

THE COLOR COPIER GUIDE

- ***Ink jet, LED & laser models***
- ***Single function & multifunction***
- ***From under \$1,000 to \$100,000+***
- ***Editor's Choice Awards***



Xerox DocuColor 250

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CHOICE
2006**

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XEROX

Xerox WorkCentre C2424 DN
Xerox WorkCentre C2424 DP
Xerox WorkCentre C2424 DX
Full-color speed: 24ppm

**EDITOR'S
CHOICE
2006**

Sum-up: Unique new solid ink multifunctionals with strong features and attractive prices.

The WorkCentre C2424 series is unique; its machines are the only multifunctionals on the market based on a solid ink engine. The engine is derived from Xerox's excellent Phaser 8400 color printer family. Solid ink technology has little to do with the more common, inexpensive thermal ink jet technology used in small- or home-office multifunctionals. Instead, solid ink printing technology competes more with laser and LED technology.

The WorkCentre C2424 series offers impressive image quality. Even the default lower-resolution setting produces pretty accurate color renderings, more than good enough for office use. Speeds are also respectable, at up to 24ppm in both in color and black-and-white.

It's important to note that the numbers don't tell the whole story — 24ppm is achieved in "fast" mode, whose resolution is 300dpi. The standard mode of 300 x 450dpi resolution produces 18ppm and offers acceptable quality. You can opt for even finer detail in the enhanced resolution of 400 x 563dpi (12ppm) or photo mode at 525 x 600dpi (7ppm). These resolution modes are selected in the print dialog box for print jobs and on the control panel for copies. Note that the models use a powerful 500MHz processor, ensuring that they will handle color pages with ease.

There are three models in the WorkCentre C2424 family. The C2424 DN comes standard with 100-sheet and 525-sheet paper trays and 256MB of memory. Up to two additional 525-sheet paper trays are available at \$399 each. Scanning is at 300dpi.

The C2424 DP is the same as the C2424 DN, except that it adds a 525-sheet paper tray and is able to scan at 600dpi. It has more memory as well, at 512MB. The C2424 DX is identical to the C2424 DP, but adds extra scanning software for OCR and file management. These include a five-user license for ScanSoft's OmniPage Pro, PaperPort Pro, and Image Retriever, all of which have been customized for the Xerox environment. Both the C2424 DP and C2424 DX offer an additional 525-sheet paper tray for \$399.

Amazingly, all three machines come standard with automatic duplex and a 50-sheet document feeder. Even better, the document feeder is the single-pass variety, meaning that it uses a dual-head scanner to scan both sides of an original in a single pass, without any reversing of pages. This type of document feeder is typically found on far more expensive models.

The machines' standard print function comes with support for PostScript and PCL. Scanning is fairly basic and lacks direct-to-email scanning. However, you can scan directly to computers on the network or to mailboxes. Note that a fax option is not available. All three models can be upgraded to 1GB of memory.

The WorkCentre C2424 series has a unique, easy-to-use supply system. When you replace consumables, you need only open the top cover of the machine and slide in blocks of ink that look and feel like disk-shaped

crayons. There are no cartridges to exchange.

The WorkCentre C2424 series is very reasonably priced. The C2424 DN has a street price of \$2,999, the C2424 DP goes for \$3,799, and the C2424 DX sells for \$4,399. As we went to press, Xerox was offering \$1,000 in rebates on all three machines, perhaps hinting at a future price reduction.

The WorkCentre C2424 models are based on a solid ink printer engine that has an excellent track record. Given their impressive features and design, they are sure winners and breakthrough products. They receive our Editor's Choice Award.

Xerox DocuColor 12
Full-color speed: 12.5ppm

**EDITOR'S
CHOICE
2006**

Sum-up: Venerable color model offering great image quality and features.

This 12.5ppm color machine was once part of a two-model series that included the now-discontinued Document Centre ColorSeries 50. Intended for graphics users, the DocuColor 12 is sold as a standalone model in its base configuration and offers several different external controller options, including devices from EFI, Imation, and Splash. The ColorSeries 50 was designed for office users.

These days, the DocuColor 12's specifications have trouble standing out from the crowd. But the machine has its niche in graphics environments, and few machines on the market can match its image quality and balanced collection of features.

The model is based on a 600dpi engine and offers respectable paper handling. The standard paper capacity is a respectable 2,250 sheets, and there is an optional 2,000-sheet large-capacity tray as well. The machine is noteworthy in that it comes with stackless automatic duplex standard (this type of system offers advantages over conventional stacking duplex trays, such as unlimited



Xerox WorkCentre C2424 DX — This innovative color multifunctional uses solid ink technology.

run lengths and improved paper feeding).

