

## Xerox WorkCentre 7220\*

20 PPM Colour

Copier • Printer • Scanner • Fax



Reliability.....	Excellent
Multitasking.....	Excellent
Administrative Utilities.....	Excellent
Feedback to Workstations.....	Excellent
Ease of Network Setup.....	Excellent
Print Drivers.....	Very Good
Scan Functions.....	Good
Colour Print/Copy Quality.....	Good
Black Print/Copy Quality.....	Very Good/Good
Colour Print/Copy Productivity.....	Good
Black Print/Copy Productivity.....	Good
Ease of Use.....	Very Good
Feature Set.....	Very Good
Security Features.....	Excellent
Accessibility Features.....	Not Rated
Environmental Features.....	Not Rated
Toner Yield.....	Good

## BLI RECOMMENDATION

With high ratings in most categories, the Xerox WorkCentre 7220 stands out as a top performer among its peers. The device is based on an engine that proved highly reliable over the course of BLI's 60,000-impression durability test, with just one misfeed and without requiring any service calls. The unit also features user-replaceable components, which eliminate the downtime that would be required for service to replace these items, as is the case with some competing devices. The device is very easy to set up, with its simple driver installation and no need to install a separate feedback utility because detailed feedback is provided in the print drivers. The drivers keep users apprised of paper and consumables status in fine increments on every tab, and offer device and job status, as well as a complete job history, in a new window. Another advantage the device offers over some competitors is that it allows users to program jobs while pages of another job are being fed through the document feeder. Productivity was competitive and printed black output quality was very good or excellent in all categories. Also notable is the device's fast tested scan speeds and significantly smaller than average scan file sizes in both compression and default modes. Further, the device offers a very good feature set. BLI highly recommends the WorkCentre 7220 for environments with an average optimum monthly volume of up to 10,000 impressions.

**Test duration:** Two months, including a 60,000-impression durability test.

**Manufacturer's maximum monthly duty cycle<sup>1</sup>:** 50,000 impressions.

**Average optimum monthly volume for models in this speed range:** Up to 10,000 impressions<sup>2</sup>.

\*Reliability, scan, image quality and toner yield results are based on the performance of the Xerox WorkCentre 7225T, which uses the same engine.

<sup>1</sup> The manufacturer's maximum monthly duty cycle is the maximum volume, as specified by the vendor, that the unit is capable of producing in a month; however, it isn't recommended that the unit be run at this volume on a regular basis.

<sup>2</sup> Based on a survey conducted by BLI. When comparing models, note that this optimum volume was instituted in May 2012. Optimum monthly volumes for models tested prior to May 2012 may be higher or lower.

## STRENGTHS

- Highly reliable
- Bidirectional print drivers display device and job status, eliminating the need to install additional software, which takes up resources
- Highly detailed feedback to workstations helps ensure that supplies are on hand when needed, reducing downtime
- Highly customizable cloning of device settings from one device to another at the web utility; detailed consumables status
- Integrated address book consolidates all destinations for a contact in one place, eliminating the need to search for destinations in multiple locations
- Standard McAfee embedded technology uses whitelisting technology to protect the operating system from potentially harmful files or functions
- Users can access the Xerox Online Support database from the control panel and print driver, which includes preset help topics and how-to guides, and the ability to search by keyword
- Above average black printed image quality in all areas of testing
- Fast tested scan speeds; considerably smaller than average scan file sizes
- T configuration offers the highest standard paper capacity of the competitive group
- Highest-capacity document feeder of the competitive group
- Above average tested yellow toner yield; tested magenta and yellow yields exceeded rated yields

## WEAKNESSES

- Below average productivity when printing sets
- No access to features for up to three minutes when the machine is being powered up from a cold start
- Default driver names are not easily identifiable
- No encryption support for USB files
- Email alerts cannot be sent to users when copy or scan jobs are complete
- Only some of the selections for a typical print job are available on the first print driver tab; no point-and-click support for selection of paper source and output destination
- Separate menus for the various scan destinations on the control panel require users to toggle back and forth between multiple screens
- No preview support at scan menu or for USB jobs
- Below average sharpness and smoothness of curves and serifs in copied text; heavily reddish flesh tones in copy mode; heavily yellowish flesh tones in print mode
- Below average tested cyan and magenta yields; tested black and cyan yields fell short of rated yields

## TEST RESULTS AND OBSERVATIONS

+, – and ○ represent positive, negative and neutral attributes, respectively.



### RELIABILITY

EXCELLENT

- + The WorkCentre 7220 is based on a highly reliable engine that experienced just one misfeed and did not require any service calls over the course of a 60,000-impression reliability test.
- + The drums, transfer belt cleaner, fuser and waste toner are all user-replaceable, which eliminates the downtime that would otherwise be required for service to replace these items.



### MULTITASKING

EXCELLENT

- + The device experiences virtually no delay between jobs, and the number of print and copy jobs that can be stored to the device is limited only by memory.
- + The device took just 10.25 seconds to download 15 print jobs.
- + Unlike with most other units tested, the next copy or scan job can be programmed ahead while the originals of the current copy or scan job are still being scanned.
- + Secure print jobs can be released while printing, scanning and copying, and also while jobs are being scanned through the document feeder, which is rare.
- Although users can scan a job to a destination and copy a job to memory when the device is misfed or out of paper, because an override key is not provided, it takes a number of keystrokes to first close the misfeed removal animation screens before programming the next scan or copy job. These screens repeatedly pop up until the issue is resolved.
- While the machine is jammed, print jobs are still downloaded from the network, but users cannot copy a job to memory or scan a job to a destination.
- + While the machine is out of paper or toner, print jobs are downloaded to the device from the network, scan jobs can be sent to a destination and copy jobs are automatically stored to memory.
- Users must press the Program Next Job key before programming each copy job in default settings.
- By default, copy jobs take priority over print jobs. Administrators cannot change priority levels.

- The Interrupt hard key can be used to interrupt either copy or print jobs to perform an immediate copy job. During testing, the unit stopped the current job in the middle of a set. It would be preferable to enable the current job to continue running while the user programs the interrupt job. This unit automatically returned to non-interrupted mode in seven seconds or less and restarted the job that was interrupted without user intervention. All of the features required for a typical copy job are accessible (such as document feeder, duplex and staple).

## ADMINISTRATIVE UTILITIES

EXCELLENT

- + The WorkCentre 7220's web utility was found to offer above average overall ease of use. Usability has been simplified from prior generations, with more graphical administrator management screens and an integrated address book. With the integrated address book, users can freely pick and choose what information, which is initially determined by the administrator, to view for each contact, such as first name, last name, email address and fax number, program contacts as favourites, and program all possible destinations from the same book, including email, fax and Internet fax.
- + The web utility provides highly detailed consumables status on toner, drums, fuser, transfer belt and secondary transfer roll, all in 1 percent increments. Status also includes pages and days remaining in current life. Waste toner is indicated as OK or Reorder.

Supplies				
Toner Cartridges				
Component	Status	Life Remaining	Estimated Pages / Days	
Black Toner	OK	57%	12320	10
Cyan Toner	OK	58%	8700	12
Magenta Toner	Reorder	43%	6450	8
Yellow Toner	OK	57%	8400	11
Drum Cartridges				
Component	Status	Life Remaining	Estimated Pages / Days	
Drum Cartridge (R1)	OK	33%	24750	21
Drum Cartridge (R2)	OK	91%	49959	69
Drum Cartridge (R3)	OK	73%	40077	55
Drum Cartridge (R4)	OK	37%	20313	28
Waste Toner Container				
Component	Status			
Waste Toner Container	OK			

Centerware Internet Services, the Embedded Web Utility (U.S. model pictured)

- The paper size, colour and type in each drawer are also indicated, while the amount of paper in each drawer is indicated only as ready or empty.

