Kodak

Image Server Software

User's Guide

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Document Imaging

EASTMAN KODAK COMPANY

ROCHESTER, NEW YORK 14650

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Introduction

The *Kodak* Image Server Software is a background process software application. It is used as an integral component of a larger system of Kodak and integrator-supplied micrographics devices and applications that are connected together by a local area network.

Images can be scanned through microfilm retrieval devices and sent to various output devices either manually or via a computer-aided retrieval (CAR) application. These individual images are transmitted to Image Server Software where they can be grouped into documents and/or folders and are ultimately delivered via a printer, fax, gateway or e-mail account to the requester.

Your PC with the Image Server Software may be in the same physical location as the other components of the system, or it may be in another department, building, or city.

NOTES:

- Throughout this manual the term ***scanner*** will be used to describe the *Kodak Digital Science* Intelligent Microimage Scanner (IMS) and the *Kodak* i7300 Scanner.

- The term ***Digital Workstation*** refers to both the *Kodak Imagelink* Digital Workstation and the *Kodak Imagelink* Digital Workstation 2000.

- If something is specific to one scanner/Digital Workstation or the other, it will be specifically noted.

Overview

The Image Server Software does the following:

- Supports the *Kodak* i7300 Scanner, *Kodak Digital Science* Intelligent Microimage Scanner, *Kodak Imagelink* Digital Workstation and *Kodak Imagelink* Digital Workstation 2000 receiving images digitized from microfilm, along with information regarding their routing. The Image Server Software accepts bitonal images from the Digital Workstation and both bitonal and grayscale images from the scanner.

- Accepts commands that allow images to be collected into folders/ documents.

- Supports a CAR application host computer, which can send the Image Server Software information via CAR commands using a serial port or network connection.

- Allows operators to use the Image Server Software's user interface to input the information regarding the final destination of image files.

- Allows images to pass to a remote location using the Gateway functionality of the Image Server Software.

- Allows for foldering of images from both the scanners and Digital Workstations for later processing.

- Allows for immediate printing of images from both the scanners and Digital Workstations.

- Supports release (CAR) commands (via both network and serial interfaces).

- Provides the capability of sending images to any printer supported by Windows. The printer may be attached to the same PC on which the Image Server Software is installed or any network printer that is accessible from the PC on which the Image Server Software is installed.

- Allows images to be e-mailed or faxed if the PC being used has that capability. (Faxing requires Symantec WinFax PRO v10.0 or higher; e-mail requires a MAPI-compliant services or connection to a SMTP server via TCP/IP.)

NOTE: The scanner can only send images to the Image Server Software. It cannot send images to the *Kodak Imagelink* Enhanced Network Node.

Virtual Network Node

The Image Server Software comes with two Virtual Network Nodes (VNNs). One *Kodak* Image Server Software Expansion Module can be added to supply two additional VNNs.

A VNN is a software entity within the Image Server Software. The Image Server Software is a base platform of software that is installed on one physical PC. The Image Server Software is the framework application. Several VNNs can operate—discrete from one another—on the same physical PC.

One to four of these VNNs can be configured for a specific customer environment to act on a software level to work with CAR and keyboard commands, to manipulate images/folders from input devices, and to send images/folders to output devices.

Devices supported by one VNN:

- One or more Intelligent Microimage Scanners.

- One or more i7300 Scanners.

- One or more *Kodak Imagelink* Digital Workstations.

- Two printers (printers can be assigned to the PC that the Image Server Software is running on or be available to the PC over the LAN/WAN).

- Faxing capability using WinFax PRO v10.0.

- E-mail capability using MAPI-compliant e-mail service or SMTP service.

- Folder release commands by RS-232 COM port or via NetBIOS calls through the network connection. Folder release commands are also supported through the scanner or Digital Workstation CAR commands.

System requirements

Refer to the *Kodak* Image Server Software Installation Planning Guide (A-61156) for the software and hardware requirements for the Image Server Software.

Image Server Software Basic System

Physical PC			
Operating System Software			
Image Server Software			
VNN 1		VNN 2	
Printer 1 VNN 1	Printer 2 VNN 1	Printer 1 VNN 2	Printer 2 VNN 2
Gateway		Gateway	
Fax			
E-mail			
Store image on hard drive			

Image Server Software and Image Server Software Expansion Module

Physical PC							
Operating System Software							
Image Server Software				Image Server Software Expansion Module			
VNN 1		VNN 2		VNN 3		VNN 4	
Printer 1 VNN 1	Printer 2 VNN 1	Printer 1 VNN 2	Printer 2 VNN 2	Printer 1 VNN 3	Printer 2 VNN 3	Printer 1 VNN 4	Printer 2 VNN 4
Gateway		Gateway		Gateway		Gateway	
Fax							
E-mail							
Store image on hard drive							

NOTE: If the VNN is set up for Print, Fax or E-mail, it will not support Gateway functionality; likewise, if it is set up for Gateway, it will not support Print, Fax or E-mail functionality.

Output devices

Any Microsoft Windows-supported local or network printer can be configured as an output device. The Image Server Software can contain a maximum of four individually addressable Virtual Network Nodes if both the Image Server Software and Image Server Software Expansion Module are purchased. Each VNN supports up to two physically or network-attached printers, plus fax or e-mail for a total of four output devices per Image Server Software.
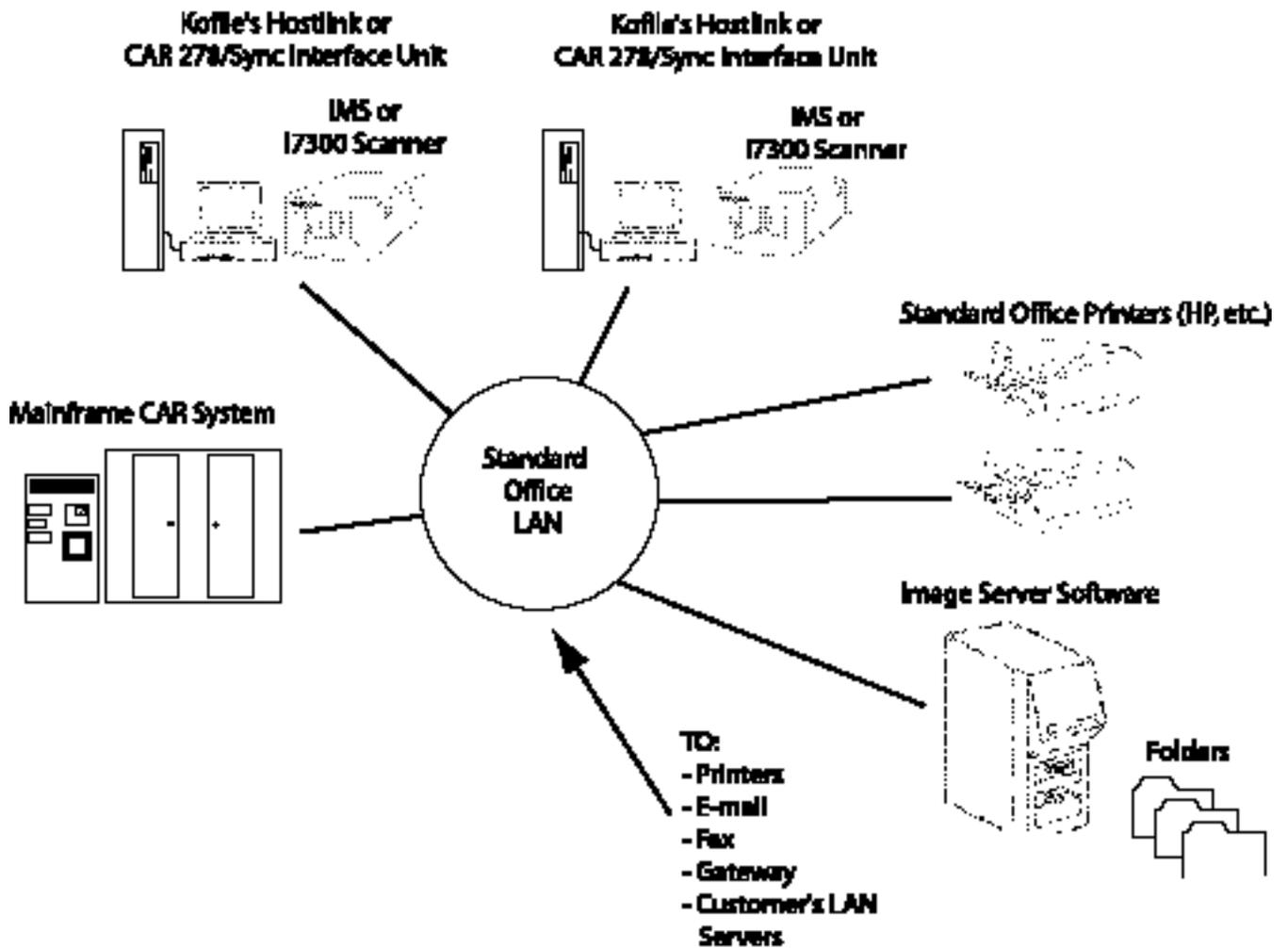
NOTE: With the Image Server Software and Image Server Software Expansion Module, you can have a total of eight printer devices.

Configuration examples are shown below and on the next two pages.

