6 and PostScript 3 (emulation) print drivers for Windows 98, 2000, NT 4.0, Me and XP, as well as the necessary PPDs for Macintosh operating systems. Installation of the drivers on Windows XP workstations is automated, as is installation on Windows 2000 workstations (provided there are no open utilities); the auto-install routine does not work for Windows 98 (an error is generated). Installation onto Windows 98 workstations was accomplished using the Windows Add Printer wizard. BLI test technicians liked the fact that multiple drivers can be installed at once (other multifunctional products require repeating the installation process for each different driver desired). Once the installation process is complete, any configured accessories are automatically detected and the information is available for viewing in the driver, without the user having to initiate the process (as is the case with some systems) or having to manually specify the configuration (which is the case with some other systems). The PCL and PostScript drivers are very similar in appearance and functionality

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(with the only differences being those that are typically found between PCL and PostScript) and are very easy to use, although one criticism cited was that while most commonly used features can be selected from the main screen, quantity must be selected from a separate screen.

In addition to offering the previously mentioned status information, including a paper gauge, and most of the features that would be expected of a unit in this range, such as secure print and proof print, the drivers offer delayed print, the ability to select a banner page (alternatively, service can enable generation of banner sheets from the controller), job review, accounting (optional; when enabled, the user must enter a code in order to print) and a choice of enhanced resolution modes in addition to 600-x-600-dpi resolution. Direct printing of a range of file types, including TIFF and PDF, is possible without needing to open the application. Also supported is IP printing, whereby from the embedded Web page, users can submit print-ready PCL or PostScript files for printing.

Configured as tested with options, the Xerox WorkCentre Pro 90 supports scan to e-mail and scan to network-connected PCs via FTP, which performed well in the tests. The scan function is integrated, with no additional hardware (such as a server) required. The system supports LDAP, so walk-up users can access e-mail addresses residing on a corporate mail server directly from the control panel of the WorkCentre Pro 90, eliminating the need to manually enter such addresses. Destinations can, however, be entered on the fly at the control panel via a QWERTY touch-screen keypad; e-mail destinations cannot, however, be stored on the device. Also supported is network

authentication, a security feature that requires users to log in with their network user name and passcode in order to access scan functions. Scan-to-file destinations are set up in templates via the Web utility. The procedure was very simple, requiring entry of a file destination and format for the scan and assigning it a name that will appear on the control panel. The Scan to PC Desktop Deluxe software option includes Image Retriever software, which runs minimized on users' workstations and checks for incoming scanned files, either notifying users of received scans via pop-up message or automatically opening scanned images into PaperPort Deluxe 8.0 (a 25-user license is provided). PaperPort also allows editing of the scanned images with annotations, highlighting and cropping among others, as well as OCRing of text documents.

Administration of the device on the network is accomplished via the CentreWare Internet Services Web utility, which is very easy to use, thanks in part to an exceptional help function. In addition to allowing configuration of device settings and creation of scan-to-folder destinations, the Web utility also provides a good range of information, including error messages, paper status, consumables gauges and meter counts for copies, prints and scans, including counts by user. Also offered for administration is CentreWare Web, which allows monitoring and management of multiple output devices on the network (not just Xerox models).

The WorkCentre Pro 90 also supports integration with network fax servers offered by Xerox partners. When the unit is configured in this manner, faxes are routed to the fax server, which handles all transmissions and receptions for the

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enterprise. The Xerox WorkCentre Pro 90 offers most of the features that would be expected of a model in this speed range, including the ability to produce up to 9,999 copies in a single run; 11,000 copy control codes (the highest number for units in this speed range); a standard copier memory consisting of 64 MB of RAM (expandable to 192 MB) and a 9.1-GB hard drive, plus a separate 128-MB RAM (expandable to 256 MB) and a 9.1-GB hard drive for the print function. Also noteworthy is that the WorkCentre Pro 90 offers the highest standard paper capacity in this speed range (7,150 sheets) from a total of six paper sources that each accommodate from 16-lb. bond to 110-lb. index. The unit also supports copying and printing onto tab extensions. Output options available include the tested professional finisher, which offers stapling of up to 100 sheets per set and booklet folding and stapling of up to 15 sheets to make booklets of up to 60 pages; an office finisher, which holds 2,250 sheets and staples up to 50 sheets per set in multiple positions; an advanced office finisher, which staples up to 100 sheets per set; and two- and three-hole punch options. Other noteworthy options include a security overwrite option, which protects information stored on the device by overwriting it either at specified times or on demand; and Copier Assistant software, which is designed to make it easier for users who are visually impaired, have limited dexterity or use a wheelchair to access and use the system. It provides users with an alternative to the standard touch-screen controls, displaying an enlarged user interface on a PC and featuring text-to-speech capability that walks users through copying steps.

Shortcomings

*Testing revealed the following shortcomings of the Xerox WorkCentre Pro 90: 1) The unit is not as productive as other Segment 5 units tested, particularly for shorter jobs (i.e., fewer than 20 sets). Overall efficiency in all simplex and duplex copy modes is well below average—indeed, the lowest—for tested Segment 5 models, while overall efficiency in simplex and duplex print modes is below average and among the lowest for competitive units. In addition, the unit's document feeder feeds originals at a rate of 65.9 per minute in copy mode, which is a slower rate than that of most competitive models in this speed range. Moreover, the unit's first-copy times, at 7.3 seconds from the platen and 9.3 seconds from the document feeder, are slower than those of most Segment 5 models tested. 2) The first-print-out times for the TIFF and PageMaker files used in BLI's raster tests are slower than average. 3) When printing, users can pull from only one paper drawer for any one print job, so for example, users cannot choose to print the first page of a document on letterhead and the remainder of the document on plain stock loaded in another drawer. 4) Ease of removing misfeeds was rated "Fair," due in part to the unit's compact size. 5) While not difficult, the need to always press a key to confirm the paper size after opening the paper drawer, even if just loading paper of the same size, was found to be an inconvenience. Moreover, if a user forgets to confirm the size, any waiting print or copy jobs will be held up. This requirement does provide the advantage, however, of letting users accurately know the color, type and size of paper in each drawer from the driver and the control panel. 6) The unit's document feeder sup-

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ports a smaller throughput range (16- to 32-lb. bond) than those of competitive models in this speed range. 7) The unit's tested toner yield is below average for tested Segment 5 units.

Pricing Analysis And Summary

BLI's retail pricing analysis reveals that the Xerox WorkCentre Pro 90 is priced competitively with the average for comparably equipped multifunctional models in the 85- to 95-ppm speed range. Toner cost per page is higher than the average for Segment 5 units tested to date, while complete cost per page for supplies could not be calculated, since Xerox factors the cost of xerographic modules and other consumables into service contracts.

*Although the Xerox WorkCentre Pro 90 falls short of other tested Segment 5 units with regard to its copier and print productivity, testing proved that it is a reliable unit with excellent ease of use, multitasking and print drivers. Consequently, BLI recommends it for offices with monthly volumes of up to 175,000 impressions for whom its exceptional strengths outweigh its shortcomings as outlined above.

Copy Quality:

Text: Good
 Line art: Good
 Halftones: Good
 Solids: Good

Print Quality:

Text: Good
 Line art: Good
 Halftones: Good
 Solids: Good

Ease of use: Good

Ease of maintenance: Good

Estimated waste: Low

Estimated downtime: Low

Misfeeds: 20

Misfeed rate: 1 per 26,250
 impressions

Total service calls

(including PMs): 0

MIBF: Not applicable

MIBS: Not applicable

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