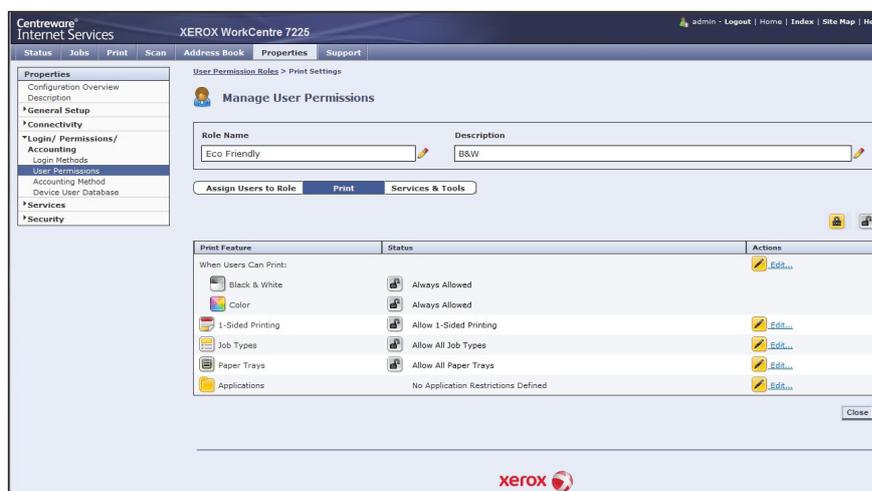


Counter	Count
Total Impressions	67898
Black Impressions	42936
Black Copied Impressions	11403
Black Printed Impressions	31531
Color Impressions	24962
Color Copied Impressions	3773
Color Printed Impressions	21189
Embedded Fax Impressions	2
Internet Fax Impressions	0
Server Fax Impressions	0
Large Impressions	295
Black Large Impressions	138
Color Large Impressions	157
Stored Image Printed Impressions	0
Black Stored Image Printed Impressions	0
Color Stored Image Printed Impressions	0

The web utility provides highly detailed usage counters. (U.S. model pictured)

- + Error messages are provided for misfeeds and other device conditions. Low supply warnings can be sent to administrators from one to 20 days in advance. Email alerts can also be automatically sent to administrators when errors occur and consumables are low or depleted. There can be up to three groups, with each group containing up to five email addresses. Meter readings and email alerts can also be automatically sent to dealers.
- + Administrators can assign access codes to users and groups so that usage can be restricted and tracked by user and group for each function.
- Email alerts for completed print, copy or scan jobs are not offered.
- + With the WorkCentre 7220's integrated address book, addresses can be programmed remotely via the web utility; adding or deleting of addresses from the address book is reserved for administrators. Favourites or frequently used settings are also available. The address book can also be exported in CSV format.
- + Cloning device settings from one WorkCentre 7220 to others in the organization via the web utility is highly customizable; settings available include accounting, audit log, e-mail, Smart eSolutions, print settings, authentication, fax, job management, network scanning, connectivity settings, Internet fax, security, power saver and templates.
- Status information is available for active and saved print jobs, and active scan jobs.
- No status information is provided on copy jobs. Moreover, job history is not provided at the utility.
- Information provided includes user name/ID, number of sets programmed for a print job, file name for print jobs and application name for print jobs.
- + An electronic meter counter at the web utility includes details on colour and black prints and copies, faxes and scans, as well as total colour pages, total black pages, and total pages.

- + The web utility includes a mailbox operation for storage of print and workflow scanning jobs, whereby administrators can set up private and public boxes that can be viewed at the control panel or in the utility. Passwords can be one to 64 characters. Settings can be highly customized for each user. In addition to output colour and simplex/duplex, original type can be specified. Administrators can also specify set periods of time for how long jobs will remain in mailboxes. The ability to delete public boxes is reserved for the administrator. Further, users can only create private boxes that are password-protected.
- + The web utility allows for direct printing of files in PDF (requires PS option), PCL, Post-Script (optional), TIFF, JPEG and XPS formats. Features supported for direct printing include duplex, colour or black mode, collate, quantity up to 9,999 and finishing options, including staple, hole punch and fold. In addition to paper size and paper drawer, users can specify the type and colour of paper. Selections for secure print, sample print, reprint and delay print are supported.
- + Printer firmware can be easily updated using the web utility or manually through the USB port on the machine after downloading the update file from Xerox. Printer/scan drivers can be easily updated online using the web utility.
- + Administrators can log into the web utility while the device is in use and save changes to the device.
- + The User Permissions feature allows administrators to create roles for all users or specific users when printing or using the control panel. Administrators can specify when users can print in black and white or colour, if they can print in simplex, what job types can be printed, and which paper trays can be used. Administrators can also customize the print driver's default application settings so that, for example, PowerPoint presentations can be set to always print in duplex, or Outlook e-mails can be set to always print in black and white, or jobs can be printed in colour only during certain hours of the day. These customized settings will be dynamically reflected in the print driver.



Administrators can set user permissions from the web utility. (U.S. model pictured)

- + CentreWare Web, which is available as a free download from Xerox's website, is a device management utility with an uncluttered, customizable interface. Though it lacks drag-and-drop support, the utility makes it easy to execute tasks, thanks in large part to various wizards accessible via the program's home page. Monitoring and management features are strong, and CentreWare Web provides more reporting options than most competing utilities.
- + Xerox's Remote Control Panel allows administrators or users to remotely operate the WorkCentre 7220's control panel from an office PC via the web utility. This makes it easier to train users and for IT staff to remotely view and monitor the user interface. Remote Control Panel can be enabled for administrators and diagnostics users only, for administrators only, or for all users. Additionally, administrators can block or allow access to the local control panel when a remote session is active; a warning message appears on the screen when the control panel is being used remotely.
- + Xerox offers Smart eSolutions, which provides two applications for automating device management. MeterAssistant automatically collects and securely submits the device's meter reads using a built-in audit process to increase billing accuracy. SuppliesAssistant proactively manages toner supplies and monitors usage to make sure the customer has the correct amount of supplies at the right time. Both utilities can be downloaded from Xerox's website free of charge.
- + Xerox Standard Accounting tracks copies, prints, scans and faxes. The utility is embedded in the software of the device; no additional third-party applications are required. Setup of different types of accounts is enabled via the web utility. Up to 2,500 user IDs and 500 group accounts are available. Both administrators and users can generate usage reports.



## FEEDBACK TO WORKSTATIONS

EXCELLENT

- + The WorkCentre 7220 offers feedback through its bidirectional print drivers, so there is no need to install additional software.
- + The information provided is highly detailed, and includes the amount of paper in each drawer in 25-percent increments, as well as a toner gauge in 1-percent increments. Toner and paper gauges are located on the bottom of the print driver window, regardless of the tab being viewed. Job status for completed and active jobs is also supported within the driver. Paper status further includes the colour and type of paper loaded in each drawer. Detailed messages such as front door open and toner near end of life are also supported.
- While feedback on the drums, waste container or other consumables is not provided within the driver, the drivers do feature a link to the web utility, which provides information on toner, drum, fuser, transfer belt and secondary transfer roll, all in 1 percent increments. Status also includes pages and days remaining in current life, and waste container as Ok or Full.

- + Pop-up messages are available via the bidirectional drivers for print job completion and deletion, as well as when the selected drawer is out of paper. Pop-up messages appear in one window and dissolve automatically.
- Pop-up messages are not available for when the output tray is full, the printer is offline, or a misfeed occurs, so users must proactively seek out this information via the drivers or the web utility, where this information is readily available.
- + Audible alerts for print job completion are available.



## EASE OF NETWORK SETUP

EXCELLENT

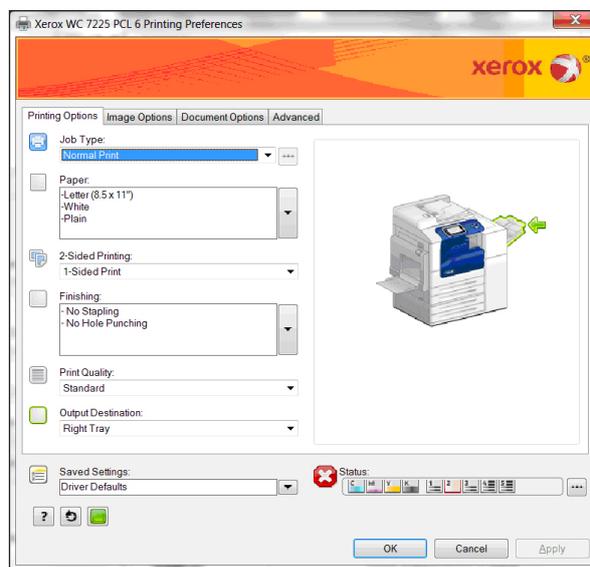
- + The feedback utility is built into the driver, and therefore no software outside of the drivers needs to be installed on the system.
- + Installation of the drivers is simple. The CD auto-launches upon insertion into the drive, and all the drivers can be installed in one session in 11 clicks. The port is automatically created during installation.
- + All accessories are automatically located once the drivers are installed, and administrators do not have to initiate this capability, which is rare.
- + During the initial device installation, the administrator is presented with a screen that prompts them to enter the network settings. This is not seen on most devices and greatly simplifies installation.
- The default names of the installed drivers are more cryptic than what is found on other systems and not easily identified by the user, though they can be manually changed. Some competitive devices have the drivers more clearly named from install, and others let users rename them during the install.
- When administrators click on Printer Management Links and Additional Drivers, they are linked directly to the area on Xerox’s website from which they can download Xerox’s Mobile Express and Global Print drivers, as well as firmware and a font management utility, once they enter the device model number and operating system of the drivers.