Mainframe configuration
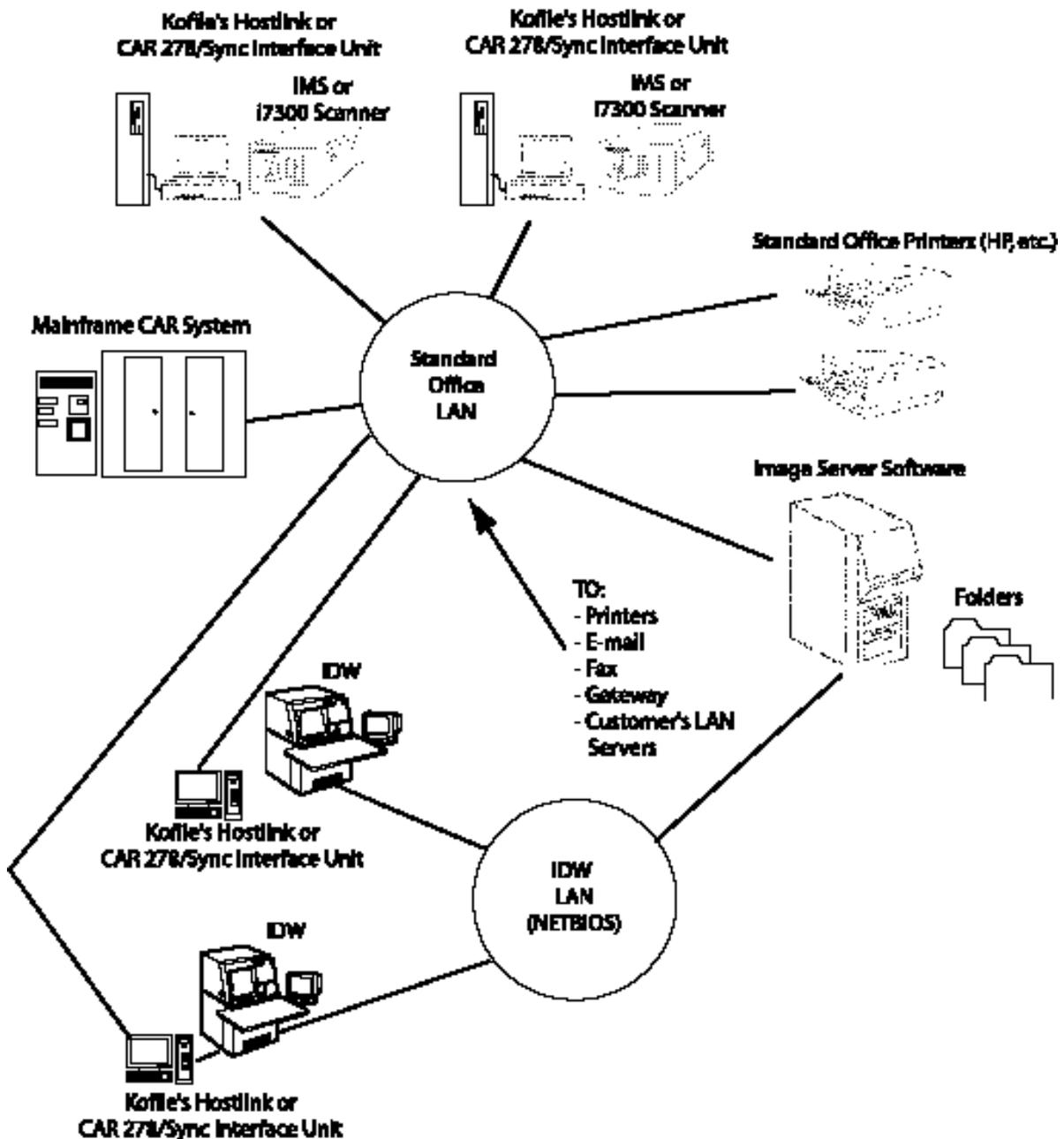
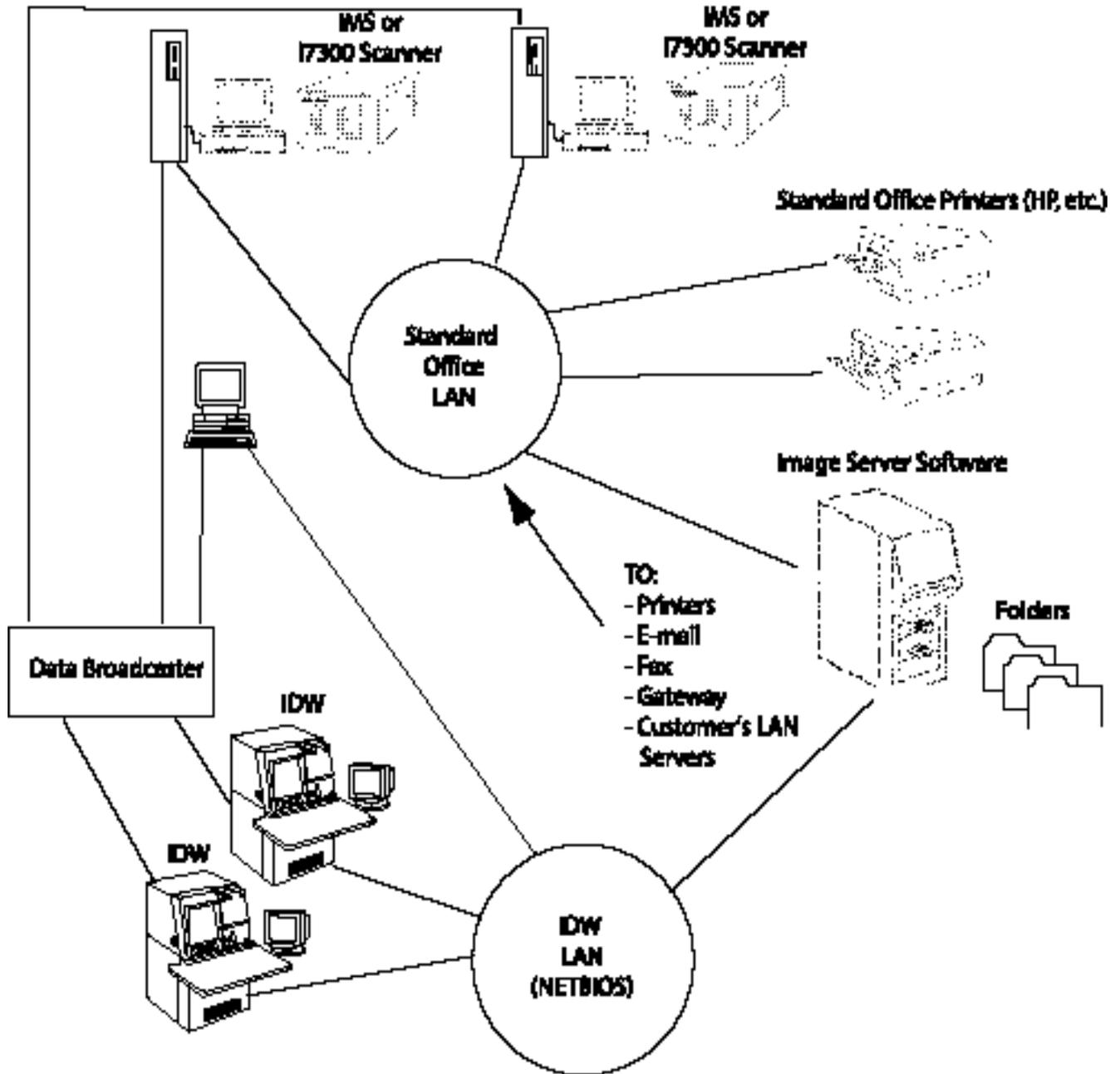## Mainframe Configuration
Scanner only

Image Server Software - Processing Application

The Image Server Software contains two applications:

• **Processing**: used to monitor the Image Server Software.

• **Configuration**: for system administrator use. For more information, see the section entitled "Image Server Software - Configuration Application."

Processing application

The Processing application receives images and commands from input devices (Digital Workstations and/or scanners) and routes them to the specified output devices (printer, fax, e-mail, gateway or folder). All devices are managed through queues which can be held or released as needed. Images can be processed when received or they can be assembled into documents and/or folders and stored on a hard drive for later processing.

There are two windows within the Processing application: the Status window and the Image Server Node Browser window.

Status window

The Status window of the Processing application contains a status panel for each enabled VNN. Since it is possible to configure up to four VNNs for simultaneous use, as many as four status panels may appear in the Status window (one VNN is shown below).
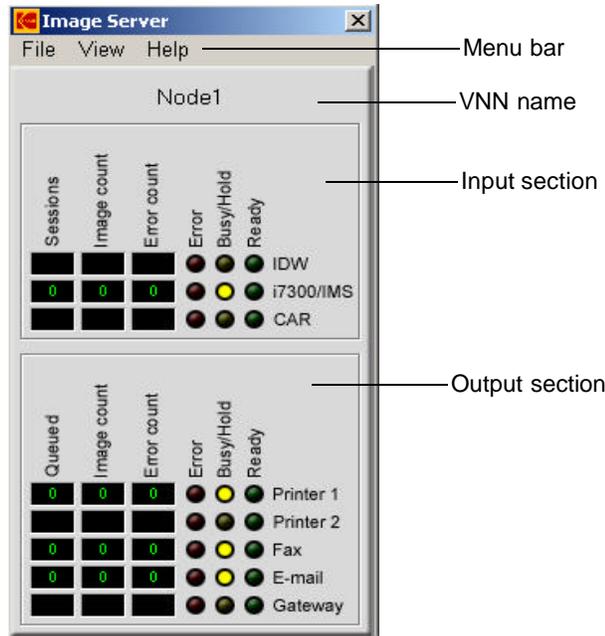
Within each status panel is a set of counters and status indicator lights. The counters and status indicator lights are divided into input and output sections. The input section appears at the top of the status panel and the output section appears at the bottom of the panel.

Status panel descriptions

If an input/output device has not been configured for Image Server Software, then all status indicator lights are off.

Following are descriptions of the counters and status indicator lights for each section.

Input section

Sessions — the number of scanners or Digital Workstations from which the VNN is actively taking input.

Image count — the number of images that have been received from all input devices since the application was last started.

Error count — the number of errors that have occurred while communicating with all input devices since the last counter reset.

Error light (red) — when illuminated, indicates that either at least one error has occurred while communicating with this device since the error reset or since the application was last started.

Busy/Hold light (yellow) — when the input queue for the scanner or Digital Workstation is being held (i.e., the Digital Workstation queue is not accepting input; the scanner queue is not processing jobs), this indicator will be steadily illuminated. When the input queue is not being held, this indicator will be illuminated only when the VNN is actively processing documents or commands from any input device.

Ready light (green) — when the scanner or Digital Workstation has been configured as an enabled device that is available to provide input to the VNN, this indicator will be steadily illuminated.

CAR — indicates that CAR commands have been received at the VNN.

Output section

Queued — the number of documents that are currently waiting to be sent to the output device. A document consists of one or more images.

Image count — the number of images that have been sent to the output device since the application was last started.

Error count — the number of errors that have occurred since the last counter reset. Errors are reported on a per-document basis, with a maximum of one error reported per document.

Error light (red) — when illuminated, indicates that at least one error has occurred while sending output to the device since the last counter reset or since the application was last started.

Busy/Hold light (yellow) — when the output queue for the device is being held (i.e., the queue is not sending documents to the device), this indicator will be steadily illuminated. When the output queue is not being held, this indicator will be illuminated only when the VNN is actively sending a document to the device.

Ready light (green) — when the output device has been configured as an enabled device that is available to process output, this indicator will be steadily illuminated.

Status window menu bar

The menu bar of the Processing application Status window contains the commands described below.

File menu
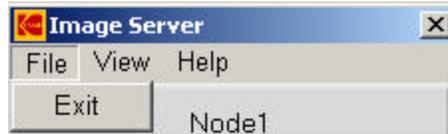
Exit — shuts down the Processing application.

View Menu

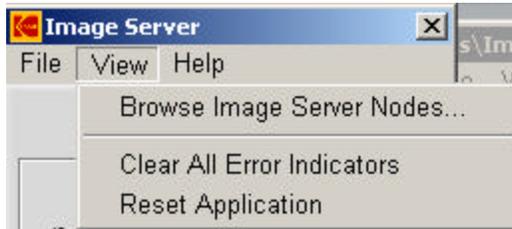**Browse Image Server Nodes** — accesses the Image Server Node Browser window. (See the next section, "Image Server Node Browser window," for information about the features in this window.)

Clear All Error Indicators — clears any error lights that are currently illuminated on each VNN status panel. For information about clearing the error counters, see the section entitled "Working with the Configuration window."

Reset Application — stops the current operation and exits the Image Server Software.
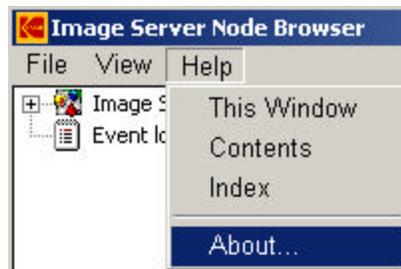
Help Menu

This window — opens the Help dialog box to display the online help page that applies to the currently active window.

Contents and Index — opens the Help dialog box to display the first page of the online help with Contents and Index tabs.

About — displays a window containing software copyright and version information.

Image Server Node Browser window

The Processing application Image Server Node Browser window shows all enabled VNNs and allows you to manage the queues for the devices associated with each VNN. The Image Server Node Browser window also allows you to manage documents and folders stored on the hard drive and access the Event log.

When you select **Browse Image Server Nodes** on the **View** drop-down menu, the Image Server Nodes Browser window appears. It has two sections: a Navigation pane on the left and a Content pane on the right.

