

Supporting Creativity in the Office

The Seamless Link between Paper, Digital Documents, and Terminals

With the advent of the broadband era, information is now exchanged in the form of not only text but also images, voices, and animation. Devices such as PDAs and cellular phones are now networked, and access to documents through these devices is a necessity. Information communication has improved dramatically in terms of both speed and quality, and the volume of information has expanded to levels not imagined a decade ago, increasing at the same time the number of bottlenecks in network communication.

Ricoh does not believe that digital documents alone will create new values. Even in this broadband era, paper documents play an important role as a medium for

information. Paper documents are visually and physically user-friendly and decrease stress in the office workflow.

In the future that Ricoh envisions, people will have quick access to a large volume of information, whether in paper or digital formats, to create new values.

The key is the “Document Highway” concept. This sophisticated platform represents Ricoh’s unique solution for a truly seamless combination of paper and digital documents. This open highway will give more value to information, which will, in turn, lead to more profit.

The “Document Highway”

Ricoh has proposed an architecture platform as the basis for achieving ubiquitous documentation, which enables the exchange of necessary information in an optimal format using various networked devices at anyplace and anytime.

The Document Highway is a platform that links office machines and software flexibly on a network so that documents can be accessed easily. The highway is designed to be an open platform for network appliances and the basis for the easy operation of diverse devices and software that are linked on a network. Networked devices are like service stations on a highway, and documents are like vehicles running on that highway.

Document Highway

Design policy

Document Highway established to meet the criteria for products in the broadband era.

1. Integrated architecture for hardware and software
2. Component-based software

3. Adoption of industry standards
4. Establishment, standardization, and publication of interface

Appliance-like ease

Common hardware architecture (Next-generation architecture)

Desktop
Document Creation
Information Utilization
Printing support



Integrated Management

Management

Device Management
Operation management



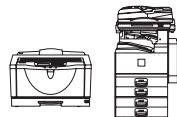
Appliance-like ease

Component-based applications

Open

Improved and open interface

Output



Transmission



Input



Storage / Management

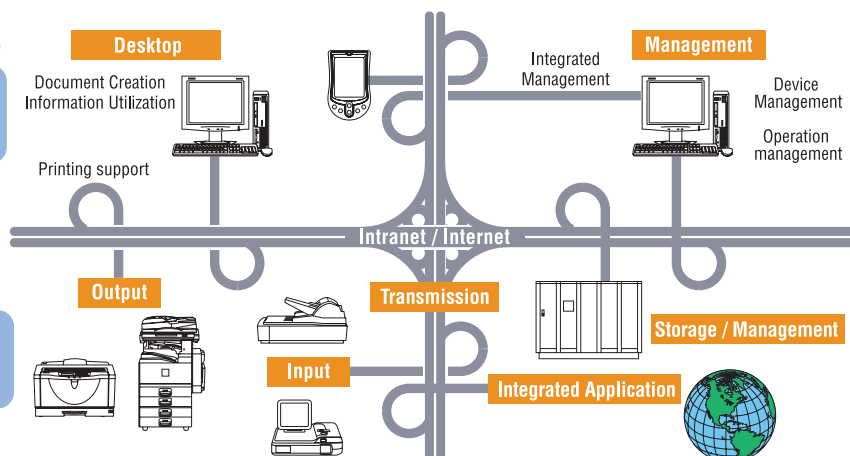


Integrated Application



Open

XML for data exchange



Challenges Faced by Business-Use Color Printers

Groundbreaking GELJET Technology

Ricoh's innovative GELJET technology enables high-speed, high-quality plain-paper printing, which was said to be difficult for traditional inkjet printers. The Company's ardent pursuit of its technology vision for paper documents has brought about this technology.

In the recent rapid colorization of office documents, the need for fast in-house color printing emerged, especially from offices with few staff members. However, traditional inkjet printers are slow and the colors bleed on plain paper. Moreover, the existing printers were mostly designed and priced for general consumers and did not meet the needs of corporate users both in terms of speed and quality.


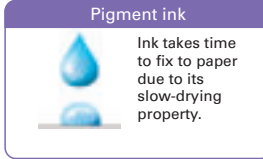




Ricoh's GELJET technology, a combination of the Company's unique inkjet technology and laser printing technology, has given birth to a low-end business color printer ahead of its competitors.

GELJET Viscous Ink: Quick-Drying, Clear, Waterproof Color Prints

GELJET viscous ink represents our core technology in high-quality plain-paper printing.

Thanks to its high viscosity and strong permeability, GELJET viscous ink achieves clear, quick-drying colors that do not run,

qualities that are required in high-speed printing. Furthermore, by using pigment colors for all four ink colors, images are as waterproof as those made with toners. GELJET viscous ink produces color documents that can be used in various business operations.

Dye ink	Pigment ink	IPSiO G GELJET viscous ink
 <p>Upon contact with the paper, ink soaks into the fibers and bleeds, blurring image.</p>	 <p>Ink takes time to fix to paper due to its slow-drying property.</p>	 <p>Ink gelatinized and dries the moment it comes into contact with the paper. Blurred images and bleeding can be minimized.</p>
		
<p>*Results may differ depending on the moisture on the paper or type of paper used. Examples shown are not certified by Ricoh.</p>		

GELJET Wide Printhead: Smooth, High-Speed Printing

The GELJET wide printhead represents a key component in creating both high-speed and high-quality printing. With a 1.27-inch nozzle row length—the longest in its class—and 384 nozzles per printhead, the width of an image that can be printed at one time has been expanded, and high-density printing has been realized. Furthermore, by incorporating Ricoh's Modulated Dot (M-Dot) Technology for the optimal control of ink size for plain paper, the printhead maximizes the performance of GELJET viscous ink, providing high-quality documents according to printing speed.

GELJET BT System: High-Speed, Laser-Quality Duplex Printing

The GELJET BT system is an innovative, groundbreaking paper-feeding method. The electrostatic transfer belt system, which is used in laser printers, is optimized for inkjet printing to provide a new feeding method. This method prevents the bending of paper, thereby eliminating the disadvantage in the inkjet method. Stable printing quality has thus been achieved, and feeding performance has been greatly improved, especially for paper edges. The GELJET BT system maximizes the high-speed printing performance of the GELJET wide printhead and achieves high-speed automatic duplex printing comparable to laser printing.



IPSiO G707