## PRINT DRIVERS

VERY GOOD

- The WorkCentre 7220 comes equipped with a 1.2-GHz processor, along with standard PCL 5c/6 and XPS drivers. An optional Adobe PostScript 3 driver is available.
- Resolution modes include Standard and High Resolution.
- + The PCL and optional PostScript print drivers are very similar in appearance and layout, which makes navigating their screens easier for users who need to switch between them for different types of jobs.



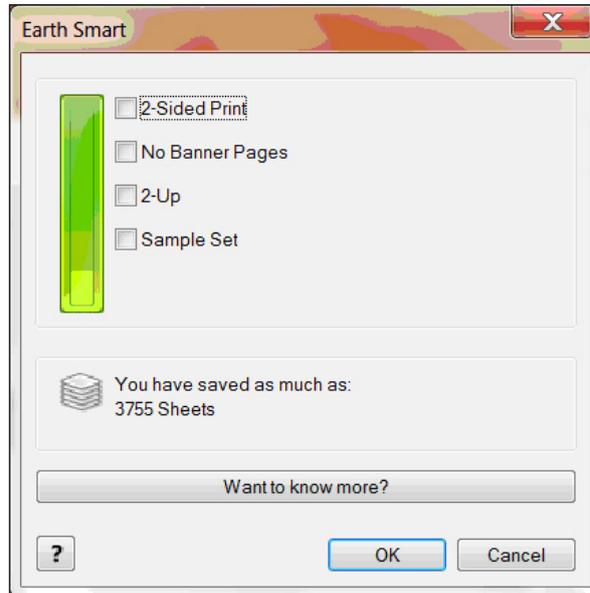
The PCL Driver (U.S. model pictured)

- The drivers are defaulted to simplex mode.
- + The drivers feature four tabs (Printing Options, Image Options, Document Options and Advanced), and most of the selections for a typical print job are available on the first tab. These include job type, paper source, duplex and most finishing selections.
  - Quantity and orientation are located on the Advanced tab.
- The advanced tab also features selections for offsetting.
  - The drivers do not offer a point-and-click interface for selecting paper source.
- The order of the tabs and features available for selection on the first screen cannot be customized in the drivers, whereas some competing machines support this capability from their drivers.
- Priority levels are not supported within the driver.

- + The drivers are bidirectional, allowing users to check the status of the device directly within the print driver before sending a print job without having to install any additional software that uses system resources. Gauges are provided for toner and paper supply in 1-percent and 25-percent increments, respectively; job status for completed and active jobs is also supported.
- Users can store the settings for commonly run jobs via an unlimited amount of Saved Settings, cutting back on the number of clicks typically required to program more complex jobs.
- There are no preset settings stored for Saved Settings.
- + Users can save settings to be the default for specific applications. For example, Microsoft Word documents can be set to always print in duplex, or PowerPoint presentations can be set to print in colour mode.
- + User permissions, when set by the administrator, prevent users from using certain print settings such as colour mode or simplex printing. These customized settings are dynamically reflected in the print driver.
- A job review selection summarizing all current job settings is not supported, unlike with most competitors. However, icons next to certain selections, including job type, paper, duplex and finishing, do change to reflect the current selections.
- Available job types include Normal Print, Secure Print, Sample Set, Delay Print and Saved Job. Fax is also available if the fax option is configured.
- Secure print jobs can be accessed via the Job Status button on the control panel, and require a four to 10-digit ID/code to store.
- + No secure print details are shown while the job is still in the secure print queue. While job name, user name and application for secure print jobs are not hidden in default when released into the public queue, job name can be hidden via the device's job conceal capability, which conceals the job name and application even for non-secure print jobs.
- Four clicks are required to release a secure print job.
- + Multiple secure print jobs with the same PIN can be released simultaneously. In addition, even after releasing a secure print job, a walk-up user cannot delete the job without entering a code, which is very rare.
- + Users can release secure print jobs while the device is printing, scanning or copying.
- Unlike with some competing machines, users cannot change simplex/duplex settings, paper settings, or the number of sets for secure print jobs.
- Users must go to the Image Options tab to select black-and-white printing; the driver is defaulted to print in auto colour mode.
- + Also on the Image Options tab in the PostScript driver is the Colour By Words feature,

which enables users to adjust colour settings simply by selecting desired colour modifications from a drop-down list. In addition to selecting the colour to be adjusted, users determine how much change to be applied (completely, a lot more, more, slightly more, slightly less, less, a lot less), as well as what type of change (dark, light, bright, colourful, contrast, vivid, warm, cool, flat, hazy, sunny). Preview allows users to view how the changes applied via Colour By Words will look on the image.

- Via Colour Adjustments in the PostScript driver, the lightness, contrast and saturation of the image can be adjusted in fine increments. A preview is also available. Additional image quality adjustments include cyan to red, magenta to green and yellow to blue.
- Within the Document Options tab are secondary tabs for Page Layout, Special Pages, Watermark and Orientation.
- + The Special Pages tab enables users to custom build an entire job within the print driver. Users can insert front and back covers, and choose whether the settings are the same or different for each.
- + Users can also add inserts and exceptions to their jobs via Special Pages. Inserts can be added before or after pages. Exceptions can be set for specific pages or page ranges, and include duplex or simplex printing and paper size, colour and type. A summary window of exceptions programmed allows users to edit, delete or undo any exceptions programmed. Subset finishing is not supported.
- While users can select size, type and colour of covers or exceptions, paper source for covers or exceptions is not supported.
- Via the Watermark tab, existing watermarks can be edited and new watermarks can be created.
- + Earth-friendly settings are selectable via the green icon in the bottom left corner of all the driver's tabs. Settings include 2-Sided Print, No Banner Pages, 2-Up, and Sample Set. Changing these settings within the print drivers changes the default settings for all applications.



The Earth Smart feature lets users select eco-friendly settings and informs them on how much paper is saved by choosing such features. (U.S. model pictured)

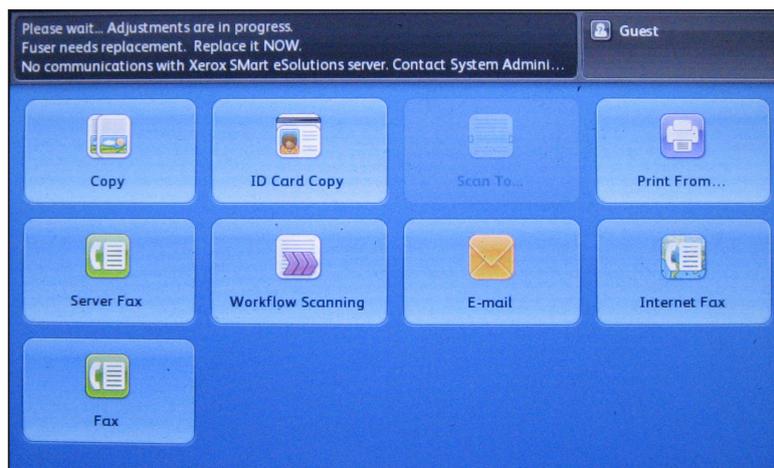
- Toner-save mode is available, but only from the optional PostScript driver.
- Printing onto tab extensions is not supported, whereas this capability is supported by some competitors.
- + With the device's print around capability, a job will be held if resources required for that job are not available, allowing the next job to run.
- While envelopes are supported through the bypass tray, the drivers do not make it clear that only the bypass tray supports envelopes. However, with the optional envelope tray configured, this should not be an issue.
- The driver does not support carbon copy mode, blank page removal, overlay, poster mode, or print text as black, whereas the drivers of some competing engines support some—and in some cases, all—of these capabilities.
- It takes five clicks to program a multiple-set print job fed from the second drawer with stapling and duplex using the PCL and PostScript drivers, which is competitive with other engines tested.
- + The Xerox Global Print driver allows users to print to different Xerox devices without installing multiple drivers, and the Mobile Express Print driver is convenient for users in offsite locations because it detects devices available for printing. It enables users to print to any networked wired or wireless output destination.



## SCAN FUNCTIONS

GOOD

- The WorkCentre 7220 features standard scanning speeds of up to 55 ipm in both colour and black. File formats supported include PDF, PDF/A, searchable PDF, XPS, TIFF and JPEG (in colour mode only). Scan resolutions include 72, 100, 150, 200, 300, 400 and 600 dpi. TWAIN scanning and LDAP are standard.
- + Tested scan speeds are faster than average in both simplex and duplex modes.
- Scan destinations include email, SMB, FTP, USB, secure FTP and HTTPS, and device-resident mailbox. Additionally, authenticated users can create a “scan to home” shortcut to send directly to a specified destination.
- Unlike with some competitive machines, in which scan functions are all programmable from one central location at the control panel, users must toggle through several screens and menus in order to program different scan to functions, including email, fax, Internet fax and workflow scanning.