On the output side, Xerox offers a finisher option that has a 1,000-sheet capacity. The device offers 50-sheet multiposition stapling and has a list price of \$2,200.

The DocuColor 12 uses an imaging technology called IBT, or Intermediate Belt Transfer, which is an alternative to the traditional drum-based system used by many copiers. Previously, this technology was found mostly on work-group printers in the color laser printer market, and Xerox also used it on the now-discontinued printer-centric DocuColor 2006DCP. The benefit of this system is that it results in a very straight paper path, allowing the machine to support heavy stock of up to 140lb. index through the bypass.

Another unique aspect is that Xerox's customer-replaceable unit system is used on a color model — previously, this system was available only on its black-and-white digital models. Users are able to perform routine maintenance that ordinarily would have resulted in a service call simply by replacing a module, such as the imaging unit. The net result is increased uptime and reliability.

The DocuColor 12 is a can't-miss machine for graphic arts and print-for-pay environments, so long as they don't mind giving up some speed. It produces excellent image quality and has a decent full-color first-copy time of approximately 14 seconds. Even better, the machine is fully able to meet the stringent requirements of graphic arts users.

As is generally the case with Xerox's color copier line, the DocuColor 12 comes with a solid range of controller options to choose from. The X12e and EX12 are sourced from EFI and correspond to its X4 and Z5 models, respectively. The list price for the X12e is \$8,995, and the EX12 goes for \$19,500. Further, Xerox offers a controller sourced from Splash — it's a model called the G640 — which has a list price of \$25,000. Note that all of the DocuColor 12's optional controllers are the external variety; it does not offer an embedded controller.

The DocuColor 12 is designed for users who print complex files and are concerned about things like Pantone certification, press simulation, and variable data. It is a worthy recipient of our Editor's Choice Award.

Xerox WorkCentre M24 Color
Xerox CopyCentre C2128
Xerox WorkCentre Pro C2128
Xerox CopyCentre C2636
Xerox WorkCentre Pro C2636
Xerox CopyCentre C3545
Xerox WorkCentre Pro C3545
Xerox DocuColor 3535

Full-color speed: 13ppm, 21ppm, 26ppm & 35ppm



Sum-up: Impressive product family covering a broad range of user needs.

This color copier series is based on the same single-pass color engine, although the models run at different speeds and have different print controllers. The machines in the first generation of the platform, now all discontinued, were derived from Xerox's Phaser 7700 printer. The more recent members of the family claim their lineage from the Phaser 7750, a 35ppm color printer that was introduced in early 2004.

All of the machines use Xerox's Emulsion Aggregation (EA) toner.

The toner, which is organically grown rather than mechanically produced, offers exceptional per-page supply costs. Supplies and service will run you 1.29¢ for black pages and 8.9¢ for full-color pages on all machines except the WorkCentre M24 and the CopyCentre/WorkCentre Pro C2128. For differentiation reasons, the M24 costs 1.69¢ for black pages and 10.9¢ for full-color pages, and the C2128 models cost 1.29¢ for black pages and 9.9¢ for full-color pages.

Image quality produced by the toner is also quite good, although there is some variability from machine to machine within the family. On the WorkCentre M24, for example, the finish on photos and halftones is not quite as rich as that produced by the DocuColor 3535. This can be explained by differences in the print controllers used. Note that the DocuColor 12 has a more glossy look than even the DocuColor 3535, since it uses a different toner and development system. The machines' ability to reproduce fine lines and detailed graphics is excellent.

Within the product series, there are really two different families. The CopyCentre, WorkCentre, and WorkCentre Pro models are in one camp, and the DocuColor 3535 is in another.

CopyCentre, WorkCentre, and WorkCentre Pro: This product family is designed with offices and mainstream color users in mind, and the machines offer some of the most attractive color pricing in the market. The models are identical except for speed, minor differences in paper-handling accessories and specifications, and print controllers.



Xerox WorkCentre Pro C3545 — This Editor's Choice model offers a finisher with booklet maker and saddlestitcher.

The WorkCentre M24 produces full-color pages at 13ppm and black pages at 24ppm. It is the oldest member in this particular branch of the family tree; it was originally introduced in 2003.

Xerox introduced the remaining six models in late 2004, and they are the most current versions of the product platform. The machines replace the now-discontinued CopyCentre C32 Color, WorkCentre Pro 32 Color, CopyCentre C40 Color, and WorkCentre Pro 40 in the product line.