Navigation pane   Content pane
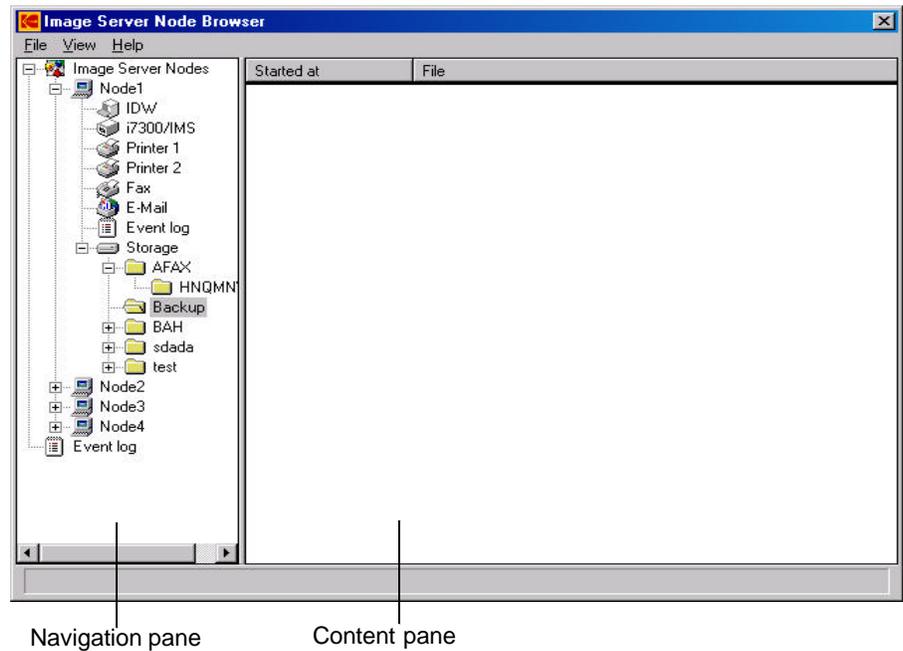
The Navigation pane contains a list of VNNs in a hierarchical format. Since it is possible to configure up to four VNNs for simultaneous use, as many as four VNNs may appear under Image Server Nodes in the navigation pane. Only VNNs that have been configured will appear.

- To display a list of defined VNNs, double-click on **Image Server Nodes** in the Navigation pane or click on the "+" button to the left of **Image Server Nodes**.

- To display a list of devices that have been enabled for a particular VNN, double-click on the VNN name in the Navigation pane or click the "+" button to the left of the VNN name.

- To view information about the contents of the queue for a device, click on a device. The information will appear in the Content pane.

- Information about the contents of the Event log and hard drive document/folder storage area can also be displayed by clicking on the item in the Navigation pane.


Navigation pane   Content pane
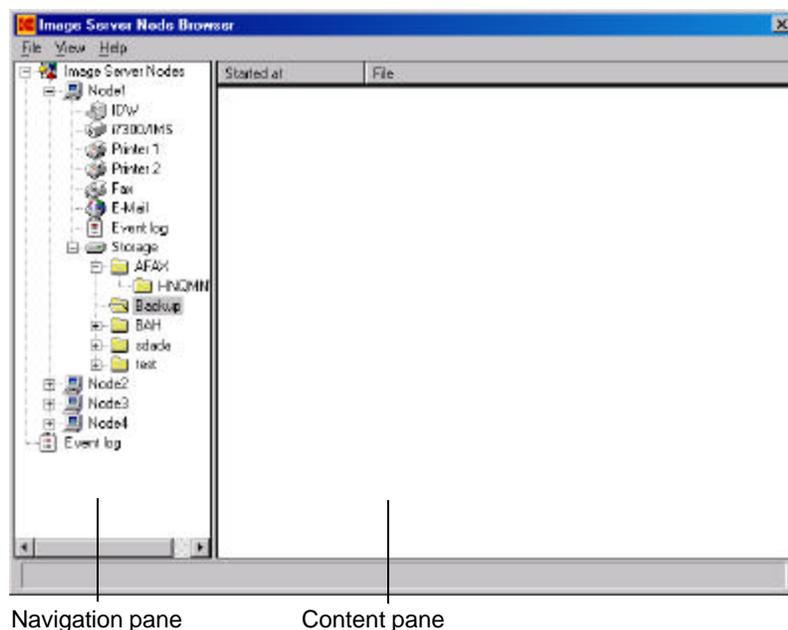
Only the events that have occurred since the current session was started will be displayed.

Working with the Browser window

The Imager Server Node Browser window allows you to check the status of input and output devices and to view folders. Right-click on an item in the Browser window Navigation pane to access a context-sensitive menu for that item.

Following are descriptions of the information that appears on the Navigation pane context-sensitive menu and in the Content pane for each item. The most recent events appear at the bottom.
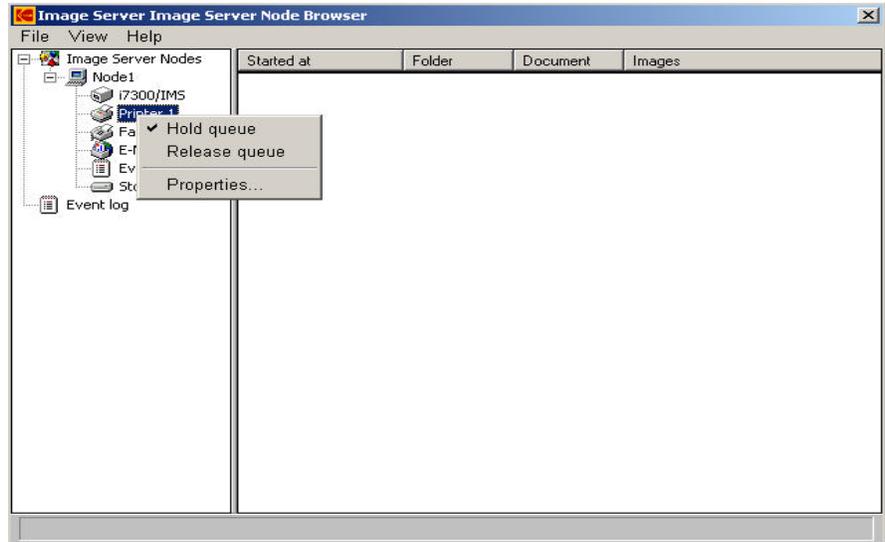
Refreshing the Content pane

The Content pane does not automatically refresh. To refresh the Content pane, select **Refresh** on the View menu. You can also refresh the screen by closing the Image Server Node Browser window and opening it again.

IDW

Navigation pane menu

Hold queue — the VNN stops accepting input to the IDW queue. The Digital Workstations are refused with a "busy" signal.

Release queue — the VNN resumes accepting input to the IDW queue.

Content pane information

Started at — the time the Digital Workstation started the session with the VNN.

IDW Name — the name of the Digital Workstation with which the VNN is currently communicating.

Device — the destination to which the VNN is currently routing images.

Folder — the name of the folder in which the VNN is currently storing documents.

Document — the name of the document in which the VNN is currently storing images.

Pages — the number of images placed into the current document since the last screen refresh.

i7300/IMS

Navigation pane menu

Hold queue — the VNN stops processing jobs already in the i7300/IMS queue, but continues to accept input for later processing.

Release queue — using a "first in/first out" strategy, the VNN resumes processing jobs already in the i7300/IMS queue.

Content pane information

Started at — the time the scanner started the session with the VNN.

Folder — the name of the folder in which the VNN is currently storing documents.

Document — the name of the document in which the VNN is currently storing images.

Printer 1 / Printer 2

Navigation pane menu

Hold queue — the VNN stops sending documents from this printer queue to the Windows Print Manager, but continues to add documents to the queue for later processing.

Release queue — using a "first in/first out" strategy, the VNN resumes sending documents from this printer queue to the Windows Print Manager.

Properties — shows the printer path and name.

Content pane information

Started at — the time the print job was placed into the VNN output queue for the printer.

Folder — the name of the folder in which the listed document is located.

Document — the name of the document that is to be printed.

Pages — the number of images in the document.

Fax

Navigation pane menu

Hold queue — the VNN stops sending documents from the fax queue to the WinFax PRO Message Manager, but continues to add documents to the queue for later processing.

Release queue — using a "first in/first out" strategy, the VNN resumes sending documents to the WinFax PRO Message Manager.

Content pane information

Started at — the time the fax job was placed into the VNN output queue for faxing.

Folder — the name of the folder in which the listed document is located.

Document — the name of the document to be faxed.

Pages — the number of images in the document.

Recipient — the name of the person to whom the document is being faxed.

Fax number — the recipient's fax number.

E-Mail

Navigation pane menu

Hold queue — the VNN stops sending documents from the e-mail queue to the e-mail client, but continues to add documents to the queue for later processing.

Release queue — using a "first in/first out" strategy, the VNN resumes sending documents to the e-mail client.

Content pane information

Started at — the time the e-mail job was placed into the VNN output queue for e-mail.

Folder — the name of the folder in which the listed document is located.

Document — the name of the document to be e-mailed.

Pages — the number of images in the document.

Recipient — the name of the person to whom the document is being e-mailed.

E-Mail Address — the recipient's e-mail address.

Gateway

Navigation pane menu

Hold queue — the VNN stops sending documents from the Gateway queue to the Gateway client, but continues to add documents to the queue for later processing.

Release queue — using a "first in/first out" strategy, the VNN resumes sending documents to the Gateway client.

Content pane information

Started at — the time the job was placed into the VNN output queue.

Folder — the name of the folder in which the listed document is located.

Document — the name of the document to be sent to the Gateway.
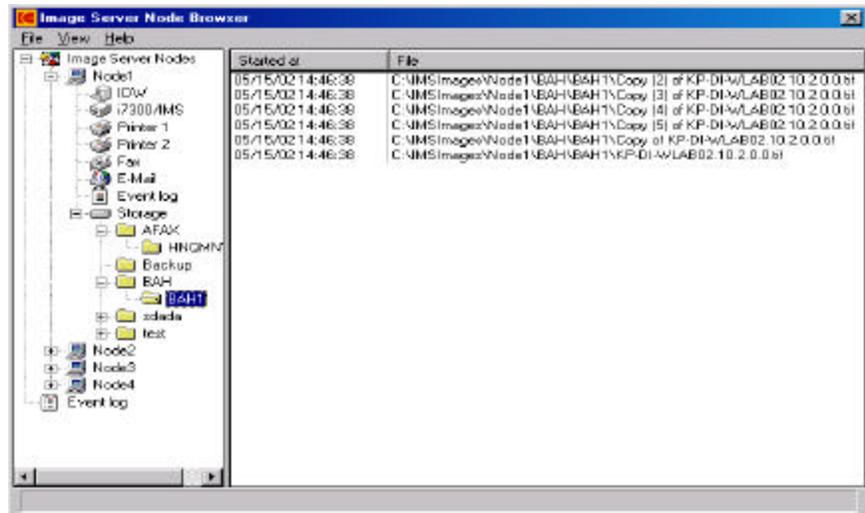
Images — the number of images in the document.

Event Log

Content pane information

Time — the time the event occurred.

Event — a description of the event.

Storage (folders)

Navigation pane menu

Output Folder — accesses the Output Settings dialog box, which allows you to send a folder's contents to an output destination without deleting the folder and its contents from the hard drive. See the section entitled, "Output Settings dialog box" for more information.

Output/Delete Folder — a confirmation box is displayed to confirm that you want to delete the contents of the folder from the hard drive after you send the folder to an output destination.

Delete — after you click **Yes** on the confirmation box, the selected folder and its contents will be removed from the hard drive.

Properties — shows the folder path and name.

Content pane information

Started at — the time the folder was created on the hard drive.

File — the name of the folder.

Output Settings dialog box

The Output Settings dialog box allows you to manually release folders or documents.

- If the output device is **Printer 1** or **Printer 2**, click **OK**.

- If the output device is **Fax**, enter the information in the available fields on the Output Settings dialog box. If you leave the Send time and/or Send date fields blank, the fax will be sent immediately.

- If the output device is **E-mail**, enter the information in the available fields on the Output Settings dialog box. Do not make an entry in the Send time and Send date fields; e-mails are sent immediately.