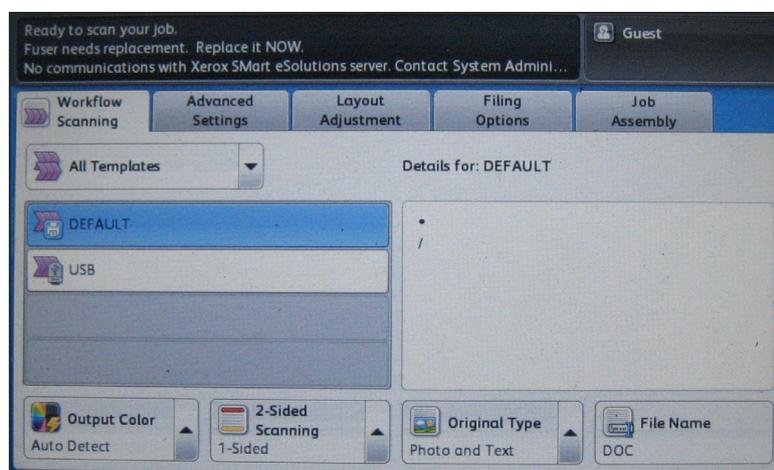


Users must toggle through several screens and menus in order to program different scan functions, including email, fax, internet fax and workflow scanning. (U.S. model pictured)

- While users cannot scan to several destination types in a single session out of the box, Xerox’s Smart Document Travel, a server-based document routing software, and ConnectKey app enables users to scan to multiple destinations in a single scan.
- + The integrated address book includes a “Scan To” destination for each contact, which can be configured via the web utility to scan documents to FTP, SFTP, SMB or NetWare destinations. Via the “Scan to” button on the control panel, users can search for and select a desired contact and send files directly to their designated folder.
- + The Single Touch Scan feature allows users to create a dedicated scan button directly

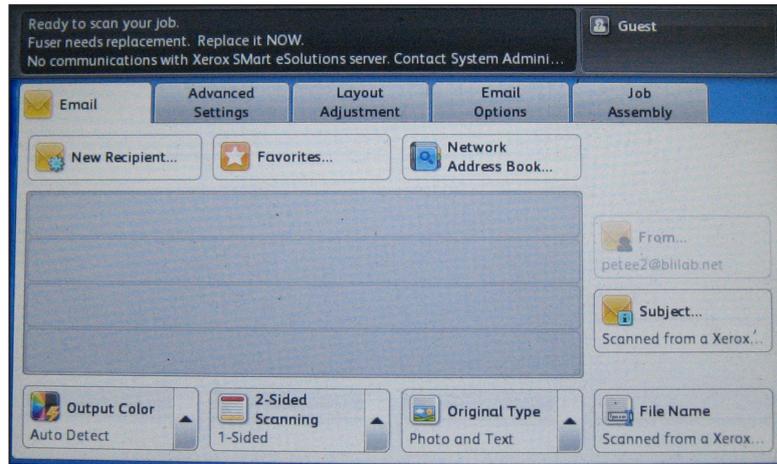
on the Services Home screen with a customized scan workflow for fast document distribution and archiving. These dedicated buttons can be branded with a company logo, service name and colour scheme, and administrators can control who has access to it and manage permissions. Up to 10 custom buttons can be added to the Services Home screen.

- + Searchable PDF and XPS file formats are standard and supported in multiple languages, which is rare.
- Selecting searchable PDF requires users to switch from Image Only to Searchable PDF from a pull-down menu located on a sub-menu within the scan screen. It would be preferable to have searchable PDF as a standalone selection at the control panel.
- + The unit's on-screen QWERTY keyboard features large keys that are clearly delineated from each other and competitively spaced. The keyboard also features dedicated "@" and "." keys for use in email addresses on the main screen. Both carbon copy and blind carbon copy features are supported.
- + The device supports an optional keyboard to simplify the process of entering email destinations.
- The machine supports the storage of one short message and one pre-populated subject line.
- Neither a scan preview nor thumbnail preview is available at the control panel for any scan functions.
- + Duplex scanning is selectable from the main screen of the scan menu.
- + Background suppression mode and blank page removal are both supported.
- Colour drop-out mode is not supported.
- + Job build is supported for mixing of pages from the document feeder and platen, and supports mixplex (simplex/duplex) and image quality changes between batches.



Workflow Scanning Screen (U.S. model pictured)

- + Users can print from PDF, JPEG, TIFF, and XPS files from a USB memory drive. The USB port is conveniently located at the front of the device. The menu is automatically populated when a USB device is inserted into the unit. In contrast, with some other systems, users must navigate through several menus to locate the USB printing capabilities. Users can browse into subfolders, and can apply duplex settings, finishing capabilities, and specify quantity of sets.
- + Print from USB also supports the ability to program ahead and print around.
- The USB print capability does not support the ability to print multiple files at the same time.
- According to Xerox, with the latest version of the ConnectKey platform (version 1.5), which was not tested with this device, users can change colour jobs to black and white when printing from USB.
- Three clicks are required to release a single print from USB job at the main folder level with default settings.
- + Users can also scan to USB in PDF, PDF/A, searchable PDF, XPS, TIFF and JPEG (colour mode only) file formats. As with print from USB, the menu is automatically populated when a USB is inserted into the device. Scan to USB supports the ability to name files, as well as blank page removal and job build. Also supported is the ability to choose colour or black mode, duplex or simplex scanning, original type and other image options for the scan to USB file.
- As with print from USB, a preview for scan files on USB storage is not available.
- Unlike with print from USB, users cannot browse into subfolders via scan to USB.
- Encryption for scan to USB files is not supported.
- + The device supports nine LDAP servers, with one acting as the default server, enabling users to access destinations from a server at the control panel. Multiple destinations can be selected from an LDAP search.
- Destination addresses entered manually at the control panel can be added to the device-resident address book, but administrators must first enable this capability at the web utility.



Users can select destinations from the LDAP server or device address book, or enter them manually. (U.S. model pictured)

- + The LDAP look-up procedure was found to be very easy for users to navigate. In addition, switching to the internal public address book is very easy via the pull-down menu.
- It takes nine keystrokes to perform a scan to email job using LDAP support with a 300-dpi file when sending to one destination. Adding another destination requires two additional keystrokes.
- + Optional Scan to PC Desktop software allows users to create personalized scan menus at the device. Users can route documents to different destinations (e-mail, content management systems or desktop) simultaneously and convert documents, images and drawings into PDF files.
- + Both default and compressed scan file sizes are considerably smaller than the average of models tested to date in both black and colour.



## IMAGE QUALITY

### Colour Print/Copy Quality

GOOD

- In print mode, technicians noted that colour in printed business graphics and photographic images appeared oversaturated. Business graphics were competitive in all other test areas.
- Flesh tones were heavily yellowish in printed photographic image output. Halftone range was visible from 10% to 90% of the measured range, lacking visibility in the 90% to 100% level.

- + However, all other aspects of printed photographic image output in print mode were above average, including sharpness of fine details and smoothness.
- In copy mode, colour business graphics displayed average production of light backgrounds and colours that were flat. Solid colours were consistent, while sharpness of fine details and production of pastel shades were competitive. Photographic images produced in copy mode had heavily reddish flesh tones and an average amount of graininess. Halftone range was average, visible from 20% (15% is the minimum level on the original) to 90%.
- The unit's colour gamut exhibited a decrease in volume in the cyan and yellow regions of the spectrum at 15,000 impressions, while at the 30,000- and 60,000- impression marks there was a noticeable volume decrease in the green and yellow regions.

### Black Print/Copy Quality

VERY GOOD/GOOD

- + Black print quality was excellent or very good in all areas of testing. Text was dark, sharp, and fully formed, with competitive smoothness of curves and serifs. In addition to above average production of closely spaced fine lines, there was no stair-stepping of diagonal lines, lines were of a consistent thickness and circle formation was average. Halftones were visible and distinct over most of the measured range—levels 90% to 100% lacked clear separation—with no graininess or banding. Solids were dark and displayed an average consistency of coverage.
- Text was fair in copy mode, displaying below average sharpness and smoothness of curves and serifs, and average darkness and character formation. Line art was competitive in all tested areas. Additionally, no overspray or haloing was detected in text or line art. Halftones were visible with distinct transitions over most of the measured range—levels 91% to 95% lacked separation—and with no graininess or banding. Additionally, solids were dark and coverage was consistent.