The newer product series includes the 21ppm in color and 28ppm in black-and-white CopyCentre C2128 and WorkCentre Pro C2128, the 26ppm in color and 36ppm in black-and-white CopyCentre C2636 and WorkCentre Pro C2636, and the 35ppm in color and 45ppm in black-and-white CopyCentre C3545 and WorkCentre Pro C3545. The series features a number of enhancements, including more aggressive pricing, faster color speeds, and support for optional faxing. Their print controller has also been enhanced. But perhaps the biggest improvement is the addition of two new finisher options (more on this later).

All of the models come standard with a 520-sheet paper tray, automatic duplex, and a 100-sheet bypass. A three-tray option based on 520-sheet paper trays is available, as is a multi-tray option with a 2,520-sheet capacity. On all models except the WorkCentre M24, you can also get a 520-sheet paper-tray option. Note that on the three WorkCentre Pro machines, a 50-sheet document feeder is standard; the other models have this as an option.

Output accessories on the WorkCentre M24 are more basic than on the other members of the family. The only option is a finisher with a 1,000-sheet capacity and 50-sheet multiposition stapling. Compared with models from other vendors, this is a bit limited. Many of the latest machines also include optional finishers with booklet making and saddlestitching.

In one of the big improvements on the models, the machines have an expanded list of output devices. They offer the same basic finisher as the WorkCentre M24 and add two higher-end devices. There is an optional finisher with a 3,500-sheet capacity that features 50-sheet multiposition stapling and 2/3-hole punch, and a more advanced finisher that comes with a 2,000-sheet capacity, 50-sheet multiposition stapling, 2/3-hole punch, and a booklet maker with saddlestitcher. The latter option makes this color copier family Xerox's first to offer booklet making.

Along with engine speed, print controllers are the most important differentiator in this product family. The WorkCentre M24 comes standard with a print controller sourced from Fuji Xerox. It is a basic controller that enables the machine to print at 1,200dpi resolution. It supports PCL 5e and PCL 6 and offers Adobe PostScript 3 as a \$1,200 option.

Interestingly, the WorkCentre M24 offers scanning and scan-to-email as standard features, although the scanning function is not as sophisticated as the optional scanning found on the other models in the family. The model also offers an optional fax function, which is based on a 33,600bps modem with JBIG compression. The option lists for \$1,599, and you can add up to two additional fax lines for a total of three lines. The second fax line goes for \$970 and the third lists for \$800.

The three CopyCentre models have optional print controllers, and the three WorkCentre Pro versions have the controllers as standard equipment. The controller, which is an enhanced version of the one offered on the C32 Color and C40 Color, comes from Xerox. In fact, it is very similar to the controller the company offers on its black-and-white office models. Called SMart Network Controller, it has a faster processor (733MHz versus 433MHz) than the version offered on the black-and-white models, and it has more memory. Note that

while it comes with PCL 5c and PostScript 3, the PostScript is not sourced from Adobe.

Because these models use Xerox's office controller, they get the benefit of its strong print performance and CentreWare network printing software. Further, the full range of Xerox's advanced scanning options is available as well.

In yet another enhancement on the series, optional fax is now available.

DocuColor 3535: This color model fits into the midrange level of the color copier market. It has a tougher mission than its office-oriented siblings — it is intended for graphic arts users, print-for-pay businesses, and central reprographic departments (CRDs).

The DocuColor 3535 has a lot in common with the other members of this product family. While its color speed is faster than most of them, at 35ppm, it uses the same basic paper handling.

The machine comes standard with a 520-sheet paper tray, automatic duplex, and a 95-sheet bypass, and it offers a three-tray option based on 520-sheet paper trays and a dual-tray option based on 520-sheet and 2,000-sheet paper trays. Like the three WorkCentre Pro machines, the DocuColor 3535 comes standard with a 50-sheet document feeder.

As with the WorkCentre M24, the list of output accessories is quite short. The only option is a finisher with a 1,000-sheet capacity and 50-sheet multiposition stapling. The lack of an optional finisher with booklet making and saddlestitching is a more glaring omission at this level of the market than it is for the WorkCentre M24.

The DocuColor 3535 offers a choice between four different print controllers, and you are required to purchase one. When the machine was first released, it came standard with an embedded controller from EFI, but when Xerox added three additional controller options the company had to debundle it.

Xerox calls its two EFI controllers the "Fiery controller for the DocuColor 3535" and Fiery EX3535. List prices are \$4,995 and \$18,500, respectively. The devices roughly correspond to EFI's Fiery X3e+ and Fiery S300.

