

# Kodak Digital Science Document Scanner/Microimager 990

## SPECIFICATIONS

### Document Dimensions

Length	2.5 to 30 inches (64 to 762 mm)
Width	2.5 to 12 inches (64 to 305 mm)
Thickness	up to .014 inches (.36 mm)

### Imaging

Selectable scan resolution from 67 to 200 dpi.

Filming resolution at 50:1 reduction ratio is 160 lines/millimeter minimum at each corner for sharp, clear images.

Microfilming reduction ratios of 24:1, 40:1, and 50:1.

### Performance

Speed: 200 dpi

- up to 90 pages/min (A4 letter portrait mode)
- up to 120 pages/min (A4 letter landscape mode) electronic
- up to 240 images/min

### Host Connection

SCSI-2 interface

(Device driver and toolkit software packages available for popular system platforms to simplify integration with host imaging system.)

### Interface Support

Kofax  
IBM  
Isis drivers  
J&K

### Environmental Requirements

Temperature	59 to 86°F (15 to 30°C)
Relative humidity	15 to 76%
Heat dissipation (maximum)	5200 Btu 6046 kj

Acoustical emissions <67 dB in operation  
<62 dB idle

### Dimensions

Height	48 inches (122 cm)
Width	29 inches (74 cm) without console 60 inches (152 cm) with console
Depth	51 inches (130 cm)
Weight	741 lbs (333.4 kg)

### Electrical Requirements

Voltage	Hz/cycles	Amps
90-110 V AC	50/60 Hz, 1 phase	15 Amps@ 100 V AC
104-127 V AC	50/60 Hz, 1 phase	12 Amps@ 120 V AC
190-242 V AC	50 Hz, 1 phase	10 Amps@ 220 V AC
208-254 V AC	50 Hz, 1 phase	10 Amps@ 240 V AC

### Agency Approvals

UL1950	US safety
CSA 950	Canadian safety
EN60 950/09.87	European safety (GS mark for TÜV)
DOC	Canadian EMI
VCCI/EN55022	Japanese EMI
EN55022/EEC499(82)	European EMI
EN55022	Australia and New Zealand
VFG 243(91)	German EMI (pending)

### Accessories

*Kodak Imagelink* Patch Reader  
*Kodak Imagelink* Bar Code Reader

*Kodak Imagelink* Smart Cassettes  
*Kodak Imagelink* Workstation Side Console  
*Kodak Imagelink* Document Printer 1  
*Kodak Imagelink* Document Printer 12  
*Kodak Imagelink* Endorser  
*Kodak Imagelink* Footswitch  
*Kodak Imagelink* Film Writing Module  
*Kodak Imagelink* Advanced Document Controller  
*Kodak Digital Science* Adaptive Threshold Processor



For manufacturing of imaging equipment.

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KODAK CANADA INC.  
Document Imaging  
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For other areas outside the U.S.A., call +1-716-722-9287

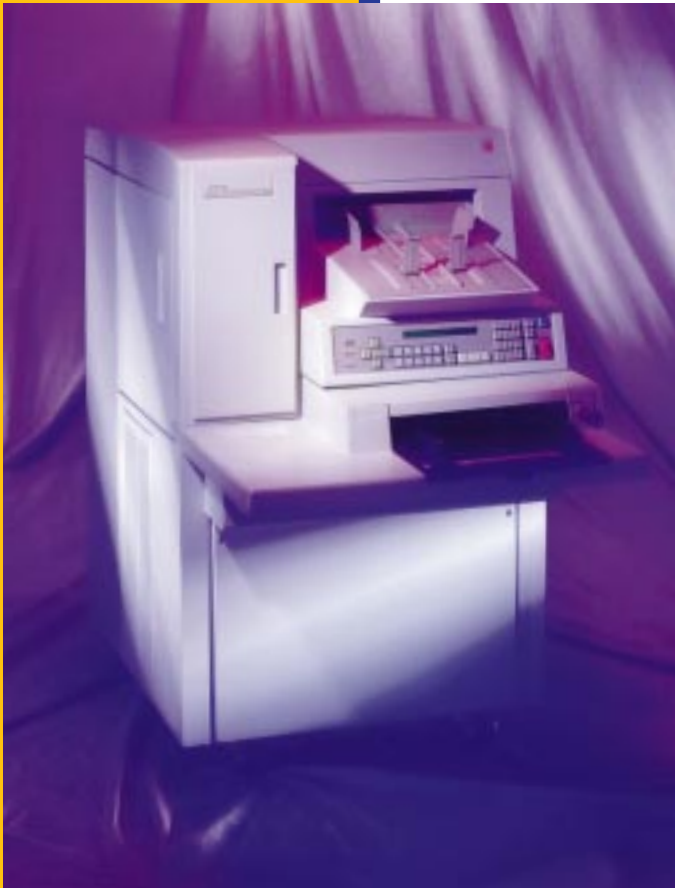
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[www.kodak.com/go/businessimaging](http://www.kodak.com/go/businessimaging)