## PRODUCTIVITY

### Colour Print/Copy Productivity

GOOD

- While the WorkCentre 7220's tested speed when printing BLI's job stream, which simulates typical traffic in a busy workgroup, from both the PCL and PostScript drivers was competitive, the device operated at a lower percentage of its rated speed than most other devices in its group.
- When printing sets, the device's productivity was below average in both simplex and duplex modes.

- The device's tested speed when copying sets was competitive with the group in all modes tested.
- The device's efficiency when copying sets was the highest of the group in simplex mode and was competitive in 1:2 and 2:2 modes.
- The device's first-copy times were competitive with the group from the platen, but below average from the document feeder.

**Black Print/Copy Productivity**

GOOD

- The WorkCentre 7220's productivity when printing BLI's job stream from the PCL and PostScript drivers was competitive with the group.
- The device's tested speeds when printing sets was competitive with the group in both simplex and duplex modes.
- Tested efficiency when printing sets was competitive with the group in duplex mode, but below average in simplex mode.
- While the device's tested speed when copying sets was competitive with the group in all modes tested, the device operated at a lower percentage of its rated speed than most competing models in 1:1 and 1:2 modes. Efficiency was competitive in 2:2 mode.
- The device's first-copy times were competitive with the group from the platen, but below average from the document feeder.



**EASE OF USE**

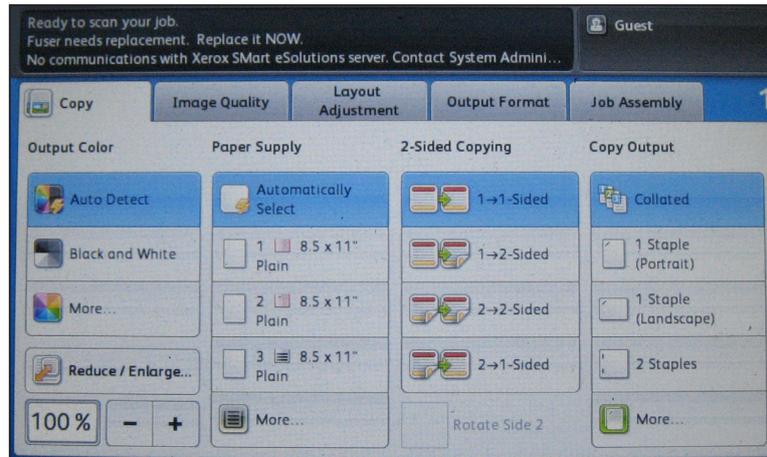
VERY GOOD

- + The control panel features a full-colour touch-screen LCD and a menu system with tab browsing that is logically organised overall and offers above average overall ease of use.
- While adjusting the display contrast requires users to navigate through Machine Status to the Tools menu, the display is bright and clear overall.
- The control panel does not move or tilt and text cannot be enlarged.
- + All available control panel functions, including Copy, ID Card Copy, Print From, Email and Workflow Scanning are accessible via the Services Home hard key.



Control Panel (U.S. model pictured)

- When the machine is being powered up from a cold start there is no access to features for long periods of time. Some competing machines allow users to access the scan, fax or copy reserve menus during this time.
- Some delays have been experienced at the UI with the stopwatch shown on screen. Delay times varied from two to 10 seconds. BLI technicians observed that responsiveness is slow at first, but gradually improves as users make more selections.
- However, according to Xerox, slowdowns have been eliminated with the latest version of the ConnectKey platform (version 1.5), which was not tested with this device.
- A dedicated Help hard key includes an index of features that, when clicked on, explain to users the capabilities relating to that particular feature, but it is not dynamic in terms of bringing up specific information related to the current selection users are programming.
- + Administrators can add an Online Support button to the Services home screen and to the print driver, which links to the full Xerox Online Support database, and includes preset help topics and how-to guides, and the ability to search by keyword.
- + The device also features the Maintenance Assistant, which is accessed via the Machine Status button, and enables users to send diagnostic information directly to Xerox to help support staff resolve problems.
- + The Copy screen is similar to that of its predecessors, with most of the features required for a typical copy job programmable from the first screen, including output colour, paper selection, duplexing, reduction/enlargement, sorting and finishing options.



WorkCentre 7220 Copy Screen (U.S. model pictured)

- + The amount, size and type of paper in each drawer is graphically indicated on the first screen as well. Thus, users know how much paper is in the selected drawer and paper type without ever having to leave the first screen. Additional details on paper sources are available when users select the More touch key under Paper Supply, as a gauge shows the percentage of remaining paper.
- Save Current Settings, selectable via the Job Assembly tab, allows users to save the settings for frequently used jobs for retrieval at a later time. Up to 50 retrieve settings are available, also within the Job Assembly tab. Some competing models allow save current settings capability to be programmable, and accessible for selection, from all of the tabs, which is an added convenience.
- While some competing engines offer more advanced control panel customization, such as customizable copy screens, administrators can choose the default screens that appear when a user selects the home and job status hard key. Administrators can also select which services appear on the home screen and populate the screen with personalized one-touch workflow templates.
- + The Image Quality tab offers an array of features for adjusting the image quality of copy jobs, and was found to offer more robust capabilities than that of the majority of competing machines. With Original Type, scanned output quality is automatically adjusted for optimal output based on the type of originals. Users can select content type (photo and text, newspaper/magazine, for example), as well as how the original was produced (printed, photocopied, photograph, inkjet, solid ink). The Colour Presets key offers preset colour options to automatically produce output with desired colour effects, such as lively, bright, warm and cool. Users can also lighten or darken at five different increments, and adjust the sharpness and saturation at five different increments. Users can either tap or scroll through the gauges to see the preferred level.
- + Sample Job, selectable from the Job Assembly tab, allows a user to print out the first set of a multi-set job once it has been programmed to ensure that the settings are correct before outputting the job in its entirety, though BLI would recommend moving the Sample Set capability to a more convenient location, such as the first screen, or as a hard key on the panel.

- + Via the Job Assembly tab, the Build Job capability was found to be very easy to program. Users can divide a copy job into numerous segments, apply unique settings to each, including duplex, finishing and various paper sources, collate and print all segments as a single job.
- + Via the Output Format tab, user-defined annotations enable users to add information such as Bates Stamping, date, page number and comments to copied sets. Programming any of these features is highly intuitive; up to eight prefix storage slots are available for Bates Stamping and comments. In addition, users can choose any of six locations on the document for the details to be viewed (top and bottom left, middle, or right).
- During testing, BLI technicians found the mailbox function confusing to operate at the control panel. For example, jobs from the web utility and print drivers are stored within the Saved Jobs key, while scan jobs are stored using the Mailbox key, both of which are sub-selections under the Print From button. It would be preferable for all jobs to be accessible using a single button, which would eliminate any confusion as to determining where stored jobs can be retrieved.
- The mailbox function does not support the storage of copy or scan to email jobs.
- Users cannot preview pages of documents stored in mailboxes, and cannot delete or modify pages. An index search to easily locate an individual's user box is also unavailable.
- + The job queue is accessed via the Job Status key. Copy, print and scan jobs are maintained in a single queue. Details available within the job list include user name/ID, file name for print job, date, time job submitted, time job completed, incomplete jobs, and the application name for a print job. Both print and copy jobs can be moved via the Promote key.
- Print and copy jobs in the queue cannot be modified.
- While information on the number of originals in a copy job, number of output pages in copy and print jobs, the number of sets programmed in a copy job, and the counting of pages and sets when copying are provided on the main screen of the control panel, the information is not provided within the job list screen. It would be preferable to have all the information provided in one location, versus having to toggle back and forth between the main screen and the job list screen.
- Information provided on print jobs in the job list is rather limited, lacking the number of originals, number of sets programmed, number of sets completed, the counting of pages and sets, and the time until print jobs are completed.
- + Details on consumables, including toner, drum cartridge, waste toner container, fuser, transfer belt and transfer roll status, are provided via the Machine Status hard key. The Supplies tab displays the percentage of toner and drum remaining for each colour in 1-percent increments, going so far as to estimate the pages and days remaining before each of the drums needs to be replaced. Waste toner is indicated as ok or replace.
- + This information can also be printed out in a more comprehensive form than is available on screen. For example, the printout provides a date on which the item was last installed, as well as the reorder numbers for consumables and routine maintenance items.

- The Billing Information tab provides users with the electronic meter counter, including the device serial number, the current meter reading for colour and black impressions for print and copy, scans and Internet fax pages.
- + Loading paper is simple for the user-adjustable drawers, as each adjustable drawer features a sliding length and width guide and no corner separators or other restrictions. The drawers also feature automatic paper sensors.