The other two controllers are the Creo Spire CXP3535e and Splash G3535. The Creo controller lists for \$21,000, and the Splash goes for \$25,000. The G3535 is roughly equivalent to the Splash G640 that's offered on the DocuColor 12.

Conclusion: This product family features an impressive level of speed and affordability. Not only that, the models offer some of the best operating costs on the market.

Of the office-oriented members of the family, the CopyCentre C3545 and WorkCentre Pro C3545 are especially attractive propositions for users looking for a machine to meet their everyday black-and-white and color needs. For this reason, these machines receive our Editor's Choice Award.

The DocuColor 3535 is a special machine as well. It is the only model in the color market to offer four different controller options, and the only model to have representation from three different controller vendors. The DocuColor 3535 has a reasonable price, great operating costs, and a solid collection of features. It is a deserving winner of our Editor's Choice Award.

Xerox DocuColor 240

Xerox DocuColor 250

Full-color speed: 40ppm & 50ppm



Sum-up: Heavy-duty color copiers with impressive image quality.

These impressive light production machines introduce a new platform to the Xerox line. The models are the fastest color copiers the company has produced to date.

For the most part, the DocuColor 240 and 250 address the low end of the production color market. However, some units are likely to be placed with high-volume office color users as well. Output speeds are very fast. The 240 runs at 40ppm in color and 55ppm in black, while the 250 operates at 50ppm in color and 65ppm in black. List price for the 240 is \$33,500 and the 250 goes for \$39,500.

Image quality is excellent. The models print and copy at 2,400dpi, the highest resolution of any laser color copier on the market. The high resolution is made possible by the machines' 32-beam laser and use of Xerox's Emulsion Aggregation (EA) toner. The toner, which is organically grown rather than mechanically produced, offers attractive supply costs and image quality.

The new machines are identical in all ways except speed and have the same accessories. The models' standard paper supply has dual 550-sheet paper trays, an 870-sheet paper tray, an 1,140-sheet paper tray, and a 250-sheet bypass. A 2,000-sheet large-capacity tray lists for \$2,000. The models also come standard with an impressive high-capacity reversing document feeder that holds up to 250 sheets.

Another strong point is media support. The machines' main paper trays and 2,000-sheet large-capacity tray handle paper weights from 18lb. bond to 110lb. index, in sizes up to 11" x 17". The bypass tray supports 140lb. index and higher, which is excellent. Maximum paper size for the bypass is 13" x 19".

The range of output options is respectable, although not as versatile as with some competitors. First on the list is an inexpensive 500-sheet offset catch tray that goes for \$300. Next there is a basic finisher that has 500-sheet and 3,000-sheet trays, 50-sheet multiposition stapling, and 2/3-hole punch that lists for \$2,995. For more advanced applications, there is a finisher with 500-sheet and 1,500-sheet trays, 50-sheet multiposition stapling, 2/3-hole punch, and booklet making that goes for \$4,995. Note that a postprocess inserter is not available, a capability found on some competitive machines.

As can be expected from Xerox, the list of controller options is outstanding and you get a choice between four different print controllers. Note that when the machines were first introduced, they came standard with an embedded controller from EFI. When Xerox later added three additional controller options the company had to debundle the machines.

The embedded EFI controller is called the Fiery Network Server, and it is now a \$6,995 option. Based on a new EFI platform called X3TY, the device comes with a 2GHz Intel Celeron processor, 256MB of RAM, and a 40GB hard drive.

A more powerful external EFI controller is offered as a \$22,000 option. Called the Fiery EXP250, the device features a 3.06GHz Intel Pentium 4 processor, 1GB of RAM, and an 80GB hard drive. It is derived from EFI's Fiery S400.

As with the DocuColor 3535, the DocuColor 240 and 250 offer an advanced controller from Creo. The Creo Spire CX250 lists for \$20,000 and has a 3.2GHz Intel Pentium 4 processor, 1GB of RAM, and an 240GB hard drive.

In a new development, the models offer an optional Xerox-developed controller called the FreeFlow DXP250. The device is based on the DocuSP controllers used on the company's production color printers. The controller features a 1.8GHz AMD Dual Opteron 244 processor, 1GB of RAM, and dual 73GB hard drive. List price is \$28,550.

The DocuColor 240 and 250 are high-speed color copiers that offer excellent image quality and productive features. The selection of optional print controllers is another plus; few vendors can match Xerox in this regard. Of the two models, we have a slight preference for the DocuColor 250 due to its faster speed, and it is the one which receives our Editor's Choice Award.

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