## Document Scanner/Microimager 990



# Image/data/ archive.

*One-step capture  
from Kodak.*

The *Kodak Digital Science™* Document Scanner/Microimager 990 is the easy way to enhance your capture productivity. It combines high-speed, high-resolution electronic scanning **and** high-quality, low-cost 16 mm microfilming with data capture options to save you time and labor. Based on the proven platform shared by the *Kodak Digital Science* Document Scanner 9500 and the *Kodak Imagelink™* Microimager 70, the Scanner/Microimager 990 provides productivity and media independence that will protect your investment in imaging technology for years to come.

**Simultaneous** scanning and microfilming gives you the best of both worlds. Electronic images are quickly available for processing, while images captured on *Kodak Imagelink* HQ Microfilm provide proven, archival storage in a standardized, human-readable format. In addition, *Imagelink* HQ Microfilm is specifically designed for digital scanning by the *Kodak Imagelink* Digital Workstation. So these same archival images can be delivered electronically to user desktops when needed.

With the Scanner/Microimager 990, you get immediate access now, plus a permanent record for later reference—both with image quality that leads the industry. At the same time, you are reducing document handling with a one-step capture approach. A single pass provides simultaneous front-side or duplex scanning, and simplex, duplex, or duo image capture on microfilm. The result is new efficiency at the front end of your imaging system.

# The best of both worlds.

With throughput of up to 120 business documents per minute, the *Digital Science* Document Scanner/Microimager 990 complements a wide range of imaging applications, including insurance claims, freight waybills, mutual funds transactions, medical, pharmaceutical, tax, and land records. State-of-the-art optical and electronic designs handle a wide variety of document types and individual colors without adjustment, rendering the highest quality text, graphics, and halftones. The result is consistent readability and reliable imaging the first time, virtually eliminating the need to rescan documents.

**PRODUCTIVITY THAT'S AUTOMATIC**  
The *Digital Science* Document Scanner/Microimager 990 is designed to maximize operator efficiency and system throughput.

A proven semi-automatic feeder and robust paper transport mechanism reliably handle real-world documents in a variety of mixed sizes and thicknesses to minimize interruptions. The feeder, exit hopper, and controls all are designed and located to minimize operator labor. Document order is maintained, minimizing the need for additional document handling.

Data entry can be dramatically reduced by using optional patch code and/or bar code processing to provide automatic image indexing. Document printing and film writing further enhance the information associated with a given document image for tracking and auditing.

To facilitate indexing, image addresses are generated automatically during

scanning/filming and transferred to the image application as part of an Image Header file, which can also include bar code information.

On the electronic side, **on-board** data compression and optional color drop-out elements (red, green, blue) help reduce electronic file size to enhance the overall performance of your imaging system. Excellent imaging quality is assured by advanced image processing developed by Kodak, including:

- mixed mode processing
- adaptive thresholding
- single pixel removal
- halftone/continuous tone enhancement (dithering)
- fine line detail enhancement

all of which function at full machine speed.

**CONFIGURED FOR A PERFECT MATCH**

Depending on application needs, there are two models available. The *Kodak Digital Science* Document Scanner/Microimager 990S is for single-sided scanning and double-sided microfilming. For those applications that require double-sided scanning and double-sided microfilming there is the *Digital Science* Document Scanner/Microimager 990D.

The *Digital Science* Document Scanner/Microimager 990 is available with a wide variety of accessories that enable you to select capabilities to meet application needs.

**RELIABLE PERFORMANCE, DAY IN AND DAY OUT**

The *Digital Science* Document Scanner/Microimager 990 is designed and manufactured to the highest quality standards, including the BVQI ISO 9002 standard. The Scanner/Microimager 990 is backed by a worldwide service and technical support network maintained by Kodak. Computer diagnostics and an easily serviced modular design help assure you of maximum uptime.