Storage (documents)
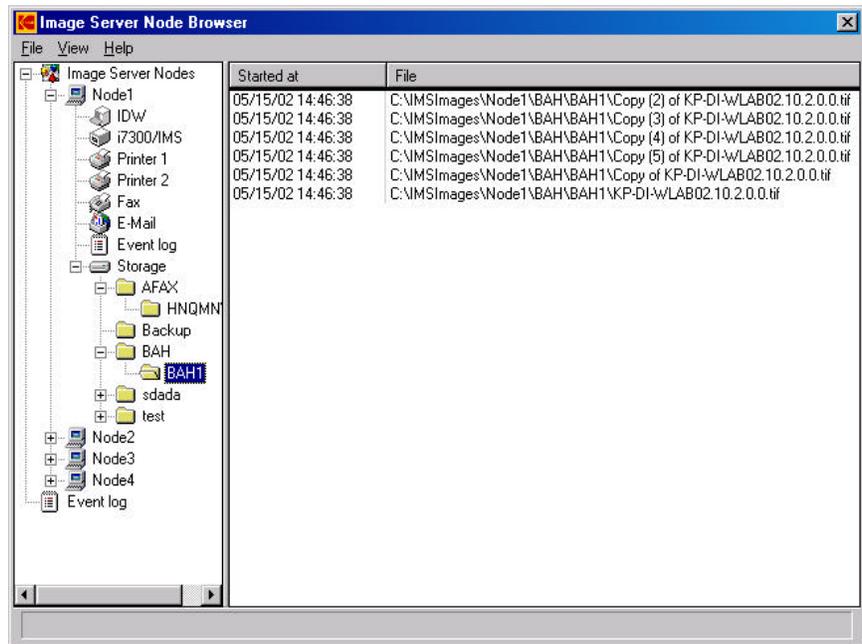
Navigation pane menu

Output Document — accesses the Output Settings dialog box, which allows you to send a document to an output destination without deleting the document from the folder. See the section entitled, "Output Settings dialog box" earlier in this chapter for more information.

Output/Delete Document — a confirmation box is displayed to confirm that you want to delete the document from the folder after you send the document to an output destination.

Delete — after you click **Yes** on the confirmation box, the selected document will be removed from the hard drive.

Properties — shows the document path and name.

Content pane information

Started at — the time the document was saved on the hard drive.

File — the name of the document.

Storage Context-Sensitive menu

Right-click in the Image Server Node Browser window Content pane to access a context-sensitive menu for **Storage** folders or documents. These menu choices allow manual management of documents in an output queue when the queue is on hold.

For example, the processing order can be changed from the default of "first in/first out." Also, documents can be processed and left in the queue, rather than being automatically deleted after processing.
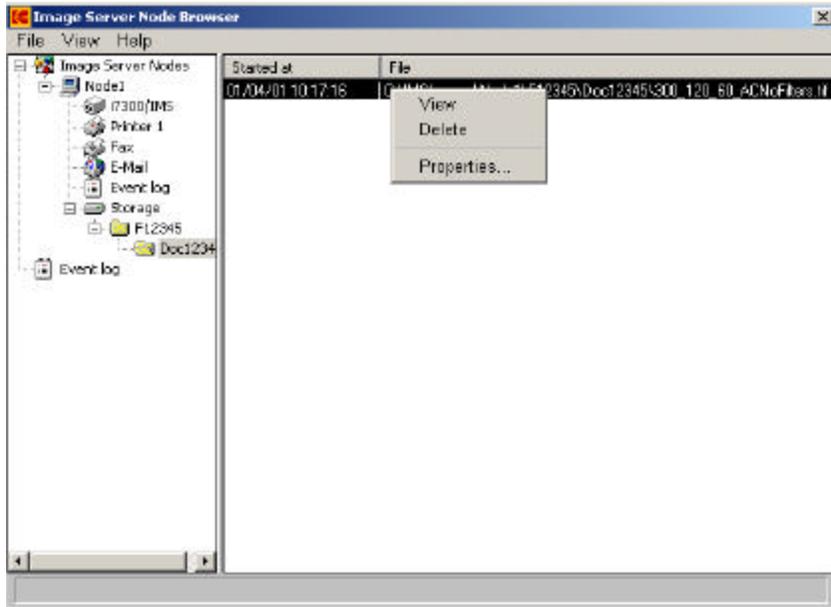
Following are descriptions of the menu choices for each item.

View — shows the image in a pop-up image viewer window.

Delete — removes the selected image from the hard drive.

Properties — shows the image path and name.

Browser window menu bar

The menu bar of the Image Server Node Browser window contains the commands described below.

File menu

Close — closes the Image Server Node Browser window.

View menu

Refresh — updates the contents of all devices to show newly added items. You must refresh the screen to get the latest "snapshot" of the Image Server Software.
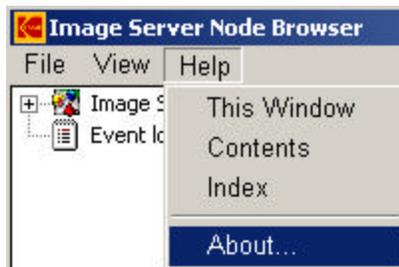
Help menu

This Window — opens the Help dialog box to display the online help page that applies to the currently active window.

Contents and Index — opens the Help dialog box to display the first page of the online help with Contents and Index tabs.

About — displays a window containing software copyright and version information.

Image Server Software - Configuration Application

The Configuration portion of the Image Server Software allows each Virtual Network Node (VNN) to be set up and associated with various input and output queues and devices.

Input Devices

- *Kodak Imagelink* Digital Workstation
- *Kodak Imagelink* Digital Workstation 2000
- *Kodak* i7300 Scanner
- *Kodak Digital Science* Intelligent Microimage Scanner

Output Devices

- Any local or network printer (i.e., Printer 1 or Printer 2), fax machine, gateway or e-mail utility may be configured.

Configuration may also be used to view and reset the Event log and specify a storage location on the hard drive.

System Administrator duties

The System Administrator:

- configures the hardware and software on the PC.
- maps the drives and the home directory.
- runs the Image Server Software Configuration.
- shuts down the Image Server Software and restarts it.
- performs backups.

The Configuration window

The Configuration window has two sections: a Navigation pane on the left and a Content pane on the right.

Navigation pane   Content pane
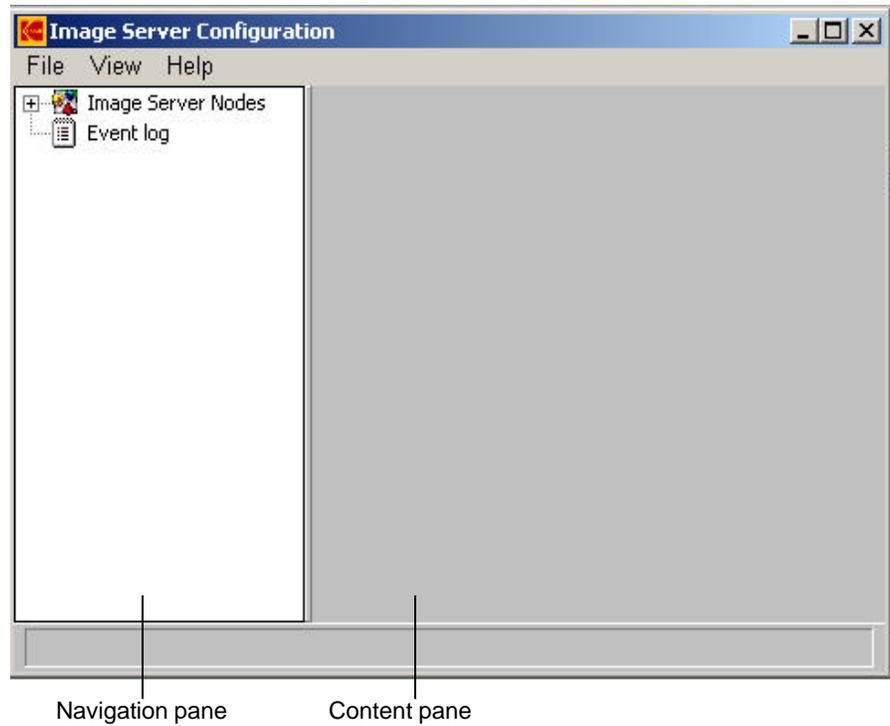
Viewing the VNNs

- To view the list of VNNs (initially assigned default names of Node1, Node2, etc.), double-click on Image Server Nodes in the Navigation pane.
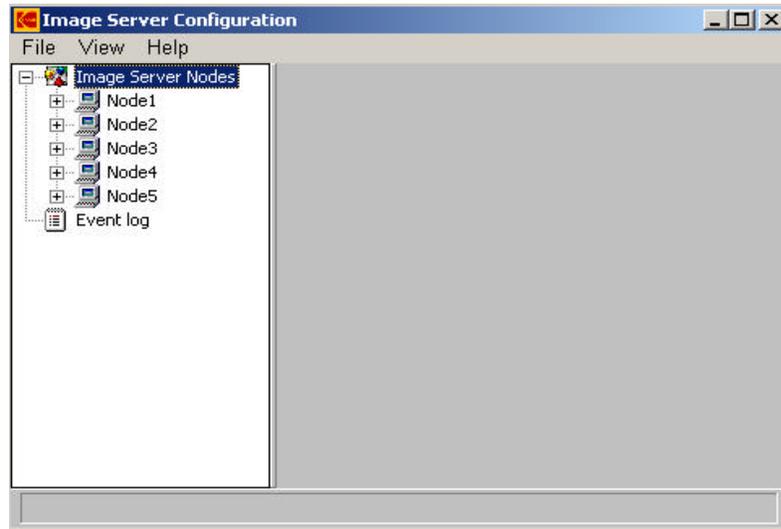
NOTE: The examples show five nodes. Your system may not be licensed for all of these nodes.

- To access the configuration form for a VNN, click on the VNN name (e.g., Node1) in the Navigation pane. The template will appear in the Content pane.
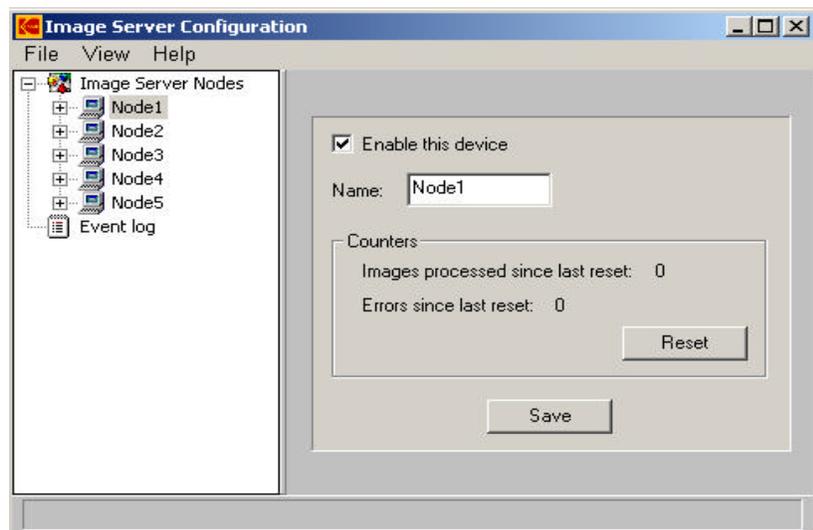
Working with the Configuration window

Following are descriptions of the fields on the setup templates.

- To view a list of items that can be configured for a VNN, double-click on the VNN in the Navigation pane or click on the "+" button to the left of the VNN.

- To access the configuration template for an item, double-click on the VNN name (e.g., Node1) in the Navigation pane. The template will appear in the content pane.