Loading paper is simple. (U.S. model pictured)

- The user must, however, confirm the paper size and type via the control panel. This is typically one extra click at the control panel to confirm the size and type; but if paper type is changed, such as from plain white paper to coloured paper, control panel programming is available for special size and type. This information will then also be available via the bidirectional drivers. While the pop-up confirmation can be turned off, users must then remember to manually change the paper size, type and colour loaded in the drawer or it will inaccurately be reflected at the driver.
- + When originals are placed in the document feeder while the device is in default mode, the menu automatically switches from the All Services screen to the copy menu. This capability can also be changed to have the scan menu, or other menu of the administrator's preference, pop up when originals are placed in the feeder.
- + When media is loaded into the bypass tray, the user is presented with a screen to choose the media type. This can be a very useful feature, as it accepts many weights and types of media not supported from the drawers. Presenting this screen eliminates several keystrokes that would typically be required to locate a paper type menu buried within the control panel.
- In copy mode, there is no finisher tray selection on the copy output menu. Output is delivered to the default output tray unless the default output tray does not support the job attributes. It would be preferable to have the ability to select a different tray from the control panel for copy jobs.
- Access to misfeed areas was found to be competitive with similar models tested, and misfeed areas are well labelled and clearly identified. Misfeeds are accessed from the front and side, and there is no need to move the finisher away, keeping the device foot-

print at a manageable size. In addition, the drum is not exposed in any of the misfeed areas, and consumables do not need to be removed.



Access to misfeed areas is competitive. (U.S. model pictured)

- + Step-by-step, dynamic instructions featuring text, graphics and animation on how to remove misfeeds are provided on the control panel screen.
- + Though toner cannot be loaded on the fly, procedures for replacing toner are simple. There are no latches, as users can simply pull out the cartridges from the front of the machine. On-screen graphical and text instructions for replacing toner are also provided.



Users simply pull out the cartridges from the front of the machine to be replaced.

- + Procedures for replacing the drums, fuser, transfer belt cleaner and waste toner are simple.

**FEATURE SET**

VERY GOOD

- The device's non-upgradeable 2 GB of RAM and 160-GB hard drive are competitive with the group.
- + The WorkCentre 7220T, which is the tested configuration, comes with a standard, non-upgradeable paper capacity of 2,130 sheets (including the bypass), which is the highest of the group.
- Unlike with the majority of competitive devices, the WorkCentre 7220T's standard paper capacity is not upgradable. However, because it's so high, it is still competitive when compared with the maximum paper capacities of models in this range. The WorkCentre 7220 is the lower-capacity configuration that has a non-upgradeable paper capacity of 1,090 sheets, including the bypass, and is priced lower than the T configuration.
- The capacity of the 50-sheet bypass is lower than average.
- Paper weights supported from the drawers and bypass, at 256 gsm and 216 gsm, respectively are competitive with the group.
- + The standard RADF has a capacity of 110 sheets, which is the highest of the group.
- + Users can select multi-copy runs up to 9,999; 999 is the maximum for many competitors.
- Up to 1,000 copy control codes are available, which is competitive with the group.
- + Additional features include a zoom range of 25% to 400% in 1% increments, ID card copy, poster mode, image overlay, annotation and Bates stamping, and mixed size originals.
- + Available finishers include the Office Finisher LX, which offers a 2,000-sheet stacker, along with multi-position stapling of up to 50 sheets, optional hole punch and an optional booklet maker with saddle-stitch capabilities. The Integrated Office Finisher features a 500-sheet stacker, and single-position stapling of up to 50 sheets.
- A tray for feeding envelopes is also available, as is a convenience stapler.
- + Standard EIP architecture allows the device to integrate with third-party software solutions that can help control costs, simplify administration, heighten security and ease burdens associated with document capture, routing and management. Recent optional EIP enhancements include Xerox ConnectKey for SharePoint, in order to scan files directly into SharePoint, and ConnectKey for eCopy Cloud, for scanning to cloud-based repositories such as Google Docs, Salesforce.com, Office 365, Dropbox and various ConnectKey apps.
- + The device is Mopria-certified and supports mobile printing via Apple AirPrint and Xerox PrintBack, as well as optional Xerox Mobile Print Cloud and Xerox Mobile Print Solution.

- + Standard McAfee embedded technology uses whitelisting technology, which prevents any unauthorised file or function to read, write or change something on the operating system. Xerox pre-defines the set of files that the operating system is allowed to run. If an unauthorised file action is detected, the McAfee embedded agent stops the action and sends alerts via email, or to McAfee’s ePolicy Orchestrator security console, or via XDM.
- + The optional McAfee Integrity control will prevent an “.exe” file from running on the operating system as well. This chargeable upgrade prevents new files from being executed from any location, and prevents writing of protected executable files.
- + The device’s integration with Cisco TrustSec provisions users to only see certain parts of the network.
- Network and Internet fax functionality are standard.
- The 33.6-Kbps fax option, available in one- and two-line varieties, features 200 broadcast groups and 400 broadcast destinations, as well as LAN faxing for sending faxes from desktop applications. In addition, fax forwarding allows users to forward incoming faxes to an e-mail address or a document repository as secure, searchable PDFs.



## SECURITY FEATURES

EXCELLENT

AUTHENTICATION	
Network user authentication at control panel	Standard
Windows	Yes
Novell NetWare NDPS	Yes
LDAP	Yes
Kerberos	Yes
802.1x wireless	Yes
SMTP	Yes
POP before SMTP	Yes
Biometric	No
ID Card	Optional
HID	Yes
Common Access	Yes
Other	Mifare; Indala; Magnetic Stripe Readers; Visual Barcode Reader, Elatec, .Net
Registered department or user ID codes	Standard
Number	Xerox Standard Accounting: 2,500 user IDs and 500 account IDs Network Accounting: 10,000 user IDs and 60,000 account IDs
ACCESS CONTROL	
Restrict colour	Yes, embedded with device and print drivers

Control panel lock/disablement	Standard
Restrict access to address book	Standard
Restrict USB port	Yes
Restrict direct printing	Standard – see User Permissions
Restrict other	May restrict printing by time of day, colour, duplex/simplex, paper trays, type of job (i.e. Secure) and Windows application (ie. Disallow printing Microsoft Outlook jobs in colour)
<b>HARD DRIVE</b>	
Encryption	Standard
Maximum level	256-bit AES
Overwrite	Standard
Method	Immediate after each job or On Demand or Scheduled
Maximum number after a job	3 per DoD pattern
Maximum number at end of lease	3 per DoD pattern
Lock	No
Removable	No (not needed with Immediate Overwrite after each job)
Password-protected mailboxes	Standard
Data auto-deletion in mailboxes	Standard
<b>JOB TRACKING</b>	
Job logs	Standard
Digital signature	Standard
Verify document came from device	No
Verify document came from specific user	Yes
<b>JOB PROTECTION</b>	
Encrypted secure print	Yes, via IPSec
Secure print	Yes – both PIN choice and without PIN using all control panel authentication methods
Encrypted scanning	No
Maximum level	NA
For scan to USB	No
Unauthorised scan/copy protection block (watermark)	Standard
Compatible with same-brand devices	Yes
Compatible with third-party devices	Yes
<b>NETWORK SECURITY/PROTOCOLS</b>	
Protocol disablement	Standard, used open ports displayed in McAfee ePO also
Port disablement	Standard
IP address filtering	Standard
MAC address filtering	Standard
HTTPS	Standard
Self-signed certificate	Yes
Certificate signing request	Yes
IPsec	Standard
IPv6	Standard

Secure Sockets Layer (SSL)	Standard
S/MIME encryption	Standard
SNMPv3 support	Standard
Transport Layer Security (TLS)	Standard
Trusted Platform Module (TPM)	No
<b>CERTIFICATIONS</b>	
Common Criteria	Yes
EAL level	2+
Capabilities certified	Entire device
FIPS 140-2	Yes
Level	2
IEEE 2600	Yes
<b>OTHER</b>	
Administrator password length	Up to 12 alpha/numeric characters
Password-protected web server	Yes
Additional features	McAfee Embedded Control with whitelisting technology, optional McAfee Integrity Control; Cisco TrustSec integration with >100 Xerox devices natively profiled
Third-party features	See above

INA: The vendor declined to provide this information

NA: Not applicable



## ACCESSIBILITY FEATURES

Accessibility handle	No
Braille label kit	No
Enlarged display mode	No
Remote operator software	Yes
Tilting control panel	No
Voice guidance (audible instructions)	No
Voice operation (responds to voice commands)	Yes