**STANDARD FEATURES**

**Image Header files** facilitate indexing and image file management on your host computer.

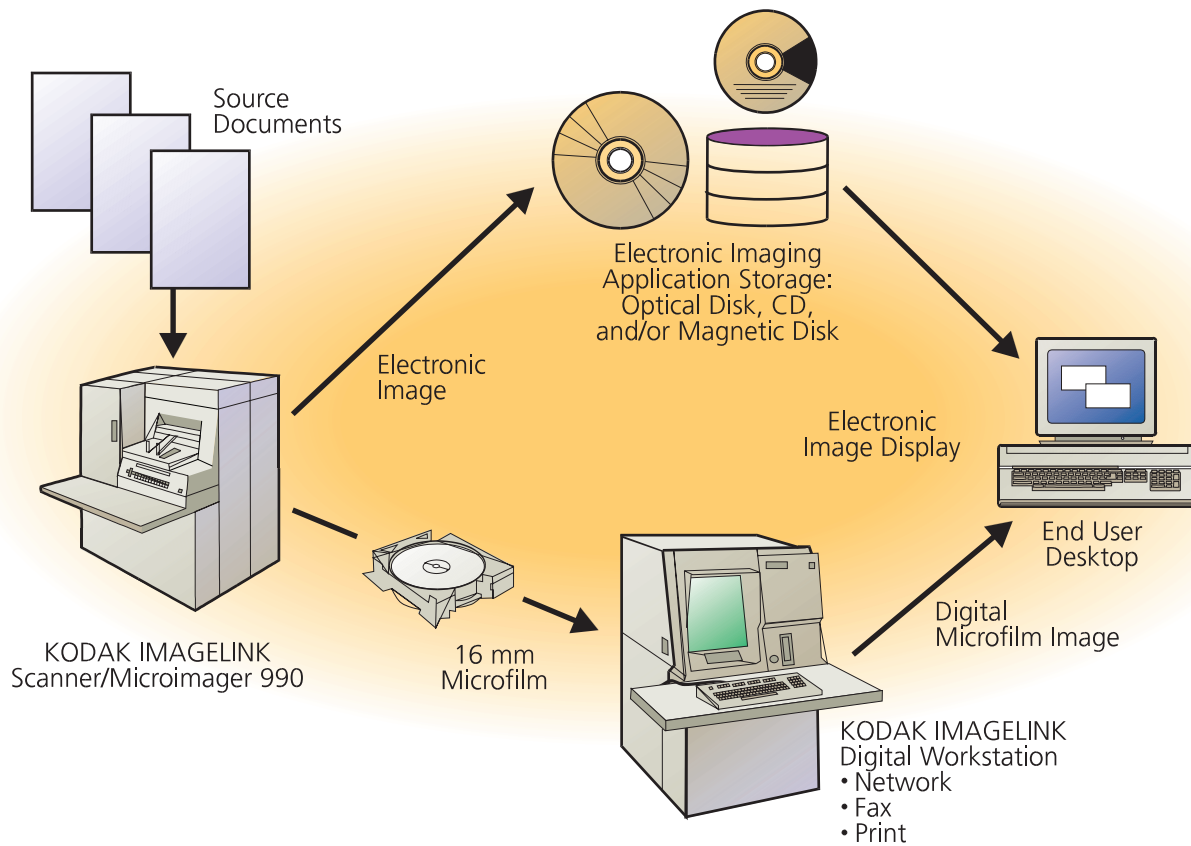
**SCSI-2** computer interface simplifies integration into electronic imaging solutions.

Friendly **operator interface** minimizes operator fatigue and errors. User-defined mode keys and 18 **programmable imaging modes** for specific applications help save time and reduce error.

**Advanced jam detection** facilitates quick recovery from paper jams in the transport with a push of a button.

Choice of **simplex, duplex, or duo** microfilming. **Two rolls** of microfilm can be exposed simultaneously for added security.

Operator productivity is enhanced by an adjustable, self-centering **Advanced Document Feeder**. It enables the operator to load a stack of mixed-size documents, and prepare the next set of documents while the first stack is being scanned and microfilmed.



Users can enjoy electronic desktop access to images stored on magnetics, CD, optical disk, and microfilm via a hybrid imaging solution that incorporates the Kodak Digital Science Document Scanner/Microimager 990 and Kodak Imagelink Digital Workstation (analog to digital microfilm image conversion).

**ACCESSORIES:**

**Kodak Imagelink Smart Cassettes** store key information, job setup, and last image address. They also help assure fool-proof microfilming by monitoring microfilm threading and loss of tension. A minimum of one cassette is required to support microfilming.

The **film writing module** and **image management code** written on microfilm enable automated retrieval from microfilm to save time and improve productivity.

The **Adaptive Threshold Processor (ATP)** dramatically improves the dynamic thresholding capabilities of the scanner, reducing the need to sort

documents by color, print density, or quality. These documents can be scanned while intermixed, yet produce uniform, outstanding images.

A **footswitch** is available to control indexing and other functions.

The **Advanced Document Controller** monitors paper skew and overlaps, and communicates errors to the operator for immediate correction.

Operator intervention and error are minimized by a **Patch Reader** that provides automatic high-speed feeding with indexing controlled by patch codes printed on documents or on separator sheets.

A high degree of accuracy and automation can be achieved with a **Bar Code Reader**, which transfers data to the host system.

A choice of **Document Printers** enables you to print alphanumeric information—like time/date—on documents for identification and tracking.

The **Technology Exchange Program** from Kodak provides an opportunity to upgrade a *Kodak Imagelink* Microimager 70 to a *Digital Science* Document Scanner/Microimager 990, which protects your investment in capital equipment.