Naming a VNN
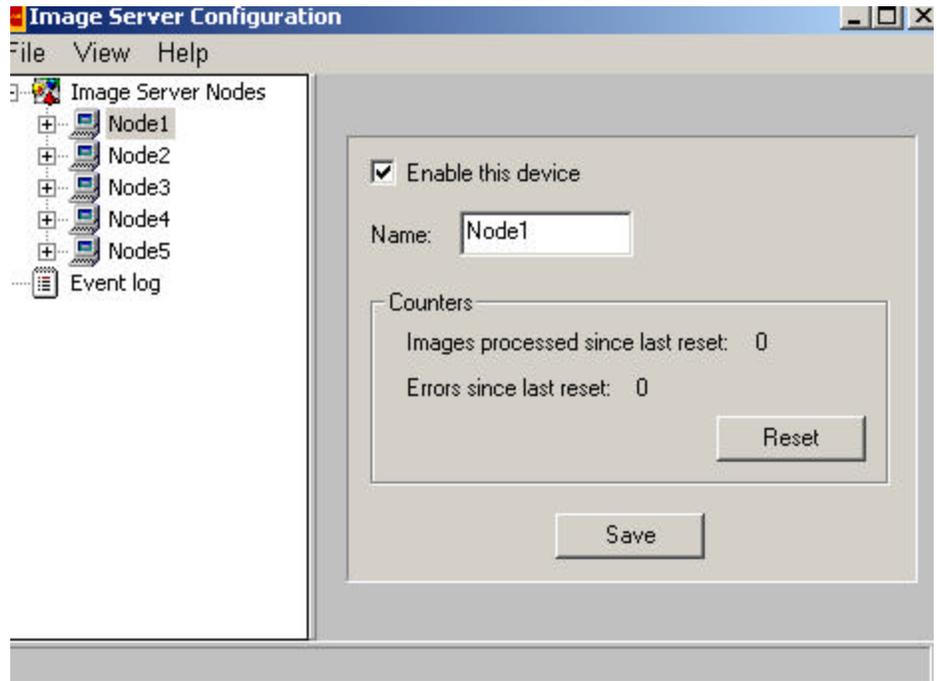
Enable this device — enables the VNN for use within the Processing application.

Name — the name of this VNN. If the VNN will be receiving images from Digital Workstations, this name will be used by NetBIOS and must not contain any blank characters. Names are case-sensitive and can contain up to 15 alphanumeric characters.

Counters

- **Images** — the total number of images that the VNN received from Digital Workstations and/or scanners since the last counter reset.
- **Errors** — the total number of processing errors experienced by the VNN since the last counter reset.

Reset — zeroes the image and error counters for the VNN.

Save — saves any changes that you have made to this form. Before you make any additional configuration selections, go to the menu bar and select **File > Save Configuration**.

Configuring an IDW
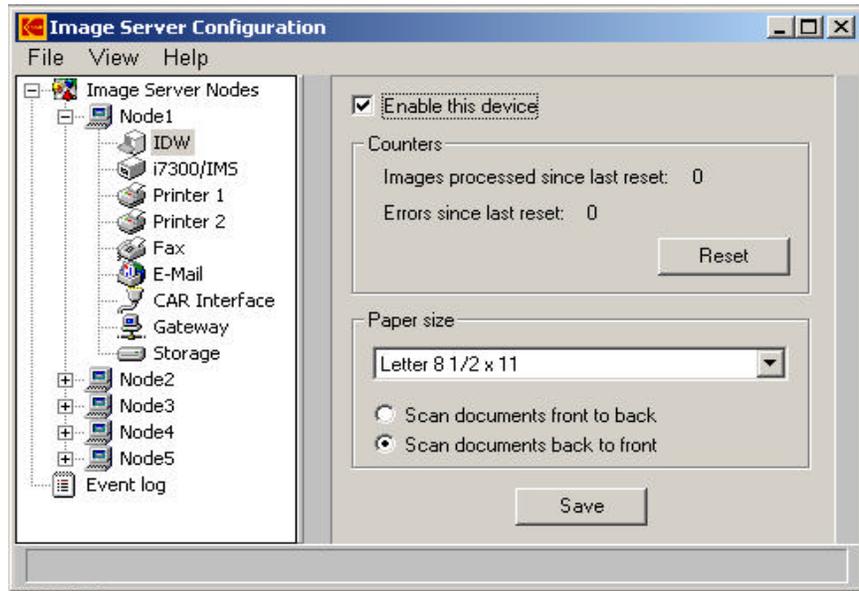
Enable this device — enables the Digital Workstation queue so it can receive images from Digital Workstations. If images will not be received from Digital Workstations, do not enable this, as it will needlessly consume network and processing resources.

Counters

- **Images** — the total number of images received by the IDW input queue since the last counter reset.

- **Errors** — the total number of processing errors experienced by the IDW input queue since the last counter reset.

Reset — zeroes the image and error counters for the IDW input queue.

Paper Size — allows you to set up what image size the Digital Workstation will deliver to the Image Server Software. Available sizes are:

Letter 8 1/2 x 11	A4 Portrait
Letter Landscape	A4 Landscape
Legal 8 1/2 x 14	A5 Portrait
Tabloid 11 x 17	A5 Landscape
Journal 8 1/2 x 5 1/2	A6 Portrait
A3	B4 Portrait

Scan documents front to back — allows you to select to scan the document from front to back.

Scan documents back to front — allows you to select to scan the document from back to front.

NOTE: The Paper Size and Scan Direction selections are only available with the Digital Workstations.

Save — saves any changes that you have made to this form. Before you make any additional configuration selections, go to the menu bar and select **File > Save Configuration**.

Configuring an i7300/IMS Scanner
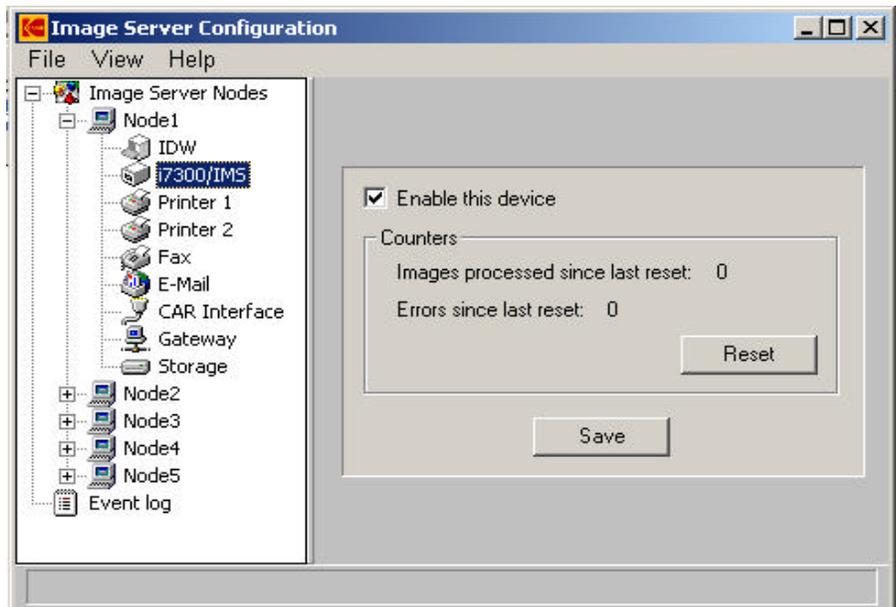
Enable this device — enables the i7300/IMS queue so it can receive images from the scanner. If images will not be received from the scanner, do not enable this, as it will needlessly consume network and processing resources.

Counters

• **Images** — the total number of images received by the i7300/IMS input queue since the last counter reset.

• **Errors** — the total number of processing errors experienced by the i7300/IMS input queue since the last counter reset.

Reset — zeroes the image and error counters for the i7300/IMS input queue.

Save — saves any changes that you have made to this form. Before you make any additional configuration selections, go to the menu bar and select **File > Save Configuration**.

**Configuring Printer 1 /
Printer 2**

Enable this device — enables the Printer 1 or Printer 2 output queue so that it can receive input from the VNN. Enable this if you intend to print retrieved images.

NOTES:

- The Printer 1 output queue must be enabled and associated with a printer in order to enable the Printer output queue. The Printer 2 output queue should be enabled only if you intend to print retrieved images on more than one printer.

- When Printer 1, Printer 2, E-mail or Fax are enabled, Gateway is not available.

Counters

- **Images** — the total number of images output to the Windows Print Manager by the Printer 1 or Printer 2 output queue since the last counter reset.

- **Errors** — the total number of processing errors experienced by the Printer 1 or Printer 2 output queue since the last counter reset.

Reset — zeroes the image and error counters for the Printer 1 or Printer 2 output queue.

Printer — the physical printer and port associated with the Printer 1 or Printer 2 output queue.

Setup — accesses a Print Setup dialog box that allows you to specify the printer name of the physical printer to be associated with the Printer 1 or Printer 2 output queue.
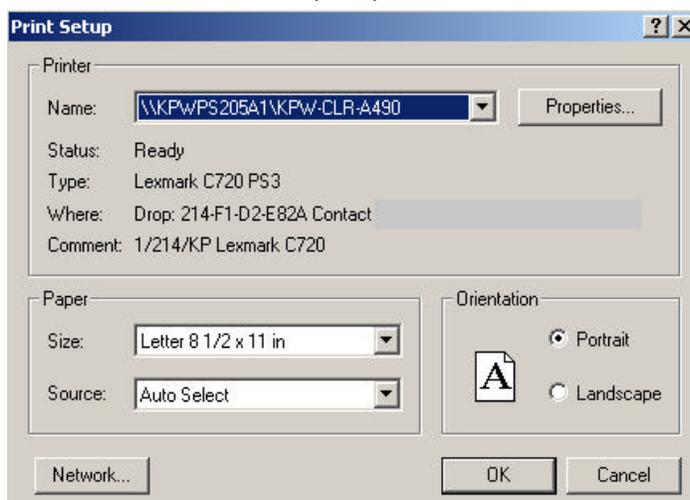
IMPORTANT: Changes made to any other printer setup values will not be saved. The printer must first be enabled in the Windows Printer Setup Utility before you configure a printer for the Image Server Software.

Bin support

- **None** — the printer does not have bin support.

- **HP LaserJet 8000** — the printer is an HP LaserJet 8000 or HP LaserJet 8100 Series and is bin (mailbox) enabled.

- **Lexmark Optra T616** — the printer is a Lexmark Optra T616 or T626 and is bin (mailbox) enabled.

Speed tuning — enabling this option increases the output speed of the printer. Disabling it forces the Image Server Software to scale every image according to the configured settings of the printer. When disabled, the software will scale to fit every image to fit the size of the paper, otherwise the scanned image may not be fully printed since it was too large for the paper.

NOTE: Enable this option to increase performance.

Save — saves any changes that you have made to this form. Before you make any additional configuration selections, go to the menu bar and select **File > Save Configuration**.

Configuring the Fax output queue
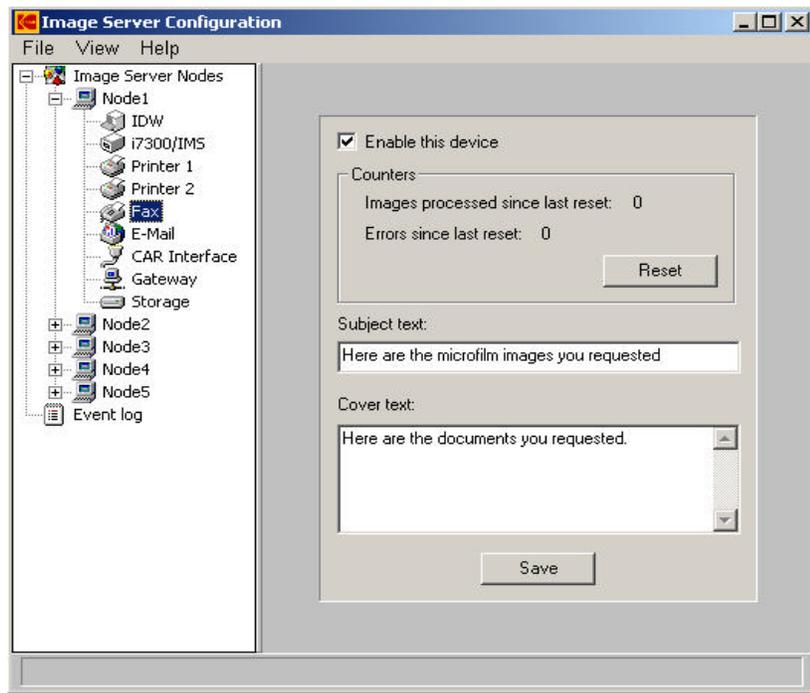
Enable this device — enables the Fax output queue so that it can receive input from the VNN. Enable this device if you intend to fax retrieved images via the WinFax PRO application.

