# *4039 Customer Driven Advances*

***PRINT QUALITY*** so good that the printer increases your capability to communicate your ideas, and may even improve your corporate image. Crisp, solid black fills without graying over large areas, no streaks or specks of "dirt" to mar your output, no halos or blooming around high contrast images or text to spoil your image, and no ghosting or images from previous pages to detract from your printed message - all hallmarks of the superior print quality from three generations of Lexmark LaserPrinters.

In addition to this heritage of print quality, the IBM® LaserPrinter 4039 Series from Lexmark provides high resolution ***600 dots per inch*** (dpi) printing, four times the resolution of 300 dpi print. ***Lexmark was the first company to offer true 600 dots per inch*** printing in desktop laser printers, and has been meeting customer needs for 600 dpi desktop printing for more than a year. Lexmarks's ***Print Quality Enhancement Technology***, PQET, smooths out the "jaggies" for superior print quality at both 300 and 600 dpi.

To ensure the quality of your presentation regardless of the medium, the 4039 series has an enhanced ***rough paper mode*** for non-xerographic papers such as cockle or high rag content papers, and a new special ***transparency mode*** for high quality overhead projection transparencies. Another exclusive, ***envelope conditioning***, standard on the 16L, 12L, and 12R, literally beats the air out of envelopes as they are being printed. This flattening and smoothing of the print surface results in crisp, quality printing rivaling professional hot-metal envelope printing.

***PictureGrade™,*** a new ***image enhancement mode***, allows you to easily produce optimal quality printing of scanned images, photographs, and gray fills in PostScript® language on the first try with no adjustments. This proprietary algorithm yields a screen frequency of 85 lines per inch (lpi) while maintaining 101 levels of gray at 600 dpi. This gives you more than a ***40% increase in the level of detail*** in your images compared to the standard mode of 600 dpi printing with 101 levels of gray at a screen frequency of 60 lines per inch. In addition, the gray levels are corrected such that the perceived gray levels match the desired gray level. PictureGrade frees you from the painstaking process of adjusting images and print parameters to get acceptable results. As a point of reference, the Hewlett Packard Co. LaserJet 4 printer produces halftones with only 50 levels of gray at the same 85 lpi when printing in 600 dpi PostScript.

***UPGRADEABLE*** and designed to grow, the 4039 series comes with a commitment from Lexmark to assist you in expanding the uses and capabilities of the printer, not just at initial purchase, but into the future as well.

The 4039 series has been designed to be modular and expandable, right down to ***customer replaceable microcode***. When increased function and features become available, customers will be given the opportunity to purchase new microcode. The microcode, in the form of a SIMM module, is as easily replaced as adding additional memory.

Need more memory? You can expand the memory of the 4039 series up to a total of 16 Megabytes with ***2,4, and 8 MB RAM memory module options***.

***UPGRADEABLE,*** ***interchangeable internal network adapters*** give you the option to configure the 4039 series for changing network environments. Interface options available at announce include Ethernet - 10BaseT, Ethernet - 10Base2, Token Ring, and LocalTalk. As new and enhanced function is developed, Lexmark will make network adapter microcode updates available. Since the microcode is stored in non-volatile RAM, updates to all of the 4039 LaserPrinters on a network can be made by the network administrator from any node.

All ports are "hot", with automatic interface switching between the parallel, serial, and network connections.

***MODULAR PAPER HANDLING*** options like the 4039 series ***modular duplex option*** let you do the tough applications without buying a specialized printer or contracting with an outside print shop. The modular duplex option, an exclusive, allows you to add duplex printing to any LaserPrinter 4039 Series at any time in the future, when you need it, and without necessitating the commitment or resources required to buy a special printer up front. Easily installed, the duplex option allows both long and short bind variations.

Other interchangeable modular paper handling options which can be added at any time to any LaserPrinter 4039 Series include an envelope feeder with a 75 envelope capacity, a secondary paper tray, auxiliary sheet feed, and paper trays which can handle up to 500 sheets up to 14 inches in length. In addition, the primary and second drawer sheet feeders feature automatic paper size sensing to reduce change paper size requests. And, ***output bin full sensors*** on the 12L and 16L models prevent your valuable output from ending up on the floor.

For the really tough jobs, the nearly straight path from the manual or auxiliary sheet feeder to the front output bin handles heavy card stock, large envelopes, and gummed labels that would choke ordinary laser printers.

***FLASH MEMORY,*** ***a non volatile memory option***, gives applications the flexibility to download your fonts, forms, macros, signatures, and logos to a non-volatile storage, which will retain stored data even when the printer is turned off or power is interrupted. Performance is greatly enhanced when using non volatile storage since data already stored in the printer requires no download time. Flash memory is currently available in 1MB or 2MB versions.

***PRINT SPEED*** that saves you time, especially when printing your multiple page or set jobs. The LaserPrinter 4039 Series come with 10, 12 or 16 page per minute print engines to match your requirements.

But raw speed is only part of the story. It takes time for a printer to receive data from a host. The 4039 series of printers offer ***Fastbytes, an enhanced high speed parallel*** communications protocol and a ***high speed (up to 115,200 baud) serial*** interface. Depending on host configuration, these communications enhancements can significantly reduce the time it takes to get your output.

Once a printer has received data, it takes still more time to compose the page in the printer. All 4039 series LaserPrinters have ***RISC processors*** as standard equipment to keep this time as short as possible. When printing in PostScript, additional memory speeds up printing of large complex jobs. The 4039 series use a proprietary ***memory management*** technique to effectively more than double the amount of memory available, with the resultant increase in performance.

***SOFTWARE COMPATIBILITY*** with all commercial software applications is assured because ***PostScript and PCL5*** compatibility are built in, standard. Compatibility is also maintained for your fonts.

***Automatic data stream sensing*** will help ensure that the 4039 is set to the correct datastream language, even for less sophisticated or older applications whose drivers do not send job control commands. This feature can save literally reams of paper from being printed in the wrong datastream, and the accompanying loss of time.

The ***4039 Print Accelerator***, a Windows™ driver optimized for the 4039 series at both 600 dpi and 300 dpi, provides superior performance to the competition when printing from Windows applications. When the driver uses the Accelerated Image mode, all print data is sent to the printer in the same form as used in the proprietary memory management system, and fully utilizes the fast parallel interface on the 4039 Series of LaserPrinters. ***Data transfer rates of nearly 400 KB/sec*** have been measured on the parallel interface when using the Print Accelerator. Drivers for OS/2® and AIX® operating systems are also furnished with the printer as well as Windows and OS/2 screen fonts.

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