**ENVIRONMENTAL FEATURES**

NOT RATED

Specified capable of running 30% post-consumer recycled paper	Yes
Specified capable of running 50% post-consumer recycled paper	Yes
Specified capable of running 100% post-consumer recycled paper	Yes
Instant/Quick Fusing	No
Duplexing	Yes
Toner-save mode	Yes
Energy-save mode/modes	Yes
RoHS compliant	Yes
Percentage of this product that is made with recycled materials/parts	Less than 1 percent
Are recycled materials taken from previous devices that have been returned by your customers	No
Are recycled materials taken from post-consumer materials	No
Are recycled materials taken from pre-consumer materials	No
Are recycled materials taken from bio-based materials	No
Product designed for recycling (easily disassembled, no binding agents)	Yes
Hardware remanufacturing program for this product	No
Toner cartridge recycling program for this product	Yes
Pre-paid label for return of toner cartridges/bottles for this unit	Yes
Toner recycling system	No
Ability to program features such as duplexing and auto shut-off over entire fleet	Yes
What tool can be used to do this?	Earth Smart print driver settings can be set as default from the Global Print Driver. User permissions enables green print feature restrictions by applications, users and role
Green packaging materials for the product	Yes
Green packaging materials for its consumables	Yes
Packaging materials used	INA
Eco-Label Certifications	
ENERGY STAR	Yes
Other	NA
Tested energy consumption levels of the device (watts):	
Ready/Idle	118
Energy-save	66
Sleep mode	4.4
During Printing	370
How fast can this product be programmed to go into the following modes:	
Ready/Idle	Immediately after job
Energy-save	1 minute
Sleep mode	1 minute
Can the above settings be programmed by a walkup user	No
First-print time after being in sleep mode (seconds)	16.1 seconds

Emissions output from this device for the following substances (mg/h):	
Ozone	B/W mode: <0.3 Colour mode: <0.3
Styrene	B/W mode: 0.019 Colour mode: 0.021
Benzene	B/W mode: 0.0028 Colour mode: 0.005
TVOC	B/W mode: .83 Colour mode: 1.1
Dust	B/W mode: <0.35 Colour mode: <0.3
Other	INA

INA: The vendor declined to provide this information

NA: Information not available



## TONER YIELD

GOOD

- Black and cyan tested yields fell short of their rated yields. However, tested magenta and yellow yields exceeded their rated yields by more than 1,700 and 7,000 impressions, respectively.
- While tested cyan and magenta yields were lower than the average of the group, tested black yield was competitive and yellow yield was considerably higher than average.

## SUPPORTING TEST DATA

**Test Environment:** This product was tested in BLI's 929-square-metre U.S. test lab, in an environment monitored by an Extech RH S20 Digital RH/Temperature Recorder and Honeywell Model 61 Seven-Day Temperature/Relative Humidity Chart Recorder. All products lab tested by BLI are powered by dedicated circuits that are protected by ESP (Electronic Systems Protection, Inc.) surge protectors to prevent transient power and communication disturbances from affecting equipment under test.

**Test Equipment:** BLI's dedicated test network, consisting of Windows 2003 and Microsoft Exchange servers, Windows 7 and XP workstations, 10BaseT/100BaseTX network switches and CAT5 cabling.

**Test Duration:** Products are tested for two months, five weeks of which consists of a durability test during which the product is run at its manufacturer-rated maximum monthly duty cycle, with 25 percent of the test volume comprised of copy jobs and 75 percent comprised of print jobs. BLI's daily test usage is designed to replicate real-world use over an eight-hour workday, and as such includes a mix of various-size documents, simplex and duplex modes, and a mix of short, moderate and long run lengths, and on/off cycles, throughout the day. The durability evaluation also includes testing of the document feeder/scanner in simplex and duplex modes for an additional 20 percent of the monthly maximum volume, evenly divided over the course of the test. Imaging media includes virgin multi-use paper. Recycled multi-use paper comprised of 30%, 50% and 100% post-consumer waste is also tested for up to 10% usage of each of the recycled media types.

**Tested Configuration:** Lab tested the WorkCentre 7225T base model with Office Finisher LX and 2/3 hole punching, and PostScript 3; field tested the WorkCentre 7220T base model.

**Test Procedures:** The test methods and procedures employed by BLI in its lab testing include BLI's proprietary procedures and industry-standard test procedures, including a BLI-developed variation of ASTM's 1318-90 Test Method for Determination of Productivity using Electrostatic Copy Machines. In addition to a number of proprietary test documents, BLI uses an industry-standard KATUN test original for evaluating black image quality and test suites from Quality Logic to evaluate applications compatibility. Along with a visual observation, colour print quality is tested using the ANSI standard IT8 Colour Test Target, which is read using the Minolta CM503i Spectrophotometer, and samples are analysed using the CIE XY Chromaticity Diagram. Additionally, density of black and colour output is measured using an X-Rite 428 Densitometer. Georgia-Pacific Spectrum Multi-Use Paper is used in the tests, 10 percent of which is recycled paper containing 30 percent post-consumer content. Image quality is tested using Georgia-Pacific Printing Paper. Units are tested for compatibility on Windows 7 with Microsoft Office Suite 2010, as well as Adobe Acrobat Reader 10.0.

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## RELIABILITY

Test Duration	60,000 impressions and 12,000 scans
Service Calls/PMs	0/0
Misfeeds	1
Misfeed Rate	NA



## IMAGE QUALITY

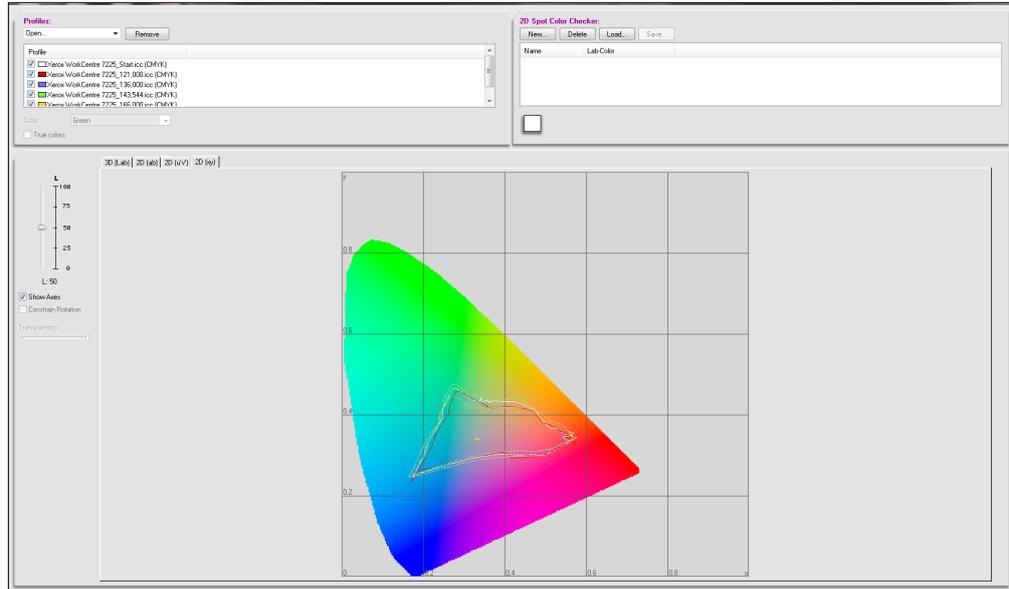
### Print Quality

Text	Very Good
Line Art	Very Good
Halftone Pattern	Excellent
Halftone Range	Very Good
Solids	Very Good
Colour Business Graphics	Good
Colour Photographic Images	Very Good
Colour Shift	Good

### Colour Shift Readings

Test Point	Delta E	BLI Rating
15,000	3.23	Very Good
30,000	6.38	Good
47,544	4.58	Good
60,000	5.05	Good

Delta E is a colorimetric measurement assessing the distance between colours. The readings above reflect the average shift of the colour gamut from the previous measured point.



The unit's colour gamut did not remain consistent over the course of testing, exhibiting a decrease in volume in the cyan and yellow regions of the spectrum at 16,000 impressions, while at the 31,000 and 60,000 impression marks there was a noticeable volume decrease in the green and yellow regions.

### Colour Density Readings

Colour	Yellow	Magenta	Cyan
Print Density	0.99	1.48	1.51
Competitive Average	0.90	1.18	1.09

Density of a printed image with blocks of all solid colours (based on the average of two readings for each colour).

### Print Density Range

Xerox WorkCentre 7220	1.57 to 1.65
Density for devices in this class tested to date	1.23 to 1.82

Measurements are based on four readings corresponding to four different solid black locations on output. The higher the density reading, the darker the image.

### Print Density Average

Xerox WorkCentre 7220	1.61
Average density for devices in this class tested to date	1.48

The higher the density reading, the darker the image.