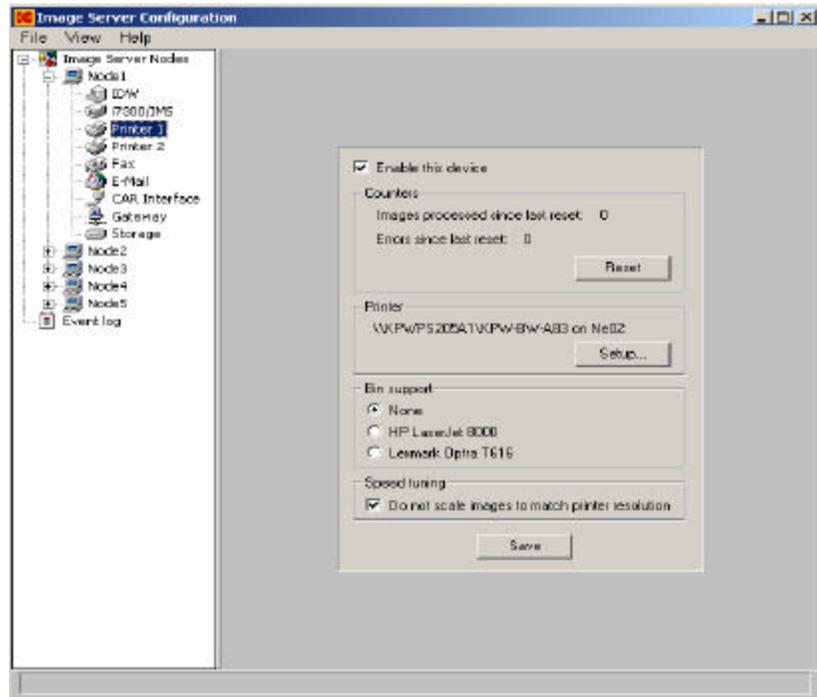NOTE: When Printer 1, Printer 2, E-mail or Fax are enabled, Gateway is not available.

Counters

- **Images** — the total number of images output by the Fax output queue since the last counter reset.

- **Errors** — the total number of processing errors experienced by the Fax output queue since the last counter reset.

Reset — zeroes the image and error counters for the Fax output queue.

Subject text — allows the inclusion of a subject line that will appear in WinFax PRO's Message Manager. The default is *Here are the microfilm images you requested*.

Cover text — allows the inclusion of cover page information that will appear on the fax cover page. The default is *Here are the documents you requested*. For no cover page, leave the Cover text box blank.

Save — saves any changes that you have made to this form. Before you make any additional configuration selections, go to the menu bar and select **File > Save Configuration**.

Configuring the E-Mail output queue
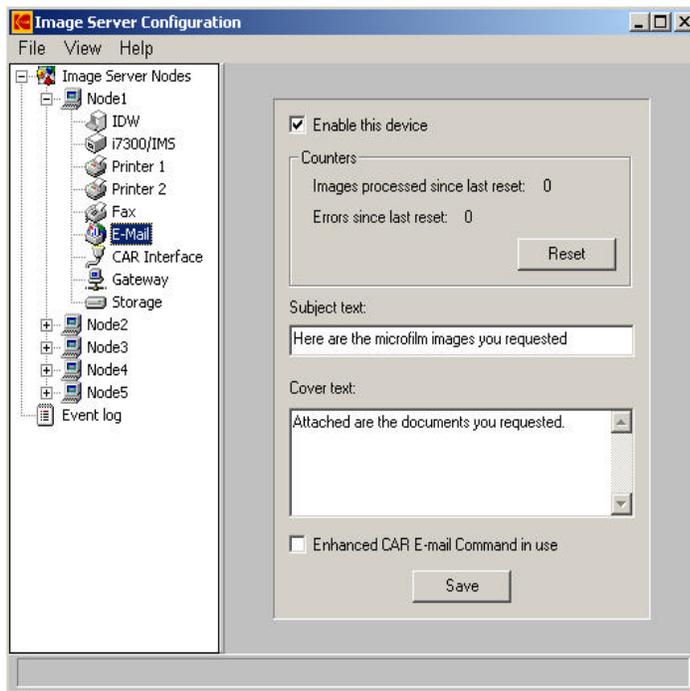
Enable this device — enables the E-Mail output queue so that it can receive input from the VNN. Enable this if you intend to send retrieved images via e-mail.

NOTE: When Printer 1, Printer 2, E-mail and Fax are enabled, Gateway is not available.

Counters

• **Images** — the total number of images output by the E-Mail output queue since the last counter reset.

• **Errors** — the total number of processing errors experienced by the E-Mail output queue since the last counter reset.

Reset — zeroes the image and error counters for the E-Mail output queue.

Subject text — allows the inclusion of a subject line that will appear as the subject in the e-mail message. The default is *Here are the microfilm images you requested*.

Cover text — allows the inclusion of information that will appear as the body of the e-mail message. The default is *Attached are the documents you requested.*

Enhanced CAR E-mail Command in use — enable this option to allow the VNN to process emails via the 4XXN CAR command.

Save — saves any changes that you have made to this form. Before you make any additional configuration selections, go to the menu bar and select **File > Save Configuration**.

Configuring the CAR interface

CAR Interface enables direct communication with a VNN over a LAN or serial connection to allow the release of folders for fax, e-mail, or printing.
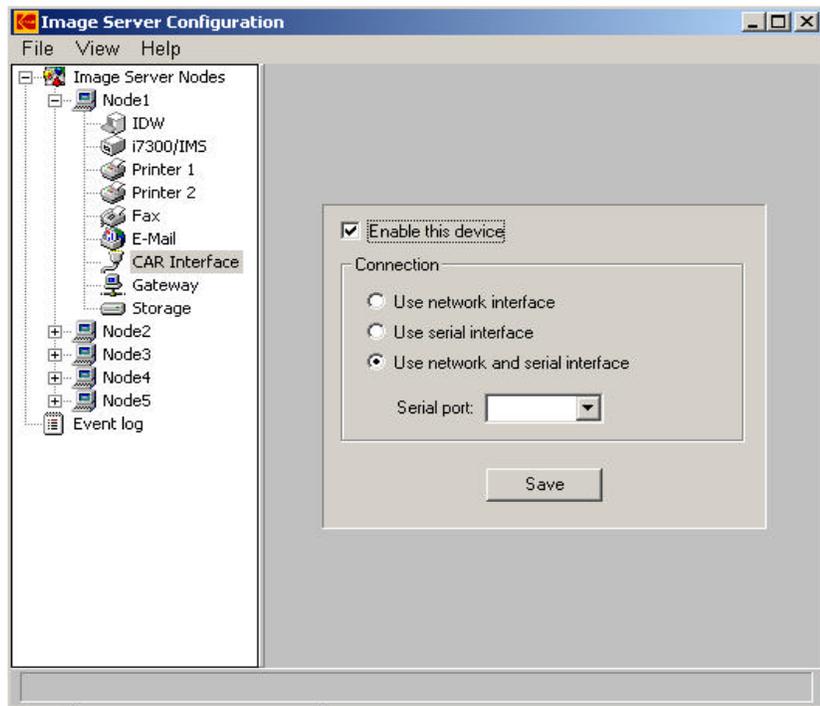
Enable this device — enables the CAR output queue so it can receive input from the VNN. Check this box if you intend to manage retrieved images via CAR.

Connection — select the connection based on the recommendation of the CAR system's integrator.

• **Use network interface** — receive CAR commands over a network interface.

• **Use serial interface** — receive CAR commands over a serial interface.

• **Use network and serial interface** — receive CAR commands over both network and serial interfaces.

Serial port — if you have selected **Use serial interface** or **Use network and serial interface** as the connection, you must specify the serial port on the Image Server Software PC that will be used.

NOTE: **Use network and serial interface** is not a recommended choice for connection.

Save — saves any changes that you have made to this form. Before you make any additional configuration selections, go to the menu bar and select **File > Save Configuration**.

Configuring the Gateway

The Gateway is a communications device connecting two separate networks. The Gateway acts as an image router for the Digital Workstation and scanner network by receiving images from it and placing them into requested destination directories on the imaging application network server.

NOTE: When Gateway is enabled, Printer 1, Printer 2, E-mail, and Fax functionality is not available.
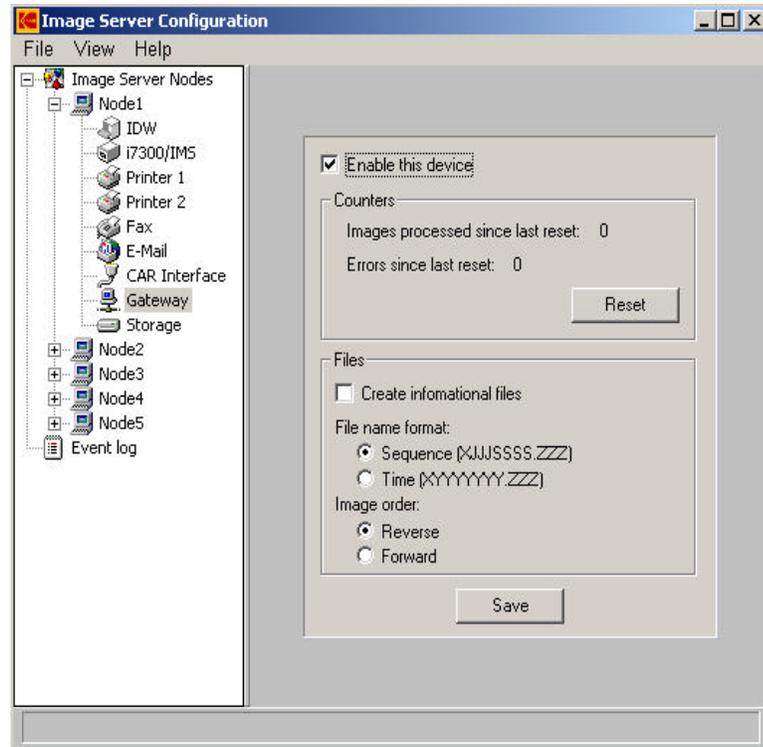
Enable this device — enables this VNN with Gateway functionality. Check this box if you intend to manage retrieved images via the Gateway. If this VNN is enabled as a Gateway VNN, Printer, Fax and E-mail capabilities for this VNN must be disabled.

Counters

- **Images** — the total number of images output by the Gateway output queue since the last counter reset.

- **Errors** — the total number of processing errors experienced by the Gateway output queue since the last counter reset.

Reset — zeroes the image and error counters for the Gateway output queue.

Files

Create informational files — enable this option to create an informational file that tracks documents and image files retrieved through the Gateway. These files contain the image file names and the commands sent via the CAR command. This information may assist the System Administrator in determining which files and directories may be deleted after the imaging application has processed them.

File name format

- **Sequence** — how the image file is formatted: XZJJJSSSSZZZ

where:

X = A, image order is set to Reverse order, this is the default; or
Z = image order is set to Forward order

JJJ = current Julian date (001 to 366)

SSSS = sequence number (0001 to 9999)

ZZZ = TIF or JPG image

NOTE: The sequence number will wrap around to 0001 after the upper limit of 9999 is reached.

- **Time** — system time format: XYYYYYYY.ZZZ

where:

X = A, image order is set to Reverse order, this is the default; or
Z = image order is set to Forward order

YYYYYYY = alphanumeric characters based on the system time (obtained from the DOS clock)

ZZZ = TIF or JPG image

Image order — images will appear in the RSS file in either Reverse or Forward order.

- **Reverse** — places the name of the image file last to first.

- **Forward** — places the name of the image file first to last.

Save — saves any changes that you have made to this form. Before you make any additional configuration selections, go to the menu bar and select **File > Save Configuration**.