### Halftone range:

Halftone output was visible from the 10 percent to 100 percent dot-fill levels, with distinct transitions between all levels.

### Copy Quality

Text	Fair
Line Art	Good
Halftone Pattern	Very Good
Halftone Range	Very Good
Solids	Very Good
Colour Business Graphics	Good
Colour Photographic Images	Good

### Colour Copy Density Readings

Colour	Yellow	Magenta	Cyan
Original Density	1.07	1.43	1.52
Copy Density	0.89	1.20	1.00
Competitive Average	1.84	1.23	1.28

Density of copied image when tested in "Full Colour" copy mode using a KATUN test original containing blocks of all solid colours (based on the average of two readings for each colour).

### Colour Fidelity Readings

Colour	Yellow	Magenta	Cyan	Red	Green	Blue	Black
Fidelity	3.35	8.50	6.30	9.50	12.78	13.50	3.60
Competitive Average	5.33	6.26	5.98	8.60	9.42	14.34	3.28

Colour fidelity of a copy to its original (using a KATUN test original containing blocks of all solid colours: tested in walk-up mode using the machine default settings in "Full colour" mode and auto exposure settings); average of two readings for each colour. Measurements are taken with a Minolta CM-503i spectrophotometer. The closer the number is to 0, the closer the copy's colour fidelity is to the test original (based on the average of two readings for each colour).

### Copy Density Range

Original	1.79 to 1.79
Xerox WorkCentre 7220	1.53 to .56
Density for devices in this class tested to date	1.15 to 1.80

Measurements are based on two readings corresponding to two different solid black locations on the output. The higher the density, the darker the image.

### Copy Density Average

Xerox WorkCentre 7220	1.55
Average density for devices in this class tested to date	1.51

The higher the density reading, the darker the image.

### Visible Halftone Range

Xerox WorkCentre 7220	15% to 100%
Halftone increments on test original	15, 29, 53, 77, 83, 91, 95, 100%



## PRODUCTIVITY

### Print Productivity

#### Average Print Productivity | Competitive Average

	SPEED IN PPM		PERCENT OF RATED SPEED	
<b>AUTO COLOUR</b>				
1:1	<b>11.10</b>	17.26	<b>58.7</b>	75.7
1:2	<b>11.20</b>	15.55	<b>56.0</b>	68.1
<b>BLACK</b>				
1:1	<b>15.50</b>	18.5	<b>77.1</b>	83.1
1:2	<b>14.10</b>	16.7	<b>70.3</b>	73.0

Efficiency is tested using a 10-page full-colour document and a 10-page black document. BLI obtains the overall efficiency for each mode by averaging the efficiency ratings (derived by dividing the tested speed of the device by the rated speed and then multiplying by 100) for each run length (1, 5 and 10 sets). The unit's efficiency was tested using the PCL driver.

#### Job Stream | Competitive Average

	SPEED IN PPM		PERCENT OF RATED SPEED	
<b>PostScript</b>				
<b>AUTO COLOUR</b>	<b>10.6</b>	14.7	<b>52.8</b>	64.9
<b>BLACK</b>	<b>15.6</b>	18.1	<b>78.1</b>	79.3
<b>PCL</b>				
<b>AUTO COLOUR</b>	<b>12.5</b>	17.2	<b>62.6</b>	74.4
<b>BLACK</b>	<b>16.3</b>	19.4	<b>81.4</b>	85.7

BLI's job stream includes Word documents, Outlook e-mail messages, Excel spreadsheets, PowerPoint, HTML and Acrobat PDF files, totalled 19 pages. This test simulates the type of traffic a typical device might experience in a real-world, multi-user environment. All of the files are sent to the device as a group, at which time the stopwatch begins; timing ends when the last page of the last file exits the device. Job stream efficiency is determined by the percentage of the rated speed at which the device operates when producing real-world jobs. The closer the rate is to 100%, or if it exceeds 100%, the more efficient the device.

Tests were conducted using U.S. letter-size paper; A4 results may vary slightly.

## Copy Productivity

### Average Copy Productivity | Competitive Average

	SPEED IN PPM		PERCENT OF RATED SPEED	
<b>AUTO COLOUR</b>				
1:1	<b>17.70</b>	17.6	<b>88.2</b>	77.4
1:2	<b>12.20</b>	14.7	<b>60.8</b>	64.6
2:2	<b>12.80</b>	15.1	<b>63.9</b>	66.3
<b>BLACK</b>				
1:1	<b>15.00</b>	19.4	<b>75.0</b>	84.5
1:2	<b>12.10</b>	15.9	<b>60.1</b>	69.4
2:2	<b>15.20</b>	16.4	<b>76.1</b>	72.0

Efficiency is tested using a 10-page full-colour document and a 10-page black document. BLI obtains the overall efficiency for each mode by averaging the efficiency ratings (derived by dividing the tested speed of the device by the rated speed and then multiplying by 100) for each run length (1, 5 and 10 sets). The unit's efficiency was tested using the PCL driver.

### First-Copy Time in Seconds | Competitive Average

<b>AUTO COLOUR</b>		
Platen	<b>11.48</b>	10.70
Document Feeder	<b>14.70</b>	11.89
<b>BLACK</b>		
Platen	<b>8.59</b>	7.71
Document Feeder	<b>11.25</b>	8.86

Tests were conducted using U.S. letter-size paper; A4 results may vary slightly.



## SCAN FUNCTIONS

### Tested Scan Speed in IPM | Competitive Average

AUTO COLOUR		
1:1	<b>45.3</b>	22.2
2:2	<b>27.3</b>	14.6
BLACK		
1:1	<b>45.5</b>	31.9
2:2	<b>27.3</b>	18.4

Files are scanned at 300 dpi in PDF format. Competitive averages represent the average scan speed for devices in this speed range tested to date.

### Tested Scan File Size in KB | Competitive Average

Full Colour (default compression)	<b>180</b>	1089.4
Full Colour (compact PDF)	<b>134</b>	318.1
Black	<b>14.4</b>	266.3
Black (compact PDF)	<b>6.2</b>	47.8

Testing is conducted with single-page files scanned at 300 dpi in PDF format.



## PRINT DRIVERS

### Xerox WorkCentre 7220 Print Driver Features

Windows XP	PostScript 3	PCL 6
Auto Feature/Device Detection	Yes	Yes
Booklet Printing	Yes	Yes
Collate Sets	Yes	Yes
Consumables Gauge	Yes	Yes
Delayed Print	Yes	Yes
Max Paper Sources Per Job	5	5
Blank Page Removal	No	No
Carbon Copy Mode	No	No
Cover Mode	Yes	Yes
Exception Programming	Yes	Yes
N-up Printing	2 to 16	2 to 16
Tab Printing	No	No
Envelope Selection	Yes	Yes
Point and Click Output Source	No	No
Point and Click Paper Source	No	No
Overlay	No	No
Paper Gauge	Yes	Yes
Poster Mode	No	No
Print Text as Black	No	No
Default Duplex	No	No
Toner Save Mode	Yes	No
Print and Hold	No	No
Proof Print	Yes	Yes
Quantity Selection	Up to 9,999	Up to 9,999
Resolution Modes (dpi)	Standard High	Standard High
Save Settings	Yes	Yes
Secure Printing	Yes	Yes
Watermarks/Custom Watermarks	Yes/Yes	Yes/Yes



## TONER YIELD

### Tested Toner Yield | Competitive Average

	Black		Cyan		Magenta		Yellow	
Tested Impressions	<b>19,735</b>	20,057	<b>11,967</b>	19,965	<b>16,717</b>	18,394	<b>22,089</b>	16,842
Rated Yield	<b>22,000</b>	18,914	<b>15,000</b>	15,300	<b>15,000</b>	15,300	<b>15,000</b>	15,300

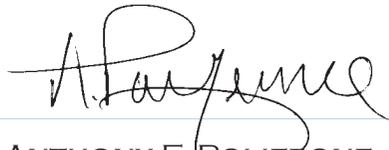
Based on an average of two cartridges per colour using BLI's toner yield test original with 5% page coverage.

# CERTIFICATE OF RELIABILITY

Awarded to

**XEROX CORPORATION**

for the performance of the  
Xerox WorkCentre 7220\*  
in BLI's in-house durability test.



ANTHONY F. POLIFRONE  
MANAGING DIRECTOR



FEBRUARY 2015

DATE

\*Reliability, scan, image quality and toner yield results are based on the performance of the Xerox WorkCentre 7225T, which uses the same engine.

This is to certify that when subjected to a 60,000-impression Buyers Lab durability test, the Xerox WorkCentre 7220 proved to be a highly reliable product.

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