Configuring the Storage directory
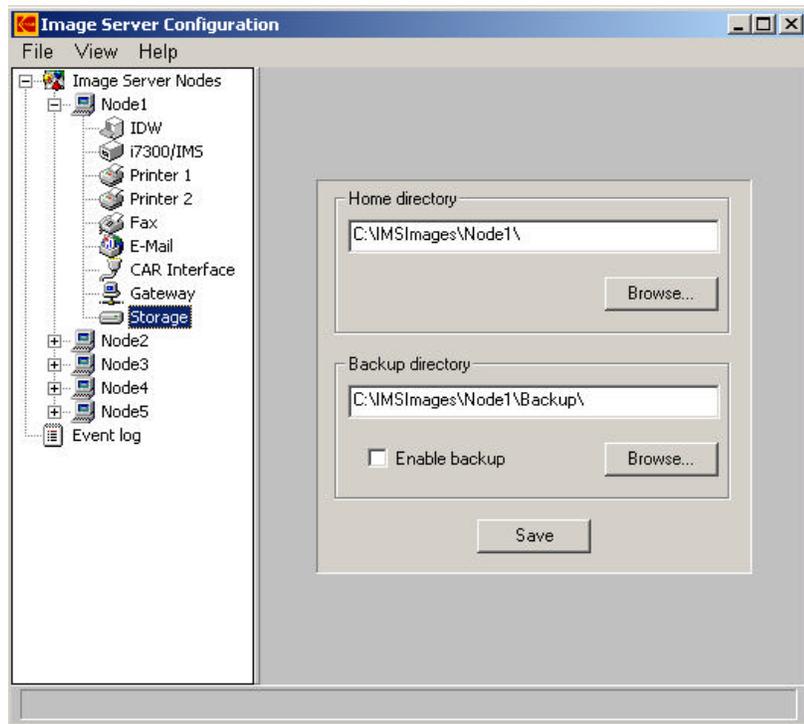
Home directory — the directory on the hard drive that the VNN will use for storing documents and folders that are to be processed later. Images retrieved from Digital Workstations and scanners for immediate processing, along with the associated CAR commands, are also placed into files in this directory.

NOTES:

• Any changes to the home directory path may result in files not being stored in the correct location for processing by Image Server Software.

• Each VNN requires its own home directory.

Browse — accesses a dialog box which allows you to navigate to any hard drive or network drive and specify a directory.
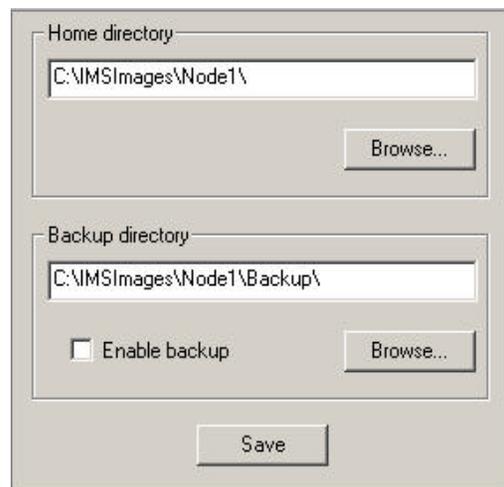
Backup directory — the directory on the hard drive that the VNN will use for storing backed-up folders prior to being deleted from the VNN.

Enable backup — when checked, will make a copy of the folder being deleted and places it under the Backup directory.

Browse — accesses a dialog box which allows you to navigate a hard drive and specify a directory.

Save — saves any changes that you have made to this form. Before you make any additional configuration selections, go to the menu bar and select **File > Save Configuration**.

NOTE: Image Server Software does not manage the backup directory.

Configuring the Event log
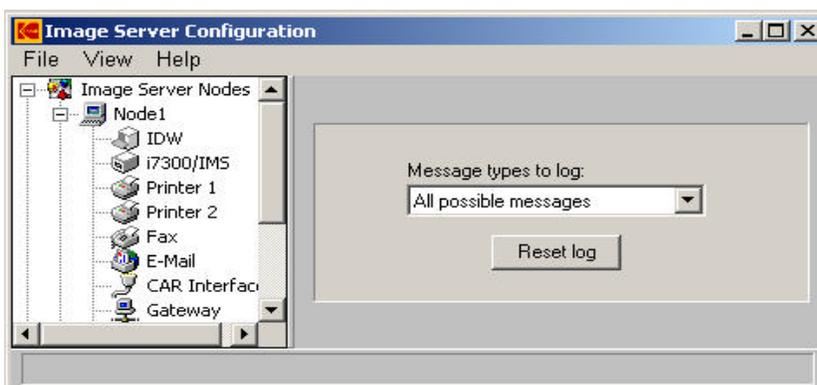
Message types to log — specifies the level of information to capture to the log file. The more information you capture, the faster the log file will grow. Select None; Errors only; Errors and warnings; Errors, warnings and information; or All possible messages.

Reset log — clears the current log file and starts a new file.

NOTE: Do not use *All possible messages* unless directed to do so for debugging a problem. It is recommended that the Message types to log be set to *Errors and warnings*.

Configuration window menu bar

The menu bar of the Configuration window contains the commands described below.

File menu
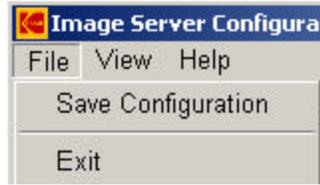
Save Configuration — saves the current settings to the Configuration file. The changes will take effect the next time the Processing application is started.

IMPORTANT: Always save the configuration before you exit the application.

Exit — shuts down the Configuration application.

View menu

Refresh — updates the contents of all devices.

Help menu
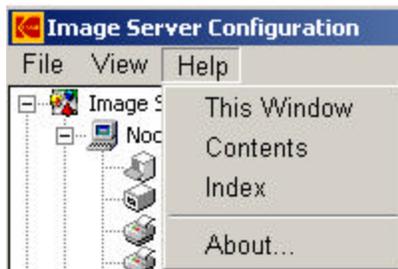
This Window — opens the Help dialog box to display the online Help page that applies to the currently active window.

Contents — opens the Help dialog box to display the first page of the online Help with the Contents tab active.

Index — opens the Help dialog box to display the first page of the online Help with the Index tab active.

About — displays a window containing software copyright and version information.

Appendix A   Troubleshooting

Problem solving   Following are some common problems and solutions.

> NOTE: Kodak does not support WinFax PRO. For WinFax PRO issues, go to www.winfaxpro.com.

Problem	Solution
Verifying print, e-mail, or fax capabilities from the host PC	Choose one of the following actions: • Use Microsoft Word to print a test document. • Use Windows Imaging to print an image. Double-click on an image to open Windows Imaging. Then select **File > Print** to print the image. • Use WinFax PRO v10.0 outside of the Image Server Software to send a fax message. • Use an e-mail utility outside of the Image Server Software to send an e-mail message. If unsuccessful, contact your IT department.
Verifying that output and/or input is not being held	• Check the status of the queues. Are the queues held or released? In the Image Server Node Browser window, click on the device you want to check. Then right-click on the device. Hold or release the queue. • Check the Windows Print Manager. Select **Start > Settings > Printers**. Double-click on the printer and look at the queue.
Images do not appear on the Image Server Software host PC's hard drive	• Refresh the view in Image Server Node Browser window. Select **View > Refresh**. • If foldering is being used, check to see if the folders are there and if they are shared (a hand appears under a folder when it is shared). Or you can right-click on the folder, select **Properties**, and click on the **Sharing** tab. If the folder is shared, the *Shared As* button will be selected. • Copy a file from one PC to a another PC.
Verifying network connections	• Ping Dispatcher's host PC by the PC name or IP address from the Image Server Software host PC. Select **Start > Programs > Command Prompt**. In the DOS window, type **ping *computername***, where *computername* is the name of the PC with Dispatcher. If a timeout occurs, there is no connection. Contact your IT department.
Verifying that the Image Server Software is functioning on the Scanner host PC	• Manually scan an image at the scanner without using the CAR system. • Manually print an image on a local or network printer. • Ping Dispatcher's host PC by the PC name or IP address from the Image Server Software host PC. Select **Start > Programs > Command Prompt**. In the DOS window, type **ping *computername***, where *computername* is the name of the PC with Dispatcher. If a timeout occurs, there is no connection. • Capture the CAR command string(s) and verify that the command is going to the correct node.

Problem	Solution
Verifying that the Image Server Software is functioning on the Digital Workstation host PC	1. Connect to the Image Server Software by using the Digital Workstation keyboard commands. 2. Manually scan an image. 3. Manually send an image to the Image Server Software. 4. Capture the CAR command string(s) and verify that the command is going to the correct node.
Dispatcher is not functioning	• Verify that the Dispatcher is running and that PCs can communicate with it. • Verify that the Dispatcher's host PC is running. If it is not, reboot the PC. To verify that the Dispatcher is running: Press **Ctrl + Alt + Delete**, then click on the **Task Manager** button. Select the **Applications** tab and verify that the Dispatcher is running. Go to the PC installed with Dispatcher Administrator and select **Start > Programs > Kodak Imagelink IMS > IMS Node Dispatcher Administrator** *or* **Start>Programs>KODAK>i7300 Image Server Dispatcher**. Select **File > Connect** on the Dispatcher Administrator panel and connect to either the local or remote Dispatcher. • Ping the Image Server Software's host PC by the PC name or IP address from Dispatcher's host PC. Select **Start > Programs > Command Prompt**. In the DOS window, type **ping *computername***, where *computername* is the name of the PC with the Image Server Software. If a timeout occurs, there is no connection. • Ping the scanner's host PC by the PC name or IP address from Dispatcher's host PC. Select **Start > Programs > Command Prompt**. In the DOS window, type **ping *computername***, where *computername* is the name of the PC with the scanner application. If a timeout occurs, there is no connection.
Performing a system test	1. Place the queues on hold. 2. Scan and send an image using all of the appropriate CAR commands. 3. Verify that the image was received on the Image Server Software VNN. 4. Release the image sent in CAR commands. 5. Verify that the image was received at its destination.
The host PC displays a memory dump with a blue background (commonly called, *the blue screen of death*).	• Reboot the PC and restart the application.

Problem	Solution
You cannot connect (send images) to the Image Server Software	• Verify that the queue is released on the Image Server Software PC with the application running. 1. Select **View>Browse Image Server Nodes**. 2. Expand **Image Server Nodes**. 3. Choose and expand the VNN that cannot be connected to. 4. Right-click on the device you cannot connect to. If the Held queue is checked, release the queue. • Verify that the device is connected to the Dispatcher. 1. On the scanner PC, select **CAR>Setup>Network**. 2. If the status is *Not Connected*, select **Remote** if the Dispatcher is on a different PC or **Local** if the Dispatcher is on the same PC as the scanner host software. 3. Click **OK** and the status should change to *Connected*. • Verify that you can see the IMSImages file on the Image Server Software PC from the scanner host PC. If you cannot see the file, contact your System Administrator.
The Image Server has a document that is continuously printing	To stop the printing: 1. Open the Image Server Node Browser window. 2. Open the VNN and select the printer that is continuously printing. 3. Right-click on the printer and place it on Hold. 4. Select **Task Bar>Start>Settings>Printers>Printer>Pause Printing.** • If the same job is listed multiple times and it is the only job, select **Printer>Purge Print Documents**. All of the documents will be purged. • If the job is not the only one in the queue, highlight the document at the top of the list and select **Document>Cancel**. This will purge only the highlighted document. 5. Select **Printer>Start Printer** to restart the printer. Close the windows associated with the printer. 6. Return to the Image Server Node Browser window and if the job is still listed, highlight the job and right-click on it. 7. Select **Delete** from the menu. 8. Right-click on the printer and select **Release**. The job should be removed from both the Windows printer queue and the Image Server Software printer queue.

Problem	Solution
The Image Server Software PC locks-up when viewing the Event log	The file may be so large that it cannot be displayed before it is updated (the Event log never truncates). You need to adjust the message setting.

1. Shut down the Image Server Software.

2. Using My Computer or Explorer, go to **C:\Program Files\Kodak Image Server Software.**

3. Right-click Hive.log and rename the file to **Hive.log.old**.

4. Select **Start>Programs>Kodak Image Server Software>Image Server Software Configuration.**

5. Click **Event Log**.

6. Select **Errors and Warnings** from the Message type drop-down box.

7. Select **File>Save.**

8. Select **File>Exit.**

9. Restart the Image Server Software.

Error codes

Following are descriptions of error codes you may encounter.

Code	Description	Actions
099	The folder or document referenced by an entry in an output queue does not exist.	Delete entry from queue.
100	Could not open the printer.	Check printer/printer setup.
101	Could not get the printer properties while starting a document.	Check printer/printer setup.
102	Could not set the printer properties while starting a document.	Check printer/printer setup.
108	Could not read a file referenced by an entry in a printer output queue.	Rescan the problem image using the indicated address.
109	Could not start a new page on the printer.	Check printer/printer setup.
110	Could not write a page to the printer.	Check printer/printer setup.
111	Could not end a page on the printer.	Check printer/printer setup.
112	Could not open the printer to start a spool job.	Check printer/printer setup.
113	Could not get the printer properties while starting a spool job.	Check printer/printer setup.
114	Could not set the printer resolution while starting a spool job.	Check printer/printer setup.
115	Could not create a printer device context while starting a spool job.	Check printer/printer setup.
116	Could not start a new printer document while starting a spool job.	Check printer/printer setup.
117	WinFax error: could not send fax.	Check WinFax/WinFax setup.
118	WinFax error: could not load WinFax library.	Verify that WinFax PRO is installed.
119	Could not read a file referenced by an entry in a fax output queue.	Delete entry from queue.
120	Could not resize a bitmap for faxing.	Reboot the PC and shut down any applications that are not needed.
121	Could not write a resized bitmap to disk prior to faxing.	The disk may be full; delete any unneeded files.
122	WinFax error: could not send fax.	Check WinFax PRO/WinFax PRO setup.
123	MAPI error: could not load MAPI library.	Check that a MAPI-compliant application is installed and properly configured.
124	MAPI error: could not send e-mail.	Check that a MAPI-compliant application is installed and properly configured.
125	MAPI error: could not send e-mail.	Check that a MAPI-compliant application is installed and properly configured.

Code	Description	Actions
126	Could not start a new folder cover page on the printer.	Check printer/printer setup.
127	Could not end a new folder cover page on the printer.	Check printer/printer setup.
128	Could not start a new document cover page on the printer.	Check printer/printer setup.
129	Could not end a new document cover page on the printer.	Check printer/printer setup.
130	Could not read the spool file while printing to a specific bin.	The disk may be full; delete unneeded files.
131	The spool file is not in the expected format while printing to a specific bin.	If a new printer driver was recently installed, restore the old version.
132	Could not open the printer to print to a specific bin.	Check printer/printer setup.
133	Could not start a new printer document while printing to a specific bin.	Check printer/printer setup.
134	Could not write a spool file to the printer while printing to a specific bin.	Check printer/printer setup.
135	Could not end a document on the printer while printing to a specific bin.	Check printer/printer setup.
140	Bad Gateway destination directory (missing Folder or Document directory).	Check path sent via the 3XXN command.
141	Could not create Gateway destination directory.	Network drive offline? Have write access? Disk full?
142	Could not create Gateway folder-level RSS file.	Network drive offline? Have write access? Disk full?
143	Could not create Gateway document-level RSS file.	Network drive offline? Have write access? Disk full?
144	Could not copy a Gateway image file to destination path.	Network drive offline? Have write access? Disk full?
145	MAPI error: could not find sender in address book.	Add sender name and e-mail address to address book.
146	MAPI error: could not find recipient in address book.	Add recipient name and e-mail address to address book. Is the NetBIOS installed?
200	Could not initialize NetBIOS subsystem.	Verify that NetBIOS is installed and configured on the Image Server Software PC.
201	NetBIOS ADD NAME failed.	Verify that the VNN name is not currently being used on another Image Server Software node or Enhanced Network Node.

Code	Description	Actions
202	NetBIOS LISTEN failed.	Retry connection; verify that NetBIOS is installed and configured on the Image Server Software PC.
203	NetBIOS DELETE NAME failed.	Verify that NetBIOS is installed and configured on the Image Server Software PC.
204	Could not open COM port for CAR serial interface.	Verify that the COM port is not being used by another application or VNN and is legal.
205	Could not read COM port settings.	Verify that the COM port is not being used by another application or VNN and is legal.
206	Could not initialize COM port settings.	Verify that the COM port is not being used by another application or VNN and is legal.
207	Could not write COM port settings.	Verify that the COM port is not being used by another application or VNN and is legal.
210	NetBIOS SEND failed.	Verify that NetBIOS is installed and configured on the Image Server Software PC.
211	NetBIOS command unexpectedly cancelled.	Verify that NetBIOS is installed and configured on the Image Server Software PC.
212	NetBIOS interface is busy or too many commands outstanding.	Decrease the number of NetBIOS sessions.
213	Unexpected NetBIOS error.	Verify that NetBIOS is installed and configured on the Image Server Software PC.
214	Could not write to disk while starting IDW image job.	Verify that the disk is not full; if it is, reduce files on the drive and retry the operation.
215	Could not write to disk while receiving IDW image data.	Verify that the disk is not full; if it is, reduce files on the drive and retry the operation.
216	Could not open file while receiving IDW image header.	Verify that the file does not exist.
217	Could not write to disk while receiving IDW image header.	Verify that the disk is not full; if it is, reduce files on the drive and retry the operation.
300	Invalid, unsupported, or unrecognized CAR command received.	Correct the CAR input.
301	The file referenced by the CAR command was not found.	Verify that the file does not exist.
302	The device referenced by the CAR command is disabled or does not exist.	Change the output device.
303	Missing folder in the CAR fax command.	Correct the CAR input.
304	The folder referenced by the CAR fax command was not found.	Verify that the file does not exist.
305	Missing document in the CAR fax command.	Correct the CAR input.
306	The document referenced by the CAR fax command was not found.	Verify that the file does not exist.

Code	Description	Action
307	Missing folder in the CAR print command.	Correct the CAR input.
308	The folder referenced by the CAR print command was not found.	Verify that the file does not exist.
309	Missing document in the CAR print command.	Correct the CAR input.
310	The document referenced by the CAR print command was not found.	Verify that the file does not exist.
311	The printer referenced by the CAR command is disabled or does not exist.	Change the output device.
312	Missing folder in the CAR delete command.	Correct the CAR input.
313	The folder referenced by the CAR delete command was not found.	Verify that the file does not exist.
314	Missing document in the CAR delete command.	Correct the CAR input.
315	The document referenced by the CAR delete command was not found.	Verify that the file does not exist.
316	Could not create a memory-based bitmap during annotation.	Windows resources are low.
317	Could not load an image file from disk during annotation.	Verify that the file does not exist.
318	Could not create device context during annotation.	Windows resources are low.
319	Could not write a file to disk during annotation.	Verify that the disk is not full.
320	Missing folder in the CAR List Documents command.	Correct the CAR input.
321	The folder referenced by the CAR List Documents command was not found.	Verify that the file does not exist.
322	Could not back up document/folder during Delete Folder/Document command.	Backup directory accessible? Disk full?
323	Could not back up document/folder during Release Folder command.	Backup directory accessible? Disk full?
324	Could not back up document/folder during Print Folder/Document command.	Backup directory accessible? Disk full?
325	Could not back up document/folder during Fax Folder/Document command.	Backup directory accessible? Disk full?
326	Could not parse an e-mail address from Enhanced CAR E-mail Gateway request.	Check data sent via the 4XXN command.

Hints and tips

Following are some recommendations and tips to keep in mind when using Image Server Software:

- There is no backup utility with the Image Server Software. Obtaining a backup utility intended specifically for backing up large folders containing many image files is recommended.

- It is recommended that you reboot Windows NT/Windows 2000/ Windows XP at least once a week. Before rebooting the PC, shut down the Image Server Software (select **Exit** from the File menu).

- Since the Image Server Software is Microsoft Windows-driven, do not move your folders to a different subdirectory.

- Any changes to the home directory information may result in files not being stored in the correct location for processing by the Image Server Software.

- All required resources (print, fax and e-mail) must be installed, running, and available prior to starting Image Server Software.

- If you add a new printer, you must enable the new printer in the Windows Printer Setup Utility before you configure the printer for the Image Server Software.

- Fax images submitted to WinFax PRO are deleted after 10 days from the time the Image Server Software is started.

- When setting up the fax, both the Subject Text Line and Cover Text must be blank or both must be filled in. WinFax PRO will not work with one filled in and the other blank.

- It is recommended that you **not** enable a screen saver on the PC. A screen saver will hide the Status window which contains information about the performance of your system.

- Disable all power management on the PC. Enabling power management may result in undesirable results.

- Specify an Event log value no higher than "Errors, warnings and information."

- It is recommended that no other application be used when using Image Server Software.

- Automatic daily/weekly procedures can be set up using common Windows utilities to automate the following features:
  - Shutting down the application and restarting the application.
  - Shutting down and restarting the PC.
  - Backing up image folders.
  - Configuring Nodes, Event log, etc.

Contacting support

Read this section before contacting Kodak for technical support.

The following information is needed when contacting Kodak technical support for the Image Server Software. This procedure is current as of the date of this guide, but it may change without notice as conditions require.

Contacting Kodak for support

Response Center assistance is available as part of the Service Agreement. Refer to the Service Agreement Terms and Conditions for hours of availability.

Only a trained System Administrator should place the call to the Kodak Response Center. The following items will be requested:

- A K-number that identifies the Image Server Software.

- A brief description of the question or problem.

- A contact name and a phone number where the contact/customer can be reached.

Phone numbers

U.S. and Canada   1-800-822-1414

International   1-716-724-4675

The contact's name and phone number will be taken by a Response Center operator. A Response Center System Support Engineer will return the call.

The goal is to answer inquiries on the first call. However, depending on the complexity of the question, it may be necessary to confer with other technical resources. Therefore, the inquiry may require follow-up contact.

Checklist

Before calling the Response Center:

- Make sure the Image Server Software is running.

- Make sure the Input/Output queues are not being held.

- Make sure it is **not** a printer problem.

- Make sure you can fax and/or e-mail using other applications.

Appendix B   Glossary

CAR	Computer-Aided Retrieval is a method of indexing and retrieving microfilm images. A computer is used to store and retrieve image addresses and control the retrieval of images at the retrieval device.
Digital Workstation	A Kodak microfilm retrieval device. Also known as IDW (*Kodak Imagelink* Digital Workstation).
Document	A document can be in paper and/or electronic form. A paper document is a collection of one or more pages. An electronic document is a collection of one or more images.
Folder	A directory on a hard drive that may contain one or more related documents.
IDW	See *Digital Workstation.*
IMS	A Kodak microfilm retrieval device. The official name is *Kodak Digital Science* Intelligent Microimage Scanner.
Image	A microfilm image represents a page front or back. These images are retrieved using the image address or odometer value, then scanned and digitized to create electronic documents consisting of one or more images.
Input Queue	Location where incoming images are placed, in the order they are received from the retrieval device prior to being processed by the Image Server Software.
LAN	Local Area Network.
MAPI	Microsoft Messaging Application Programming Interface.
NetBIOS	Network Basic Input/Output system. Provides application programs on a local area network with a uniform set of commands for requesting low-level service.
OS	Operating System.
Page	A page is a component of a paper document. A page can have information on just the front side or on both the front and the back sides, so that the scanning of one page can result in either one or two images captured on microfilm.
Retrieval	The action of finding stored information, such as locating and displaying microfilm images using a microfilm retrieval device.
RSS files	RSS files track documents and folders as they are being sent to the remote location by the Gateway functionality of the VNN.
SMTP	Simple Mail Transfer Protocol.
VNN	Virtual Network Node. A logical entity within the Image Server Software.

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DOCUMENT
IMAGING

Kodak